COOPERATIVE

ACCURACY

RESPONSIBILITY

SPEED

C.A.RE.S.

JAW DOWNWARD
HYDRO-BOOSTER
POWER-BOOSTER
ACCURACY GUARANTEE
0.01/100 MM 0.02/50
PNEUMATIC
SAME HEIGHT MULIPLE USING
MORE SETTING POSITION
MECHNICAL
TABLE HARDNESS
BENDING PROOF
SELF-CENTER
TILTING
FAST MOVE
patent
PAT.
ACCURACY
SPEED
PROFESSIONAL

VERTEX, THE BEST YOU CAN TRUST!

- OUR PRODUCTS SUPPLIED BY “VERTEX” ARE ALL PASSED STRICT INSPECTION. TOLERANCE IS WITHIN ±0.01 PER 100mm. IF END USER (TRAINED ENGINEER) OPERATE IT RIGHT, OUR PRODUCT HAS ONE YEAR GUARANTEE.
- CUSTOMERS IN GERMANY ARE SATISFIED WITH VERTEX QUALITY FOR OVER 15 YEARS.
- 95% OF GENERAL PRODUCTS ARE AVAILABLE IN STOCK. THE SIZES THAT MARK YELLOW ARE SPECIAL SIZES OR RARE IN THE MARKET. THE DELIVER TIME WILL BE SUBJECT TO CHANGE.
- THE PICTURE IN THE CATALOGUE IS JUST FOR YOUR REFERENCE ONLY. ACCORDING TO THE DIFFERENT SIZES, THE APPERANCES WILL BE DIFFERENT.
- SPECIFICATION AND CONTENT ARE SUBJECTS TO CHANGE WITHOUT NOTICE.
- WHEN YOU NEED TO CHECK THE ACCURACY, PLEASE USE A GRANITE PLATE AND LIABLE INSTRUMENT TO PERFORM THE CHECKING PROCESS.
- ANY CHECKING RESULT FROM MACHINE IS NOT ACCURATE.
- THE OFFER IS SUBJECT TO MARKET FLUCTUATION AND THE COST OF THE MATERIALS. THE PRICE MAY BE ADJUSTED HIGHER OR LOWER. VERTEX ALWAYS TRY TO KEEP PRICE STABLE FOR YEARS.
- ALL INSERTS & CUTTING TOOLS ARE FLOATING PRICES CONTACT US BEFORE ORDERING.
- IF THE QUANTITY IS LARGE, WE WILL OFFER SPECIAL DISCOUNT. CONTACT US FOR DETAILS.
- IF THE GOODS ARE DEFECTIVE AND YOU WOULD LIKE TO SEND THE GOODS BACK, PLEASE PACK THE GOODS AS SAME AS ORIGINAL, COMPLETE THE GOODS RETURN FORM ON VERTEX WEB Q&A.
- VERTEX RESERVED THE RIGHTS TO CHANGE THE SHAPE, COLORS AND QUANTITY. ALL SPECIFICATIONS AND DESIGNS IN THE CATALOGUES ARE SUBJECT TO CHANGE WITHOUT NOTICE.
- EVERY VERTEX PRODUCT IS GUARANTEED FOR ITS FUNCTION NOT APPEARANCE.
- ALL MOTOR, POWERED AND AIR DRIVEN ITEMS ARE GUARANTEED FOR 3 MONTHS.
- WEAR OUT PARTS AND CONSUMABLES, SUCH AS CUTTER & COOLANT HOSE & INSERTS AND SO ON, ARE NOT COVERED BY WARRANTY.

RTEX

VERTEX

Rotary Table System

A01 Horizontal/Vertical Rotary Table

HV-6, 8, 10, 12, 14, 16

A01 Horizontal/Vertical Rotary Table

HV-4

A02 Horizontal/Vertical Rotary Table

A03 Optional For Rotary Table

TS-1, 2, 3, 4

A05 Tilting Rotary Table
NEW

VUT-6

A05 Tilting Rotary Table
NEW

VUT-10

A05 Tilting Rotary Table
NEW

VUT-12

A06 Multiple Tilting Rotary Table
NEW

VUT-250, 300

A06 Optional For Rotary Table

DP-3, TS-3

Dividing Head System

A07 Semi-Universal Dividing Head

BS-0, 1

A07 Semi-Universal Dividing Head

BS-0-J-5

A07 Semi-Universal Dividing Head

BS-2A-J-8

A08 Universal Dividing Head

BS-2

A08 Universal Dividing Head

BS-2-J-8

A08 Universal Dividing Head
NEW

BS-2A

A09 Super Indexing Spacer

CS-6, 8

A09 Super Indexing Spacer

CS-6, 8

A10 Simple Indexing Spacer

CC-12

A10 Simple Indexing Spacer

CC-8

Index Table

A11 Precision Index Table

VIT-450, 600, 700, 800

A11 Precision Index Table

VIT-1000

A11 Precision Index Table

VIT-1200

A11 Precision Index Table

VIT-300

Rotary Chuck

A12 Economical Type Rapid Index

VSI-4, 5

A12 Economical Type Rapid Index

VSI-4, 5

A12 Simple Rotary Chuck
NEW

VSR-6, 8, 83

A12 Simple Rotary Chuck

VSR-63

Angle Chuck

A13 Precision Universal Angle Chuck
NEW

VUA-100J

A13 Precision Universal Angle Chuck
NEW

VUA-ER40

A13 Free Angle Rotary Chuck
NEW

VAV-4J,5J

A14 Universal Tilting Rotary Table

VU-100, 150, 200

A14 Big Through Hole/fast indexing Rotary Table
NEW

HVD-400

VERTEX

Vise System

A15 Hydraulic Machine Vise

VH-4, 5, 6, 8, 8L

A15 Hydraulic Machine Vise

VH-4, 5, 6, 8, 8L

A15 Hydraulic Machine Vise

VH-12

A16 Tilting Hydraulic Machine Vise

VHT-4

A16 Tilting Hydraulic Machine Vise

VHT-6

A17 Universal Tilting Hydraulic Machine Vise
NEW

VHT-4U, 6U

A18 Hydraulic Machine Vise

VHO-5, 6, 8

A19 Ang-Fixed Milling Vise

VA-4, 5

A19 Ang-Fixed Milling Vise

VA-6, 8

A19 Ang-Fixed Milling Vise
NEW

VD-675, 690, 810

A20 K-Type Milling Vise

VK-4, 5, 6, 8

A20 K-Type Milling Vise

VK-4, 5, 6, 8

A20 Super Open Vise

VJ-400, 500, 600

A20 Super Open Vise

VJ-400, 500, 600

A21 2-Way Angle Milling Vise
NEW

VWT-4B

A21 2-Way Angle Milling Vise
NEW

VWT-6B

A21 2-Way Angle Milling Vise
NEW

VWT-5, 6A

A22 3-Way Angle Milling Vise

VW-3, 4, 5

A25 Tilting Quick Vise
NEW

VUT-3QS, 4QS, 5QS

Centering Vise

A22 Quick Index Holder
NEW

VFV-40H

A23 Self Centering Vise
NEW

VCV-0611

A23 Self Centering Vise
NEW

VCV-10130

A24 Self Centering Vise
NEW

VCV-1090

A24 Self Centering Vise
NEW

VCV-0611S

Modular Vise

A26 Moudular Precision Machine Vise

VMP-4 ~ VMP-12E

A26 Moudular Precision Machine Vise

VMP-4 ~ VMP-12E

A27 Moudular Precision Hydraulic Machine Vise
NEW

VMP-6BH ~ VMP-12EH

A28 Moudular Machine Free Vise - L Type Vise
NEW

VMP-4L, 5L, 6L, 7L

A28 Moudular Machine Free Vise - D Type Vise
NEW

VMP-44D, 55D, 66D, 77D

Vise System

A29 Free Angle Vise
NEW

VAV-3, 4

A29 Lock-Fixed II Precision Machine Vise

VMC-4, 6

A30 Double Clamp Vise
NEW

VCV-4D

A30 Compound Precision Vise
NEW

VCV-44

A51 Convenience Type Machine Vise
NEW

VCM-47

VERTEX

MC Power Vise

A34 MC Power Vise
NEW

VQC-100 ~ 200L

A36 MC Power Vise Hydraulic Type
NEW

VQC-100H ~ 200LH

A37 MC Power Vise
NEW

VQC-100LC ~ 2002LC

A38 MC Power Vise Hydraulic Type
NEW

VQC-100HC ~ 200LHC

A39 Universal MC Power Vise
NEW

VQCV-125H-L, R, 160H-L, R

A43 Precision MC Power Vise

VMC-100HV~200HV

A43 Precision MC Power Vise

VMC-100HV~200HV

A43 Precision MC Power Vise

VMC-100HV~200HV

A44 Precision Compact MC Vise

VMC-100M~200M

A44 Precision Compact MC Vise

VMC-100M~200M

VNC Vise

A45 NC Hydro Machine Vises
NEW

VNC-100H, 125H, 160H, 160LH

A45 NC Hydro Machine Vises
NEW

VNC-100H, 125H, 160H, 160LH

A47 Combination MC Power Free Vise
NEW

VNC-100FV, 125FV, 160FV

A48 VNC Axial Drive & Plain Jaw
NEW

VNC-4AD, 5AD, 6AD

A48 VNC Axial Drive & Plain Jaw
NEW

VNC-4AD, 5AD, 6AD

Convenient / Quick / Milling Vise

A49 Super-High Jaw MC Vise
NEW

VQHJ-5, 6

A49 Super-High Jaw MC Vise
NEW

VQHJ-5, 6

A49 Super-High Jaw MC Vise
NEW

VQHJ-V130, V160

A49 Super-High Jaw MC Vise
NEW

VQHJ-V130, V160

A50 Precision Pneumatic Ang-Fixed Power Vise

VMC-5P, 6P, 6PL, 7P, 8P, 8PL

A50 Precision Pneumatic Ang-Fixed Power Vise

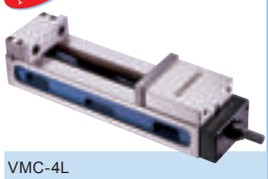
VMC-6PD

A51 Convenience Type Machine Vise
NEW

VCM-47

A51 Convenience Type Machine Vise
NEW

VCM-47

A51 Super Opened Ang-Fixed Machine Vise
NEW

VMC-4L

A51 Super Opened Ang-Fixed Machine Vise
NEW

VMC-4L

A52 Horizontal Moving Quick Vise
NEW

VQW-80, 100, 130

A52 Quick Setting Vise

VQS-3, 4, 5

A53 Machine Vise For Shaping & Milling Use

VSM-12, 16, 20

A53 B-Type Milling Vise

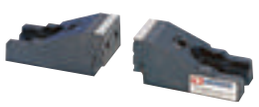
VBV-4, 5, 6

A54 Super Open Drill Vise
NEW

VRV-4, 5, 6

A54 Free Vise

FV-350, 450, 550

A54 Free Vise

SV-62, 85, 125

A55 Drill Vise
NEW

DV-85, 100, 120

A55 Steel Bench Vise With Base
NEW

BVV-3, 4, 5, 6, 8, 10

A55 Quick Bench Vise
NEW

VQS-40

VERTEX

Work Clamping

A56 Universal Work Stopper

VWS-123, 125

A56 T Slot Clamps

NEW

CK-3712, 3714, 3716, 3718, 3720

A57 Universal Jaws With Down Press Clamp

NEW

VWSJ-R100, R130, R160, R200

A57 Universal Vise Jaws With Work Stopper

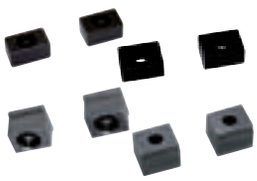
VWSJ-4, 5, 6, 8

A58 Prisma Jaws

VWS-

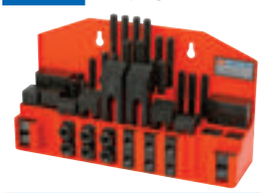
Clamping Kit

A58 Screw Guide Block



12TO12,16TO14,14TO16

A59 52-PCS Steel Clamping Kit



CK-103A~206, 08~18

A59 T-Slot-Nut

3142M~, 3413I~

A60 Coupling Nut

2612M/I~

A60 Flange Nut

2512/I~

A61 Clamping Studs

1323M~

A62 Step Clamp

6113~

A62 Step Block

5114~

A63 Flange Nut

CFN1017~1827

A63 C-Clamp Cast Steel

NEW

VCL-2C ~ 8C

Screw Jack

A63 Screw Jack

VSJ-40, 70, 150, 250, 500

A64 Screw Jack With Magnet

VSJM-50, 70, 85, 110, 165

A64 Screw Jack Set

VSJ-A, B

A64 Screw Jack Set

VSJ-1A, 2A, 3A

A64 Screw Jack Set

VSJ-4A, 5A, 6A

Ground Parallels System

A65 Ground Parallels

VP-100

A65 Ground Parallels

VP-118A

A65 Ground Parallels

VP-128A

A66 Precision Parallels

VP-136

A66 VP-018 Thin Type Parallels Set

VP-018

A66 VP-163 Precision Parallels

VP-163

A67 VP-064 Precision Parallels

VP-064

A67 VP-050 Precision Parallels

VP-050

A67 VP-033 Precision Parallels

VP-033

A68 VP-146 Ground Parallels

NEW

VP-146

A68 VP-168 Ground Parallels

NEW

VP-168

A68 VP-200 Ground Parallels

NEW

VP-200

VERTEX

Plate System

A69 Heavy Duty Tilting Plate
NEW

VUT-1515, 2726, 3230

A70 Light Duty Tilting Plate
NEW

VU-1517

A70 Light Duty Tilting Plate
NEW

VU-2122

A71 Adjustable Angle Plate

VP-180, 250, 380, 600

A71 Angle Plate With Swivel Base

VP-250S, 380S

A72 Precision Cross Table

VCT-407

A72 Precision Cross Table

VCT-514, 820, 1024

A72 Precision Cross Table

VCT-514, 820, 1024

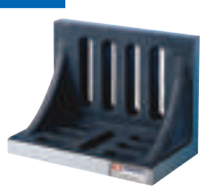
A72 Precision Cross Table

VCT-830

A73 Cross Table

VCT-512

Angle Plate

A73 Right Angle Plate

VR-6, 8, 10, 12

A74 Precision Right Angle Plate

VRH-4, 5, 6, 8

A74 Slotted Angle Plate

VR-45, 60, 80, 120

A74 Slotted Angle Plate

VR-100

A74 Plain Angle Plate

VR-22 ~ 1212

A75 U-Clamp

VCA-404, 405, 406, 408

A75 Pivot Clamp

VCB-404, 405, 406, 408

A75 Hand Drift

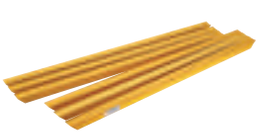
VHD-1

A76 Eye Shield

VH-56

A76 Eye Shield With Magnetic Base

VH-57

A76 Milling Table Slot Cover

VST-10 ~ 36

A76 Vee Blocks

V-2V, 3V, 4V, 5V, 6V, 7V, 8V

A76 Vee Blocks

V-2V, 3V, 4V, 5V, 6V, 7V, 8V

A77 Auto Center Punch

VACP-1

A77 ADraw Bar

VDR-R8, NT30, NT40

A77 Expandable Machine Guard Cover

B TYPE
VGC-3775B ~ 6085B

A77 Expandable Machine Guard Cover

F TYPE
VGC-3775F ~ 6085F

A78 5C. C32. OZ25 Collet Rack

VMS-5

A78 Table Slot Plate

TP-90-18 ~ TP-150-24

A78 Parts Storage

VHP-1218 ~ 3045

A79 Right Angle Head

VRA-R8, NT 30, NT 40

A79 Horizontal Milling Attachment

VHA-R-8, NT-30, NT-40

A80 Power Table Feed
NEW

VPF-500 X, 500 Y, 500 X, 99 X

A81 Air Power Drawbar

PD-150, 200

A82 Precision Slotting Head

VSH-125

VERTEX

Chamfering & Deburring

A83 Universal Cutter Grinder

U2

A84 Tool Cabinet Stand NEW

VTC-20

A85 Chamfering & Deburring Unit

VCF-500

A85 Chamfering & Deburring Unit

VCF-500W

A85 Chamfering & Deburring Unit

VCF-500W

A85 Chamfering & Deburring Unit

VCF-500F

A86 Chamfering & Deburring Unit

VCF-500S

A86 Chamfering & Deburring Unit

VCF-500S

A86 Chamfering & Deburring Unit

VCF-600

A86 Chamfering & Deburring Unit

VCF-700

A87 Chamfering & Deburring Unit

VCF-300A

A87 Ejector Pin Cutting-off Unit

VEC-100

A88 Rods Precision Cutting-Off And End Surface Grinding Unit

VEC-300G, 500G, 600G

A88 Rods Precision Cutting-Off And End Surface Grinding Unit

VEC-300G, 500G, 600G

Pump System

A101 1/8 HP. Under Water Coolant Pump

VMP-0810, 0813, 0815, 0818

A101 1/4 HP. Under Water Coolant Pump

VMP-0415, 0418, 0420, 0424, 0427

A101 Self Priming Coolant Pump1/8 HP. 1/4 HP

VMP-089, 049

A102 Coolant Pump Kit

VWP-81-150K, VWP-41-180K

A102 Coolant Pump Kit

VWP-81-150K, VWP-41-180K

A102 Under Water Type Multi-stage High Pressure Coolant Pump

VWP-

A102 Under Water Type Multi-stage High Pressure Coolant Pump

VWP-

A103 Hand Lubrication Pump

LT-4

A103 Hand Lubrication Pump

LT-6, 18, 18A

A103 Hand Lubrication Pump

EA-8 R, 8 L

A104 Hand Lubrication Pump

LA-8 R, 8 L

A104 Hand Lubrication Pump

LA-1403, 1408

A104 Hand Lubrication Pump

LA-2403, 2408

A104 Electrical automatic pump SMA model

SMA-3, 6, 8.5

Shock Absorber

A105 Shock Absorber NEW

VSA-150K

A105 Shock Absorber NEW

VSA-150H

A106 Shock Absorber NEW

VSA-35K, VSA-35K-6RU

A106 Shock Absorber NEW

VSA-35K-PS, VSA-35K-6RU

A107 Shock Absorber NEW

VSA-25K

VERTEX

Lamp Bean

A89 Dustproof Halogen Lamp Beam

VHL-300L

A89 Dustproof Halogen Lamp Beam

VHL-300M

A89 Dustproof Halogen Lamp Beam

VHL-300S

A91 Dustproof Halogen Lamp Beam

VHL-300LR

A91 Dustproof Halogen Lamp Beam

VHL-300MR

A91 Dustproof Halogen Lamp Beam
NEW

VHL-300SR

A91 Dustproof Halogen Lamp Beam

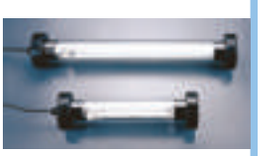
VHL-300 1/2MR

A92 Quartz Halogen Lamp Beam

VHL-20FT, 20F

A92 Water-Proof Bright LED Signal Light
NEW

VLED-SL

A93 Cool Light Beam

VHL-

A93 Waterproof Reflector LED Lamp
NEW

VLED-W13, W18, W36

A93 Workshop LED Lmap
NEW

VLED-1080,2160

A94 Magnifying Fluorescent Work Light Beam

VHL-30TEB

A94 Magnifying Fluorescent Work Light Beam

VHL-30MEB

A94 Magnifying Fluorescent Work Light Beam

VHL-30LEB

A95 Water-Proof Halogen Lamp Beam

VHL-400S

A95 Water-Proof Halogen Lamp Beam

VHL-400M

A95 Water-Proof Halogen Lamp Beam

VHL-400L

A96 Water-Proof Halogen Lamp Beam

VHL-500S

A96 Water-Proof Halogen Lamp Beam

VHL-500M

A96 Water-Proof Halogen Lamp Beam

VHL-500L

A97 Dustproof Halogen Lamp Beam

VHL-600FT

A97 Dustproof Halogen Lamp Beam

VHL-700FT

LED Lamp

A98 Water Proof LED Lmap

VLED-400L

A98 Water Proof LED Lmap
NEW

VLED-400M

A98 Water Proof LED Lmap
NEW

VLED-500L

A98 Water Proof LED Lmap
NEW

VLED-500M

A98 Water Proof LED Lmap
NEW

VLED-500S

A99 Concentrate LED Lmap
NEW

VLED-30L,30M

A99 Wide Range LED Lmap

VHL-50FT

A100 Wide Range LED Lmap
NEW

VHL-37FT

A100 Concentrate LED Lmap
NEW

VLED-20L

A100 Concentrate LED Lmap
NEW

VLED-50FT

B01 Punch Former

V-PB

B01 Punch Former

V-PB

B02 Punch Former

V-PS

B02 Punch Former

V-PS

B02 Special Part Accessory For Angular Dressing

V-PF

B02 Special Part Accessory For Angular Dressing

V-PF

B03 3-Jaws Punch Former

V-PS-80J

B03 3-Jaws Punch Former

V-PS-80J

B03 ER Collet Dividing Punch Former

V-PS-ER32

B03 ER Collet Dividing Punch Former

V-PS-ER40

B04 ER Collet Dividing Punch Grinder With Sine Plate

V-PS-ER32S

B04 ER Collet Dividing Punch Grinder With Sine Plate

V-PS-ER32S

B04 ER Collet Dividing Punch Grinder With Sine Plate

V-PS-ER40S

B04 ER Collet Dividing Punch Grinder With Sine Plate

V-PS-ER40S

B04 3-Jaws Punch Former With Sine Plate

V-PS-80JS

B04 3-Jaws Punch Former With Sine Plate

V-PS-80JS

B05 Punch Former With Sine Plate

NEW

V-PB-BS, V-PS-SS

B05 Punch Former With Sine Plate

NEW

V-PB-BS, V-PS-SS

B05 Punch Former With Sine Plate

NEW

V-PB-BS, V-PS-SS

B05 Punch Former With Sine Plate

NEW

V-PB-BS, V-PS-SS

B05 Sine Plate For All Type Punch Former

V-PS-SP

B05 Sine Plate For All Type Punch Former

V-PS-SP

B06 Concentric Test Stand

VCI-150P, 250P, 350P

B06 Concentric Test Stand

VCI-150P, 250P, 350P

B06 Fixed Speed Punch Former

NEW

V-PS-80M

B06 Fixed Speed Punch Former

NEW

V-PS-80M

B07 Punch Grinder

V-PGS

B07 Punch Grinder

V-PGS

B07 Punch Grinder

V-PG

B07 Punch Grinder

V-PG

B08 Punch Grinder

V-PGM

B08 Punch Grinder

V-PGM

B08 Punch Grinder

V-PGA

B08 Punch Grinder

V-PGA

VERTEX

Tool Maker Vise System

B09 Mine Tool Maker Vise

VMV-10

B09 Tool Maker Vise

VMV-15~60

B10 Tool Makers Vise

VDV-20~40

B10 Tool Makers Vise

VDV-20~40

B11 Sine Vise

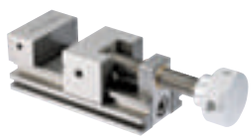
SVB-20~30

B11 Sine Vise

SVD-200~300

B12 Tool Makers Vise

VC-20~40

B12 Tool Makers Vise

V-VE20~VE30

B13 Precision Universal Angle Vise

VUA-3, VUA-4

B14 Precision Universal Angle Plate

VUA-408, VUA-510

B15 Precision Universal Angle Chuck
NEW

VUA-100J

B15 Precision Universal Angle Collet Chuck
NEW

VUA-ER40

B16 Free Angle Table
NEW

VAV-1020,1325

B16 Free Angle Table
NEW

VAV-4J,5J

B17 Precision Sine Vise

SVC-100

B17 Precision Sine Vise

SVL-50

B17 Two Way Vise

SVS-100

B18 Sine Bar With Magnetic

V-S50M,S100M

B18 Sine Bar

VS-100

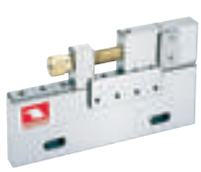
B16 Sine Bar-Inch

V-S25,S50

Stainless Vise System

B19 EDM Tool Marker Vise (STAINLESS)

VSTV-50W

B19 EDM Tool Marker Vise (STAINLESS)

VSTV-100W

B20 EDM Tool Marker Vise (STAINLESS)

VSTV-150W

B20 EDM Tool Maker Vise (STAINLESS)

VSTV-320W

B21 Electrode Vise (Stainless)

VEH-20MS

B21 Electrode Vise (Stainless)

VEH-20DS

B22 Tool Maker Vise (STAINLESS)

VSTV-10V

B22 Tool Maker Vise (STAINLESS)

VBST-30

B22 Tool Maker Vise (STAINLESS)

VSTV-20

B22 Tool Maker Vise (STAINLESS)

VSTV-25

B23 Electrode Vise

VEH-20

B23 Electrode Holder

VEH-20

B23 Electrode Holder

VRA-20~100

B23 Electrode Holder

VRA-20~100

EDM Parts

B24 EDM Wire (BRASS & COPPER)

VEW-10H ~ 30S

B25 Wire Dies Guide

M118 ~ F121

B25 Wire Dies Guide

F101 ~ F124

B25 Wire Dies Guide

Z-141

B25 Wire Dies Guide

S-103, S-111

B25 Wire Dies Guide

H-102

B25 Wire Dies Guide

F-120

B25 Wire Dies Guide

F-124

B26 Electrode (Copper & Brass Pipe Electrode)

VEB / VEP / VES ~

B26 EDM Filter For EDM (Oil)

NH-01, 09, 09S, 600L

Anle Plate / Block

B27 Angle Plate

VAP-1

B27 Angle Plate

VAP-2

B27 Angle Plate

VAP-3

B27 Micro-Adjustable Angle Plate

VAPM-1 ~ 3

B28 Precision V Block

V-5VA, 3VA-S, 4VA-S, 5VA-S

B28 Precision V Block

V-5VA, 3VA-S, 4VA-S, 5VA-S

B28 Precision Angle Blocks

AB-130

B28 Universal Angle Block Set

AB-163,164

B29 Micrometric Tangent Bar & Angle Gauge Block Set

AB-166

B29 Solid Angle Plates

AB-167

B29 Precision Angle Blocks

AB-113

B30 Hardened Steel Squares

SS-304, 306, 308, 310, 312

B30 Square

FS-204, 206, 208

B30 Precision Steel Angle Plates

VRS-33, 44, 46, 85, 1206

B30 Precision Steel Angle Plates

VRS-33, 44, 46, 85, 1206

V-Block

B31 V-Block With Clamps

VBC-195

B31 V-Block With Clamps

VBC-196, VBC-197

B32 V-Block With Clamps

VBC-003

B32 V-Block With Clamps

VBC-006

B32 V-Block With Clamps

VBC-243

B32 V-Block With Clamps

VBC-009

B32 V-Block With Clamps

VBC-009

Tangimatic Dresser / Angle Dresser

B33 Tangimatic Dresser

Small
V-TDA

B33 Tangimatic Dresser

Mid.
V-TDA

B33 Tangimatic Dresser

Big
V-TDA

B33 Tangimatic Dresser Handy Type

V-TDH

B33 Radius And Angle Dresser

V-TDB

B34 Universal Wheel Dresse

V-TDC

B35 Precision duplex Dressr

V-TDF

B35 Radius And Angle Dresser

V-TDG

B35 Radius And Angle Dresser

V-TDE

B36 Optical Radius Angle Dresse

V-TDT

B36 Matco Sine Dresser

VP-50

B36 Matco Sine Dresserr

V-50D

B37 Diamond Wheel Dresse

V-TDD

B37 Motor type CBN Flat Wheel Dresser

V-TDM-1, 2

Balancing Stand

B37 Parallel Wheel Dresser
NEW

V-TDP

B37 Wheel Hanger

VWH-24, 32

B37 Wheel Hanger

VWH-24, 32

B38 Grinding Wheel Flang

FKT-250,FTA-350

B38 Grinding Wheel Flang

FKT-250,FTA-350

B38 Grinding Wheel Flang

FKT-250,FTA-350

B38 Grinding Wheel Flang

FKT-250,FTA-350

B38 Wheel Balancing Stand

WBS-300

B38 Level Ballancing Stand

LBS-100

B38 Level Ballancing Stand

LBS-350

B38 Driving Carrier

VDC-13~100

B38 Driving Carrier

VDC-13~100

B38 Driving Carrier

VDC-13~100

VERTEX

Mag. Sine / Mag. Plate System

B39 Sine Plate

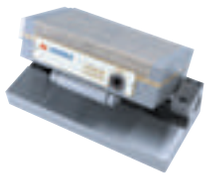
V-47~6120

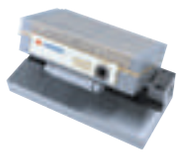
B39 Compound Sine Plate

V-47S~612S

B40 Magnetic Sine Plate

V-47M~612M

B40 Magnetic Sine Plate With Fine Pole

V-47MF~612MF

B40 Magnetic Sine Plate With Fine Pole

V-47MF~612MF

B41 Adjustable Sine Plate With Fine Pole Magnetic Chuck

V-66SA

B41 Adjustable Sine Plate With Fine Pole Magnetic Chuck

V-66SA

B41 Double Way Sine Plate With Permanent Magnetic Chuc

V-47MS~612MS

B41 Double Way Sine Plate With Fine Pole Magnetic Chuck

V-47MSF~612MSF

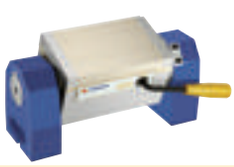
B41 Double Way Sine Plate With Fine Pole Magnetic Chuck

V-47MSF~612MSF

Magnetic / Plate/ Chuck / Block System

B42 Rotary Permanent Magnetic Plate

VLU-510B, 612B, 618B

B42 Rotary Fine Pole Permanent Magnetic Plate

VLU-407BF ~ 618BF

B42 Hi-Power Mini Type Permanent Magnetic Plate

VG-404H, 407H, 410H

B43 Angular Permanent Magnetic Plate

VG-407 ~ 1224

B43 Middle Pitch Permanent Magnetic Chuck

VGF-1018B ~ 1530BS

B44 Fine Pole Magnetic Plate

VRTW-1018A ~ 1325S

B44 Round Type Magnetic Plate

VGD-06, 08, 10, 12

B44 Fine Pole Round Type Magnetic Plate

VGDW-6, 8, 10, 12

B45 Standard Pole Electro Magnetic Chuck

VEM-1530A ~ 50100A

B45 Super-Powerful Electric Magnetic Chucks

VEM-2040Z ~ 60100Z

B46 Chuck Controller (For Rectify & Demagnetize)

VCC-705

B46 Chuck Controller (For Rectify & Demagnetize)

VCC-805A, 815

B46 Chuck Controller (For Rectify & Demagnetize)

VCC-820

B46 Variable Speed Rotary Magnetic Chuck

VRM-10

B46 Variable Speed Rotary Magnetic Chuck

VRM-8

B47 Magnetic Transisting Block

VCP-1

B47 Magnetic Transisting Block

VCP-2

B47 Magnetic Transisting Block

VCP-3

B47 Magnetic Transisting Block Se

VCP-6

B47 Magnetic Adjustable Linkor

VCP-5

B48 Magnetic Steel Sheet Separator

VCP-10

B48 Magnetic Steel Sheet Separator

VCP-11

B48 Magnetic Chip Collecter

VCP-15

B48 Magnetic Separating Bar Unit

VMS-7B

B48 Magnetic Separating Bar Unit

VMS-9B

VERTEX

Magnetic Tools System

B49 Permanent-Electro Magnetic Chuck

VPE-2540 ~

B50 Permanent-Electro Magnetic Chuck

VPE-40100 ~

B51 Permanent Magnetic Lifter (ON/OFF Type)

VML-100

B51 Permanent Magnetic Lifter (ON/OFF Type)

VML-300

B51 Permanent Magnetic Lifter (ON/OFF Type)

VML-600

B51 Permanent Magnetic Lifter (ON/OFF Type)

VML-1000

B51 Permanent Magnetic Lifter (ON/OFF Type)

VML-2000

B53 Magnetic Lifter

VGP-100, 200

B53 Magnetic Lifter

VGP-100, 200

B53 BMagnetic Holder

VML-150

B53 Magnetic Holder

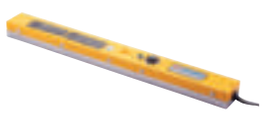
VML-80

B53 Magnetic Holder

VML-140

B54 Demagnetizer

VDM-40

B54 Demagnetizer

VDM-50

B54 Demagnetizer

VDM-68

B55 Demagnetizer

VDM-8, 11

B55 Demagnetizer

VDM-8, 11

B55 Mini Type Demagnetizer

VDM-9

B55 Tunnel type Demagnetizer And Magnetizer

VDM-150, 250, 450

B55 Tunnel type Demagnetizer And Magnetizer

VDM-150, 250, 450

B56 Chip collector Mini Handy Type

VCC-16

B56 Chip Collector With Adjustable Arm Type

VCC-17A

B56 Chip Collector With Wheels

VCC-19

B56 Chip Collector With Flexible Arm

VCC-20

B56 Chip Collector With LED

VCC-21

Magnetic V Block

B57 Magnetic V Block

VCP-25

B57 Magnetic V Block

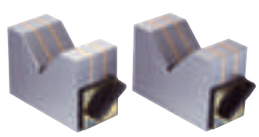
VCP-26

B0 Magnetic V Block

VCP-26

B57 Magnetic V Block

VCP-27

B57 Magnetic V Block

VCP-29,30

B57 Magnetic V Block

VCP-29,30

B58 Magnetic Square Block

VCP-31,32

B58 Magnetic Square Block

VCP-31,32

B58 Magnetic Square Holder
NEW

VCP-40

B58 Magnetic Square Holder
NEW

VCP-40

Magnetic Tools System

B59 Magnetic Tools

VMB-B

B59 Magnetic Tools

VMB-01

B59 Magnetic Tools

VMB- 02

B59 Magnetic Tools

VMB-03

B59 Magnetic Tools

VMB-181

B59 Magnetic Tools

VMB-185

B60 Magnetic Tools

VMB-70

B60 Magnetic Tools

VMB-106

B60 Magnetic Tools

VMB-106H

B60 Magnetic Tools

VMB-160

B60 Magnetic Tools

VMB-180,VMB-182H

B61 Magnetic Tools

VMF-112,113

B61 Magnetic Tools

VH-70

B61 Magnetic Tools

VMF-102A,102B

B61 Magnetic Tools

VMS-1/4,3/8

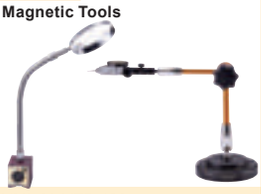
B62 Magnetic Tools

VMB-06,VML-A

B62 Magnetic Tools

VML-B,C

B63 Magnetic Tools



VML-M ,VTB-120

B63 Magnetic Tools

VMB-00~12

B64 Magnetic Tools

VMH-54

B64 Magnetic Tools

VMH-62

B64 Magnetic Tools

VMH-63

B64 Magnetic Tools

VMH-64

B64 Magnetic Tools

VMH-65

B65 Thin Round Magnet

VMH-D13

B65 Thin Round Magnet

VMH-D30

B65 Round Magnet Holder

VMD-R30,50

B65 Round Magnet Holder

VMD-S14

B65 Round Magnet Holder

VMD-S20

B66 Magnetic Tapper

VTM-13

B66 Magnetic Clamp

VCC-30, 31

B66 Magnetic Quick Clamp

VCC-33, 34

B67 Multi-Function Mist Coolant System

VCS-500

B67 Mist Coolant With Magnetic Base

VMH-71

B65 Diamond Dressing Tools

VDR-1010~5012

VERTEX

Nozzle Kit

B68 Adjustable Magnetic Nozzle Kit

CL-03

B68 Adjustable Magnetic Nozzle Kit

CL-03A

B68 Adjustable Magnetic Nozzle Kit

CL-02

B68 Adjustable Magnetic Nozzle Kit

CL-02, 02A

B68 Adjustable Coolant Hose

CL-01

B68 Adjustable Coolant Hose

CL-01A

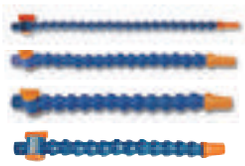
B68 Adjustable Coolant Hoses & Valves

L2-S

B68 Adjustable Coolant Hoses & Valves

S-1

B69 Adjustable Coolant Hoses & Valves



VHK-1/4, 3/8, 1/2, 3/4

B69 Adjustable Coolant Hoses & Valves

VHK-1/4A, 3/8A, 1/2A

Coolant Hose

B70 1/4" System

V-82020 ~

B70 1/4" System

V-82020 ~

B70 1/4" System

V-82020 ~

B71 1/2" System

V-84040 ~

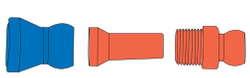
B71 1/2" System

V-84040 ~

B71 1/2" System

V-84040 ~

B72 3/8" System



V-83030 ~

B72 3/8" System

V-86060 ~

B72 3/4" System

V-86060 ~

B72 3/4" System

V-86060 ~

Paper Filter

B73 Paper Filter

PF-20 ~ 160

B73 Magnetic Separator

MC-20 ~ 60

B73 Magnetic Separator

MC-80 ~ 160

B74 Magnetic Separator & Paper Filter

MC+PF-20 ~ 60

B74 Magnetic Separator & Paper Filter

MC+PF-80 ~ 160

Coolant Tank

B75 Coolant Tank

VC-601

B75 Coolant Tank

VC-602

B75 Dust-Suction And Coolant Tant

VC-603

B75 Dust-Suction And Coolant Tant

VC-606

Oil Skimmer

B76 Oil Skimmer With Belt Type

VOS-800

B76 Oil Skimmer With Belt Type

VOS-810

B76 Oil Skimmer With Belt Type

VOS-820

B76 Oil Skimmer With Belt Type

VOS-830

B76 Oil Skimmer With Rotary Plate Type

VOS-850

Gauge Block

B77 Precision Gauge Blocks

VGB-112-0 ~

B77 Ceramic Gauge Blocks

VGB-112T-0 ~

B78 Ceramic Gauge Blocks

VGB-112C-0 ~

B78 Ceramic Gauge Blocks

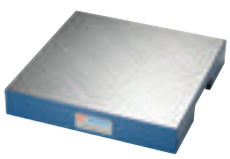
VGB-87C-0 ~

B78 Ceramic Gauge Blocks

VGB-87C-0 ~

Surface Plate

B79 Cast Iron Surface Plates

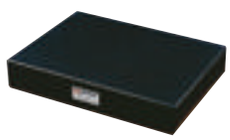


VS-01 ~ 13

B79 Cast Iron Surface Plates Stand

VSD-09N ~ 13N

B80 Black Granite Surface Plates



VSG-04 ~ 21

B80 Black Granite Surface Plates Stand

VSGD-09N ~21N

B80 Black Granite Surface Plates Stand

VSGD-09N ~ 21N

Granite Ruler / Block / Stand / Pin Gauge

B81 Granite Square Rulers

VQR-400, 500

B81 Granite Square Rulers

VQR-400, 500

B81 Granite Straight Rulers

VSR-630

B81 Granite Straight Rulers

VSR-1000

B81 Granite Triangle Ruler

VGT-300 ~ 600

B81 Granite Triangle Ruler

VGT-300 ~ 600

B82 Granite V-Block

VGV-63

B82 Granite V-Block

VGV-100

B82 Horizontal Leveling Instrument

VLI-200A, 300A

B82 Horizontal Leveling Instrument

VLI-200A, 300A

B82 Precision Square Level

VSL-200A, 300A

B82 Precision Square Level

VSL-200A, 300A

B83 Granite Surface Stand

VH-41 ~ 43

B83 Granite Surface Stand

VH-45 ~ 47

B83 Granite Surface Stand

VH-45 ~ 47

B83 Tester Arm Base

VTB-120

B83 Tester Arm Base

VTB-120

B83 Tester Arm Base

VTB-120

B84 Cleaning Paper

P-1000

B84 Concentric Test Stand

VCI-400

B84 Concentric Test Stand

VCI-200

B84 Pin Gauge

VPG-0B ~ 10B

B84 Pin Gauge

VPG-0B ~ 10B

Measuring Instrument System

B85 Precision Vernier Caliper

VVC-6" ~ 12"

B85 Precision Vernier Caliper

VVC-6" ~ 12"

B85 Digital Electronic Caliper

VEC-6" ~ 12"

B85 Digital Electronic Caliper

VEC-6" ~ 12"

B85 Dial Caliper

VDC-6 ~ 12

B85 Dial Caliper

VDC-6 ~ 12

B85 Outside Micrometer

VOM-0025 ~ 100125

B85 Outside Micrometer

VOM-0025 ~ 100125

B85 Inside Micrometer

VIM-0530 ~ 100125

B85 Inside Micrometer

VIM-0530 ~ 100125

B85 Micrometer Stand

VH-19

B85 Micrometer Stand

VH-19

B86 Dial Indicator

VDI-1

B86 Dial Test Indicator

VDI-0.8A

B86 Height Vernier Caliper

VHG-06 ~ 24

B86 Height Vernier Caliper

VHG-06 ~ 24

B86 Height Dial Caliper

VHD-12, 24

B86 Height Dial Caliper

VHD-12, 24

B86 Micrometer Stand

VMH-25

Angle Level

B87 Angle Level

VAL-60

B87 Angle Level

VAL-50

B87 Angle Level

VAL-10

B87 Angle Level

VAL-30

B87 Angle Level

VAL-20

Gauge

B88 Hardness Tester

VHT-260

B88 Stainless Steel Ruler

VSR-150, 200, 300

B89 Thread Size & Depth Gauge

VSD-M3 ~

B89 Thread Size & Depth Gauge

VSD-M3 ~

B89 Thread Size & Depth Gauge

VSD-M10

B89 Plug Gauge

VPG-3M ~ 36M

B89 Plug Gauge

VPG-3M ~ 36M

B89 Ring Gauuge

VRG-3 ~ 36

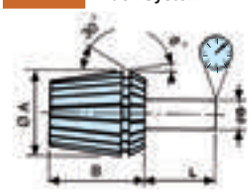
B89 Ring Gauuge

VRG-3 ~ 36

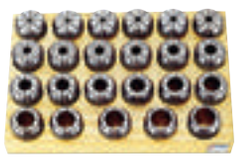
VERTEX

ER Collet Chuck System

C01 ER Spring Collet Chuck System



C03 ER Spring Collet Chuck System



ER-8/11/16/20

C07 ER Spring Collet Chuck System

ER-25/32/40/50

C08 ER-Type Coolant Collet

ER-L System

C09 ER-GB Tap Collets

NEW

ER-GB

C11 ER Spring Collet Chuck System

V-101~226

C12 ER Spring Collet Chuck System

V-231~250

C13 ER Spring Collet Chuck System

V-301~318

C14 ER Spring Collet Chuck System

V-401~452

C14 ER Collet

V-401~452

C15 ER Spring Collet Chuck System

V-530-524

C15 ER Spring Collet Chuck System

V-571

C15 ER Spring Collet Chuck System

V-578

C16 ER Spring Collet Chuck System

V-601-663

C17 ER Spring Collet Chuck System

NEW

V-551-560A

C17 ER Spring Collet Chuck System

NEW

V-551-560A

C17 ER Spring Collet Chuck System

NEW

V-691A-698D

C18 Clamping Nuts For Collets

V-800~811

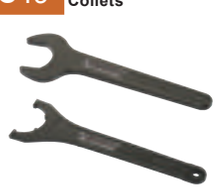
C18 CClamping Nuts For Collets

V-800~811

C19 Clamping Wrench For Collets

V-820~828

C19 Clamping Wrench For Collets



V-820~828

C20 ER Spring Collet Chuck System

V-700~727

C20 ER Spring Collet Chuck System

V-700~727

C21 ER Spring Collet Chuck System

V-770-742A

C22 ER Spring Collet Chuck System

V-737-799

C23 ST/ER Straight Shank With Double Head Spindle

M TYPE

V-830~837

C23 ST/ER Straight Shank With Double Head Spindle

UM TYPE

V-830~837

C23 ST/ER Straight Shank With Single Head Spindle

M TYPE

V-841~848

C23 ST/ER Straight Shank With Single Head Spindle

UM TYPE

V-841~848

C24 ER Collet Chuck System

BT30, 40-ER11 / 16 / 20 / 25 / 32

C25 ER-SK Taper Shank

V-741 ~ 744

C25 ER-SK Taper Shank

V-745 ~ 749A

C25 ER-SK Taper Shank

V-751 ~ 763

C26 ER Spring Collet Chuck System

V-870 ~ 876

C26 ER Spring Collet Chuck System

V-878 ~ 890

VERTEX

OZ Collet Chuck System

C27 Milling Chuck

VB-MT/ R8 / NT

C28 Milling Collet Chuck Kit

VB-101~116

C29 DIN 6388 Collet For Milling Chuck

OZ-1602~3247, OZ-3206~3247, OZ-2503~2540

C30 DIN 6388 Nuts & Wrench

OZ-25N, 32N, 25W, 32W

C31 Milling Collet Chuck

VB-241~234

C31 Milling Collet Chuck

VB-BT40 / 50

C32 Milling Collet Chuck

VB-226-259

C33 Milling Collet Chuck

VB-130-167B

C34 Milling Collet Chuck

VB-271-291

C34 Milling Collet Chuck

VB-261-267

C Type Chuck

C35 Multi-Lock Milling Chuck

VB-431 ~ 452

C35 Multi-Lock Milling Chuck

VB-431 ~ 452

C36 Multi-Lock Milling Chuck

VB-344A ~ 578

C37 C-20,25,32,42 Collet

C-20, 25, 32, 42

C37 C-20,25,32,42 Wrenchs

C-20W, 25W, 32W, 42W

5C R-8,MT-Collet

C38 Quick-Change Tooling System

VD-101 ~ 105

C38 Quick-Change Tooling System

VD-111 ~ 115

C39 TG 100 Collet System

TG10-01 ~ 57

C40 5C Collet System

VE-5C

C40 5C Collet System

VE-5CN

C40 5C Collet System

VE-5CB

C40 R8 Collet System

R8-3 ~ 20 / 1/8 ~ 3/4

C41 U2 Collet System

VE-U2-3 ~ 16 / 1/8 ~ 5/8

C41 U2 Collet System

VE-U2-18 ~ 25

C41 MT3 Collet System

MT3-4 ~20 / 1/8 ~ 3/4

C42 Drill Chucks Arbor

VJ-121 ~ 124

C42 Drill Chucks Arbor

VJ-126-1 ~ 138-2

C42 Drill Chucks Arbor

VJ-139 ~ 143

Sleeve

C43 Morse Taper Sleeve

VQ-101 ~ 110

C43 Morse Taper Sleeve

VQ-101 ~ 110

C43 Morse Taper Extension Sockets

VQ-111-1 ~ 120

C43 Morse Taper Extension Sockets

VQ-111-1 ~ 120

C43 R8 Morse Taper Sleeve

VQ-121, 122, 123

Face Mill Arbor System

C44 Face Mill Arbor

VF-101 ~ 137

C44 Face Mill Arbor

VF-101 ~ 137

C45 Morse Taper Adapter

VI-101 ~ 111

C45 Morse Taper Adapter

VI-131 ~ 138

C46 Jacobs Taper Drill Chuck Arbor

VJ-103, 106, 109, 111, 112

C46 Horizontal Milling Arbor
NEW

VL-110

C47 Tang For Morse Taper Shank

VMTS-2, 3, 4, 5

C47 Oil-Feed Holder / Slo

BT40SLO32 / 40, OC-32 / 40

C48 Face Mill Arbor

BT-101 ~ 121, 150 ~ 166

C49 Drill Chuck Holder/ APU

BT-180 ~ 188

C49 Morse Taper Adaptor

BT-204 ~ 231

C50 Jacobs Taper Arbor

BT-315 ~ 333-1

C50 Lever Checking Holders

BT40-M8, BT50-M8

C50 Test Arbor

A30, A40, A50

C51 Sidelock End Mill Holder

BT-436 ~ 479

Pull Studs

C52 Pull Studs BT

BT-501 ~ 512

C52 Pull Studs

BT-516 ~ 521

C53 Pull Studs DIN69872

BT-522 ~ 532

C54 Pull Studs

BT-533 ~ 539

C55 Pull Studs CAT

BT-540 ~ 548, 556, 560 ~ 561

Mill Holder

C56 Complete NC Tooling Set

VBT-30-0720 ~

C59 Face Mill Holder DIN69871A

DIN69871A
SK-112 ~ 120

C59 Morse Taper Holder- DIN 6383

DIN69871A
SK-214 ~ 220

C60 Sidelock End Mill Holder DIN69871

DIN69871A
SK-417 ~ 431

C60 Sidelock End Mill Holder DIN69871

DIN69871A
SK-417 ~ 431

SK.CAT

C60 Drill Chuck Holder / APU DIN69871A

DIN69871A
SK-509 ~ 516

C61 Face Mill Holder

CAT-40 / 50-FMA ~

C61 Side Lock Holders

USA
CAT-40 / 50-SL ~

C61 Mose Taper Holders

USA
CAT-30 / 40 / 50-MTA ~

C61 Mose Taper Holders

USA
CAT-30 / 40 / 50-MTA ~

DC System

C62 DC High Speed Slim Chuck System

BT30 / 40-DC6-60, 90

C62 DC High Speed Slim Chuck System

BT30 / 40-DC6-60, 90

C62 Small Collet Of Slim Collet Chuck

DC6-2 ~

C62 Small Collet Of Slim Collet Chuck

DC6-2 ~

C62 Small Collet Of Slim Collet Chuck

DC6-2 ~

HSK System

C63 HSK-A63,A100(DIN69893A) ER Collet Chucks

HSK-A63 / A100-ER ~

C63 HSK-A63,A100(DIN69893A) ER Collet Chucks

HSK-A63 / A100-ER ~

C63 HSK-A63,A100(DIN69893A) OZ Collet Chucks

HSK-A63 / A100-OZ ~

C63 HSK-A63,A100(DIN69893A) OZ Collet Chucks

HSK-A63 / A100-OZ ~

C63 HSK-A63,A100 Morse Taper Holders

DIN69892A

HSK-A63 / A100-MTA ~

C64 HSK-A63,A100 Face Mill Holders

DIN69893A

HSK-A63 / A100-FMA ~

C64 HSK-A63,A100 Face Mill Holders

DIN69893A

HSK-A63 / A100-FMA ~

C64 HSK-A63,A100 Face Mill Holders

DIN69893A

HSK-A63 / A100-FMB ~

C64 HSK-A63,A100 Face Mill Holders

DIN69893A

HSK-A63 / A100-FMB ~

C64 HSK-A63,A100 Sidelock End Mill Holder

DIN69893A

HSK-A63 / A100-FMB ~

SK System

C65 SK Spring Collet System

SK-6 / 10 / 16 / 20 / 25

C69 BT-SK Collet Chuck System

SKB-201 ~ 315

C70 ST-SK Straight Chuck

SKS-210 ~ 214

C70 Set Of SK Collet And Straight Chuck

SKS-231 ~ 234

C70 SK Nut And Wrench

SKN / SKW-101 ~

Keyles Drill Chuck System

C71 3D-Taster

V-3D

C71 KNT Type Keyless Drill Chucks

KNT-8, 13, 16

C72 Integrated Type Keyless Drill Chucks

INT-8 / 13 / 16-CAT30, 40, 50

C72 Integrated Type Keyless Drill Chucks

INT-8 / 13 / 16-CAT30, 40, 50

C72 Integrated Type Keyless Drill Chucks

BT/ SK / NT40-VRL13, 16

C73 Integrated Type Keyless Drill Chucks

INT-8, 10, 13, 16 ~

C73 Integrated Type Keyless Drill Chucks

INT-8, 10, 13, 16 ~

C75 Keyless Drill Chucks

11015 ~ 11034

C75 Keyless Drill Chucks

11061 ~ 11075

C75 Keyless Drill Chucks

11061 ~ 11075

C76 Keyless Drill Chucks

12201-1 ~ 12205-4

C76 Keys Steel

14001 ~ 14009

C77 Key Type Drill Chucks

10006 ~ 10074

C77 Key Type Drill Chucks

10006 ~ 10074

C78 Key Type Drill Chucks

10001 ~ 10079

C78 Key Type Drill Chucks

10001 ~ 10079

C78 Key Type Drill Chucks

10001 ~ 10079

C79 Key Type Drill Chucks Stainless

NEW

10090 ~ 10092-3

C79 Keyless Drill Chucks Stainless

NEW

16001-30, 31, 61

C79 Keys For Stainless Key Type Drill Chuck

NEW

15001 ~ 15003

VERITEX

Boring Head System

C80 Taper Shank For Boring Heads Series BST, VBK

C80 Taper Shank For Boring Heads Series BST, VBK

BST-BS70-400

C80 Taper Shank For Boring Heads Series BST, VBK

VBK-B1070~6230

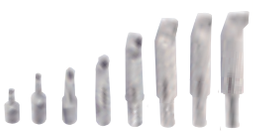
C81 Large Diameter Twin-bit Rough Boring

VRB200~900

C82 Large Diameter Finish Boring Head

VFB200~900

C83 Insert Type Boring Bar



BBAR-D16

C83 Insert Type Boring Bar

BBAR-D18A

C83 Insert Type Boring Bar

BBAR-D20

C84 Indexable Twin-bit Rough Boring Head RBH

VRB25-33C~

C85 Extension (Reduced)

VBQ 2 / 3 / 4 / 5 / 6 ~

C85 Extension (Reduced)

VBQ 1 / 2 / 3 / 4 / 5 / 6 ~

C86 Indexable Twin-bit Rough Boring Head RBH-LA

VRB25 ~ 900 ~

C86 FBH Finish Boring Head

FBH-20 ~ 150

C87 FBH Finish Boring Head

CBI4, 5, 6

C87 Small Diameter Boring Head CBI4

BJ1008 ~

C89 Precision Finish Boring Head Sets

NEW

VBHD-BT / SK / NT / HSK

C90 Precision Finish Boring Head Sets

NEW

VBHE-BT / SK / NT / HSK

C91 Micro Boring Head Set

NEW

VBH55-BT40, 50

C92 Micro Boring Head Set

NEW

VBH68-BT40, 50

C93 High Precision Boring Head Set

NEW

VBH620-NT / BT / SK

C93 High Precision Boring Head Set

NEW

VBH620-NT / BT / SK

C94 High Precision Boring Head Set

VBH2084-R8 / NT / BT / SK / MT

C94 High Precision Boring Head Set

VBH2084-R8 / NT / BT / SK / MT

C95 Universal Boring And Facing Master Head

VBHU-202 ~ 214

C95 Universal Boring And Facing Master Head

VBHU-202 ~ 214

C97 Boring Head Sets

VBH-102 ~ 113

C97 Boring Head Sets

VBH-MT / R8 / NT / SK / BT / C25

C98 Boring Head Set C-Type

VBHC-R8 / MT / NT / BT / C20

C98 Boring Head Set C-Type

VBHC-R8 / MT / NT / BT / C20

C98 Boring Head Set C-Type

VBHC-R8 / MT / NT / BT / C20

C99 Boring Head Shank C-Type

VBC-R8 / NT / MT / BT / C20

C100 C-Type Boring Head

Inch
mm

VBC-2

C100 C-Type Boring Head

Inch
mm

VBC-3

C100 C-Type Boring Head

Inch
mm

VBC-4

VERTEX

Touch Point Sensor System

C101 Touch Point Sensor

VPS-20B, 32B

C101 Touch Point Sensor

VPS-20

C101 Touch Point Sensor

VPS-32

C102 Touch Point Sensor

VPS-201

C102 Touch Point Sensor

VPS-201C

C102 Touch Point Sensor

VPS-401

C102 Touch Point Sensor

VPS-401C

C103 Touch Point Sensor

VPS-301

C103 Touch Point Sensor

VPS-301S

C103 Touch Point Sensor

VPS-302

C103 Touch Point Sensor

VPS-302S

C103 Touch Point Sensor

VPS-301C

C103 Touch Point Sensor NEW

VPS-302C

C103 Touch Point Sensor NEW

VPS-303

Presetter System

C104 Height Presetter

HP-50Z, 50ZM, 100Z, 100ZM

C104 Height Presetter

HP-100Z, 100ZM

C104 Height Presetter

HP-100Z, 100ZM

C105 Electronic Tool Length Setter

HP-100EM

C105 Electronic Tool Length Setter

HP-50EM

C106 Z-Zero-Setter

HP-50B / BM

C106 Z-Zero-Setter

HP-50A / AM

C106 Z-Zero-Setter

HP-100A / AM

C107 Height Presetter (For Machining Center)

HP-100

C107 Centering Indicator

VCI-170

Drill Tapper System

C108 Reversible Tapping Attachment for Drilling & Milling Machine

K1 / 2 / 3 / 4 ~

C108 Tap Chuck Series

VTA13/ 16 / 18 ~

C108 Drill Tapper

VDT-33

C109 Reversible Tapping Attachments

VTA7, 12, 20 ~

C109 Rubber Flex Collet For VTA Tapper

FC-10, 11, 20, 21, 30, 31

C109 Connecting Arbor for VTA20-M20

MT3-M20, MT4-M20

C110 Tap Chuck

VTA-13-11, 12

C110 Expansible Tapping Holder

VET-271~274,260,261

C111 Expansible Tapping Holder

VET- 102, 202, 252, 303

C111 Expansible Tapping Holder

VET-105, 106 , 253, 254

VERTEX

Tapping System

C113 Quick Change Tapping Chuck

WF-BT30/BT40/SK30/SK40

C113 Quick Change Tapping Chuck

WF-BT50/SK50

C114 Quick Change Tapping Chuck

WF-ST

C114 Quick Change Tapping Chuck

WF-MT

C115 Quick Change Tapping Chuck

WFE-BT40

C115 Quick Change Tapping Chuck

WFE-BT50

C116 Quick Change Tapping Chuck

BT40-SF

C116 Quick Change Tapping Chuck

BT50-SF

C117 Quick Change Tapping Chuck

ST-SF

C117 Quick Change Tapping Chuck

MT-SF

C117 Quick Change Tapping Chuck

JTA-SF

C118 Quick Change MT Tapping Chuck Set

NEW

VQT-312 ~ 520

C118 Quick Change MT Tapping Chuck Set

NEW

VQT-712, 812, 720, 820

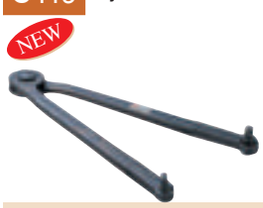
C119 Tapping Collet Reducer Adapter

EXP.

TC 312 / 820 / 1433-AD

C119 Adjustable Wrenches

NEW



VWR-40, 60

C119 Quick Change Tapping Chuck

NEW

TC 312 DIN 371 8PCS / SET

C119 Quick Change Tapping Chuck

NEW

TC 312 DIN 376 8PCS / SET

C120 Quick Change Tapping Chuck

NEW

TC 820 DIN 376 8PCS / SET

C120 Quick Change Tapping Chuck

NEW

TC-820 DIN371 4PCS/SET

C120 Quick Change Tapping Chuck

NEW

TC-820 ISO2283 8PCS / SET

C121 Quick Change Tapping Collet

JIS

TC 312 / 820 / 1433

C123 Quick Change Tapping Collet

DIN 371 / 376

TC 312 / 820 / 1433

C124 Quick Change Tapping Collet

ISO 529 / 2283

TC 312 / 820 / 1433

C125 Quick Change Tapping Collet

ANSI

TC 312 / 820

C126 Quick Change Tapping Collet

JIS

TC 312B / 820B / 1433B

C128 Mini Type Arm Type Air Tapping Unit

VAT-708 ~ 724

C128 Small Arm Type Air Tapping Unit

VAT-1408 ~ 1424

C129 Arm Type Air Tapping Unit

VAT-1608 ~1624

C130 Air Tapping Unit

VAT-1908 ~ 1924

C130 Air Tapping Spindle

VAT-SP ~24

C130 Parallel Arm For Air Tapping Unit

VAT-ARM ~

C131 Adjustable Angle Head For Air Tapping Unit

AT08 / 12 / 16 / 20 / 22 / 24-90

C131 Magnetic Base For Air Tapping Unit

VLM-300A, 600A

C132 Mist Coolant System For Air Tapping Unit

VAC-08

C132 Collet Rack For Air Tapping Unit

VCR-08

VERTEX

Tooling Setting Stand

C133 Deluxe Type Tool Setting Stand

VTD-1 ~ 10

C133 Simple Type Tool Setting Stand

VTS-BT / SK-30, 40, 50

C134 Tool Holder Locking Device

VTG-BT30, 40, 50

C134 Tool Holder Locking Device

VTL-BT / SK / NT-30, 40, 50

C135 Tool Holder Locking Fixtures

VTL-HSK40, 50, 63

Spundle Taper Wiper

C135 Round Tool Locking Device

NEW

VTO-30,40, 50

C135 Fast Tool Setting Stand

NEW

VTS-HSK63

C136 Spindle Taper Wiper

VTW-30, 40, 50

C136 Spindle Taper Wiper

NEW

VTW-30R, 40R, 50R

C136 Spindle Taper Wiper

VTW-50H, 63H

Sheath Rack

C137 Tooling Rack Stand

NEW

VTT-30/30-50

C137 Tooling Rack Stand

NEW

VTT-31/30-50

C137 Tooling Rack Stand

NEW

VTT-30/31-HSK63

C137 Tooling Rack Stand

NEW

VTT-30/30-50

C137 Tooling Cart

NEW

VTT-21

C137 Tooling Cart

NEW

VTT-21

C138 Tooling Cart

NEW

VTT-11

C138 Tooling Cart

NEW

VTT-12

C138 Tooling Cart

NEW

VTT-12

C139 Tooling Trolleys

VTT-2-30 / 40 / 50 / HSK63

C139 Tooling Trolleys

VTT-2-30 / 40 / 50 / HSK63

C139 Tooling Trolleys

VTT-5-30 / 40 / 50 / HSK63

C139 Tooling Trolleys

VTT-5-30 / 40 / 50 / HSK63

C139 Tooling Trolleys

VTT-6-30 / 40 / 50 / HSK63

C140 Tooling Rack

NEW

VTTR-BT-30 / 40 / 50 / HSK63

C140 Tooling Rack

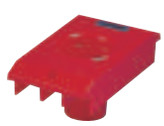
NEW

VTTR-BT-30 / 40 / 50 / HSK63

C140 Tooling Sheath

VTTS-BT-30 / 40 / 50

C140 Tooling Sheath



VTTS-BT-30 / 40 / 50

C140 End Mill Sheath Rack

VMS-2

C140 Cutting Tool Sheath Rack

NEW

VMS-3

C140 Tooling Rack Stand

NEW

VTC-20

C140 Tooling Rack Stand

NEW

VTC-20

C140 Tooling Rack Stand

NEW

VTC-20

Tool Cabinet

C141 Tool Cabinet

VTC-23

C141 Tool Cabinet

VTC-25

C141 Tooling Trolleys
NEW

VTC-100

C142 Workbench
NEW

VWB-1580

C142 Hydro Lift Table
NEW

VLT-300

C142 Hydro Pallet Trolleys
NEW

HPT-20NS, 20NM, 20WL

C143 Parts Cabinet

VA1-, VA6-, VA7-

C143 Parts Cabinet

VA1-, VA6-, VA7-

C143 Tool Box

VTB-102, 901

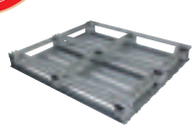
C143 Parts Storage

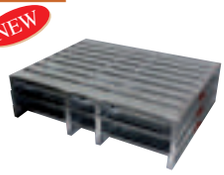
VHB-1218 ~ 3045

Pallet

C144 Economical Pallet
NEW

VEPT-01, 02

C144 Economical Pallet
NEW

VEPT-01, 02

C144 Heavy Duty Pallet
NEW

VHPT-H01

C144 Heavy Duty Pallet
NEW

VHPT-H01

C137 Tooling Cart

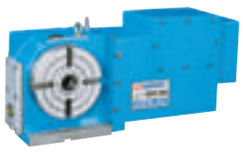
VERTEX

NC-Rotary Table

D01 NC-Rotary Table

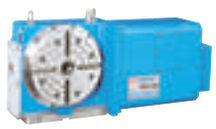
VNCM-150 ~ 400L / R

D03 NC-Rotary Table



VNCM-150R

D03 NC-Rotary Table



VNCM-220R

D03 NC-Rotary Table

VNCM-250R

D03 NC-Rotary Table

VNCM-320R

D03 NC-Rotary Table

VNCM-400R

D04 NC-Rotary Table

VNCX-10

D06 Tailstock For NC Rotary Table

TS-135 ~ 210 / 135 ~ 210-MT3

D06 Tailstock For NC Rotary Table

TS-135 ~ 210 / 135 ~ 210-MT3

MC Power Vise

D07 MC Power Vise

NEW

VQC-100

D07 MC Power Vise

VQC-160

D07 MC Power Vise

EXP.

VQC-125FJL

D07 MC Power vise

EXP.

VQC-125MJL

D07 MC Power Vise

VQCV-125 / 160H-L/R

D07 NC Hydro Machine Vices

VNC

D07 Convenient Type Machine Vise

VCM-47

D07 Precision Pneumatic Ang-Fixed Power Vise

VMC-

D07 Precision MC Power Vise

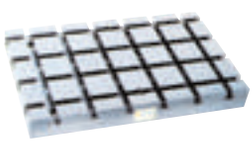
VMC-

D07 Precision Compact MC Vise

VMC-

Base Plate

D09 Base Plate Series

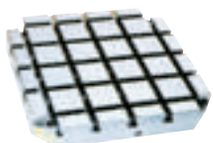


TBP-6040 ~ 10050D

D09 Base Plate Series

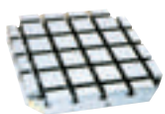
TBP-6040 ~ 10050D

D09 Base Plate Series



SBP-4040 ~ 8080A

D09 Base Plate Series



SBP-4040 ~ 8080A

D09 Base Plate Series

NEW

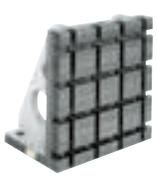
HBP-4060 ~ 50100T

Angle Plate

D10 M/C Angle Plate 90°

BP20-30, 40, 50, 60, 80

D10 M/C Angle Plate 90°



BP22-30 ~ 860

D11 M/C Clamping Cube

BP07-10, 20, 30, 40

D12 Angular Hollow Block 45°

BC45-15, 30, 151, 301

D12 Angular Hollow Block 30°

BC30-15, 30, 151, 301

Vice

D13 Flexible Line Up Vice

VFS-5030 ~ 7270

D14 Flexible Line Up Vice

VFS-5030 ~ 7270

D15 Flexible Line Up Vice

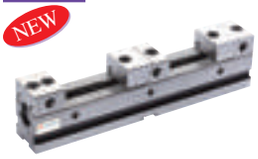
VFL-5030 ~ 7270

D16 Flexible Line Up Vice

VFL-5030 ~ 7270

D17 Flexible Line Up Vice

NEW



VFN-6030 ~ 8580

VERTEX

Live Center System

E01 Light Duty Live Center

VPC-MT1, MT2, MT3, MT4, MT5

E01 Live Lathe Center -A Type

VLC-212, 213, 214, 215

E01 Live Lathe Center -A Type

VLC-212, 213, 214, 215

E01 Live Lathe Center -B Type

VLC-213B

E01 Live Lathe Center -B Type

VLC-214B

E02 High-Speed NC Live Center-A Type

VLC-MT3A, MT4A, MT5A, MT6A

E02 High-Speed NC Live Center-B Type

VLC-MT3B, MT4B, MT5B

E02 High-Load NC Live Center-A Type

VCF-MT3A, MT4A, MT5A

E02 High-Load NC Live Center-B Type

VCF-MT3B, MT4B, MT5B

E02 High-Load NC Live Center-B Type

VCF-MT3B, MT4B, MT5B

E03 Inter-changeable Points Live Center

VLC-312, 313, 314

E03 Inter-changeable Points Live Center

VLC-312, 313, 314

E03 High Speed NC Interchangeable Points Live Center

VCS-MT3, MT4, MT4P, MT5P

E04 High Load Interchangeable Points Live Center

VCP-MT4, MT5

E04 High Load Interchangeable Points Live Center

VCP-MT4, MT5

E04 High Speed Live Center- AType
NEW

VLC-512, 513, 514, 515

E04 High Speed Live Center- AType
NEW

VLC-512, 513, 514, 515

E04 High Speed Live Center-B Type
NEW

VLC-513B, 514B, 515B

E04 High Speed Live Center-B Type

VLC-513B, 514B, 515B

E04 High Speed Live Center-B Type

VLC-513B, 514B, 515B

Lathe Center System

E05 Bull Nose Pipe Center

VLC-

E05 Bull Nose Pipe Center

VLC-

E05 Bull Nose Pipe Center

VLC-

E06 Lathe Centers
NEW

VLC-117~119

E06 Lathe Centers
NEW

VLC-117~119

E06 Lathe Centers
NEW

VLC-112, 113, 114, 115, 116

E06 Dead center
NEW

VLC-112, 113, 114, 115, 116

E07 Work-Driving Center

VDK-32-MT4

E07 Work-Driving Center

VDK-23-MT4

E07 Work-Driving Center

VDK-15-MT4

E07 Work-Driving Center-Changable Tips

VDC-30-MT4

E08 Inter-Changeable Point Rolling Center
NEW

VLC-612, 613, 614, 615

E08 Inter-Changeable Point Rolling Center
NEW

VLC-612, 613, 614, 615

E08 Live Lathe Center
NEW

VLC-172, 173, 174, 175

E08 Live Lathe Center
NEW

VLC-172, 173, 174, 175

Centering Chuck System

E09 3 Jaw Self Centering Chuck

VSC-3A ~ 25A

E09 3 Jaw Powerful Self Centering Chuck

VSK-6A, 8A, 10A, 12A, 13A, 16A

E10 4 Jaw Self Centering Chucks

VPS-6A, 7A, 8A, 10A, 12A

E10 4 Jaw Self Centering Chucks (2-Pices Jaw)

VPS-6AK, 8AK, 10AK, 12AK

E11 3 Jaw Strong Scroll Chucks D1 Camlock Direct Mounting

LD5-8,6-8

E11 3 Jaw Powerful Camlock Type Self-Centering Chuck

VSKC-6A, 8A, 10A, 12A

E12 DIN-Type 3-Jaw Self-Centering Chucks

VSC-3D ~ 10D

E12 4-Jaw Independent Chuck Plain Back

VKC-4 ~ 50

E13 3-Jaw Scroll Chuck

Accuracy Type

VSC-3 ~ 16

E14 3-Jaw Powerful Scroll Chuck

Accuracy Type

VSK-4 ~ 16

Thin Chuck

E16 Machining Jaw Chuck

VMJ-6, 8, 10, 12

E16 Super Thin Chucks

VNBK-6, 8, 10, 12

E17 Vertical Machining Chuck
NEW

VMJ-150, 200, 250, 300

E17 Vertical Machining Chuck
NEW

VMJ-150, 200, 250, 300

E17 Vertical Machining Chuck
NEW

VMJ-150, 200, 250, 300

Power Chuck

E18 Soft Jaw For SK-Type Chuck

VSJ-4 ~ 16

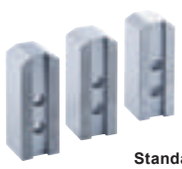
E18 Soft Jaw For SK-Type Chuck

VSJ-4 ~ 16

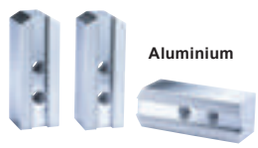
E19 Soft Jaw Hydraulic Power Chucks

Standard

VHC-8A, 10A

E19 Soft Jaw Hydraulic Power Chucks

Standard

VHC-5 ~ 24

E19 Soft Jaw Hydraulic Power Chucks

Aluminium

VHC-8A, 10A

Jaw Forming

E15 6-Jaw Awl Type Chucks

VAS-4, 6

E15 Low Profile Chuck

VLBK-2,3,4,5,6

E21 Soft Jaw Forming Ring

VFR-05, 06, 08, 10, 12, 15

E21 Soft Jaw Forming Disc
NEW

VFRD-6, 8, 9, 10, 12

E31 Tool Post Grinder ON Lathe

VGR-100 ~ VGR-185

Power Chuck System

E22 T Nut For Hydraulic Chuck
NEW

B-205T, 206T, 208T, 210T, 212T

E22 Hard Jaws For Hydraulic Power Chucks

HJ-05, 06, 08, 10, 12, 12-1, 15, 15-1

E23 3-Jaw Wedge Type Through-hole Power Chuck (Without Adaptor)

N-205A4 ~ 215A11

E24 2-Jaw Wedge Type Through-hole Power Chuck (Without Adaptor)

NT205 ~ NT215

E25 3-Jaw Wedge Type Non Through-hole Power Chuck (Without Adaptor)

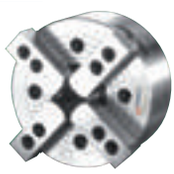
V-206A5 ~ 215A11

E26 Super High Speed Through Hole Rotary Hydraulic Cylinder

M1036 ~ M2511

E27 Non Through Hole Rotary Hydraulic Cylinder (With Valves)

MS105, 125, 150, 200

E27 4-Jaw Wedge Type Through Hole Power Chuck (Without Adaptor)

VNIT-208, 210, 212, 215

E28 Lathe Collet Chucks

CR42A5, 42A6, 60A6

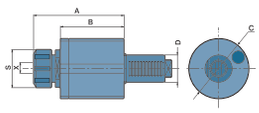
E29 Lathe Collet

C26 / 42 / 60 / 80

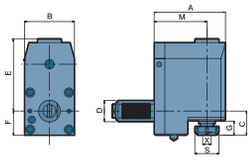
VERTEX

VDI System

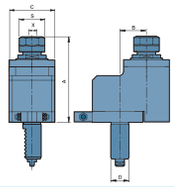
E35 Axial Drilling And Milling Heads



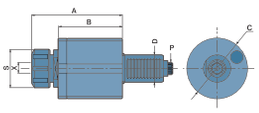
E36 Radial Drilling And Milling Heads-Back Ward Type



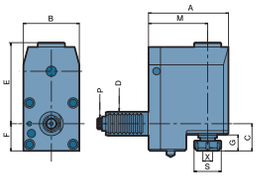
E37 Axial Drilling And Milling Heads



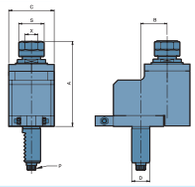
E38 Axial Drilling And Milling Heads



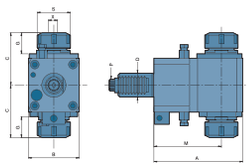
E39 Radial Drilling And Milling Heads-Backward Type



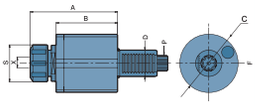
E40 Axial Drilling And Milling Heads-Offset



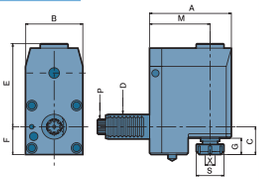
E41 Radial Double Drilling And Milling Heads



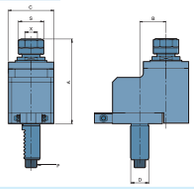
E42 Axial Drilling And Milling Heads



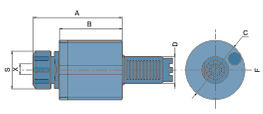
E43 Radial Drilling And Milling Heads



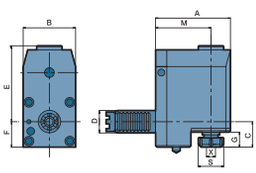
E44 Axial Drilling And Milling Heads



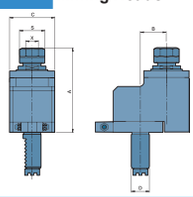
E45 Axial Drilling And Milling Heads-For "Baruffaldi" Type



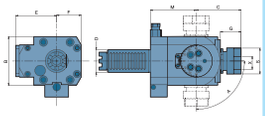
E46 Radial Drilling And Milling Heads-Backwards



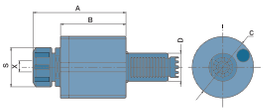
E47 Axial Drilling And Milling Heads



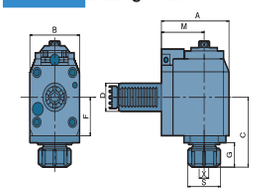
E48 Angular Heads



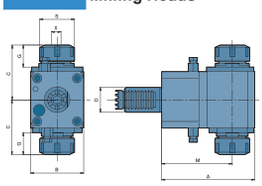
E49 Axial Drilling And Milling Heads-For "Duplomatic" Type



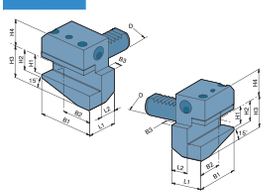
E50 Radial Drilling And Milling Heads



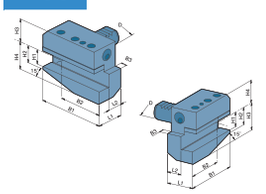
E51 Radial Drilling And Milling Heads



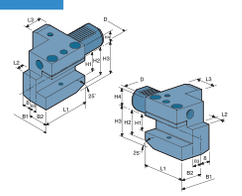
E52 Radial Static Holders



E53 Radial Static Holders

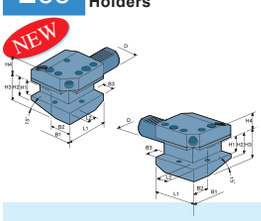


E54 Axial Static Holders

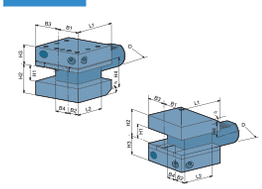


E55 Combined Static Holders

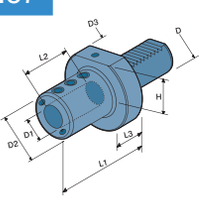
NEW



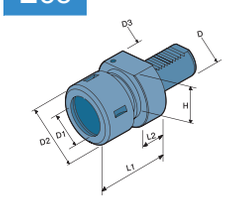
E56 Combined Static Holders



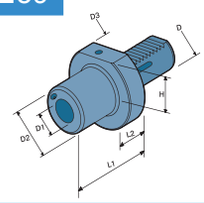
E57 Static Holders



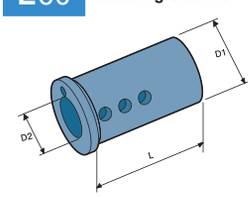
E58 Static Holders



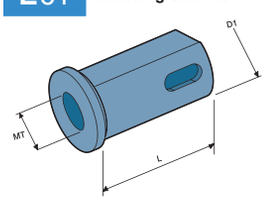
E59 Static Holders



E60 Reducing Sleeves

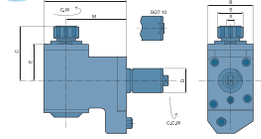


E61 Reducing Sleeves



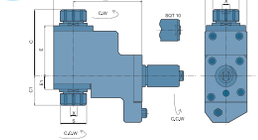
E62 H Type Milling & Drilling Head

NEW



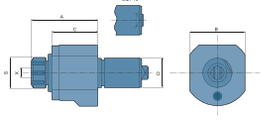
E63 H Type Milling & Drilling Head

NEW

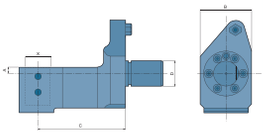


E64 V Type Milling & Drilling Head

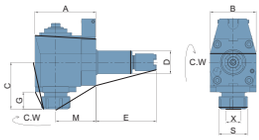
NEW



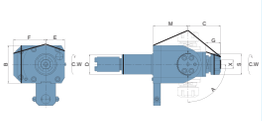
E70 U Drill Holder



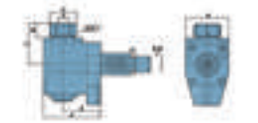
E71 Radial Drilling And Milling Heads



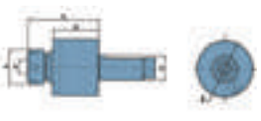
E72 Angular Heads



E73 Radial Milling And Drilling Head

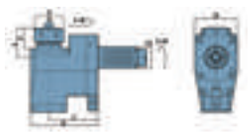


E73 Axial Milling And Drilling Head

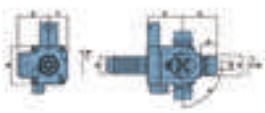


VDI System

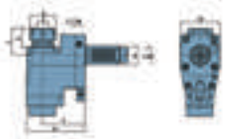
E74 Radial Milling And Drilling Head



E74 Angular Heads



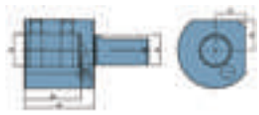
E75 Radial Milling And Drilling Head



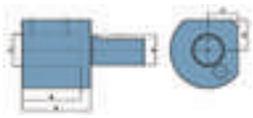
E75 Axial Milling And Drilling Head

E75 Angular Heads

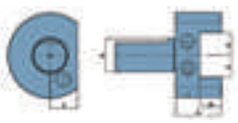
E76 Boring Bar Holder



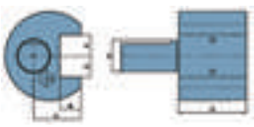
E76 Boring Bar Holder



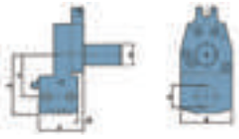
E77 Turning Holder



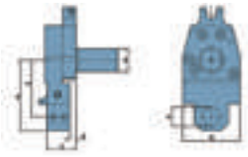
E77 Facing Holder



E78 Boring Bar Holder



E78 Boring Bar Holder



Tool Post System

E79 Quick Change Tool Post & Holders-Italian Style

NEW

VTP-

E80 Individually Piece Italian Style

NEW

VTP-F01-

E80 Individually Piece Italian Style

NEW

VTP-F02-

E80 Individually Piece Italian Style

NEW

VTP-F03-

E80 Individually Piece Italian Style

NEW

VTP-F04-

E81 Quick Change Tool Post & Holders-40 Positioning European Style

NEW

VTP-F40-

E81 Quick Change Tool Post & Holders-40 Positioning European Style

NEW

VTP-F40-

E82 Quick Change Tool Post & Holders-40 Positioning European Style

NEW

VTP-F40-

E82 Quick Change Tool Post & Holders-40 Positioning European Style

NEW

VTP-F40-

E82 Quick Change Tool Post & Holders-40 Positioning European Style

NEW

VTP-F40-

E82 Quick Change Tool Post & Holders-40 Positioning European Style

NEW

VTP-F40-

E82 Quick Change Tool Post & Holders-40 Positioning European Style

NEW

VTP-F40-

E83 Quick Change Tool Post American Type

NEW

VTP-F50-

E84 Quick Change Tool Post American Type

NEW

VTP-F50-

E84 Quick Change Tool Post American Type

NEW

VTP-F50-

E84 Quick Change Tool Post American Type

NEW

VTP-F50-

E84 Quick Change Tool Post American Type

NEW

VTP-F50-

E85 Quick Change Tool Post American Type

NEW

VTP-F50-

E85 Quick Change Tool Post American Type

NEW

VTP-F50-

E85 Quick Change Tool Post American Type

NEW

VTP-F50-

Milling Cutter System

F01 Face Milling Cutter 45°

SE545 / 445-3, 4 , 5 , 6 , 8 , 10 , 12

F01 Face Milling Cutter 65°

SP535 / 435-3, 4 , 5 , 6 , 8 , 10 , 12

F02 Face Milling Cutter 75°

FP-3, 4 , 5 , 6 , 8 , 10 , 12

F02 Face Milling Cutter 90°

TP-63 ~ 300

F02 Face Milling Cutter 90°

TP-63 ~ 300

F03 Round Insert Milling Cutter

RM-5R / 8R-50, 63

F03 Shoulder End Mills

SAE-20 ~ 63

F04 High-Speed Face Milling Cutter 45°

HCB-50 ~ 200

F04 High-Speed Face Milling Cutter 45°

HCN-63 ~ 200

F04 High-Speed Face Milling Cutter

FMC-50 ~ 160

F05 Round Insert End Mills

C20 / 25 / 32-4R, 5R ~

F05 Drilling & Milling Cutte

C16 / 20 / 25 / 32-DM ~

F06 High Speed Shoulder Mills

C16 / 20 / 25 / 32-SS ~

F06 High Speed Shoulder Mills

C16 / 20 / 25 / 32-SS ~

F06 High Speed Shoulder Mills

C16 / 20 / 25 / 32-SS ~

F07 High-Speed Rough End Mills

VAPX-1616 ~ 2625

F07 High-Speed Rough End Mills

VHRE- 21010 ~ 32520

F08 CRT Round Insert End Mills

CRT-6R32X / 35X150, 200

F08 Face End Mills

C-32-SE445-50, 63

F08 Shoulder Face Milling Cutter

TPS-50, 63

F09 45° Chamfering End Mills

TC12, TC40

F09 45° Chamfering End Mills

VCE-4521~4563

F09 T-Slot End Mills

VTE-2411~4922

F10 Chamfer Tool

NEW

CTH-51~314

F10 Chamfer Tool 6 pcs Kit

NEW

CTH-A

F11 Side Milling Cutter

VSM-1016 ~ 2016

F11 T-Side Milling Cutter

VTSC-416 ~ 825

F11 Shell-Type Rough Milling Cutter

VSRC-3, 80

F12 Power Super Dill 2D

VSD-

F12 Power Super Dill 3D

VSD-

F13 Cutting Holders

CGIH26 / 32-3

F13 Cutting Blocks

SUB20-26, 32 / SBU25-32

F14 Insert Type Boring Bar

NEW

BBAR-D16

F14 Insert Type Boring Bar

NEW

BBAR-D18

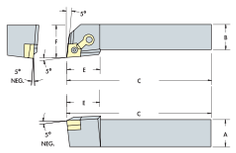
F14 Insert Type Boring Bar

NEW

BBAR-D20

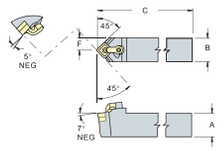
Lathe Tool Holder

F15 Tool Holders



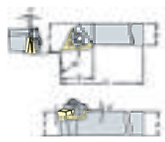
MCLN / MCRN / MTJN / MTEN

F16 Tool Holders



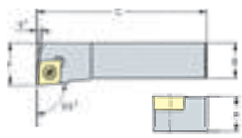
MSD / MVVN / MDJN / MVJN

F17 Tool Holders



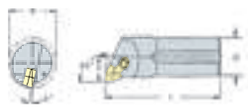
WTJN / WTEN / WTXN / WWLN

F18 Tool Holders



SCLC / SDJC / SVJC / SVVC

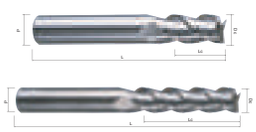
F19 Boring Bars



MWLN / MCLN / MDUN

End Mills System

F23 Universal End Mills



VE133, 135~

F24 Universal End Mills

VEA72, 82 ~

F25 Finishing End Mills

VEA74, 84 ~

F26 Ball Nose End Mills

VBB12, 80 ~

F26 End Mills For Aluminium

VEA92-3 ~ 20

F27 Solid Carbide End Mills For<48HRC

VE112, 122, 125, 127 ~

F28 Solid Carbide End Mills For<48HRC

VE114, 124, 126 ~

F29 Finishing End Mills<56HRC

VE164, 165 ~

F29 Finishing End Mills<56HRC

VE164, 165 ~

F30 Solid Carbide End Mills For<68HRC

VE166, 167 ~

F30 4 Flute Carbide End Mill Set VE124-B 12 PCS/SET In Wooden Box

VE124-B

F30 4 Flute Carbide End Mill Set VE124 18 PCS/SET In Wooden Box

VE124-A

F30 2 Flute Carbide Ball Nose End Mill Set VB222 9 PCS/SET In Wooden Box

VB222-A

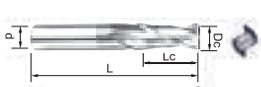
F31 Finishing End Mills

VEC40-1.0 ~ 20.0, VED40-3 ~ 20

F32 Roughing End Mills

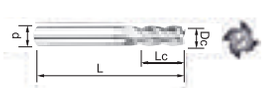
VFF08-6 ~ 20, VFF09-6 ~ 20

F32 H.S.S END MILLS



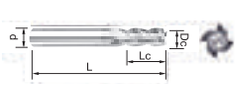
VES2-3.0 ~ 20.0

F32 H.S.S END MILLS



VES4-3.0 ~ 20.0

F32 H.S.S END MILLS



VES4-3.0 ~ 20.0

F33 Solid Carbide Ball Nose End Mills For<48HRC

VB221, 222, 232 ~

F33 Solid Carbide Ball Nose End Mills For<48HRC

VB242-3 ~ 20

F34 Ball Nose End Mills<56HRC

VB262, 263 ~

F34 Ball Nose End Mills<56HRC

VB262, 263 ~

F34 Ball Nose End Mills

VBB61-1.0 ~ 12.0

F35 Solid Carbide NC/CNC Spot Drills

VD903, 904, 913, 914 ~

F36 Twist Drills

VDD12-1.0 ~ 13.0

F37 Twist Drills

VDD13--1.0 ~ 13.0

F38 High Perfomance Drills

VDD30-2.0 ~ 13.0

F38 High Perfomance Drills

VDD30-2.0 ~ 13.0

End Mills

F39 High Perfomance Drills

VDD31-3.0 ~ 20.0

F40 High Perfomance Drills

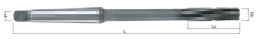
VDD32-3.0 ~ 20.0

F41 Combined Drill And Countersink

VDT08-0.50 ~ 5.00, VDTHS-1.6 ~ 6.0

F42 Machine Reamers In Steps Of 0.5mm

VR301-2.0 ~ 20.0

F43 Machine Reamers Carbide Tipped

VR303-10.0 ~ 40.0

F44 Machine Reamers Long Length

VRC02-3.0 ~ 20.0

F44 Hand Reamers-HSS

VHM-03 ~ 12

F45 Adjustable Reamers

VAR-635 ~ 7000

F45 Outside Radius Shape End Mills

VCR-010 ~ 100

F45 Outside Radius Shape End Mills

VCR-010 ~ 100

F46 Counterbore End Mills

VCB-03 ~ 18

F46 Counterbore End Mills

VCB-03 ~ 18

F46 Metal Slitting Saws

VSS7505 ~ 7520

F47 H.S.S. Drill

HSD-10, 13

F47 H.S.S. Drill

HSD-10, 13

Hand Tap

F48 Hand Taps

VHT-H3 ~ H20

F48 Hand Taps

VHT-H3 ~ H20

F48 Spiral Fluted Machine Taps

VMT-S3 ~ S20

F48 Spiral Pointed Machine Taps

VMT-M3 ~ M20

F49 Hand Taps

VHT-H3-ISO ~ H20-ISO

F49 Hand Taps

VHT-H3-ISO ~ H20-ISO

F49 Spiral Fluted Machine Taps

VMT-S3-ISO ~ S20-ISO

F49 Spiral Fluted Machine Taps

VMT-S3-ISO ~ S20-ISO

F49 Spiral Fluted Machine Taps

VMT-M3-ISO ~ M20-ISO

F49 Spiral Fluted Machine Taps

VMT-M3-ISO ~ M20-ISO

Tap Wrenches With Ratchet

F50 Tap Wrenches With Ratchet

VPW-310, 512

F50 Tap Wrenches With Ratchet

VPW-310, 512

F50 Tap Wrenches With Ratchet

VPW-118, 110 , 112, 412, 520, 927, 1332

F50 Tap Wrenches With Ratchet

VPW-118, 110 , 112, 412, 520, 927, 1332

F50 Magnetic Tapper
NEW

VTM-13

F50 Magnetic Tapper

VTM-13

F50 Magnetic Tapper

VTM-13

Shock Absorber

G01 Shock Absorber

TK-90 , 120 , 160, 200

G01 Shock Absorber

SB-4, 6, 8, 10

G01 Shock Absorber

SC-1, 2 , 3

G01 Shock Absorber

SY-8, 12 ,16

G02 Shock Absorber

NEW

VSA-25K

G02 Shock Absorber

NEW

VSA-35K, VSA-35K-6RU

G02 Shock Absorber

NEW

VSA-35K-PS,VSA-35-PS-BL

G03 Shock Absorber

VSA-150H

G03 Shock Absorber

NEW

VSA-150K

G03 Shock Absorber

NEW

VSA-150H

Slide Table

G03 Arbor Press

VAR-0, 1, 2, 3, 5

G03 Arbor Press

VARR-3, 5

G04 One Way Acme Thread Slide Table

ST-75, 100, 125

G04 One Way Acme Thread Slide Table

STA-160, 165, 200, 205, 300

G04 Vertical Dovetail Slide Table

SE-100, 150, 200, 250

G05 Precision Boring/ Mining Spindle Head

SH03, 04, 30, 40, 50

G05 Precision Boring/ Mining Spindle Head

SH03, 04, 30, 40, 50

G05 Precision Boring/ Mining Spindle Head

SH03, 04, 30, 40, 50

G05 Precision Boring/ Mining Spindle Head

SH30A, 30B, 40A, 40B

G05 Precision Boring/ Mining Spindle Head

SH30A, 30B, 40A, 40B

Handle System

G06 Flat End Movable Handle

NEW

VFE-10, 83, 8, 165

G06 Ellipse Movable Handle

NEW

VEM-10, 83, 8, 6

G06 Ball Knobs

VKB-6AA ~ 12BA

G06 Hand Knobs

VKB-8K, 8KL

G07 Adjustable Hand Levers

VAH-6, 8, 10, 12

G07 Adjustable Hand Levers

VAH-620 ~ 1020

G07 Revolving Handles

VRL-8H, 8HA, 10H, 10HA, 10HB

G07 360° Swivelling Lock Handle

A Type B Type

VSA-1 ~ 4, VSB-1 ~ 4

G08 Crank Handle

VAH-21~23,31~32

G08 Shoulder Bolt

VLS-1320~1840

G08 Washer

VLE-W226~W3515

G08 Lifting Eye Bolts

VLE-6A ~ 24A

G09 Ball Pluger Screw-socket & Slotted

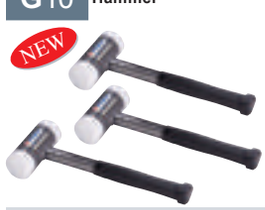
VBP-03I ~ 16I, VBP-03H ~ 16H

G10 PU-Hammer Series

VHM-38, 46, 50, 58, 60

G10 Hammer

NEW



VHM-25PE ~ 60PE

Sawing Machine

G11 Universal Drill & Cutter Grinder

VDG-32N

G11 Horizontal Band Saws

HBS-7

G12 Horizontal Band Saws

HBS-7CE

G12 Saw Blade

HBS-106 ~

G12 Saw Blade

HBS-106 ~

Air Die Tool System

G13 Air Die Tool

VAG-500, 601A

G13 Air Die Tool

VAG-500, 601A

G13 Air Die Tool

VAG-701

G13 Air Die Tool

VAG-609

G13 Air Die Tool

VAG-8241

G14 Air Die Tool

VAG-604

G14 Air Die Tool

VAG-605

G14 Air Die Tool

VAG-8242

G14 Air Die Tool

VAG-932

G15 Air Die Tool

VAG-318

G15 Air Die Tool

VAG-F30

G15 Air Die Tool

VAG-310

G15 Air Die Tool

VAG-320

G16 Air Die Tool

NEW

VAG-030

G16 Air Die Tool

NEW

VAG-050

G16 Air Die Tool

NEW

VAG-070

G16 Air Die Tool

NEW

VAG-070H

VERTEX

Air Die Tool

G17 Abrasive Mounted Point & Wheel For Air Tool

WA-303A ~ 310A

G17 Abrasive Mounted Point & Wheel For Air Tool

WA-303A ~ 310A

G17 Abrasive Mounted Point & Wheel For Air Tool

WF-304 ~ 312

G17 Abrasive Mounted Point & Wheel For Air Tool

WF-304 ~ 312

G17 Abrasive Mounted Point & Wheel For Air Tool

WR-304 ~ 310

G17 Abrasive Mounted Point & Wheel For Air Tool

WR-304 ~ 310

G17 Abrasive Mounted Point & Wheel For Air Tool

WE-303 ~ 310

G17 Abrasive Mounted Point & Wheel For Air Tool

WE-303 ~ 310

G17 Abrasive Mounted Point & Wheel For Air Tool

WF-30P

G17 Abrasive Mounted Point & Wheel For Air Tool

WF-30S

G17 Abrasive Mounted Point & Wheel For Air Tool

WF-30C

G17 Handy Sponge Saner

VSS-436

G17 Handy Sponge Saner

VSS-560

G18 Diamond Tools For Air Tool

WG-30D

G18 Diamond Tools For Air Tool

WG-30D

Carbide Burrs

G19 Carbide Rotary Burrs NEW

VRB-C6, C8, C10, C12

G19 Carbide Rotary Burrs NEW

VRB-C6, C8, C10, C12

G19 Carbide Rotary Burrs NEW

VRB-S6, S8, S10, S12

G19 Carbide Rotary Burrs NEW

VRB-S6, S8, S10, S12

G19 Carbide Rotary Burrs NEW

VRB-A6, A8, A10, A12

G19 Carbide Rotary Burrs NEW

VRB-A6, A8, A10, A12

G20 Carbide Rotary Burrs NEW

VRB-P6, P8, P10, P12

G20 Carbide Rotary Burrs NEW

VRB-P6, P8, P10, P12

G20 Carbide Rotary Burrs NEW

VRB-CR6, CR8, CR10, CR12

G20 Carbide Rotary Burrs NEW

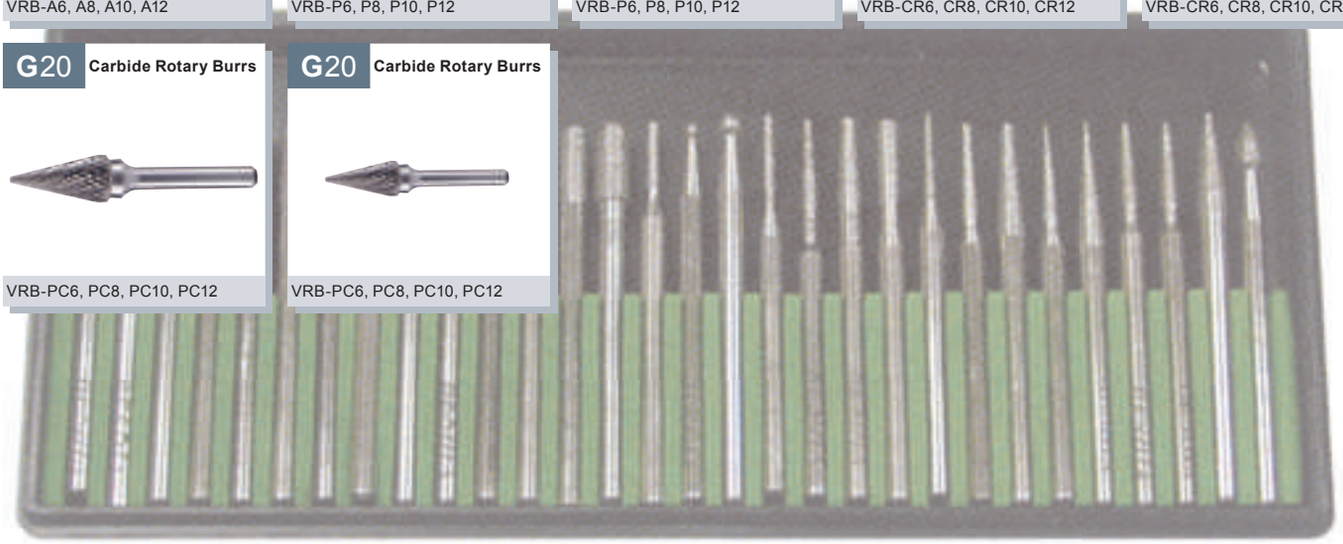
VRB-CR6, CR8, CR10, CR12

G20 Carbide Rotary Burrs

VRB-PC6, PC8, PC10, PC12

G20 Carbide Rotary Burrs

VRB-PC6, PC8, PC10, PC12



VERTEX

Screw Driver & Pliers Series

H01 Screwdriver Blades & Tips

NEW

INFO.

H02 Screwdriver

NEW

TSD-S / P ~ , TSP-P / T ~

H02 Insulated Screwdriver

TIS-S / P / PZ ~

H03 L Type Key Set

THB-1, THB-2

H03 L Type Key Set

THB-11, 12, 13, 14

H03 Pliers

TPL-D1, C1, L1, B1, WS, WP

H03 Insulated Pliers

TPI-ID, IC, IL, IB, IWS, IWP

H04 T-Bar Set

THB-51, 52

H04 T-Bar Nutdrwer Set

THB-53

H04 Hex-T Key

NEW

THB-1.5 ~ 10

Jaw Clamp

H05 Jaw Clamp

NEW

HJC-VS30 ~ VS150

H05 Jaw Clamp

NEW

HJC-H25 ~ H150

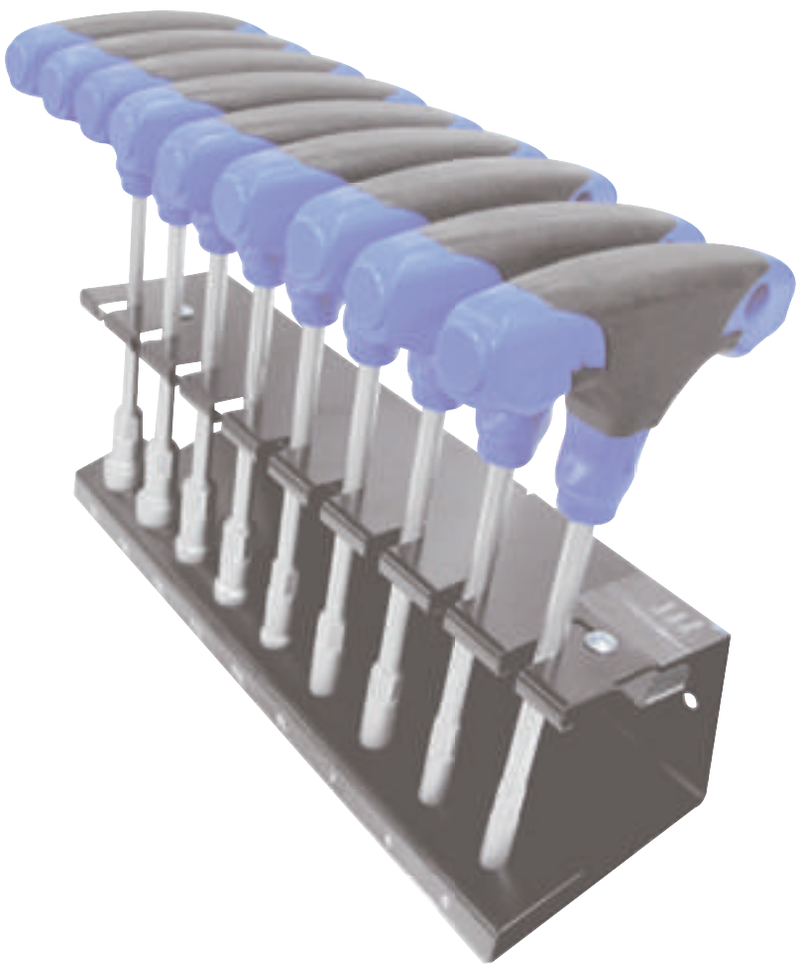
Key Set

H06 Carbon Steel Punches

VNP-30, 40, 50, 60, 80, 100

H06 Carbon Steel Punches

VLP-30, 40, 50, 60, 80, 100



Goggles Series

I01 Welding Light Goggles

SWLG-040

I01 Welding Light Goggles

SWLG-041

I02 Safety Goggles

SDG-01

I02 Safety Goggles

SDG-05

I02 Safety Goggles

SDG-10

I03 Welding Light Helmets

WLH-01

I03 Face & Forehead Shield

FHS-01

I03 Safety Helmets

SHC-01

I03 Safety Helmets

SHC-02

Ear Hearing

I04 Ear Hearing Protection

EHP-1

I04 Ear Hearing Protection

EHP-5

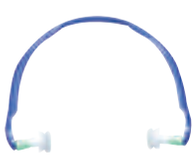
I04 Ear Hearing Protection

EHP-11

I04 Ear Hearing Protection

SEHP-15

I04 Ear Hearing Protection



SEHP-19

VERTEX

Drill Grinder

J1 Precision Drill Grinder

VDG-13A

J1 Precision Drill Grinder

VDG-13A

J1 Precision Drill Grinder

VDG-25

J1 Precision Drill Grinder

VDG-30

J1 Tooling Rack Stand

NEW

VTC-20

Mill Grinder

J5 Precision End Mill Grinder

VEG-13A

J5 Precision End Mill Grinder

VEG-13A

J5 Precision End Mill Grinder

VEG-25A

J5 Tooling Rack Stand

NEW

VTC-20

J5 Tooling Rack Stand

VTC-20

Rods Cutting

J9 Rods Cutting-Off Unit

NEW

VEC-20

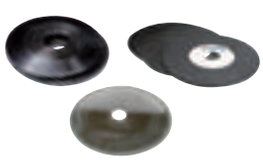
J9 Rods Cutting-Off Unit

VEC-20

J9 Rods Cutting-Off Unit

VEC-20

J10 Rods Cutting-Off Unit



Accessories for VEC-20

J11 Precision End Mill Grinder

VEG-13

THUMB-INDEX

#

2 Flute carbide Ball Nose End Mill Set VB222 Wooden Box With----F24
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1/2" System----B68
3D-Taster----C71
3 Jaw Punch Former----B3
3 Jaw Punch Former With Sine Plate----B5
3-Jaw Wedge Type Through-Hole Power Chuck (Without Adaptor)----E19
3-Jaw Wedge Type Non Through-Hole Power Chuck (Without Adaptor)----E21
3 Way Angle Milling Vise----A22
3/4" System----B70
3/8" System----B70
360º Swivel Lock Handle----G08
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Adjustable Hand Levers----G07
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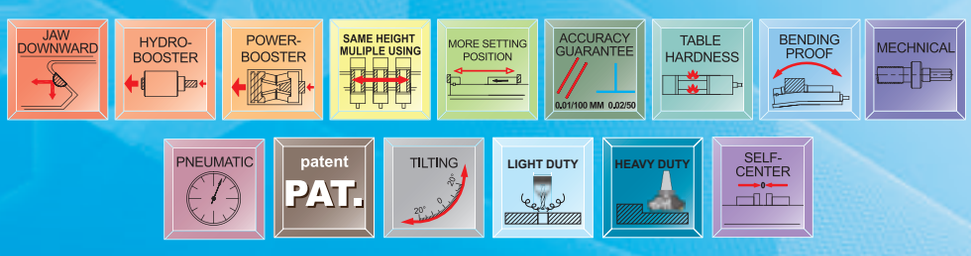
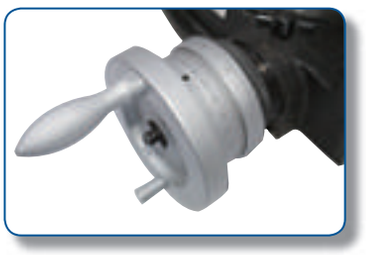
MILLING MACHINE
ACCESSORIES

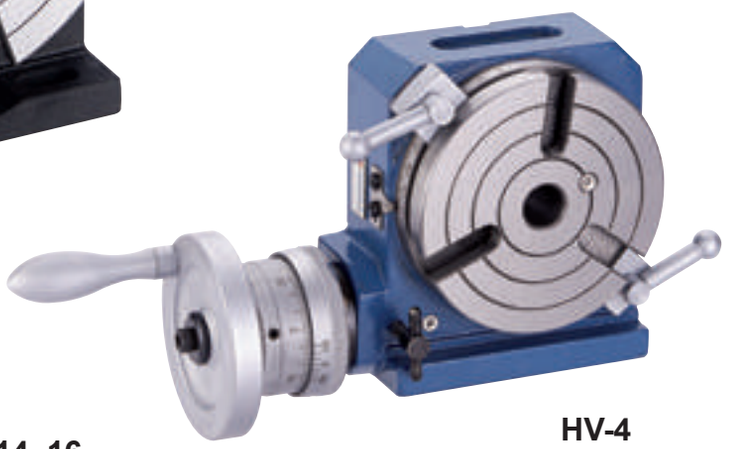


A1-A4	HORIZONTAL / VERTICAL ROTARY TABLE
A5–A6	TILTING ROTARY TABLE
A7~A8	UNIVERSAL DIVIDING HEAD
A9~A10	INDEXING SPACER
A11	INDEX TABLE
A12	ECONOMICAL TYPE RAPID INDEX / SIMPLE ROTARY CHUCK
A13	UNIVERSAL ANGLE CHUCK / ANGLE COLLET CHUCK
A14	UNIVERSAL TILTING ROTARY TABLE
A15~A18	HYDRAULIC MACHINE VISE
A19~A22	MILLING VISE / QUICK INDEX HOLDER / SUPER OPEN VISE
A23~A24	SELF CENTERING VISE
A25	TILTING QUICK VISE
A26~A28	MODULAR PRECISION MACHINE VISE
A29	LOCK~FIXED II PRECISION MACHINE VISE / FREE ANGLE VISE
A30	DOUBLE CLAMP VISE / COMPOUND PRECISION VISE
A31~42	MC POWER VISE
A43	PRECISION MC POWER VISE
A44	PRECISION COMPACT MC VISE
A45~48	NC HYDRO MACHINE VISE
A49	SUPER~HIGH JAW MC VISE
A50	PRECISION PNEUMATIC ANG~FIXED POWER VISE
A51	CONVENIENCE TYPE MACHINE VISE / SUPER OPEN ANG-FIXED MACHINE VISE
A52	QUICK SETTING VISE / HORIZONTAL MOVING QUICK VISE
A53	MILLING VISE
A54~A55	FREE VISE / DRILL VISE QUICK / BENCH VISE
A56~A57	UNIVERSAL WORK STOPPER / T SLOT CLAMP / UNIVERSAL VISE JAWS WITH WORK STOPPER / UNIVERSAL JAWS WITH SOFT STOPPER / PRISMA JAW
A58	SCREW GUIDE BLOCK
A59~A64	52-PCS STEEL CLAMPING KIT / T SLOT NUT COUPLING NUT / FLANGE NUT CLAMPING STUDS STEP CLAMP / STEP BLOCK / C CLAMP CAST STEEL / SCREW JACK
A65~A68	GROUND PARALLELS
A69~A70	HEAVY DUTY TILTING PLATE / LIGHT DUTY TILTING PLATE
A71 –A74	ANGLE PLATE / CROSS TABLE
A75~A78	U~CLAMP / PIVOT CLAMP / HAND DRIFT / EYE SHIELD / MILLING TABLE SLOT COVER / VEE BLOCKS / AUTO CENTER PUNCH / DRAW BAR / EXPANDABLE MACHINE GUARD COVER / COLLET RACK / TABLE SLOT PLATE / PARTS STORAGE
A79	RIGHT ANGLE HEAD / HORIZONTAL MILLING ATTACHMENT
A80~A82	POWER TABLE FEED / AIR POWER DRAWBAR / PRECISION SLOTTING HEAD
A83~A84	UNIVERSAL CUTTER GRINDER
A85~A88	CHAMFERING & DEBURRING UNIT / EJECTOR PIN CUTTING~OFF UNIT / RODS PRECISION CUTTING~OFF AND END SURFACE GRINDING UNIT
A89~A100	DUSTPROOF HALOGEN LAMP BEAM / CONCENTRATE LED LAMP
A101~A102	WATER COOLANT PUMP
A103~A104	HAND LUBRICATION PUMP
A105~A107	SHOCK ABSORBER

Horizontal / Vertical Rotary Table

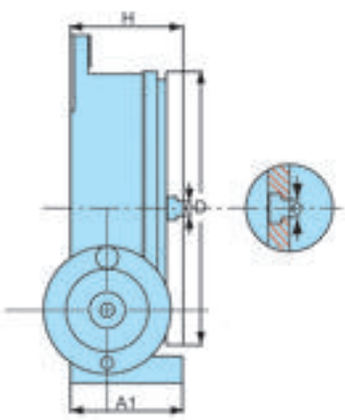


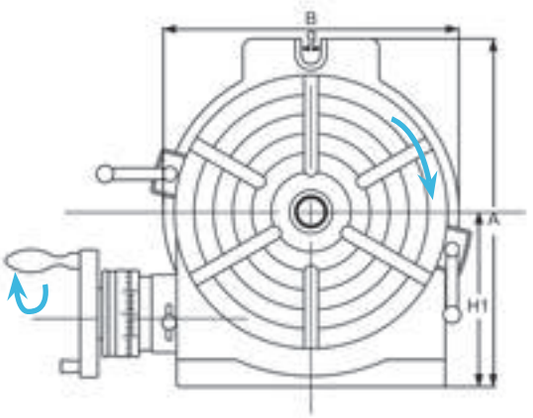
New Model



HV-4

HV-6, 8, 10, 12, 14, 16





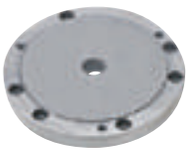
SPECIFICATIONS	HV-4,6	HV-8,10, 12,14,16
Degree per one handle rotation	4°	4°
Scale of micro collar	2'	1'
vernier reading	20"	10"
Gear ratio	1:90	1:90

Specifications

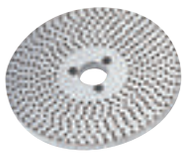
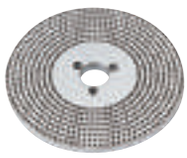
ORDER NO.	Table			Base dimension			Width of T-slot		Bolt slots	The Load Capacity For Rotary Table		Center sleeve	Gross Weight(kg) wooden case(W) Carton(C)		Meas. CFT	CODE NO.
	Outer diameter		Height													
	A1	D	H	H1	A	B	e	Type	g	Horizontal	Vertical		N.W.	G.W.		
HV-4	58	110	72	80	138	118	11	⊕	/	35 KGS	18 KGS	MT-2	7KGS	7.5KGS (C)	0.3	1001-000
HV-6	78	150	80	102	205	163	11	⊕	17	40 KGS	20 KGS	MT-2	12.1KGS	12.7KGS (C)	0.4	1001-001
HV-8	100	205	102	135	265	219	14	⊕	17	80 KGS	40 KGS	MT-3	24.7KGS	26.2KGS (C)	0.8	1001-002
HV-10	106	254	109	163	321	276	14	⊛	17	90 KGS	50 KGS	MT-3	35.5KGS	37.3KGS (C)	2	1001-003
HV-12	123	305	125	194	388	330	16	⊛	18	120 KGS	60 KGS	MT-4	58.7KGS	69.8KGS (W)	2.6	1001-004
HV-14	123	353	125	225	445	389	16	⊛	18	130 KGS	70 KGS	MT-4	76.61KGS	90.3KGS (W)	3.2	1001-005
HV-16	128	406	130	255	500	435	16	⊛	18	140 KGS	70 KGS	MT-4	106.4KGS	123.1KGS (W)	4.2	1001-006

Horizontal / Vertical Rotary Table

Optional Accessories
(Details on page A3)


Flange

Tailstock



Dividing Plate

3-Jaw Chuck For Rotary Table, Indexer

- Detail specification & Order NO. shown on page E9

The Fixing Hole is From Front

ORDER NO.

VSC-5A	SUIT FOR BS-0 OR HV-6, VUT-6, VU-150
VSC-6A	SUIT FOR BS-1 OR HV-8, 10, VUT-6, VU-200
VSC-7A, 8A	SUIT FOR BS-2 OR HV-10, 12, 14, VUT-10, 12
VSC-10A	SUIT FOR HV-14, 16

Reversible type

- For indexer, The fixing hole is from front.

ORDER NO.

VSK-6A	SUIT FOR CS-6, CC-6
VSK-8A	SUIT FOR CS-8, CC-8
VSK-12A	SUIT FOR CC-12

EXAMPLE :

W/O Flange

W/ Flange

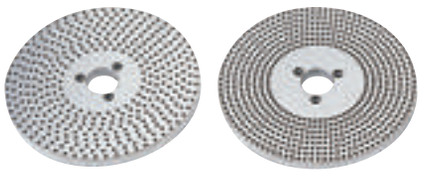
W/ Dividing Plate

- Our Tables are made of high density Meehanite inspect angle to assure the excellent quality and durableness.
- Use excellent machining center to process. Spindle end be applied accuracy bearing. Can be assured to keep very steady under load cutting.
- Worm is hardened and ground. The ratio is 90:1. The work table is graduated a full 360º so that one turn of the handle moves the table through 4º. Micro collar is graduated in steps of 1'min. And vernier scale makes settings down to 10 seconds possible.
- These Rotary Tables are popular for their excellent performance, practical design and reasonable cost. They are widely used for circular cutting work, angle setting, boring, spot-facing and similar work.
- Indexing accuracy of direct Indexing mechanism Maximum cumulative spacing error 1 minute.
- Please choose Front-Lock 3 Jaw chuck only.

ITEM NO.	TESTING OBJECTIVE	VARIATION(PER100mm) MAXIMUM TESTED
1	FLATNESS OF CLAMPING SURFACE(CONCAVE)	±0.015
2	PARALLELISM OF CLAMPING SURFACE TO BASE	±0.02
3	SQUARENESS OF CLAMPING SURFACE TO ANGLE FACE	±0.02
4	TRUE RUNNING OF CLAMPING SURFACE	±0.015
5	TRUE RUNNING OF CENTER HOLE MEASURED AT HOLE EDGE	±0.02

Optional For Rotary Table

A. DIVIDING PLATES DP-2, 3, 4, 5



*DP-2 set include index plate. crank handle, 3 pcs screw, sector, & U Washer.
1 carton with 1 set. Gross weight: 3.5kgs.
Meas.: 0.13 CFT.
Number of the holes of Dividing Plates

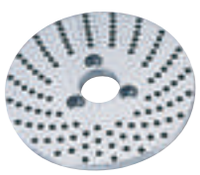
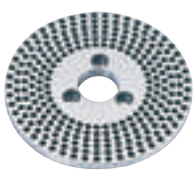
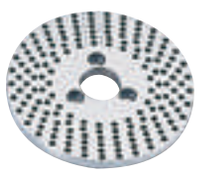
ORDER NO.	SUIT FOR MODEL	WEIGHT kgs	CODE NO.
*DP-2	for HV-8, VU-200	4.5	1001-031
DP-3	for HV-10, 12, 14, 16, VUT-10, VUT-12	4.6	1001-032
DP-4	for CS-6, 8	4.6	1001-033
DP-5	for VU-300	4.6	1001-034

EXAMPLE :

Holes Number

A-Plate	26, 30, 34, 38, 41, 44, 47, 51, 57 28, 32, 37, 39, 43, 46, 49, 53, 59
B-Plate	61, 67, 71, 77, 81, 87, 91, 97 63, 69, 73 ,79, 83, 89, 93, 99

A. DIVIDING PLATES DP-1

Holes Number

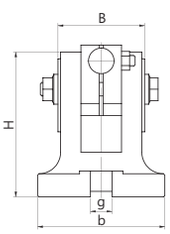
A-Plate	15, 16, 17, 18, 19, 20
B-Plate	21, 23, 27, 29, 31, 33
C-Plate	37, 39, 41, 43, 47, 49

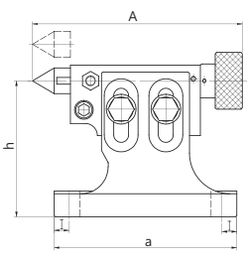
ORDER NO.	SUIT FOR MODEL	WEIGHT kgs	CODE NO.
*DP-1	for HV-4, HV-6, VUT-6, VU-100, 150	1.4	1001-030

EXAMPLE :

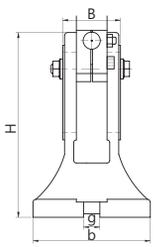
B. TAILSTOCK

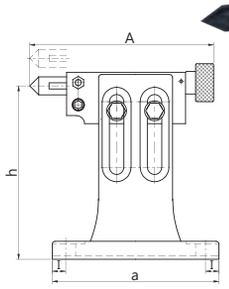
TS-1





TS-1





TS-2~TS-4

TS-3

Tailstock

Unit:mm

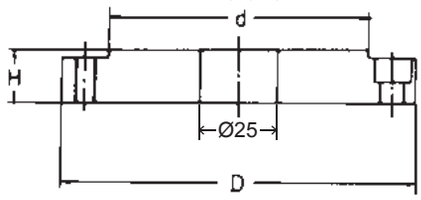
ORDER NO.	adjustable(h) highest	adjustable(h) lowest	A	B	H	l	a	b	g	SUIT FOR MODEL	G.W. kgs	Meas. CFT	CODE NO.
TS-1	108	80	155-180	64	107	11	134	94	16	HV-4, HV-6, VSI-4, VSI-5, BS-0, VUT-6, VU-100, VU-150	3.9	0.4	1001-022
TS-2	150	115	170-195	64	150	11	155	110	16	BS-1, CC-6 CS-6, HV-8	5.5	0.4	1001-023
TS-3	205	130	210-235	64	205	13	185	138	16	CS-8, HV-10, HV-12, CC-8, VUT-10, VUT-12, VU-200	8.1	0.4	1001-024
TS-4	260	182	210-235	75	260	17	205	144	16	HV-14, CC-12, HV-16	11.9	0.7	1001-025

Optional For Rotary Table

C. FLANGE

FLange for VSC-A TYPE

FLT-103 For VSC-3F	FLT-103A For VSC-3A
FLT-104 For VSC-4F	FLT-104A For VSC-4A
FLT-0 For VSC-5F	FLT-0A For VSC-5A
FLT-1 For VSC-6F	FLT-1A For VSC-6A
FLT-2 For VSC-7F	FLT-2A For VSC-7A
FLT-3 For VSC-8F	FLT-3A For VSC-8A



d FOR 3 JAW CHUCK

Flange

Unit:mm

ORDER NO.	D	d	H	SUIT FOR MODEL	WEIGHT kgs	CODE NO.
FLT-103	90	60	20	HV-4 VU-100	0.71	1001-036
FLT-104	113	80	20	HV-6 VU-150, VUT-6	1.0	1001-037
FLT-0	138	100	20	HV-6, 8 VU-150,200, VUT-6	1.9	1001-040
FLT-1	170	130	21	HV-8, 10 VU-200, VUT-10	3.3	1001-041
FLT-2	195	155	24	HV-10, 12, 14 VUT-10,12	5.2	1001-042
FLT-3	210	160	24	HV-10,12, 14, 16 VUT-12	4.9	1001-043

Unit:mm

ORDER NO.	D	d	H	SUIT FOR MODEL	T-NUT SIZE	BOLT	WEIGHT kgs	CODE NO.
FLT-103A	90	55	20	HV-4 VU-100	M8x10 3412M	M8x20L	0.71	1001-044
FLT-104A	113	72	20	HV-6 VU-150, VUT-6	M8x10 3412M	M8x20L	1.0	1001-045
FLT-0A	138	100	20	HV-6, 8 VU-150,200, VUT-6	M8x10 3412M	M8x20L	1.9	1001-046
FLT-1A	170	130	21	HV-8, 10 VU-200, VUT-10	M10x14 SPECIAL SIZE	M10x25L	3.3	1001-047
FLT-2A	195	155	24	HV-10, 12, 14 VUT-10,12	M10x14 SPECIAL SIZE	M10x25L	5.2	1001-048
FLT-3A	210	165	24	HV-10,12, 14, 16 VUT-12	M10x16 SPECIAL SIZE	M10x30L	4.9	1001-049

D. 3 JAW CHUCK

3-Jaw Chuck For Rotary Table, Indexer Economical Type

● Detail specification & Order NO. shown on page E9

ORDER NO.

VSC-3A SUIT FOR HV-4, VU-100(FLT-103A)
VSC-5A SUIT FOR BS-0 OR
HV-6, VUT-6, VU-150(FLT-0A)
VSC-6A SUIT FOR BS-1 OR
HV-8, 10, VUT-6, VU-200(FLT-1A)
VSC-7A, 8A SUIT FOR BS-2 OR
HV-10, 12, 14, VUT-10, 12(FLT-2A,FLT-3A)
VSC-10A SUIT FOR HV-14, 16

ORDER NO.	D-Size	d1	d2	THREAD	SUIT FOR MODEL
VSC-5A	130mm(5”)	115	100	3-M8	BS-0, HV-6,VUT-6, VU-150
VSC-6A	160mm(6”)	142	130	3-M8	HV-8, HV-10,VUT-6, VU-200
VSC-7A	190mm(7 1/2”)	172	155	3-M10	BS-2, HV-10,12,14, VUT-10,12
VSC-8A	200mm(8”)	180	165	3-M10	
VSC-10A	250mm(10”)	225	206	3-M12	HV-14,16

Reversible type

For indexer, The fixing hole is from front.

ORDER NO.

VSK-6A SUIT FOR CS-6, CC-6
VSK-8A SUIT FOR CS-8, CC-8
VSK-12A SUIT FOR CC-12

ORDER NO.	D-Size	d1	d2	THREAD	SUIT FOR MODEL
VSK-6A	160mm(6”)	142	130	3-M8	CS-6, CC-6
VSK-8A	200mm(8”)	180	165	3-M12	CS-8, CC-8
VSK-12A	315mm(10”)	285	260	3-M16	CC-12

Tilting Rotary Table

VERTEX

NEW

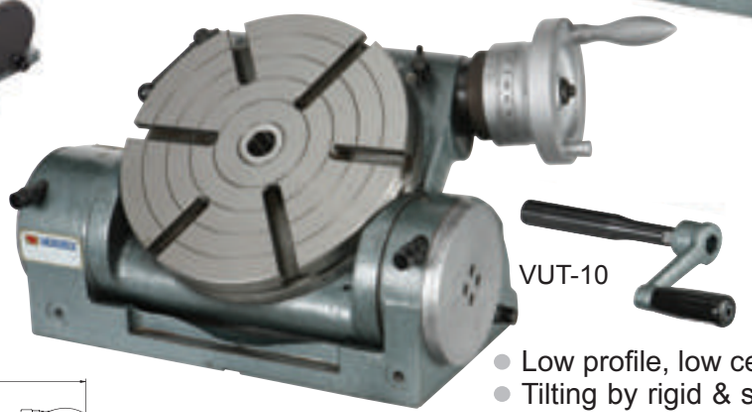
Heavy Duty Type, Rigid & Strong Design

VUT-6

VUT-12

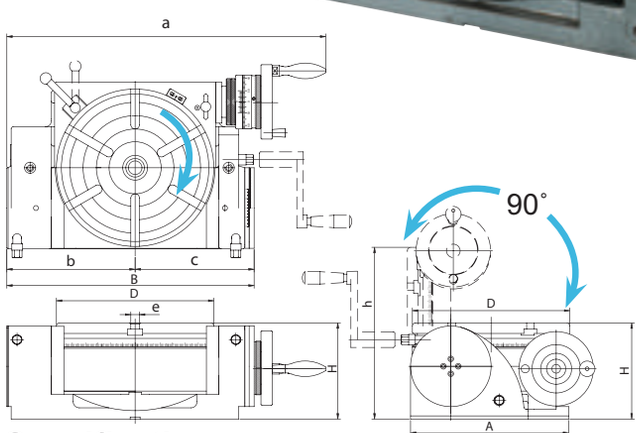
VUT-6

Table Tilting Handle



VUT-10

New Model



- Low profile, low center height.
- Tilting by rigid & strong design, 2 supporter & rigid clamping system construction.
- Minimum set-up time.
- Tilting angle can adjusted by worm & worm gear system.
- Accurate and built for use in milling, boring and other machines.
- Indexing, facing and other operations can be done rapidly with extreme precision.
- Worm shafts are hardened and ground.
- Indexing can be done with optional dividing plates.

HEAVY DUTY

Specifications

ORDER NO.	TABLE DIAMETER & TABLE HEIGHT			MOUNTING SURFACE		OVER ALL SIZE			T-SOLT WIDTH	CENTER HOLE	CENTER HEIGHT (Tilted at 90°)	WEIGHT (kgs)	CODE NO.
	D	H	h	A	B	a	b	c	e				
VUT-6	150	115	165	180	268	380	143	125	11	MT-2	90	23.5	1001-014
VUT-10	250	155	275	255	397	495	210	187	14	MT-3	150	75.5	1001-015
VUT-12	300	178	319	300	447	551	235	212	16	MT-4	169	108	1001-016

OPTIONAL : Detail see A3

FLANGE & DP-1, DP-3

DIVIDING PLATES

ORDER NO.	SUIT FOR MODEL	WEIGHT (kgs)	CODE NO.
DP-1	for VUT-6	1.4	1001-030
DP-3	for VUT-10, VUT-12	4.6	1001-032

MAIN SPECIFICATIONS		VUT-6	VUT-10 VUT-12
TILTING	Degree per one handle rotation	6°	1°
	vernier reading	1'	2'
	Scale of micro collar	5'	1'
TABLE	Degree per one handle rotation	4°	4°
	Scale of micro collar	2'	1'
	vernier reading	20"	10"
	Gear ratio	1:90	1:90

TAILSTOCK

TS-3

Unit:mm

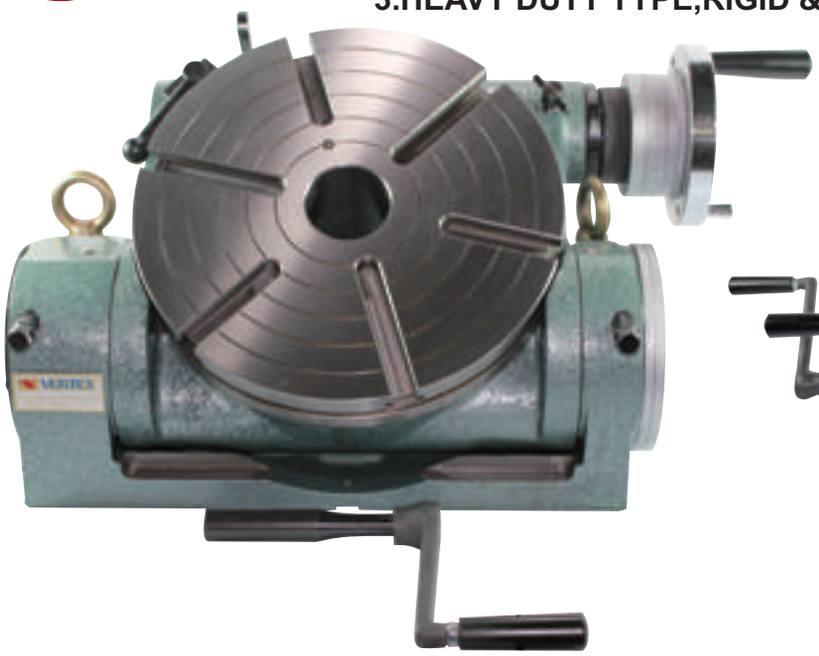
ORDER NO.	Adjustable		SUIT FOR MODEL	G.W. (kgs)	MEAS CFT	CODE NO.
	highest	lowest				
TS-1	108	80	VUT-6	3.9	0.4	1001-022
TS-3	205	130	VUT-10, VUT-12	8.1	0.4	1001-024

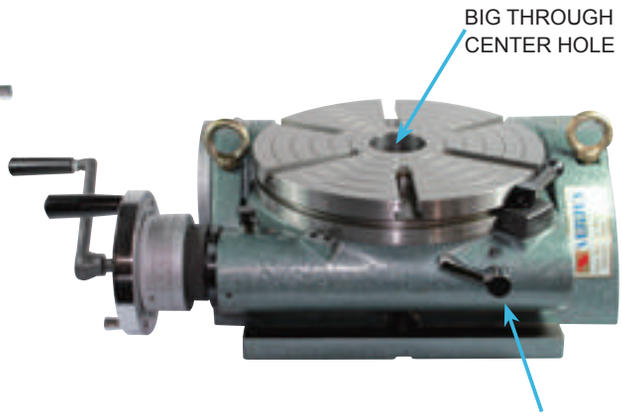
Multiple Tilting Rotary Table

VERTEX

NEW

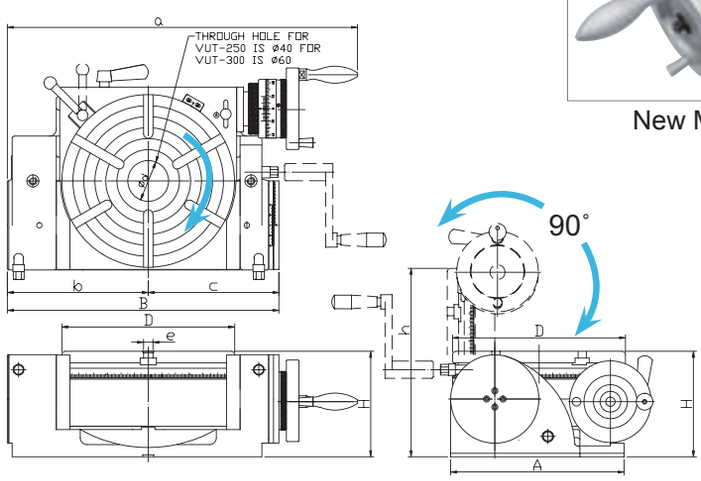
1.BIG THROUGH HOLE DESIGN TYPE 250 IS Ø45, TYPE 300 IS Ø65
2.WITH 15˚, 24 DIVISION DIRECT INDEX.
3.HEAVY DUTY TYPE,RIGID & STRONG DESIGN.





New Model

- The Feature is same as VUT-6, 10, 12 type.
- For the long bar & other work piece need BIGGER BORE size.
- Multiple purpose.
- Fast dividing function : 15˚ division by handle x 24/360˚
- Improve efficiency, save cost.
- Upgrade your millig machine to speed up production.

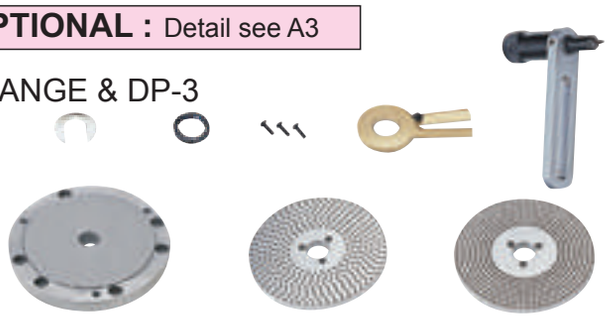


Specifications

ORDER NO.	TABLE DIAMETER & TABLE HEIGHT			MOUNTING SURFACE		OVER ALL SIZE			T-SOLT WIDTH	CENTER HOLE	CENTER HEIGHT (Tilted at 90º)	WEIGHT (kgs)	CODE NO.
	D	H	h	A	B	a	b	c	e				
VUT-250	250	155	275	255	397	495	210	187	14	Ø45	150	75.5	1001-015A
VUT-300	300	178	319	300	447	551	235	212	16	Ø65	169	108	1001- 016A

OPTIONAL : Detail see A3

FLANGE & DP-3



TS-3

DIVIDING PLATES

ORDER NO.	SUIT FOR MODEL	WEIGHT (kgs)	CODE NO.
DP-3	for VUT-250,VUT-300	4.6	1001-032

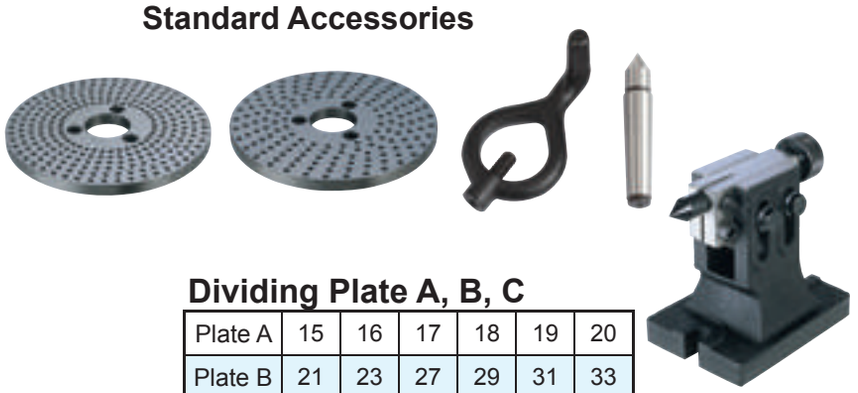
TAILSTOCK

Unit:mm

ORDER NO.	Adjustable		SUIT FOR MODEL	G.W. (kgs)	MEAS CFT	CODE NO.
	highest	lowest				
TS-3	205	130	VUT-250,VUT-300	8.1	0.4	1001-024

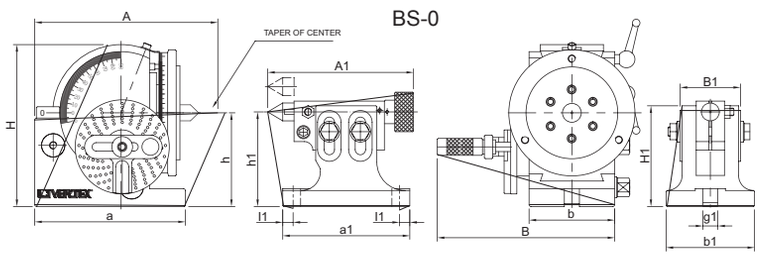
Semi-Universal Dividing Head

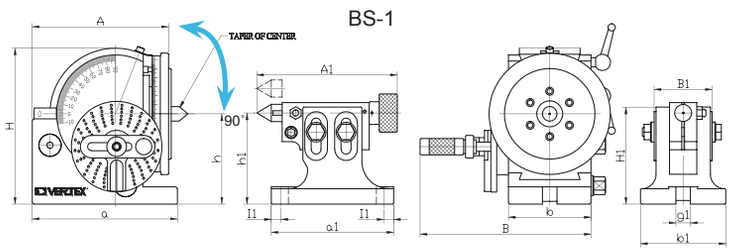
Standard Accessories



Dividing Plate A, B, C

Plate A	15	16	17	18	19	20
Plate B	21	23	27	29	31	33
Plate C	37	39	41	43	47	49





BS-0,1 (Head-stock):

Unit:mm

ORDER NO.	A	B	H	l	a	b	g	h	TAPER OF CENTER	SPINDLE THROUGH HOLE	CODE NO.
BS-0	177	188	173	13	160	91	16	100	MT-2	18	1001-050
BS-1	245	230	220	19	205	114	16	128	MT-3	20	1001-051

BS-0,1 (Tail-Stock):

Unit:mm

ORDER NO.	A1	B1	H1	l1	a1	b1	h1	g1	N.W. (KG)
BS-0	155-180	64	107	11	134	94	80-108	16	4
BS-1	170-195	64	150	11	155	110	150-115	16	5.3

- Dividing Head can divide in any angle by the direct, indirect, or different methods. The ratio between the warm and the warm gear is 40:1.Indirect indexing of all numbers from 2 to 50 and many numbers up to 380 possible
- Hardened and ground spindle is rigidly held in a taper roller bearing. Worm is hardened and ground also.
- The swivel head can be locked of any angle from 10º below horizontal to 90º vertical-precision fitting to base assures smooth rotation.
- All models have threaded spindle nose and 24 hole dividing plate with easy conversion to fast direct indexing on numbers 2, 3, 4, 6, 8, 12, and 24.
- Accurate precision, little backlash, fine appearance and strong structure so can assure smooth rotation.

BS-0-J-5 is
BS-0 fitted with 5″ 3-Jaw Chuck

BS-2A-J-8
The Chuck Fixing Hole Is From Front.

OPTIONAL

The Chuck Fixing Hole Is From Front.
F. TYPE

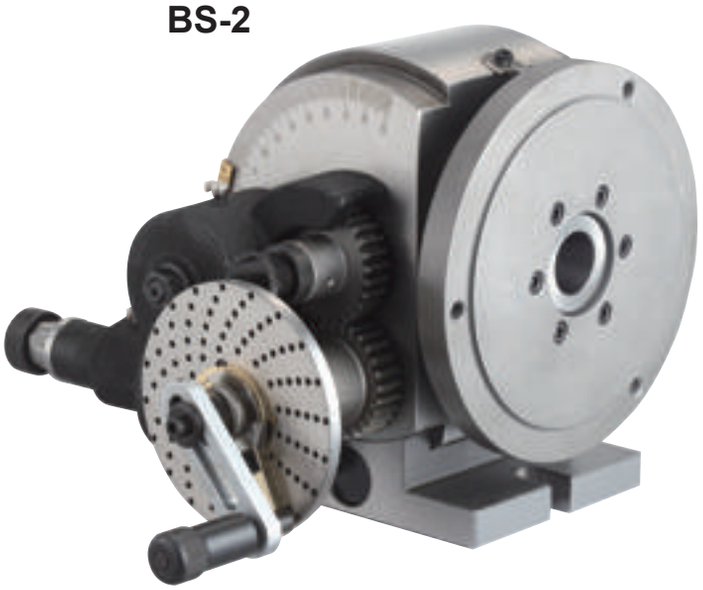
BS-0T $1^1/_2$ - 8TPI TYPE
BS-0T $1^1/_8$ - 12TPI TYPE
BS-1T $1^1/_2$ - 8TPI TYPE
Call VERTEX to check old model's stock.

ORDER NO.	N.W. (kgs)	G.W. (kgs)	Meas. CFT	Applicable Chuck	CODE NO.
BS-0	19	(C)20	0.8	5" (Ø130mm)	1001-050
BS-1	32	(C)33	1.3	6" (Ø160mm)	1001-051
BS-0-J-5	24	(C)25	0.8	WITH 5″ CHUCK	1001-053
BS-1-J-6	42	(C)45	1.3	WITH 6″ CHUCK	1001-054

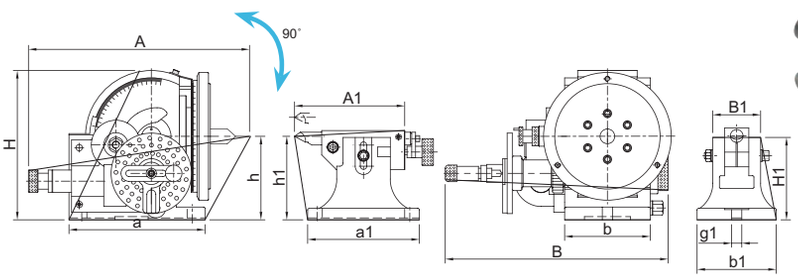
Universal Dividing Head

VERTEX

BS-2



Standard Accessories



BS-2-J-8
THE CHUCK FIXING HOLE IS FROM FRONT.

BS-2T TYPE
Thread Spindle: 2 1/4" - 8tpi
Call To Check Old Model's Stock.

BS-2, 2A (Head-stock)

Unit:mm

ORDER NO.	A	B	H	l	a	b	g	h	Taper of center	SPINDLE THROUGH HOLE	CODE NO.
BS-2	359	340	235	20	212	135	16	134	MT-4	25	1001-052
BS-2A	285	202	237	20	213	134	16	134	MT-4	25	1001-057

ORDER NO.	WITH CHUCK	WEIGHT (kgs)	CODE NO.
BS-2		65	1001-052
BS-2-J-6	6″	78.5	1001-055
BS-2-J-8	8″	80	1001-056
BS-2A		47.5	1001-057
BS-2A-J-6	6″	57	1001-058
BS-2A-J-8	8″	63	1001-059

BS-2, 2A (Tail-stock)

Unit:mm

ORDER NO.	A1	B1	H1	l1	a1	b1	h1	g1	N.W. (KG)
BS-2	135-175	75	130	15	175	125	120-145	16	10
BS-2A	218	74	139	15	175	124	134	16	10

ORDER NO.	Gross Weight kg	Meas. CFT	Applicable Chuck
BS-2	(C)65	3.4	6″ OR 8″ F TYPE
BS-2A	(C)47.5	1.24	6″ OR 8″ F TYPE

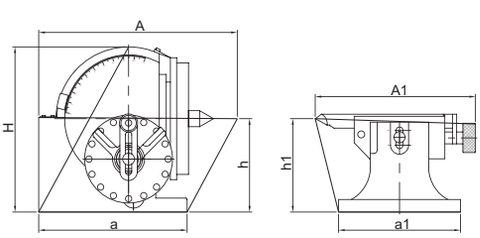
Semi-Universal Dividing Head BS-2A

NEW

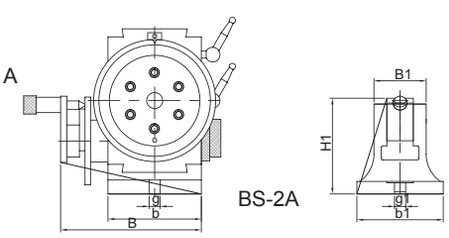
BS-2A

BS-2A
Semi-UNIVERSAL DIVIDING HEAD W/O CHANGE GEAR TYPE

Standard Accessories



BS-2A COMES WITH A TAIL STOCK, A SET OF DIVIDING PLATE, A SET OF CARRIER CLAMP, A 3 JAW PLATE, A CENTER
BS-2A BODY STRUCTURE IS SAME AS BS-2 WITHOUT CHANGING GEAR ARBOR OR BRACKET. OTHER ACCESSORIES ARE SAME AS BS-2.

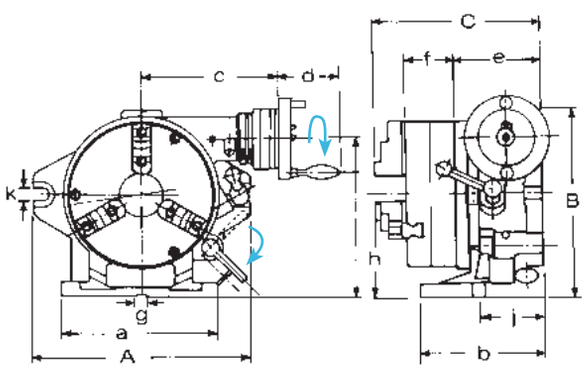


BS-2A

Super Indexing Spacer

CS-8 with VSK-8A 3-JAW CHUCK MASKING PLATE & FACE PLATE

This product combines the advantages of the Super Index with those of a worm-geared index.
When mounted on a milling, boring or other machine tool it can carry out single-purpose indexing and indirect indexing using the worm-drive mechanism. Disengaging the worm drive the 24-notch master plate permits 2, 3, 4, 6, 8, 12 and 24 dividing in the same manner as the Simple Index. When the chuck is removed, the unit can be used as a horizontal and vertical type rotary table. The operating handle to rotary table worm gear reduction ration is 1:90. The operating handle collar is graduated in one minute, and readings down to ten seconds can be set on the vernier. Super spacer index include 3 jaw chuck, 10″/250mm face plate, masking plates 2, 3, 4, 6, 8, 12.



Standard Accessories

Masking Plate

Face Plate

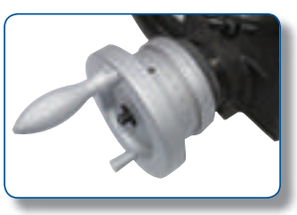
Optional Accessories

The same as Rotary table
Please see page A3

TS-2 for CS-6
TS-3 for CS-8

DP-4

The state of CS-8 fitted with Face Plate & Dividing Plate



New Model

SPECIFICATIONS	CS-6 CC-6	CS-8 CC-8
Degree per one handle rotation	4°	4°
Scale of micro collar	2’	1’
vernier reading	20”	10”
Gear ratio	1:90	1:90

Specifications

Unit:mm

ORDER NO.	Numbers of dividing	Chuck Through Hole				Face plate		A	B	C	a
		Outer diameter	Inner jaw	Outer jaw	Inner dia	Outer dia	Thickness				
CS-6	2, 3, 4, 6 8, 12, 24	160 VSK-6A	4~42	10~156	44	203	50	250	235	221	220
CS-8		210 VSK-8A	4~62	10~180	63	254	58	310	285	243	225

Unit:mm

ORDER NO.	b	c	d	e	f	g	h	i	j	k	Gross Weight kgs	Meas. CFT	CODE NO.
CS-6	150	184	82	112	66	16	123	186	80	18	(C)43.6	1.2	1001-060
CS-8	160	201	82	125	75	16	155	232	90	18	(W)78.3	3.1	1001-061

(W)Wooden Case (C)Carton Case

Simple Indexing Spacer

CC-12, Ø105
BIG THROUGH HOLE DESIGN

CC-8

Masking Plate

※ When order optional higher accuracy chuck , price will be higher.

- The center through hole is big to be suitable for the large and long workpiece.
- Hardened and ground 24 position master plate, can index the special angle of 15 with excellent accuracy.
- CS-Type can be used with 2 pcs type 3-Jaw Chuck. Especially, it does similar work. as rotary table when it match with face plate.
- Rapid indexing and easy operation. It's a sharp equipment for mass-production.
- Simple index include 3-jaw chuck, Masking Plates 2, 3, 4, 6, 8, 12
- Used the key guide block, the center can be corrected quickly and accurately.
- CC-6 with VSK-6A chuck front fixing hole type.
  CC-8 with VSK-8A chuck front fixing hole type.
  CC-12 with VSK-12 chuck front fixing hole type.
  CC-12A with VSK-12A chuck economical chuck.

CS-6 with VSK-6A chuck front fixing hole type.
CS-8 with VSK-8A chuck front fixing hole type.

FIG. (I) CC-6, 8

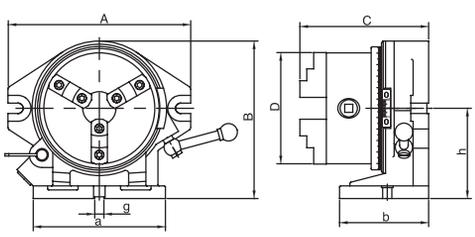
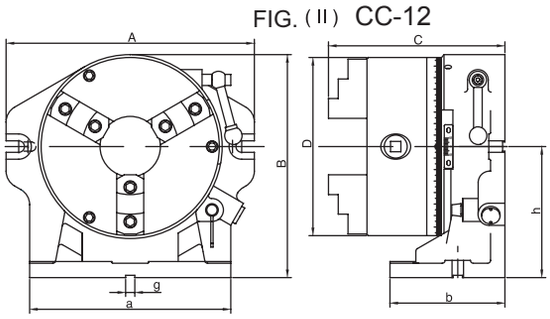


FIG. (II) CC-12



STANDARDS OF ACCURACY for Simple Index for Super-Dex.		
NO.	Testing Objective	Tolerances Per 100mm Permitted Max.
1	Parallelism of table surface to base	0.02
2	True running of axial movement of table surface	0.03
3	True running of center boss	0.02
4	Squareness of base to angle face	0.02

Optional Accessories

Tailstock

TS-2 FOR CC-6
TS-3 FOR CC-8
TS-4 FOR CC-12
please see page A3

Specifications

Unit:mm

ORDER NO.	Fig.	Dividual number	A	B	C	D	a	b	h	Inner jaw	g	Outer jaw	Diameter of hole (turret)	Diameter of hole (chuck)	Gross weight kgs	Meas. CFT	CODE NO.
CC-6	I	2, 3, 4, 6 8, 12, 24	253	225	179	160	187	115	130	Ø55~Ø145	16	Ø3~Ø160	44	44	(C)29.5	0.9	1001-062
CC-8	II		318	274	209	200	230	155	157	Ø65~Ø200	16	Ø4~Ø200	63	58	(C)51.5	1.3	1001-063
CC-12	II	2, 3, 4, 6 8, 12, 16 24, 48	432	388	293	315	350	200	228	Ø100~Ø315	16	Ø10~Ø315	106	105	(W)163	3.6	1001-066
CC-12A																	1001-066A

Precision Index Table

2 PCS HIRTH Coupling

HEAVY DUTY

VIT-450~1200 PICTURE

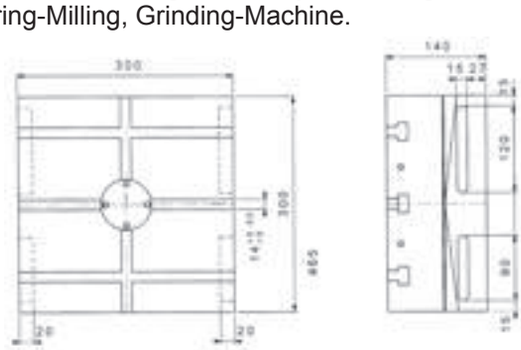
ORDER NO.		VIT-300-15	VIT-450-1 VIT-450-5	VIT-600-1 VIT-600-5	VIT-700-1 VIT-700-5	VIT-800-5	VIT-1000-5	VIT-1200-5
Table size LxW (mm)		300x300	450x450	600x600	700x700	800x800	1000x1000	1200x1200
Height (mm)		160	170	200	220	280	300	340
Spindle hole (mm)		-	ø30	ø40	ø40	ø60	ø60	ø80
T-slot (mm)		14	18	20	20	22	22	22
Table rotating			Clockwise and counterclockwise					
Table Lifting up & Clamp down stroke (mm)		5	5	5	5	5	8	8
Driving	Longitudinal	Manual	Air Pressure 5~8kgs/cm²					
	Revolving		Manual					
Number of division (degree)		15°	1° or 5°					
Division (sec.) Accuracy			±3					
Max. load weight in theory (kgs)		1200	2400	3400	3400	4500	6000	7000
Allowable load weight (kgs)		500	1000	2000	2000	3000	5000	6000
Clamping capacity (kgs)		-	2200	3200	3200	5400	5400	8100
N.W. (kgs)		94	205	400	600	900	1200	2000
CODE NO.	1°	1001-070(15)	1001-071	1001-072	1001-073			
CODE NO.	5°		1001-081	1001-082	1001-083	1001-084	1001-085	1001-086

- The body is FC-35 cast iron, durable and will last longer without deformation.
- Clamping/Unclamping by pneumatic, easy operation.
- Powerful clamping design, allow heavy cutting and boring.
- Build-in 2 pieces hirth coupling for positioning, indexing accuracy +/-3 sec, ensure a long-term operation.
- Suitable for the high accuracy machining such as Boring-Milling, Grinding-Machine.

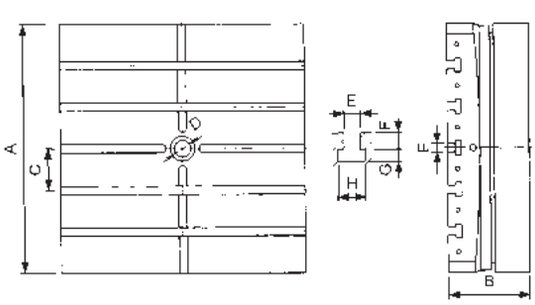
DIMENSION

VIT-300 (PICTURE)

VIT-300



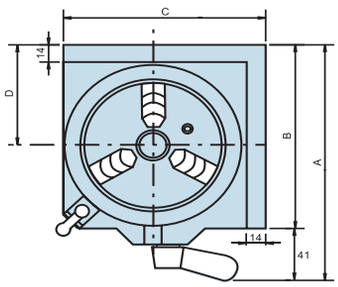
VIT-450~1200

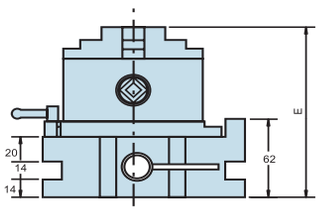


	VIT-450	VIT-600	VIT-700	VIT-800	VIT-1000	VIT-1200
A	450	600	700	800	1000	1200
B	170	200	220	280	300	340
C	100	100	125	100	150	200
D	30	40	40	60	60	80
E	18	20	20	22	22	22
F	16	20	20	23	23	23
G	12	14	14	15	15	15
H	28	35	35	38	38	38

Economical Type Rapid Index

COLLET INDEXER NON ECONOMICAL





- 3 JAW CHUCK VSC-4A, for VSI-4 / VSC-5A for VSI-5, the big range clamping capacity ø3 - ø100, it's better than collet fixing type.
- Simple & rapid operation.
- Dividual number 24-notch (15º each)
- Table scale 1º, for angular indexing.
- Table bore 30mm.
- Horizontal / vertical & 2 direction
- Suit for milling & drilling machine using.
- Optional: tailstock TS-1, Please see page A2

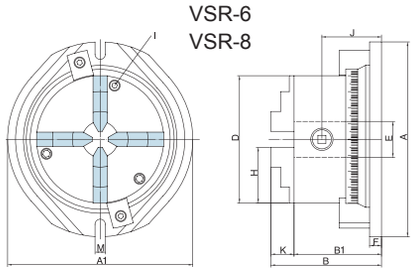
ORDER NO.	A	B	C	D	E	Through Hole	kgs	CODE NO.
VSI-4	187	146	146	80	135	ø30	10.5	1001-064
VSI-5	202	161	161	87	142	ø30	14.5	1001-065

Simple Rotary Chuck

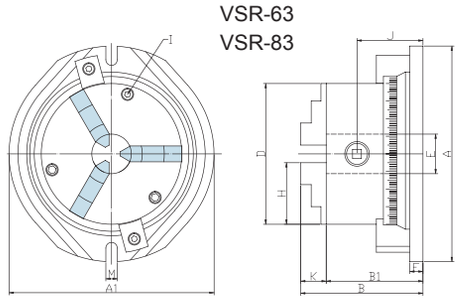
NEW

VSR-63

VSR-6
VSR-8



VSR-63
VSR-83



VSR-6 + VPS-6A 4JAW CHUCK
VSR-8 + VPS-8A 4JAW CHUCK

VSR-63 + VSC-6A 3JAW CHUCK
VSR-83 + VSC-8A 3JAW CHUCK

- 4-jaw chuck (include reversable and removable jaw) is designed with swivel base for multifunctional purpose.
- VERTEX simple rotary chuck can be placed and fixed on your desired position.
- 360º vernier scale: smooth swival motion and easy locking by screws.
- Both horizontal and vertical position could be used on milling and machining center.

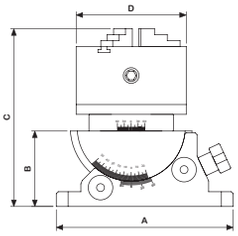
ORDER NO.	FOR SHAPE	A	A1	B	B1	D	E	F	H	I	J	K	M	kgs	CODE NO.
VSR-6	▨ ◍	245	233	139	110	160	45	15	70	3-M8	69	29	14	18	1001-068
VSR-8	▨ ◍	305	270	159	125	200	65	20	86	3-M10	75	34	18	30.5	1001-067
VSR-10	▨ ◍	373	355	165				22		3-M12			16	43.5	1001-069
VSR-63	◍	245	233	139	110	160	45	15	70	3-M8	69	29	14	18	1001-068A
VSR-83	◍	305	270	159	125	200	65	20	86	3-M10	75	34	18	30.5	1001-067A

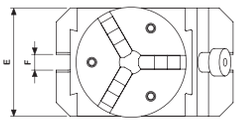
Precision Universal Angle Chuck

VERTEX

With VSC-4 Chuck

NEW





- With VSC-4 3-Jaw chuck.
- O.D. clamping Ø3-90 mm,
- I.D. clamping Ø32-84 mm.
- Tolerance ±0.01mm/100mm.
- 2 axis with angle scale
- Load Capacity :25Kgs
- For angle setting
- Chuck indexing / Rotating setting by scale.
- Tilting Features same as VUA series, Page B13.

LIGHT DUTY

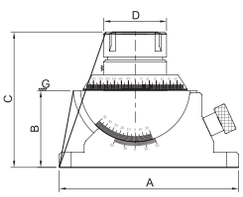
patent PAT.

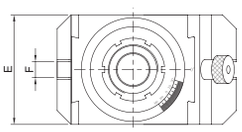
ORDER NO.	A	B	C	D	E	F	G.W (kgs)	CODE NO.
VUA-100J	180	77	181	112	110	16	14	2003-060

Precision Universal Angle Collet Chuck

Capacity Ø3-Ø30

NEW





- Tolerance ±0.01mm/100mm.
- 360˚ horizontal swivel, 45˚ vertical tilting.
- Suit for multi - angle cutting.
- Simple way for mass production.
- Hardness : HRC52˚±2˚
- Load Capacity :25Kg

LIGHT DUTY

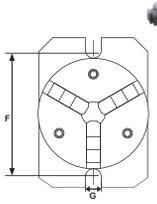
patent PAT.

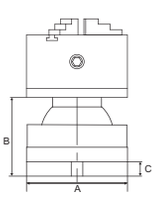
Standard Accessories: With 15pcs ER-40 Collet (4, 5, 6, 8, 10, 12, 13, 15, 16, 18, 20, 21, 22, 25, 26)

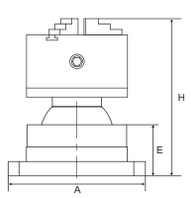
ORDER NO.	A	B	C	D	E	F	G.W (kgs)	CODE NO.
VUA-ER40	180	77	136	63	110	16	12	2003-065

Free Angle Rotary Chuck

NEW







- With VSC-4, VSC-5, 3-JAW Chuck.
- O.D. Clamping ø3-90 mm (VSC-4)
- O.D. Clamping ø3-110 mm (VSC-5)
- I.D. Clamping ø 32-84 mm (VSC-4)
- I.D. Clamping ø 35-100 mm (VSC-5)

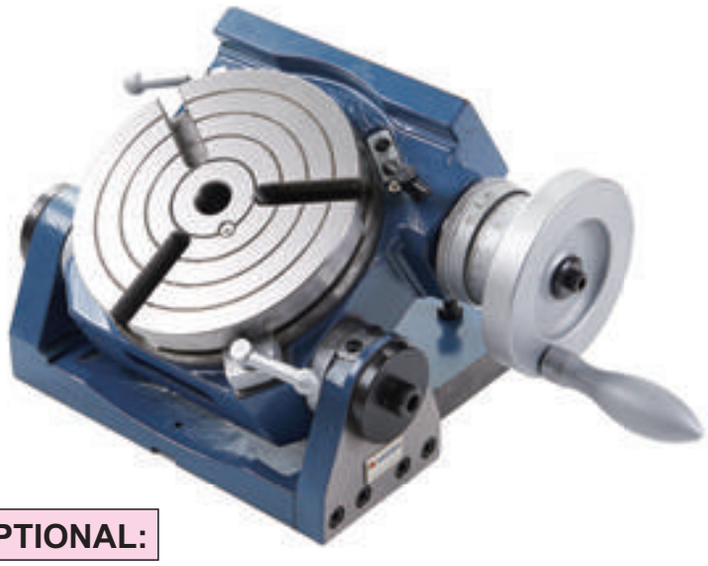
Features:

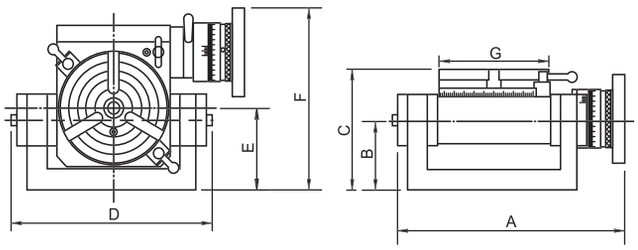
- Quick setting
- Operating is very quick and easy, can increase so much working efficiency than you can image.
- 360˚ Rotation, Tilting 30˚
- For non-normal angle setting.
- Its swivelling and tilting features with chuck clamping make this unit for round & square, angular drilling machining on various machine tools or for bench work table.

LIGHT DUTY | TILTING | ACCURACY GUARANTEE 0.01/100 MM 0.02/50 | MECHNICAL | patent PAT.

ORDER NO.	A	B	C	D	E	F	G	H	Weight (kgs)	CODE NO.
VAV-4J	140	120	20	190	72	158	17	203	16	1002-217
VAV-5J	140	120	20	190	72	158	17	203	17	1002-218

Universal Tilting Rotary Table





- Tiliting range 0º-90º degrees from horizontal to vertical postion, It is high rigidity.
- Minimum Set-up time: It has two screws to lock setting. Low profile body for bigger capability.
- Worm is hardened and ground. The ratio is 90:1. The work table is graduated a full 360º so that of the handle moves the table through 4º. Micro collar is graduated in steps of 2' min.
- The tailstock & Dividing plates are optional. The sizes is same as the rotary table, please see page A2.
- For arc or index cutting at milling machine, Grinding machine or drill Machine.....

OPTIONAL:

Please see page A3

1. TAILSTOCK

ORDER NO.	CODE NO.
TS-1	1001-022
TS-3	1001-024

2. DIVIDING PLATE

ORDER NO.	CODE NO.
*DP-1 for VU-100, 150	1001-030
*DP-2 for VU-200	1001-031

LIGHT DUTY

ORDER NO.	A	B	C	D	E	F	G	SUITABLE TAILSTOCK	SUITABLE DIVIDING PLATE	WEIGHT kgs/cuft	CODE NO.
VU-100	228	68	117	202	80	177	110	TS-1	DP-1	13.5 / 1.5	1001-011
VU-150	266	75	140	246	90	216	150	TS-1	DP-1	21.5 / 2.0	1001-012
VU-200	429	111	177	432	141	283	205	TS-3	DP-2	46 / 2.5	1001-013

Big Through Hole / Fast Indexing Rotary Table

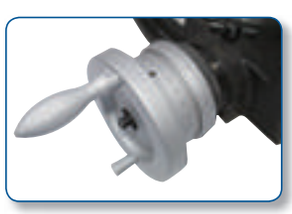
NEW

15˚ DIVISION

Feature:

- Center Bore = ø65mm
- For the long bar & other work piece need BIGGER BORE size.
- Multiple purpose.
- Fast dividing function : 15º division by handle x 24/360º
- Improve efficiency, save cost.
- Upgrade your millig machine to speed up production.

SPECIFICATIONS	HVD-400
Degree per one handle rotation	4º
Scale of micro collar	1'
vernier reading	10''
Gear ratio	1:90



New Model

Specifications

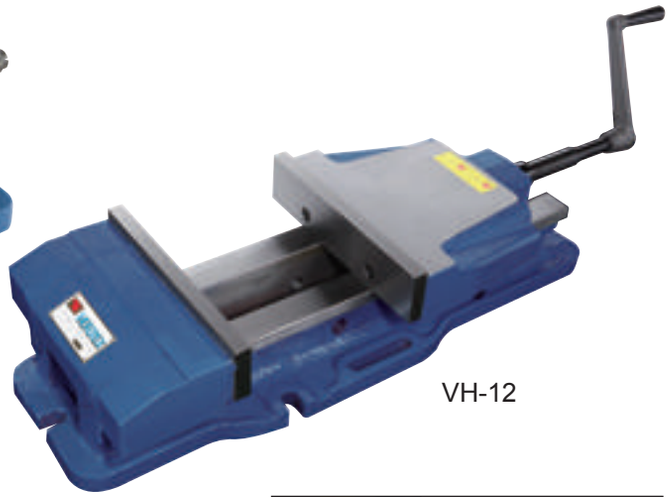
ORDER NO.	Through Center hole	Numbers of dividing	Table			Base dimension			Width of T-slot		Bolt slots	The load capacity for rotary table		Weight (kg)	CODE NO.
			Outer diameter		Height	H1	A	B	e	TYPE	g	Horizontal	Vertical	N.W. G.W	
			A1	D	H										
HVD-400	ø65	15º	128	406	130	255	500	435	16		18	140kgs	70kgs	122	1001-110

Hydraulic Machine Vise

VERTEX

PATENT

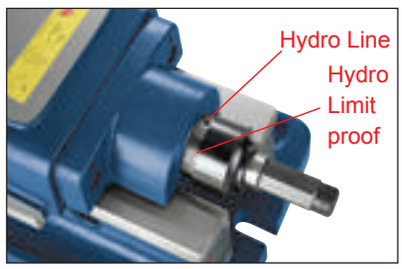
- New design: Adjustable pressure device.
- Jam proof system.
- Hydro limit proof.
- Screw shaft broken proof

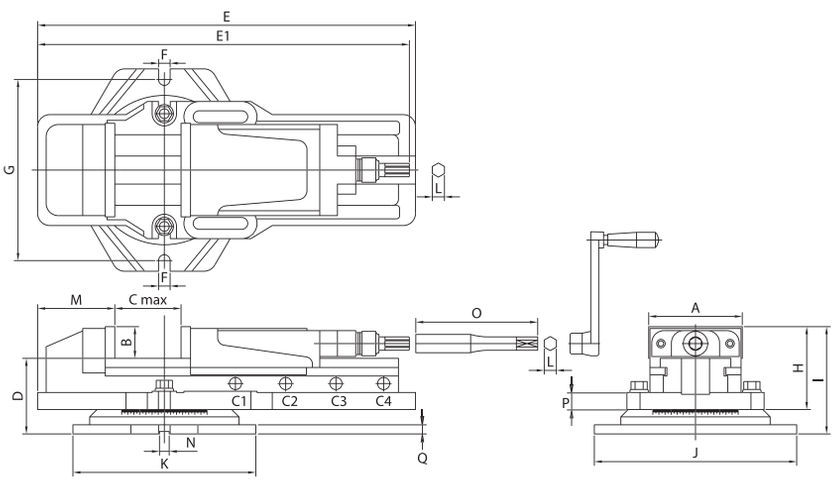


VH-12

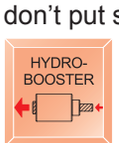
VH-6

Hydraulic controller:
provide stable pressure,
Hydro indexer. Protect the hydro system.
Hydro limit proof reference scale.
Screw shaft broken proof.





- New design: jam proof system: prevent wrong clamping force stucks the vise.
- Constructed for milling, drilling, shaping, grinding and many other machine shop applications.
- Sliding bed ways flame hardened and ground.
- Concealed spindle for protection against chips and dirt.
- Hydraulic-booster system for maximum clamping pressure with minimum force.
- Quick of clamping & locking and easy of operation.
- Accuracy within 0.02mm.
- Furnished with or without swivel base.
- Hydraulic-booster system is guaranteed for using 1 years limited.
- The hydraulic oil number is #68.
- Hydro line - one scale indicate about 1/3 of the max. clamp force.
- In order to ensure the accurence when using it' better that don't put swivel base together



Order No. & Dimensions

ORDER NO.	A	B	C max	Opening Size For Capacity				D	E	E1	F	G	H	I	J	K	L	M	N	O	P	Max. Clamp Force (kgf)	G.W. (kgs)	CFT (cm)	CODE NO.
				C1	C2	C3	C4																		
VH-4	108	36	170	0-58	56-115	113-170		98	443	583	14	235	95	135	270	240	14	110	16	156	22	2500	28	45x25x16	1002-001
VH-5	132	48	210	0-75	73-150	148-210		113	550	703	17	253	118	161	290	263	19	124	16	165	22	4500	47	56x28x18	1002-002
VH-6	151	52	300	0-100	98-200	198-300		124	620	800	19	298	136	176	332	300	19	126	16	200	30	4500	63	65x34x22	1002-003
NEW VH-6L	151	52	355	0-100	98-200	198-300	298-355	124	620	800	19	298	136	176	332	300	19	126	16	200	30	4500	63	65x34x22	1002-007
VH-8	204	62	300	0-100	98-200	198-300		144	680	857	17	342	162	206	375	350	19	155	16	200	30	7500	110	71x38x25	1002-004
NEW VH-8L	204	62	400	0-100	98-200	198-300	298-400	144	795	950	17	342	162	206	375	350	19	155	16	200	30	7500	108	84x42x30	1002-005
NEW VH-12	305	72	375	0-75	73-175	173-275	273-375	144	795	950	17	342	162	206	375	350	19	170	16	200	30	7500	138	84x35x27	1002-006

Tilting Hydraulic Machine Vise

VERTEX

PATENT

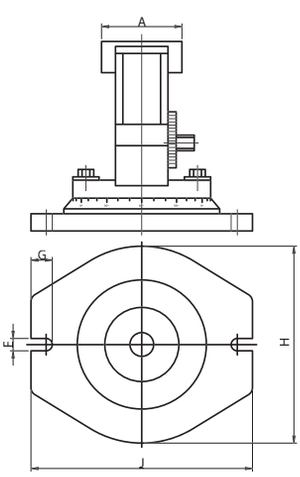
New Design

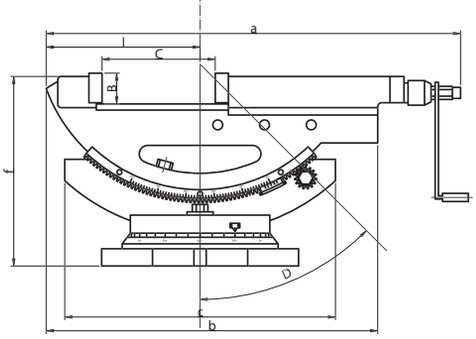
- Jam proof system
- Great smooth operation
- Hydro limit proof.
- Screw shaft broken proof

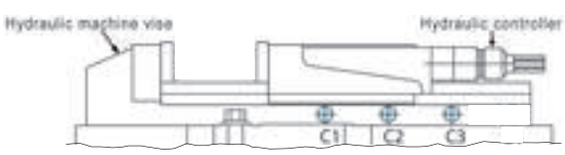
VHT-4

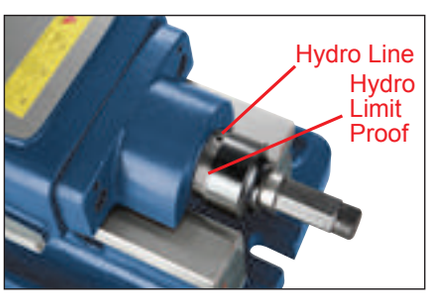
TILTING ADJUSTABLE
BY GEAR SYSTEM

VHT-6



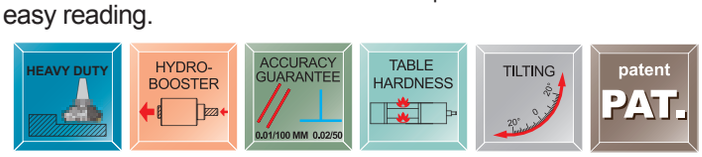






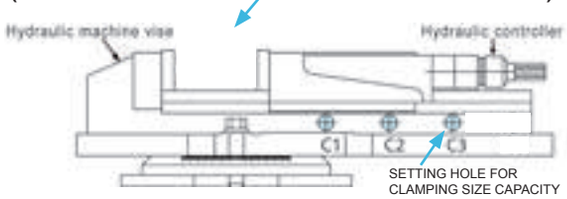
Hydraulic controller:
provide stable pressure,
Hydro indexer. Protect the hydro system.
Hydro limit proof reference scale.
Screw shaft broken proof.

- The same as characters of VH type. Swivel base same as VH type.
- Tilting seat set by two locking screws, works in high stability.
- Angle setting ranges from 0º~50º. Tilting degrees graduated for easy reading. Swivel base graduated to 360º and fixable in any position.
- THE (3 STEPS CLAMPING POSITION) SAME AS VH TYPE.
- Accuracy within 0.02mm
- Hydraulic-booster system is guaranteed for using 1 years limited.

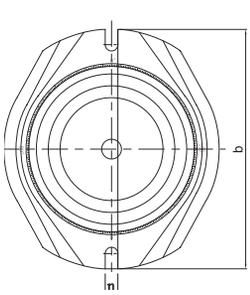


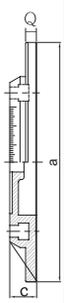
ORDER NO.	A	B	C OPEN	Opening Size For Capacity			D	E	F	G	H	J	a	b	c	f	Max. Clamp Force (kgf)	G.W. (kgs)	Meas CFT	CODE NO.
				C1	C2	C3														
VHT-4	110	36	170	0-58	56-115	113-170	50º	15	15	26	240	270	500	404	335	230	2500	(W)33.3	1.2	1002-020
VHT-6	154	54	300	0-100	98-200	198-300	50º	20	19	28	300	330	800	585	415	290	4500	(W)88	4.4	1002-021

CLAMPING CAPACITY
(3 STEPS CLAMPING POSITION FIG)



Swivel base





Swivel base

Unit:mm

ORDER NO.	a	b	c	n	Q	G.W. (kg)	CODE NO.
HS-4	280	210	30	16	15	4	1002-010
HS-5	297	267	43	16	20	7	1002-011
HS-6	335	310	40	16	20	10	1002-012
HS-8	373	355	45	16	22	16	1002-013

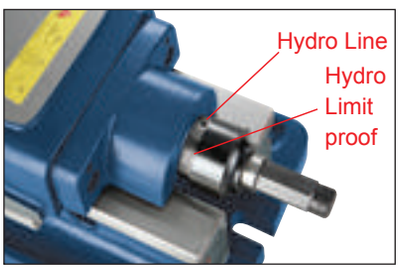
Universal Tilting Hydraulic Machine Vise

VERTEX

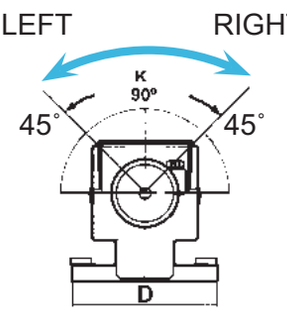
NEW

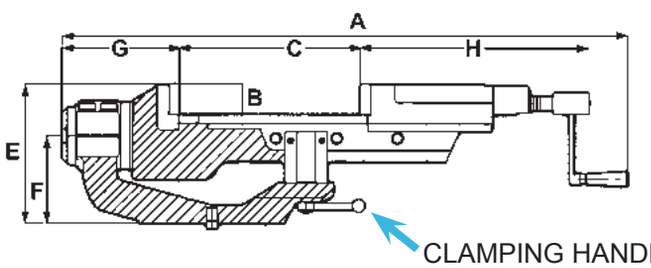
PATENT

- JAM PROOF
- HYDRO LIMIT PROOF.
- SCREW SHAFT BROKEN PROOF



Hydraulic controller:
provide stable pressure,
Hydro indexer. Protect the hydro system.
Hydro limit proof reference scale.
Screw shaft broken proof.

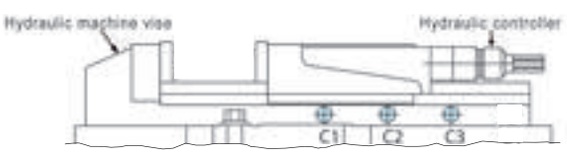


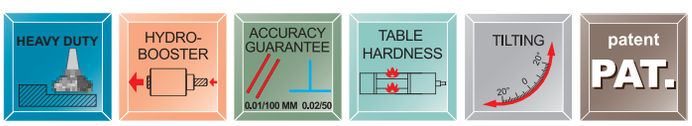


CLAMPING HANDLE

CLAMPING HANDLE
FOR TILTING

- New design: adjustable pressure device.
- Suit for processing of brass, AL, plastic, steel.
- New design: super open jaw size, smallest open jaw size.
- Lock proof system: prevent wrong clamping force stucks the vise.
- 45 Degree tilting function by hand, allow 90 degree processing!
- Tilting function has more work free allowance will not block or hit machine!
- Lower overall height provides more space for heavy cutting stability and bigger workpiece!
- Tilting structure has strong tightening design.
- All function same as VH series. Except the tilting Structure.



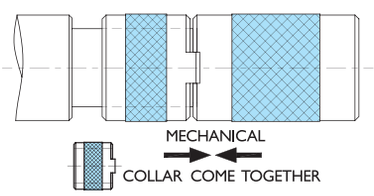


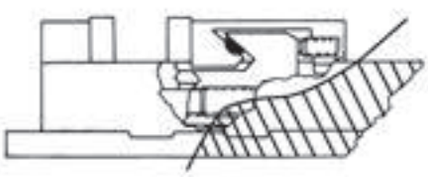
ORDER NO.	A	B	C OPEN	Opening Size For Capacity			D	E	F	G	H	Max. Clamp Force (kgf)	K Max. Degree	G.W. (kgs)	CODE NO.
				C1	C2	C3									
VHT-4U	690	36	170	0-58	56-115	113-170	ø165	175	110	130	290	2500	90°	37.39	1002-025
VHT-6U	940	54	300	0-100	98-200	198-300	ø225	235	140	150	375	4500	90°	93.96	1002-026

Hydraulic Machine Vise

HYDRO + MECHANICAL PAT. Power Build Out Type

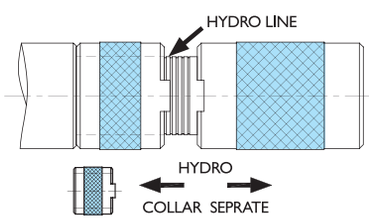
COLLAR OPERATE

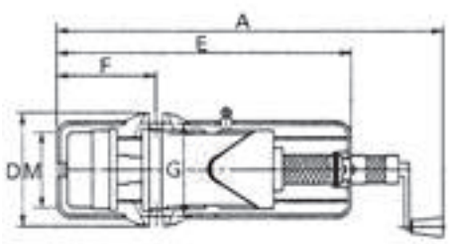


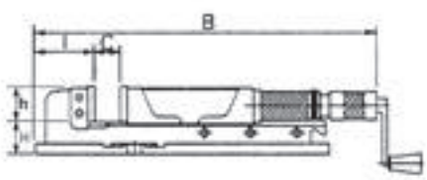


MECHNICAL USEING

SUIT FOR PROCESSING OF BRASS, AL, PLASTIC, STEEL, CASTING

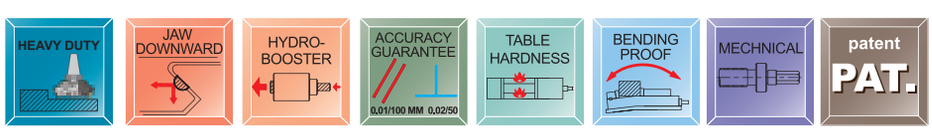






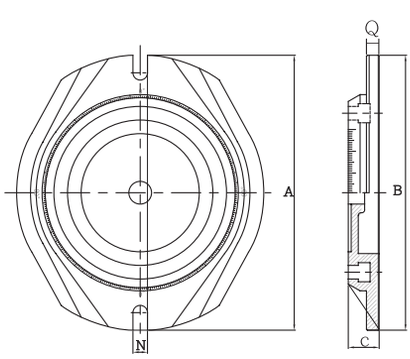
Features

- Hydro : move the spindle ring until see the hydro line to work vise.
- Mechnical : move the spindle ring toward the end until the bushing close the hydro line.
- Heavy duty cutting.
- Hardness > HRC 45˚ : vise sliding bed.
- High durability & high precision.
- Tolerance : 0.01/100mm
- Lift proof : press down design.
- FCD 60 with 60 kgs/mm^2 or 80,000 psi hign quality ductile cast iron - body material - reduce the cutting vibration.



VHO-VISE

ORDER NO.	A	B	C OPEN	D	E	F	G	H	I	M	h	Jaw w	Max. Clamp Force (kgf)	N.W. (kgs)	CODE NO.
VHO-5	695 920	545 775	0-220	190	505	180	160	74	105	130	55	130	3500	36.5	1002-220
VHO-6	750 1060	600 915	0-300	240	625	208	196	80	125	160	58	160	4000	59.1	1002-221
VHO-8	830 1140	700 1015	0-310	280	700	265	240	100	165	200	63	200	5000	94.3	1002-228



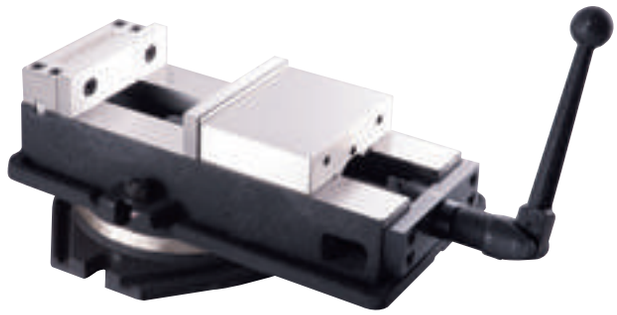
Optional : Swivel Base

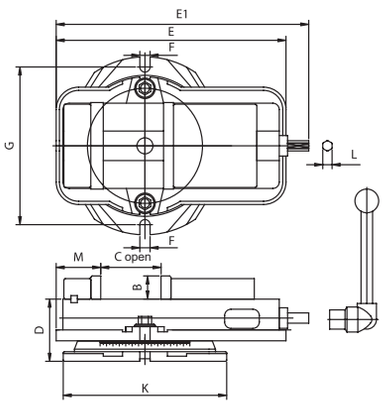
ORDER NO.	A	B	C	N	N.W. (kgs)	CODE NO.
HSO-5	285	263	35	16	12.5	1002-222
HSO-6	330	320	40	18	16.5	1002-223
HSO-8	415	413	50	21	35	1002-229

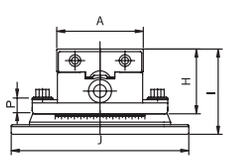
Ang-Fixed Milling Vise

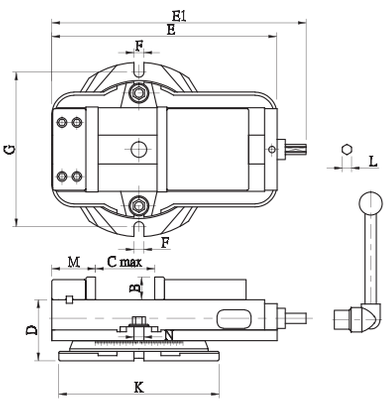
NEW

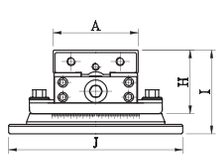
VD-690
VD-810

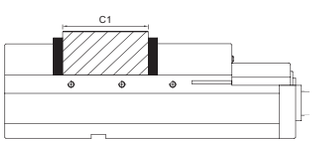


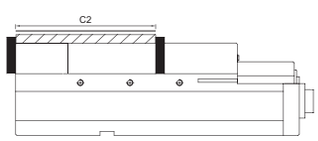


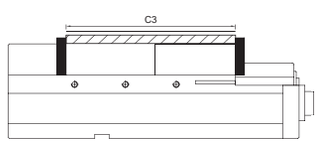


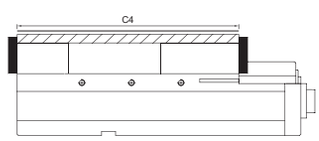




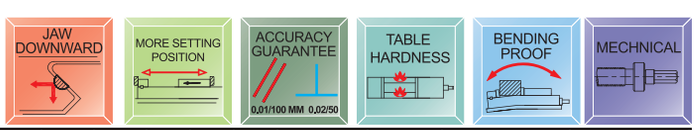








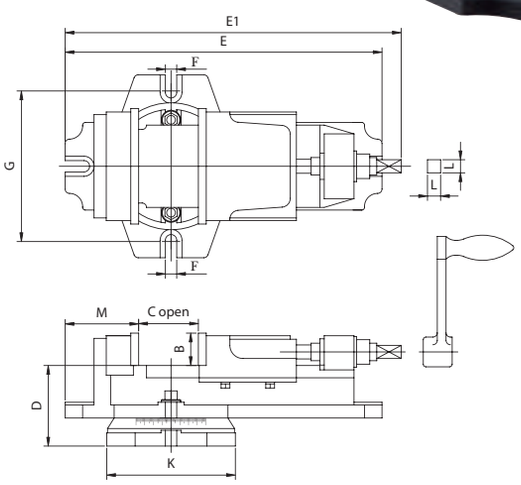
- The enclosed lead screw and sliding surface are harden and ground.
- Highest clamping power. It's very accurate and durable.
- This Vise is so designed that the horizontal Force generated by tightening the handle pushes the semisphere within the movable jaw and thus thrusts the movable jaw downward - angle lock feature.
- There fore, the workpiece does not lift, even if it is held at the top of the jaw plates.
- Four setting positions of the jaw plates are available, widening the jaw plates opening.
- ACCURACY WITHIN 0.02mm
- Mini order quantity : 3 sets for same height by request.
- In order to ensure the accurence when using it' better that don't put swivel base together



Order No. & Dimensions

ORDER NO.	A	B	C OPEN	D	E	E1	F	G	H	I	J	K	L	M	N	P	MAX. Clamp Force (kgf)	G.W. (KG)	C.F.T. (CM)	CODE NO.
VA-4	106	36	103	90	324	351	13	211	96	126	242	228	14.5	75	16	15	1500	20	35x24x15	1002-030
VA-5	135	36	110	97	359	394	17	246	101	133	277	255	14.5	85	16	15	2000	30	41x31x17	1002-031
VA-6	155	46	150	110	422	452	20	288	118	158	326	302	19	95	16	17	2500	42	49x35x20	1002-032
VA-8	210	60	197	129	553	583	19	355	145	190	395	366	19	105	16	19	3000	80	63x41x24	1002-033
VD-675	160	49	190	110	445	478	19	296	121	160	333	305	19	80	16	17	2500	42	52x35x21	1002-034
NEW VD-690	155	46	230	110	450	480	20	288	118	158	326	302	19	67	16	17	2300	43	49x35x20	1002-034B
NEW VD-810	205	62	275	129	555	615	19	378	147	191	420	377	19	79	16	17	3000	76	63x41x24	1002-035B

K-Type Milling Vise



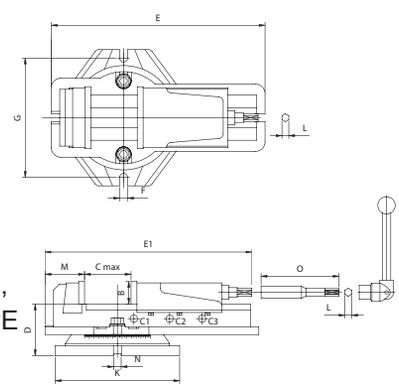
- It's a practical piece of equipment with excellent precision and a high quality finished.
- Body, movable jaw and swivel base made of closes-grained high tensile iron castings. Built for machining and retained accuracy.
- Jaw plates were made of hardened and grounded tool steel.
- It's the most suitable for the Milling, Grinding and Drilling.
- ACCURACY WITHIN 0.02mm
- In order to ensure the accurence when using it' better that don't put swivel base together.

Order No. & Dimensions

ORDER NO.	A	B	C OPEN	D	E	E1	F	G	H	I	J	K	L	M	Max. Clamp Force (kgf)	G.W. (kgs)	C.F.T. (cm)	CODE NO.
VK-4	104	36	62	76	293	310	13	145	83	113	176	122	15	65	900	10	33x13x13	1002-040
VK-5	132	37	80	92	362	384	13	172	97	129	209	147	15	84	900	16	40x16x15	1002.041
VK-6	154	43	112	105	442	473	15	209	108	148	260	181	16.5	90	1000	27	51x22x19	1002-042
VK-8	204	63	146	127	579	609	18	312	148	190	350	234	21	122	1400	59	65x27x25	1002-043

Super Open Vise

VJ-600

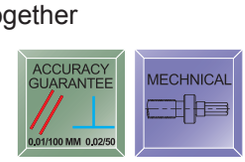


EXCEPT THE HYDRAULIC SYSTEM,
THE FEATURE IS SAME AS VH-TYPE
ACCURACY WITHIN 0.02mm

MECHANICAL TYPE

VJ-400 JAW OPENED 185mm
VJ-500 JAW OPENED 245mm
VJ-600 JAW OPENED 305mm

- In order to ensure the accurence when using it' better that don't put swivel base together



Order No. & Dimensions

ORDER NO.	A	B	C max	Opening Size For Capacity			D	E	E1	F	G	H	I	J	K	L	M	N	O	Max. Clamp Force (kgf)	G.W. (kgs)	CFT (cm)	CODE NO.
				C1	C2	C3																	
VJ-400	110	38	185	0-65	52-129	116-185	97	386	516	15	240	96	135	270	238	14.5	90	16	156	1500	25	46x26x16	1002-050
VJ-500	132	48	245	0-78	70-158	150-245	110	455	580	17	255	113	158	290	265	19	85	16	166	1500	34	48x28x18	1002-051
VJ-600	154	56	305	0-111	97-211	197-305	118	546	722	17	255	131	175	290	265	19	111	16	200	1500	46	57x30x22	1002-052

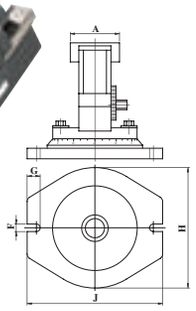
2-Way Angle Milling Vise

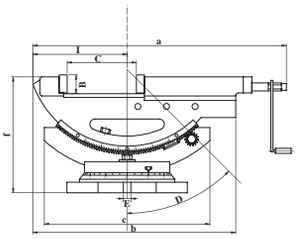
TW PAT. **MECHANICAL TYPE**

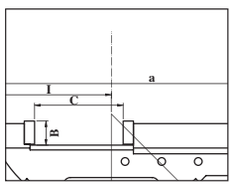
NEW

VWT-4B VWT-6B

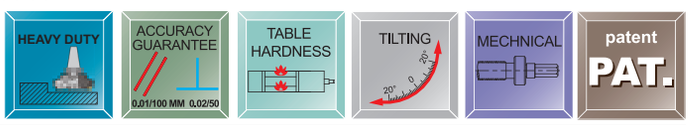
SUPER OPEN CAPACITY:
VWT-4B JAW OPENED 220mm
VWT-6B JAW OPENED 350mm







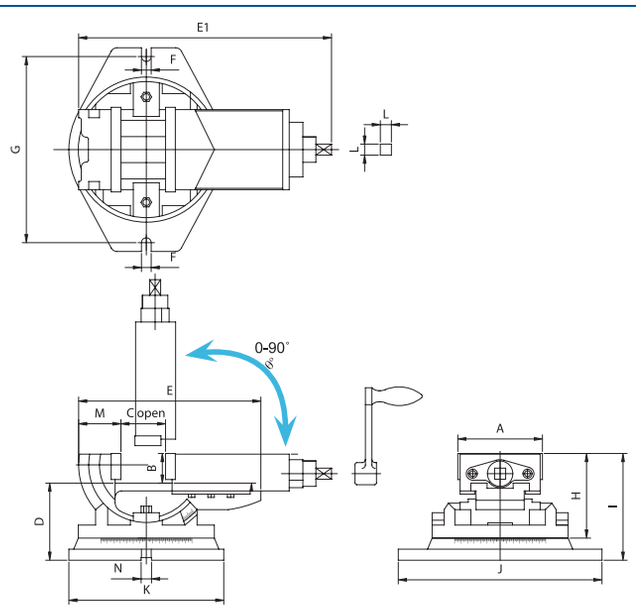
- Tilting seat set by two locking screws, works in high stability.
- Angle setting ranges from 0º~50º. Tilting degrees graduated for easy reading. Swivel base graduated to 360º and fixable in any position.



Order No. & Dimensions

ORDER NO.	A	B	C OPEN	D	E	F	G	H	I	J	a	b	c	f	Max. Clamp Force (kgf)	G.W. (kgs)	Meas CFT	CODE NO.
VWT-4B	110	36	220	50º	15	15	26	240	185	270	500	404	335	230	1200	(C) 33.3	1.2	1002-060B
VWT-6B	152	54	350	50º	20	19	28	300	246	330	800	585	415	290	1600	(W) 79.7	4.4	1002-061B

2-Way Machine Vise

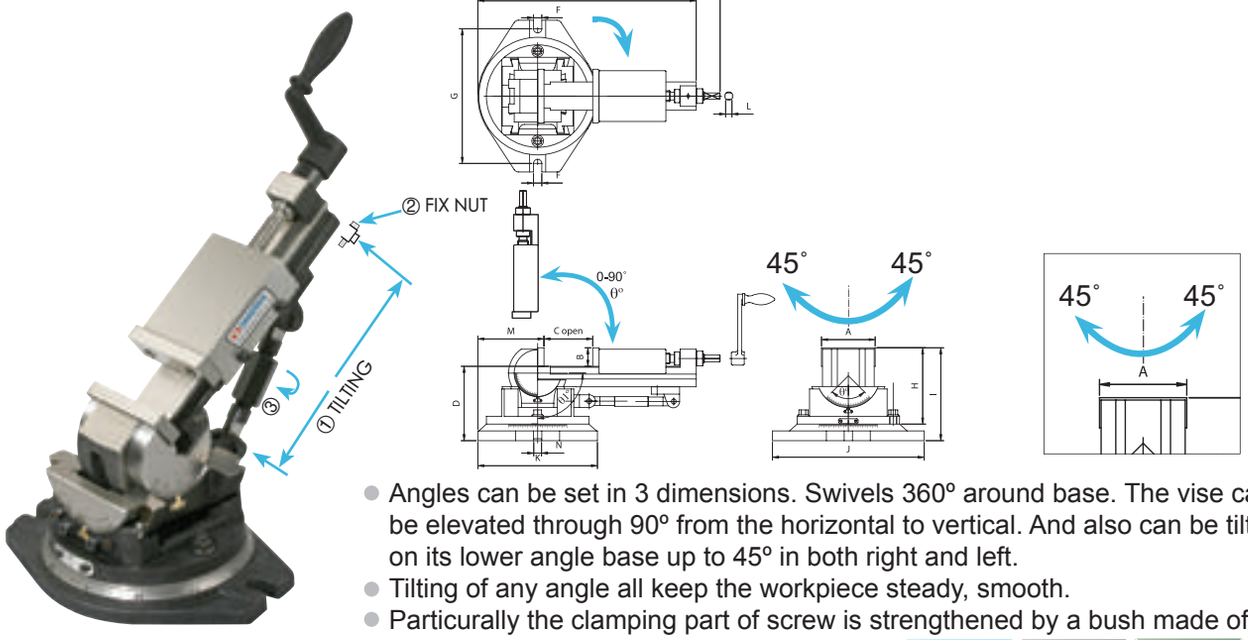


- Heavy cast iron structure
- Scales in both axis
- 360ºswivel around Z-axis
- 90º vertical and horizontal swivel

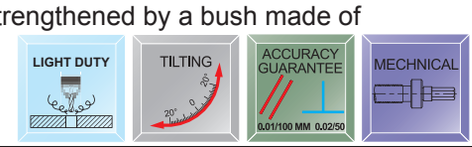
Order No. & Dimensions

ORDER NO.	A	B	C OPEN	D	E	E1	F	G	H	I	J	K	L	M	N	θ	Clamp Force(kgf)	Meas CFT	CODE NO.
VWT-5	130	46	100	118	280	415	15	286	130	164	313	238	17	65	16	0º~90º	900	31.7	1002-090
VWT-6A	160	51	120	140	360	510	17	293	150	191	328	252	17	83	16	0º~90º	1600	47	1002-091

3-Way Angle Milling Vise



- Angles can be set in 3 dimensions. Swivels 360º around base. The vise can be elevated through 90º from the horizontal to vertical. And also can be tilted on its lower angle base up to 45º in both right and left.
- Tilting of any angle all keep the workpiece steady, smooth.
- Particurally the clamping part of screw is strengthened by a bush made of gunmetal.
- Turn ① to adjust tilting angle. fix ② to lock.



Specifications

ORDER NO.	A	B	C OPEN	D	E	E1	F	G	H	I	J	K	L	M	N	θ	θ 1	MAX. Clamp Force (kgf)	G.W. (kgs)	Meas CFT	CODE NO.
VW-3	80	31	85	126	335	370	15	210	127	157	240	185	10	95	16	-45˚~45˚	-0˚~90˚	800	16.7	40x21x19	1002-080
VW-4	110	38	116	152	448	497	17	276	157	190	311	245	13	135	16	-45˚~45˚	-0˚~90˚	1000	32.7	56x27x23	1002-081
VW-5	135	40	145	170	530	580	17	310	173	210	358	271	13	140	16	-45˚~45˚	-0˚~90˚	1600	49.4	66x31x25	1002-082

Quick Index Holder

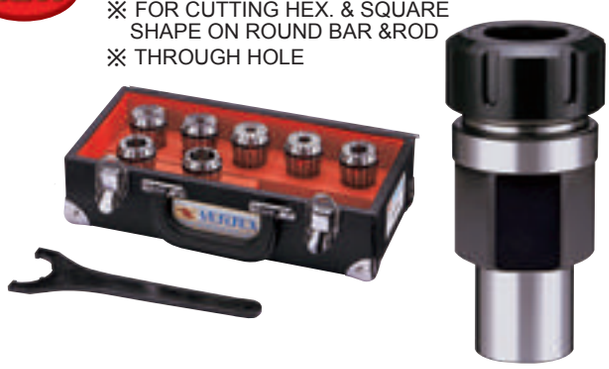
NEW

VFV-40H

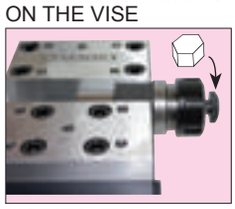
- SHANK HEX. TYPE
- FOR CUTTING 6 DIVISION TYPE
- EACH 60˚ FOR 1 DIVISION

※ FOR CUTTING HEX. & SQUARE SHAPE ON ROUND BAR &ROD

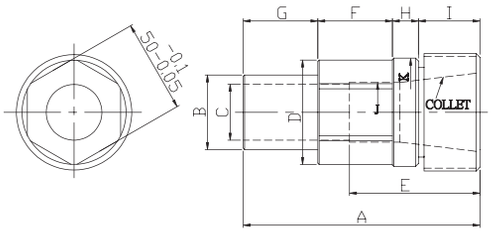
※ THROUGH HOLE



60˚ DIVIDING FOR PUT ON THE VISE



HORIZONTAL

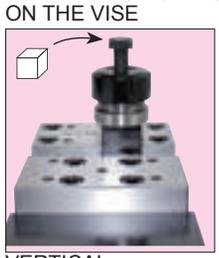


VFV-41S

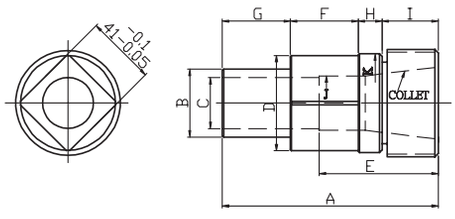
patent PAT.

- SHANK SQUARE TYPE
- FOR CUTTING 4 DIVISION
- EACH 90˚ FOR 1 DIVISION

90˚ DIVIDING FOR PUT ON THE VISE



VERTICAL



mm

ORDER NO.	A	B	C	D	E	F	G	H	I	J	K	COLLET SIZE	WEIGHT KGS	CODE NO.
VFV-40H	127	40	30	56	70	40	40	14	33	32	58	ER-40 7 PCS/SET	4.8	1001-101
VFV-41S	127	40	30	56	70	40	40	14	33	32	58	ER-40 7 PCS/SET	5.2	1001-102

Self Centering Vise

5 AXIS VISE

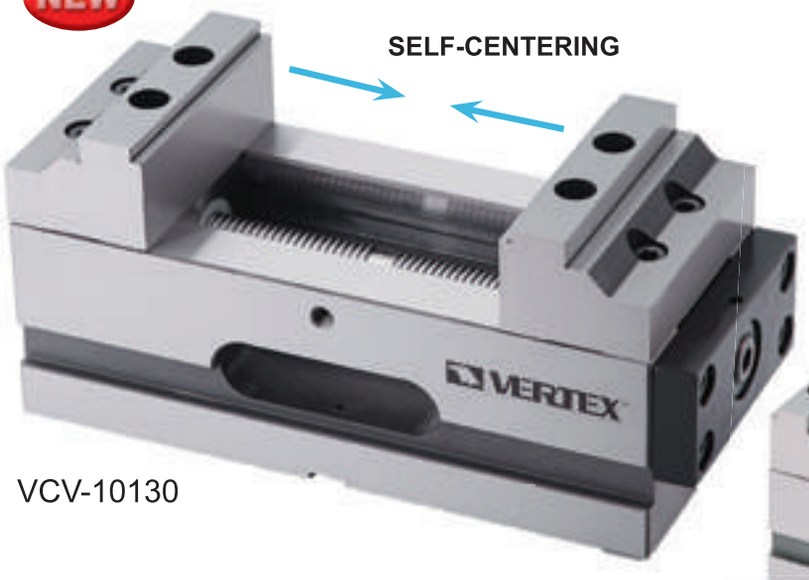
VERTEX

NEW

PAT.

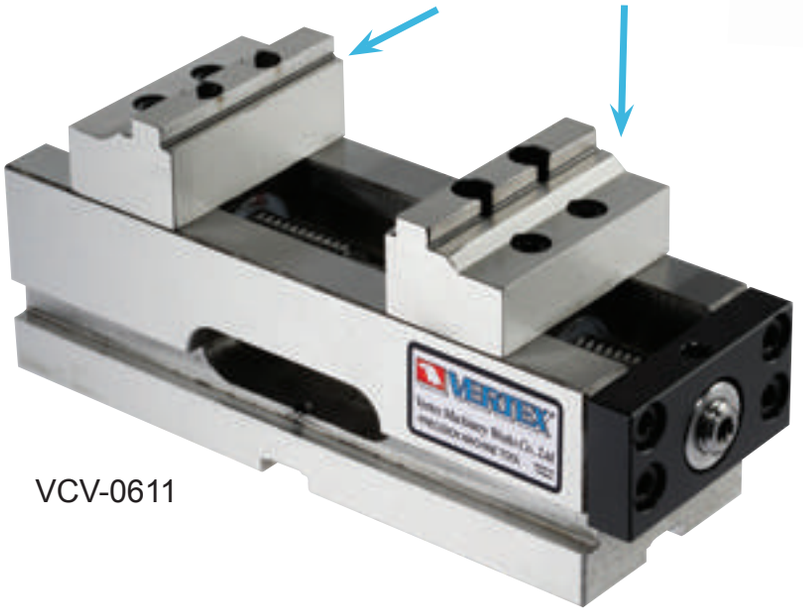
SAME HEIGHT GUARANTEE

SELF-CENTERING



VCV-10130

INTER-CHANGEABLE JAW

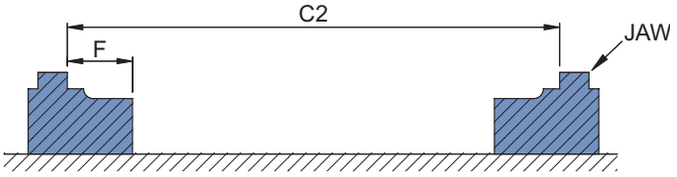


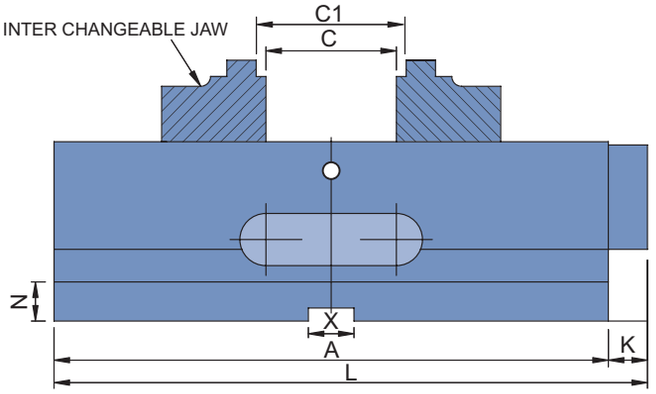
VCV-0611

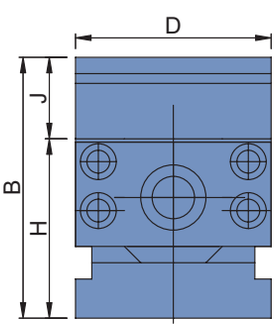
Features

- Reversible Jaw :Remove 4 Fixed Screw to Re-install Jaws.
- Suit for 4/5 axis CNC machine
- Repeat clamping tolerance ±0.01mm
- Material: high tension cast iron
- Slide way hardness: HRC 45º
- Inter changeable jaw: heat treatment HRC 50º
- Lock down-drawing force: keep work piece from lifting

CLAMPING CAPACITY







VCV-0611, VCV-10130

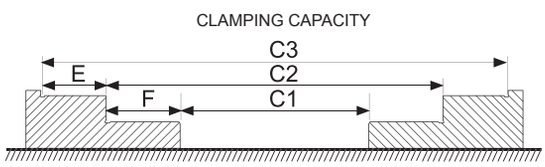
Self Centering Vise 5 AXIS VISE

PAT. SAME HEIGHT GUARANTEE

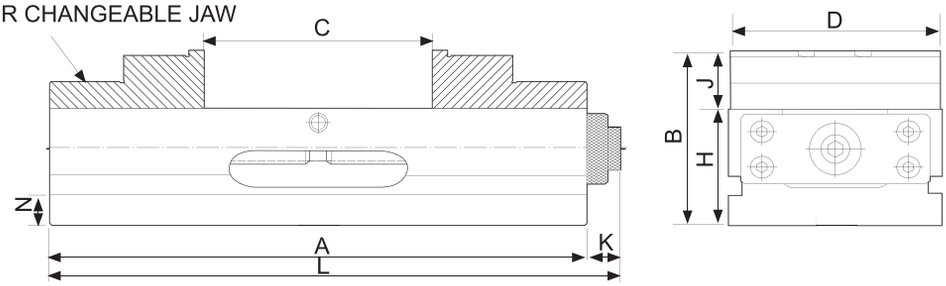
Features

- Reversible Jaw :Remove 4 Fixed Screw to Re-install Jaws.
- Suit for 4/5 axis CNC machine
- Repeat clamping tolerance ±0.01mm
- Material: high tension cast iron
- Slide way hardness: HRC 45º
- Inter changeable jaw: heat treatment HRC 50º
- Lock down-drawing force: keep work piece from lifting

VCV-1090



INTER CHANGEABLE JAW

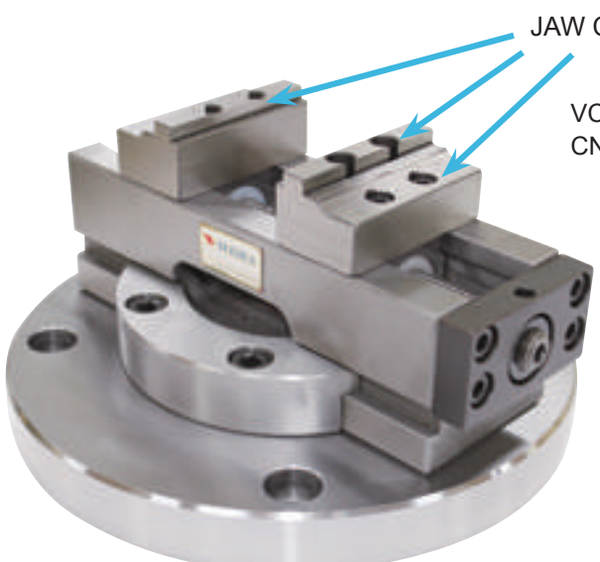


VCV-1090

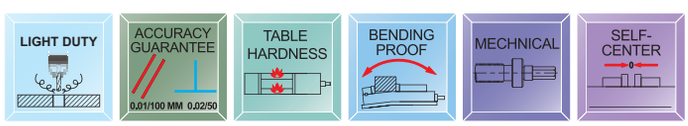
Specifications

ORDER NO.	A	B	C OPEN	Clamping Capacity			D	F	H	J	K	N	X	L	MAX. Clamp Force (kgf)	Torque For Clamp	Weight (kgs)	CODE NO.
				C1	C2	C3												
VCV-0611	170	80	106	112	45-140		61	20	55	25	15	14	14	185	300	1.8m/kgs	5	1002-107
VCV-10130	240	120	132	140	62-192		101	30	80	40	16	21	20	260	400	2.6m/kgs		1002-109
VCV-1090	240	120	90	90	70-160	134-222	101	35	80	40	20	22		260	400	2.6m/kgs	17	1002-108

With Swivel Base Type



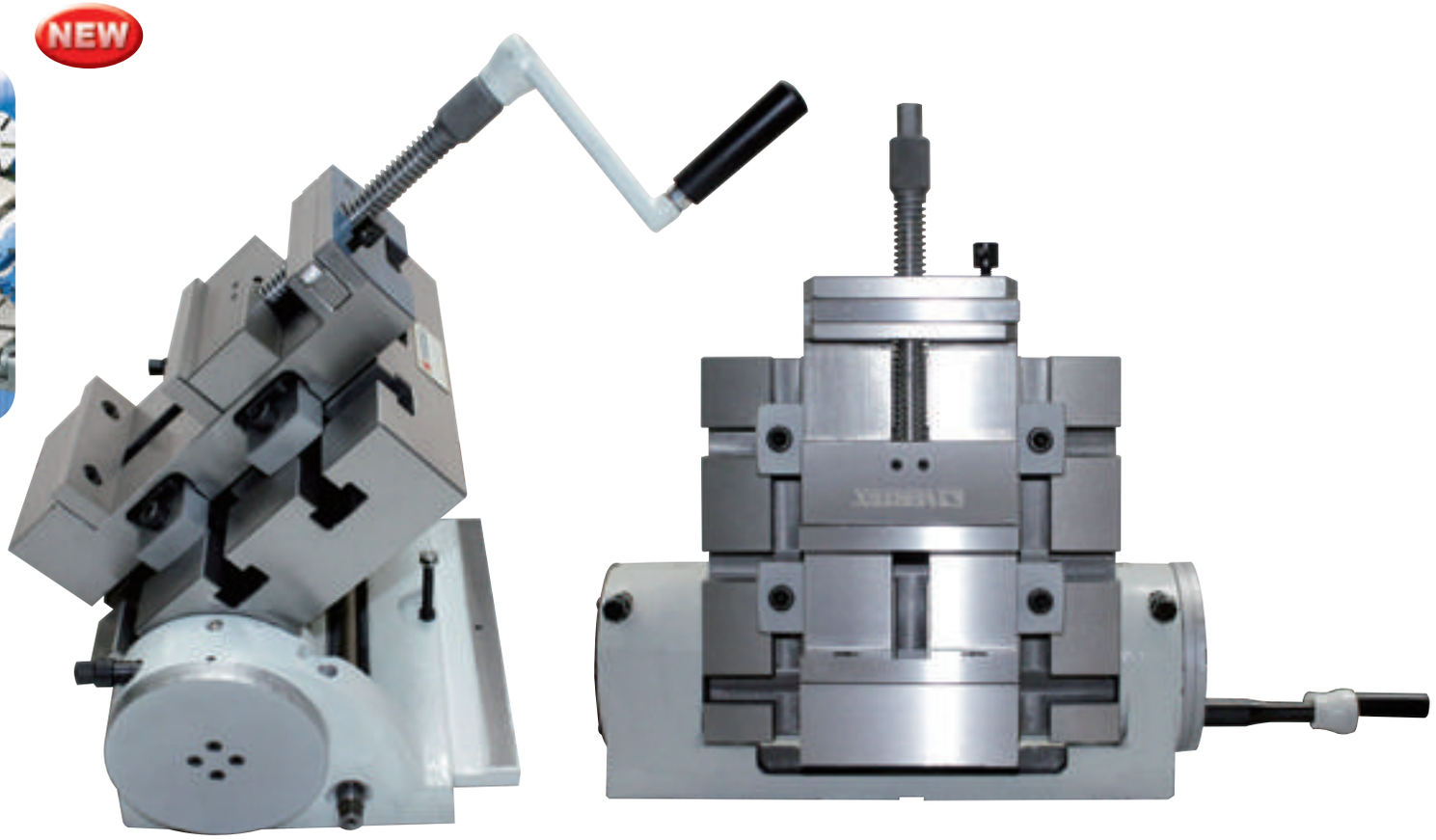
VCV-0611S FOR
CNC ROTARY TABLE



ORDER NO.	BASE SIZE	kgs	CODE NO.
VCV-0611S	Ø200 x 22 Thickness	11.1	1002-107S
VCV-10130S	Ø248 x 22 Thickness		1002-109S
VCV-1090S	Ø248 x 22 Thickness	27.5	1002-108S

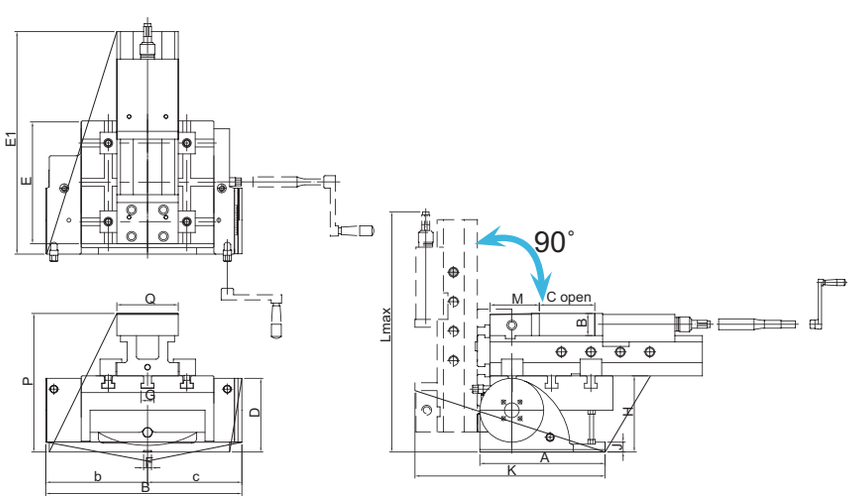
Tilting Quick Vise

NEW



0º-90º

- THE FEATURE IS SAME AS VUT-4NC
- Special design for quick clamping. (From the acme thread shaft stationly)
- Quick setting by sliding movement. Big clamping capability.
- Operating very quick and easy, can increase so much working efficiency than you can image.
- Good for short term and massive production or proto type work.
- Suit for milling machine, grinding machine, precision drilling machine.
- Accurate grounded and assembled.
- Precision cut acme thread.
- Horizontal & vertical

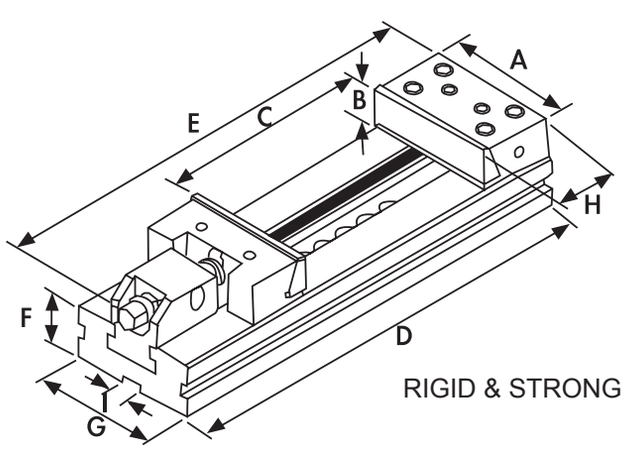


ORDER NO.	A	B	C open	D	E	E1	F	G	H	J	K	L max.	M	P	Q	b	C	CODE NO.
VUT-3QS	180	34	85	113	150	240	16	20	115	16	255	412	28	185	81	143	125	1002-258
VUT-4QS	255	36	104	150	258	266	16	22	155	20	332	485	55	227	105	210	187	1002-259
VUT-5QS	300	36	125	169	298	307	16	26	169	25	379	563	60	243	131	235	212	1002-260

Modular Precision Machine Vise

VERTEX

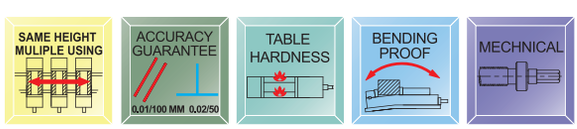
SAME HEIGHT GUARANTEE



RIGID & STRONG

Features

- High Accuracy 0.01/100 mm
- Unlimited Clamping Range
- High Quality Alloy Steel with HRC 59
- High Clamping Pressure
- EACH ONE IS SAME AS HEIGHT.
- CAN BE USED IN MULTIPLE STYLE.
- No Length of Height Limitation
- No Jaw Lift
- Low Profile
- All Vises are Matched parallelism ±0.01/100 mm
- Optional : Swivel base



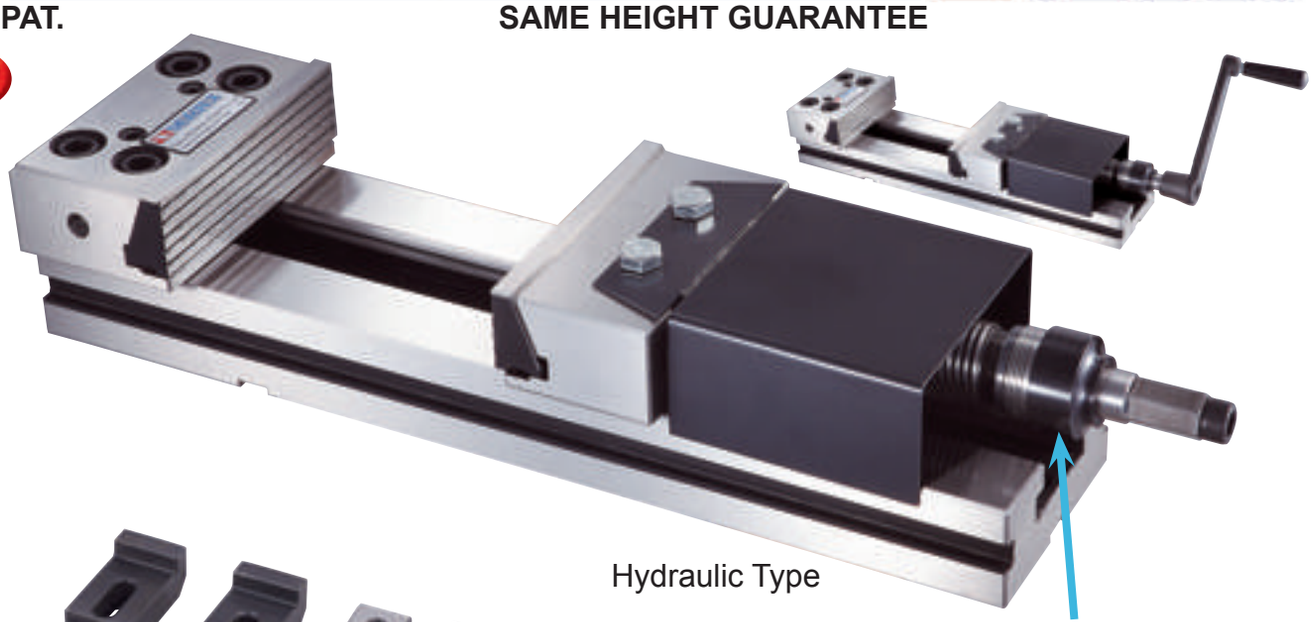
ORDER NO.	VMP -4	VMP -5	VMP -6	VMP -6B	VMP -6C	VMP -7A	VMP -7B	VMP -7C	VMP -8A	VMP -8B	VMP -8C	VMP -8D
A	100	125	150	150	150	175	175	175	200	200	200	200
B	30	40	50	50	50	60	60	60	65	65	65	65
C OPEN	100	150	200	300	400	200	300	400	200	300	400	500
D	270	345	420	520	620	455	555	655	573	595	695	795
E	325	360	530	600	700	620	620	620	718	718	718	880
F	35	40	50	50	50	58	58	58	70	70	70	70
G	75	96	125	125	125	145	145	145	170	170	170	170
H	78	78	90	89.4	89.4	97	97	97	114	114	114	113.4
I	16	16	16	16	16	16	16	16	16	16	16	16
Max. Clamp Force (kgf)	900	1300	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
KGS	9.2	16	28.5	34.8	38.1	43.7	48.3	53.5	66.3	73.2	81.3	87.2
CODE NO.	1002 -190	1002 -191	1002 -192	1002 -201	1002 -202	1002 -193	1002 -194	1002 -195	1002 -196	1002 -197	1002 -198	1002 -203

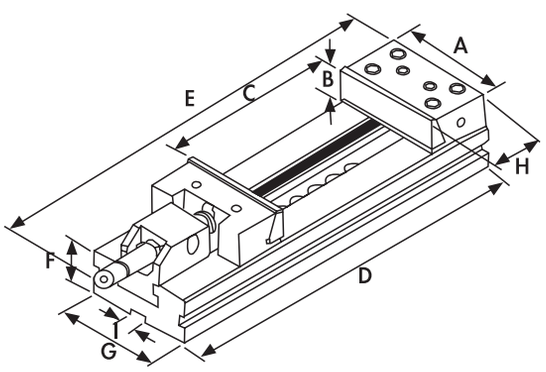
Modular Precision Hydraulic Machine Vise

VERTEX

PAT. SAME HEIGHT GUARANTEE

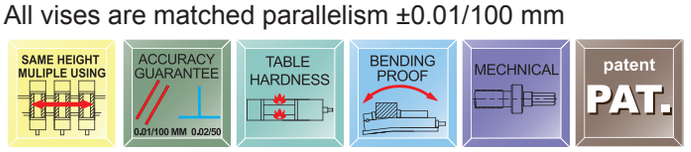
NEW





Features

- New design: Adjustable pressure device.
- Suit for processing of brass, AL, plastic, steel.
- New design: super open jaw size, smallest open jaw size. lock proof system: prevent wrong clamping force stucks the vise.
- Hydraulic clamping force 4500kg for heavy duty cutting. The screw mechanism type clamping force is 2200 kgs
- Smooth & light operation for the handle.
- High accuracy 0.01/100 mm
- Unlimited clamping range
- High quality alloy steel with HRC 59
- High clamping pressure
- Each one is same as height.
- Can be used in multiple style.
- No length of height limitation
- No jaw lift
- Low profile, strong & rigid.
- All vises are matched parallelism ±0.01/100 mm



ORDER NO.	VMP -6BH	VMP -6CH	VMP -7AH	VMP -7BH	VMP -7CH	VMP -8AH	VMP -8BH	VMP -8CH	VMP -8DH
A	150	150	175	175	175	200	200	200	200
B	50	50	60	60	60	65	65	65	65
C OPEN	300	400	200	300	400	200	300	400	500
D	520	620	455	555	655	573	595	695	795
E	700	800	635	735	835	738	760	860	960
F	50	50	58	58	58	70	70	70	70
G	125	125	145	145	145	170	170	170	170
H	89.4	89.4	97	97	97	114	114	114	113.4
I	16	16	16	16	16	16	16	16	16
Max. Clamp Force (kgf)	4500	4500	4500	4500	4500	4500	4500	4500	4500
KGS	29	33	38	43	48	65	69	74	90
CODE NO.	1002-201H	1002-202H	1002-193H	1002-194H	1002-195H	1002-196H	1002-197H	1002-198H	1002-203H

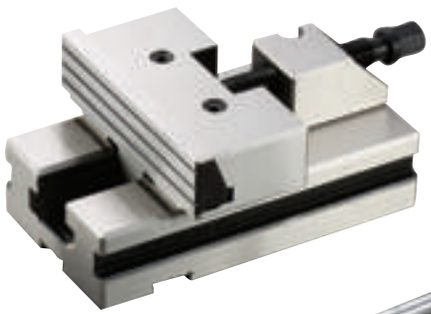
Modular Machine Free Vise

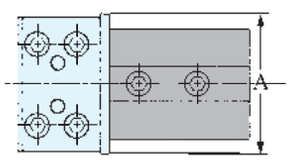
MODULAR VISES are manufactured under rigid quality control. Only the most suitable materials are used, and the accuracy of even the smallest components is assured. As a result of the high standard construction MODULAR VISES can be depended upon to maintain their accuracy under the most severe operating conditions.

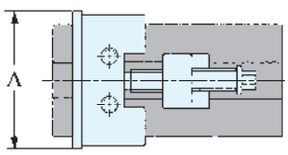
L TYPE VISE

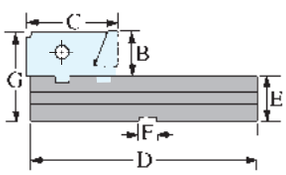
VMP-4L, 5L, 6L, 7L

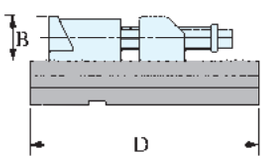
NEW









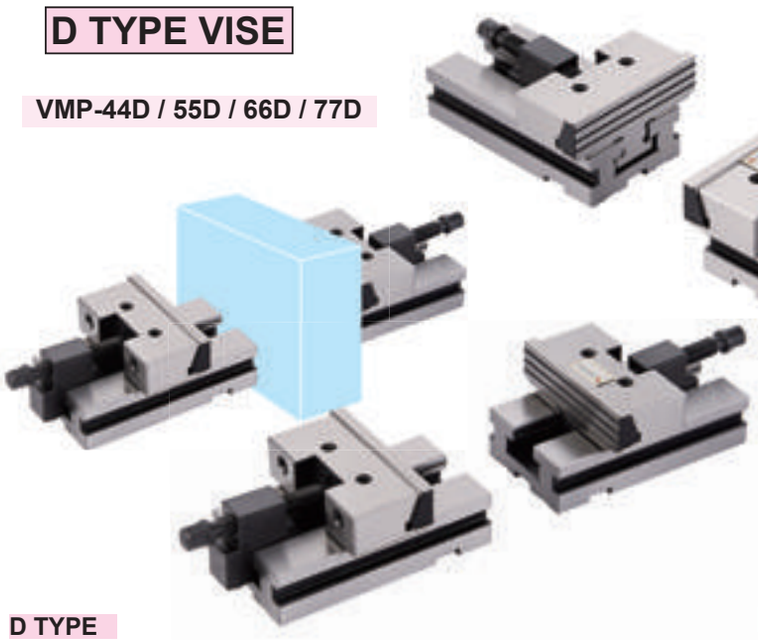


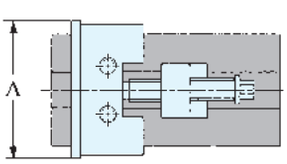
VMP-4L, 5L, 6L, 7L

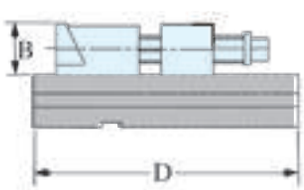
Free head stock & fixed stock can for large wider workpiece use.

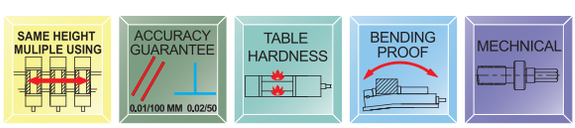
D TYPE VISE

VMP-44D / 55D / 66D / 77D









D TYPE

ORDER NO.	VMP-44D	VMP-55D	VMP-66D	VMP-77D
A	100	125	150	175
B	30	40	50	60
C	78	78	90	97
D	140	160	230	240
E	35	40	50	58
F	16	16	16	16
G	65	80	100	118
KGS	8.5	14.5	30.1	42.4
CODE NO.	1002-206D	1002-207D	1002-208D	1002-209D

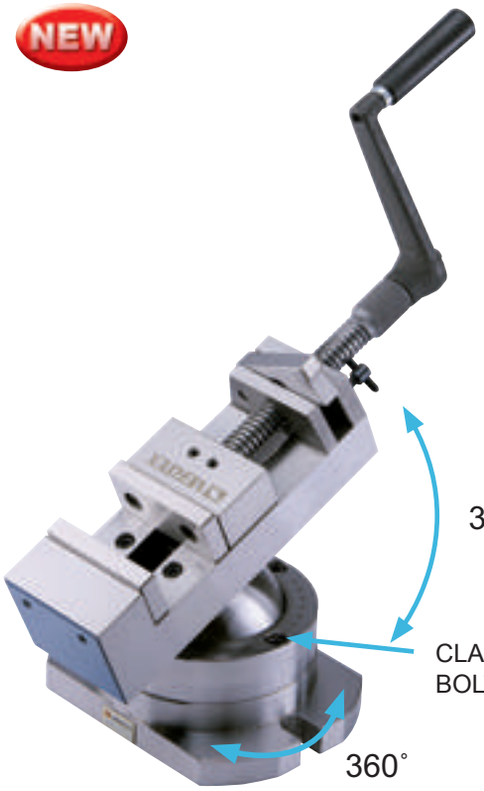
L TYPE

ORDER NO.	VMP-4L	VMP-5L	VMP-6L	VMP-7L
A	100	125	150	175
B	30	40	50	60
C	78	78	90	97
D	140	160	230	240
E	35	40	50	58
F	16	16	16	16
G	65	80	100	118
KGS	8.5	14.5	30.1	42.4
CODE NO.	1002-206	1002-207	1002-208	1002-209

Free Angle Vise

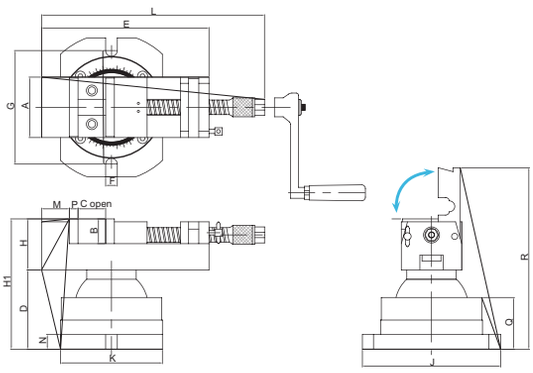
NEW

ANY TILTING ANGLE



Features

- Special design for quick clamping. (From the acme thread shaft stationly)
- Quick setting by sliding movement. Big clamping capability.
- Operating very quick and easy, can increase so much working efficiency than you can image.
- 360˚ Rotation, Tilting 30˚
- Most free angle vise
- For non-normal angle setting.
- Its swivelling and tilting features with clamping make this unit for straight or inclined surface, angular drilling machining on various machine tools or for bench work table.



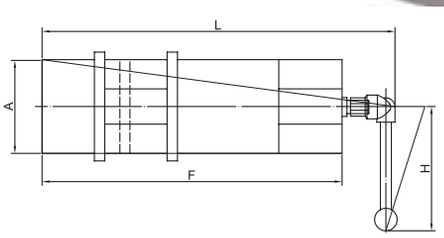
ORDER NO.	A	B	C OPEN	D	E	F	G	H	H1	J	K	L	M	N	P	Q	R	MAX. Clamp Force (kgf)	Weight (kgs)	CODE NO.
VAV-3	82	34	85	110	230	17	158	70	194	190	140	374	38	20	12	72	268	700	17.6	1002-214
VAV-4	106	36	104	120	256	17	158	72	206	190	140	422	38	20	16	72	280	800	21.4	1002-215

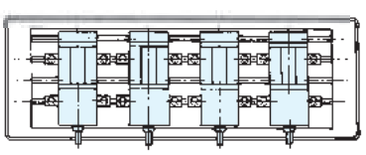
Lock-Fixed II Precision Machine Vise

ORDER NO.VMC-4
VMC-6

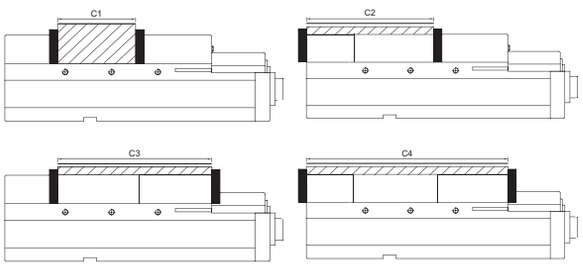
Performed sided vertically.

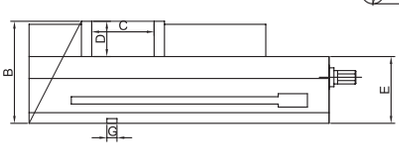
- With the ability of lock-fixed III 2, 3, 4, 5.
- Use the semi-sphere segment principle.
- When operate several vises (in a row) put on one machine bed, the operating situation is as shown.

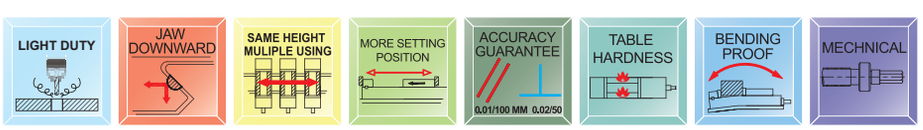




Aligned Performance



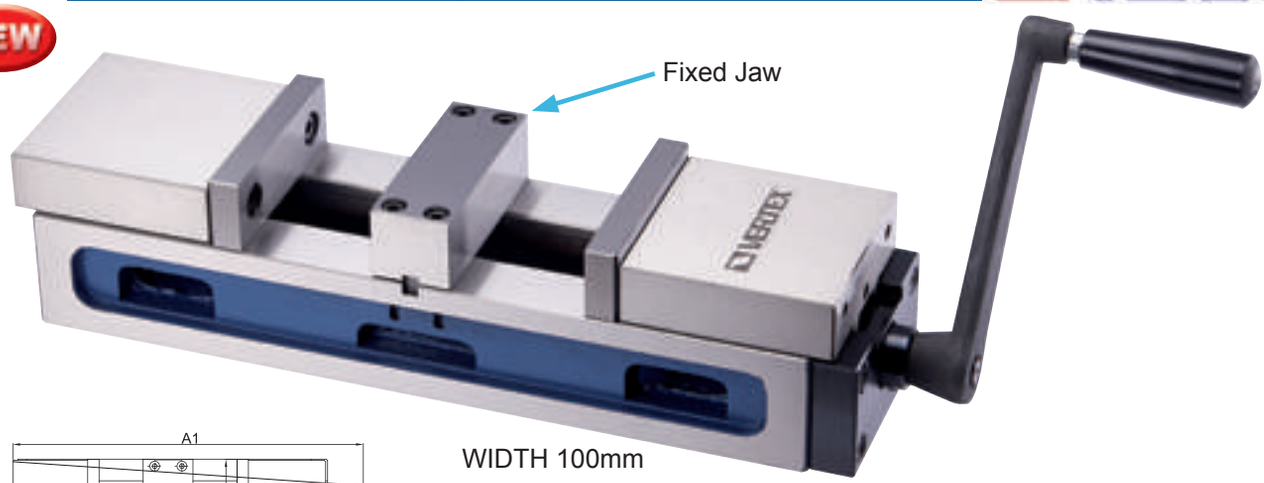


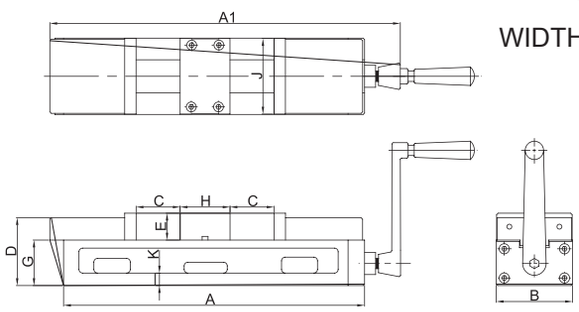


ORDER NO.	A	B	C OPEN	D	E	F	G	L	H	Max. Clamp Force (kgf)	Meas CUFT	Weight (kgs)	CODE NO.
VMC-4	108	100	103	36	63	283	16	374	202	1500	0.4	14.2	1002-185
VMC-6	156	120	150	46	74	370	16	472	221	2500	1.1	29.8	1002-186

Double Clamp Vise

NEW





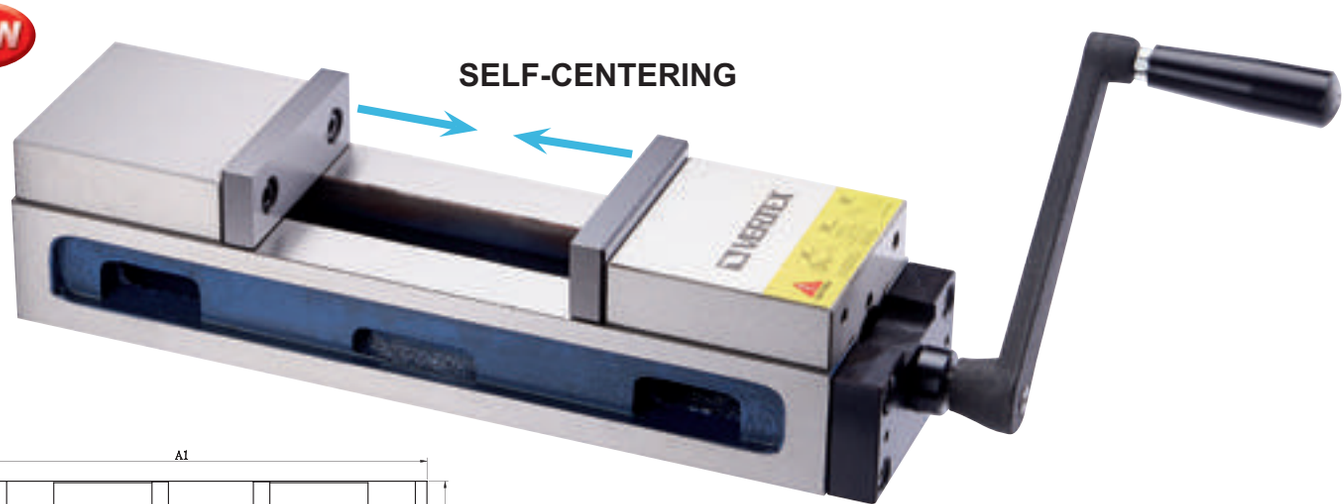
- Opened 50mm each side.
- Accept 3mm workpiece different length.
- The slide ways are hardened.
- Precision made.
- One handle can operate two movable jaws and clamps 2 pieces of workpiece of similiar size, for 3mm space.
- Lift Proof : Press down design.

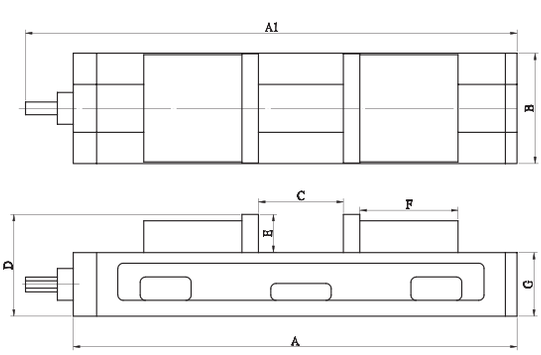
Unit:mm

ORDER NO.	A	A1	B	C OPEN		D	E	G	H	J	K	MAX. Clamp Force (kgf)	Weight kgs	CODE NO.
VCV-4D	410	469	108	0~50	0~50	92	36	62	68	107	16	450	18.2	1002-236

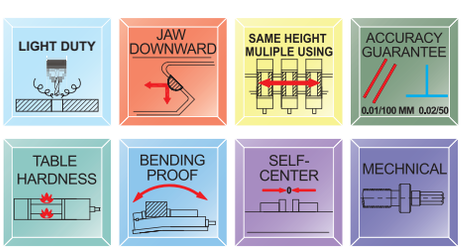
Compound Precision Vise

NEW





- Self centering. Suit for rough or irregular workpiece.
- Compact design, 185mm super opened.
- High Accuracy
- Super open capacity=190mm
- Rapid and convenient centralizing.
- Lift Proof : Press down design.



ORDER NO.	A	A1	B	C OPEN	D	E	F	G	MAX. Clamp Force (kgf)	Weight (kgs)	CODE NO.
VCV-44	420	469	108	185	98	36	102	62	450	17.7	1002-240

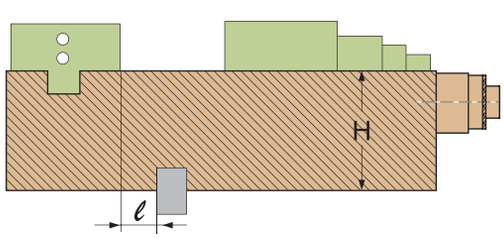
MC Power Vise

GERMAN TYPE
JAPAN TYPE

NEW

Great Capacity, Wide Clamping Range
Constant Full Length

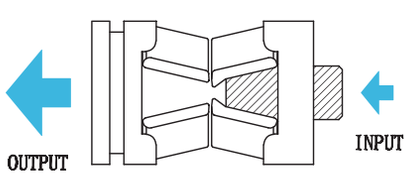
- **Ultra clamping length more than other VMC-vise**
- Big jaw opening.
- Easy operation, compact design.
- Even if the jaw is opened, it does not interfere with the cover of the mounting machine.
- Quick set up, time saving.
- When jaw is opened, it is not affect mounting machine's cover.



H-Accurance ± 0.01mm
ℓ-Accurance ± 0.01mm

SAME HEIGHT GUARANTEE

HEAVY DUTY
EURO STYLE



Driving device
Toggle joint device mechanism

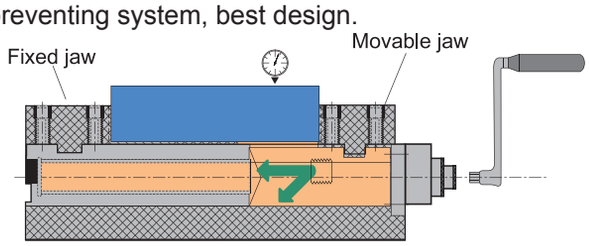
Flexible Clamp System

- High precision system keep the dimension tolerance within 0.01/100mm.
- Vise clamps long size workpieces securely & steady.
- High Accurate System: tolerance within 0.01/100mm.
- VQC Vise can hold long workpiece tight and fixed.

MC Power Vise

MC Power vises guarantee the lifting of workpiece is within of 0.02/100mm.

- Adapt a blinding beam system with workpiece lift Prevention mechanism. Pull-in effect.
- Adapt a lift preventing system, best design.



LOCK DOWN DESIGN

High power & fine balanced body structure stable clamping force

- The clamping force can be easily adjusted due to the preset mechanism.
- Mechanical type toggle enhancement mechanism.
- Clamping force can adjust to suit for different material, such as steel, brass and aluminum.
- Clamping force can be adjusted for customer's requirement.
- Adjustable clamping force device.

GREAT SMOOTH OPERATION
CLAMPING FORCE ADJUSTABLE DESIGN
From 1800 kgf to 6000 Kgf

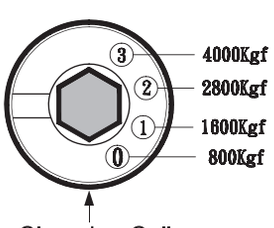
Adjustable clamping force device

ADJUSTING METHOD
1. FIXED COLLAR
2. TURN BY WRENCH TO GET NO. 0, 1, 2, 3, 4. TO HAVE CLAMPING FORCE

How to adjust the clamping force

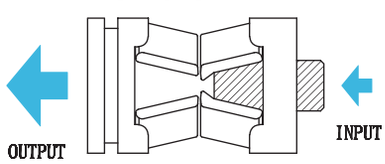
Toggle joint device mechanism.

- **One of the best vise mechanism design**
- After the moveble jaw touch,turning the handle, only the drive shaft is transmitted to the enhancement process of toggle joint device mechanism unit and the movable jaw clamps the work through the clamp spindle at the preset force.
- Clamp work piece, keep turning the handle, until the motion stop which means VQC mechanism has lock workpiece in the pre-set force.



Clamping Collar

HEAVY DUTY EURO STYLE



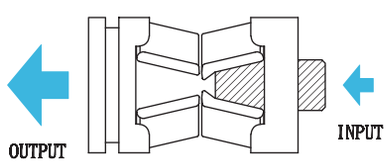
Driving device
Toggle joint device mechanism

MC Power Vise

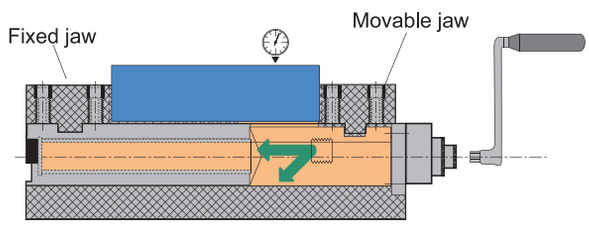
GERMAN TYPE
JAPAN TYPE

TOGGLE JOINT MECHANISM DESIGN FOR HEAVY DUTY WORKING

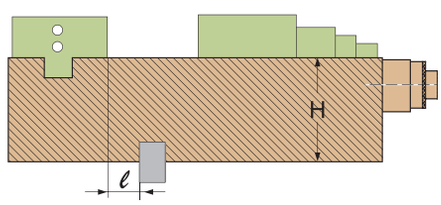
HEAVY DUTY EURO STYLE



Driving device
Toggle joint device mechanism



LOCK DOWN DESIGN

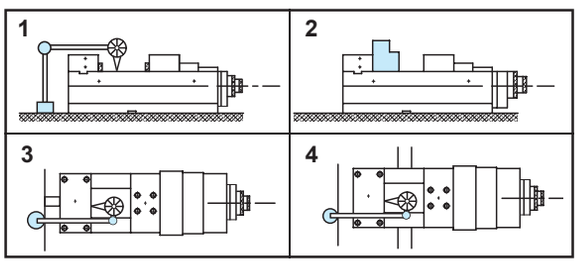


H-Accurance ± 0.01mm
ℓ-Accurance ± 0.01mm

SAME HEIGHT GUARANTEE

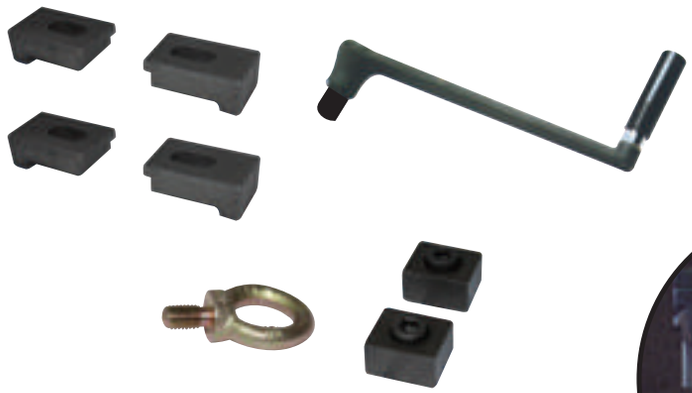
Features

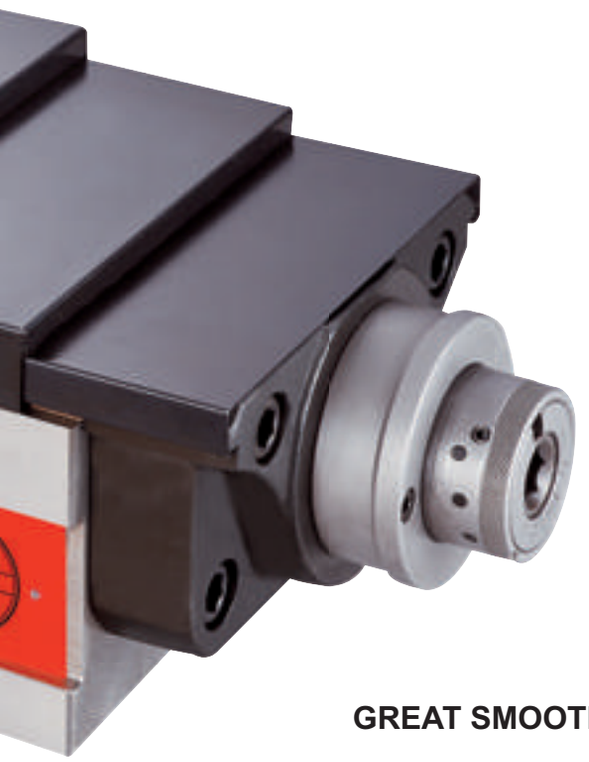
- Compact design. Great clamping capacity & rigid.
- “Toggle joint mechanism”. Provides a steady clamping force against shocks and vibrations during the operatioons, since it clamps the workpiece resiliently with an aid of the “disc-springs” mounted inside.
- Strong clamping force.
- Large jaw stroke range.
- Exclusive Power Vise provide same height same position for horizontal and vertical MC, NC, Machine.
- Body is made of FCD60 high quaility ductile cast iron, resists deflection or bending.
- Sliding bed ways flame hardened and ground.
- Concealed spindle for protection against chips and dirt.
- Quick of clamping & locking and easy of operation.



INSPECTION SPECIFICATION

NO.	Inspection Item Per (100mm)	Guaranteed
1	Parallelism: table face to bottom of bed.	0.01/100mm
2	Squareness :between table face and jaw plate.	0.02/100mm
3	Squareness: keways on bottom of table face to jaw plate.	0.02/100mm
4	Parallelism: table face of the block to bottom of bed.	0.02/100mm



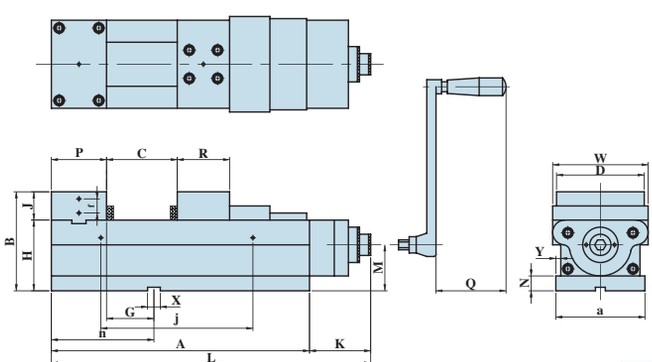


GREAT SMOOTH OPERATION

ADJUSTING METHOD
1. FIXED COLLAR
2. TURN BY WRENCH TO GET NO.
   0, 1, 2, 3, 4. TO HAVE CLAMPING FORCE
3. NO.2 IS MOST SUIT FOR WORKING

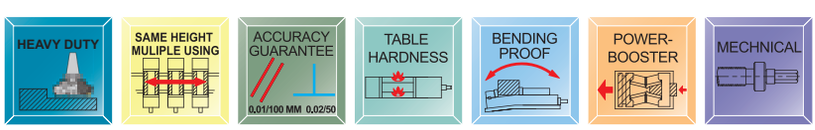
CLAMPING FORCE CHART

ORDER NO. / SCALE KN	4	3	2	1	0
VQC-100	-	30KN	21KN	12KN	6KN
VQC-125	-	40KN	28KN	16KN	8KN
VQC-160	60KN	46KN	32KN	18KN	10KN
VQC-160L	60KN	46KN	32KN	18KN	10KN
VQC-200L	60KN	46KN	32KN	18KN	10KN



CLAMPING CAPACITY

ORDER NO.	JAW J	JAW Open C	B	MAX. Clamping Force (KN)	N.W. kg	G.W. kg
VQC-100	35	128	120	30	23.2	26.2
VQC-125	40	205	140	40	36.5	40.4
VQC-160	45	275	165	60	67.0	72.3
VQC-160L	45	355	165	60	72.5	78.6
VQC-200L	70	405	190	60	99.5	108



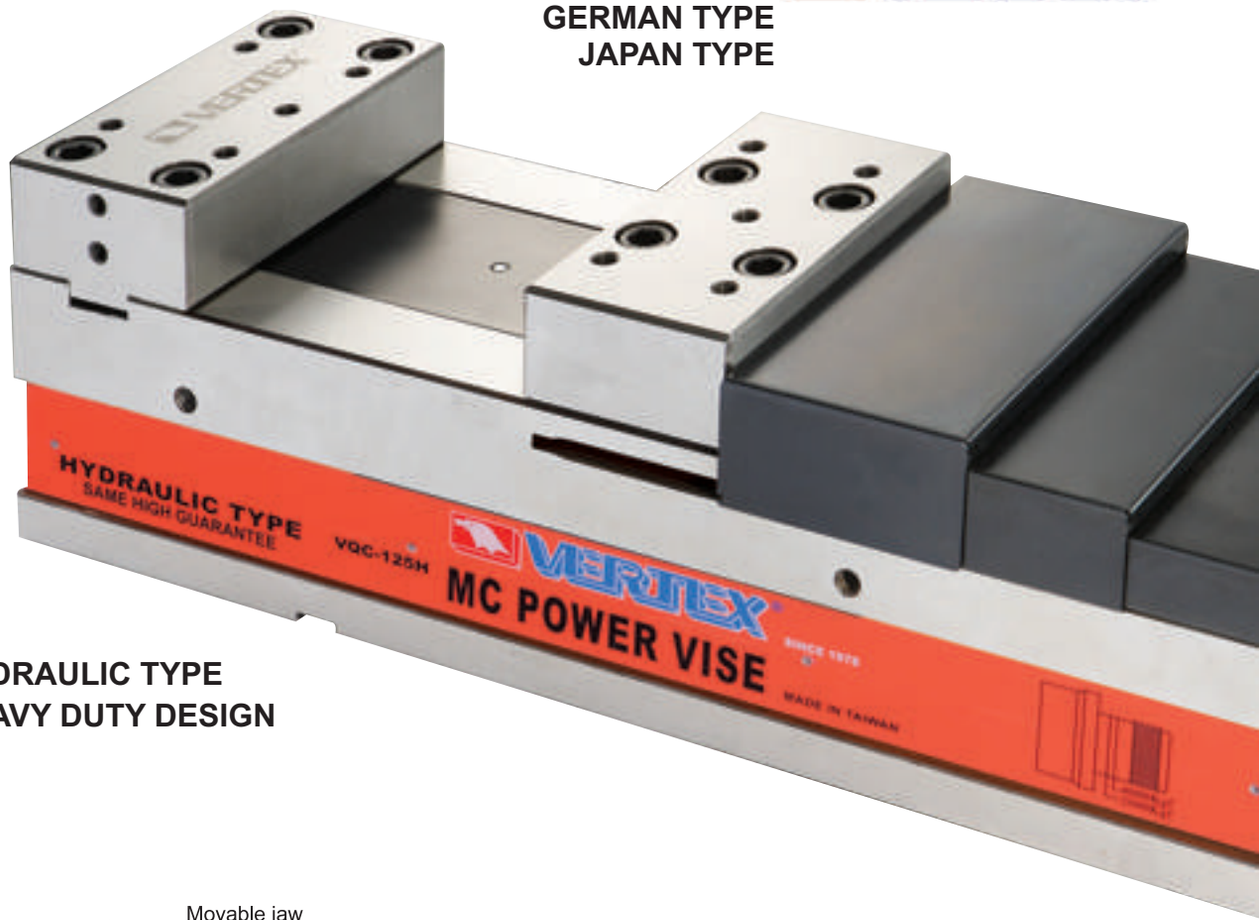
ORDER NO.	A	B	a	D	P	R	G	H	J	K	L
VQC-100	273	120	105	99	73	64	39	85	35	82.5	356.5
VQC-125	364	140	126	124.5	78	74	59	100	40	86	452
VQC-160	456	165	161	159.5	86	86	58	120	45	98	554
VQC-160L	536	165	162	160	86	86	58	120	45	98	634
VQC-200L	616	180	202	200	102	98	74	120	70	95	711

ORDER NO.	M	N	Q	W	X	Y	C OPEN	f	j	n	CODE NO.
VQC-100	50	15	74	110	14	6.5	128	20	105	112	4005-004
VQC-125	65	21	74	135	18	7	205	20	215	139	4005-005
VQC-160	78	21	94	170	18	7	275	20	286	145	4005-006
VQC-160L	78	21	94	174	18	7	355	20	286	145	4005-007
VQC-200L	75	21	96	217	18	7	405	20	386	177	4005-008

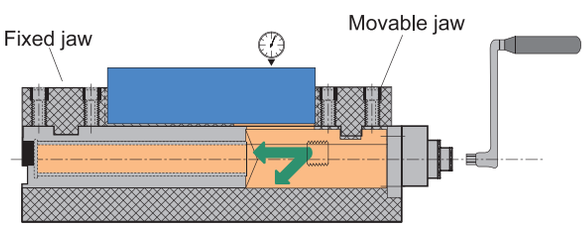
MC Power Vise Hydraulic Type

GERMAN TYPE
JAPAN TYPE

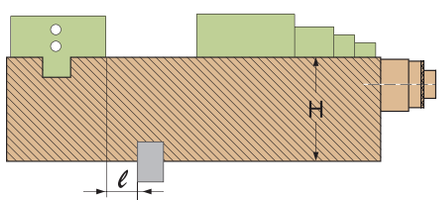
NEW



HYDRAULIC TYPE
HEAVY DUTY DESIGN



LOCK DOWN DESIGN



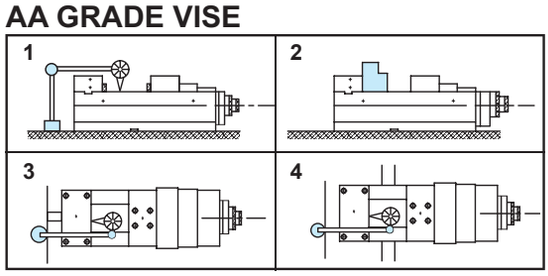
H-Accurance ± 0.01mm
ℓ-Accurance ± 0.01mm

SAME HEIGHT GUARANTEE

Features

- Compact design. Great clamping capacity & rigid. Light & smooth operation.
- Constructed for milling, drilling, machining center, grinding and many other machine shop applications.
- Body is made of FCD60 ductile cast iron, HIGH deflection/bending resistant.
- Sliding bed ways flame hardened and ground.
- Concealed spindle for protection against chips and dirt.
- Hydro-booster system for maximum clamping pressure with minimum force.
- Quick of clamping & locking and easy of operation.
- Accuracy within 0.01/100mm.
- Hydro-booster system is guaranteed for using 2 years limited.
- The hydraulic oil number is 68#
- Hydro line - one scale indicate about 1/3 of the max. clamp force.

AA GRADE VISE



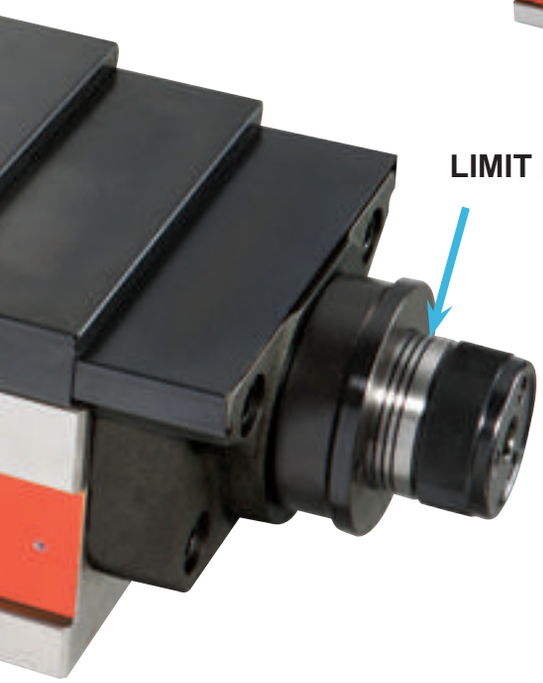
INSPECTION SPECIFICATION

NO.	Inspection Item Per (100mm)	Guaranteed
1	Parallelism: table face to bottom of bed.	0.01/100mm
2	Squareness :between table face and jaw plate.	0.02/100mm
3	Squareness: keways on bottom of table face to jaw plate.	0.02/100mm
4	Parallelism: table face of the table face block to bottom of bed.	0.02/100mm

MC Power Vise Hydraulic Type

PATENT

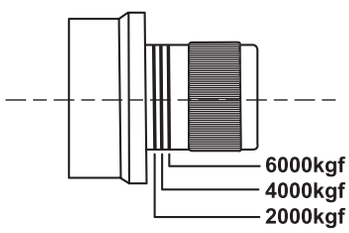
SAME HEIGHT GUARANTEE



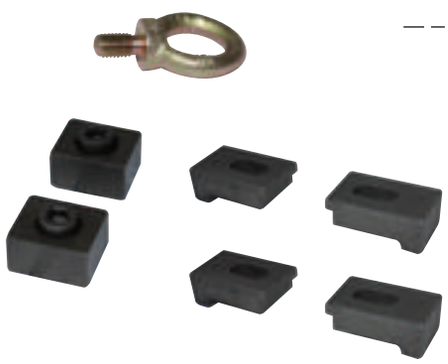
LIMIT HYDRO LINE

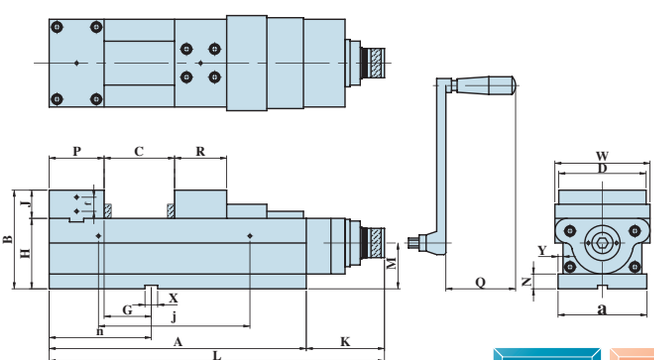
COMPACT DESIGN-

SMALL LENGTH BODY BUT
SUPER OPEN CAPACITY

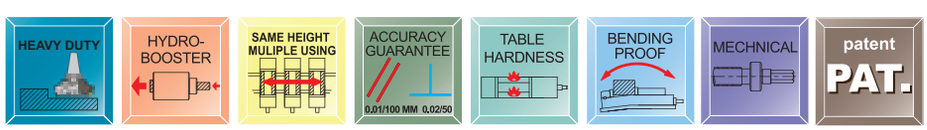


CLAMPING FORCE SCALE





ORDER NO.	JAW J	JAW Open C	B	MAX. Clamping Force (KN)	G.W. kg
VQC-100H	35	128	120	30	26.2
VQC-125H	40	205	140	40	42.5
VQC-160H	45	275	165	60	66
VQC-160LH	45	355	165	60	78.79
VQC-200LH	70	405	190	60	108



ORDER NO.	A	B	a	D	P	R	G	H	J	K	L
VQC-100H	273	120	105	99	73	64	39	85	35	110	383
VQC-125H	364	140	126	124.5	78	74	59	100	40	113.5	478.5
VQC-160H	455	165	161	159.5	86	86	58	120	45	125.5	580.5
VQC-160LH	535	165	162	160	86	86	58	120	45	125.5	660.5
VQC-200LH	615	180	202	200	102	98	74	120	70	122	737

ORDER NO.	M	N	Q	W	X	Y	C OPEN	f	j	n	CODE NO.
VQC-100H	50	15	74	110	14	6.5	128	20	105	112	4005-004H
VQC-125H	65	21	73	135	18	7	205	20	215	139	4005-005H
VQC-160H	78	21	93	170	18	7	275	20	285	145	4005-006H
VQC-160LH	78	21	93	174	18	7	355	20	285	145	4005-007H
VQC-200LH	75	21	95	217	18	7	405	20	385	177	4005-007AH

MC Power Vise

SAME HEIGHT GUARANTEE

GERMAN TYPE
JAPAN TYPE

NEW

ADJUSTING METHOD
1. FIXED COLLAR
2. TURN BY WRENCH TO GET NO.
   0, 1, 2, 3, 4. TO HAVE CLAMPING FORCE

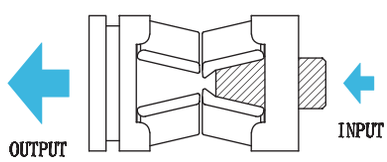
DRIVING
TOGGLE JOINT MECHANISM DESIGN FOR HEAVY DUTY WORKING

CLAMPING FORCE CHART

SCALE / ORDER NO.	4	3	2	1	0
VQC-100	-	30KN	21KN	12KN	6KN
VQC-125	-	40KN	28KN	16KN	8KN
VQC-160	60KN	46KN	32KN	18KN	10KN
VQC-160L	60KN	46KN	32KN	18KN	10KN
VQC-200L	60KN	46KN	32KN	18KN	10KN

VISE JAWS CAN TURN 180º
FOR YOUR REQUIREMENT.

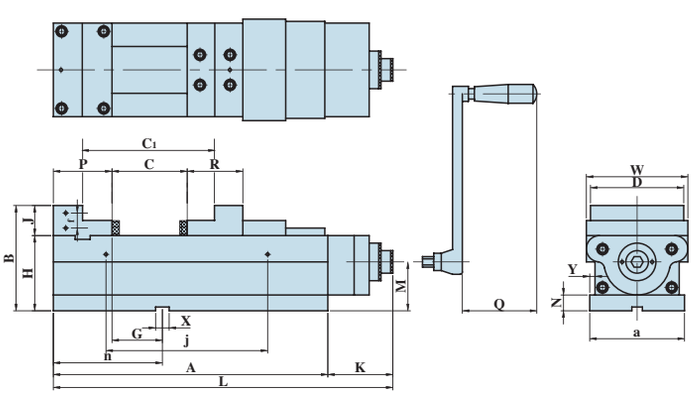
HEAVY DUTY
EURO STYLE



Driving device
Toggle joint device mechanism

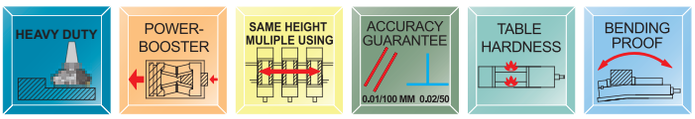
Features

- Compact design. Great clamping capacity & rigid.
- "Toggle joint mechanism". Provides a steady clamping force against shocks and vibrations during the operations,since it clamps the workpiece resiliently with an aid of the "disc-springs" mounted inside.
- Strong clamping force.
- Large jaw stroke range.
- Exclusive Power Vise provide same height same position for horizontal and vertical MC, NC, Machine.
- Body is made of FCD60 high quality ductile cast iron, resists deflection or bending.
- Sliding bed ways flame hardened and ground.
- Concealed spindle for protection against chips and dirt.
- Quick of clamping & locking and easy of operation.



L TYPE IS ULTRA OPEN TYPE

ORDER NO.	JAW J	JAW Open C	JAW Open C1	B	MAX. Clamping Force (KN)	G.W. kg
VQC-100LC	35	128	196	120	30	26.34
VQC-125LC	40	205	283	140	40	40.4
VQC-160LC	50	275	361	165	60	72.3
VQC-1602LC	50	355	455	165	60	78.58
VQC-2002LC	70	405	505	190	60	108



ORDER NO.	A	B	a	D	P	R	G	H	J	K	L	M	N	Q	W	X	Y	C OPEN	C1 OPEN	f	j	n	CODE NO.
VQC-100LC	273	120	105	99	73	64	38.5	85	35	82.5	356.5	50	15	74	110	14	6.5	128	196	20	105	112	4005-004LC
VQC-125LC	364	140	126	124.5	78	74	59	100	40	86.5	451.5	65	21	73	135	18	7	205	283	20	215	139	4005-005LC
VQC-160LC	455	165	161	159.5	86	86	58	120	50	98.5	553.5	78	21	93	170	18	7	275	361	20	285	145	4005-006LC
VQC-1602LC	535	165	162	160	86	86	58	120	50	98.5	633.5	78	21	93	174	18	7	355	455	20	285	145	4005-007LC
VQC-2002LC	615	180	202	200	102	98	74	120	70	95	710	75	21	95	217	18	7	405	505	20	385	177	4005-008LC

MC Power Vise Hydraulic Type

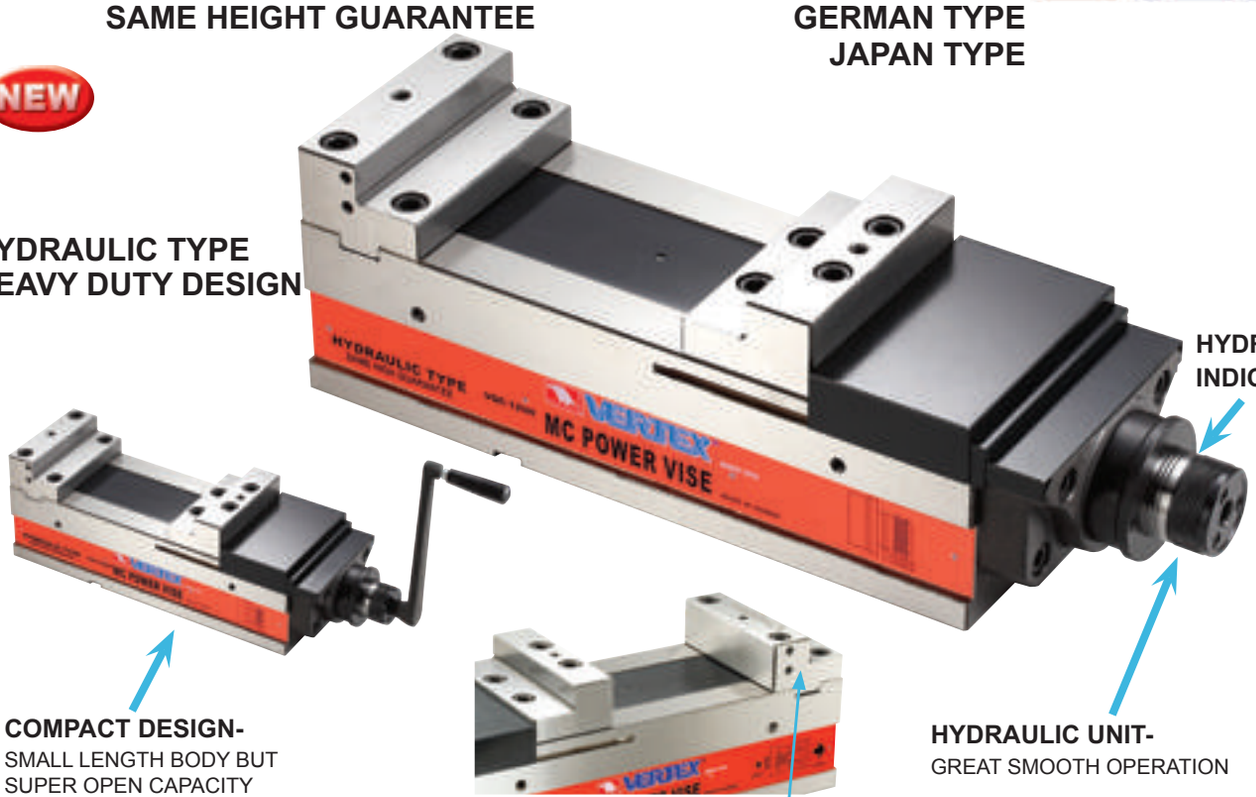
VERTEX

SAME HEIGHT GUARANTEE

GERMAN TYPE
JAPAN TYPE

NEW

HYDRAULIC TYPE
HEAVY DUTY DESIGN



HYDRO FORCE
INDICATOR A→H

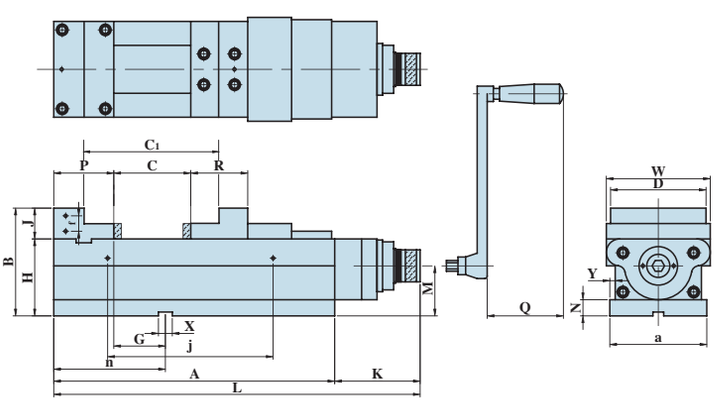
COMPACT DESIGN-
SMALL LENGTH BODY BUT
SUPER OPEN CAPACITY

HYDRAULIC UNIT-
GREAT SMOOTH OPERATION

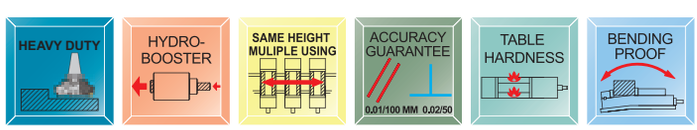
VISE JAWS CAN TURN 180°
FOR YOUR REQUIREMENT.

Features

- Compact design. Great clamping capacity & rigid. Light & smooth operation.
- Constructed for milling, drilling, machining center, grinding and many other machine shop applications.
- Body is made of FCD60 ductile cast iron, HIGH deflection/bending resistant.
- Sliding bed ways flame hardened and ground.
- Concealed spindle for protection against chips and dirt.
- Hydro-booster system for maximum clamping pressure with minimum force.
- Quick of clamping & locking and easy of operation.
- Accuracy within 0.01/100mm.
- Hydro-booster system is guaranteed for using 2 years limited.
- The hydraulic oil number is 68#
- Hydro line - one scale indicate about 1/3 of the max. clamp force.



ORDER NO.	JAW J	JAW Open C	JAW Open C1	B	MAX. Clamping Force (KN)	G.W. kg
VQC-100HC	35	128	196	120	30	26.34
VQC-125HC	40	205	283	140	40	42.5
VQC-160HC	50	275	361	165	60	66
VQC-160LHC	50	355	455	165	60	78.79
VQC-200LHC	70	405	505	190	60	108

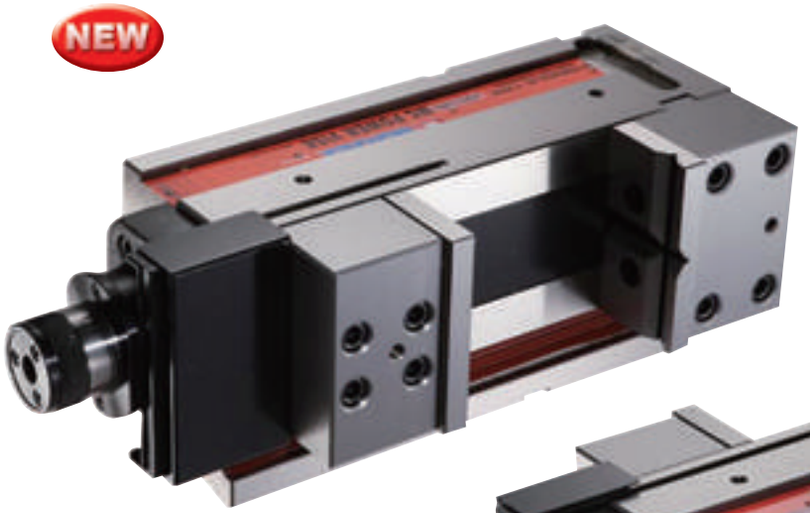


ORDER NO.	A	B	a	D	P	R	G	H	J	K	L	M	N	Q	W	X	Y	C OPEN	C1 OPEN	f	j	n	CODE NO.
VQC-100HC	273	120	105	99	73	64	38.5	85	35	110	383	50	15	74	110	14	6.5	128	196	20	105	112	4005-004HC
VQC-125HC	364	140	126	124.5	78	74	59	100	40	113.5	478.5	65	21	73	135	18	7	205	283	20	215	139	4005-005HC
VQC-160HC	455	165	161	159.5	86	86	58	120	50	125.5	580.5	78	21	93	170	18	7	275	361	20	285	145	4005-006HC
VQC-160LHC	535	165	162	160	86	86	58	120	50	125.5	660.5	78	21	93	174	18	7	355	455	20	285	145	4005-007HC
VQC-200LHC	615	180	202	200	102	98	74	120	70	122	737	75	21	95	217	18	7	405	505	20	385	177	4005-008HC

Universal MC Power Vise

PATENT

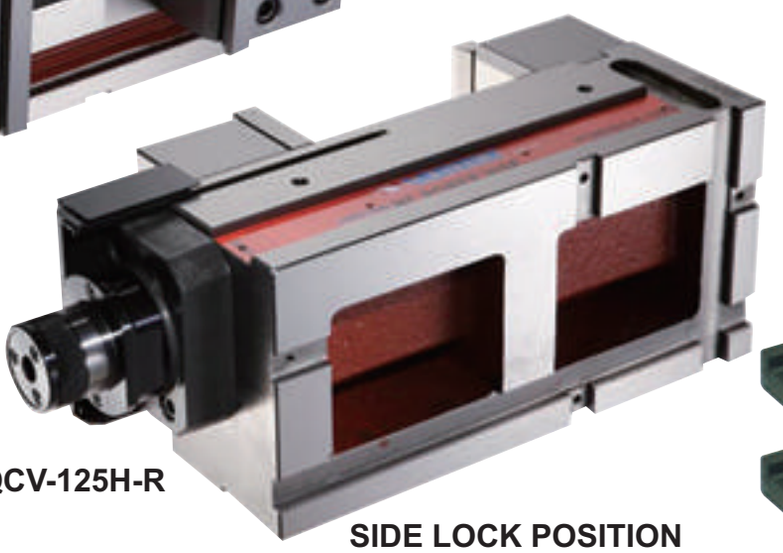
NEW



VQCV-125H-L

NEW

A GOOD POWERFUL CLAMPING WAY FOR SIDELOCK & STANDING POSITION & HEAVY CUTTING.

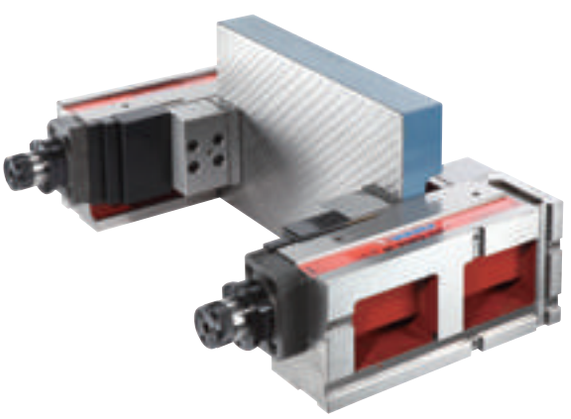


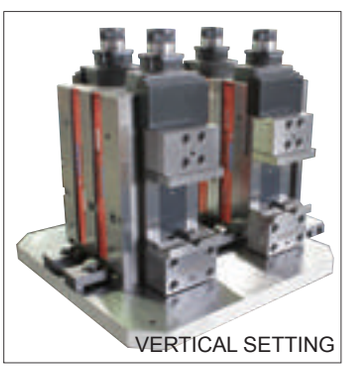
VQCV-125H-R

SIDE LOCK POSITION

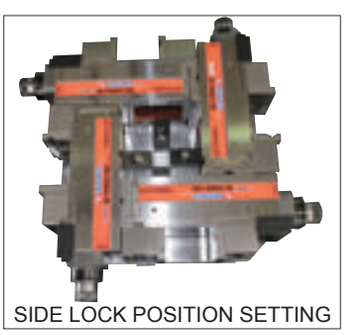
Features

- Multiple purpose.
- Fast & Horizontal & Side setting.Heavy Duty.
- Firm & Rigid & Accurate.
- Unique design allows processing being easier.
- Fast : 2 location setting slots for locating key.
- Dust-proof : concealed spindle.
- Engraved cross shaped jaw for flat & round workpiece.
- All Parts are inter - changeable with VQC-series.
- Hydro line - one scale indicate about 1/3 of the max. clamp force.

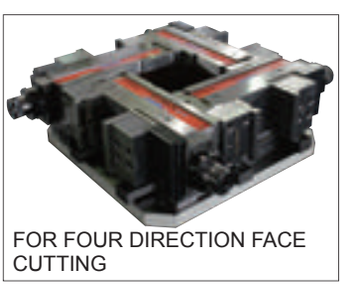




VERTICAL SETTING



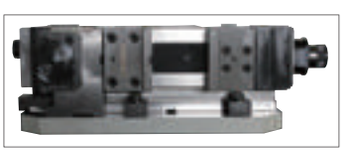
SIDE LOCK POSITION SETTING



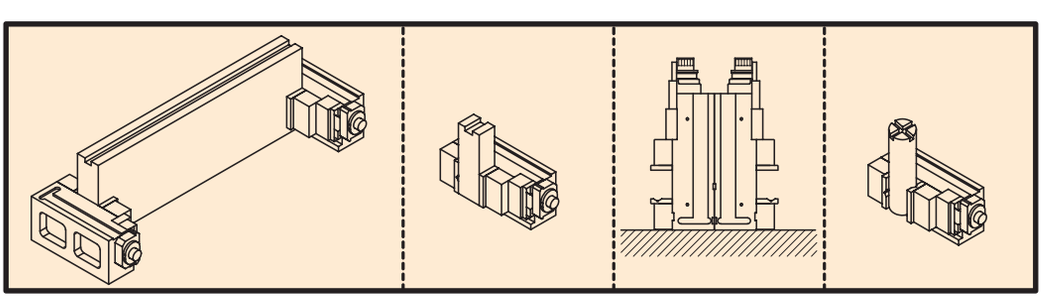
FOR FOUR DIRECTION FACE CUTTING

BACK TO BACK ALIGNMENT

- Strong & Stable
- Fast Setting



NEW DESIGN FOR BETTER CLAMPING WAY

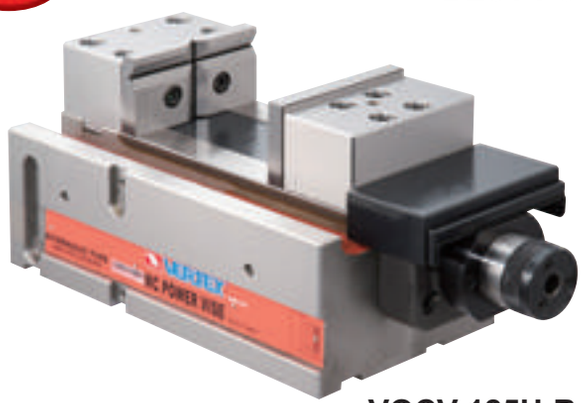


Universal MC Power Vise

PATENT

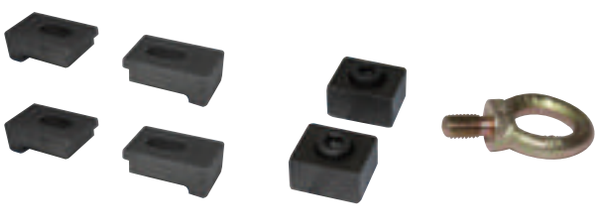
NEW

BEST FOR VERTICAL SETTING

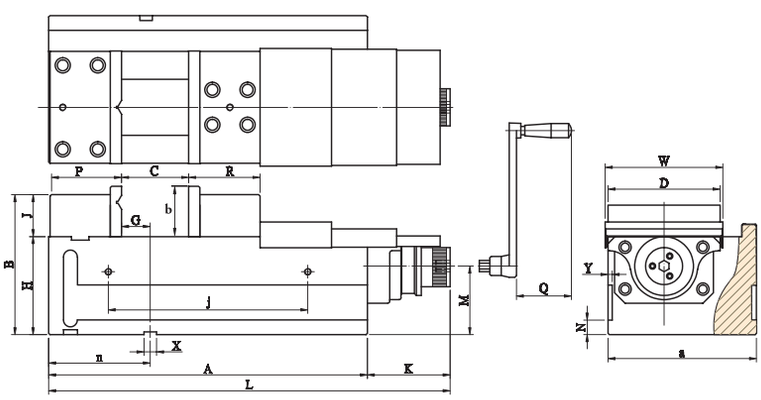


VQCV-125H-R

VQCV-125H-L



DIMENSION DIAGRAM



HORIZONTAL VERTICAL POSITION

HEAVY DUTY

- Strong Vertical Clamping

L LEFT HAND , R IS RIGHT HAND

ORDER NO.	CODE NO.
VQCV-125H - L	4005-091
VQCV-125H - R	4005-092
VQCV-160H - L	4005-093
VQCV-160H - R	4005-094

ORDER NO.	JAW b	JAW Open C	B	MAX. Clamping Force(8#KN)	G.W. kg
VQCV-125H- L/R	72	165	180	40	53
VQCV-160H- L/R	72	235	200	60	85

ORDER NO.	A	B	a	D	P	R	G	H	J	K
VQCV-125H- L/R	364	180	177	125	94	90	43	120	60	113.5
VQCV-160H- L/R	455	200	212	160	102	102	42	140	60	125.5

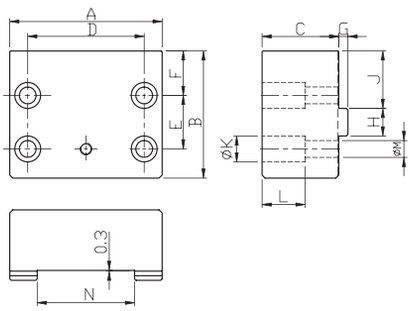
ORDER NO.	L	M	N	Q	W	X	Y	C OPEN	j	n
VQCV-125H- L/R	477.5	85	21	73	135	18	7	162	215	139
VQCV-160H- L/R	580.5	98	21	93	170	18	7	235	285	145

Soft Jaws

OPTIONAL: Soft jaw for different shape workpiece FJ & MJ can for cutting

FJ

Fixed side

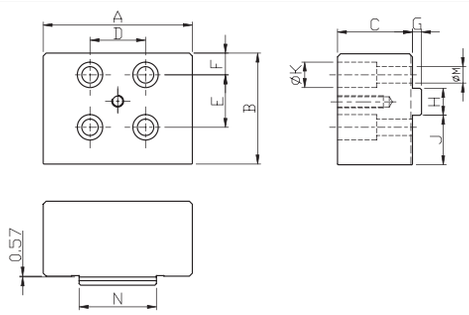


SOFT FIXED JAW

ORDER NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	WEIGHT	CODE NO.
VQC-100FJ	99.5	73	50	76	35	19	6	18	27.5	17	26	11	55	2.97	4005-013C
VQC-125FJ	124.5	91	60	88	45	29.5	8	24	40	19	33.5	13	63	4.96	4005-014
VQC-160FJ	159.5	102	60	124	50	34	9	28	45	22	30	15	84	7.2	4005-015
VQC-160L-FJ	159.5	102	60	124	50	34	9	28	45	22	30	15	84	7.2	4005-016
VQC-200L-FJ	200	122	75	140	62	40	9	28	57	25	37	17	100	3.61	4005-016A

MJ

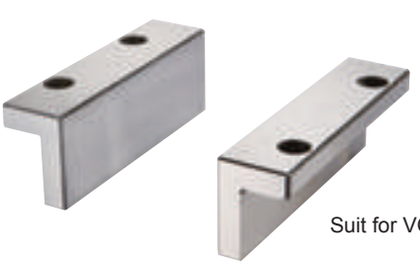
Movable side



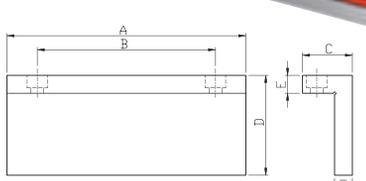
SOFT MOVEABLE JAW

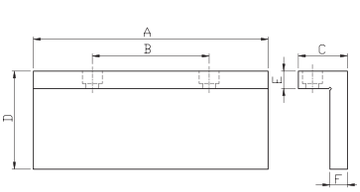
ORDER NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	WEIGHT	CODE NO.
VQC-100MJ	99.5	64	50	37	35	14.5	6	18	23	17	26	11	51.5	2.65	4005-017A
VQC-125MJ	124.5	87	60	35	42	29	8	24	38	19	33.5	13	59.5	4.73	4005-017
VQC-160MJ	159.5	102	60	56	50	34	9	28	45	22	30	15	80.5	7.25	4005-018
VQC-160L-MJ	159.5	102	60	56	50	34	9	28	45	22	30	15	80.5	7.25	4005-019
VQC-200L-MJ	200	117	75	62	59	39	9	28	54.5	25	37	17	95	13.08	4005-019A

Soft Jaws



Suit for VQC & VQC-H type





L TYPE FOR FIXED JAW

ORDER NO.	A	B	C	D	E	F	WEIGHT	CODE NO.
VQC-100FPF	100	70	37	49	15	15	0.81	4005-040
VQC-125FPF	125	80	37	54	15	15	1.06	4005-041
VQC-160FPF	160	100	42	59	15	15	1.55	4005-042
VQC-200FPF	201	150	42	84	15	15	2.56	4005-043

L TYPE FOR MOVEABLE JAW

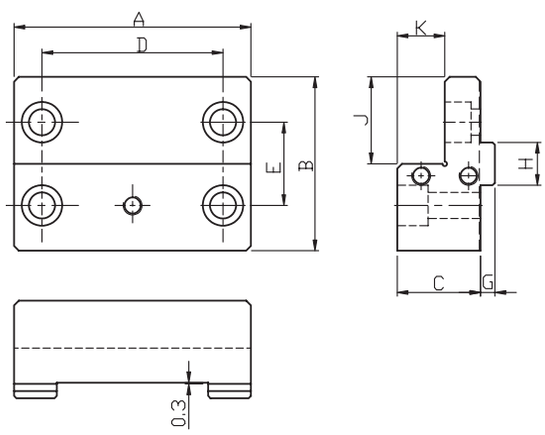
ORDER NO.	A	B	C	D	E	F	WEIGHT	CODE NO.
VQC-100FPM	100	40	37	49	15	15	0.81	4005-046
VQC-125FPM	125	50	37	54	15	15	1.06	4005-047
VQC-160FPM	160	80	42	59	15	15	1.55	4005-048
VQC-200FPM	201	100	42	84	15	15	2.56	4005-049

Hard Jaws-L Type Jaws

OPTIONAL: Hard jaw for thin type workpiece

VISE JAWS CAN TURN 180º FOR YOUR REQUIREMENT.

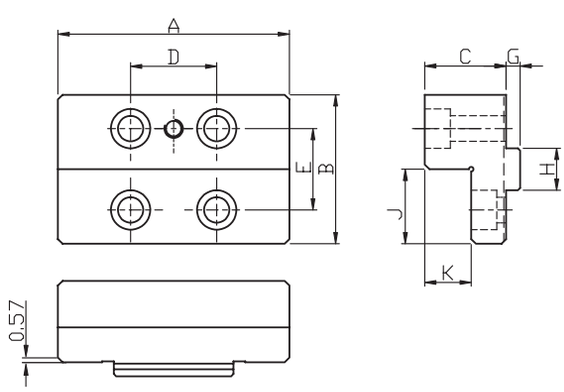
FJL



L TYPE FIXED JAW

ORDER NO.	A	B	C	D	E	G	H	J	K	WEIGHT	CODE NO.
VQC-100FJL	99.5	73	35	76	35	6	18	36.5	20	1.27	4005-010B
VQC-125FJL	124.5	78	40	88	45	8	24	39	20	2.09	4005-008A
VQC-160FJL	159.5	86	50	124	50	9	28	43	25	3.78	4005-009
VQC-160L-FJL	159.5	86	50	124	50	9	28	43	25	3.78	4005-010
VQC-200L-FJL	200	102	70	140	62	9	28	51	35	7.92	4005-010A

MJL



L TYPE MOVEABLE JAW

ORDER NO.	A	B	C	D	E	G	H	J	K	WEIGHT	CODE NO.
VQC-100MJL	99.5	64	35	37	35	6	18	32	20	1.15	4005-013B
VQC-125MJL	124.5	74	40	35	42	8	24	37	20	2.02	4005-011
VQC-160MJL	159.5	86	50	56	50	9	28	43	25	3.86	4005-012
VQC-160L-MJL	159.5	86	50	56	50	9	28	43	25	3.86	4005-013
VQC-200L-MJL	200	98	70	62	59	9	28	49	35	7.69	4005-013A

Precision MC power Vise

VERTEX for machining center

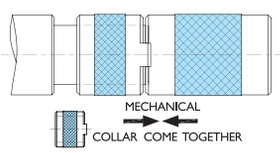
PATENT **New Design For Hydro Booster**
I Year Guarantee

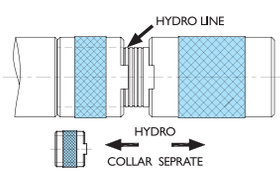
HYDRO & MECHANICAL TYPE
GREAT SMOOTH OPTERATION
SAME HEIGHT GUARANTEE

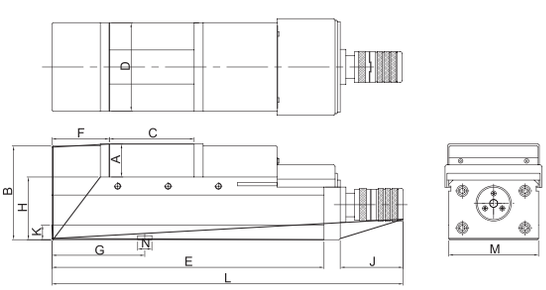
FOR THIN WORKPIECE

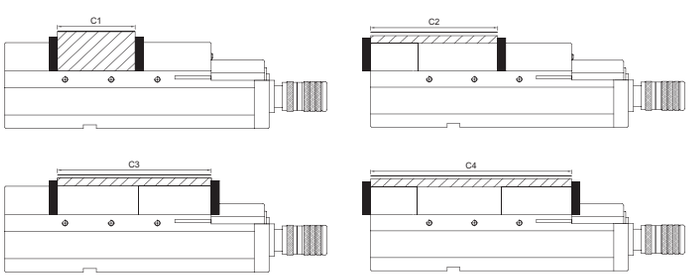
Features

- FCD 60 with 60kgs/mm^2 or 80,000 psi high quality ductile cast iron - body material - reduce the cutting vibration.
- Angle-fixed design : for vertical & horizontal cutting & processing machine.
- Everlasting clamping power : choices of 2 - Hydro & MC.
- Hydro : move the handle ring to word vise.
- Mechnical : move the handle ring toward the hex. hole.
- Heavy cutting.
- Hardness > HRC 45˚ : vise sliding bed.
- High durebility & high precision.
- Tolerance : 0.01/100mm
- Lift proof : press down design.
- Bending resistance : rigid & strong.
- Dust proof : concealed spindle.
- Fast & easy operation.
- Hydro line - one scale indicate about 1/3 of the max. clamp force.









INSPECTION SPECIFICATION

NO.	Inspection Item Per (100mm)	Guaranteed
1	Parallelism: running face to bottom of bed.	0.01/100mm
2	Squareness :between running face and jaw plate.	0.02/100mm
3	Squareness: keway on bottom of bed to jaw plate.	0.02/100mm
4	Parallelism: running face of the test block to bottom of bed.	0.02/100mm

Hydraulic Type

ORDER NO.	A	B	C OPEN	D	E	F	G	H	J	K	L	M	N	Clamping Force (kgf)	Weight Body	CODE NO.
VMC-100HV	48	130	125	100	340	80	125	85	110	15	470	101	16	3000	27 kgs	4005-060
VMC-130HV	55	147	180	130	405	85	150	95	110	21	535	131	18	4000	40 kgs	4005-061
VMC-160HV	58	168	240	160	495	100	165	105	110	21	625	161	18	5000	58 kgs	4005-062
VMC-200HV	61	170	280	200	570	118	190	110	110	21	700	201	18	6000	87 kgs	4005-063
VMC-160HVL	58	168	350	160	610	100	165	105	110	21	740	161	18	5000	75 kgs	4005-059

Precision Compact MC Vise

SAME HEIGHT GUARANTEE **for machining center**

Mechanical Type

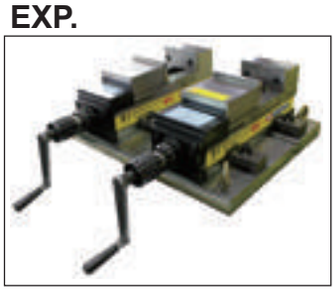
Great Smooth Operation

DESIGN FOR THIN WORKPIECE

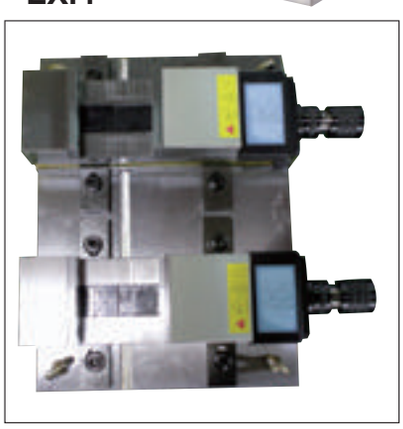
Features

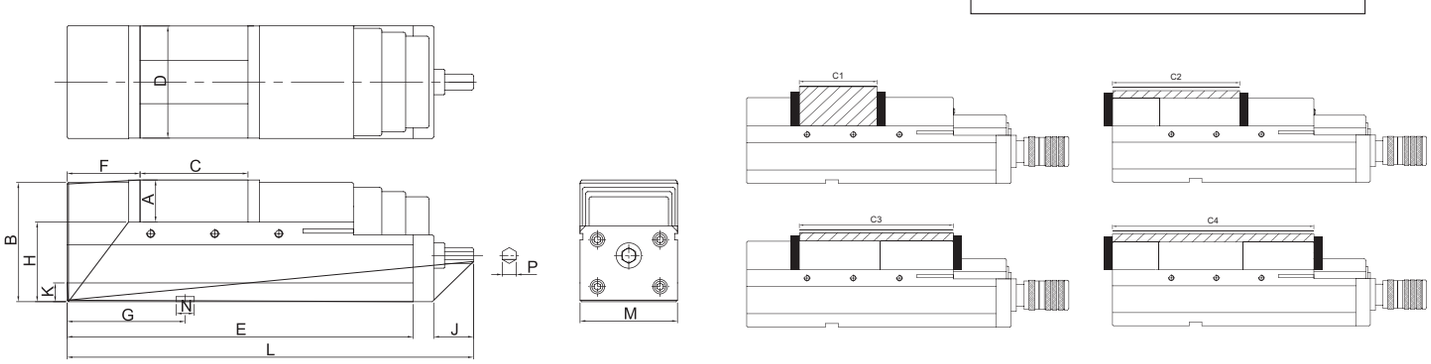
- FCD 60 high quality ductile cast iron - body material - reduce the cutting vibration.
- Angle-fixed design : for vertical & horizontal cutting & processing machine.
- Everlasting clamping power.
- Heavy cutting.
- Hardness > HRC 45˚ : vise sliding bed.
- High durebility & high precision.
- Tolerance : 0.01/100mm
- Lift proof : press down design.
- Bending resistance : rigid & strong.
- Dust proof : concealed spindle.
- Fast & easy operation.

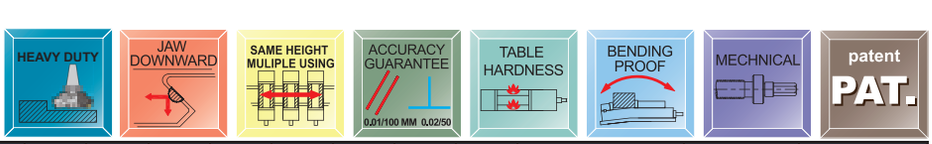
EXP.



EXP.







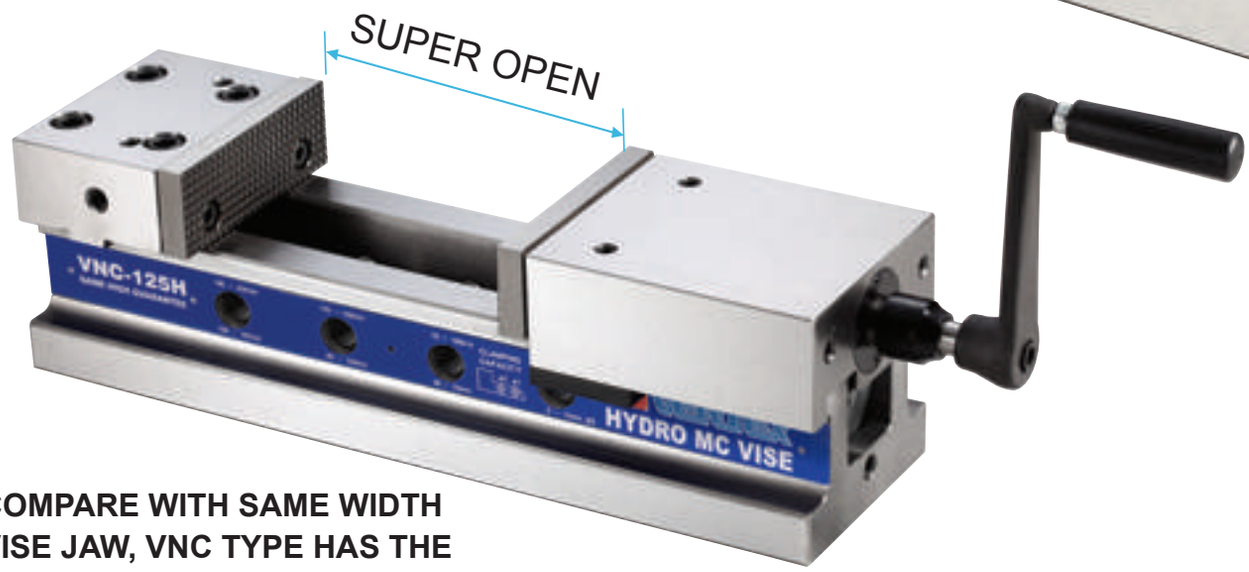
Mechanical Type

ORDER NO.	A	B	C OPEN	D	E	F	G	H	J	K	L	M	N	P	Clamping Force (kgf)	Weight Body	CODE NO.
VMC-100M	48	130	125	100	340	80	125	85	55	15	425	101	16	19	3000	26 kgs	4005-064
VMC-130M	55	147	180	130	405	85	150	96	55	21	490	131	18	19	3000	39 kgs	4005-065
VMC-160M	58	168	240	160	495	100	165	105	55	21	580	161	18	19	3000	60 kgs	4005-066
VMC-200M	61	170	280	200	570	118	190	110	55	21	655	201	18	19	3000	86 kgs	4005-067
VMC-160ML	58	168	350	160	595	100	165	105	55	21	680	161	18	19	3000	67 kgs	4005-058

NC Hydro Machine Vices

PATENT **SAME HEIGHT GUARANTEE**

NEW



COMPARE WITH SAME WIDTH VISE JAW, VNC TYPE HAS THE BIGGEST OPENING CAPACITY.

Features

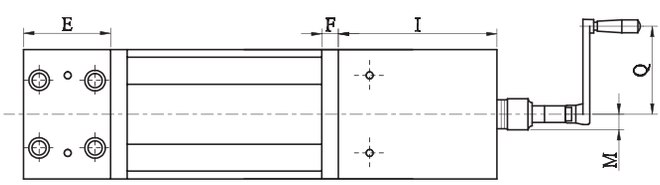
- Hydro-booster system for maximum clamping pressure with minimum force.
- Sliding bed ways flame hardened and ground.
- Compact design. Great clamping capacity. Light & smooth operation.
- Body is made of FCD60 ductile cast iron, High deflection/bending resistant.
- Constructed for machining center, milling, drilling, grinding and many other machine shop applications.
- Hydro line - one scale indicate about 1/3 of the max. clamp force.

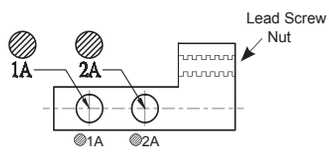
NC Hydro Machine Vices

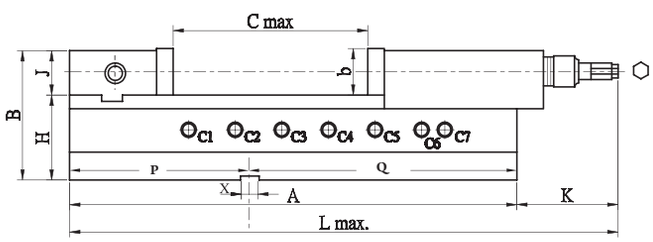
PATENT SAME HEIGHT GUARANTEE

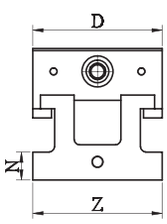
Hydraulic controller:
provide stable pressure,
Hydro indexer. Protect the hydro system.
Hydro limit proof reference scale.
Screw shaft broken proof.

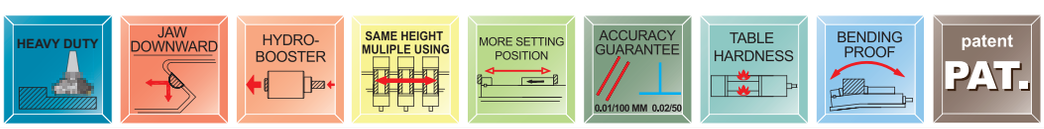
Accessories:











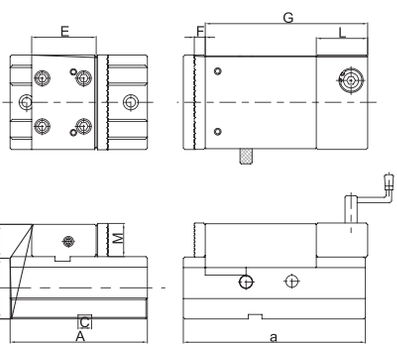
ORDER NO.	C MAX. Open	MAX. Clamping Force KN	L MAX. mm	C Lock Pin Hole Position For Opening Jaw Size (Clamping Size Capacity)							
				Lead Screw Nut	C1	C2	C3	C4	C5	C6	C7
VNC-100H	205	25	464	◍1A	2-30	57-90	115-146	173-205	-	-	-
				◍2A	0-3	28-60	86-116	145-175	-	-	-
VNC-125H	225	40	556	◍1A	10-46	70-106	130-166	190-225	-	-	-
				◍2A	0-12	38-72	98-132	158-192	-	-	-
VNC-160H	310	50	684	◍1A	13-70	93-150	173-230	253-310	-	-	-
				◍2A	0-30	53-110	133-190	213-270	-	-	-
VNC-160LH	510	50	884	◍1A	13-70	93-150	173-230	253-310	333-390	410-470	450-510
				◍2A	0-30	53-110	133-190	213-270	293-350	370-430	410-470

ORDER NO.	A	B	D	E	F	b	H	J	N	I	Z	X	P	Q	Weight (kgs)	CODE NO.
VNC-100H	380	107	100	67	13	38	70	37	24	133	100	14	152	228	23	4005-100
VNC-125H	432	126	124	85	15	45	82	44	27	147	125	18	174	258	37	4005-101
VNC-160H	550	148	159	102	18	54	95	53	27	189	160	18	219	331	63	4005-102
VNC-160LH	750	148	159	102	18	54	95	53	27	189	160	18	219	531	77	4005-103

Combination MC Power Free Vise

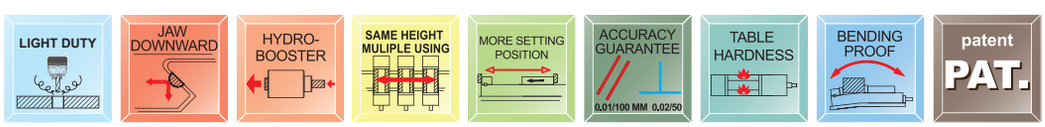
NEW

- Free clampping length capacity : more than 1500 mm
- For longer type workpiece.
- Same height guarntee can for 2 sets, 4 sets, 6 sets put together.



Features

- Hydro-booster system for maximum clamping pressure with minimum force.
- Sliding bed ways flame hardened and ground.
- Compact design. Great clamping capacity. Light & smooth operation.
- Body is made of FCD60 ductile cast iron, High deflection/bending resistant.
- Constructed for machining center, milling, drilling, grinding and many other machine shop applications.
- Free setting style.
- Handle : horizontal & vertical.
- Allow to clamp longer workpiece.



ORDER NO.	A	a	B	C	D	E	F	G	H	J	K	L	M	N	Weight kgs
VNC-100FV	150	228	103	14	99	67	13	133	70	33	24	76	34	100	19
VNC-125FV	180	250	126	18	124	85	15	147	82	44	27	78	45	125	37
VNC-160FV	200	280	148	18	159	102	18	189	95	53	27	90	54	160	63

ORDER NO.	JAW WIDTH	JAW HEIGHT	BASE HEIGHT	GUIDE BLOCK	JAW STROKE	MAX CLAMPING FORCE(KN)	CODE NO.
VNC-100FV	100	38	70	14	90	20	4005-106
VNC-125FV	125	45	82	18	106	30	4005-107
VNC-160FV	160	54	95	18	150	40	4005-108

VNC Axial Drive & Plain Jaw

Accessories For VNC Only

NEW **OPTIONAL :**

AXIAL DRIVE:

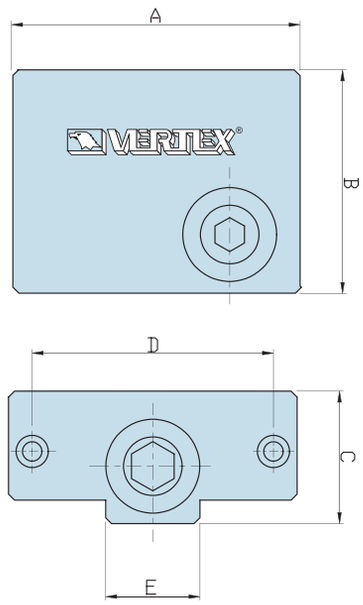
INSTALL EXAMPLE
※Vise does not included

- No more blocking.
- Better felixibility.
- Transfer to vertical drive.
- Extend functions.
- Compact design.
- Provide better escape while clamping.
- 90˚ horizontal to vertical drive.
- Light Weight & easy to install & take off.

VNC-4AD

VNC-5AD

VNC-6AD



OPTIONAL : AXIAL DRIVE

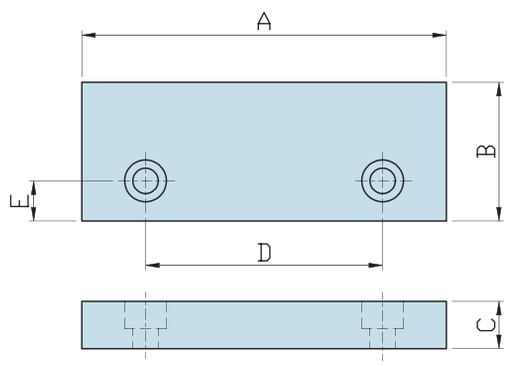
ORDER NO.	A	B	C	D	E	G.W. (KG)	CODE NO.
VNC-4AD	98	76	45	82	32	1.57	4005-111
VNC-5AD	124	78	52	96	40	2.08	4005-112
VNC-6AD	158	90	61.5	126	46	2.97	4005-113

PLAIN JAW:

PLAIN JAW

INSTALL EXAMPLE

- Spare jaw (2 piece per set)
- Accurate Harded, Ground

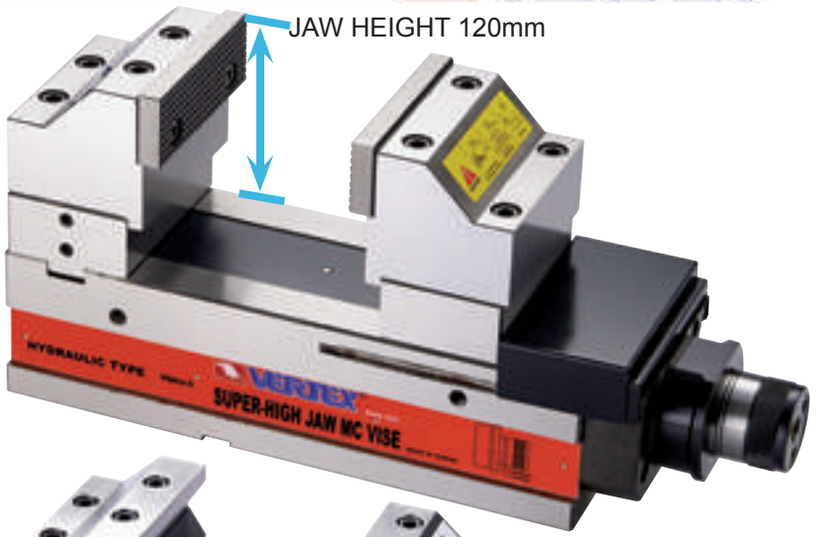


OPTIONAL : PLAIN JAW 2pcs / set

ORDER NO.	A	B	C	D	E	G.W. (KG)	CODE NO.
VNC-4PJ	100	38	13	65	11	1.3	4005-121
VNC-5PJ	125	45	15	80	14	1.5	4005-122
VNC-6PJ	160	54	18	100	17	2.6	4005-123

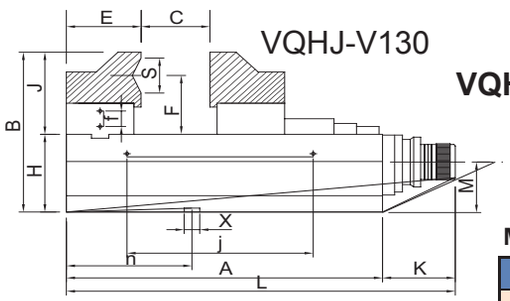
Super-High Jaw MC Vise

NEW

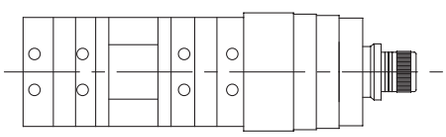


SOFT JAW

VQHJ-V130 46V 120° FOR ø12~ø90 ROUND WORK PIECE

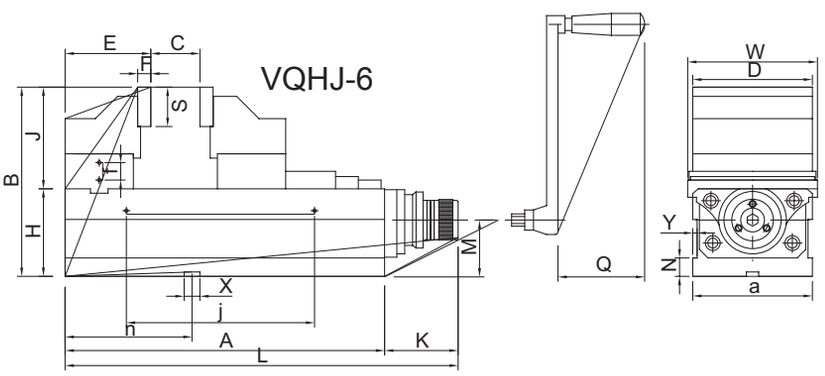


VQHJ-V160 60V 120° FOR ø16~ø120 ROUND WORK PIECE



MAX. CLAMPING FORCE

ORDER NO.	FORCE (KN)
VQHJ-5	24
VQHJ-6	36
VQHJ-V130	24
VQHJ-V160	36



VQHJ-V130 / V160

- V SHAPE HIGH JAW FOR ROUND WORKPIECE.
- CLAMPING POWER WILL REDUCE WHEN CLAMPING ROUND WORKPIECE.
- ALWAYS REMOVE HANDLE AFTER WORKPIECE IS TIGHTENED.

Features

- High jaw allows bigger clamping capacity.
- Strong clamping jaw plates.
- Compact design. Great clamping capacity & rigid.
- Large jaw stroke range.
- Exclusive Power Vise provide same height same position for horizontal and vertical MC, NC, machine.
- Body is made of FCD60 high quaility ductile cast iron, resists deflection or bending.
- Sliding bed ways flame hardened and ground.
- Concealed spindle for protection against chips and dirt.
- Quick of clamping & locking and easy of operation.
- Clamping power will reduce 20% while clamping at higher position.
- Hydro line-one scale indicate 1/3 of the max. clamp force.

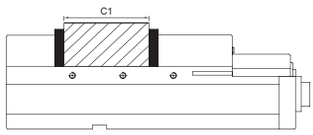
HEAVY DUTY

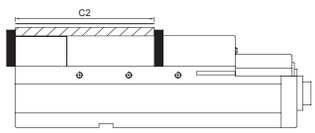
ORDER NO.	A	B	C open	a	D	E	F	H	J	K	L	M	N	Q	W	X	S	Y	f	j	n	WEIGHT (kgs)	CODE NO.
VQHJ-5	365	223	160	126	124.5	103	15	100	123	113.5	478.5	65	21	73	135	18	45	7	20	215	145	51.8	4005-201
VQHJ-6	455	249	225	161	159.5	108	18	120	129	125.5	580.5	78	21	93	170	18	54	7	20	285	145	85.8	4005-202
VQHJ-V130	365	220	180	126	124.5	90	80	100	120	113.5	478.5	65	21	73	135	18	46	7	20	215	145	51.8	4005-203
VQHJ-V160	455	225	250	161	159.5	98	85	120	125	125.5	580.5	78	21	93	170	18	60	7	20	285	145	85.8	4005-204
VQHJ-S130	365	220	180	126	124.5	90	80	100	120	113.5	478.5	65	21	73	135	18	46	7	20	215	145	51.8	4005-205
VQHJ-S160	455	225	250	161	159.5	98	85	120	125	125.5	580.5	78	21	93	170	18	60	7	20	285	145	85.8	4005-206

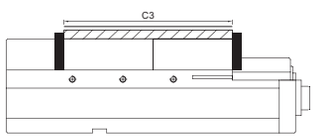
Precision Pneumatic Ang-Fixed Power Vise

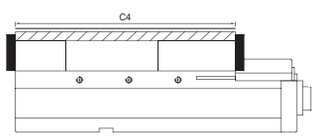
SAME HEIGHT GUARNTEE

Suitable for Mass production and to be used on machine centers, milling machines, drilling machines and special purpose machines.



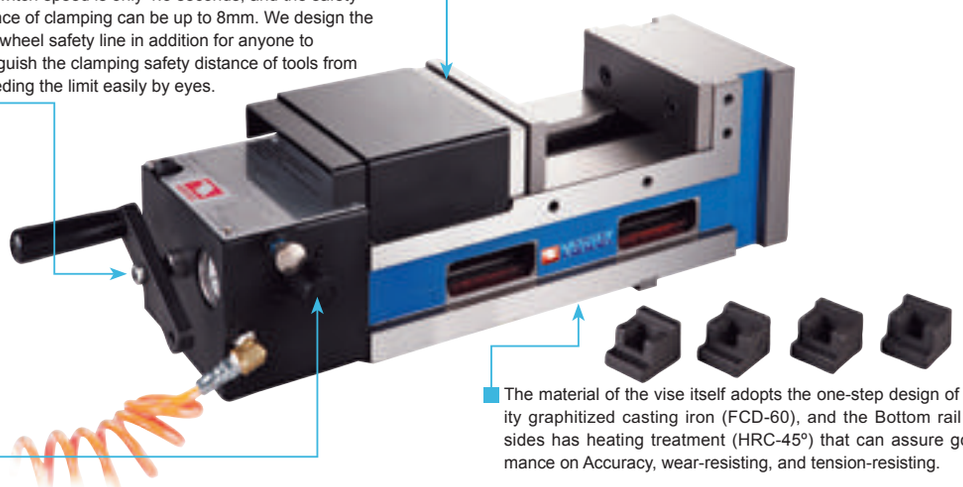






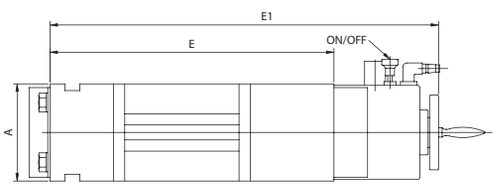
The greatest safety distance of clamping:
The switch speed is only 1.5 seconds, and the safety distance of clamping can be up to 8mm. We design the hand wheel safety line in addition for anyone to distinguish the clamping safety distance of tools from exceeding the limit easily by eyes.

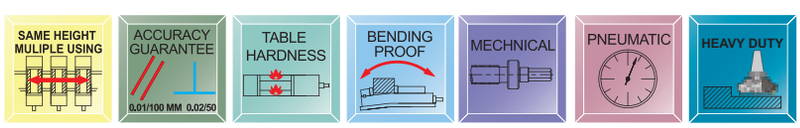
Down trust “semi-spherical segment” mechanism eliminates jaw liffing and work-piece liffing.

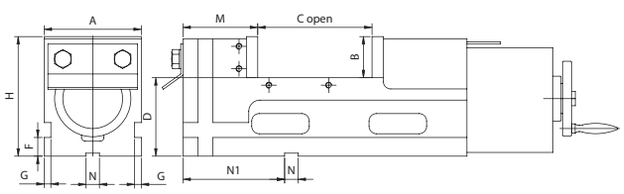


The material of the vise itself adopts the one-step design of high ductility graphitized casting iron (FCD-60), and the Bottom rail of the two sides has heating treatment (HRC-45º) that can assure good performance on Accuracy, wear-resisting, and tension-resisting.

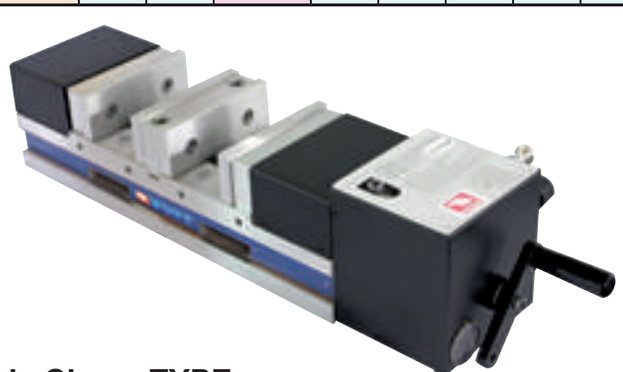
Regulator: If the air pressure is low, 8 kgf/cm², it can still achieve the super strong clamping capacity of 9000 kg/cm².
The clamping capacity from 0~9000 kg/cm² can be set freely and adjust via pressure regulator.
Automatically seeking the highest source of air pressure:
When the required pressure was set, it will not loose under low air pressure.





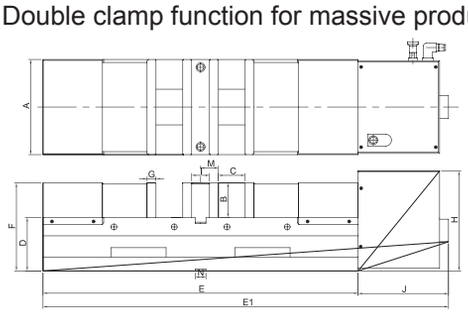


ORDER NO.	A	B	C OPEN	D	E	E1	F	G	H	M	N	N1	Max. Clamp Force (kgf)	N.W. (kgs)	CODE NO.
VMC-4P	100	48	100	100	320	450	25	8	148	100	16	145	3200	27	4005-076
VMC-5P	130	55	150	105	380	520	25	9	160	100	18	145	6000	38	4005-070
VMC-6P	160	58	160	105	400	540	25	9	163	100	18	145	6000	48	4005-071
VMC-6PL	160	58	250	105	490	630	25	9	163	100	18	145	6000	51	4005-072
VMC-7P	180	63	200	110	460	600	25	12	173	108	18	180	9000	65	4005-073
VMC-8P	200	63	200	110	470	610	25	12	173	108	18	180	9000	74	4005-074
VMC-8PL	200	63	300	110	570	710	25	12	173	108	18	180	9000	79	4005-075



Feature:

Double clamp function for massive production.



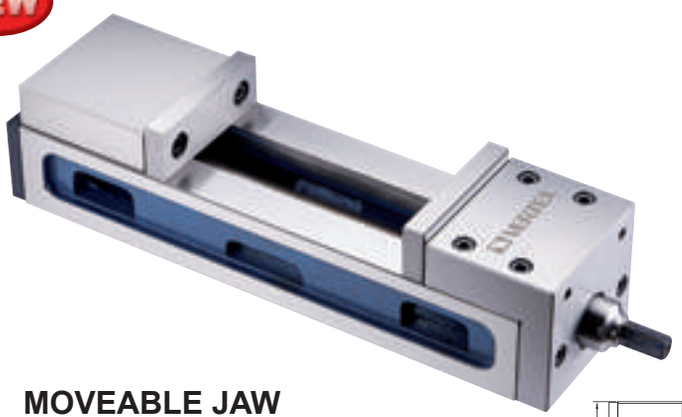
Double Clamp TYPE

Unit:mm

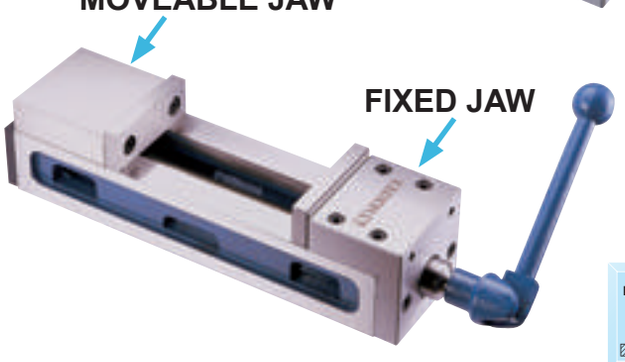
ORDER NO.	A	B	C OPEN	D	E	E1	F	G	H	I	J	N	Max. Clamp Force (kgf)	N.W. (KG)	G.W. (KG)	CODE NO.
VMC-6PD	160	58	0-100	90	530	682	148	15	168	30	152	18	4000	63	66	4005-085

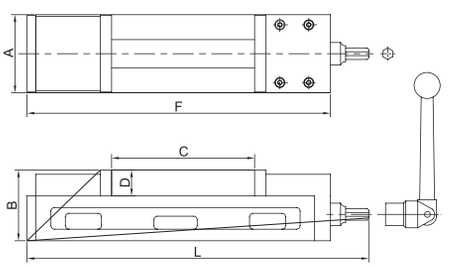
Convenient Type Machine Vise

NEW



- Moveable jaw located at outer end and align surface for workpiece is in front of operator. It is convenient for loading or unloading workpiece on such design of vise.
- The overall length of this vise is shorter than other similar vises, but keep the more jaw opening. Save space on work table.
- Extra opened
- Semi-spherical segment eliminates jaw lifting and workpiece tilting.
- Time & energy saving
- Width 100 mm opened 180 mm.



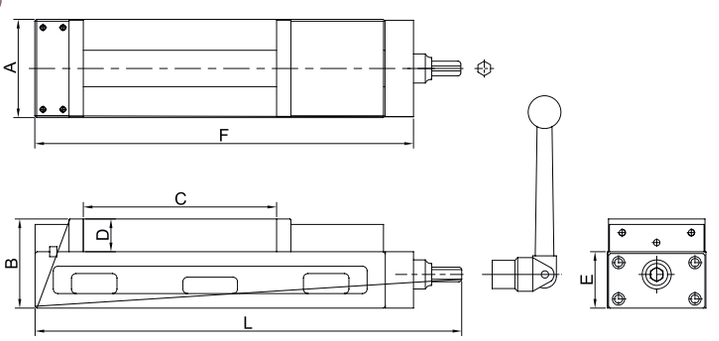


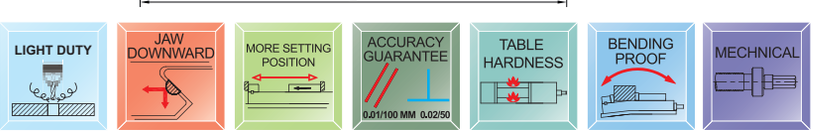
ORDER NO.	A	B	C OPEN	D	E	F	L	Max. Clamp Force (kgf)	Weas (kgs)	CODE NO.
VCM-47	108	98	180	36	62	420	470	450	17.7	4005-080

Super Open Ang-Fixed Machine Vise

NEW

- The overall length of this vise is shorter than other similar vises, but keep the more jaw opening. Save space on work table.
- Semi-spherical segment eliminates jaw lifting and workpiece tilting.
- Vise bed flame hardend to HRC up is capable to obtain low weariness and last the high accuracy for long.
- Chip covers is applied on this vise to prevent from chips falling to leadscrew and inside of vise.
- Width 100 mm opened 210 mm super open.





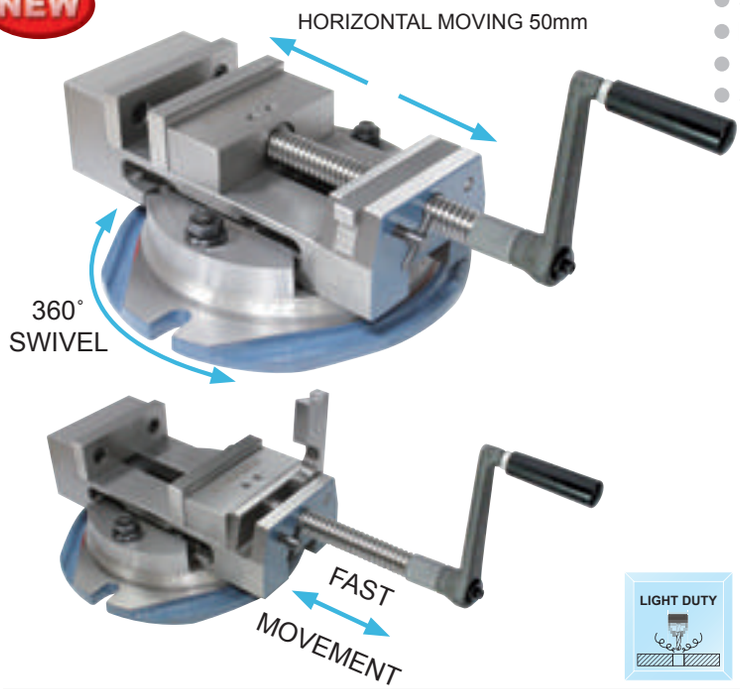
ORDER NO.	A	B	C OPEN	D	E	F	L	Max. Clamp Force (kgf)	Weas (kgs)	CODE NO.
VMC-4L	108	98	203	36	62	420	470	450	17.3	4005-095

Horizontal Moving Quick Vise

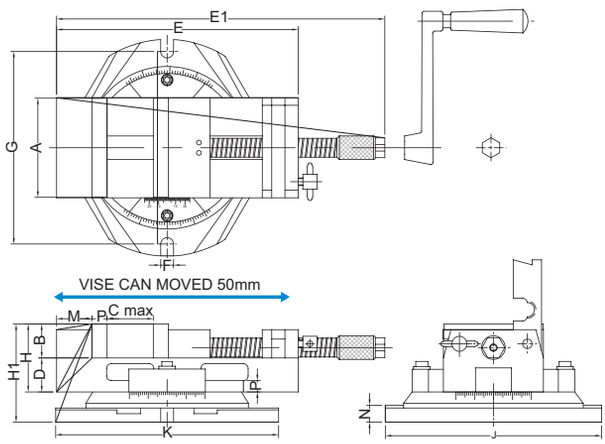
VERTEX

2 WAY MOVING

NEW



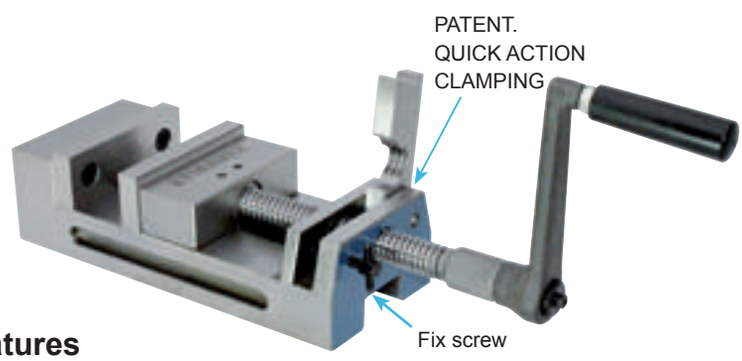
- Special design, for milling M/C, drilling M/C.
- Easy & quick to find process position.
- For round table drilling machine. If it don't have cross table.
- 360˚ rotation

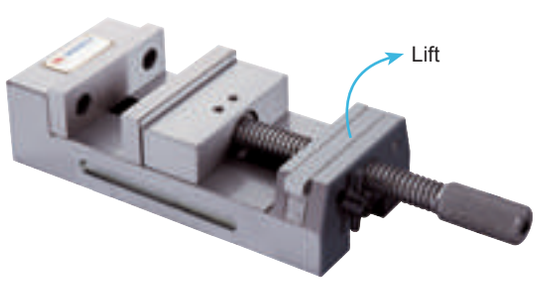


LIGHT DUTY | FAST MOVE | ACCURACY GUARANTEE 0.01/100 MM 0.02/50 | TABLE HARDNESS | BENDING PROOF | MECHNICAL | patent PAT.

ORDER NO.	A	B	C max.	D	E	E1	F	G	H	H1	J	K	M	N	P	MAX.Clamp Force kgf	G.W.	CODE NO.
VQW-80	81	34	85	36	230	374	14	214	70	100	242	230	28	30	12	700	13.5	1002-245
VQW-100	105	36	104	36	256	422	16	264	72	106	303	272	37	34	16	800	15.8	1002-246
VQW-130	131	36	125	38	297	490	16	264	74	108	303	272	38	34	29	800	22.7	1002-247

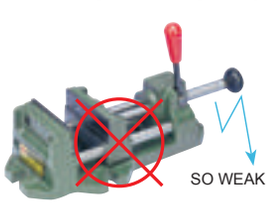
Quick Setting Vise

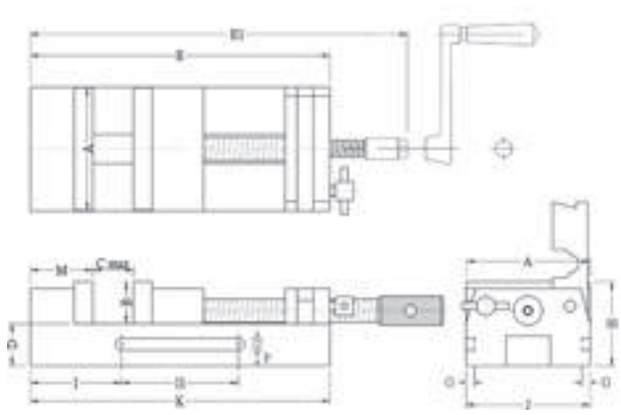




Features

- Special design for quick clamping. (From the acme thread shaft stationly)
- Quick setting by sliding movement. Big clamping capability.
- Operating very quick and easy, can increase so much working efficiency than you can image.
- Good for short term and massive production or proto type work.
- Suit for milling machine, grinder machine, precision drilling machine useding.
- Accurate grounded and assembled.
- Precision cut acme thread, it can get 800kgs high clamping force.
- Horizontal & vertical
- Accuracy 0.02 / 100 mm

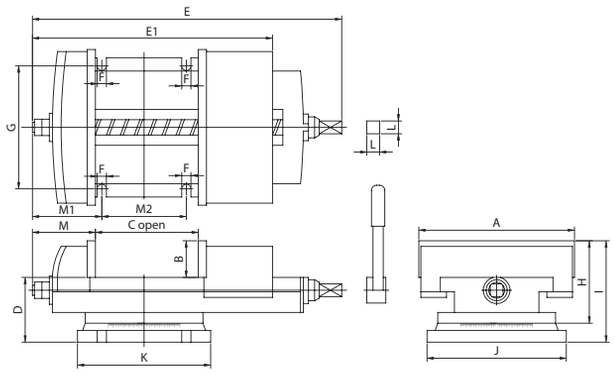




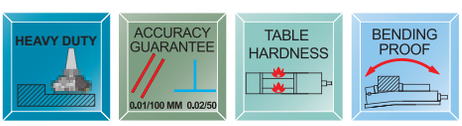
LIGHT DUTY | FAST MOVE | ACCURACY GUARANTEE 0.01/100 MM 0.02/50 | TABLE HARDNESS | BENDING PROOF | MECHNICAL | patent PAT.

ORDER NO.	A	B	C max.	D	E	E1	F	G	H	I	I1	J	K	M	MAX.Clamp Force kgf	G.W.	CODE NO.
VQS-3	81	34	85	36	230	374	12	5	70	51	128	82	230	50	700	7	1002-262
VQS-4	105	36	104	36	256	422	12	5	72	54	148	106	256	54	800	9.5	1002-263
VQS-5	131	36	125	38	297	490	13	5	74	59	178	132	297	67	800	14.5	1002-264

Machine Vise For Shaping & Milling Use



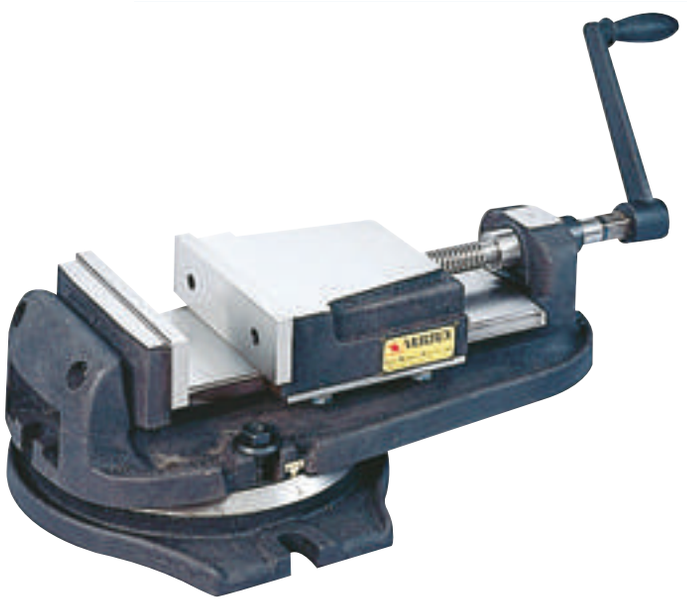
The vise is made of the high tension cast iron, rigidity, large range of clamping spans and more bigger clamping force at press down jaws, especially suitbable for the heavy duty cutting and the heavy duty planner milling machine to clamp large workpiece.

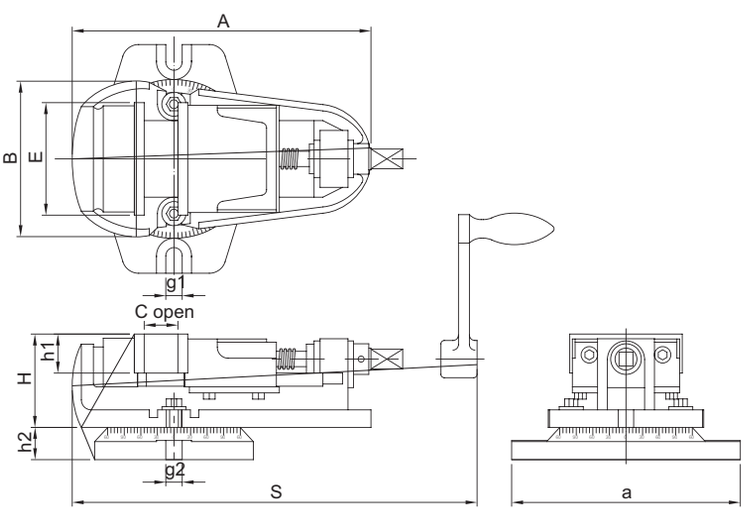


Unit:mm

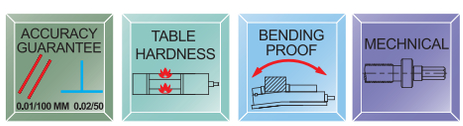
ORDER NO.	A	B	C OPEN	D	E	E1	F	G	H	I	J	K	L	M	M1	M2	Max. Clamp Force (kgf)	G.W. (kgs)	CUFT (cm)	CODE NO.
VSM-12	304	72	290	126	604	560	18	240	161	198	272	260	25	123	135	165	800	84	67x35x23	1002-270
VSM-16	405	96	415	145	763	738	20	292	200	241	336	336	25	135	143	248	1000	142	84x45x27	1002-271
VSM-20	508	95	505	150	902	871	21	288	204	245	336	336	25	169	211	246	1200	200	97x56x28	1002-272

B-Type Milling Vise





- A wider bottom to increase clamping force.
- Groove device to collect cutting oil.
- Full 360º swivel base with line, accurate graduation.
- In order to ensure the accurence when using it' better that don't put swivel base together



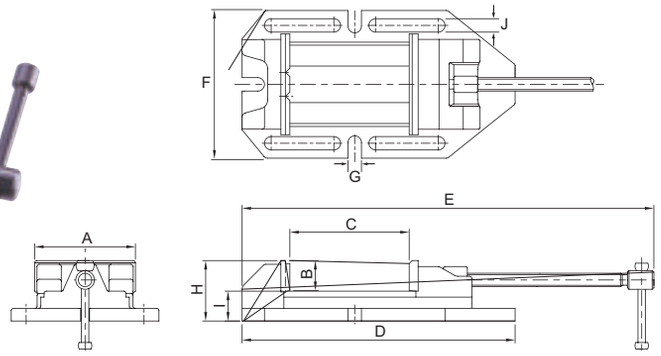
ORDER NO.	A	B	E	H	C OPEN	S	a	h1	h2	g1	g2	Max. Clamp Force (kgf)	G.W. kgs	CODE NO.
VBV-4	270	140	100	79	65	305	212	33	28	12	12	900	13	1002-280
VBV-5	350	180	125	96	100	410	280	37	35	15	15	900	21.5	1002-281
VBV-6	452	218	160	103	132	483	317	48	40	16	16	1000	41	1002-282

Super Open Drill Vise

VERTEX

NEW

EURO TYPE



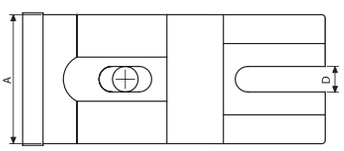
- Big opened.
- Big clamping capacity.
- With prisma jaw for round workpiece.
- For drilling & milling using.

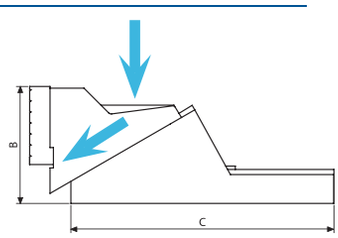
LIGHT DUTY

Unit:mm

ORDER NO.	A	B	C OPEN	D	E	F	G	H	I	J	V	MAX.Clamp Force kgf	G.W. (kgs)	CFT (cm)	CODE NO.
VRV-4	110	32	130	316	471	179	16	73	40	16	5-32	450	9.8	32.3 x 13.3 x 12.9	1002-320
VRV-5	135	40	160	366	552	207	16	81	40	16	6-40	650	14.0	32.3 x 13.3 x 12.9	1002-321
VRV-6	160	50	220	447	693	247	16	96	45	16	7-48	900	25.7	32.3 x 13.3 x 12.9	1002-322

Free Vise



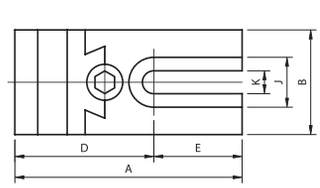


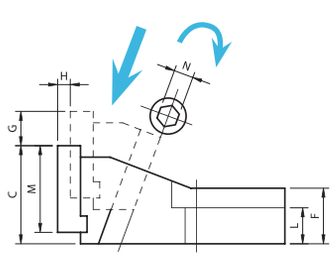
- FV type is light duty.
- Free style clamping For big workpiece.
- Adjustable distance 15mm For clamping.

LIGHT DUTY

Unit:mm

ORDER NO.	DIMENSION (WxHxL)	CLAMPING CAPACITY (HxL)	ACCESSORIES BOLT SIZE	MAX.Clamp Force kgf	WEIGHT (kgs/2PCS)	CODE NO.
FV-350	75x67x150mm	140x350mm	M12 x 75L x 2PCS. M12 x 125L x 2PCS	900	7.5	1002-290
FV-450	100x90x200mm	180x450mm	M12 x 75L x 2PCS. M12 x 125L x 2PCS	900	14	1002-291
FV-550	125x120x250mm	250x550mm	M16 x 75L x 2PCS. M16 x 125L x 2PCS	900	23	1002-292





- Free style clamping For big workpiece.
- Heavier duty.
- Adjustable distance 10mm For clamping.

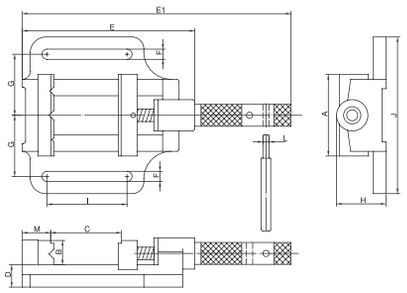
LIGHT DUTY

Unit:mm

ORDER NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	MAX.Clamp Force kgf	ACCESSORIES BOLT SIZE	N.W. (kgs)	CODE NO.
SV-62	139	64	59.5	85	54	33.5	21	9	30.5	18	22	52.5	12	1800	M12 x 75L x 4PCS	5.8	1002-293
SV-85	192	86.5	86	115	77	53	24	10	36	18	25.5	59.5	12	1800	M16 x 75L x 4PCS	11	1002-294
SV-125	218	127	84	124	94	51.5	33	18	45.5	20	23.5	73	12	1800	M16 x 75L x 4PCS	21	1002-295

Drill Vise

NEW



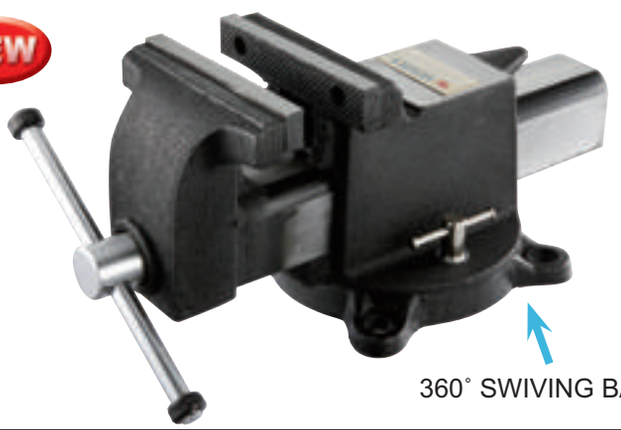
- Designed with solid structure, main body is made of FC15, assemble a pair of heat treated steel jaws with hardness HRC 45º~50º
- Suitable for clamping work piece on drill press machine & milling machine
- Jaw pair and handle are surface treated by black oxide finish
- Front fixed prismatic jaw with cross V-grooves is designed for clamping work piece firmly in both vertical & horizontal directions

LIGHT DUTY

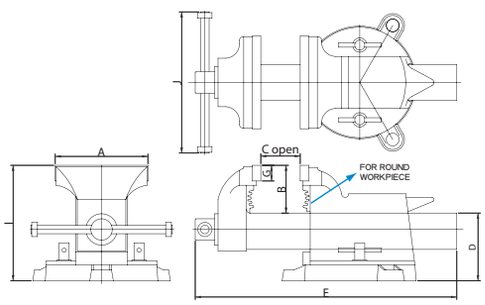
ORDER NO.	A	B	C OPEN	D	E	E1	F	G	H	I	J	L	M	WEIGHT	CODE NO.
DV-85	84	25	85	27	182	287	12	64	56	80	167	8	32	3.5	1015-041
DV-100	104	31	100	28.5	220	343	13	78	63	102	200	8	36	5.7	1015-042
DV-120	132	38	120	32	250	395	14	91	71	127	226	9.5	45	8.2	1015-043

Steel Bench Vise With Base

NEW



360˚ SWIVING BASE



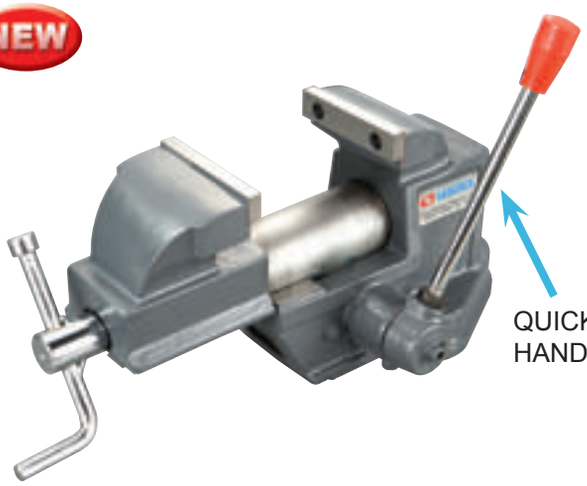
mm

ORDER NO.	A	B	C OPEN	D	E	G	I	J	Clamp Force (kgf)	WEIGHT (kgs)	CODE NO.
BVV-3	79	51	75	87	280	18	138	178	1300	6	1002-330
BVV-4	104	61	100	87	310	18	148	178	1800	7	1002-331
BVV-5	127	68	125	93	370	22	165	198	2300	10.5	1002-332
BVV-6	154	78	150	108	420	22	183	228	2800	14	1002-333
BVV-8	205	87	200	115	500	22	202	238	3000	18	1002-334
BVV-10	253	100	250	114	570	22	220	263	3000	24	1002-335

Quick Bench Vise

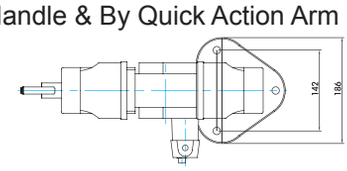
ORDER NO.VQS-40 CODE NO.1002-096

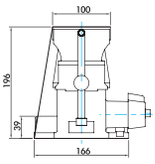
NEW

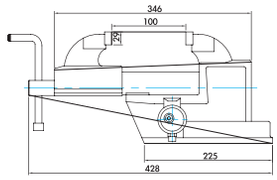


QUICK ACTION HANDLE

- Hardened & Ground Jaw
- Jaw Width 100 mm
- Jaw Height 29 mm
- Opened Capacity 100 mm
- 8 mm Distance of Quick Clamping System
- Can Be Move By Handle & By Quick Action Arm
- Weight: 13.3 kgs

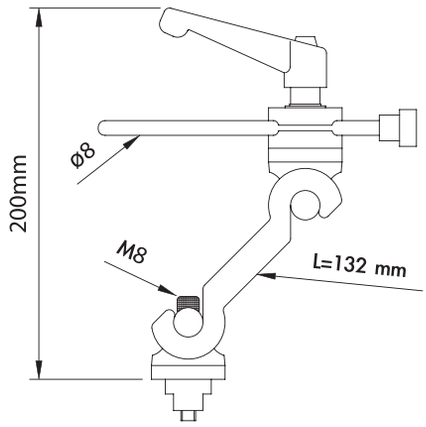






Universal Work Stopper

TEETH TYPE

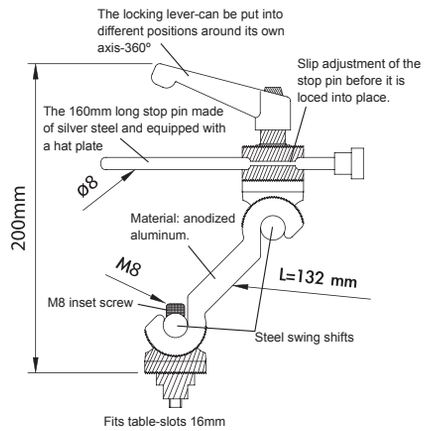


NON TEETH TYPE
ORDER NO. VWS-123
CODE NO. 1002-105
WEIGHT: 0.9kg
T-SLOT: 16mm

TEETH TYPE
ORDER NO. VWS-125
CODE NO. 1002-106
WEIGHT: 1.1kg
T-SLOT: 16mm

ORDER NO.	CODE NO.
VWS-123	1002-105
VWS-125	1002-106

- It is fixed and secured by its rigid serration without skid. (300kg bump is pemanent)

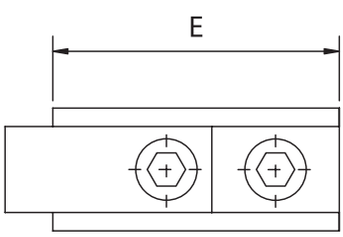


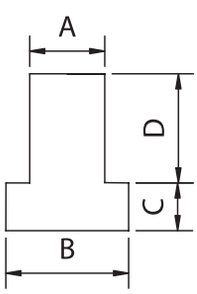
T Slot Clamps

PATENT

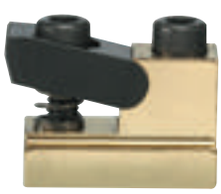
For Thin Work Piece

NEW





- 1 Set consist of 4 vices.
- For thin or small workpiece.
- Good clamping force.
- Quick setting
- Suit for light duty cutting on the milling drilling / EDM machine.

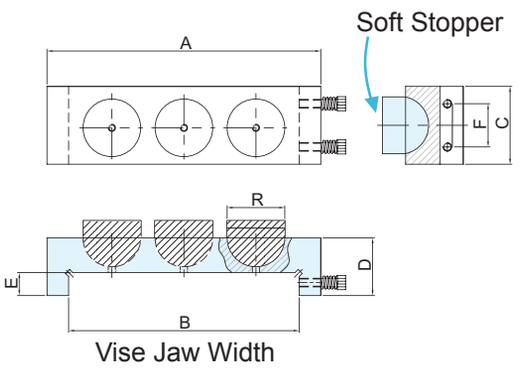


ORDER NO.	A	B	C	D	E	N.W.	CODE NO.
CK-3712	11.5	18	7	16	42	0.6	1002-311
CK-3714	13.5	22	8	18	42	0.7	1002-312
CK-3716	15.5	25	10	20	45	0.9	1002-313
CK-3718	17.5	28	11	24	45	1.1	1002-314
CK-3720	19.5	32	12	26	53	1.5	1002-315

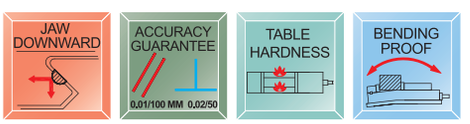
Universal Jaws With Soft Stopper

NEW

SOFT JAW

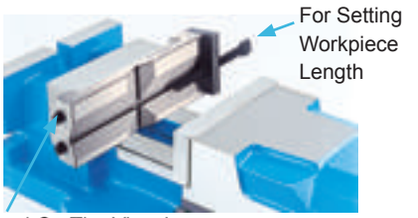


- The soft stopper can for cutting short, cutting shape, cutting taper.....etc.
- Semi-sphere ball enables down press force.
- For irregular workpiece.
- Easy setting, put on the moving jaw. B is vise jaw width.



ORDER NO.	A	B	C	D	R	WEIGHT kgs	CODE NO.
VWSJ-R100	145	100-110mm	49	38	40		1002-174
VWSJ-R130	175	125-140mm	49	39	40		1002-175
VWSJ-R160	190	150-160mm	54	40	40		1002-176
VWSJ-R200	245	200-210mm	76	42	40		1002-177

Universal Vise Jaws With Work Stopper

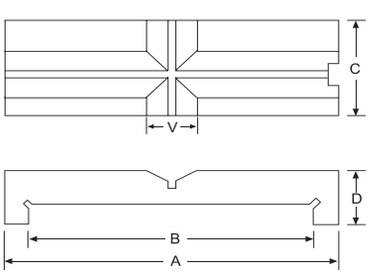


4 FOR THE JAW WIDTH 100-110mm
5 FOR THE JAW WIDTH 125-140mm
6 FOR THE JAW WIDTH 150-160mm
8 FOR THE JAW WIDTH 200-210mm

ORDER NO.

VWSJ-□———VISE JAW SIZE

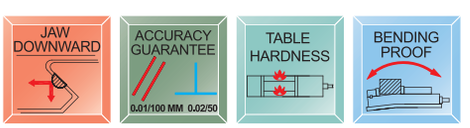
Extension clamping capacity:
vise jaw width 30-45mm
vise jaw height 7-15mm



ORDER NO. VWSJ-4, 5, 6, 8

- Can be fixed on any vise jaw by the two screws on the side.
- One jaw in muitiple- function features.
- V-type jaw can fix round workpiece at horizontal and vertical position.
- Can be performed as work stopper.
- Quick, save your time.

V CLAMPING CAPACITY	
HORIZONTAL V	VERTICAL V
Ø50	Ø60
Ø50	Ø60
Ø60	Ø60
Ø80	Ø80



ORDER NO.	A	B	C	D	V	WEIGHT kgs	CODE NO.
VWSJ-4	145	110	49	38	32	1.6	1002-170
VWSJ-5	175	140	49	39	32	1.7	1002-171
VWSJ-6	190	160	53	40	32	2	1002-172
VWSJ-8	245	210	76	42	32	4.2	1002-173

Prisma Jaw

ORDER NO.
VWS-VK-4.5.6.8
VWS-VA-4.5.6.8
VWS-VH-4.5.6.8
VWS-VJ-400.500.600
VWS-VW-3.4.5
VWS-VMC-4.6
VWS-VQS-3.4.5

V CLAMPING CAPACITY	
HORIZONTAL V	VERTICAL V
Ø25	Ø25
Ø25	Ø25
Ø30	Ø30
Ø40	Ø40

ORDER NO.	kgs	CODE NO.
VWS-VK-4	0.26kg	1002-110
VWS-VK-5	0.36kg	1002-111
VWS-VK-6	0.46kg	1002-112
VWS-VK-8	1.16kg	1002-113

ORDER NO.	kgs	CODE NO.
VWS-VW-3	0.21kg	1002-120
VWS-VW-4	0.36kg	1002-121
VWS-VW-5	0.44kg	1002-122

ORDER NO.	kgs	CODE NO.
VWS-VA-4	0.4kg	1002-130
VWS-VA-5	0.51kg	1002-131
VWS-VA-6	0.96kg	1002-132
VWS-VA-8	1.76kg	1002-133

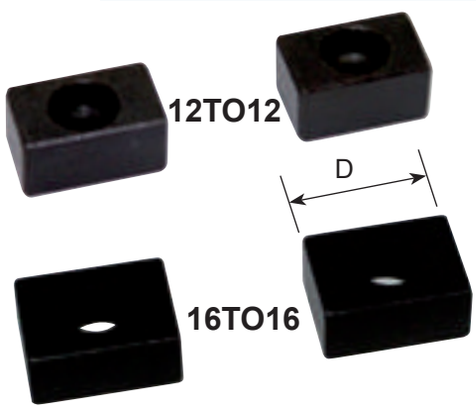
ORDER NO.	kgs	CODE NO.
VWS-VMC-4	0.35kg	1002-140
VWS-VMC-6	0.4kg	1002-141

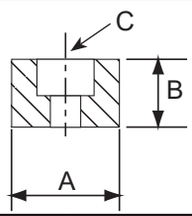
ORDER NO.	kgs	CODE NO.
VWS-VJ-400	0.36kg	1002-163
VWS-VJ-500	0.58kg	1002-164
VWS-VJ-600	0.9kg	1002-165

ORDER NO.	kgs	CODE NO.
VWS-VH-4	0.44kg	1002-150
VWS-VH-5	0.70kg	1002-151
VWS-VH-6	0.88kg	1002-152
VWS-VH-8	1.78kg	1002-153

ORDER NO.	kgs	CODE NO.
VWS-VQS-3	0.3kg	1002-160
VWS-VQS-4	0.42kg	1002-161
VWS-VQS-5	0.51kg	1002-162

Thread Rod Guide Block



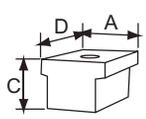


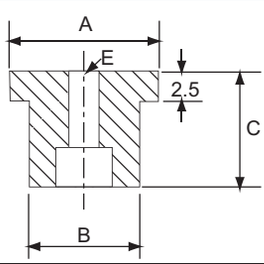
For vise

- For quick vise setup
- Multi - Purpose
- 4 PCS / SETS
- Match vise with Machine table slot
- Material: S45C

ORDER NO.	A -0.01 -0.08	B	C For	D	WEIGHT kgs	CODE NO.
12TO12	12	10	M4	20	0.07	1002-370
14TO14	14	10	M5	20	0.07	1002-371
16TO16	16	10	M6	22	0.09	1002-372
18TO18	18	12	M6	22	0.13	1002-373
20TO20	20	12	M6	24	0.20	1002-374

Thread Rod Guide Block



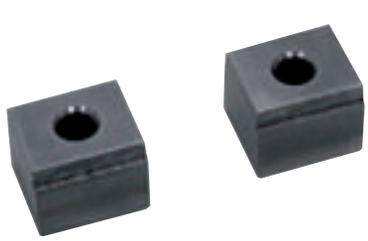


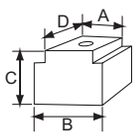
For vise

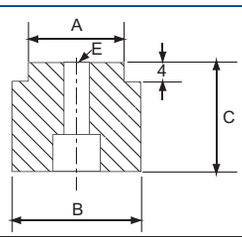
- For quick vise setup
- Multi - Purpose
- 4 PCS / SETS
- Material: S45C

ORDER NO.	A -0.01 -0.08	B -0.01 -0.08	C	D	E	WEIGHT kgs	CODE NO.
16TO14	16	14	14	20	M6	0.10	1002-350
18TO14	18	14	16	20	M6	0.12	1002-351
18TO16	18	16	16	20	M6	0.13	1002-352

Thread Rod Guide Block







For vise

- For quick vise setup
- Multi - Purpose
- 4 PCS / SETS
- Material: S45C

ORDER NO.	A -0.01 -0.08	B -0.01 -0.08	C	D	E	WEIGHT kgs	CODE NO.
14TO16	14	16	14	20	M6	0.12	1002-361
14TO18	14	18	16	20	M6	0.13	1002-362
16TO18	16	18	16	20	M6	0.15	1002-363

52-PCS Steel Clamping Kit

58 PCS/SET

- Heat treated steel black oxide finish.
- Block size 1″ (25mm). Set in plastic rack consists of:
  24 PCS Studs
  (4 ea, 3/4/5/6/7/8 inches or
  75/100/125/150/175/200mm.)
  6 PCS T-Nuts
  4 PCS Coupling Nuts
  6 PCS Flange Nuts
  6 PCS Step Clamps
  6 PCS Step Blocks

CK-20

Specifications

Inch Size

ORDER NO.	Table Slot	Stud Size	G.W. kg	Meas. CFT	CODE NO.
CK-103A	7/16″	3/8″-16w	6.5	(C) 0.8	1003-009
CK-103B	1/2″		6.5		1003-010
CK-104A	9/16″	1/2″-12w 1/2″-13UNC	9.7	(C) 1.0	1003-011
CK-104B	5/8″		10.4		1003-012
CK-105A	11/16″	5/8″-11w	12.5	(C) 1.5	1003-013
CK-105B	3/4″		11.8		1003-014
CK-206	7/8″	3/4″-10w	26.5	2.0	1003-015

Metric Size

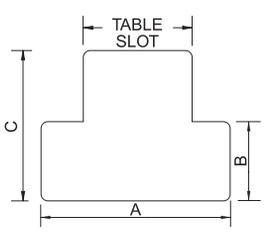
ORDER NO.	Table Slot	Stud Size	G.W. kg	Meas. CFT	CODE NO.
CK-08	10	M8-1.25P	7.4	(C) 0.8	1003-001
CK-10	12	M10-1.5P	7.6		1003-002
CK-12A	14	M12-1.75P	9.4	(C) 1.0	1003-003
CK-12B	15.7		9.5		1003-004
CK-14	16	M14-2.0P	11.1	(C) 1.5	1003-005
CK-16	18	M16-2.0P	12.6		1003-006
CK-18	20	M18-2.5P	25.3	(C)1.6	1003-007
CK-20	22	M20-2.5P	27	(C)2.0	1003-008

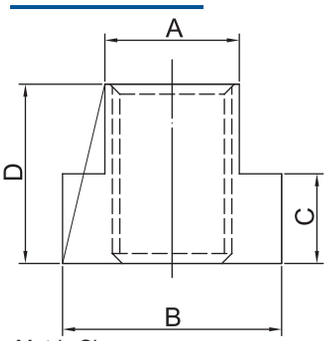
- CK-18, CK-20, CK-206, Pack in wooden No Plastic Tray.
- The parts of every specification all can be purchased individually.

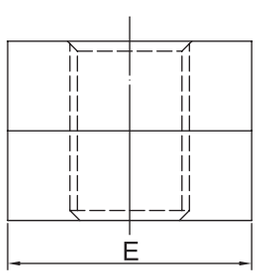
INDIVIDUALLY PARTS

T-SLOT NUT

HRC 34°







Metric Size

ORDER NO.	Table Slot	Thread Size	A±0.3	B	C	D	E	CODE NO.
3412M	10	M8	9	16	6	12	22	1003-020
3423M	12	M10	11.5	18	7	14	22	1003-021
3414M	14	M12	13.5	22	8	16	28	1003-022
A3424M	16	M12	15.3	25	8	16	28	1003-023
B3424M	16	M14	15.3	25	8	16	28	1003-024
3415M	18	M16	17	28	11	20	32	1003-025
3416M	20	M18	19.5	32	12	24	38	1003-026
3417M	22	M20	21.5	35	14	28	38	1003-027
3418M	28	M24	26.5	44	18	36	38	1003-028

Inch Size

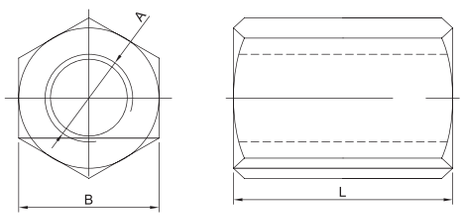
ORDER NO.	Table Slot	Thread Size	A	B	C	Length	WEIGHT (kg)	CODE NO.
3413I	7/16	3/8-16	11/16	7/32	1/2	7/8	0.023	1003-180
3423I	1/2		7/8	9/32	1/2	7/8	0.032	1003-181
3433I	9/16		7/8	11/32	5/8	1-1/8	0.048	1003-182
3414I	9/16	1/2-12 1/2-13	7/8	11/32	5/8	1-1/8	0.048	1003-183
3424I	5/8		1	11/32	5/8	1-1/8	0.06	1003-184
3434I	11/16		1-1/8	7/16	3/4	1-1/4	0.087	1003-185
3415I	11/16	5/8-11	1-1/8	7/16	3/4	1-1/4	0.087	1003-186
3425I	3/4		1-1/4	15/32	3/4	1-1/4	0.102	1003-187
3435I	13/16		1-1/4	9/16	1	1-1/2	0.142	1003-188
3416I	13/16	3/4-10	1-1/4	9/16	1	1-1/2	0.142	1003-189
3426I	7/8		1-1/2	9/16	1	1-1/2	0.175	1003-190
3436I	1		1-5/8	5/8	1	1-3/4	0.2	1003-191
3446I	1-1/16		1-5/8	11/16	1-1/2	2	0.23	1003-192
3417I	1	7/8-9	1-5/8	5/8	1	1-1/2	0.21	1003-193
3418I	1-1/16	1-8	1-5/8	11/16	1-1/2	2	0.25	1003-194

Coupling Nut

HRC 34º

Metric Size

ORDER NO.	A Thread	B Parallel	L Length	Weight (kg)	CODE NO.
2612M	M8x1.25	13	22	0.033	1003-060
2613M	M10x1.5	17	25	0.035	1003-061
2614M	M12x1.75	21	32	0.065	1003-062
2614M-1	M14x2.0	21	32	0.06	1003-063
2615M	M16x2.0	26	41	0.128	1003-064
2616M	M18x2.5	32	48	0.228	1003-065
2617M	M20x2.5	32	48	0.208	1003-066
2618M	M24x3.0	41	64		1003-067



Inch Size

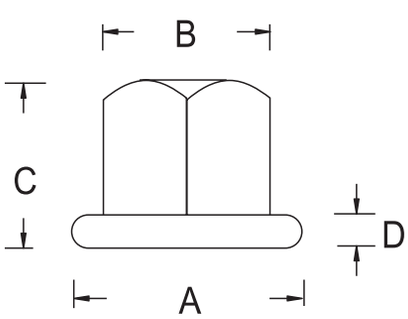
ORDER NO.	A Thread	B Parallel	L Length	Weight(kg)	CODE NO.
2612I	5/16-18	9/16	7/8	0.033	1003-060I
2613I	3/8-16	11/16	1	0.035	1003-061I
2614I	1/2-12 1/2-13	7/8	1-1/4		1003-062I
2615I	5/8-11	1-1/16	1-5/8	0.128	1003-064I
2616I	3/4-10	1-1/4	1-7/8	0.22	1003-065I
2617I	7/8-9	1-1/4	1-7/8		1003-066I
2618I	1-8	1-5/8	2-1/2		1003-067I

Flange Nut

HRC 34º

Metric Size

ORDER NO.	Thread	A	B (Mm)	C	D	Weight (kg)	CODE NO.
4512	M8x1.25	19	13	8	2	0.013	1003-050
4513	M10x1.5	22	17	12	3	0.023	1003-051
4514	M12x1.75	28	21	16	4	0.043	1003-052
4514M	M14x2.0	28	21	16	4	0.047	1003-053
4515	M16x2.0	35	26	17	5	0.087	1003-054
4516	M18x2.5	40	32	25	6	0.10	1003-055
4517	M20x2.5	40	32	25	6	0.092	1003-056
4518	M24x3.0	50	41	32	6	0.12	1003-057



Inch Size

ORDER NO.	Thread	A	B (Mm)	C	D	Weight (kg)	CODE NO.
4512I	5/16-18	3/4	9/16	3/8	3/32	0.013	1003-050I
4513I	3/8-16	7/8	11/16	1/2	1/8	0.023	1003-051I
4514I	1/2-12NC 1/2-13NC	1-1/8	21	5/8	5/32	0.043	1003-052I
4515I	5/8-11	1-3/8	1-1/16	11/16	3/16	0.087	1003-054I
4516I	3/4-10	1-5/8	1-1/4	1	1/4	0.092	1003-055I
4517I	7/8-9	1-3/4	1-7/16	1-1/8	1/4	0.12	1003-056I
4518I	1-8	2	1-5/8	1-1/4	1/4	0.12	1003-057I

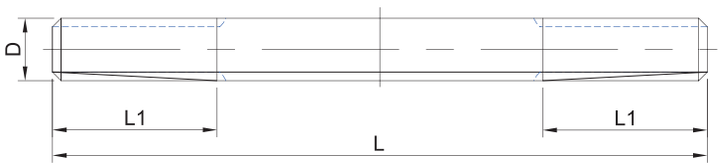
Clamping Studs

HRC 27º

Heat Treated Steel

Studs

Black Oxide Finished



Metric Size

ORDER NO.	D	L	L1	WEIGHT (kgs)	CODE NO.
1323M	M8x1.25P	75	30	0.023	1003-071
1324M		100	40	0.03	1003-072
1325M		125	40	0.04	1003-073
1326M		150	40	0.05	1003-074
1327M		175	40	0.06	1003-075
1328M		200	40	0.07	1003-076
1333M	M10x1.5P	75	30	0.04	1003-081
1334M		100	40	0.05	1003-082
1335M		125	40	0.06	1003-083
1336M		150	40	0.07	1003-084
1337M		175	40	0.09	1003-085
1338M		200	40	0.10	1003-086
1343M	M12x1.75P	75	30	0.06	1003-091
1344M		100	40	0.07	1003-092
1345M		125	40	0.09	1003-093
1346M		150	40	0.11	1003-094
1347M		175	40	0.13	1003-095
1348M		200	40	0.15	1003-096
1343MA	M14x2.0P	75	30	0.07	1003-101
1344MA		100	40	0.10	1003-102
1345MA		125	40	0.13	1003-103
1346MA		150	40	0.15	1003-104
1347MA		175	40	0.18	1003-105
1348MA		200	40	0.20	1003-106
1353M	M16x2.0P	75	30	0.09	1003-111
1354M		100	45	0.13	1003-112
1355M		125	45	0.16	1003-113
1356M		150	45	0.19	1003-114
1357M		175	45	0.23	1003-115
1358M		200	45	0.25	1003-116
13510M		250	45	0.31	1003-117
13512M		300	45	0.38	1003-118
1363M	M18x2.5P	75	30	0.12	1003-120
1364M		100	40	0.16	1003-121
1365M		125	45	0.20	1003-122
1366M		150	45	0.25	1003-123
1367M		175	45	0.30	1003-124
1368M		200	45	0.32	1003-125
13610M		250	50	0.40	1003-126
13612M		300	50	0.50	1003-127
1373M	M20x2.5P	75	30	0.15	1003-140
1374M		100	40	0.20	1003-141
1375M		125	45	0.25	1003-142
1376M		150	45	0.30	1003-143
1377M		175	45	0.35	1003-144
1378M		200	45	0.40	1003-145
13710M		250	50	0.50	1003-146
13712M		300	50	0.65	1003-147
1384M	M24x3.0P	100	40	0.25	1003-150
1385M		125	45	0.35	1003-151
1386M		150	45	0.45	1003-152
1387M		175	45	0.53	1003-153
1388M		200	45	0.60	1003-154

OPERATING TORQUE FOR

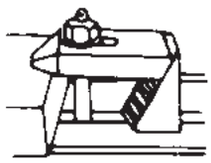
TUNT. FLANGE NUT. SCREW	
SCREW SIZE	TORQUE(NM)
M3	1.1
M4	2.4
M5	4.8
M6	8.4
M8	21
M10	42
M12	72
M16	180
M20	352
M24	564

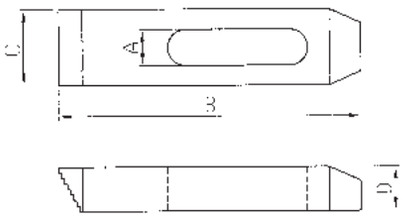
Inch Size

ORDER NO.	D	L	L1	WEIGHT (kgs)	CODE NO.
1333I	3/18-16	3″	30	0.04	1003-081I
1334I		4″	40	0.05	1003-082I
1335I		5″	40	0.06	1003-083I
1336I		6″	40	0.07	1003-084I
1337I		7″	40	0.09	1003-085I
1338I		8″	40	0.10	1003-086I
1343I	1/2-12 1/2-13	3″	30	0.06	1003-091I
1344I		4″	40	0.07	1003-092I
1345I		5″	40	0.09	1003-093I
1346I		6″	40	0.11	1003-094I
1347I		7″	40	0.13	1003-095I
1348I		8″	40	0.15	1003-096I
1353I	5/8-11	3″	30	0.09	1003-111I
1354I		4″	40	0.13	1003-112I
1355I		5″	40	0.16	1003-113I
1356I		6″	40	0.19	1003-114I
1357I		7″	40	0.23	1003-115I
1358I		8″	40	0.25	1003-116I
13510I		10″	45	0.31	1003-117I
13512I		12″	45	0.38	1003-118I
1363I	3/4-10	3″	30	0.12	1003-120I
1364I		4″	40	0.16	1003-121I
1365I		5″	45	0.20	1003-122I
1366I		6″	45	0.25	1003-123I
1367I		7″	45	0.30	1003-124I
1368I		8″	45	0.32	1003-125I
13610I		10″	50	0.40	1003-126I
13612I		12″	50	0.50	1003-127I
13614I		14″	50	0.62	1003-128I
13616I		16″	50	0.75	1003-129I
13618I		18″	50	0.87	1003-130I
13620I		20″	50	1.00	1003-131I
1373I	7/8-9	3″	30	0.183	1003-140I
1374I		4″	45	0.25	1003-141I
1375I		5″	45	0.30	1003-142I
1376I		6″	45	0.40	1003-143I
1377I		7″	45	0.45	1003-144I
1378I		8″	45	0.50	1003-145I
1384I	1″-8	4″	45	0.25	1003-150I
1385I		5″	45	0.35	1003-151I
1386I		6″	45	0.45	1003-152I
1387I		7″	45	0.53	1003-153I
1388I		8″	45	0.60	1003-154I

Step Clamp

HRC 37º



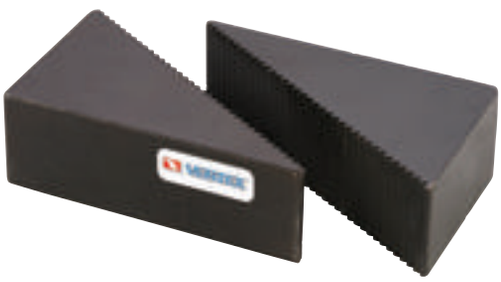


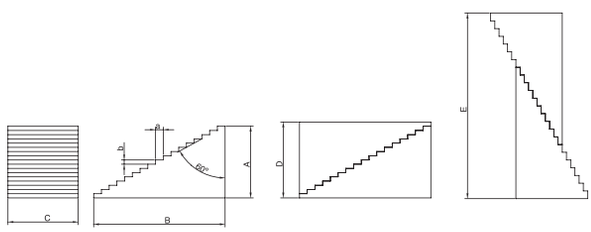
Metric Size

ORDER NO.	Bolt Size	A slot	B Length	C Width	D Thickness	Weight (kg)	CODE NO.
6113	M8 or M10	11	64	25	12	0.11	1003-030
6123	M8 or M10		100	25	16	0.26	1003-031
6133	M8 or M10		150	28	19	0.48	1003-032
6214	M12	14	64	28	12	0.125	1003-033
6224	M12		100	32	19	0.31	1003-034
6234	M12		150	32	22	0.59	1003-035
6215	M16	18	64	32	16	0.16	1003-036
6225	M16		100	38	19	0.39	1003-037
6235	M16		150	38	22	0.71	1003-038
6316	M20 or M18	20	100	38	19	0.36	1003-039
6326	M20 or M18		150	38	25	0.73	1003-040
6336	M20 or M18		200	44	28	1.44	1003-041
6417	M24	26	150	50	32	1.15	1003-042
6427	M24		200	50	35	2	1003-043
6437	M24		250	50	38	2.67	1003-044

Step Block

HRC 37º



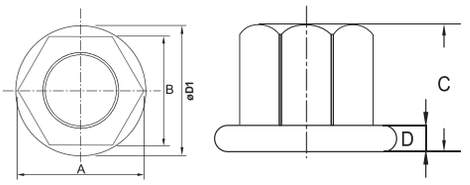


ORDER NO.	A	B	C	D	E	a	b	CODE NO.
5114	19	30	25	21	45	3.1	1.8	1003-170
5124	30	47	25	32	70	3.1	1.8	1003-171
5134	59	97	25	61	147	3.1	1.8	1003-172
5114B	19	30	32	21	45	3.1	1.8	1003-170B
5124B	30	47	32	32	70	3.1	1.8	1003-171B
5134B	59	97	32	61	147	3.1	1.8	1003-172B
5215	39	59	38	41	87	3.1	1.8	1003-173
5225	61	97	38	63	147	3.1	1.8	1003-174
5235	86	140	38	88	210	3.1	1.8	1003-175

Flange Nut

DIN 6331 STANDARD

NEW



By machine process.
With turned & milled
Heat treated and oxide fines
HRC 34°

Metric Size

ORDER NO.	Thread	A	B	C	D	ØD1	Weight (kg)	CODE NO.
CFN1017	M10 X 1.5	18.90	17	15	4	22	0.02	1003-160
CFN1219	M12 X 1.75	21.10	19	18	4	25	0.03	1003-161
CFN1422	M14 X 2.0	24.50	22	21	4.5	28	0.04	1003-162
CFN1624	M16 X 2.0	26.80	24	24	5	31	0.06	1003-163
CFN1827	M18 X 2.5	30.10	27	27	5	34	0.09	1003-164

C-Clamp Cast Steel

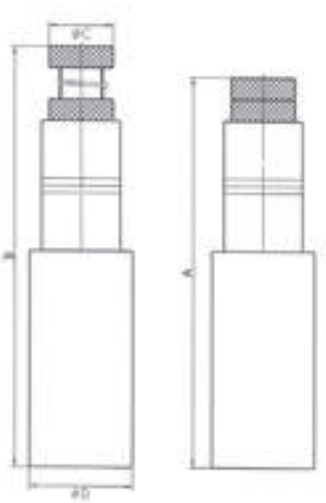
NEW

mm

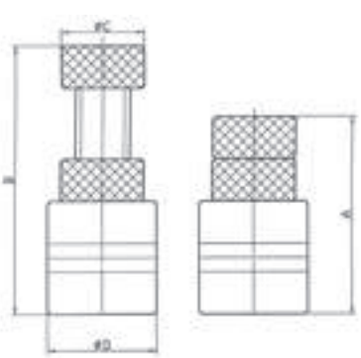
ORDER NO.	MAX. OPEN	THROAT DEPTH	LxW	WEIGHT (kgs)	CODE NO.
VCL-2C	1-7/8”	1-7/8”	120x84mm	0.22	1003-210
VCL-3C	2-3/4”	2”	163x91mm	0.38	1003-211
VCL-4C	3-7/8”	2-1/2”	195x102mm	0.59	1003-212
VCL-6C	6”	3-1/2”	270x127mm	1.18	1003-213
VCL-8C	7-3/8”	4-1/2”	345x161mm	1.75	1003-214

Screw Jack

- Work clamping
- Material: S45C
- Support heavy weight



VSJ-500

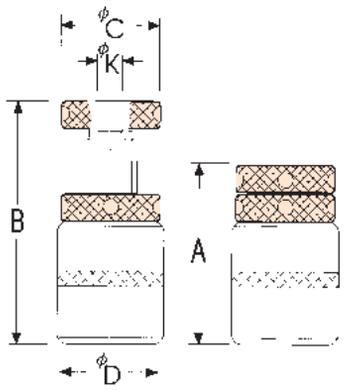


VSJ-40, 70, 150, 250

ORDER NO.	ADJUSTABLE CAPACITY	A	B	C	ØD	KN	K.G.	CODE NO.
VSJ-40	40-50mm	40	52	30	40	50	0.3	1014-000
VSJ-70	65-90mm	65	95	28	38	50	0.4	1014-001
VSJ-150	90-140mm	88	140	40	50	50	1.1	1014-002
VSJ-250	140-230mm	135	230	45	55	50	2.3	1014-003
VSJ-500	265-360mm	265	360	45	72	50	4.6	1014-004

Thread Rod Jack With Magnet

- Cross type fixture gives best positioning.
- Built-in magnets designed, easy to clean chips.
- Height adjuster



ORDER NO.	A	B	C	D	K	K.G.	CODE NO.
VSJM-50	42	47	35	40	11.5	0.4	1014-010
VSJM-70	51	65	35	40	11.5	0.5	1014-011
VSJM-85	67	87	40	45	11.5	0.7	1014-012
VSJM-110	86	116	40	45	11.5	0.8	1014-013
VSJM-165	110	170	45	50	11.5	1.4	1014-014

Thread Rod Jack Set

NEW

- SUITABLE FOR IRREGULAR WORKPIECE. RAPID SETTING & FIXED.
- WORK CLAMPING & SUPPORT.
- HEIGHT ADJUSTER

PADS:

6 PADS For different work piece shape

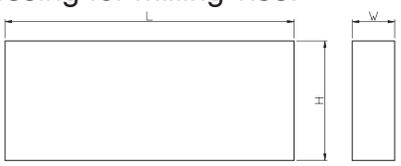
ORDER NO.	SIZE	CODE NO.
VSJ-1A	Ø25xØ11x10mm	1014-030
VSJ-2A		1014-031
VSJ-3A		1014-032
VSJ-4A		1014-033
VSJ-5A		1014-034
VSJ-6A		1014-035

ORDER NO.	SET INCLUDING		WEIGHT K.G.	CODE NO.
	JACKS	PARTS EACH ONE		
VSJ-A	VSJ-70A x 2 VSJ-150A x 2	VSJ-1A, VSJ-2A, VSJ-3A VSJ-4A, VSJ-5A, VSJ-6A	4.0	1014-020
VSJ-B	VSJ-150A x 2 VSJ-250A x 2	VSJ-1A, VSJ-2A, VSJ-3A VSJ-4A, VSJ-5A, VSJ-6A	7.5	1014-021

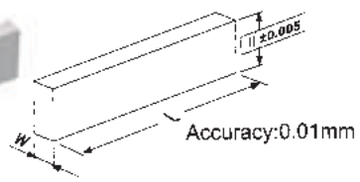
Ground Parallels

ORDER NO.VP-100 CODE NO.1004-001

To provide more convenient processing for milling vise.

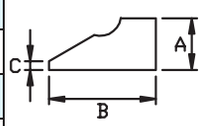


- Hardness: HRC 48°-53°
- Accuracy: 0.01mm
- Process: Four-side ground
- 1 set includes 18 pcs
- Packed by plastic case, G.W.: 11.7 kgs, Meas: 0.3 CFT.
- Dimension: 390x292x84mm



Unit:mm

BODY SIZE	CLAMP SIZE
WxHxLxPcs	AxBxCxLxPcs
5x16x100x2	15x31x2.5x200x2
6x18x100x2	
8x24x100x2	
10x30x100x2	
12x36x150x2	
14x48x150x2	
18x60x150x2	
22x62x150x2	

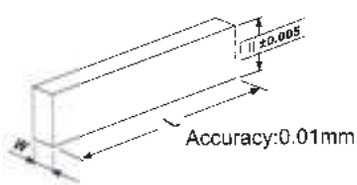


Ground Parallels

ORDER NO.VP-118A CODE NO.1004-010

8.5mm WIDTH, 5.8kgs

- Hardness: HRC 48°-53° MADE OF HIGH GRADE ALLOY STEEL HARDENED AND GROUND.
- Dimension: 290x228x80mm



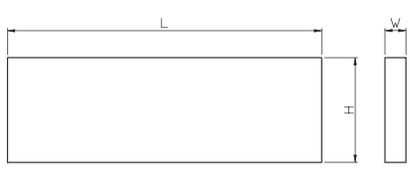
Unit:mm

WxHxLxPcs	
8.5x14x150x2	8.5x32x150x2
8.5x16x150x2	8.5x36x150x2
8.5x20x150x2	8.5x40x150x2
8.5x24x150x2	8.5x44x150x2
8.5x30x150x2	

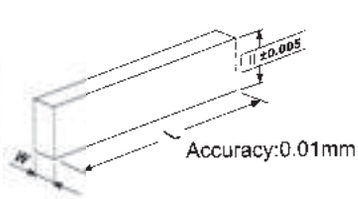
Ground Parallels

ORDER NO.VP-128A CODE NO.1004-020 **VP-128A 10mm WIDTH**

28 PCS/SET 10.7kgs



- Hardness: HRC 48°-53° MADE OF HIGH GRADE ALLOY STEEL HARDENED AND GROUND.
- Dimension: 390x292x82mm



Unit:mm

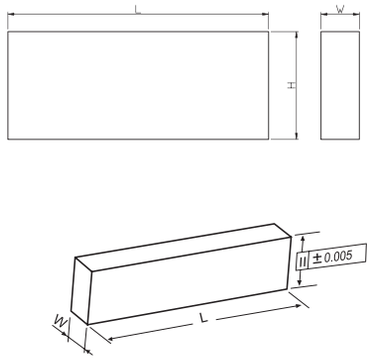
WxHxLxPcs	
10x14x150x2	10x28x150x2
10x16x150x2	10x30x150x2
10x18x150x2	10x32x150x2
10x20x150x2	10x35x150x2
10x22x150x2	10x40x150x2
10x24x150x2	10x45x150x2
10x26x150x2	10x50x150x2

Precision Parallels

ORDER NO.VP-136 CODE NO.1004-030

To provide more convenient processing for milling vise

- Hardness: HRC 48º-53º



ACCURACY:0.01mm
WIDTH 8.0mm
36 PCS/SET 12.3kgs

Unit:mm

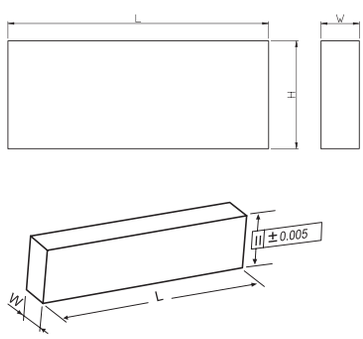
WxHxLxPcs	
8x16x150x2	8x34x150x2
8x18x150x2	8x36x150x2
8x20x150x2	8x38x150x2
8x22x150x2	8x40x150x2
8x24x150x2	8x42x150x2
8x26x150x2	8x44x150x2
8x28x150x2	8x46x150x2
8x30x150x2	8x48x150x2
8x32x150x2	8x50x150x2

- Dimension: 390x292x82mm

VP-018 Thin Type Parallels Set

ORDER NO.VP-018 CODE NO.1004-040 **3Wx150Lx20 PCS/SET**

- Hardness: HRC 48º-53º



G.W. 2.5kgs.
ACCURACY: 0.01mm
THICKNESS 1/8″≒3mm

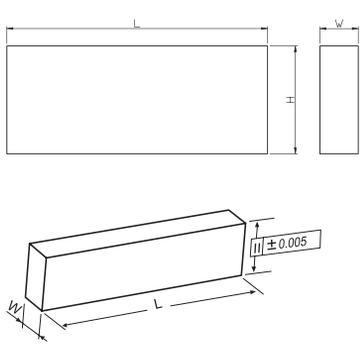
WxHxLxPcs	WxHxLxPcs
3x13x150x2	3x28x150x2
3x16x150x2	3x31x150x2
3x19x150x2	3x35x150x2
3x22x150x2	3x38x150x2
3x25x150x2	3x41x150x2

- Dimension: 290x230x73mm

VP-163 Precision Parallels

ORDER NO.VP-163 CODE NO.1004-050 **5Wx150Lx8 PCS/SET**

- Hardness: HRC 48º-53º



G.W. 1.7kgs.
ACCURACY: 0.01mm
THICKNESS 3/16″≒5mm

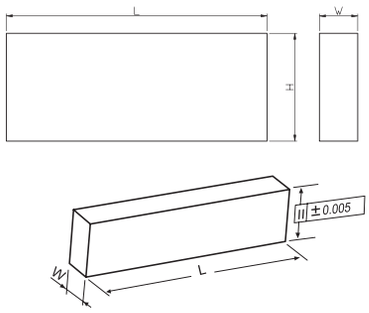
WxHxLxPcs
5x25x150x2
5x31x150x2
5x38x150x2
5x44x150x2

- Dimension: 175x85x55mm

VP-064 Precision Parallels

ORDER NO.VP-064 CODE NO.1004-060 6Wx150Lx18 PCS/SET

- Hardness: HRC 48º-53º



G.W. 4.5kgs.
ACCURACY: 0.01mm
THICKNESS 1/4″≒6mm

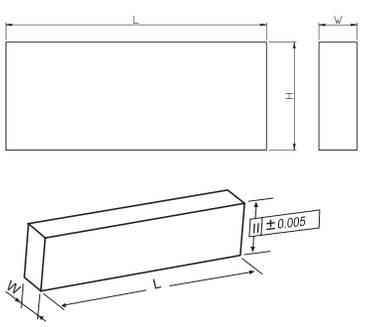
WxHxLxPcs	WxHxLxPcs
6x19x150x2	6x35x150x2
6x22x150x2	6x38x150x2
6x25x150x2	6x41x150x2
6x28x150x2	6x44x150x2
6x31x150x2	

- Dimension: 288x228x75mm

VP-050 Precision Parallels

ORDER NO.VP-050 CODE NO.1004-070 13Wx150Lx8 PCS/SET

- Hardness: HRC 48º-53º



G.W. 4.5kgs.
ACCURACY: 0.01mm
THICKNESS 1/2″≒13mm

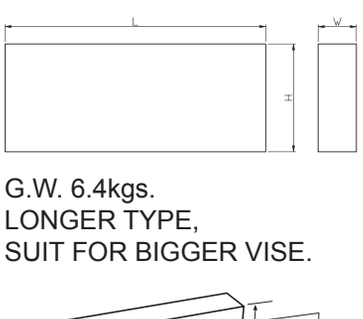
WxHxLxPcs
13x25x150x2
13x31x150x2
13x38x150x2
13x44x150x2

- Dimension: 175x150x55mm

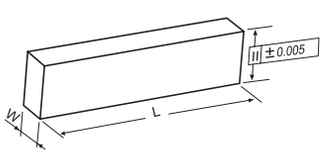
VP-033 Precision Parallels

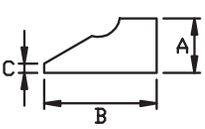
ORDER NO.VP-033 CODE NO:1004-080 200Lx8 PCS/SET
Accuracy: 0.01 mm

- Hardness: HRC 48º-53º



G.W. 6.4kgs.
LONGER TYPE,
SUIT FOR BIGGER VISE.



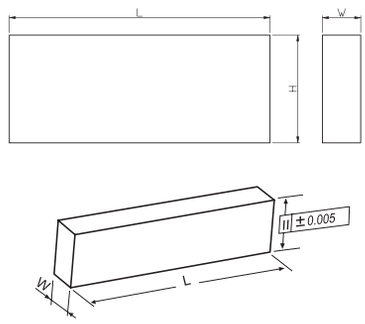
WxHxLxPCS
8x24x200x2
12x36x200x2
22x40x200x2
31x15x200x2x2.5 For Clamping
15x31x2.5x200x2 C 

- Dimension: 340x223x85mm

VP-146 Ground Parallels

ORDER NO.VP-146 CODE NO:1004-082 **4.6Wx150Lx12 PCS/SET**
Accuracy: 0.01 mm

NEW



G.W. 3kgs.
Material: S45C
Hardness: HRC48º-53º

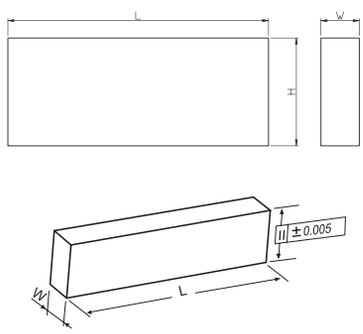
WxHxLxPCS
4.6x32x150x2
4.6x34x150x2
4.6x36x150x2
4.6x38x150x2
4.6x40x150x2
4.6x44x150x2

- Dimension: 195x180x90mm

VP-168 Ground Parallels

ORDER NO.VP-168 CODE NO:1004-083 **6.8Wx150Lx14 PCS/SET**
Accuracy: 0.01 mm

NEW



G.W. 3.5kgs.
Material: S45C
Hardness: HRC48º-53º

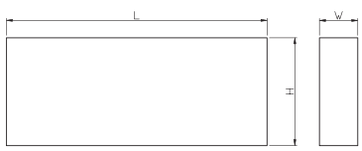
WxHxLxPCS
6.8x15x150x2
6.8x18x150x2
6.8x21x150x2
6.8x25x150x2
6.8x27x150x2
6.8x31x150x2
6.8x35x150x2

- Dimension: 225x200x90mm

VP-200 Ground Parallels

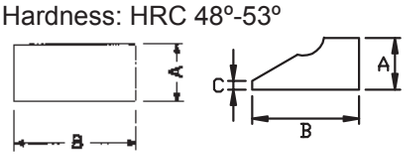
ORDER NO.VP-200 CODE NO.1004-085

NEW



MADE OF HIGH GRADE
ALLOY STEEL
HARDENED AND
GROUND.
ACCURACY: 0.01/100 MM
G.W. :15.6 KGS

- Hardness: HRC 48º-53º



FOR OVER 150 mm, 200mm
JAW PLATE VISE USING

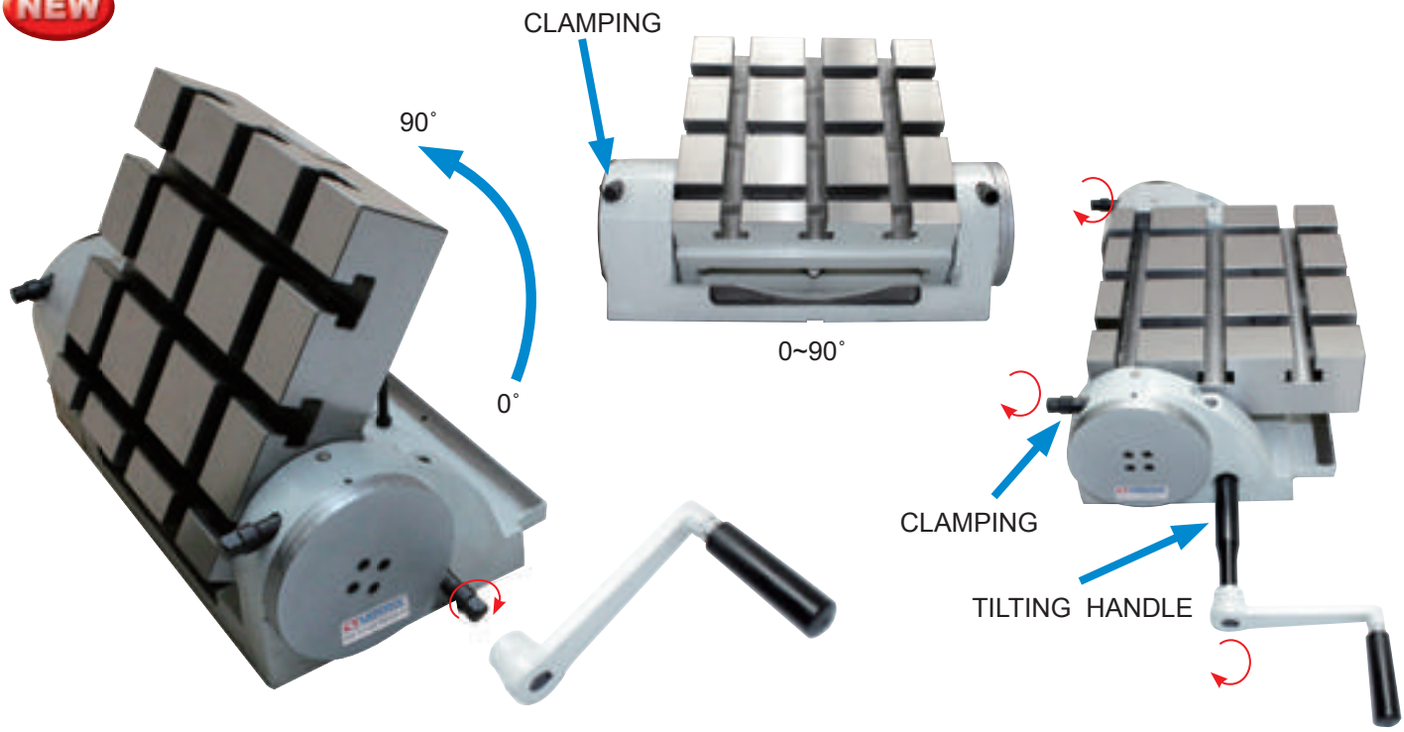
- Dimension: 355x318x85mm

BODY SIZE	CLAMP SIZE
AxBxLxPcs	AxBxCxLxPcs
5x16x150x2	31x15x200x2x2.5
6x18x150x2	
8x24x150x2	
10x30x150x2	
12x36x200x2	
14x48x200x2	
18x60x200x2	
22x62x200x2	

Heavy Duty Tilting Plate

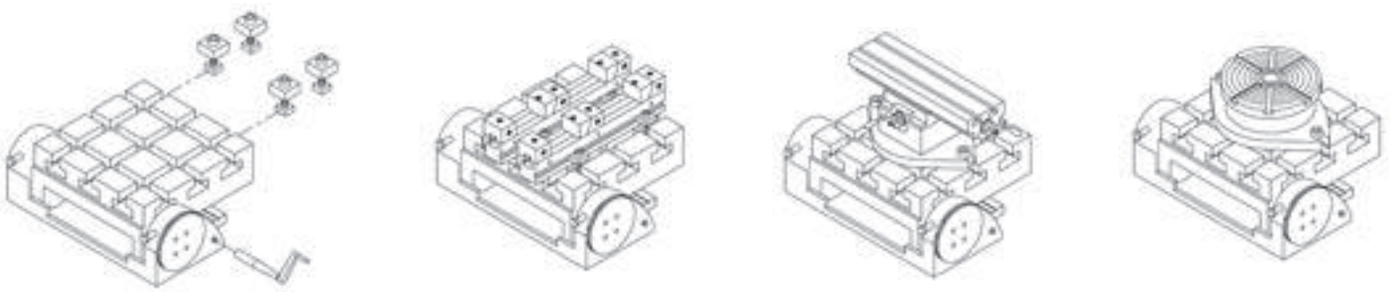
TILTING PLATE & CLAMPING HANDLE

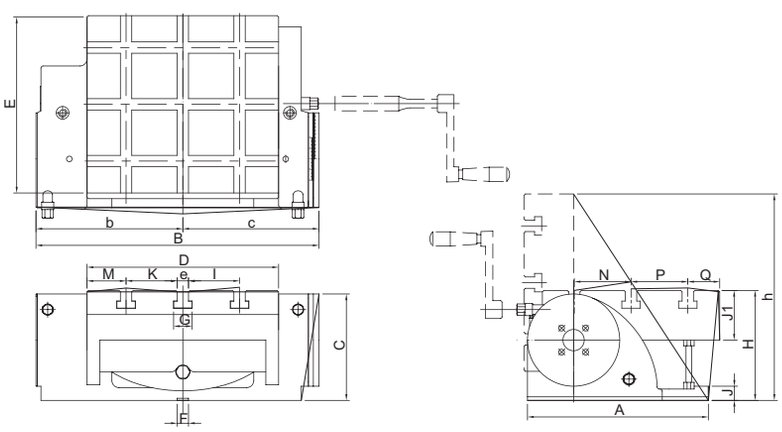
NEW



ORDER NO.	Horizontal	Vertical	CODE NO.
VUT-1515	30 kgs	12 kgs	1004-110
VUT-2726	45 kgs	20 kgs	1004-111
VUT-3230	70 kgs	35 kgs	1004-112

USING EXAMPLE:





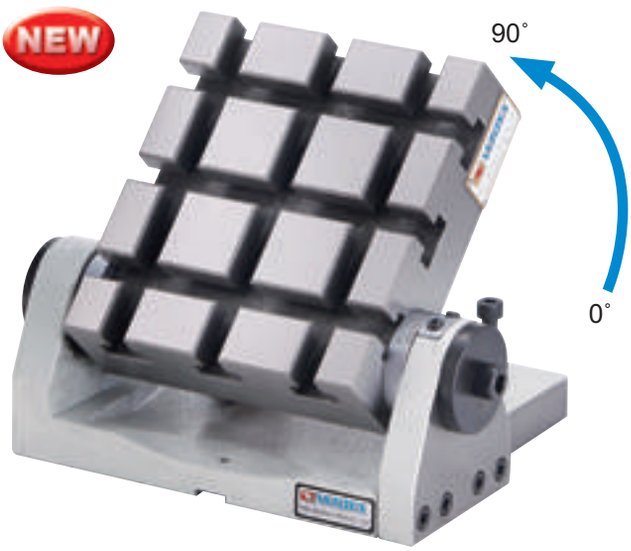
- Tilting by rigid & strong design, 2 supporter & rigid clamping system construction.
- Minimum set-up time.
- Tilting angle can adjusted by worm & worm gear system.
- Accurate and built for use in milling, boring and other machines.
- Worm shafts are hardened and ground.
- Tilting plate with slots enable Multi-position work fixing.
- Strong structure.
- FC 25

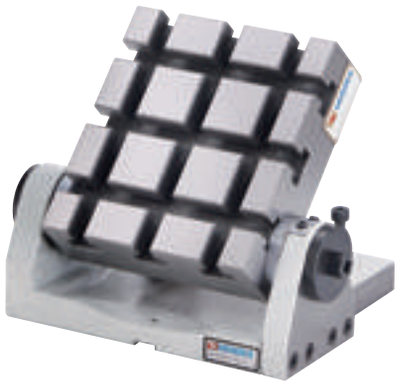
Unit:mm

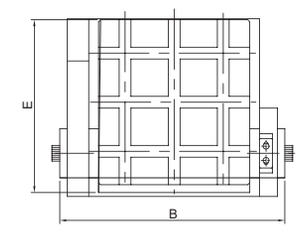
ORDER NO.	A	B	C	D	E	F	G	H	I	J	J1	K	M	N	P	Q	b	c	e	h	KGS	CODE NO.
VUT-1515	180	285	113	156	150	16	20	115	44	16	50	44	28	50	50	30	145	140	10	251	17.6	1004-110
VUT-2726	255	399	150	270	258	16	22	155	72	20	70	72	55	80	80	45	207	192	12	291	59.4	1004-111
VUT-3230	300	449	169	320	298	16	26	169	92	25	75	92	60	98	100	48	232	217	16	305	83	1004-112

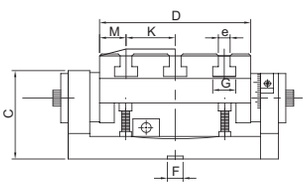
Light Duty Tilting Plate

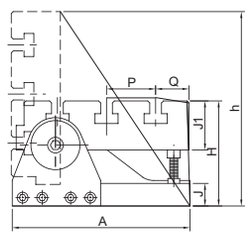
NEW











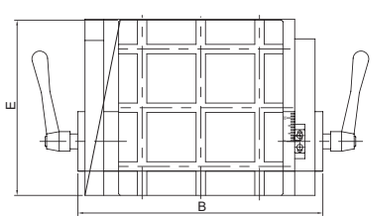
- Light cutting.
- Tilting angle adjustable: 0˚-90˚
- Can install with vise and mag. chuck.

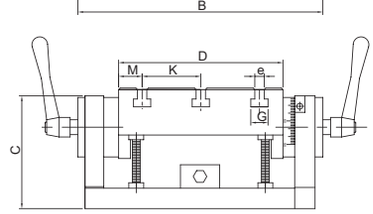
5Unit:mm

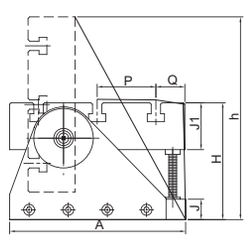
ORDER NO.	A	B	C	D	E	F	G	H	I	J	J1	K	M	P	Q	e	h	Kgs	CODE NO.
VU-1517	180	228	92	154	176	16	20	105	44	22	50	50	27	50	34	12	198	14	1004-120

Light Duty Tilting Plate

NEW







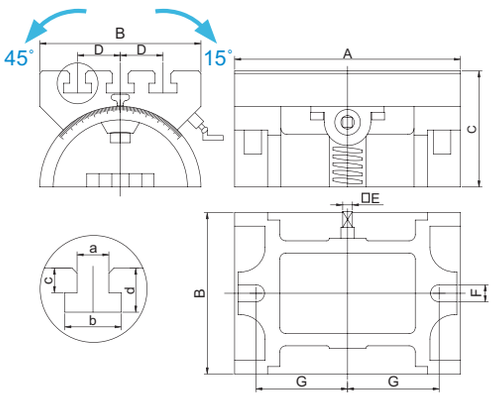
- Light cutting.
- Tilting angle adjustable: 0˚-90˚
- Can install with vise and mag. chuck.

5Unit:mm

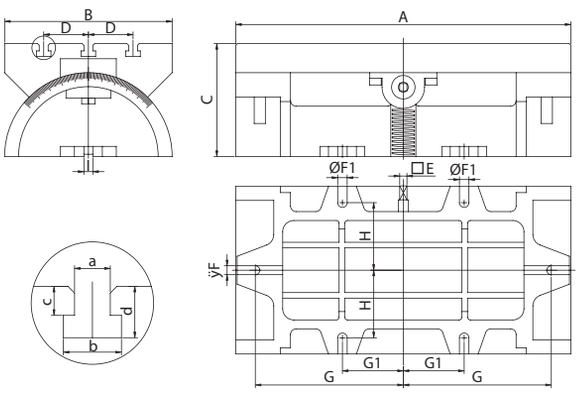
ORDER NO.	A	B	C	D	E	G	H	I	J	J1	K	M	P	Q	e	h	Kgs	CODE NO.
VU-2122	225	312	144	210	224	20	154	69	26	60	75	30	75	37	12	258	28	1004-121

Adjustable Angle Plate

1. For angle setting on various machine tools.
2. Adjustadle 45º
3. Material: FC25
4. Lower plate and bigger working space.



VP-180
VP-250
VP-380



VP-600

LIGHT DUTY

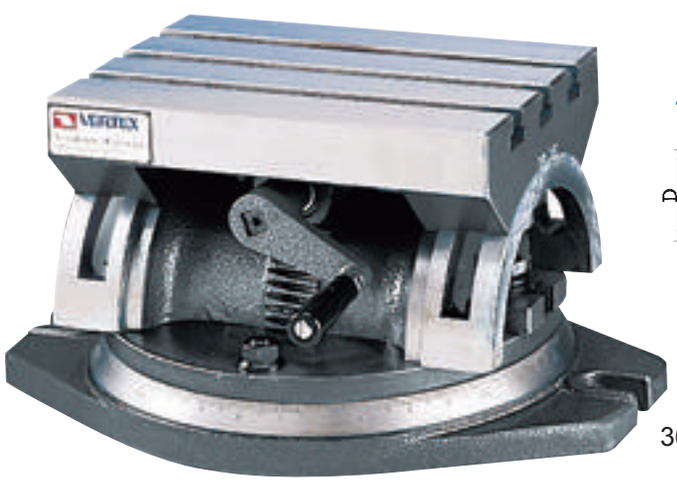
Unit:mm

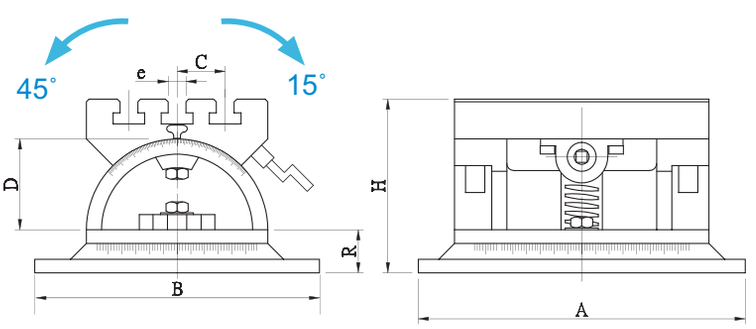
ORDER NO.	A	B	C	D	E	F	G	a	b	c	d	kg	CODE NO.
VP-180	185	132	95	35	8	14	75	13	23	10	18	7.38	1004-089
VP-250	255	180	136	50	10	16	95	16	26	13.5	25	28.7	1004-090
VP-380	380	255	181	69	13	18	150	16	26	14	25	56	1004-091

Unit:mm

ORDER NO.	A	B	C	D	E	F	F1	G	G1	H	I	a	b	c	d	kg	CODE NO.
VP-600	600	300	202	80	13	16	17	265	109	121	16	16	26	13	23	85	1004-092

Angle Plate With Swivel Base





360º SWIVEL BASE.

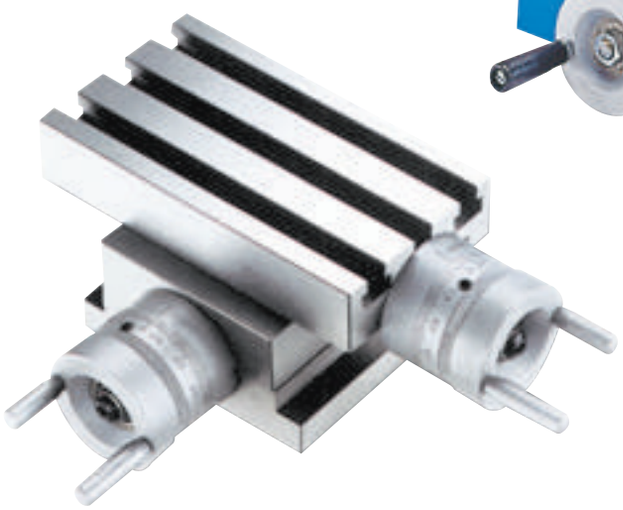
LIGHT DUTY

Unit:mm

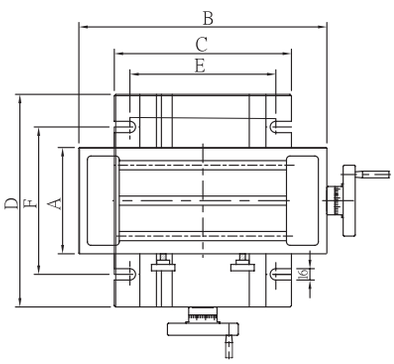
ORDER NO.	Table LxW			T-SLOT			R	WEIGHT (kg)	CODE NO.
	A	B	H	e	C	D			
VP-250S	290	180	206	16	50	105	52	36	1004-100
VP-380S	390	360	255	16	68	127	60	86	1004-101

Precision Cross Table

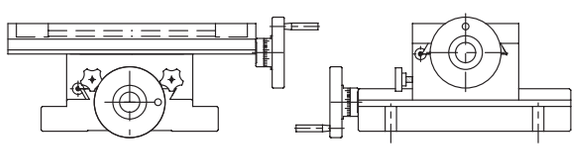
VCT-514



VCT-407



T SLOT



DRAWING OF VCT-514

- Material: over FC-30
- Precision: 0.02/100mm

Specifications

Unit:mm

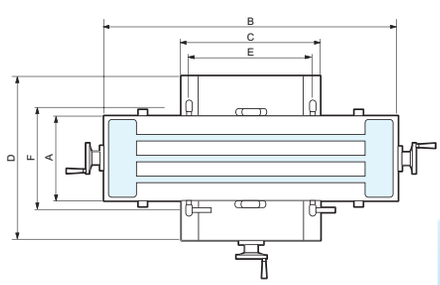
ORDER NO.	A	B	C	D	E	F	Travel Stroke	T Slot	Total height	Dial graduation	PACKING LxWxH mm	WEIGHT kgs	MAX.LOAD kgs	CODE NO.
VCT-407	100	180	130	100	115	50	50x80	3/8”	100	2.5mm/0.02	290x240x140	12	35	1007-001
VCT-514	150	350	250	300	206	208	156x170	3/8”	134	4mm/0.02	510x450x240	33.5	105	1007-002
VCT-820	200	500	300	400	250	290	200x250	3/8”	155	4mm/0.02	640x520x200	72	140	1007-003
VCT-1024	250	600	400	500	340	430	250x300	1/2”	210	4mm/0.02	790x680x310	141	175	1007-004

Precision Cross Table

ORDER NO.VCT-830 CODE NO.1007-010

VCT-830

A heavy, rugged slide in all kinds of positioning, milling, drilling micro-scope viewing and staging, adjustable bases for heavy loads, small jig boring, precision cut-off.



Specifications

Unit:mm

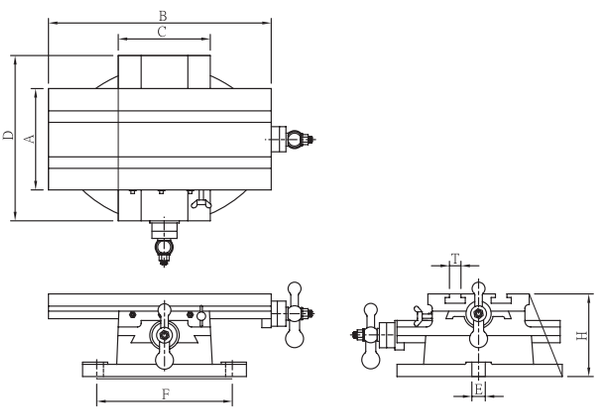
ORDER NO.	A	B	C	D	E	F	Travel Stroke	T Slot	Total height	Dial graduation	PACKING LxWxH mm	WEIGHT kgs	MAX.LOAD kgs	CODE NO.
VCT-830	210	730	345	405	305	230	190x350	16	185	2.5mm/0.05	991x584x292	100	35	1007-010

Cross Table

ORDER NO.VCT-512 CODE NO.1007-020 LIGHT DUTY

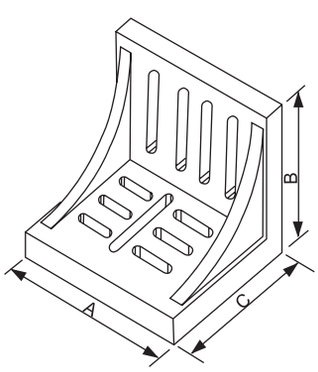
VCT-512

Table: 310x141mm
Height: 115mm
Travel: 200mm longitudinal.
125mm transverse.
Base: 225mm x 200mm oval with U slots for up to 16 bolts on 190 to 210 bolts circle.
Dial Graduated: 0.03mm
Net weight: 16.5kgs
Max.Load:20kgs
Packing Volume of each unit: 430x265x155mm
LIGHT DUTY ONLY



ORDER NO.	A	B	C	D	E	F	Stroke	T Slot	Total height	PACKING LxWxH mm	WEIGHT kgs	CODE NO
VCT-512	141	310	128	230	19	185	200x125	16	115mm	430x265x155	16.5	1007-020

Right Angle Plate

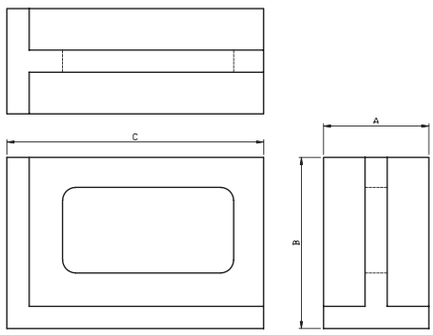


- Made of high tensile cast iron
- Webbed style accurately grounded, square and parallel on outside faces and ends within 0.01mm per 100mm

Unit:mm

ORDER NO.	Approx Dimensions			WEIGHT (kgs)	CODE NO.
	A	B	C		
VR-6	150	126	115	3.8	1013-010
VR-8	202	150	126	7.4	1013-011
VR-10	250	202	126	12.1	1013-012
VR-12	300	228	202	23.7	1013-013

Precision Right Angle Plate



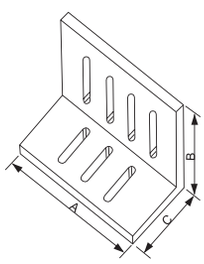
- Made of finest quality castings, stress relieved.
- All outside surfaces closely finished for square and parallel references.
- Precision ground: Square within 0.01mm per 100mm Parallel within 0.01mm per 100mm

Unit:mm

ORDER NO.	Approx Dimensions			WEIGHT (kgs)	CODE NO.
	A	B	C		
VRH-4	102	126	150	6.3	1013-001
VRH-5	126	202	300	16.9	1013-002
VRH-6	150	150	202	14.5	1013-003
VRH-8	202	250	300	32.5	1013-004

Slotted Angle Plate

VR-45

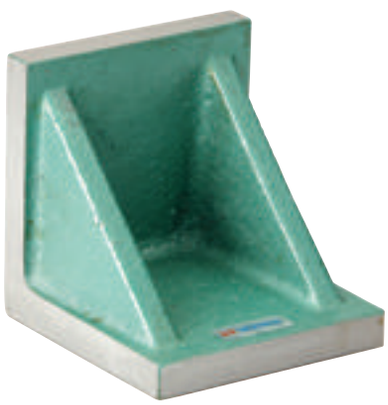


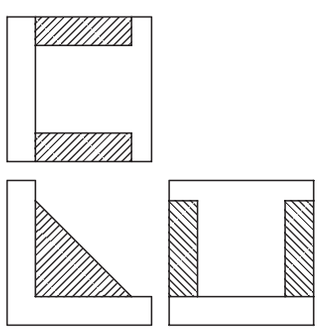
VR-100

- Many size also stocked with precision ground finish.
- Made of high tensile cast iron properly seasoned against distortion.
  Open end style accurately machined square and parallel on all faces.

ORDER NO.	Approx Dimensions			APPROX WEIGHT (kgs)	CODE NO.
	A	B	C		
VR-45	4-1/2″	3-1/2″	3″	1.3	1013-020
VR-60	6″	5″	4-1/2″	3.2	1013-021
VR-80	8″	6″	5″	7.4	1013-022
VR-100	10″	8″	6″	12	1013-023
VR-120	12″	9″	8″	19.4	1013-024

Plain Angle Plate





Machined & precision ground

- Made from high tensile cast iron - normalized and stress relieved.
- Precision ground: Flat and square within 0.01 per 100mm

ORDER NO.	Size in inches	APPROX WEIGHT (kgs)	CODE NO.
VR-22	2x2x2	0.4	1013-030
VR-33	3x3x3	1.2	1013-031
VR-44	4x4x4	2.5	1013-032
VR-55	5x5x5	4.3	1013-033
VR-66	6x6x6	7	1013-034
VR-88	8x8x8	15.2	1013-035
VR-1010	10x10x10	27.7	1013-036
VR-1212	12x12x12	42.9	1013-037

U-Clamp

- Material: S45C
- Easy adjustment
- Work clamping & support.

ORDER NO.	STUD	LxWxH	K.G.	CODE NO.
VCA-404	M12x5”	105x45x35mm	1.5	1015-001
VCA-405	M16x6”	126x54x40mm	2.6	1015-002
VCA-406	M20x7”	155x58x55mm	4.2	1015-003
VCA-408	M24x8”	190x70x65mm	8.2	1015-004

Pivot Clamp

- The clamping height is adjustable
- With brass plate under the clamp arm for potecting the working material from damage
- By using spherical Flange nut, it will be assured to clamp the material tightly
- The clamping arm is forged
- Material: S45C

ORDER NO.	Table T-Slot Size	Stud X L Size	Body	Clamping height	Clamping Force	G.W.	CODE NO.
VCB-404	16	M12x5”	115x42x39	0 or 3 1/2″	1	1.6	1015-005
VCB-405	18	M16x6”	133x50x49	0 or 4”	1.5	2.7	1015-006
VCB-406	22	M20x7”	157x60x54	0 or 4 3/4″	2	4.6	1015-007
VCB-408	28	M24x8”	7x2 $^{7}/_{8}$	0 or 6”	2.5	8.6	1015-008

Hand Drift

ORDER NO.VHD-1 CODE NO.1016-001

An essential tool for machinery processing

Specially applied for: Vertical drill, radial drill, compounding miller, boring miller, and any drill drifting, etc.

- Easy and fast operation.
- Enhance the working efficiency.
- Protect toolings to be safe.
- Economical, practical & durable.
- Medium Carbon Steel.
- Hardness:HRC 44°-48°

Suit For Spindle Notes	Length	30pcs/Box Size	30pcs/ Carton Size	N.W.(kg)
M.T.#2 #3 #4 #5	375mm	385x45x37mm	390x270x240mm	1.3

Eye Shield

ORDER NO.VH-56 CODE NO.1017-001

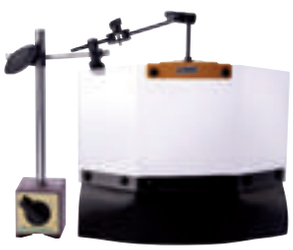
- The clamping height is adjustable
  With brass plate under the clamp arm for protecting the working material from damage

GUIDER SIZE	K.G.
300x180x2	1

Eye Shield With Magnetic Base

NEW

ORDER NO.VH-57 CODE NO.1017-002

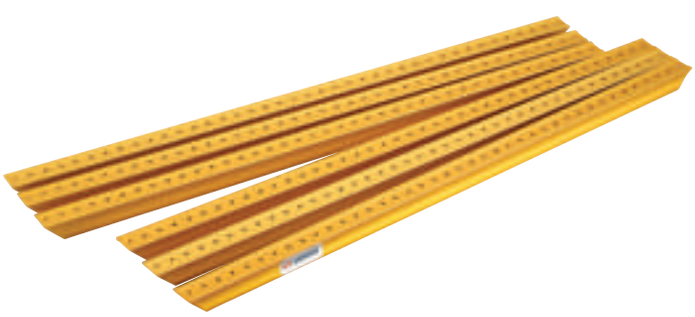


- See through design
- Magnetic Base 80 kgs, 60 x 50 x 55 mm
- Main Rod O.D x L : Ø12 x 173
- Guider Size : 300 x 180 mm
- Weight : 1.6 kgs

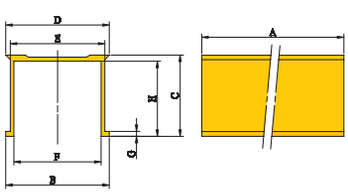
milling

drilling

Milling Table Slot Cover

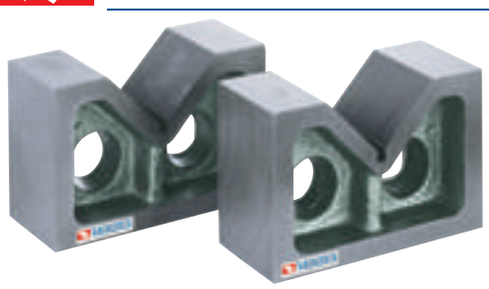


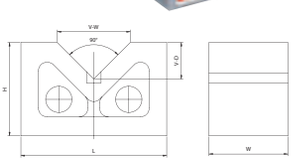
- Save time cleaning chips from machine
- Protects table slots
- Prevents chips from interfering with coolant flow
- Made of hand anodized aluminum, Light weight.



ORDER NO.	Table Slot	A	B	C	D	E	F	G	H	Set	KG	CODE NO.
VST-10	10	300	10	8	10.2	7.4	5.5	2.2	6.2	6PCS	0.1	1018-011
VST-12	12	400	12	8	12.2	9.9	7.2	2.2	6.2	6PCS	0.4	1018-012
VST-14	14	400	13	9.9	14.2	11.3	7.2	2.2	8	6PCS	0.5	1018-013
VST-16	16	400	16	13.3	16.5	9.5	9	2.2	10	6PCS	0.5	1018-001
VST-18	18	450	17.8	13.3	18.5	16.4	11	2.2	10	6PCS	0.6	1018-002
VST-20	20	1000	20	13.7	20.5	18.4	13.2	2.2	10	5PCS	1	1018-003
VST-22	22	1000	22	13.7	22.6	20.5	15.2	2.2	10.5	5PCS	1.1	1018-004
VST-24	24	1000	24	14	24.8	22.5	17.2	2.2	11.7	5PCS	1.2	1018-005
VST-28	28	1000	27.8	14.1	28.8	28	21.1	2.2	11.7	5PCS	1	1018-006
VST-36	36	1000	36.6	13	36.7	35	28.2	2.2	12	5PCS	1.1	1018-007

Vee Blocks





MACHINED ONLY

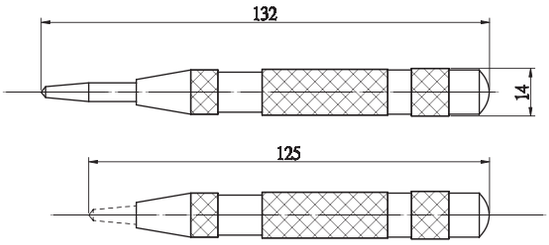
Material: High quality close-grained cast iron, stress-relieved.
Accuracy: Machining to 0.05mm / 100mm

ORDER NO.	Length	Width	Height	V-Width	V-Depth	Weight (kgs)/Set	CODE NO.
V-2V	50mm	27mm	32mm	25mm	12.5mm	0.5	1019-001
V-3V	76mm	35mm	61mm	44mm	22mm	1.5	1019-002
V-4V	100mm	45mm	67mm	53mm	26.5mm	2.5	1019-003
V-5V	130mm	51.5mm	79.5mm	64mm	32mm	4.3	1019-004
V-6V	156mm	66mm	90.5mm	81mm	40.5mm	6.4	1019-005
V-7V	181mm	77mm	110mm	85.4mm	42.7mm	12	1019-006
V-8V	206mm	103mm	143mm	116mm	58mm	16.7	1019-007

Auto Center Punch

ORDER NO.VACP-1 CODE NO.1019-020

L: 120MM



Automatic point marker is the best tool final the central point before punching. It's operated to aim at the central line and be pressed downward; the central point will appear. The size of the point can be adjusted by the pressure lid, no need to use hammers. The force from spring pressure.

- Also can use to break car windows
- N.W. : 0.07kg

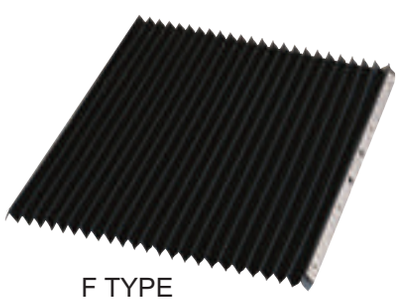
Draw Bar

- For milling machine

ORDER NO.	DRAW BAR THREAD	LENGTH mm		WEIGHT (kg)	CODE NO.
		STEPS (S) TYPE	VARIABLE (A) SPEED		
VDR-R8-S	7/16-20UNF	518	598	0.5	1020-001
VDR-R8-A				0.8	1020-002
VDR-NT302-S	1/2-12UNF	555	635	0.6	1020-003
VDR-NT302-A				0.9	1020-004
VDR-NT303-A	1/2-13UNF	555	635	0.9	1020-006
VDR-NT30M-S	M12x1.75P	555	635	0.6	1020-007
VDR-NT30M-A				0.9	1020-008
VDR-NT40I-S	5/8-11UNF	545	630	1	1020-009
VDR-NT40I-A				1.3	1020-010
VDR-NT40M-S	M16x2.0P	545	630	1	1020-011
VDR-NT40M-A				1.3	1020-012

Expandable Machine Guard Cover

B TYPE



F TYPE

F IS FOR FRONT (X)
B IS FOR BACK (Y)
(MILLING MACHINE)
B SERIES RUBBER IS PLAIN TYPE.

ORDER NO.	WxL	SUITFUL MILLING SINE	WEIGHT (kg)	CODE NO.
VGC-3833F	380x330	1.5#	0.3	1021-001
VGC-3860F	380x600	1.6# 1.7#	0.6	1021-002
VGC-4550F	450x500	1.6#	0.7	1021-003
VGC-3775B	370x750	1.5#	0.7	1021-004
VGC-4585B	450x850	1.6# 1.7#	1.1	1021-005
VGC-6085B	600x850	2.0#	2	1021-006

5C. C32. OZ25 Collet Rack

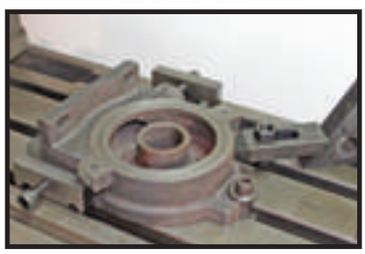
ORDER NO.VMS-5 CODE NO.1021-050

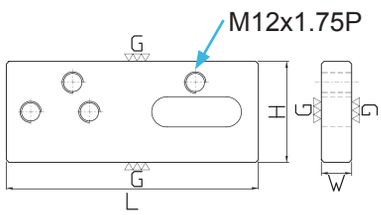
SIZE: 220x110x6 mm
MATERIAL:PLASTIC
G.W.: 0.2 kgs

Table Slot Plate

NEW

EXAMPLE





Material:SS41C
Hardness: HRC 50˚~55˚

- Clamp Support
- For Flexible Machine Table Fixing

ORDER NO.	WxHxL (mm)	WEIGHT (kgs)	CODE NO.
TP-90-18	18x60x90	0.76	1021-070
TP-90-20	20x60x90	0.85	1021-071
TP-90-22	22x60x90	0.9	1021-072
TP-90-24	24x60x90	1	1021-073
TP-150-18	18x60x150	1.3	1021-074
TP-150-20	20x60x150	1.4	1021-075
TP-150-22	22x60x150	1.6	1021-076
TP-150-24	24x60x150	1.8	1021-077

Parts Storage

COLOR: RED, BLUE, YELLOW

- Easy parts storage
- Organized

ORDER NO.	SIZE	PACKED	EACH WEIGHT (kg)	CODE NO.
VHB-1218	120Wx180Dx80H mm	60 PCS/CASE	8.6	1021-100
VHB-1525	150Wx250Dx120H mm	36 PCS/CASE	9.6	1021-101
VHB-2035	200Wx350Dx150H mm	18 PCS/CASE	0.585	1021-102
VHB-2045	200Wx450Dx177H mm	12 PCS/CASE	0.8	1021-103
VHB-3045	300Wx450Dx177H mm	8 PCS/CASE	1.8825	1021-104

Right Angle Head

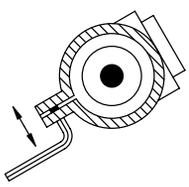
VERTEX

VRA-NT40

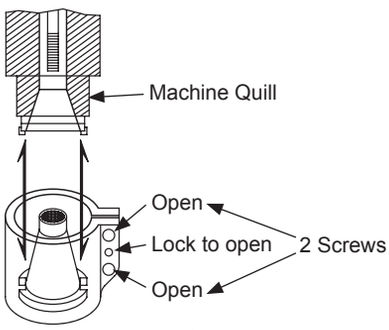
VRA-R8

VRA-TYPE

- Used on Vertical Milling Machine to make horizontal work.
- Rigidity constructed suitable for horizontal cutting.
- The clamping bushing to suit milling machine.
- Maximum spindle speed allowed right angle. 2000 R.P.M.



- Loose 2 screws to match with machine.
- Tighten 2 screws to fix on quill D.



- Assemble with milling quill dia.

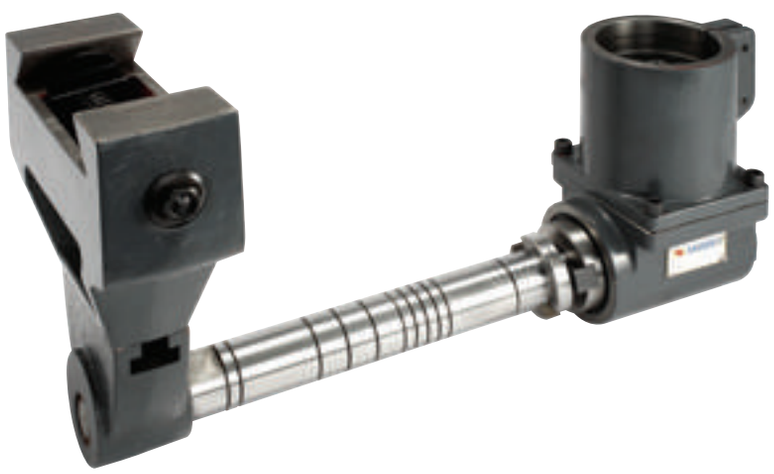
※Please notifty the quill dia. when ordering

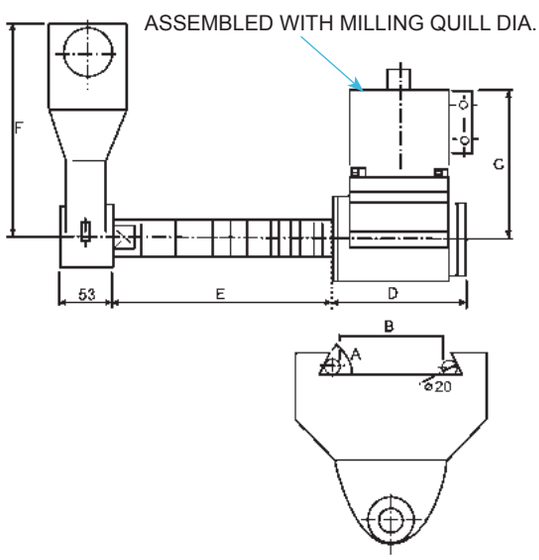
ORDER NO.	SUITABLE MILLING HEAD QUILL DIAMETER(mm)	WEIGHT (kgs)	CODE NO.
VRA-R8	85.725~86	12.5	1008-001
VRA-NT 30	85.725~86	13	1008-002
VRA-NT 40	85.725, 100, 105, 110, 115	18	1008-003

ARBOR FOR CUTTER INCH OR MERTIC SIZE

VRA-R8	R8-SCA1″	R8-SCB22
VRA-NT 30	NT30-SCA1″	NT30-SCB27
VRA-NT 40	NT40-SCA1″	NT40-SCB27

Horizontal Milling Attachment





- Special dovetail degree, also can supply.....please notify.
- VHA-TYPE including right angle head, long horizontal arbor and breaker. VHA-R-8-27mm VHA-NT-30/NT-40-27mm for The mm size, for inch size are same 25.4mm (1″)
- The quill diameter is same as VRA-Type
- Maximum spindle speed allowed right angle. 2000 R.P.M.

- Benefit: convert your vertical mill to a horizontal mill. Designed to simplify right angle work by reducing the need for special tooling and complex fixtures, gains your efficiency, save your time and money.

Horizontal Milling Arbor Support

SPEC. / TYPE	SUITABLE M/C RAM DOVETAIL WIDTH	WEIGHT(kgs)
A 50°	B 140mm~170mm	25.7
A 55°	B 140mm~170mm	26.5
A 60°	B 140mm~170mm	30.8

Unit:mm

ORDER NO.	C	D	E	F	CODE NO.
VHA-R-8	175	138	255	233	1008-010
VHA-NT-30	175	160	270	233	1008-011
VHA-NT-40	183	190	270	233	1008-012

Power Table Feed - Super Power Type 500X, 500Y, 500Z Series

NEW

For Longitudinal X Axis

For Cross Y Axis

For Vertical Z Axis

500S Type series
VPF-500X
VPF-500Y
VPF-500Z

The vertical milling machines the same as bridgeport type, lugun type, kondia type without gearbox table feed device. All type milling/drilling machines high torque. Easy installation. Automatic shutoff. Superior thermal characteristic. Smooth operations. Safety option. Trouble-free performance. super power.
The max. torque is 650 in/1b

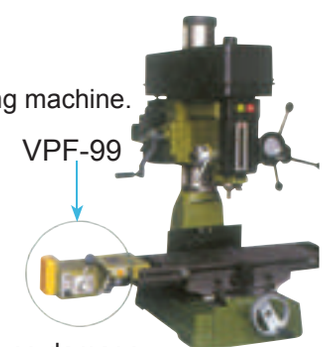
- New super power design and construction materials.
- Top quality. Long life span designed.
- Acc type are 110V voltage only.

ORDER NO.	VOLTAGE	Speed Range	Rapid Speed	Max. Torque	LxWxH	G.W.(kgs)	CODE NO.
VPF-500 X	110V ONLY	4-160rpm	200rpm	650 in/lb	290x200x320mm	6.3	1009-001A
VPF-500 Y						6.7	1009-002A
VPF-500 Z						6.9	1009-003A
VPF-99 X	110V	0-165rpm	240rpm	450 in/lb	290x200x315mm	6.2	1009-005

VPF-99 X

Features

- Application: the VERTEX power table feed for Drill/Milling machine.
- Easy to install, no modification needed.
- Highest quality design and construction.
- Circuit panel is designed for easy replacement with insert type connectors.
- Assy-gear clucth has limit for twisting: When power feed is working and accepting tremendous obstacle, the assy-gear clucth will automatically become natural turning in order to reduce damage.

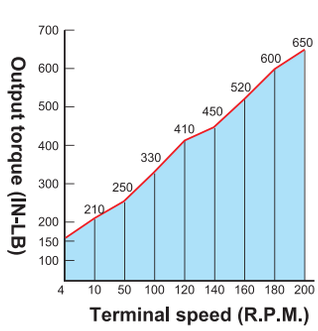


OPTIONAL

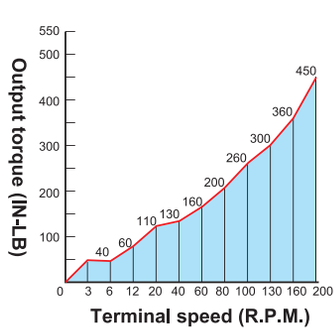
Transformer 110V→220V
ORDER NO. VPF-TF
CODE NO. 1009-006

TR1: Output TR2:2 Output
Output: 110V 50/60Hz,
power supply: 50/60Hz, 1-phase
220, 240, 380, 415, 440V

THIS TRANSFORMER IS FOR VPF-TYPE USE ONLY.



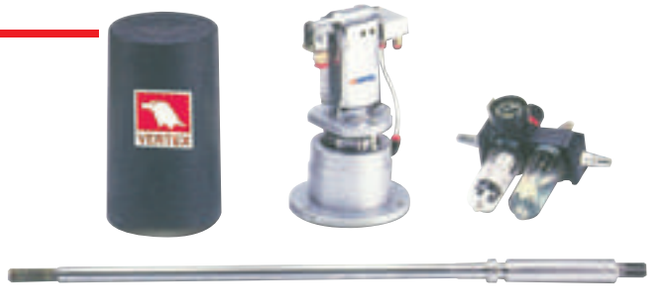
VPF-500



VPF-99

Air Power Drawbar

※INSTALL EXAMPLE



Standard equipment

- Power motor
- Control box
- Air filter and lubricant
- Drawbar
- Mounting hardware

- It will increase you productivity with more profits as cutter replacement needs only 3 sec and the speed of replacement is more than 10 times to compare with traditional cutter replacement.

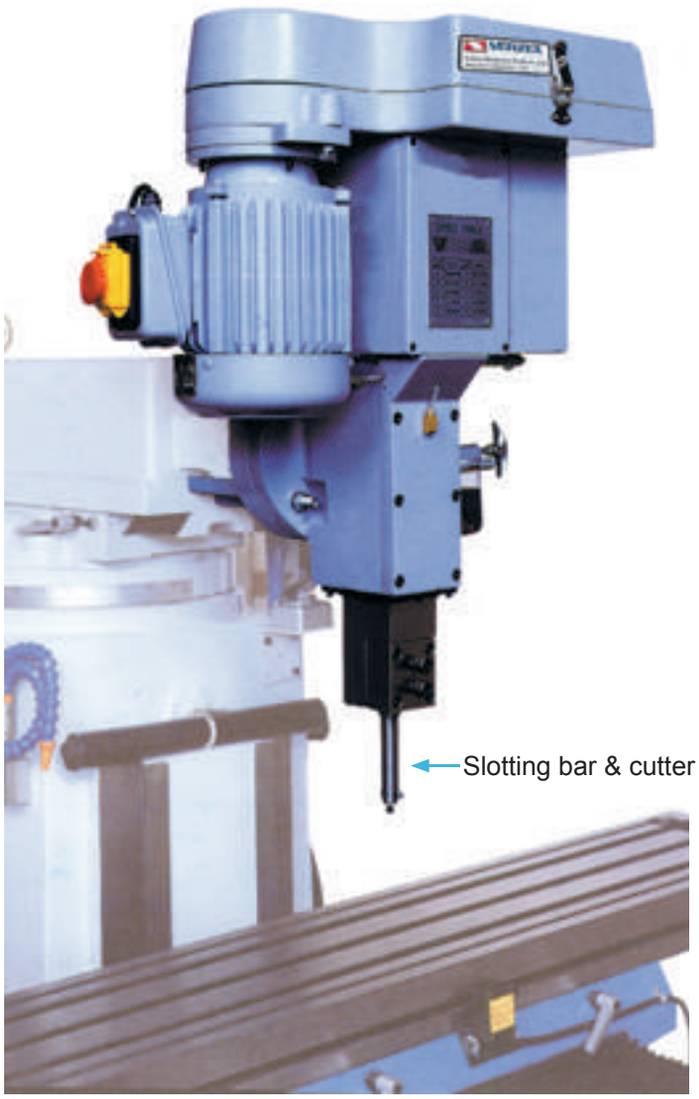
Air power drawbar
PD-150, PD-200

- It can be installed in any kind of machine, of which the main spindle are R-8, NT #30, #40 or #50.
- It is convenient for the machinist who wants increased production and performance from his machine.
- It is suitable for NC and general milling machines.
- This device is easily installed needs only 5 seconds to change the cutting tool.
- Main power is air compression.
- This device is designed with safety device controlled with solenoid valve. The power drawbar cannot be operated while machine is running.

ORDER NO.		SPEED	TORQUE	AIR PRESSURE	VOLTAGE FOR MAGNETIC VALVE	G.W. kgs	PACKING LxWxH	CODE NO.
PD-150 FOR	R-8	3000 R.P.M.	150 ft-lb	90 psi 6.3 kg/cm²	AC 110V OR 220V DC 24V	9.8	650x300x200	1010-001
	NT-30							1010-002
	NT-40							1010-003
PD-200 FOR	NT-50	3000 R.P.M.	200 ft-lb	90 psi 6.3 kg/cm²	AC 110V OR 220V DC 24V	11	650x300x200	1010-004

Precision Slotting Head

ORDER NO.VSH-125 CODE NO.1012-010



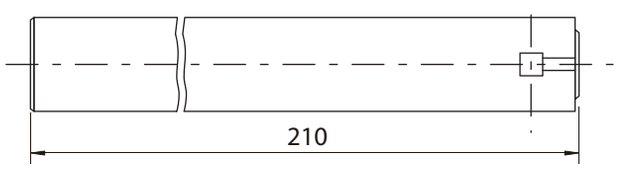
Features

- Special design worm and worm gear with linkage transmission mechanism, well construction and highly power output.
- The ram-sliding surface are hardened and precision ground
- Built in lubricating system for smoothly running and prolong the life of head
- Available mounting on any type milling m/c back side of the ram.

Specification

Stroke: 125mm (5″)
No. of stroke speed change: 5 steps
Stroke speed (stroke/min): 30, 47, 69, 98, 140 spm (50HZ)
Stroke speed (stroke/min): 35, 54, 79, 112, 160 spm (60HZ)
Driving Motor: 3/4HP-6P
WEIGHT: 150kgs

VSH-C: 6 mm, 7 mm, 8 mm, 10 mm



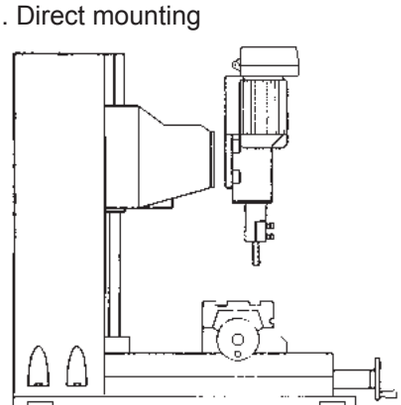
CUTTER SIZE

ORDER NO.	CUTTER & DESCRIPTION	WEIGHT (kg)	CODE NO.
VSH-6C	Slotting bar 6mm	0.56	1012-013
VSH-7C	Slotting bar 7mm	0.62	1012-014
VSH-8C	Slotting bar 8mm	0.80	1012-015
VSH-10C	Slotting bar 10mm	0.81	1012-016
VSH-FGA	FLANGE A	11	1012-017
VSH-FGB	FLANGE B	23	1012-018

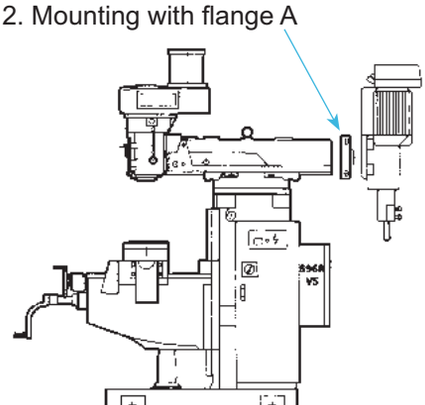
Optional Accessories

- Flange A
- Flange B
- Slotting bar & cutter 4, 5, 6, 7, 8, 10mm

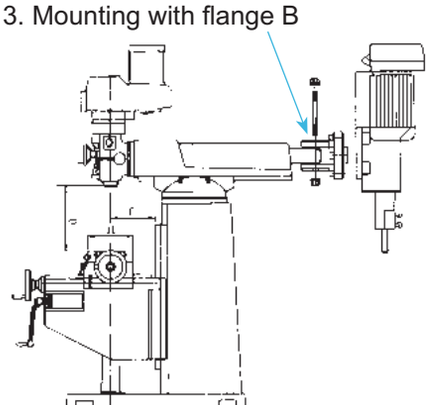
1. Direct mounting



2. Mounting with flange A



3. Mounting with flange B



Universal Cutter Grinder

ORDER NO.U2 CODE NO.1022-001

For grinding HSS and carbide engraving cutter as well as single lip or multiple lip cutters of various shapes such as radiused cutters or negative taper angle of cutters. The universal index head is provided at 24 positions so that any particular angle or shape can be obtained, free 3600 or 100 rotation is allowed for grinding End Mills. Twist Drill. Lathe Tools, only replace the attachment to the index head without any complex setup.

※Please confirm voltage & phase when order.

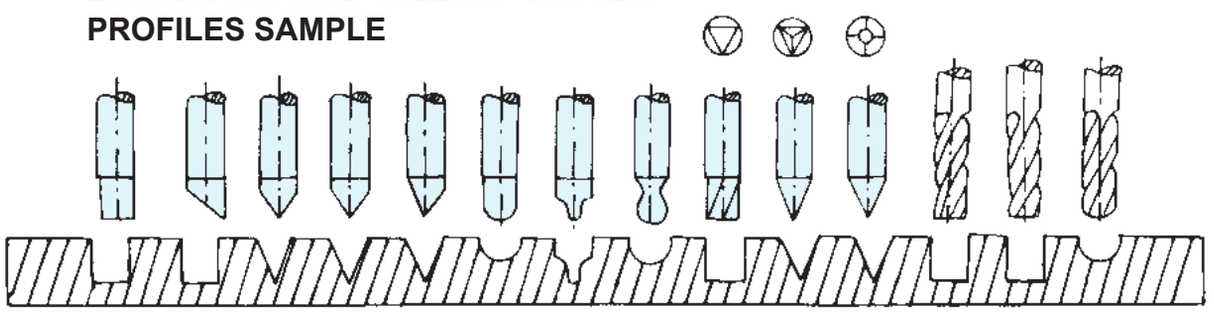
Technical Data

Max. Collet capacity Ø18mm
Max. Grinding dia. Ø25mm
Taper angle 0º-180º
Relief angle 0º-45º
Negative angle 0º-26º
Grinding spindle 3600 r.p.m.
Cup grinding wheel 100x50x20mm
Motor 1/3Hp 220V50/60Hz, please notify volt & phase
Net weight 45kgs
G.W.: 58kgs
Machine dimensions (LxWxH) 45x40x35cm
Packing Dimensions (LxWxH) 55x45x47cm

Standard Accessory Included

- Wheel dresser with diamond..... 1pc
- Wheel flange (mounted)..... 1pc
- Grinding wheel (stone).....1pc (U2-G)
- Collet Ø4, 6, 8, 10 12mm..... 5pc
- Aligning finger.....1pc
- Drive belt (U2-B).....1pc (U2-B)
- Lock pin.....1pc
- Tools.....1set

ENGRAVING AND MILLING CUTTER PROFILES SAMPLE



Universal Cutter Grinder Optional

Optional Accessory

- Twist drill grinding attachment U2-T
- END mail grinding attachment U2-E
- Lathe tool grinding attachment U2-L
- Grinding wheel balancing stand LBS-100 CODE NO. 2014-010
- Diamond grinding wheel U2-D
- Resinoid Diamond & CBN Wheels U2-R
- Collect (extra 1, 2, 2.5, 3, 5, 7, 9, 16, 18, 20, 25mm and 1/8", 3/16", 1/4", 5/16", 3/8", 1/2", 5/8"). Detail specification & ORDER No. shown on page U2 collet.

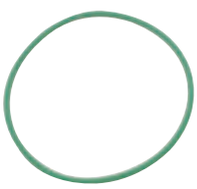
ORDER NO.	CODE NO.
U2-E	1022-010
U2-T	1022-011
U2-L	1022-012
U2-D #100	1022-013
U2-B BELT GREEN	1022-014
U2-B-R BELT RED	1022-018
U2-G WHEEL	1022-016
U2-R #200	1022-017
U2-R-1 #400	1022-017-1
VTC-20	3405-221
U2-COLLET	VE-U2-□

END mill grinding attachment
CODE NO. 1022-010 U2-E
WEIGHT: 2kgs

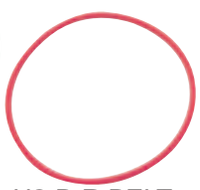
Twist drill grinding attachment
ORDER NO. U2-T CODE NO. 1022-011
WEIGHT: 0.9 kg

Lathe tool grinding attachment
ORDER NO. U2-L
CODE NO. 1022-012
WEIGHT: 0.9 kg

BELT
ORDER NO. U2-B BELT
CODE NO. 1022-014
ORDER NO. U2-B-R BELT
CODE NO. 1022-018



U2-B BELT GREEN



U2-B-R BELT RED

DIAMOND GRINDING WHEEL

U2-D
diamond
grinding wheel

U2-R
Resinoid Diamond
& CBN Wheels

ORDER NO.	SIZE	GRAIN	WEIGHT (kgs)	CODE NO.
U2-D	100Dx10Wx5Ux20Hx22T	#100	0.7	1022-013
U2-R	100Dx8Wx2Xx20H	#200	0.5	1022-017
U2-R-1	100Dx8Wx2Xx20H	#400		1022-017-1

U2 COLLET

Please see page C41

NO.2 Ø18-Ø25

NO.1 Ø3-Ø16

ORDER NO.	SIZE Ø
VE-U2-Ø	Ø1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 20, 25 mm

U2 COLLET

- Tool cabinet stand **VTC-20**
  440 x 340 x 800 mm G.W.:
  CODE NO. **3405-221**

VTC-20

- ORDER NO. SHOWN ON PAGE C137

EXAMPLE

Chamfering & Deburring Unit

SPMN 1203

VCF-500
Accessory: Side Mill Cutter Insert SPUN 422

ORDER NO.	CODE NO.
VCF-500	1023-001
VCF-500W	1023-002
VCF-500F	1023-003

PRACTICAL

A. UNIVERSAL APPLICATION.
B. SIMPLIFIED OPERATION.
C. FAST-ACCURATE-RATIONAL.
D. TIME SAVED.

- Tool cabinet stand VTC-20,
  440 x 340 x 800 mm
  CODE NO. 3405-221
  PAGE A84

VCF-500W
Accessory: Grinding Wheel
100Øx50x17Ø

FEATURES FOR VCF-500, 500W, 500F

1. Simplified operation,
   suitable for unskilled personnel.
2. Easily to be bevelled for any length
   made of steel, cast iron, nonferrous
   metals, plastics, acrylic etc.
3. 500 : With exchangeable carbide insents, insert can
   be changed easily to save cost and increase
   working ability.
4. 500W: With flange for grinding wheel, suit for steel
   material, heat treatment workpiece, can be
   bevelled or chamferred.
5. 500F : Working base on surface milling principles, the
   deburring procssing surface is same as the
   milling machine surface.

※Please confirm voltage & phase when order.
※Guaranteed for 3 months

VCF-500F
Accessory: Face Milling Cutter
Insert SEKN 1203

TECHNICAL DATA

Space requirement	500	500W	500F
	500x320mm	500x440mm	500x220mm
Weight(kgs)	28.5	29.1	29
Voltage	3Ø 220V or 1Ø 110V/220V 50HZ/60HZ 3Ø 380V/415V		
Motor output	0.7KW		
Speed	3500 r.p.m.		
Lenght of guide rails	500mm	500mm	500mm
Height of bevel	0-3mm		
Bevel angle	15°~45° (Changable)	45°	45°

PLEASE NOTIFY VOLTAGE & PHASE, WHEN YOU ORDERING.
C.E MARK REQUESTED

Chamfering & Deburring Unit

ORDER NO.	CODE NO.
VCF-500S	1023-004
VCF-600	1023-005
VCF-700	1023-006

VCF-500S
Accessory: Sanding Disc
165Øx22Ø

PRACTICAL

A. USING SAND-CLOTH ROLLER FOR CUTTING.
B. GOOD FOR STEEL. CAST IRON HARDEN PARTS.
C. NOT FOR SOFT IRON OR ALUMINUM.
D. IF USED BENT WORKPIECE, THE CHAMFERING SURFACE WOULD NOT SMOOTHLY STRAIGHT.

Light duty

VCF-600
Insert SPMW 321
ZSPMW 090308

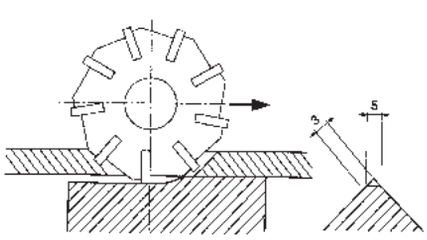
FEATURES FOR VCF-

1. 500S: Uses sanding disc, can debur soft and rigid materials.
2. 600 : Easy to carry and time-saving. suitable for large size workpiece which can't be easily moved. The tools can be chamfered 0-3mm bevel angle, radius, arc angle, irregular shape. straight line, outer curve and etc.
3. 700 : The machine is used to carry out chamfering operations on any kind of ferrous material in particular steel and cast iron. Equipped with square-shaped tungsten carbide inserts-12.7x12.7x3.18 ISO 1203 SPUN. Simplified operation suitable for unskilled personnel. 3Ø220V/3Ø380V

※Please confirm voltage & phase when order.
※Guaranteed for 3 months

VCF-700
Side mill cutter

Heavy duty



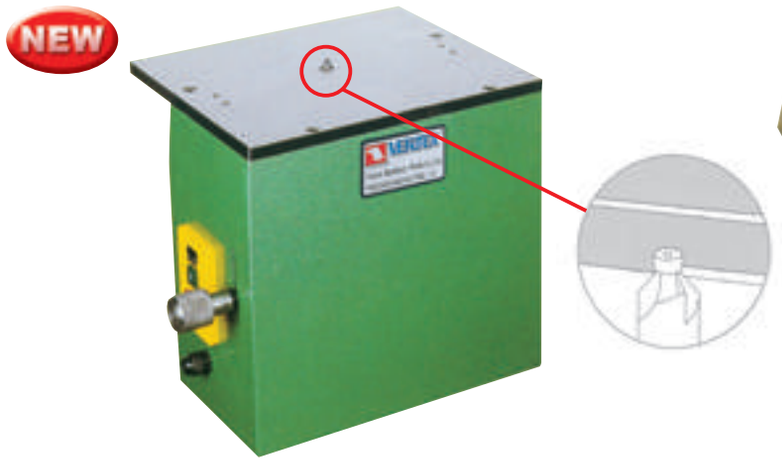
TECHNICAL DATA

Space requirement	VCF-500S	VCF-600	VCF-700
	330x410	380x130	360x200x260
Weight(kgs)	26	3.7	14
Voltage	3Ø220V or	1Ø110V/220V 3Ø380V/415V	50HZ/60HZ
Motor output	0.7KW	0.62KW	0.37KW
Speed	3500 r.p.m.	12000 r.p.m.	3500 r.p.m.
Lenght of guide rails	320mm	100mm	200mm
Height of bevel	0-3mm	0-3mm	0-7mm
Bevel angle	45°	45°	15°~45° Adjustable

PLEASE NOTIFY VOLTAGE & PHASE, WHEN YOU ORDERING.

Chamfering & Deburring Unit

ORDER NO.VCF-300A CODE NO.1023-007



- Process by carbide end mill.
- The range of chamfer: inner dia. 6mm,inner gap width 6mm and 3R arc.
- The chamfer a bility by: 2C/2R.
- The adjustable speed (0-6000rpm) can use for all kinds of materials cutting. (except harden parts)
- This machine was designed for regular and irregular parts such as curved surface, inner gap, and complex of inner and outter parts.
- All bevel angle comes to 45º by 45º carbide end mill.

※Please confirm voltage & phase when order.

SPECIFICATION

Accessory	Carbide end mills
Machine size	L330mm x W330mm x H300m
Voltage	1ø, 220V; 50Hz/60Hz
Speed	0~12000 r.p.m.
Distance of Bevel	0~3mm
Bevel angle	45º
N.W. / G.W.	40kgs / 42kgs
Box size	550mm x 440mm x 380mm
Measurement	3.4 Square feet
Motor	1HP
Track Size	300mm x 250mm x 10mm

Ejector Pin Cutting-off Unit

ORDER NO.VEC-100 CODE NO.1024-001

A PRECISE & SHARP CUTTING TOOL FOR MOULD MAKING LINE

Features

- Moveable shaft bearing easy operation, safety.
- For cutting ejector pin of mould. or machine key. round rod.
- Heat-Treatment materials.
  Good-Looking cutting surface of stainless steel.
- Handle device according law of lever, it's easy to move on.
- Cause no vibration, no dust and noiseless.
- Easy to exchange the emery wheel.

※Please confirm voltage & phase when order.

ABLE TO CUT ALL THE MATERIAL WITH PLANE SURFACE ALMOST

SPECIFICATION

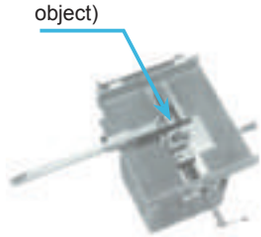
Unit:mm

Max. Cutting capacity	Ø25x300L
Cutting tolerance	20 ± 0.10MM
Cut-off sander lamina	150MM (O.D.)
	1MM (THICK)
	19.05MM (HOLE)
R.P.M.	3600
Motor	1/2HP
Measure rule	300MM
Weight (approx.)	94.5KGS
Machine size	620x420x450MM
Packing size	720x520x600MM

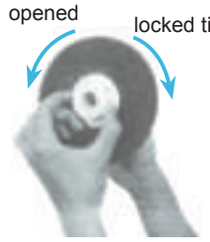
PLEASE NOTIFY THE VOLTAGE & PHASE, WHEN YOU ORDERING.

STANDARD ACCESSORIES
Emery wheel (Ø150x1x 19.05mm) 5 PCS

LARGE & SMALL V SLOT
(For clamping round object)



EMERY WHEEL ASSEMBLY BY HAND



Rods Precision Cutting-Off And End Surface Grinding Unit

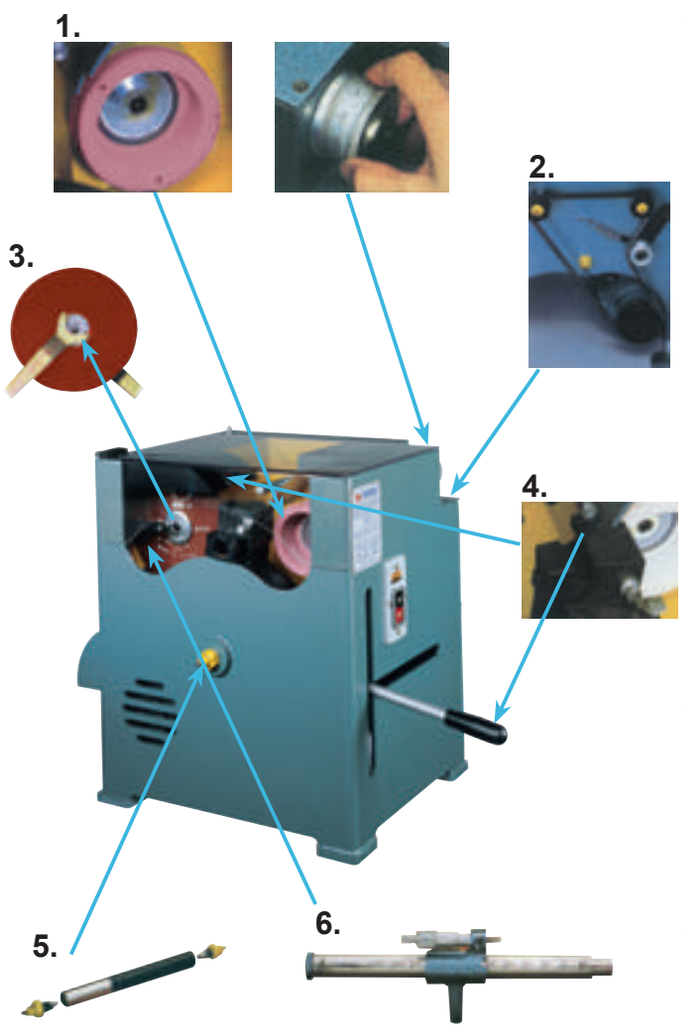
ORDER NO.	CODE NO.	N.W.	G.W.
VEC-300G	1024-010	89	112
VEC-500G	1024-011	92	115
VEC-600G	1024-012	95	118

For Clamping

For Cutting & Grinding

Features

- During operation, the grinding sander may be micro adjusted and repaired without changing its dimensions.
- The tigtness of belt may be automatically adjusted and controlled (the larger the resistance, the tighter the belt.)
- The dimensions precision of cutting off the length of working piece are not subject to the effect of the difference of thickness of cutting-off sander piece.
- The rapid chuck is used to hold the working piece in place, opening or closing it is very quick, and Ø1-25mm is the same.
- When operation, a shaft with two tapered ends is used for transmission and characterized by high stability low wearing rate and long life.
- The rapid positioning rule is in the unit of 20mm and provided with a micro rule (0mm to 25mm) of which the zeroing point is the dimensions at the rapid positioning point.
- The minimum of cutting length is 60mm



The measure rule

SPECIFICATION

Cut-off precision		25mmø x 300mm ± 0.01
Right-angle precision		25mmø x 90° ±0.01
Cut-off sander lamina		1mm t x 180mmø (Hole) 31.8mmø
Grinding sander surface		27A/PA46IJ x100 x 50 x 20
R.P.M.		3600
Motor		1HP 110/220V 1 or 3 phase
Capacity		VEC-300G 300mm VEC-500G 500mm VEC-600G 600mm
Machine Size	VEC-300G/500G	600 X 550 X 660 mm
	VEC-600G	600 X 550 X 720 mm

- The legth of measure: 300mm is for VEC-300G
  500mm is for VEC-500G
  600mm is for VEC-600G
  Except the measure rule length is different, all items of body are same.
- Please notify the voltage & phase, when you ordering

Dustproof Halogen Lamp Beam

VERTEX

WATER PROOF UNIVERSAL TYPE

CE

VHL-300 SERIES

VHL-300S VHL-300M VHL-300L

Features

- Coil transformer built in base for directly connect to voltage of Ac power. (110V, 220V, 380V, 24V...)
- Specify voltage as desired when ordering.
- It accepts bulb 55W
- Furnished with 1.8 meter cord with plug.
- Fitted with coil transformer resisting unstable voltage.
- Long service life.
- IP65
- with water proof articulated arm.

※Please confirm voltage & phase when order.

Unit:mm

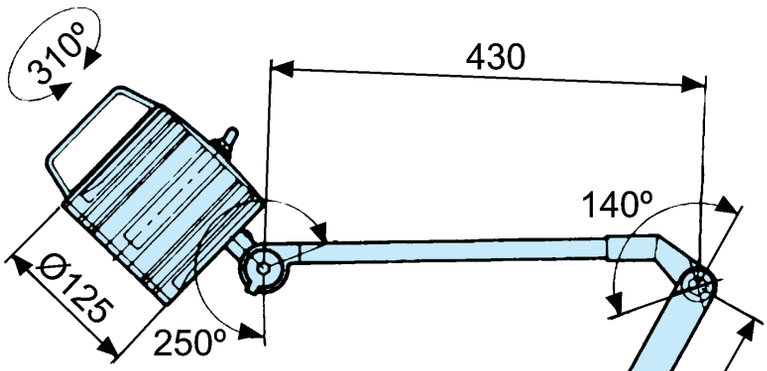
ORDER NO.	ARM LENGTH L x ℓ	WEIGHT (kg)	CODE NO.
VHL-300L	430x400	2.4	1025-001
VHL-300M	250x200	2.1	1025-002
VHL-300S	1 JOINT	2.3	1025-003
J-L02		0.3	1025-004
J-C02		0.5	1025-005

Dustproof Halogen Lamp Beam

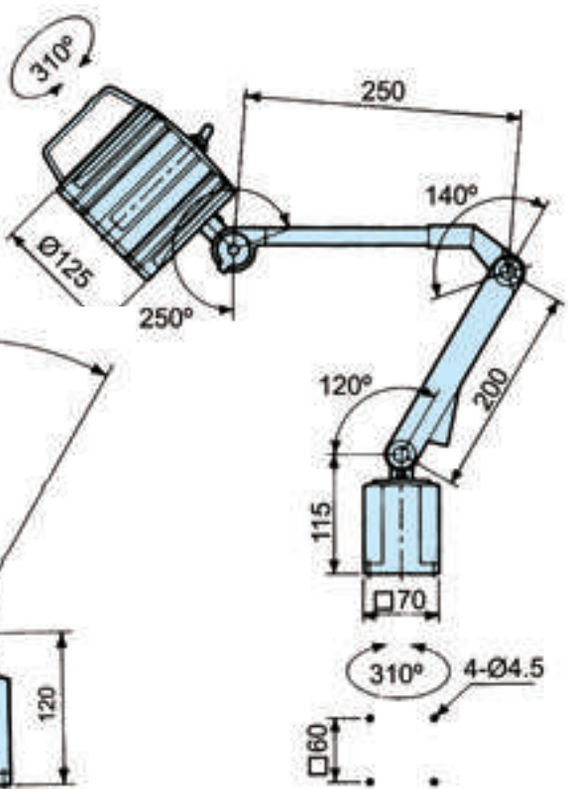
VERTEX

WATER PROOF UNIVERSAL TYPE

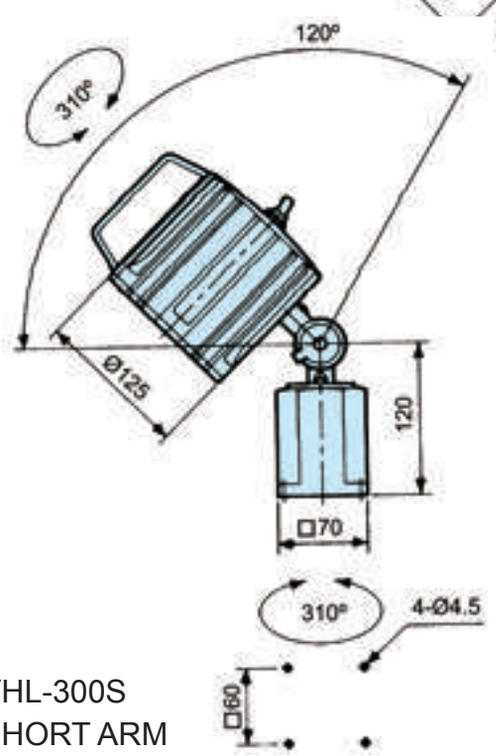
VHL-300 SERIES



VHL-300L
LONG ARM



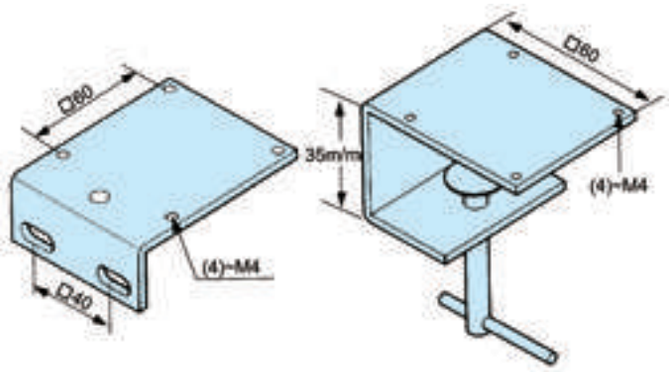
VHL-300M
MEDIUM ARM



VHL-300S
SHORT ARM

SPECIFY:
110V / 55W
220V / 55W
380V / 55W
24V / 70W
※PLEASE CONFIRM VOLTAGE & PHASE WHEN ORDER

●OPTIONAL●



J-L02 J-C02

- MOUNTING ANGLE PLATE J-L02
- MOUNTING CLAMP J-C02

Totally enclosed lighting head provides well prevention for explosion, dust, coolant, and lubricants.
Uses efficient quartz halogen bulb, great light output, soft illuminating without irritating to the eyes.

Dustproof Halogen Lamp Beam

VERTEX

WATER PROOF UNIVERSAL TYPE

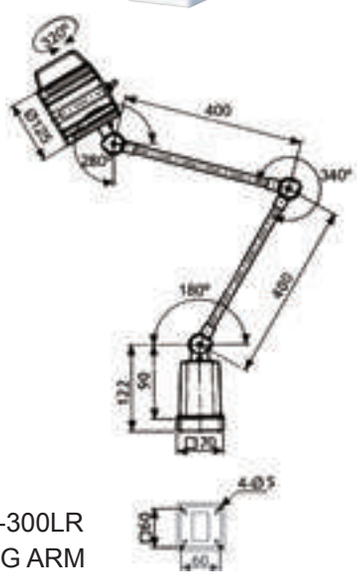
CE

VHL-300LR

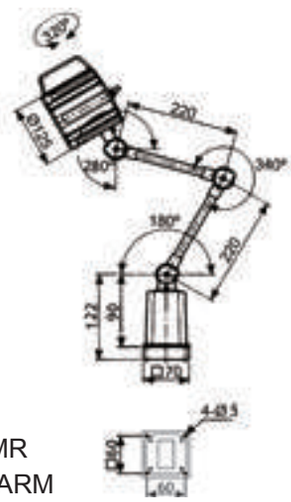
VHL-300MR

VHL-300SR

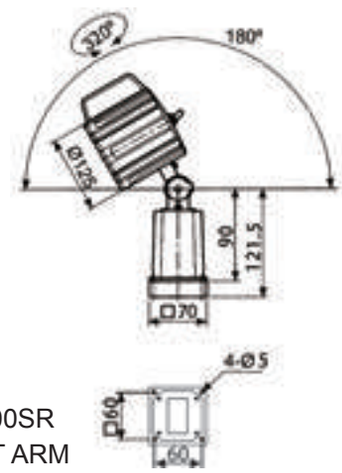
VHL-300 1/2MR



VHL-300LR
LONG ARM

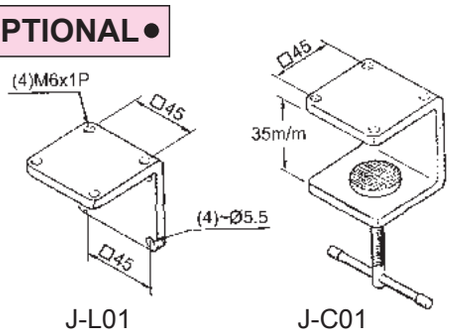


VHL-300MR
MEDIUM ARM



VHL-300SR
SHORT ARM

●OPTIONAL●



J-L01 J-C01

- MOUNTING ANGLE PLATE J-L01
- MOUNTING CLAMP J-C01

Totally enclosed lighting head provides well prevention for explosion, dust, coolant, and lubricants.
Uses efficient quartz halogen bulb, great light output, soft illuminating without irritaating to the eyes.
※Please confirm voltage & phase when order.

Features

- Coil transformer built in base for directly connect to voltage of Ac power. (110V, 220V, 380V.....)
- Specify voltage as desired when ordering.
- It accepts bulb 50W, 55W, 70W.
- Furnished with 1.8 meter cord with plug.
- Fitted with coil transformer resisting unstable voltage.
- Long service life.
- With Water proof articulated arm.
- Round tube arm provides great lighting angles.
- IP65

Unit:mm

ORDER NO.	ARM LENGTH L x ℓ	WEIGHT (kg)	CODE NO.
VHL-300LR	400x400 (With Water proof)	4.4	1025-010
VHL-300MR	200x200 (With Water proof)	3.6	1025-011
VHL-300SR	1 JOINT (With Water proof)	2.9	1025-012
VHL-300 1/2MR	200 (With Water proof)	3.4	1025-013
J-L01		0.6	1025-014
J-C01		0.4	1025-015

Quartz Halogen Lamp Beam

VERTEX

UNIVERSAL TYPE

- Gooseneck arm for smooth lighting angle adjustment.
- Lighting reaches any direction.

VHL-20FT SERIES

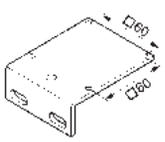
- Engineering plastic shade and base provides complete insulation for maximum operator safety.
- Power source available: Any voltage on customer's request. Such as 110V, 220V, 240V, 380V, 415V.
- Transformer built in base.
- Accept 20, 35 and 50 watt bulb. Included with 20 watt bulb, 35 and 50 watt bulb on request.
- Furnished with 1.8 meter (70″) cord.
- Available with magnetic base. (optional)
- Engineering mounting angle plate. (optional)
- Double shades designed permits fast heat dissipation.

VHL-20F SERIES

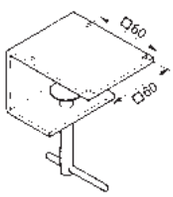
- The quartz halogen lamp has great light output, soft illuminating without irritating to the eyes.
- Low voltage 12 or 24 volt operation without danger of electric shock.
- The articulated arm provides vibration resistance performance.
- Use top quality electric components.
- Accept 20, 35, 50 watt bulb. Included with 20 watt bulb, 35 and 50 watt bulb on request.
- Complete with 1.8 meters (70″) cord.
- Economical model, jet quality constructed.
- Ideally suited to machine tools and machinery without big working area.
- Engineering plastic shade and base provides complete insulation.

●OPTIONAL●

J-M01



J-L02



J-C02

- MAGNETIC SEAT
- MOUNTING CLAMP J-C02
- MOUNTING ANGLE PLATE J-L02

ORDER NO.	WEIGHT(kg)	CODE NO.
VHL-20FT	1.6	1025-020
VHL-20F	1.1	1025-021
J-M01	0.6	1025-006
J-L02	0.3	1025-004
J-C02	0.5	1025-005

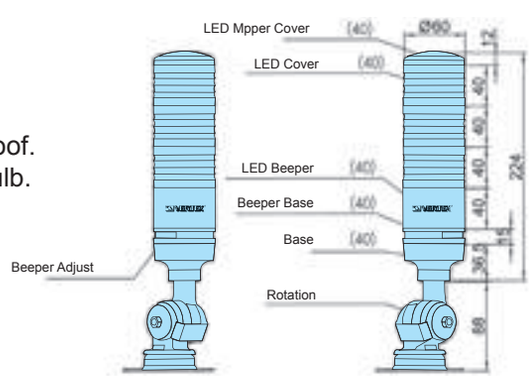
※Please confirm voltage & phase when order.

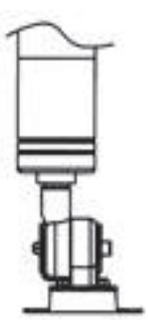
Water - Proof Bright LED Signal Light

NEW

- Signal light with feature of multi-function, water proof.
- Lamp of signal light, adopted high efficient LED bulb.

※Please confirm voltage & phase when order.



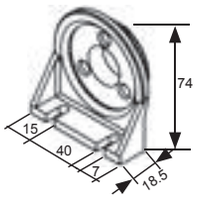


- Suit for machine tools & etc, show singal of machine process
- Good for automatic process line multi angle
- Double layer lamp shade high illumination LED water & dust proof-steam 360˚ lighting without shade

ORDER NO.	Bulb	Enclosure IP	weight (kgs)	CODE NO.
VLED-SL	24V	IP54	0.77	1025-026

Water-proof Reflector LED Lamp

NEW



BRACKET

- The products wide illumination range and brightness makes it suitable for areas requiring wide-range illumination. it is suitable for various machine tools when installed on different mounts, particularly machine tools within closed operating environments.
- Enclosure IP : IP67
- Wide illuminating range suit for various machine tools. Water proof & dust proof good for under ground environment.
- The protective cover is waterproof and dustproof, the lamp is conducive for subways, mines, and tunnel environments.

ORDER NO.	VOLTAGE	LAMP LENGTH	BULB	UMINATION DISTANCE	WEIGHT (KGS)	CODE NO.
VLED-W13	100V ~ 240V	448 mm	12W	0.5 m / 500 lux	2.2	1025-058
VLED-W18	100V ~ 240V	520 mm	12W	0.85m / 500 lux	2.5	1025-058A
VLED-W36	100V ~ 240V	734 mm	24W	1.10 m / 500 lux	3.5	1025-059

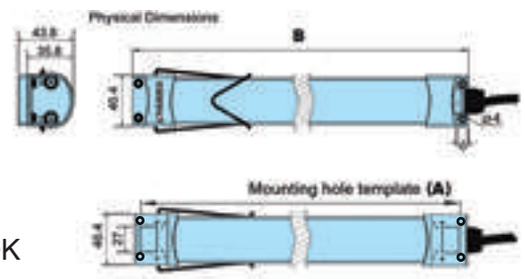
※Color Temperature: 5500 K-6000 K ※Please confirm voltage & phase when order.

Workshop LED Lamp

NEW

WATER RESIST

MAGNETIC FOR HOOK MAGNETIC FOR HOOK



- For garage & workshop
- Light weight & durable
- 3 attach way : magnet, hook & stand
- IP67 water proof
- Angle 120º
- Samsung 5630LED
- 5300 K

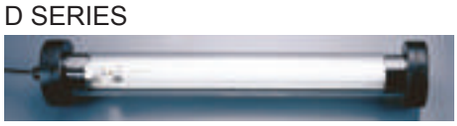
ORDER NO.	A	B
VLED-1080	290	300
VLED-2160	510	520

ORDER NO.	VOLTAGE	LAMP LENGTH	BULB	l m	UMINATION DISTANCE	WEIGHT KGS)	CODE NO.
VLED-1080	110V ~ 240V	300 mm	7.5W	1080 lm	0.65 m / 500 lux	0.61	1025-080
VLED-2160	110V ~ 240V	520 mm	15W	2160 lm	1.0 m / 500 lux	1.07	1025-081

Cool Light Beam

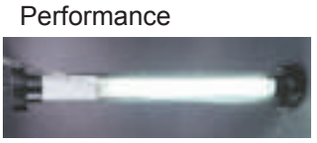
WATER RESIST

D SERIES



DB SERIES

- Outstanding Water-resist Performance



- Suited for machine lighting. indoor and outdoor lighting.
- Cool lighting performance.
- Anti-crack lamp.
- Swivelling mounting bracket (opional).
- Accommodates power source 110V or 220V. single voltage only.
- Specify HZ and voltage when ordering.
- The outer tube is manufactured from acrylic. When requested.the glass outer tube is available.
- Furnished with 1.8 meter (70″) cord.

※Please confirm voltage & phase when order.

Separate ballast series

ORDER NO.	LAMP LENGTH	BULB LENGTH	WATT	DIA	WEIGHT (kg)	CODE NO.
VHL-W36D/PL	621mm	385mm	36	70mm	2.9	1025-034

Built-in ballast series

ORDER NO.	LAMP LENGTH	BULB LENGTH	WATT	DIA	WEIGHT (kg)	CODE NO.
VHL-W15DB	717mm	436mm	15	70mm	3.5	1025-041
VHL-W18DB/PL	525mm	195mm	18	70mm	2	1025-042
VHL-W20DB	861mm	580mm	20	70mm	3.6	1025-043

Magnifying Fluorescent Work Light Beam

VERTEX

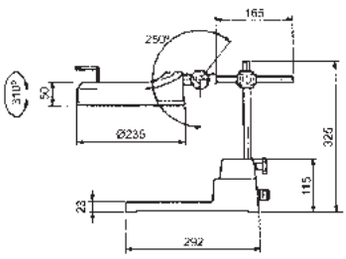
WITH 5X LENSE

VHL-30TEB
BENCH TYPE

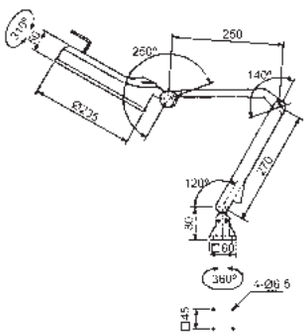
VHL-30MEB

3 Diopter auxiliary lense
(optional)

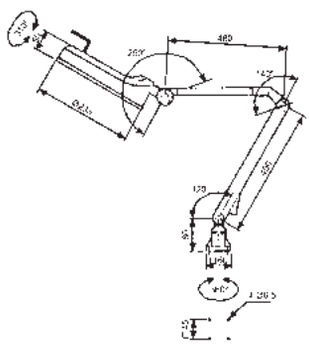
VHL-30LEB



VHL-30TEB BENCH TYPE



VHL-30MEB MEDIUM ARM



VHL-30LEB LONG ARM

VHL-30TEB

- Bench type model.
- Constructed with a wide base for placing object, allowing it especially suited for inspection lighting.
- Electronic ballast is built in arm.
- Accepts 22 watt fluorescent tube.
- ※ 110V, or 220V operation. Supplied single voltage only. Specify desired voltage when ordering.
- Furnished with 1.8 meter cord with plug. Extended cord length is available when required.

Designed with a magnifier lense on luminaire head giving 5 Diopter of magnification 2.25x than actual object. The fluorescent lighting provides day light effect without flash.

●OPTIONAL●

ORDER NO. VHL-3X
3 Diopter magnifier lense=1.75X

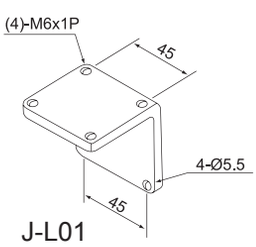
VHL-30 MEB

- Medium arm model.
- Electronic ballast is built in arm.
- Accepts 22 watt fluorescent tube.
- 110V, or 220V operation. Supplied single voltage only. specify desired voltage when ordering.
- Furnished with 1.8 meter cord with plug. Extended cord length is available when required.

VHL-30 LEB

- Long arm model.
- Electronic ballast is built in arm.
- Accepts 22 watt fluorescent tube.
- 110V, or 220V operation. Supplied single voltage only. Specify desired voltage when ordering.
- Furnished with 1.8 meter cord with plug. Extended cord length is available when required.

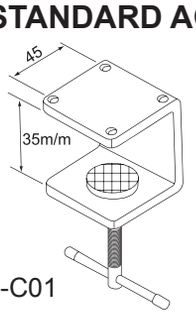
●OPTION



J-L01

MOUNTING ANGLE PLATE

●STANDARD ACC.



J-C01

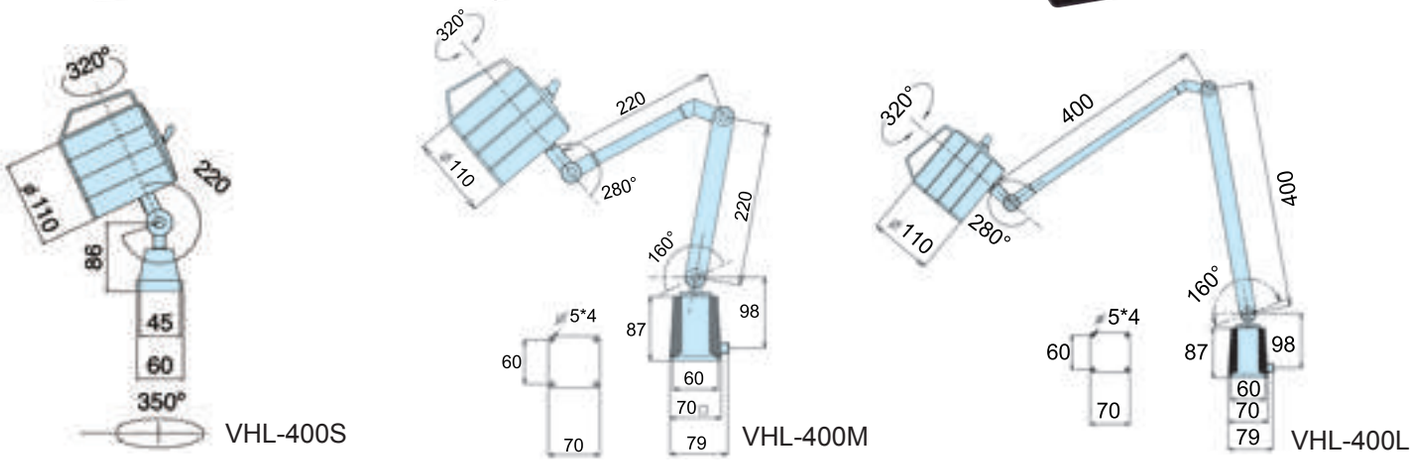
MOUNTING CLAMP

ORDER NO.	WEIGHT (kg)	CODE NO.
VHL-30TEB	3.5	1025-060
VHL-30MEB	2.9	1025-062
VHL-30LEB	2.9	1025-063
J-L01	0.6	1025-014
VHL-3X	0.3	1025-065

- All VHL-XXXEB work lights are with 5 Diopter magnifier lense, The MAX.=5+3=8 Diopter

Water-Proof Halogen Lighting Beam

VHL-400S VHL-400M VHL-400L



VHL-400S VHL-400M VHL-400L

WATER-PROOF HALOGEN LIGHTING LAMP (VHL-400L SERIES)

LIGHTING HEADS OF THESE SERIES WITH SPECIFIC FEATURES OF WATER-PROOF, DUST-FREE, ANTI-LUBRICAT, ANIT-CUTTING OIL, ETC.
THE LIGHTING UNITS ADPOTED WITH A BULB (12V/50W). CUSTOMERS' SPECIFICATIONS ALSO ACCEPTED.

VHL-400L

- Water-proof lighting head with reinforced glass resists big temperature fluctuations of cutting oil.
- 12V/24V Voltage.
- Flexible Arm (round arm), 400x400mm
- With universal Lighting Base.
- Specifications of Bulb: 12V/50W.
- Different conditions demand different lighting bases.
  Selected rectangular L-type (#V-20) base or C-type (#V-21) base.

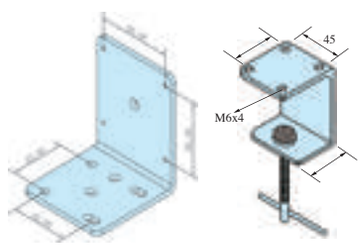
VHL-400M

- Perfomance & features: same as, but with shorter fiexible arm at 220x185mm.

VHL-400S

- Specially designed to fit particular locations and spaces, The flexible arm is very short.

●OPTIONAL●

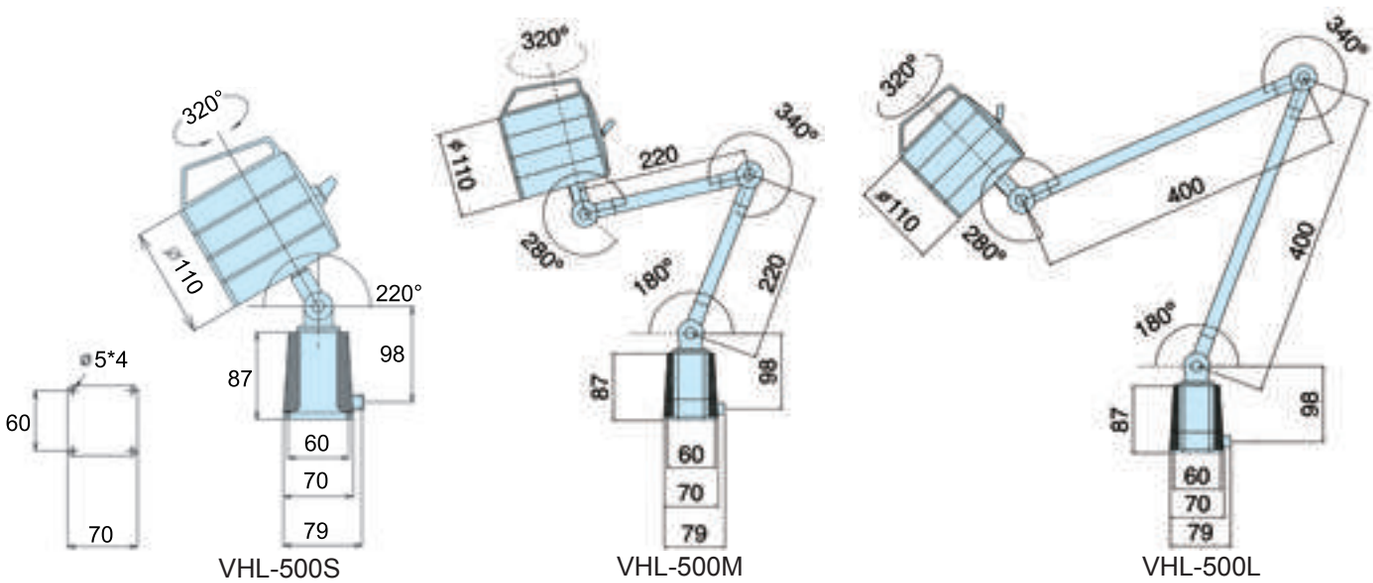


V-26 V-21

ORDER NO.	VOLTAGE	BULB	ARM LENGTH L x ℓ	OPTIONAL ACCESSORIES	WEIGHT (N.W.)	CODE NO.
VHL-400L	110V - 220V	12V 50W	400x400	V-26	3.8	10 25-100
VHL-400M	110V - 220V	12V 50W	220x220	V-26	3.5	1025-101
VHL-400S		12V 50W		V-20 / V-21	2.8	1025-102

ORDER NO.	WEIGHT (kg)	CODE NO.
V-21	0.48	1025-107
V-26	0.19	1025-108

Water-Proof Halogen Lighting Beam



VHL-500L

- Performance & features of these series: same as.The main difference is that VHL-500L can be installed with a shorter arm, and connected with AC currentbelow 240V.

※ Please indicate the required voltage when placing the orders to us.

- Specitications of the bulb: 12V/50W

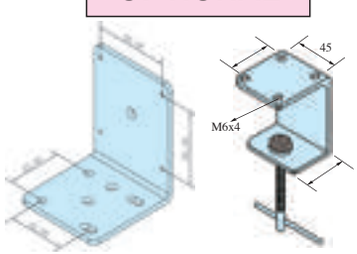
VHL-500M

- Same specifications as VHL-500L, but with shorter flexible arm at 220x220mm.

VHL-500S

- Specilly designed to fit particular locations and spaces. The flexible arm is very short.

●OPTIONAL●



V-26 V-21

ORDER NO.	VOLTAGE	BULB	ARM LENGTH L x ℓ	OPTIONAL ACCESSORIES	WEIGHT (N.W.)	CODE NO.
VHL-500L	110V - 220V	12V 50W - 24V 50W	400x400	V-26	4	1025-103
VHL-500M	110V - 220V	12V 50W - 24V 50W	200x220	V-26	3.8	1025-104
VHL-500S	110V - 220V	12V 50W - 24V 50W		V-26	2.7	1025-105

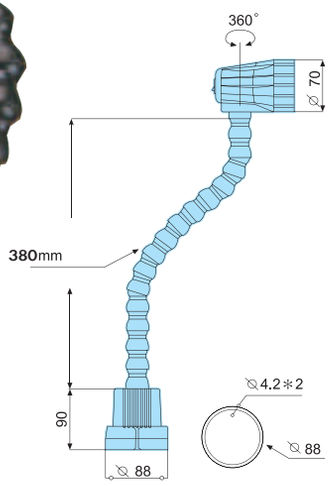
ORDER NO.	WEIGHT (kg)	CODE NO.
V-21	0.48	1025-107
V-26	0.19	1025-108

Dustproof Halogen Lamp Beam

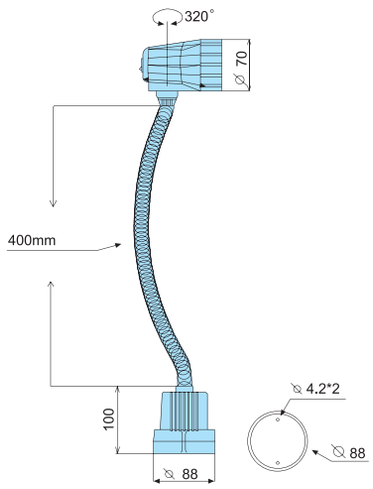
VERTEX

CE

WITH TRANSFORMER & MAGNETIC BASE



VHL-600FT



VHL-700FT

Features

- VHL-600FT, VHL-700FT type ideal for work-place lighting if bright concentrated light is required in performance not too large area illumination. Built in transformer.
- Suitable for use at small machine such as CNC engraving machine, sewing machine, lathe machine, working benches and working table.....etc.
- VHL-700FT with flexible arm.

※Please confirm voltage & phase when order.

ORDER NO.	VOLTAGE	BULB	ARM LENGTH L x ℓ	OPTIONAL ACCESSORIES	WEIGHT N.W.(KGS)	CODE NO.
VHL-600FT	110V - 220V	12V 20W	380	M-23	1.7	1025-109
VHL-700FT	110V - 220V	12V 20W	400	M-23	1.7	1025-110

V-B15		12V 50W / 24V 50W			0.009	1025-111
V-B16		12V 55W / 24V 70W			0.009	1025-112
V-T17	415V - 12 / 415V - 24 380V - 12 / 380V - 24 230V - 12 / 230V - 24				1.47	1025-113
V-T18	415V - 12 / 415V - 24 380V - 12 / 380V - 24 230V - 12 / 230V - 24				1.4	1025-114

V-T17

TRADITIONAL TRANSFORMER V-T17 SUITABLE FOR VHL-400 SERTES VHL-500 SERTES

V-T18

EXTERIOR DUST-FREE TRANSFORMER V-T18 Voltage below 415V. Can be installed anywhere. Dust-Free, leakage-proof and oil-proof.

V-B15

V-B15
12V/50W, 24V/50W
Those bulb for VHL-400, VHL-500 series

V-B16

V-B16
24V/70W, 12V/55W
Those bulb for VHL-400, VHL-500 series

Water Proof LED Lamp

NEW **ENERGY SAVING**

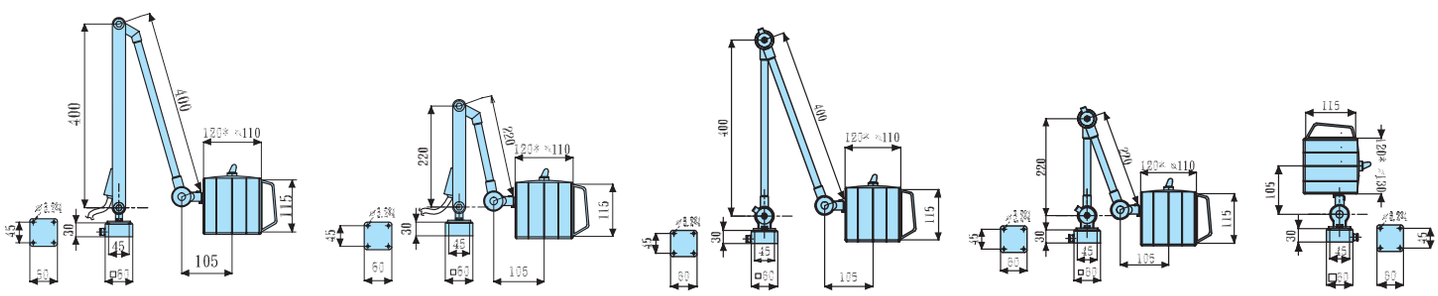
UNIVERSAL TYPE

VERTEX

LED TYPE

LAMP BEAM

VLED-400L VLED-400M VLED-500L VLED-500M VLED-500S



VLED-400L VLED-400M VLED-500L VLED-500M VLED-500S

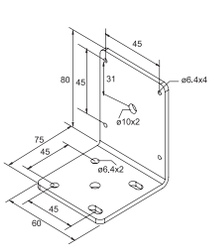
Features

- Energy saving
- Luminous flux: 780~800 lumen
- LED light long service life
- 1 year guarantee
- 1.8 meter coil
- White light
- No high heat produce
- Dust/water proof
- Specify voltage when ordering
- For any working place, stable quality
- Suit for CNC, engraving, drill press machine, lathe, wood and mold industry

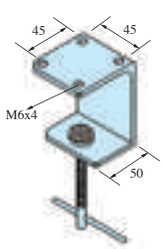
※Please confirm voltage & phase when order.

ORDER NO.	VOLTAGE	BULB	ARM		WEIGHT N.W.(KGS)	CODE NO.
			L x ℓ	TUBE STYLE		
VLED-400L	110V / 220V	9W	400 X 400	SQUARE	2.12	1025-130
VLED-400M	110V / 220V	9W	220 X 220	SQUARE	1.96	1025-131
VLED-500S	110V / 220V	9W	JOINT	ROUND	1.6	1025-132
VLED-500L	110V / 220V	9W	400 X 400	ROUND	2.42	1025-136
VLED-500M	110V / 220V	9W	220 X 220	ROUND	2.3	1025-137

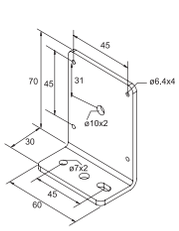
●OPTIONAL●



V-20



V-21



V-22

Totally enclosed lighting head provides well prevention for explosion, dust, coolant, and lubricants.

- LED9W
  High lumen 780~800
  Led light bulb

OPTIONAL ACCESSORIES

ORDER NO.	WEIGHT (kg)	CODE NO.
V-20	0.28	1025-106
V-21	0.48	1025-107
V-22	0.16	1025-119
LED9W	0.19	1025-141A

Concentrate LED Lamp

VERTEX

CE

UNIVERSAL TYPE

NEW

VLED-30L

VLED-30M

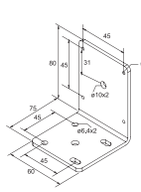
Features

- Energy saving
- LED light long service life
- 1 year guarantee
- Luminous flux: 250~330 lumen
- No high heat produce
- Dust proof
- Flexible & folding arm
- Built-in transformer
- Suit for small CNC, engraving, sewing machine, drill press, lathe, and working table

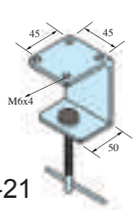
※Please confirm voltage & phase when order.

ORDER NO.	VOLTAGE	BULB	ARM L x ℓ	WEIGHT N.W.(KGS)	CODE NO.
VLED-30L	INPUT: 220V OUTPUT: AC / DC 12V	12V 6W	400 X 310 mm	2	1025-125
VLED-30L	INPUT: 110V OUTPUT: AC / DC 12V	12V 6W	400 X 310 mm	2	1025-126
VLED-30M	INPUT: 220V OUTPUT: AC / DC 12V	12V 6W	220 X 310 mm	1.8	1025-127
VLED-30M	INPUT: 110V OUTPUT: AC / DC 12V	12V 6W	220 X 310 mm	1.8	1025-128

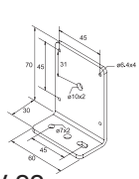
●OPTIONAL●



V-20



V-21



V-22

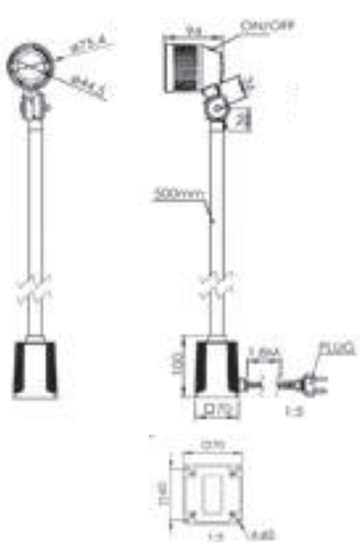
- LED6W
  Led light bulb
  250~330 lumen

OPTIONAL ACCESSORIES

ORDER NO.	WEIGHT (kg)	CODE NO.
V-20	0.28	1025-106
V-21	0.48	1025-107
V-22	0.16	1025-119
LED6W	0.14	1025-140

Wide Range LED Lamp

NEW



Features

- Power consumption :21.5W
- Angle:36°
- Color temperature:2800K
- Lumens value:210 lm
- Voltage:AC 220V power 12V
- With transformer built-in

●OPTIONAL●

Magnet base
V-51

Mounting Angle plate
V-52

ORDER NO.	VOLTAGE	BULB	ARM L x ℓ	WEIGHT N.W.(KGS)	CODE NO.
VHL-50FT	AC 220V	12V / 20W	500 mm	1.69	1025-151

ORDER NO.	WEIGHT (kg)	CODE NO.
V-51	0.52	1025-161
V-52	0.27	1025-162

Wide Range LED Lamp

NEW

With built-in Transformer

Features

- Power consumption :2.3W
- Consumption current:110V/23MA OR 220V/39MA
- LED:3W
- Angle:45º
- Color temperature:5700K
- IP54
- Lumens value:135 lm

●OPTIONAL●

V-54
Magnet base

V-55
Mounting Angle plate

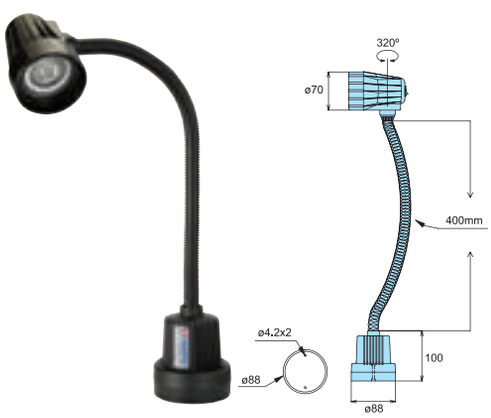
ORDER NO.	WEIGHT (kg)	CODE NO.
V-54	0.5	1025-163
V-55	0.2	1025-164

ORDER NO.	VOLTAGE	BULB	ARM L x ℓ	WEIGHT N.W.(KGS)	CODE NO.
VHL-37FT	AC 100V-240V	3W	370 mm	0.60	1025-152

Concentrate LED Lamp

NEW

CE WITH TRANSFORMER & MAGNETIC BASE



Features

- Energy saving
- LED light long service life
- 1 year guarantee
- Luminous flux: 250~330 lumen
- No high heat produce
- Dust proof
- Flexible & folding arm
- Built-in transformer
- Suit for small CNC, engraving, sawing
- machine, drill press, lathe, and working table

※Please confirm voltage & phase when order.

●OPTIONAL●

- LED6W
  Led light bulb
  250~330 lumen

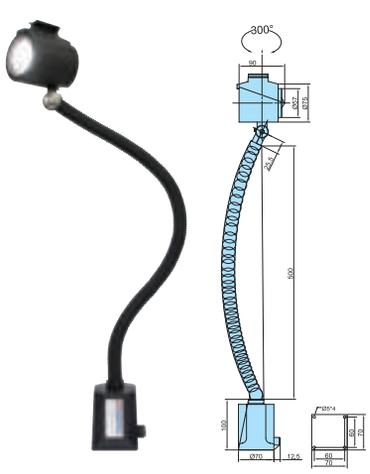
V-23 V-27

ORDER NO.	VOLTAGE	BULB	ARM L x ℓ	WEIGHT N.W.(KGS)	CODE NO.
VLED-20L	INPUT: 220V OUTPUT: AC / DC 12V	12V 6W	400 mm	1.2	1025-120
VLED-20L	INPUT: 110V OUTPUT: AC / DC 12V	12V 6W	400 mm	1.2	1025-121

ORDER NO.	WEIGHT (kg)	CODE NO.
V-23	0.27	1025-117
V-27	0.21	1025-118
LED6W	0.14	1025-140

Concentrate LED Lamp

NEW



Features

- Power consumption : 5.3 W
- Consumption current : 110V/85MA, 220V/48MA
- Philips LED MR16
- LED : 4.2 W
- Angle : 24˚
- Luminous intensity : 1150 cd
- Color temperature : 6500 K
- Lumens value : 285 lm
- Life : 1 year guarantee
- With mounting Angle plate

※Please confirm voltage & phase when order.

●OPTIONAL●

- LED6W
  Led light bulb
  250~330 lumen

ORDER NO.	VOLTAGE	BULB	ARM L x ℓ	WEIGHT N.W.(KGS)	CODE NO.
VLED-50FT	110V / 220V	12V6W	500mm	1.7	1025-150

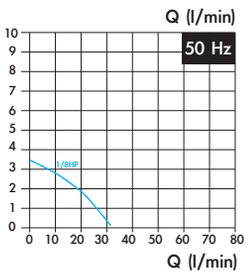
ORDER NO.	WEIGHT (kg)	CODE NO.
LED6W	0.14	1025-140

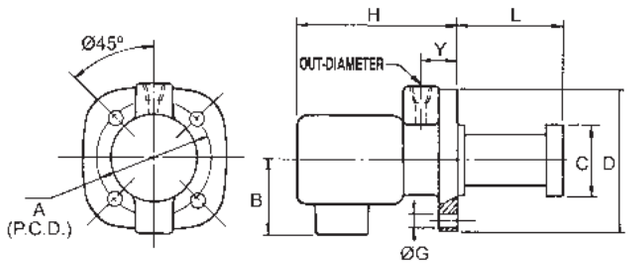
1/8 HP. Under Water Coolant Pump

VERTEX

Features

This is the pump in best quality with anti-rust treatment, use high grade material for the complete set and has been duly inspected in five steps by precision electron device.





※Please confirm voltage & phase when order.

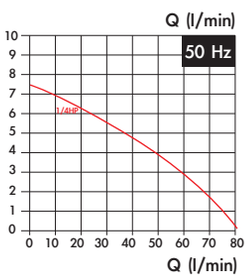
Unit:mm

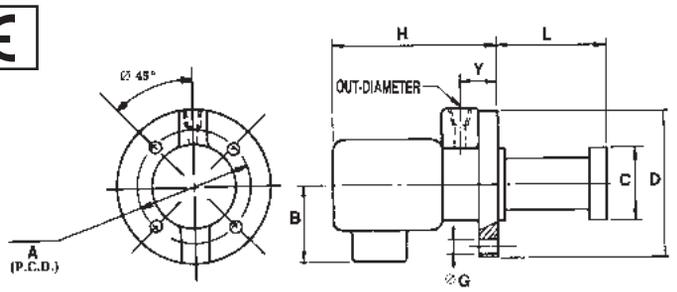
POWER	A	B	C	D	G	H	Y	OUT-DIAMETER
1/8 HP	128±0.2	105	Ø90	Ø150	Ø8	160	19	PT 3/8

Unitl:mm

ORDER NO.	TYPE	POWER	L mm	PUMPING WATER 1 mmin	PUMPING WATER 2 mmin	WEIGHT (kg)	CODE NO.
VWP-0810	UNDER WATER	1/8 HP	100	27ℓ-28ℓ	25ℓ-26ℓ	5.5	1026-001
VWP-0813			130			5.6	1026-002
VWP-0815			150			5.9	1026-003
VWP-0818			180			6	1026-004

1/4 HP. Under Water Coolant Pump





※Please confirm voltage & phase when order.

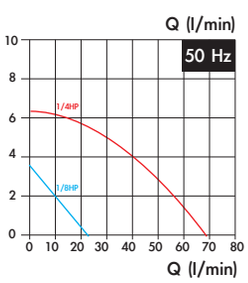
Unit:mm

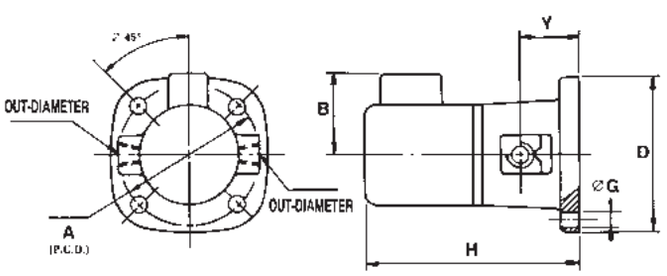
POWER	A	B	C	D	G	H	Y	OUT-DIAMETER
1/4 HP	158±0.2	125	Ø122	Ø180	Ø8	180	26	PT 1/2

Unitl:mm

ORDER NO.	TYPE	POWER	L mm	PUMPING WATER 1 mmin	PUMPING WATER 2 mmin	WEIGHT (kg)	CODE NO.
VWP-0415	UNDER WATER	1/4 HP	160	74ℓ-76ℓ	71ℓ-72ℓ	11.1	1026-010
VWP-0418			180			11.3	1026-011
VWP-0420			200			11	1026-012
VWP-0424			240			12.5	1026-013
VWP-0427			270			13	1026-014

Self Priming Coolant Pump 1/8 HP. 1/4 HP





※Please confirm voltage & phase when order.

Unit:mm

POWER	A	B	D	G	H	Y	IN-DIAMETER	OUT-DIAMETER
1/8 HP	140±0.2	105	165	Ø8	195	50±0.5	PT 3/8	PT 3/8
1/4 HP	185±0.2	125	225	Ø8	240	65±0.5	PT 1/2	PT 1/2

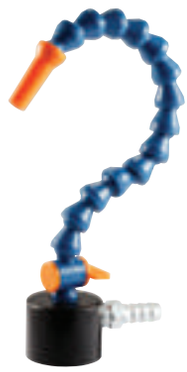
Unitl:mm

ORDER NO.	TYPE	POWER	PUMPING WATER 1 mmin	PUMPING WATER 2 mmin	WEIGHT (kg)	CODE NO.
VWP-089	SELF PRIMING	1/8 HP	26ℓ-27ℓ	24ℓ-25ℓ	5.9	1026-020
VWP-049		1/4 HP	73ℓ-75ℓ	70ℓ-71ℓ	11.6	1026-021

Coolant Pump Kit

VERTEX

1/8 HP & 1/4 HP



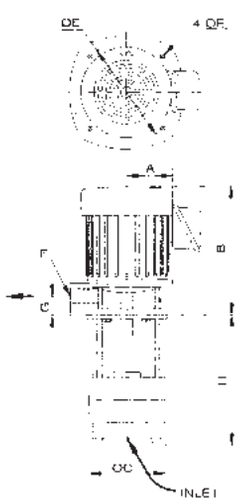
SET INCLUDING

- Coolant pump
- Coolant tank
- Connecting cable (w/plug for 1 ph)
- Coolant hose kit w/magnetic base
- Flexible conveying hose
- Drain hose
- Tool kits
- ON/OFF switch (for 1ph)

※Please confirm voltage & phase when order.

ITEM / ORDER NO.	VWP-81-150K	VWP-41-180K
Coolant pump (HPxH)	1/8 HP x 150mm	1/4 HP x 180mm
Tank size (LxWxH)	350x250x185mm	500x350x200mm
Volume of coolant tank	16ℓ	35ℓ
Connecting cable	2000mm	2000mm
Coolant hose kits w/magnetic base (ØxL)	1/4" x 330mm	3/8" x 360mm
Flexible conveying hose (ØxL)	3/8" x 1500mm	3/8" x 1500mm
Drain hose (ØxL)	1" x 300mm	1-1/4" x 400mm
Weight(kgs)	10.8	33
CODE NO.	1026-030	1026-031

Under Water Type Multi-stage High Pressure Coolant Pump



Special Features

- Discharge available in either N.P.T / P.T.
- Heavy duty bearings greased for long life and easy maintenance.
- Multi-stages., up to 6 stages for pressure over 9kg/cm² staggered discharge ports equalize radial loads for increasing pump life.
- Stainless steel made enclosed impeller., increasing pump efficiency and flow volumn.
- Rigid and strong one-piece shaft.

※Please confirm voltage & phase when order.

SPECIFICATION

ORDER NO.	STAGE	HP	A	B	C	D	E	F	G	H	PRESSURE kg/cm² (PSI)	VOLUMETRIC DELIVERY (ℓ/min)		DELIVERY HEAD (m)	WEIGHT (kg)	CODE NO.
												EMULSION	COOLING OIL			
VWP-MS2-180	2	3/4	135	255	135	9	170	3/4" or 1" (option)	28	180	3 (42)	140	116	30	15	1026-040
VWP-MS2-250										250					15.5	1026-041
VWP-MS3-200	3	1	135	275	135	9	170	3/4" or 1" (option)	28	200	4.5 (64)	140	116	45	16	1026-042
VWP-MS3-250										250					17	1026-043
VWP-MS4-230	4	1 1/4	135	275	135	9	170	3/4" or 1" (option)	28	230	6 (85)	140	116	60	18	1026-044
VWP-MS4-180										180					19	1026-045
VWP-MS5-210	5	1 1/2	135	275	135	9	170	3/4" or 1" (option)	28	210	7.5 (106)	140	116	75	20	1026-046

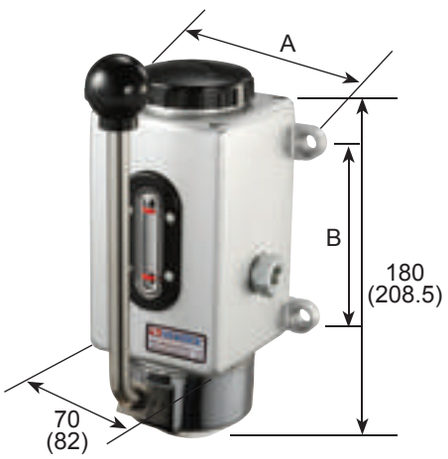
Hand Lubrication Pump

LT-4

Rattling hand pump LT model

Rattle the lever of the pump reiteratively and the oil will be pressured into the main pipe. When the lever is released, it will return to the original position automatically.

ORDER NO.	Discharged amount (c.c/st)	Max. discharged pressure (kg/cm^2)	capacity (c.c)	Efficient capacity (c.c)	WEIGHT (kg)	CODE NO.
LT-4	4	15	230	200	0.7	1026-050



LT-6

Rattling hand pump LT model

The discharged amount and pressure are higher than those of LT-4 and the operation method is just the same.

ORDER NO.	LT-6	LT-18	LT-18A
Size (AxB)	85x85	100x110	98x107
Weight	1.2kg	1.6kg	1.6kg

ORDER NO.	Discharged amount (c.c/st)	Max. discharged pressure (kg/cm^2)	capacity (c.c)	Efficient capacity (c.c)	CODE NO.
LT-6	6	15	350	250	1026-061
LT-18	8	15	600	400	1026-062
LT-18A	8	15	650	450	1026-063

EA-8R

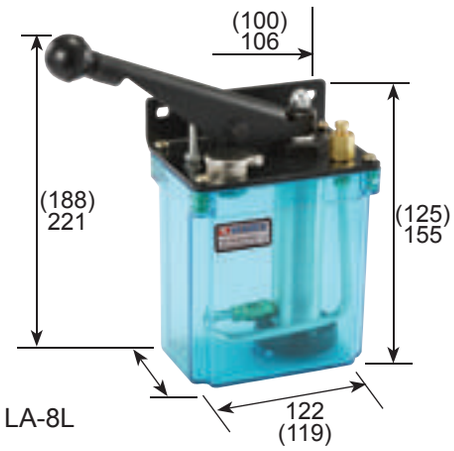
Pulling type hand pump EA model

Pull the lever of the pump reiteratively and the oil will be discharged at the up or down port.

ORDER NO.	Discharged amount (c.c/st)	Max. discharged pressure (kg/cm^2)	capacity (c.c)	Efficient capacity (c.c)	WEIGHT (kg)	CODE NO.
EA-8 R	8	3.5	600	500	1	1026-070
EA-8 L						1026-071

The installation machine could be selected either the right side marked “R” or the left side marked “L”

Hand Lubrication Pump



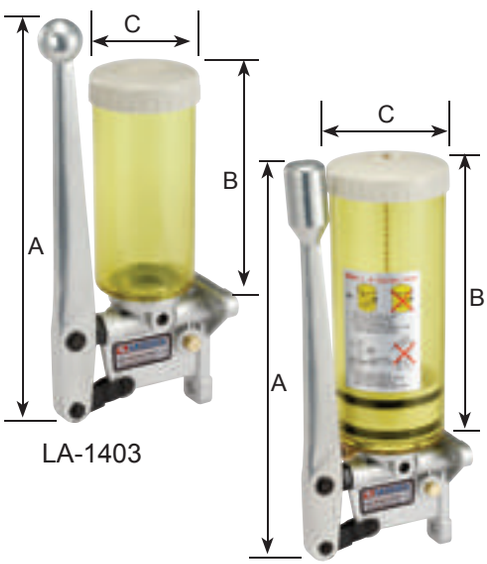
LA-8L

Depressing type hand-pump model LA

Depress the lever repeatly, first. The oil Will be pressured out when it's depressed. Only after the lever is released, the pressured oil will be discharged.

ORDER NO.	Discharged amount (c.c/st)	Max. discharged pressure (kg/cm²)	capacity (c.c)	Efficient capacity (c.c)	WEIGHT (kg)	CODE NO.
LA-8 R	1~8	5	1000	800	1.4	1026-082
LA-8 L						1026-083

The installation position of a machine could be selected either the right side marked "R" or the left side marked "L"



LA-1403 LA-2403

Operation Instructions:

When move the operating rod, the plunger (iron core) will be moved simultaneously so as to make cylinder become under negative pressure. Then, due to closed air pressure of the tank, the grease will get into the cylinder from the suction port. Now, operate the rod to extrude out the grease through pipe in the cylinder by principle of the plunger pushing open the check valve. When inside pressure reaches to the specific pressure of 100kg/cm², down pressure valve will start to return the grease to the oil tank. The operating rod is to use of a spring to link on the injector, while the oil tank is tightly fixed on the injeector as a round storage tank to prevent from oil leaking.

Advantages:

- Has smooth stickness to the lubricating surface with proper oiling capacity, so no surplus oil will be leaked out to stain with the surface of bench.
- No need to worry about the dirts & impurities entered into the oiling port, so it is more clean than other ways of lubrication.
- Manual type pump. Use of single pipe, so no need of pipe return device. With simple piping for best effect.

ORDER NO.	A	B	C	OIL	c.c./stoke	VOLUME c.c.	PRESSURE kg/cm²	VALVE	SPRAY MOUTH	CODE NO.
LA-1403	290	150	70	MACHINE OIL	2	300	60	SD	60 ☐	1026-100
LA-1408	310	205	90			800				1026-101
LA-2403	290	150	70	GREASE	2	300	100	SD	60 ☐	1026-102
LA-2408	310	205	90			800				1026-103

Electrical Automatic Pump SMA Model

SMA MODEL
(AUTOMATIC)

Electrical automatic pump SMA model

The outstanding performances of SMA models belong to intermittent oil supply pumps whose specification are classed into four kinds by the frequency and the discharged amount is adjustable within the range of 1~3c.c.

ORDER NO.	Frequency (time / min)	Discharged amount (c.c/st)	Max. discharged pressure (kg/cm²)	Capacity (ℓ)	WEIGHT (kg)	CODE NO.
SMA-3	Choose to pump every 5 or 10 or 15 or 30 or 60 min.	1~3	3	2	1.8	1026-090
SMA-6		3~	3	2	1.8	1026-091
SMA-8.5		4~8.5	3	2	1.9	1026-092
Motor's voltage is AC 110V or 220V						

※Please choose FREQUENCY when order.

Shock Absorber

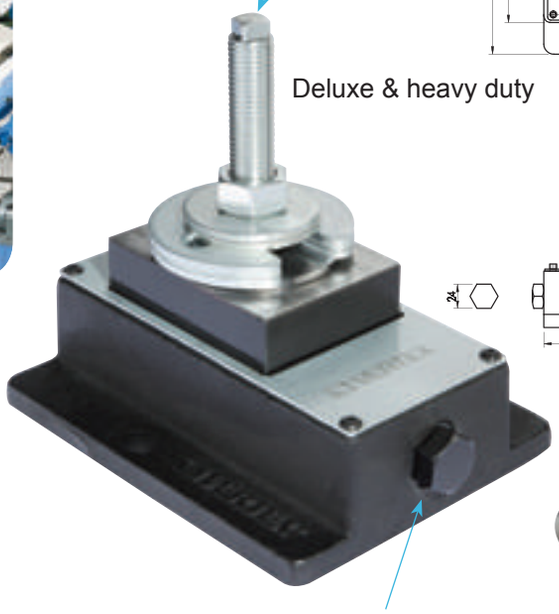
PATENT

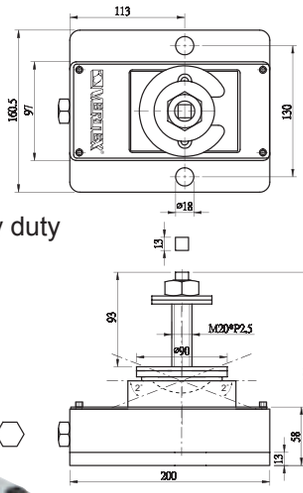
Machine Stand

NEW

Square head

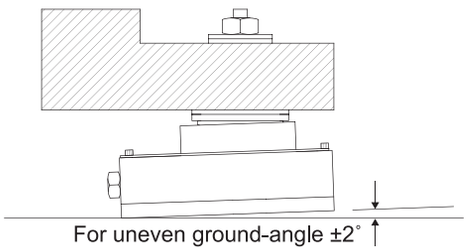
Deluxe & heavy duty



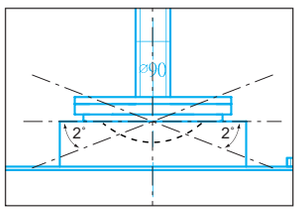


Adjustable screw

SPACER FOR
MORE ADJUSTABLE



- Leveling
- Reduce Vibration
- Increase Stability
- Frictionless
- Precision & Accurate



STEP

- Place shock absorbers under machine.
- When shock absorbers have full contact with machine base, you can start to adjust the leveling.

ORDER NO.	L x W x H	THREAD	LOAD kgs	UNEVEN GROUND ANGLE	ADJUSTMENT HEIGHT / FROM ADJUSTABLE SCREW	WEIGHT KGS	CODE NO.
VSA-150K	200 x 160.5 x 191	M20 x 93L	22500	±2°	7 mm	9.32	7001-180

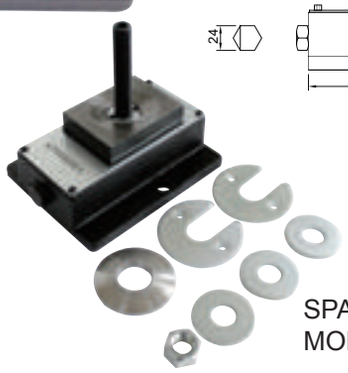
Shock Absorber

PATENT

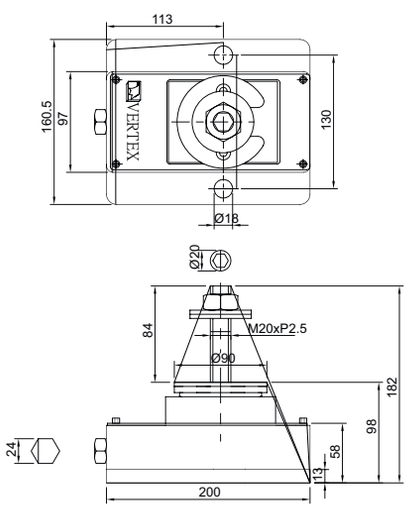
Machine Stand

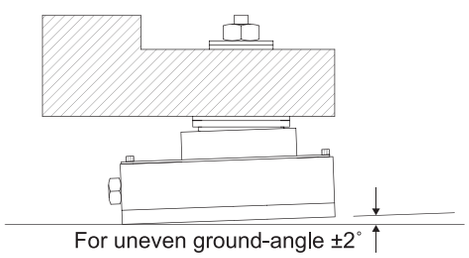
NEW

Set head

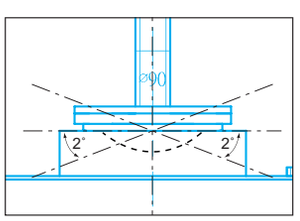


SPACER FOR
MORE ADJUSTABLE





- Leveling
- Reduce Vibration
- Increase Stability
- Frictionless
- Precision & Accurate



STEP

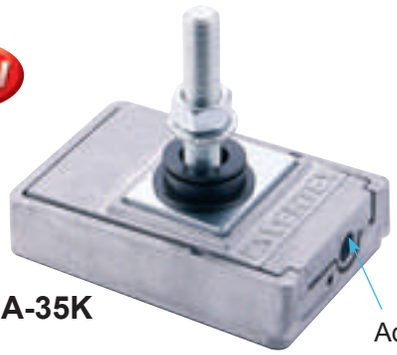
- Place shock absorbers under machine.
- When shock absorbers have full contact with machine base, you can start to adjust the leveling.

ORDER NO.	L x W x H	THREAD	LOAD kgs	UNEVEN GROUND ANGLE	ADJUSTMENT HEIGHT / FROM ADJUSTABLE SCREW	WEIGHT KGS	CODE NO.
VSA-150H	200 x 160.5 x 182	M20 x 84L	22500	±2°	7 mm	9.32	7001-190

Shock Absorber

PATENT

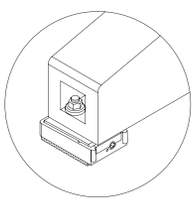
NEW



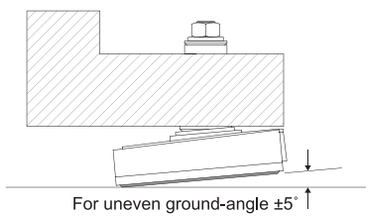
VSA-35K

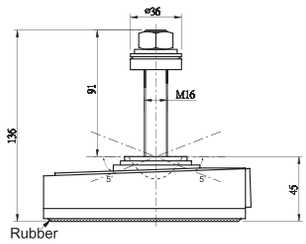
Adjustable screw

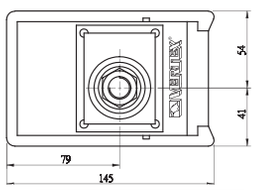
VSA-35K-6RU

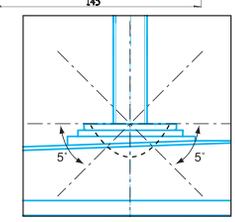


Machine Stand









- Leveling
- Reduce Vibration
- Increase Stability
- Frictionless
- Precision & Accurate

STEP

- Place shock absorbers under machine.
- When shock absorbers have full contact with machine base, you can start to adjust the leveling.

ORDER NO.	L x W x H	ADJ. THREAD LENGTH	LOAD kgs	UNEVEN GROUND ANGLE	RUBBER	ADJUSTMENT HEIGHT / FROM ADJUSTABLE SCREW	WEIGHT KGS	CODE NO.
VSA-35K	145 x 95 x 136	M16 x 91L	6300	±5°	2 m/m x 80° shore	7 mm	1.61	7001-160
VSA-35K-6RU	145 x 95 x 140	M16 x 91L	6300	±5°	6 m/m x 90° shore	7 mm	1.61	7001-161

Shock Absorber

PATENT

NEW

VSA-35K-PS-BL

Machine Stand

VSA-35K-PS

VSA-35K-PS

- Base by machine cutting only
- No Rubber

VSA-35K-PS-BL

- Base by machine cutting only
- Longerer thread rod durable for different/ adjustable range on the ground & thicker washer.

- Leveling
- Reduce Vibration
- Increase Stability
- Frictionless
- Precision & Accurate

STEP

- Place shock absorbers under machine.
- When shock absorbers have full contact with machine base, you can start to adjust the leveling.

ORDER NO.	L x W x H	ADJ. THREAD LENGTH	LOAD kgs	UNEVEN GROUND ANGLE	RUBBER	ADJUSTMENT HEIGHT / FROM ADJUSTABLE SCREW	WEIGHT KGS	CODE NO.
VSA-35K-PS	145 x 95 x 134	M16 x 91L	6300	±5°		7 mm	1.4	7001-162
VSA-35K-PS-BL	145 x 95 x 144	M16 x 81L	6300	±5°		7 mm	1.4	7001-163

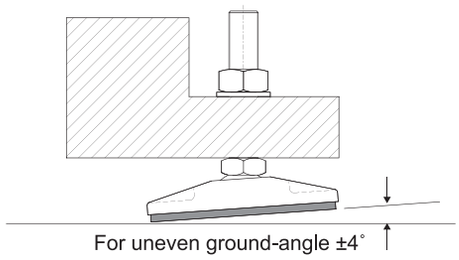
Shock Absorber

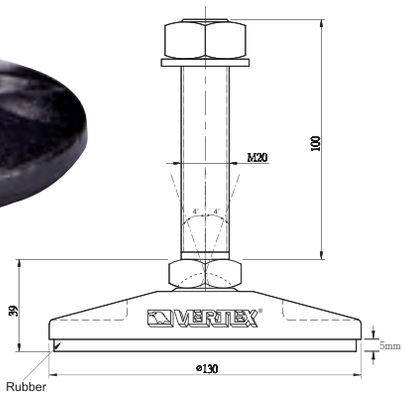
PATENT

Machine Stand

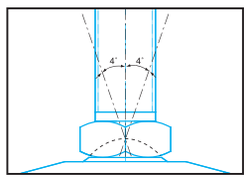
NEW

FROM 20 KN TO 225 KN





- Leveling
- Reduce Vibration
- Increase Stability
- Frictionless
- Precision & Accurate
- Rubber : 80˚, 5mm Thickenss



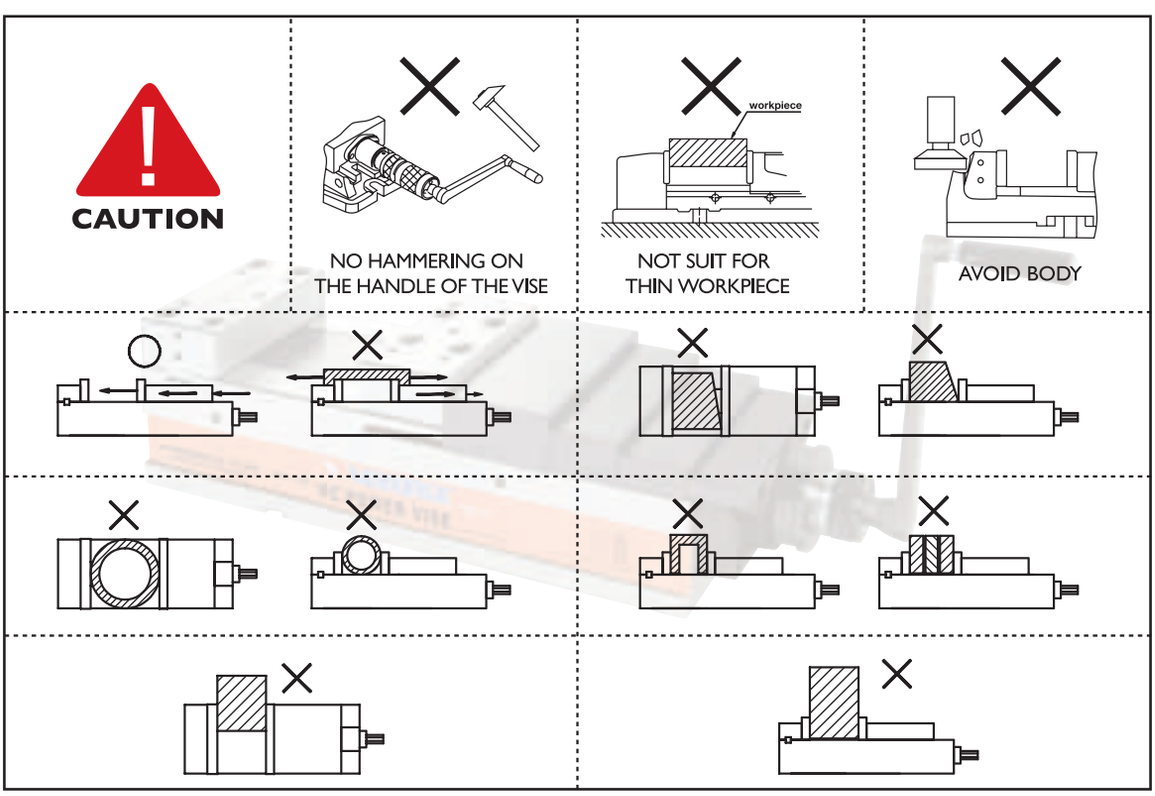
STEP Machine Stand

- Place shock absorbers under machine.
- When shock absorbers have full contact with machine base, you can start to adjust the leveling.

ORDER NO.	L x W x H	THREAD	LOAD kgs	UNEVEN GROUND ANGLE	WEIGHT KGS	CODE NO.
VSA-25K	130 x 39 x 139	M20 x 100L	2200	±4˚	1.76	7001-140

HOW TO CHOOSE VISE FOR YOUR MACHINE

MACHINE HORSE POWER	SUITABLE VISE MODEL NO.
1HP	VK-4, VK-5, VQS-3, VQS-4, VA-4, VW-3 VW-4, VMP-4, VMC-4
2HP	VK-5, VK-6, VQS-5, VMC-4, VA-4, VA-5 VW-4, VMP-5,VNC-100H, VQC-100, VQC-100H
3HP	VK-6, VMP-5, VHT-4, VA-5, VA-6, VJ-400, VJ-500, VH-4, VH-5, VWT-4B, VNC-100H, VNC-125H, VQC-100, VQC-125, VQC-100H, VQC-125H
5HP	VK-8, VA-6, VA-8, VJ-500, VJ-600, VMC-5P VMC-6P, VW-5, VH-5, VH-6, VHO-6, VHT-6, VWT-6B, VD-675, VQC-125, VQC-160, VNC-125H, VNC-160H, VMP-7A
7HP	VH-8, VH-8L, VHO-8, VMC-7P, VMC-8P, VMC-8PL, VNC-160LH, VMP-8A, VMP-12, VQC-160LH, VQC-160, VQC-160L, VQC-200L, VQC-200LH
10HP	VQC-160, VQC-160L, VQC-200L, VQC-160LH, VQC-200LH, VMC-8P, VMC-8PL, VSM-20, VH-12, VQCV-160H



B

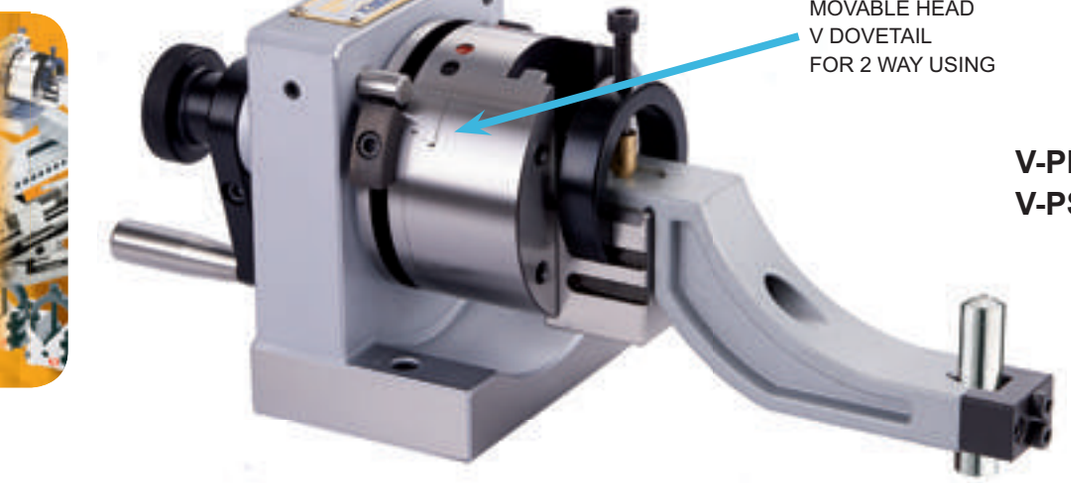
GRINDING MACHINE
ACCESSORIES

B1~B8	PUNCH FORMER / GRINDER
B9~B18	TOOL MAKER VISE / SINE VISE / SINE BAR / ANGLE CHUCK
B19~B23	EDM TOOL MAKER VISE (STAINLESS)
B24	EDM WIRE (BRASS & COPPER)
B25	WIRE DIES GUIDE
B26	ELECTRODE (COPPER & BRASS)
B27	ANGLE PALTE
B28~B29	V-BLOCK / ANGLE PLATE
B30	HARDENED STEEL SQUARE
B31-B32	V-BLOCK
B33~B37	GRINDER WHEEL DRESSER SERIES
B38	WHEEL HANGER / GRINDING WHEEL FLANGE / WHEEL BALANCING STAND / DRIVING CARRIER
B39~B46	SINE PLATE / MAGNETIC PLATE / STANDARD POLE ELECTRO MAGNETIC CHUCK / CHUCK CONTROLLER / VARIABLE SPEED ROTARY MAGNETIC CHUCK
B47~B48	MAGNETIC TRANSISTING BLOCK / MAGNETIC ADJUSTALE LINK / MAGNETIC STEEL SEPARATOR / MAGNETIC CHIP COLLECTER / MAGNETIC SEPARATING BAR UNIT
B49~B50	PERMANENT-ELECTRO MAGNETIC CHUCK
B51~B52	PERMANENT MAGNETIC LIFTER
B53~B56	MAGNETIC LIFTER / DEMAGNETIZER SERIES CHIP COLLECTOR SERIES
B57~B58	MAGNETIC V~BLOCK SERIES
B59~B64	MAGNETIC TOOLS SERIES
B65~B66	MAGNET SERIES
B67	MULTI-FUNCTION MIST COOLANT SYSTEM / MIST COOLANT WITH MAGNETIC BASE
B68~B72	ADJUSTABLE COOLANT HOSES SERIES
B73~B74	PAPER FILTER SERIES
B75	COLLANT TANK SERIES
B76	OIL SKIMMER SERIES
B77~B78	GAUGE BLOCK SERIES
B79~B80	SURFACE PLATE / STAND SERIES
B81~B84	GRANITE RULERS SERIES / GRANITE V~BLOCK / HORIZONTAL LEVELING INSTRUMENT / PRECISION SQUARE LEVEL / GRANITE SURFACE STAND / CYLINDRICAL SQUARE STEEL / CLEANING PAPER / CONCENTRIC TEST STAND / PIN GAUGE /TESTER ARM BASE
B85~B86	MEASURING INSTRUMENT SERIES
B87	ANGLE LEVEL SERIES
B88	HARDNESS TESTER / STAINLESS STEEL RULER
B89	THREAD SIZE & DEPTH GAUGE / PLUG GAUGE / RING GAUGE

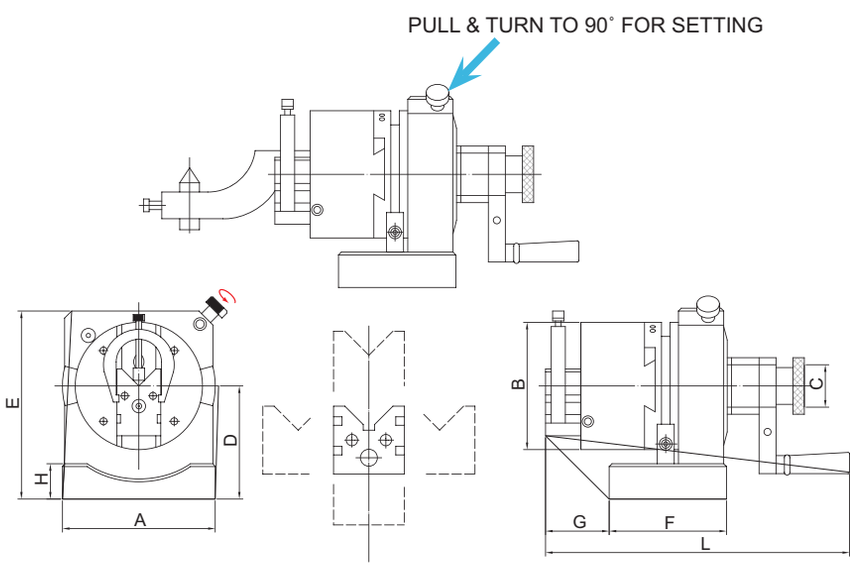
Punch Former

ORDER NO. V-PB
CODE NO. 2001-001

MAX. Wheel D. Ø200mm
Roller Center H. 80mm WEIGHT:10KGS
Head Slide Movement, 12.5mm



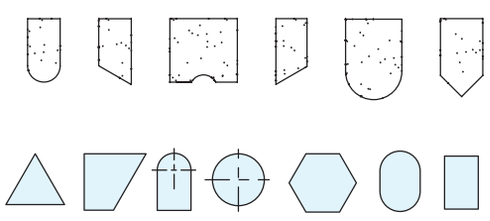
V-PB 2WAY
V-PS 1WAY, THROUGH HOLE



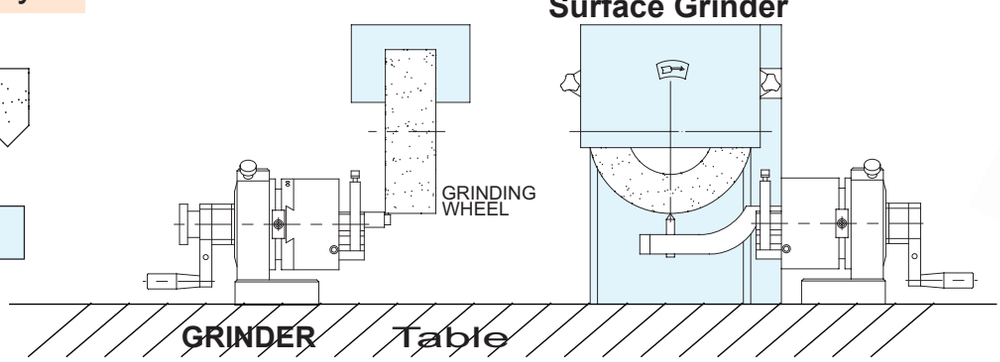
- Punch former is the fixture to grind the point of standard punches and E.D.M. electrodes for precise and fast operation.
- Besides the round, radius and multiangle punches, any special forms can be ground precisely .
  By V-PB, punch/ grinding wheel can be ground either concave or convex radius shape.
- The capacity is from 4mm to 30mm.
- Punch Former is a great dressing instrument. Precisely forming the grinding wheel can be done by assembling an ARM with the main body. Any combination of tangents or radial form of the grinding wheel may be dressed accurately by easy operation.
- Max. diameter of grinding wheel within 200mm can be dressed accurately and safely. The height from base to roller`s center is 80mm. Movement of each side can reach 12.5mm while aiming at the center of V block.
- The main body is made of one piece steel construction.

ORDER NO.	A	B	C	D	E	F	G	H	L	WEIGHT (kgs)	CODE NO.
V-PB	108	Ø90	Ø30	80-81	133	83	45	25	215	10	2001-001

Application grinding wheel style:

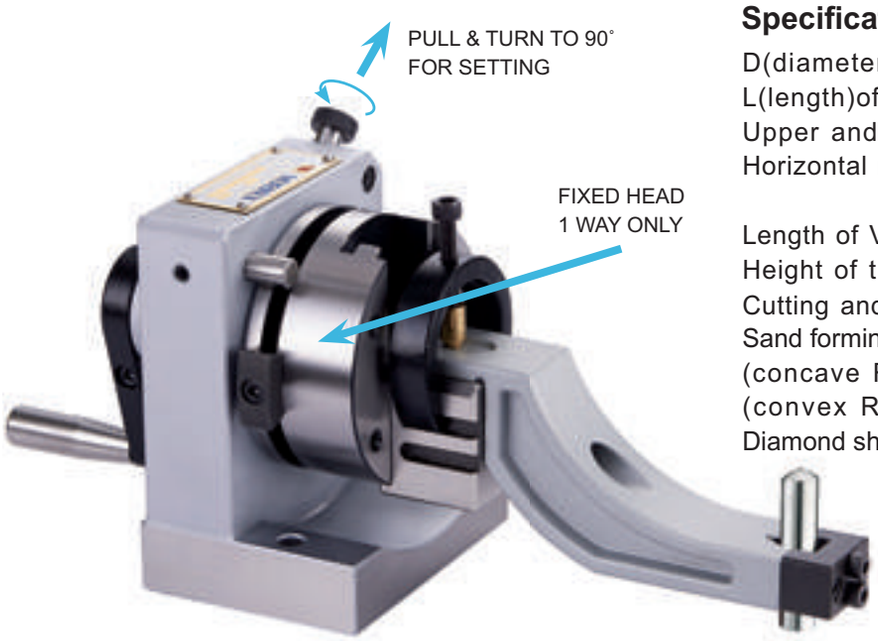


Surface Grinder



Punch Former

ORDER NO. V-PS **1 WAY Ø30 THROUGH HOLE**
CODE NO. 2001-010



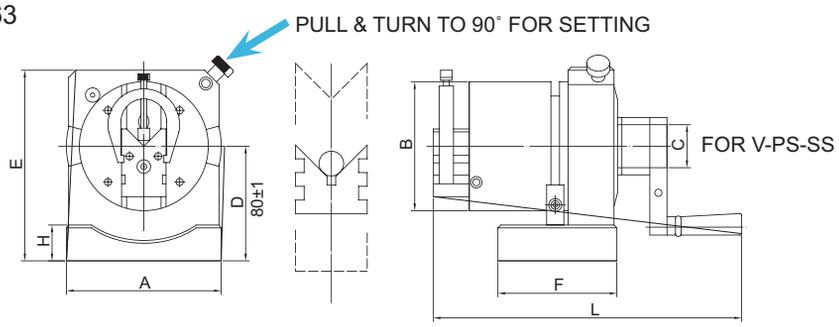
Specification

D(diameter)of the pressed part of the punch...4-30mm
L(length)of the pressed part of the pressed part of the punch...above22mm
Upper and lower movement span of V block.....25mm
Horizontal movement span of V block(one side)..12.5mm
(two side)...25mm
Length of V block 30mm
Height of the rotary central axis.....15mm
Cutting and dividing.....24 equal pieces(15″)
Sand forming of the forming lever
(concave R).....100mmR
(convex R).....48mmR
Diamond sharpening knife : (small diameter)60x50(1/10carat)
(large diameter)100x50(1/4carat)

PUNCH FORMER

*Except for the handle and graduation scale all metal is special hard tool steel (SKS-2) heat treated at HRC 63
*V block can be disassembled for use separately.
V-PS the center through hole is ø30mm

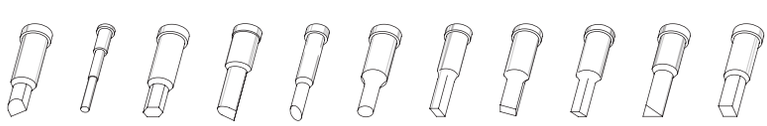
V-PS allows go through from the center of grip, to clamp a more longer punch ejector pin, it can go deep into of the grip position directly. To assemble an ARM with the main body, any combination of radial form of the grinding wheel may be dressed accurately by easy operation.

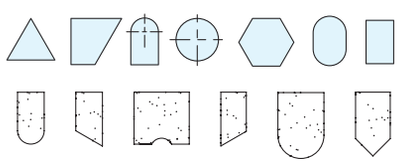


ORDER NO.	A	B	C	D	E	F	H	L	WEIGHT (kgs)	CODE NO.
V-PS	108	Ø90	Ø30	80-81	133	83	25	197	8.7	2001-010

Application grinding wheel style:

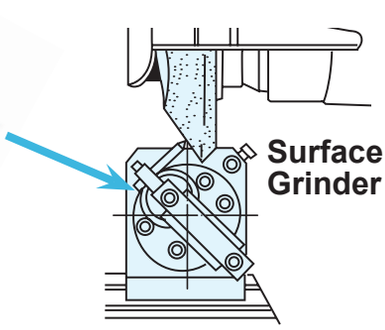
FOR INJECTOR PIN

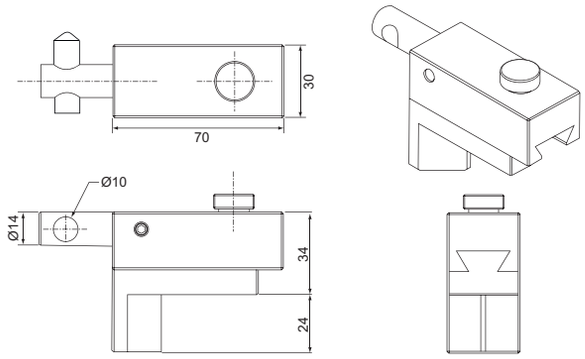




Special Part Accessory For Angular Dressing

ORDER NO.V-PF **CODE NO.2001-020**
Without Diamond WEIGHT: 0.7KG

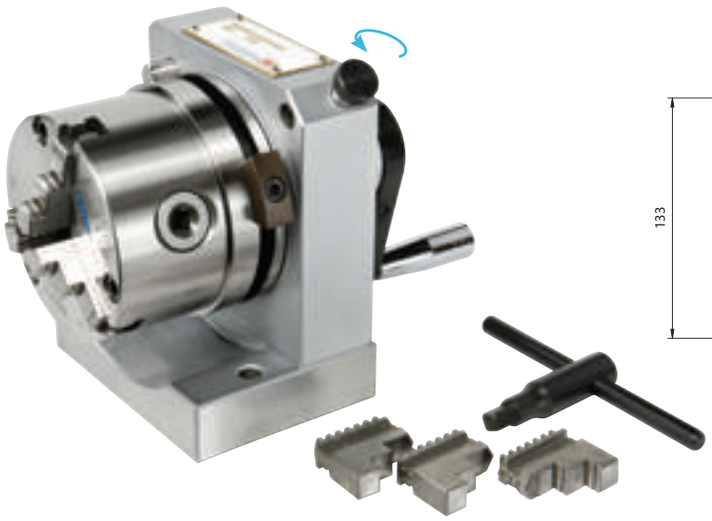


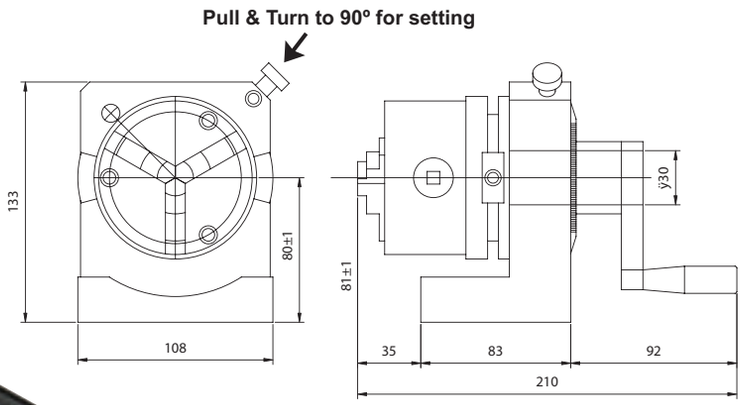


The Wheel angular dressing

3-Jaws Punch Former

ORDER NO.V-PS-80J CODE NO:2001-030

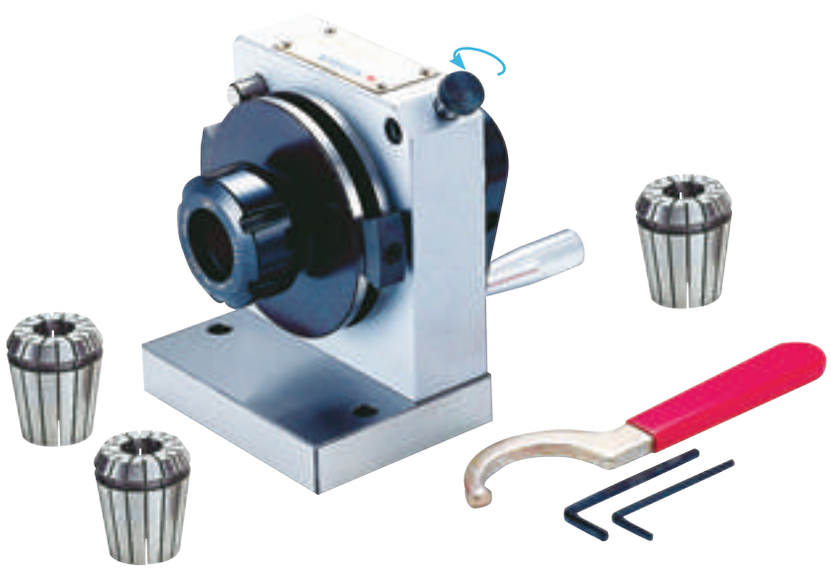


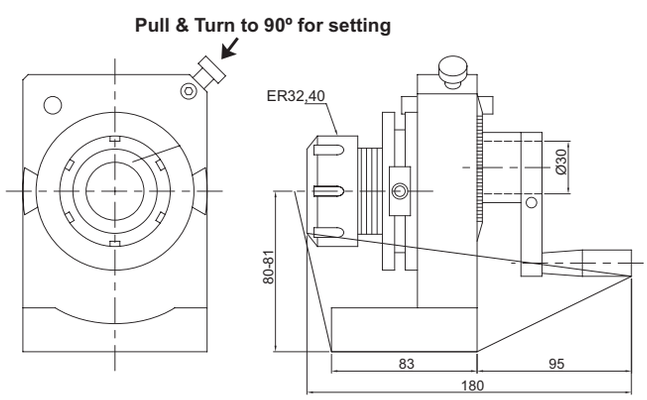


- VSC-3, 3 jaw chuck Clamping : Ø2-70 mm
- The center of 3 jaws punch grinder can move gently to fix and to help the concentricity more precision.
- This punch grinder can divide into 24 angles, each angle is 15 degrees at 10 seconds accuracy, the weight is 8.7kgs.
- This style base can be selected to set up with sine plate to make sine angles. The sine plate also can be used with other Machines.
- The base can be adjusted for sine angle.
  (ORDER NO.V-PS-80JS)

ER Collet Dividing Punch Former

ORDER NO.V-PS-ER32 CODE NO.2001-040
ORDER NO.V-PS-ER40 CODE NO.2001-041





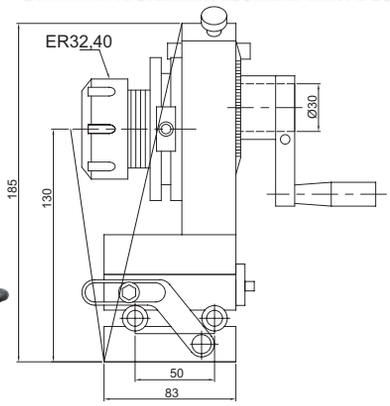
- ER Collet Dividing Punch Grinder put ER32 main body and with collet inner size 6, 8, 10, 12, 16, 20mm,total 6pcs. the weight is 11kgs. ER40 with 7pcs.
- The center of collet can move gently to help the concentricity more precision.
- This punch grinder can divide into 24º angles,each angle is 15 degrees at ±10 seconds accuracy.
- ER16 connection, special accessory (v-601 20-ER16-50L WITH 10PCS COLLET) can use ER16 base can select sine vise base which is good for sine angle use
  (ORDER NO.V-PS-ER32S).

ER Collet Dividing Punch Grinder With Sine Plate

ORDER NO.V-PS-ER32S CODE NO.2001-060

WEIGHT:11kgs

Example V-601
Special Acces.



Tilting Feature

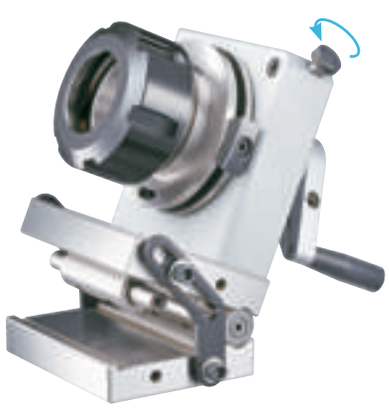
- ER Collet Dividing Punch Grinder put ER32 main body and with collet inner size 6, 8, 10, 12, 16, 20mm,total 6pcs.the weight is 11kgs.
- The center of collet can move gently to help the concentricity more precision.
- This punch grinder can divide into 24º angles,each angle is 15 degrees at ±10 seconds accuracy.

Special accessory:ER16 connection, (V-601 20-ER16-50L WITH 10PCS COLLET) can use ER16 base can select sine vise base which is good for sine angle use (ORDER NO.V-PS-ER32S) please choose from page C16

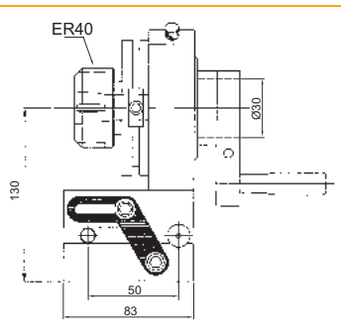
ER Collet Dividing Punch Grinder With Sine Plate

ORDER NO.V-PS-ER40S CODE NO.2001-065

WEIGHT:10kgs



Example V-601
Special Acces.



Tilting Feature

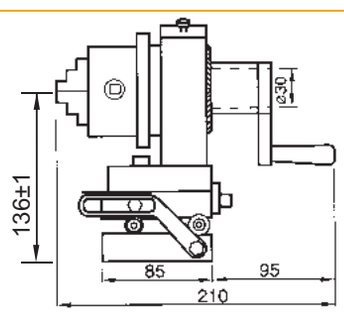
- ER Collet Dividing Punch Grinder put main body and with collet inner. ER40 with 7pcs, Size 6,8,10,12,16,20,25 mm
- The center of collet can move gently to help the concentricity more precision.
- This punch grinder can divide into 24º angles,each angle is 15 degrees at ±10 seconds accuracy.

Special accessory:ER16 connection, (V-601 20-ER16-50L WITH 10PCS COLLET) can use ER16 base can select sine vise base which is good for sine angle use (ORDER NO.V-PS-ER32S) please choose from page C16

3-Jaws Punch Former With Sine Plate

ORDER NO.V-PS-80JS CODE NO.2001-070

WEIGHT:11.7kgs



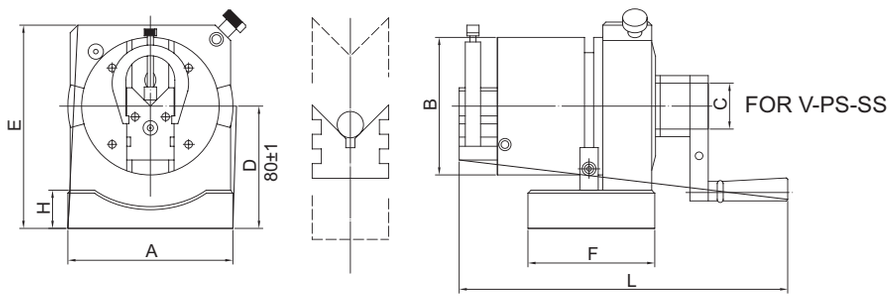
Tilting Feature

- The center of 3 jaws punch grinder can move gently to fix and to help the concentricity more precision.
- This punch grinder can divide into 24 angles, each angle is 15 degrees at 10 seconds accuracy, the weight is 8.7kgs.
- This style base can be selected to set up with sine plate to make sine angles. The sine plate also can be used with other Machines.
- The base can be adjusted for sine angle. (ORDER NO.V-PS-80JS)

Pounch Former With Sine Plate

NEW

V-PB & V-PS Type With Sine Plate
V-PB-BS 2 Way
V-PS-SS 1 Way Ø30 Through Hole
The Feature Is Show On Page B1,B2

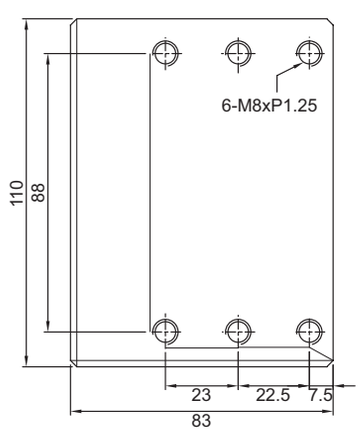


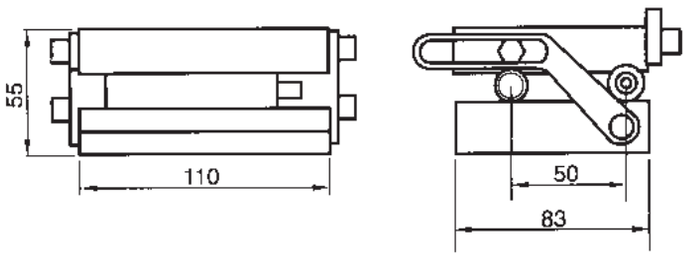
ORDER NO.	A	B	C	D	E	F	G	H	L	TOTAL HEIGHT	SINE BAR CENTER	N.W.	CODE NO.
V-PB-BS	108	Ø90	Ø30	80-81	133	83	45	25	215	136	50	13.6 kgs	2001-080
V-PS-SS	108	Ø90	Ø30	80-81	133	83		25	197	136	50	13.0 kgs	2001-081

Sine Plate For All Type Punch Former

ORDER NO.V-PS-SP CODE NO.2001-050
WEIGHT:3.6kgs

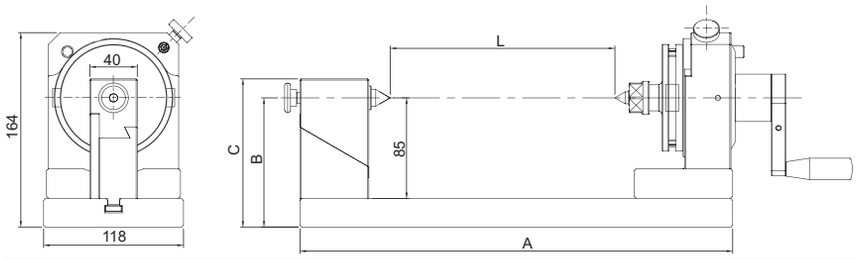
OPTIONAL ACCESSORIES





IT´S FIT WITH VERTEX´S :
V-PB, V-PS. V-PS-ER-32.
V-PS-ER40, V-PS-80J

Concentric Test Stand



Feature

- For Checking Roundness & True Running Accuracy
- For Grinding High Accuracy Outter Diameter & Round Bar On Surface Grinder By Accurated Center And Holder.

Specification

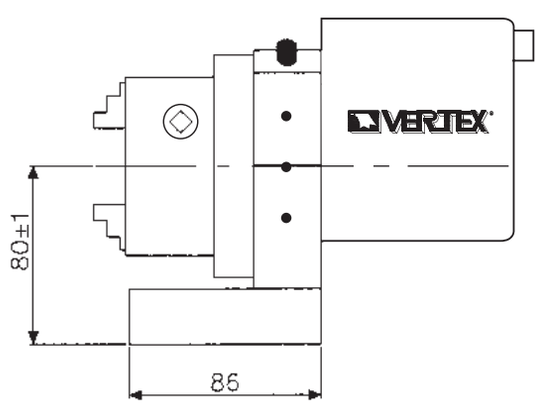
- Body Center hight : 85 mm
- Base to punch center : 109 mm
- Dividsion & Accuracy : 24 & 15˚±10”
- Workpiece length : 0~450mm
- Material : sks-3, HRC 60~62˚
- Roundness : 0.002 mm
- Parallelism : 0.002 / 100mm
- Squareness : 0.002 / 100mm

Unit:mm

ORDER NO.	A	B	C	L	Division	Graduation	N.W. (kgs)	CODE NO.
VCI-150P	375	109	125	0-150	24 (15˚±10”)	360º	20	2021-113
VCI-250P	475	109	125	0-250			23	2021-114
VCI-350P	575	109	125	0-350			26	2021-115

Fixed Speed Punch Former

AUTO TYPE



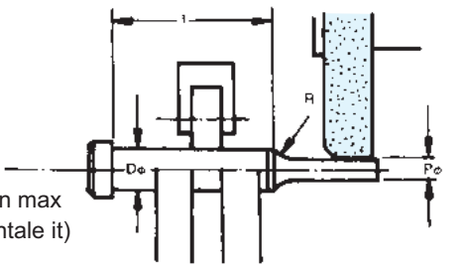
- The Punch Former with a motor attached can be applied to precisely grind a punch to round in a short time and saves the processing time.
- Chuck Type can clamp workpieces in a wide range.
- 3 inch 3 jaw chuck.

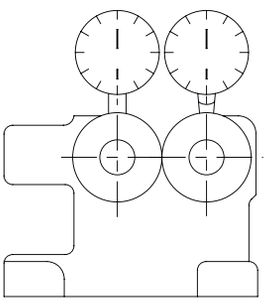
ORDER NO.	O.D.	I.D.	Max. Dia. of Workpiece	Center Heignt	Motor Output-W Input-V	Graduation	R.P.M.	N.W. (kgs)	CODE NO.
V-PS-80M	2-70	24-64	Ø50	80-81	15W 110/220V	360º	110	11.72	2021-130

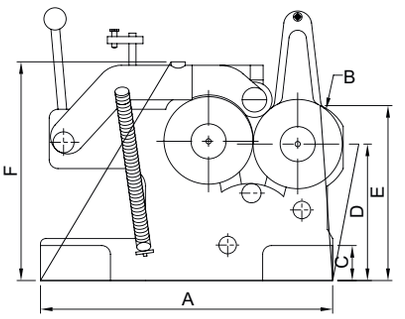
Punch Grinder

ORDER NO.V-PGS CODE NO.2002-001

MINI-TYPE PUNCH GRINDER Ø1.5-3mm







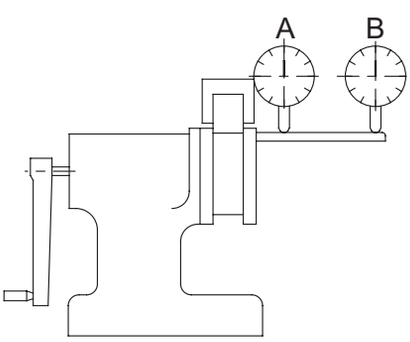
This is a mini type punch grinder which can grind fine punch of outside diameter from 1.5mm to 3mm.
N.W.4.5kgs
Accuracy of point A within 0.005mm and point B Within 0.008mm while turning.

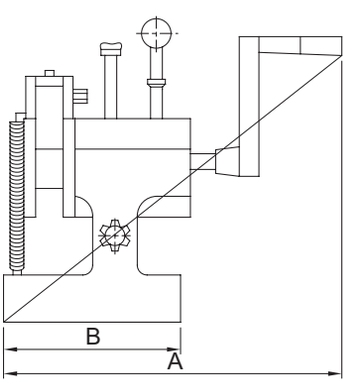
ORDER NO.	A	B	C	D	E	F	WEIGHT (kgs)	CODE NO.
V-PGS	167	Ø51	20	78	100	125	4.5	2002-001

Punch Grinder

ORDER NO.V-PG CODE NO.2002-010

STANDARD- TYPE Ø1.5-Ø25 WEIGHT: 6.6kgs





Punch grinder is a tool which can be put on the surface plate of grinding machine for round punches(1.5mm-25mm).
It can be ground by putting among three rollers of punch grinder. without checking the center.
Accuracy of roller within 0.005mm while turning right or left. It can allow lenght 5-35mm
Accuracy of point A within 0.005mm and point B Within 0.008mm while turning.

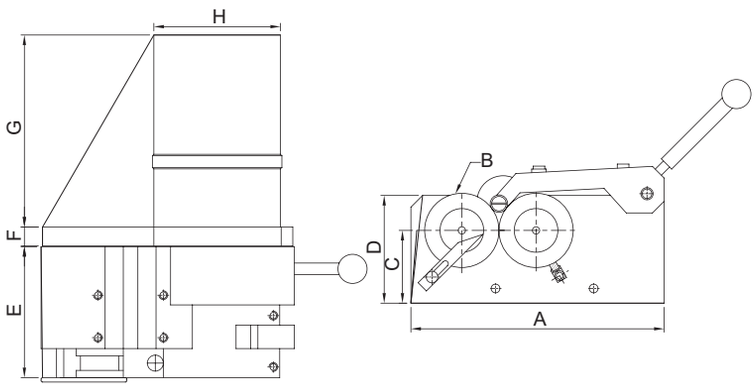
ORDER NO.	A	B	WEIGHT (kgs)	CODE NO.
V-PG	172	90	6.6	2002-010

Punch Grinder

ORDER NO.V-PGM CODE NO.2002-020

WITH MOTOR TYPE Ø1.5 - Ø25

WEIGHT: 11.8 kgs



Features

1.High accuracy cylindrical grinding work is possible, just putting this economical unit on surface grinder.
2.No center alignment necessary. just put work piece on rollers.
3.Portable with single hand, thus easily set up.
4.With rollers motor -driven, attention can be concentrated on table/wheel feeds.
5.Work can be formed in radius taper as well
6.Double roller unit available for long pin or punch grinding.

FEATURES

Mounting surface(RLxFB).....175 X 218 X 90 mm
50Hz/220v.....108 rpm
Roller speed 60Hz/110v.....129 rpm
Accuracy(Roundness and concentricity).....25.4 mm
Roller driving motor 110v, Single phase, 25W
(Specifications are subject to change without notice.)

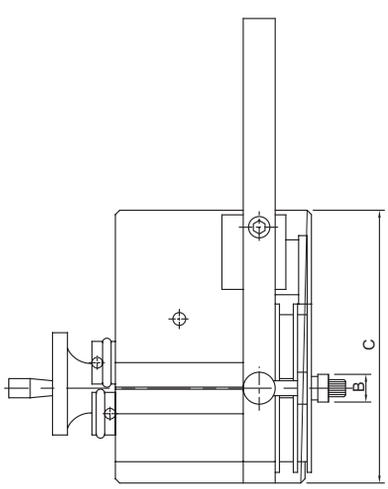
ORDER NO.	A	B	C	D	E	F	G	H	WEIGHT (kgs)	CODE NO.
V-PGM	174	Ø51	50	74	90	13	132	87	11.8	2002-020

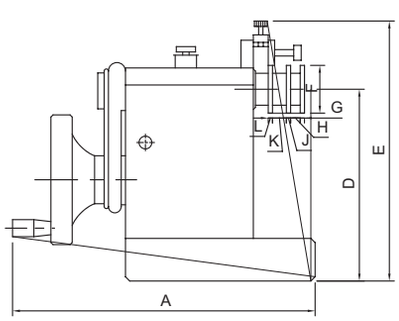
Punch Grinder

ORDER NO:V-PGA CODE NO.2002-030 WEIGHT:3.1kgs

- Grinding Max. Length 30 mm
- Grinding Max. Length 9 mm

Ø0.5~Ø10





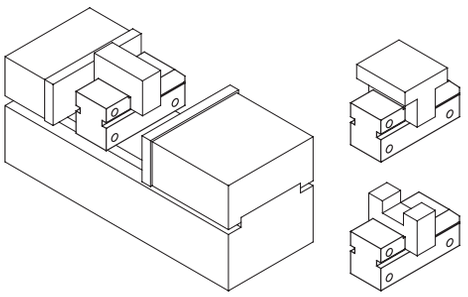
1. The small punch grinder can process from dia ø0.5 mm to 6 mm. Smallest workpiece length : 10 mm
   This punch grinder can work with surface grinding machine and to grinding any sizes.
2. Easy operation and high precision make it to be the best grindig tool for small workpiece.

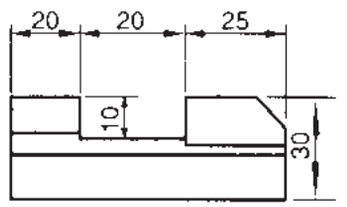
ORDER NO.	A	B	C	D	E	F	G	H	J	K	L	WEIGHT (kgs)	CODE NO.
V-PGA	142	Ø13	128	90	122	22.4	2	4.5	2	6.5	2	3.1	2002-030

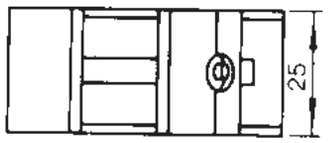
Mini Tool Maker Vise

ORDER NO.VMV-10 CODE NO.2003-001

WEIGHT:0.3kg





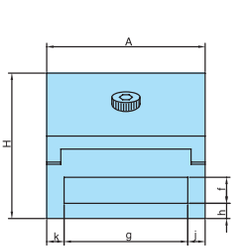


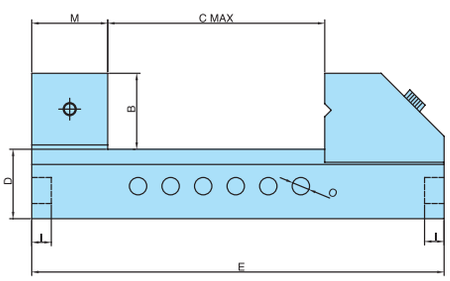
Tool makers vise of mini type which can be put in a bigger vise to process the small and precise workpiece.Also it can be used in an E.D.M. machine and grinding machine.

Squareness and parallelism : within ±0.005 mm / 100 mm.

ORDER NO.	Weight (kgs)	CODE NO.
VMV-10	0.3	2003-001

Tool Maker Vise

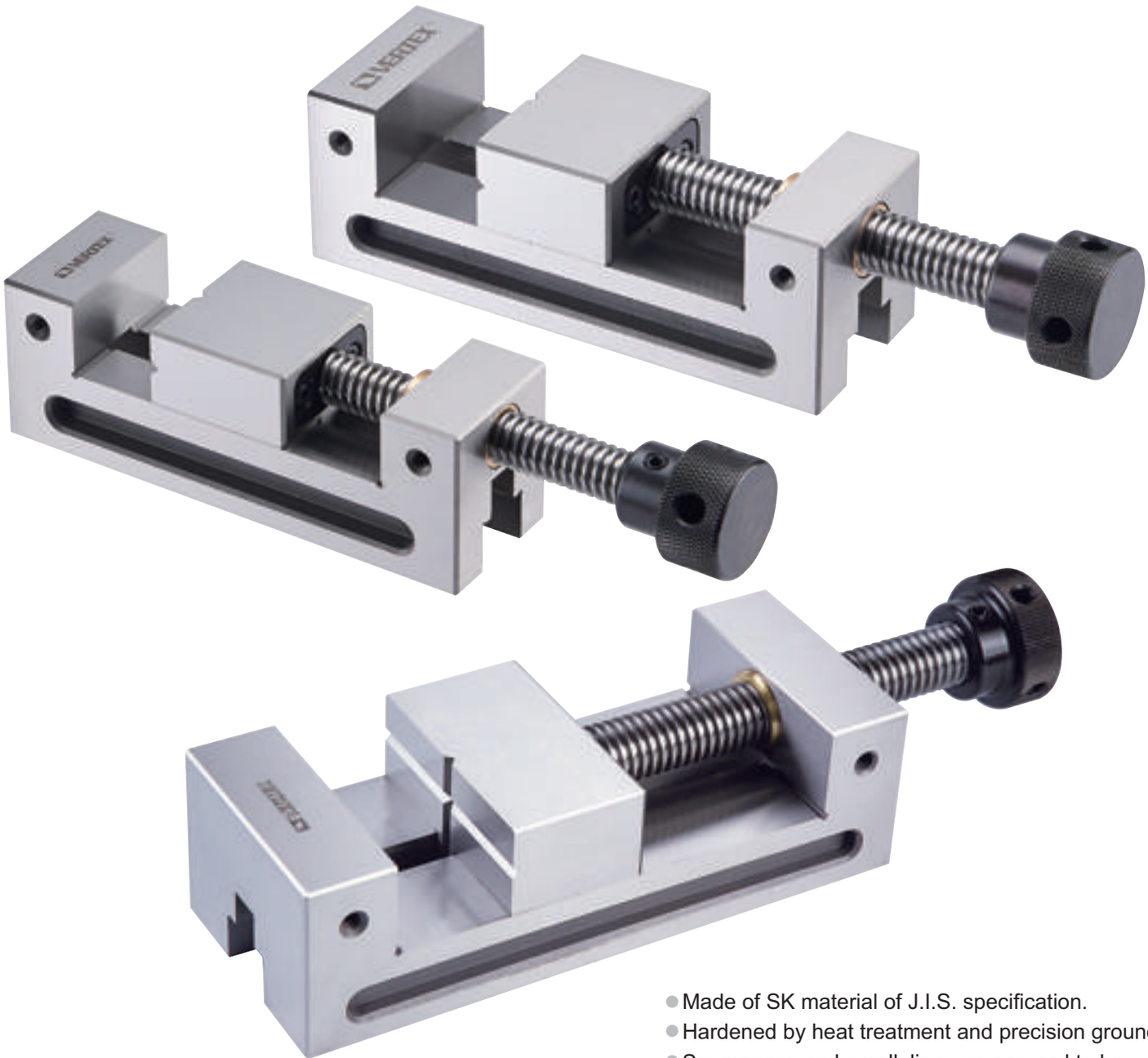


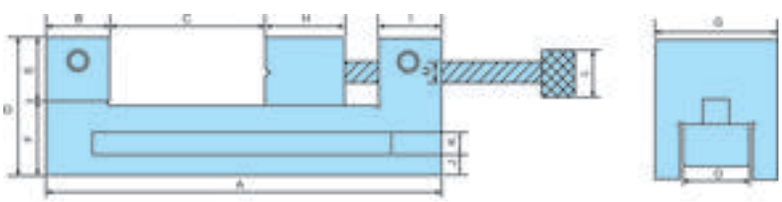


- Made of SK material of J.I.S. specification.
- Hardened by heat treatment and precision ground.
- Squareness and parallelism are ensured to be within ±0.005 mm / 100 mm.
- It can be used and kept its high precision while standing on its base, sides or extremity, for inspection use in stead of squares due to its extremely accuracy.
- Hardness: HRC 54º±2º

ORDER NO.	MATERIAL	A	B	C max	D	E	I	f	g	h	j	k	H	M	O	N.W (KGS)	CODE NO
VMV-15	SK2	36	20	40	20	100	5	8	24	5	6	6	40	20	6	0.9	2003-010
VMV-20	SK2	47	29	74	28	150	5	10	37	6	5	5	57	30	8	2	2003-011
VMV-25	SK2	62	34	89	28	170	7	10	52	6	5	5	62	30	8	3.3	2003-012
VMV-30	SK2	72	34	99	32	190	9	12	56	7	8	8	66	35	8	4.5	2003-013
VMV-35	SK2	88	45	120	40	225	12	12	64	11	12	12	85	40	10	7	2003-014
VMV-40	SK2	98	45	125	40	230	12	12	64	11	17	17	85	40	10	8.9	2003-015
VMV-50	SK2	125	50	157	50	287	12	13	73	14	26	26	100	50	14	15.5	2003-016
VMV-60	S50C	150	50	200	50	330	12	14	76	14	37	37	100	50	14	21.4	2003-017

Tool Maker Vise





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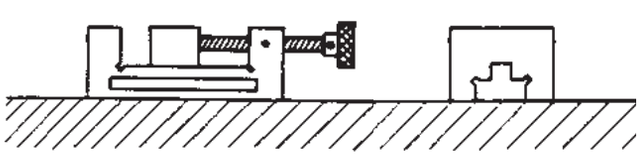
- Hardness: HRC 54º±2º

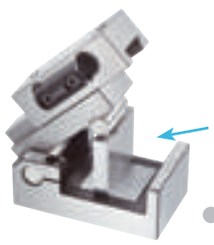


TOLERANCE	±0.005mm / 100mm

Unit:mm

ORDER NO.	MATERIAL	A LENGTH	B	JAW C OPENING	D	E	F	G	H	I	J	K	L	M	O	HEIGHT (mm)	HARDEN	WEIGHT (KGS)	CODE NO.
VDV-20	SK2	154	25	55	54	24	29	47	45	25	9.50	10.15	34.70	15.80	18.7	54	HRC54°±2°	2.5	2003-020
VDV-25	SK2	175	25	75	60	29	30	62	44.80	25	10	10.90	39.60	18.95	26	60	HRC54°±2°	3.9	2003-021
VDV-30	SK2	180	30	71	70	29	40	72	51.85	25	14	12.35	50.35	18.95	26	70	HRC54°±2°	5.7	2003-022
VDV-35	SK2	250	35	121	73	38	35	88	55.40	35.55	10.80	11.60	54.85	25.35	30.20	73	HRC54°±2°	9.2	2003-023
VDV-40	SK2	250	35	121	73	38	35	98	55	34.75	11.80	11.55	54.65	25.35	29.60	73	HRC54°±2°	10.1	2003-024

Sine Vise

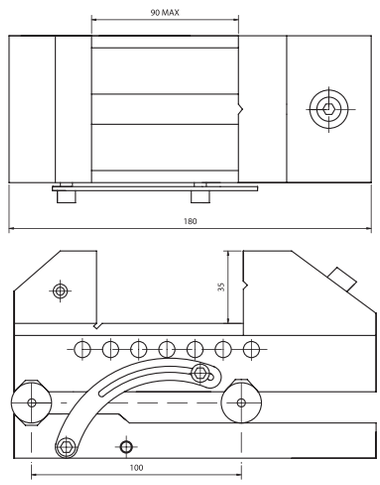


Height
Gage Block
PAGE B76

●Example

●Compound angles easily and quickly set.
●Adjustments up to 46 degrees.

Accuracy :
Material Hardened: SKS HRC 60º Sub-zero processing.
Parallelism: Within 0.003 / 100 mm
Squareness: Within 0.005 / 100 mm
Angle tolerance: Within 15 sec Within 20 sec
*Sine conversion table attached page B16

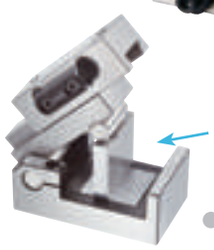


SPECIFICATION

Unit:mm

ORDER NO.	MATERIAL	LENGTH	WIDTH	JAW OPENING	JAW HEIGHT	HEIGHT (mm)	ANGLE	HARDEN	N.W (KGS)	CODE. NO.
SVB-20	SK2	155	48	80	30	93.5	0˚-46˚	HRC56˚-58˚	4.4	2003-030
SVB-25	SK2	175	63	90	35	102.5	0˚-46˚	HRC56˚-58˚	6	2003-031
SVB-30	SK2	180	73	90	35	103.8	0˚-46˚	HRC56˚-58˚	6.9	2003-032

Sine Vise



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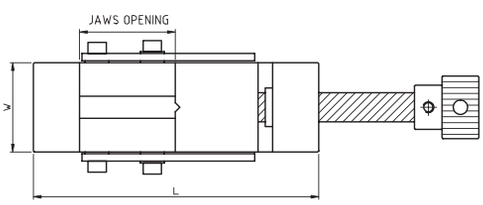
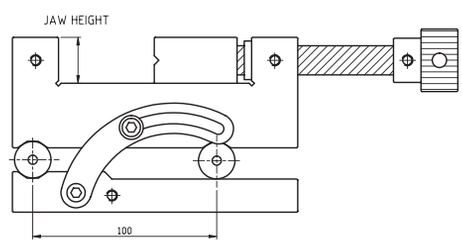




SPECIFICATION

Unit:mm

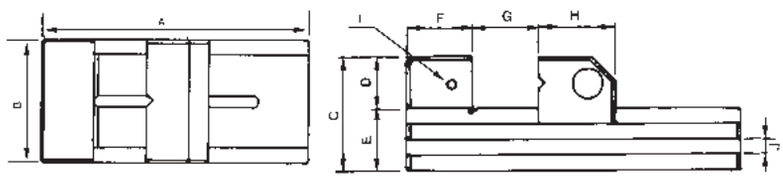
ORDER NO.	MATERIAL	LENGTH	WIDTH	JAW OPENING	JAW HEIGHT	HEIGHT (mm)	ANGLE	HARDEN	N.W (KGS)	CODE. NO.
SVD-200	SK2	155	48	60	25	94	0˚-46˚	HRC54˚±2	4.6	2003-040
SVD-250	SK2	176	63	68	30	97.5	0˚-46˚	HRC54˚±2	6.4	2003-041
SVD-300	SK2	180	73	72	30	103	0˚-46˚	HRC54˚±2	8.4	2003-042

Tool Makers Vise

Good Design With High Precision And Rigid

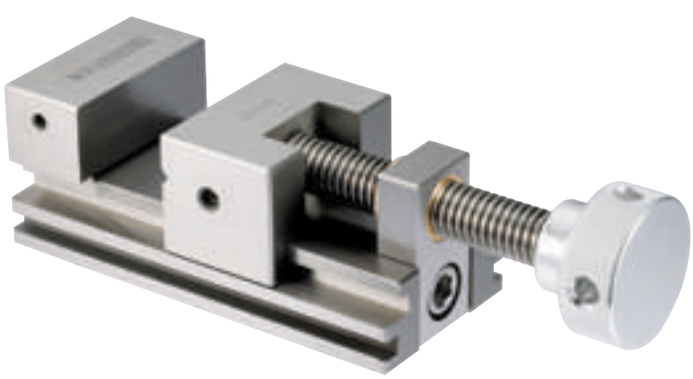
Accuracy :
Material Hardened: SKS HRC 60º Sub-zero processing.
Parallelism: Within 0.003 / 100 mm
Squareness: Within 0.005 / 100 mm
Angle tol: Within 15 sec Within 20 sec
Material: SKS2
*Sine conversion table attached page B16

Fixed Down Jaw Designed

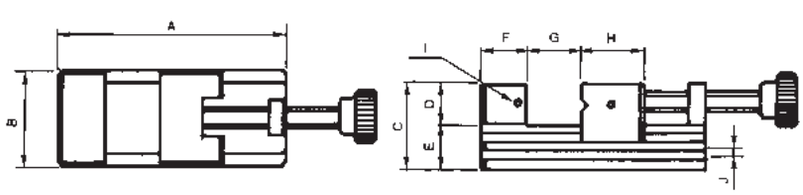


ORDER NO.	A	B	C	D	E	F	G	H	I	J	N.W (kgs)	CODE NO.
VC20	150	48	53	25	28	25	84	40	M6	8	1.6	2003-070
VC25	176	63	59	30	29	30	95	48	M6	8	2.8	2003-071
VC30	190	73	68	35	33	35	100	53	M6	9	4	2003-072
VC40	245	98	90	45	45	45	135	65	M8	12	9.02	2003-073

Tool Makers Vise



Accuracy :
Material Hardened: Sub-zero processing.
Parallelism: Within 0.003 / 100 mm
Squareness: Within 0.005 / 100 mm
Angle tol: Within 15 sec Within 20 sec
Material: SKS2
Hardness: HRC 54˚±2˚
*Sine conversion table attached page B16

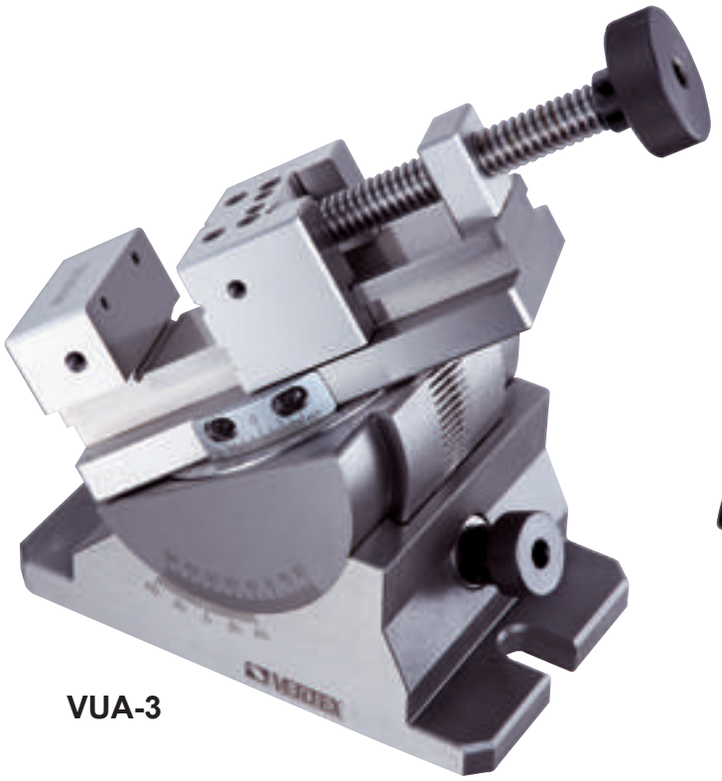


ORDER NO.	A	B	C	D	E	F	G	H	I	J	N.W (kgs)	CODE NO.
V-VE20	90	60	50	23	27	25	32	30	M5	6x6	1.62	2003-080
V-VE25	160	70	62	28	34	33	80	45	M6	7.5x7	4.02	2003-081
V-VE30	175	73	65	30	35	35	93	45	M6	7.5x7	4.7	2003-082

Precision Universal Angle Vise

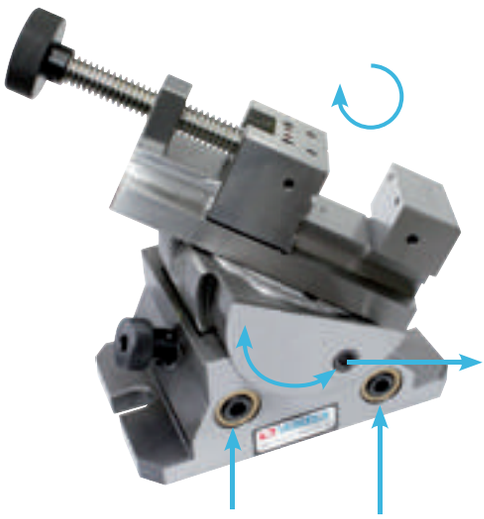
PAT.

NEW



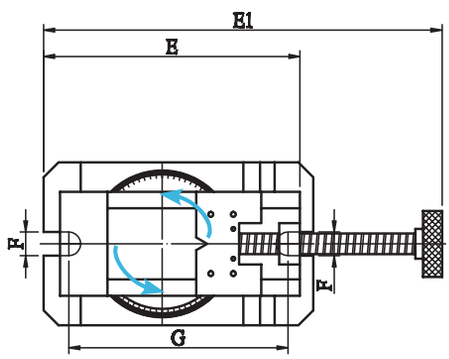
VUA-3

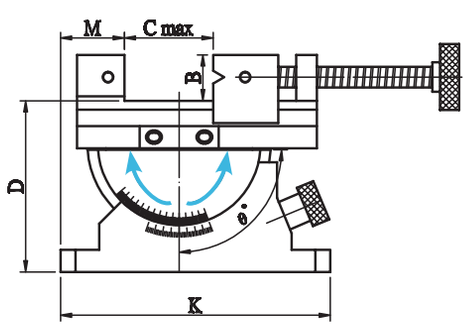
VUA-4

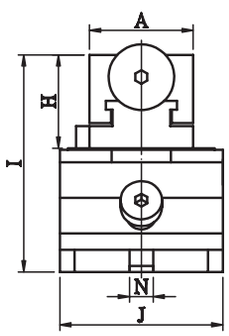


Feartures

- Precision graduction for accurate reading.
- Its swivelling and tilting features make this unit well suited for straight or inclined surface, angular driling machining on various machine tools as precision grinding machine, boring and milling machine, electrical discharge machine etc.
- Tolerance ±0.01mm/100mm.
- Vise bottom to base parallelism ±0.02 mm
- Squareness ±0.02
- 360º Horizontal swivel
- 45º Vertical tilting
- Precision ground
- Material: VISE SK-2
- Hardness: HRC 52º±2º
- Load capacity : 25kgs



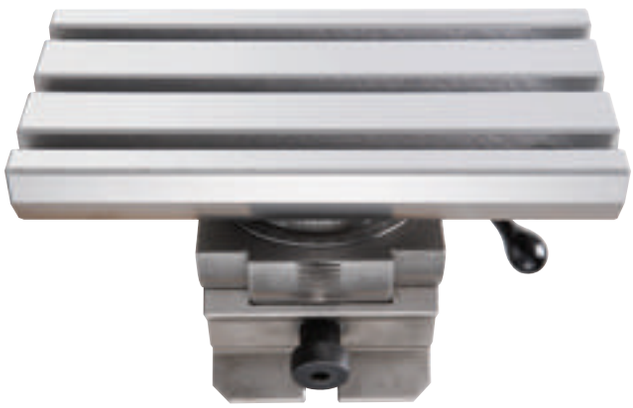




Unit:mm

ORDER NO.	A	B	C MAX	D	E	E1	F	G	H	I	J	K	M	N	θ	G.W(KGS)	CODE.NO.
VUA-3	70	31	80	115	173	291	16	156	63	146	110	182	43	16	-20˚~50˚	12	2003-050
VUA-4	88	35	110	132	193	346	16	156	83	167	110	182	29	16	-20˚~50˚	15	2003-051

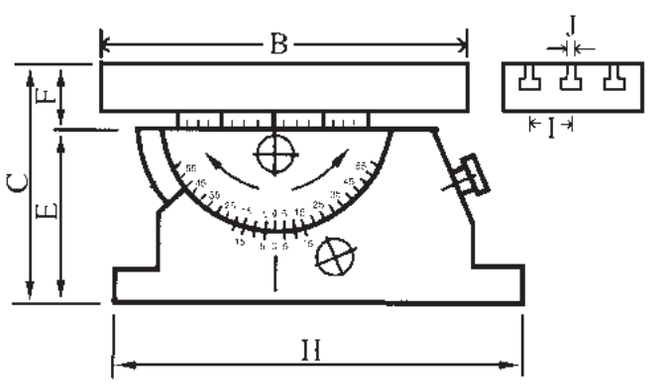
Precision Universal Angle Plate

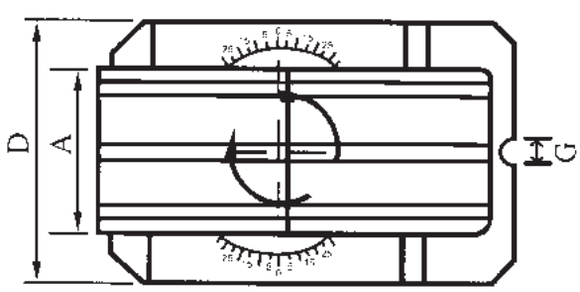


Feartures

- Precision grounded.
- Rigid design.
- The table can swivel 360º,and tilts 45º
- It can put tool maker vise VMV-type VDV-type or 3 jaw chuck for clamping
- The graduction for accurate reading
- Vise bottom to base parallelism ±0.02 mm
- Squareness ±0.02
- Material: SK-2
- Hardness: HRC 52º±2º
- Load capacity : 25kgs

- Example
  For single purpose





Unit:mm

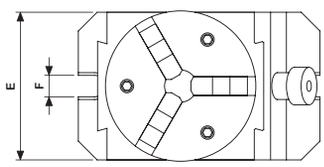
ORDER NO.	A	B	C	D	E	F	G	H	I	J	G.W (kgs)	CODE NO.
VUA-408	100	200	133	110	83	50	16	182	30	12	15	2003-055
VUA-510	126	250	133	110	83	50	16	182	40	12	18.1	2003-056

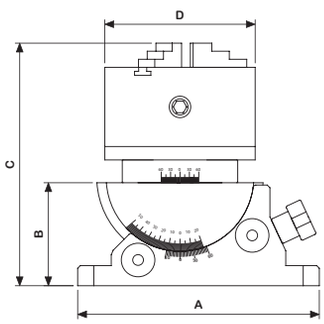
Precision Universal Angle Chuck

VERTEX®

NEW PAT.

With VSC-4 Chuck





- Precision graduction for accurate reading.
- Its swivelling and tilting features with clamping make this unit well suited for straight or inclined surface, angular driling machining on various machine tools.
- With VSC-4 3-Jaw chuck.
- O.D. clamping Ø3-90 mm,
- I.D. clamping Ø32-84 mm.
- Tolerance ±0.01mm/100mm.
- 2 axis with angle scale
- For angle setting
- Chuck indexing / Rotating setting
- Tilting Features same as VUA series, Page B13.
- Load capacity : 25kgs

LIGHT DUTY

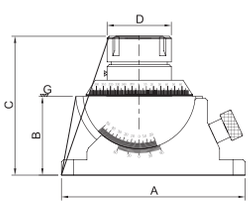
patent PAT.

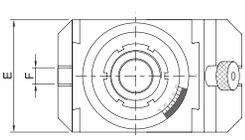
ORDER NO.	A	B	C	D	E	F	G.W (kgs)	CODE NO.
VUA-100J	180	77	181	112	110	16	14	2003-060

Precision Universal Angle Collet Chuck

NEW

Capacity Ø3-Ø30





- Precision graduation for accurate reading.
- Its swivelling and tilting features with clamping make this unit for straight or inclined surface, angular drilling machining on various machine tools.
- Tolerance ±0.01 mm / 100 mm.
- 360˚ horizontal swivel, 45˚ vertical tilting.
- Suit for multi - angle cutting.
- Simple way for mass production.
- Hardness : HRC 52˚±2˚
- Load capacity : 25kgs

LIGHT DUTY

patent PAT.

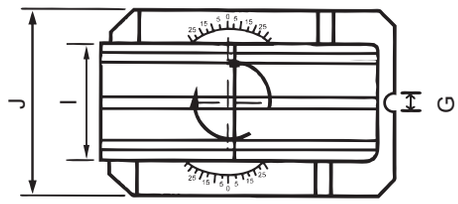
Standard Accessories: With 15pcs ER-40 Collet (4, 5, 6, 8, 10, 12, 13, 15, 16, 18, 20, 21, 22, 25, 26)

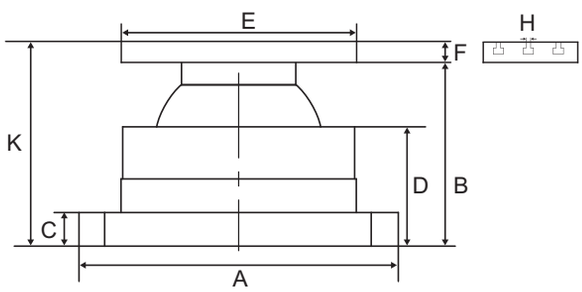
ORDER NO.	A	B	C	D	E	F	G.W (kgs)	CODE NO.
VUA-ER40	180	77	136	63	110	16	17.48	2003-065

Optional collet ER-40-Ø 27, 28, 29, 30 mm

Free Angle Table

NEW





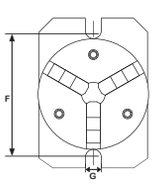
Features:

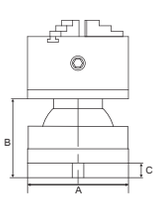
- Quick setting
- Operating is very quick and easy, can increase so much working effciency than you can image.
- 360º Rotation, Tilting 30º
- For non-normal angle setting.
- Its swivelling and tilting features with chuck clamping make this unit for round & square, angular drilling machining on various machine tools or for bench work table.
- Plate is preciely ground.
- For clamping tool vise & many other way of clamping.

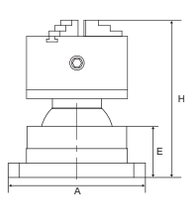
ORDER NO.	A	B	C	D	Table size		F	G	H	J	K	G.W (kgs)	CODE NO.
					E	I							
VAV-1020	140	120	20	72	200	100	34	17	12	140	153	15	2003-120
VAV-1325	140	120	20	72	250	126	34	17	12	140	153	17	2003-121

Free Angle Rotary Chuck

NEW







- With VSC-4, VSC-5, 3-JAW Chuck.
- O.D. Clamping ø3-90 mm (VSC-4)
- O.D. Clamping ø3-110 mm (VSC-5)
- I.D. Clamping ø 32-84 mm (VSC-4)
- I.D. Clamping ø 35-100 mm (VSC-5)

Features:

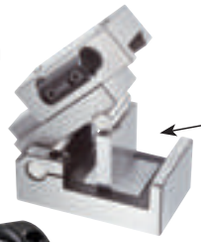
- Quick setting
- Operating is very quick and easy, can increase so much working efficiency than you can image.
- 360˚ Rotation, Tilting 30˚
- For non-normal angle setting.
- Its swivelling and tilting features with chuck clamping make this unit for round & square, angular drilling machining on various machine tools or for bench work table.

ORDER NO.	A	B	C	D	E	F	G	H	Weight (kgs)	CODE NO.
VAV-4J	140	120	20	190	72	158	17	203	16	1002-217
VAV-5J	140	120	20	190	72	158	17	203	17	1002-218

Precision Sine Vise

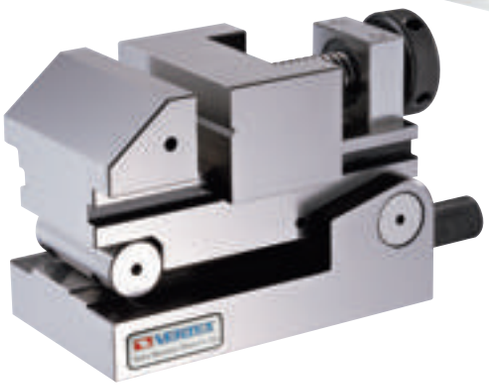
HARDENESS HRC 60˚, SKS3
PARALLELISM 0.003 / 100 mm
SQUARENESS 0.005 / 100 mm

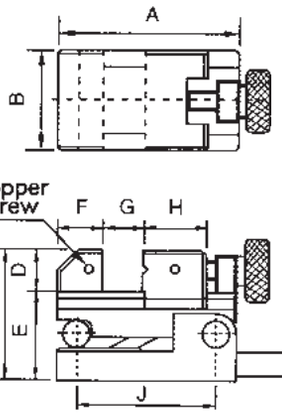
THE CLAMP HANDLE IS PLACED UNDER WORK PIECE.



Height Gage Block PAGE B76

●Example



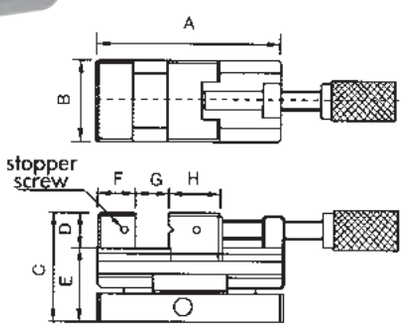


ORDER NO.	CODE NO.
SVC-100	2003-090

Unit:mm

A	130
B	70
C	93
D	30
E	63
F	33
G	45
H	45
I	M5
J	100
Max.angle	46˚
Weight(kgs)	5.5

Precision Sine Vise



SIN BAR CENTER 50 mm

HARDENESS HRC 60˚, SKS3
PARALLELISM 0.003 / 100 mm
SQUARENESS 0.005 / 100 mm

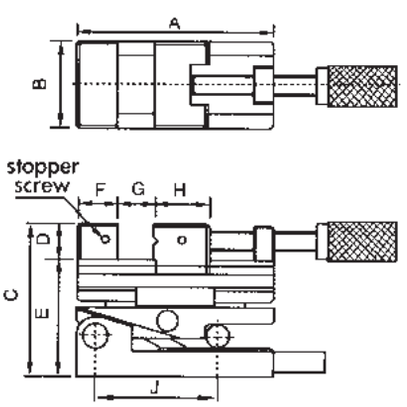
ORDER NO.	CODE NO.
SVL-50	2003-100

Unit:mm

A	160
B	73
C	93
D	30
E	63
F	33
G	80
H	45
I	M5
Max.angle	46˚
Weight(kgs)	6.6

Two Way Vise

2 WAYS



HARDENESS HRC 60˚, SKS3
PARALLELISM 0.003 / 100 mm
SQUARENESS 0.005 / 100 mm

ORDER NO.	CODE NO.
SVS-100	2003-110

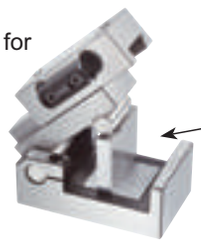
Unit:mm

A	160
B	73
C	124
D	30
E	94
F	33
G	80
H	45
I	M5
J	100
Max.angle	46˚
Weight(kgs)	8.3

Sine Bar With Magnetic

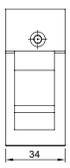
There is magnet in the bottom which can be run on any kind of machine for testing angle use.

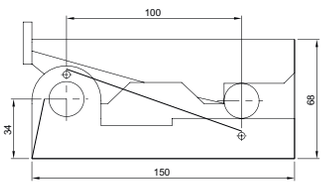
The thread can for stopper screw

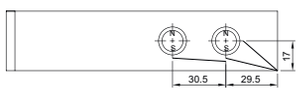


Height Gage Block PAGE B76

●Example



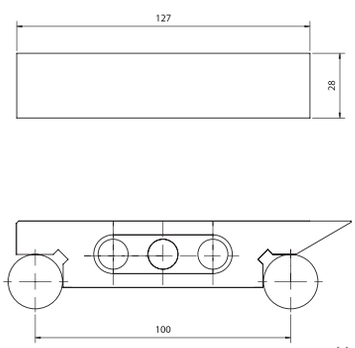




Unit:mm

ORDER NO.	SQUARNESS	ACCURACY	PARALLELISM	HARDENESS	MATERIAL	N.W. (kgs)	CODE NO.
V-S50M	0.005mm /100mm	±0.002	0.002mm/ 100mm	HRC50°	SK-3	0.34	2004-001
V-S100M	0.005mm /100mm	±0.002	0.002mm/ 100mm	HRC50°	SK-3	2.06	2004-002

Sine Bar

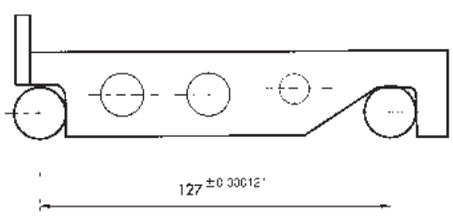


Unit:mm

ORDER NO.	LENGTH	WIDTH	HEIGHT	CENTER DISTANCE	PARALLEL	HARDEN	BLOCKS DIA.	MATERIAL	N.W (kgs)	CODE NO.
VS-100	127	28	35	0.005	0.005/ 100mm	HRC50°	Ø20mm	SK-3	0.76	2004-010

Sine Bar-Inch

Change of the sine angle must be count on sine bar inspection, the bar's tolerance within 0.005 mm / 100 mm



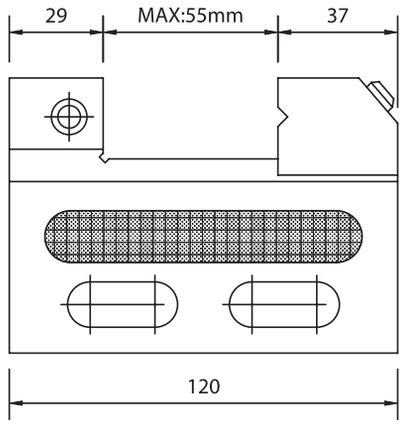
Unit:inch

ORDER NO.	LENGTH	WIDTH	HEIGHT	CENTER DISTANCE	PARALLEL	HARDEN	BLOCKS DIA.	MATERIAL	N.W (kgs)	CODE NO.
V-S25	6-3/8″	1″	1-1/4″	127	0.00012″	HRC52°	3/4″	SK2	1	2004-020
V-S50	6-3/8″	2″	1-1/4″	127	0.00012″	HRC52°	3/4″	SK2	1.8	2004-021

HOW TO CHOOSE THE BLOCK FOR SINE BAR

DISTANCE / GAUGE BLOCK / CAN GET HEIGHT / DEGREE	SIN BAR CENTER 50	SIN BAR CENTER 100
2°	1.7405	3.4899
3°	2.6168	5.2336
4°	3.4878	6.9756
5°	4.3578	8.7155
6°	5.2264	10.4528
7°	6.0935	12.1869
8°	6.9587	13.9173
9°	7.8217	15.6434
10°	8.6824	17.3648
11°	9.5404	19.0809
12°	10.3956	20.7911
13°	11.2476	22.4951
14°	12.0961	24.1921
15°	12.9401	25.8819
16°	13.7819	27.5637
17°	14.6186	29.2371
18°	15.4058	30.9017
19°	16.2784	32.5586
20°	17.1010	34.2020
21°	17.9184	35.8367
22°	18.7303	37.4606
23°	19.5366	39.0713
24°	20.3368	40.6736
25°	21.1309	42.2618
26°	21.9186	43.8371
27°	22.6995	45.3990
28°	23.4736	46.9471
29°	24.2405	48.4809
30°	25.0000	50.0000
31°	25.7519	51.5038
32°	26.4960	52.9919
33°	27.2320	54.4639
34°	27.9596	55.9192
35°	28.6788	57.3576
36°	29.3893	58.7785
37°	30.0908	60.1815
38°	30.7831	61.5661
39°	31.4660	62.9320
40°	32.1394	64.2787
41°	32.8030	65.6059
42°	33.4565	66.9130
43°	34.0999	68.1998
44°	34.7329	69.4658
45°	35.3553	70.7106

EDM Tool Marker Vise (STAINESS)



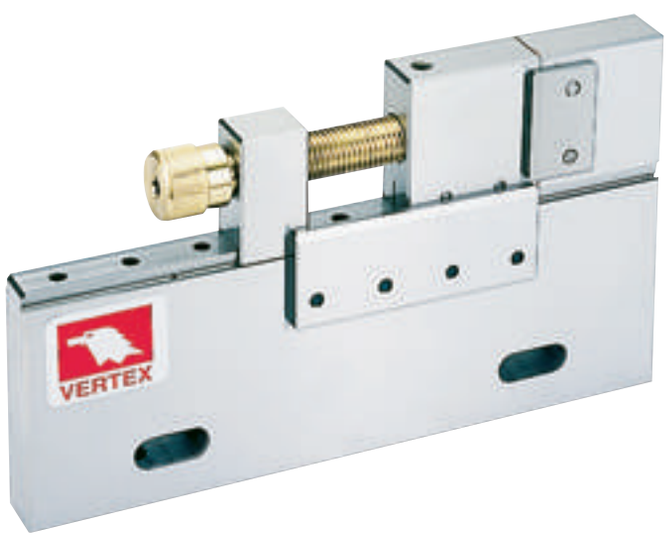
Material: SUS 440
Hardness: HRC 58º~60º
Squareness: Within 0.005 mm
This vise is for wire cutter use. Each of the parts was manufactured by stainless steel and with the appliance of high erosion resisting.
※ Not 100% magnetic proof

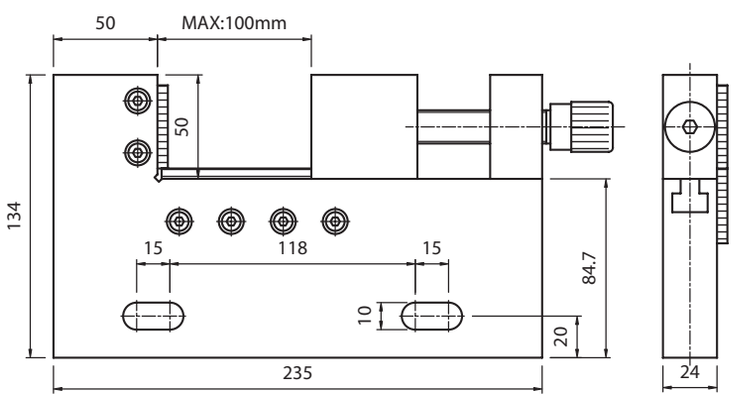
PARALLELISM	±0.002 mm / 100 mm
SQUARENESS	±0.002 mm / 100 mm

ORDER NO.	WEIGHT (kgs)	CODE NO.
VSTV-50W	1.4	2008-040

MAX.OPENING	55 mm
THICKNESS	27 mm
JAW DEEP	25 mm
N.W	1.01 kgs
MATERIAL	SUS 440
HARDNESS	HRC 54º±2º

EDM Tool Maker Vise (STAINLESS)





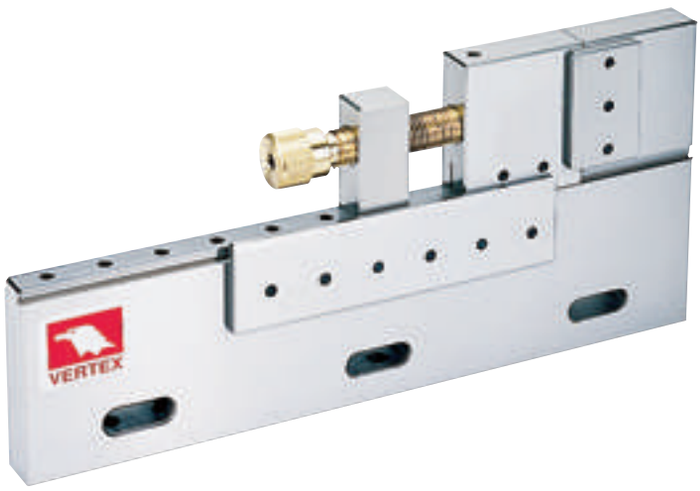
- Do not over lock.
※ Not 100% magnetic proof

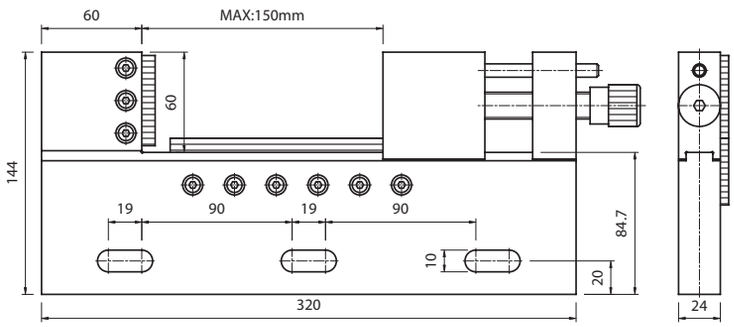
PARALLELISM	±0.00 2mm / 100 mm
SQUARENESS	±0.002 mm / 100 mm

ORDER NO.	WEIGHT (kgs)	CODE NO.
VSTV-100W	4.88	2008-050

MAX.OPENING	100 mm
THICKNESS	24 mm
JAW DEEP	50 mm
N.W	4.88 kgs
MATERIAL	SUS420
HARDNESS	HRC 54º±2º

EDM Tool Marker Vise (STAINESS)





- Do not over lock.

※ Not 100% magnetic proof

PARALLELISM	±0.002 mm / 100 mm
SQUARENESS	±0.002 mm / 100 mm

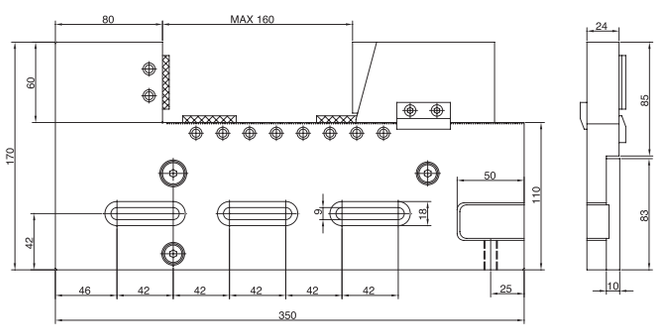
ORDER NO.	WEIGHT (kgs)	CODE NO.
VSTV-150W	6.75	2008-060

MAX.OPENING	150 mm
THICKNESS	24 mm
JAW DEEP	60 mm
N.W	6.75 kgs
MATERIAL	SUS420
HARDNESS	HRC 54º±2º

EDM Tool Maker Vise (STAINLESS)

- Over lock may break vise.

※ Not 100% magnetic proof

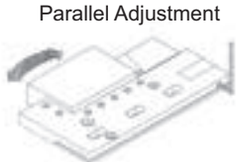


- Parallelism: 0.003 / 100 mm, Squareness: 0.005 / 100 mm.
- Hardness: up to HRC 45º~55º.
- The vise can be adjusted up and down, left and right, forth and back to set parallelism.
- High water pressure resistance.

Leveling

Leveling

Parallel Adjustment



PARALLELISM	±0.003 mm / 100 mm
SQUARENESS	±0.005 mm / 100 mm

ORDER NO.	WEIGHT (kgs)	CODE NO.
VSTV-320W	8	2008-090

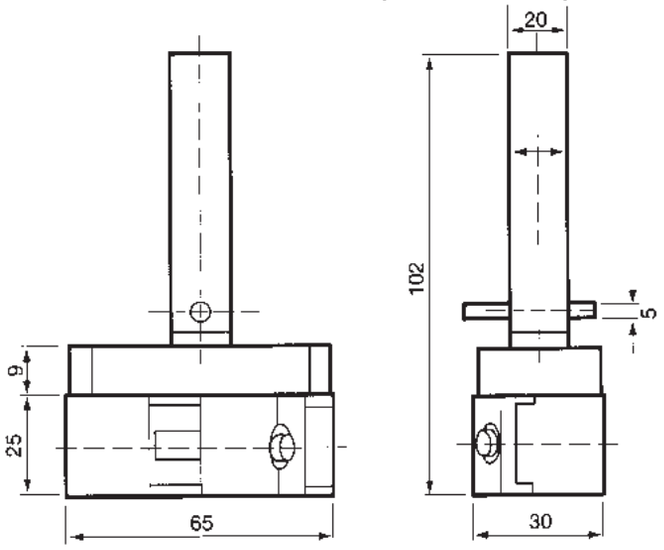
MAX.OPENING	160 mm
THICKNESS	24 mm
JAW DEEP	60 mm
N.W	8 kgs
MATERIAL	STAVAX
HARDNESS	HRC 52˚±2˚

Electrode Vise (STAINLESS)

VERTEX

MINI TYPE **JAW OPENING 20mm** **(STAINLESS)FOR EDM**

JAW WIDTH 25mm



※ Not 100% magnetic proof

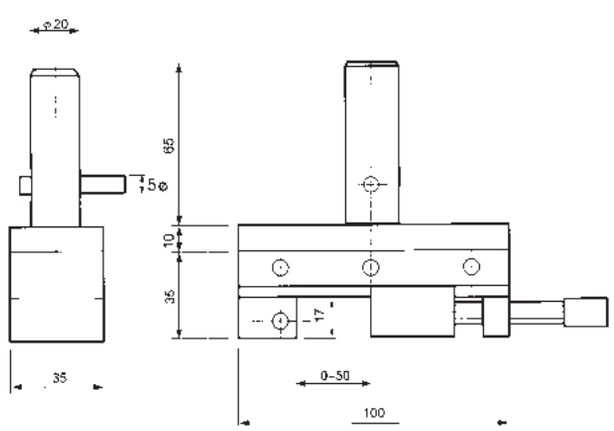
Material	SUS440
Parallelism	within 0.003 mm / 100 mm
Squareness	within 0.005 mm / 100 mm
Harden treatment	up to HRC 58˚

ORDER NO.	MATERIAL	LENGHT	WIDTH	JAW OPENING	JAW HEIGHT	HARDEN	WEIGHT (kgs)	CODE NO.
VEH-20MS	SUS440	65	25	20	10	HRC 58˚	0.7	2008-020

Electrode Vise (STAINLESS)

(STAINLESS)FOR EDM

JAW WIDTH 25mm
JAW OPENING 50mm



※ Not 100% magnetic proof

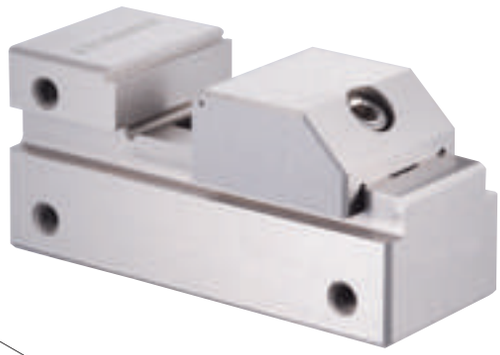
Material	SUS440
Parallelism	within 0.003 mm / 100 mm
Squareness	within 0.005 mm / 100 mm
Harden treatment	up to HRC 58˚

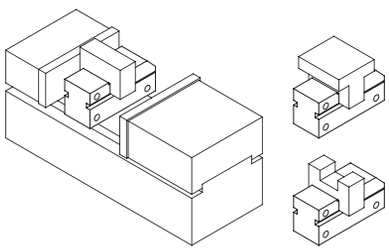
ORDER NO.	MATERIAL	LENGHT	WIDTH	JAW OPENING	JAW HEIGHT	HARDEN	WEIGHT (kgs)	CODE NO.
VEH-20DS	SUS440	100	35	50	17	HRC 58˚	1.3	2008-030

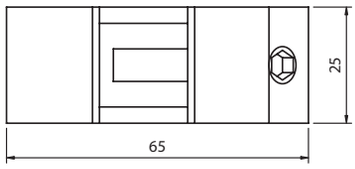
Tool Maker Vise (STAINLESS)

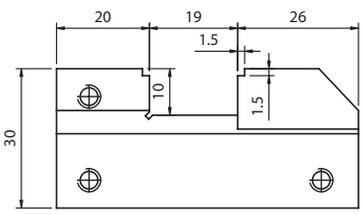
VERTEX

MINI TYPE FOR EDM









Tool makers vise of mini type which can be put in a bigger vise to process the small and precise workpiece. Also it can be used in an E.D.M. machine and grinding machine.
Squareness and parallelism: within ±0.003 / 100 mm
※ Not 100% magnetic proof

ORDER NO.	MATERIAL	LENGHT	WIDTH	JAW OPENING	JAW HEIGHT	HARDEN	WEIGHT (kgs)	CODE NO.
VSTV-10V	SUS 440	65	25	19	10	HRC 56˚-58˚	0.3	2008-070

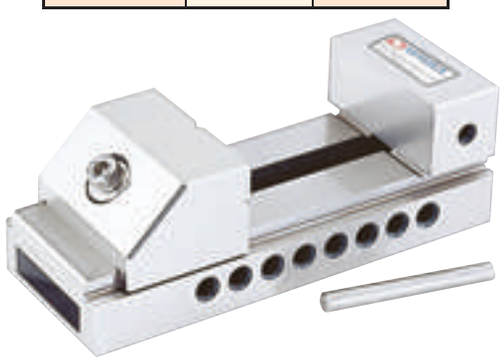
TOOL MAKER VISE

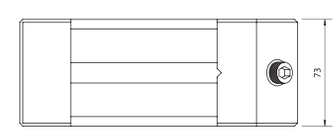
Tool Maker Vise (STAINLESS)

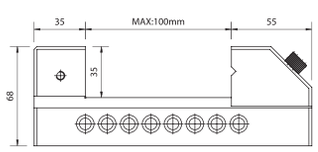
MINI TYPE FOR EDM

ORDER NO.	WEIGHT (kgs)	CODE NO.
VBST-30	4.5	2008-075

Material: SUS 440
Hardness: HRC 58º~60º
Squareness: Within 0.005 / 100 mm
※ Not 100% magnetic proof







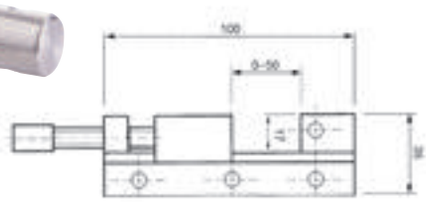
Unit:mm

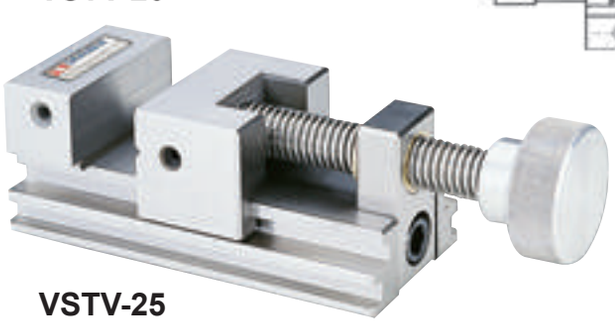
TOLERANCE	
A	±0.004 mm
B	±0.005 mm
C	±0.005 mm
D	±0.005 mm
E	±0.005 mm
F	±0.005 mm
G	±0.005 mm

Tool Maker Vise (STAINLESS)

FOR EDM

VSTV-20

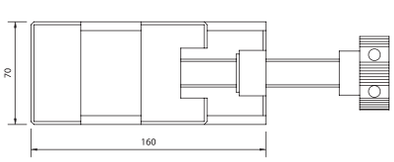


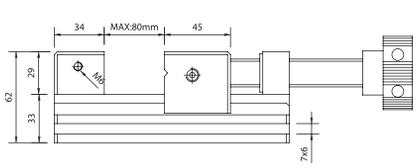


VSTV-25

- Material: SUS 440
- Hardness: HRC 56º
- Squareness: Within 0.005 / 100 mm
- It was made by tool steel of stainless steel system and was precision ground after hardened by heat treatment.So, it will not be rusted even permeation.
- The vise can clamp workpiece by moveable Jaw without lifting.It is easier and convenient for processing small workpieces.

※ Not 100% magnetic proof





ORDER NO.	MATERIAL	LENGHT	HEIGHT	JAW OPENIG	JAW WIDTH	JAW HEIGHT	HARDEN	WEIGHT (kgs)	CODE NO.
VSTV-20	SUS440	100	35	50	35	17	HRC56º	1.2	2008-079
VSTV-25		160	62	80	70	29		4.4	2008-080

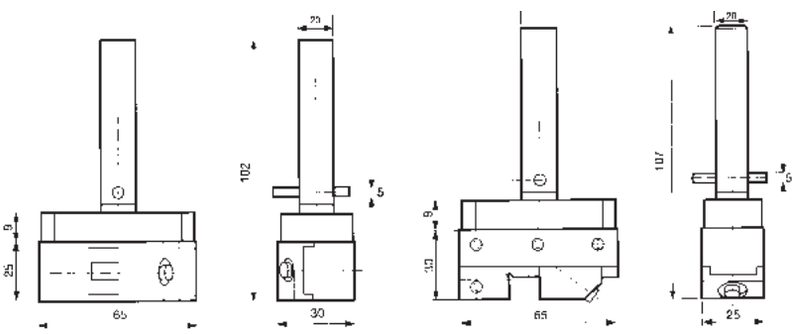
Electrode Vise

MINI TYPE
JAW WIDTH 25mm

VERTEX
(ALLOY STEEL) FOR EDM

ELECTRODE HOLDERS FOR
ELECTRO DISCHARGE MACHINE

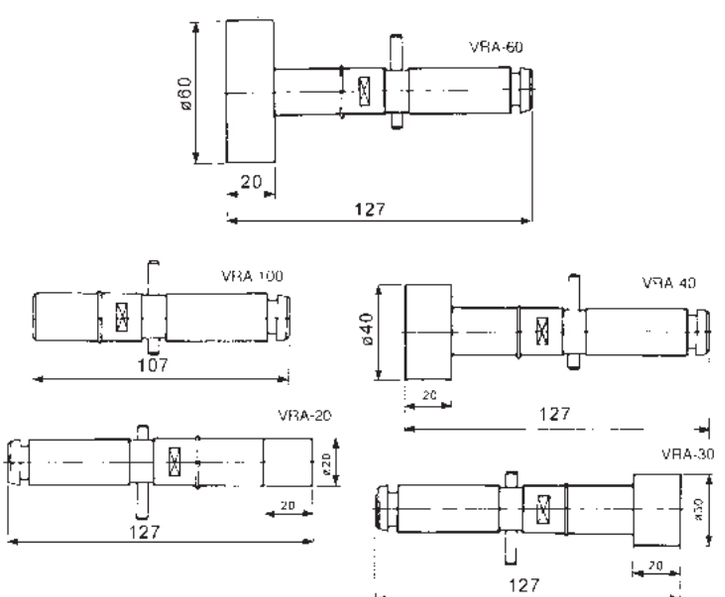
Mini vise can be used in fixed electrode holders.
The opening with a cross V groove on the vise can do electric discharging both by vertical way and horizontal way for various-shape workieces.
The max. opening on the vise is 20 mm.
※ Not 100% magnetic proof



ORDER NO.	MATERIAL	LENGHT	WIDTH	JAW OPENING	JAW HEIGHT	HARDEN	WEIGHT (kgs)	CODE NO.
VEH-20	SKS	65	25	20	10	HRC 58˚-60˚	0.8	2008-001

Electrode Holder

FOR EDM



ORDER NO.	VRA-20	VRA-30	VRA-40	VRA-60	VRA-100
WEIGHT(KG)	0.2	0.4	0.5	0.9	0.3
CODE NO.	2008-010	2008-011	2008-012	2008-013	2008-014

EDM Wire (BRASS)

※FLOATING PRICE, CONTACT US BEFORE ORDERING.

FEATURES

CHEMICAL COMPOSITION

65/35 brass equivalent to Alloy No. JIS-H3260 C2700

NO ACID-CORROSION AND NO DAMAGE TO RESINS

The special treatment avoids acid-corrosion on machine and workpiece.

HIGH SURFACE QUALITY

The special treatment makes the wire surface smooth, free from dirt, rust and grease that causes unefficiency to electric discharge.

STANDARD WEIGHT CONTROL

By perfect control in process, we obtain the standard weight per coil that enables us to maintain the stability of processing time and the accuracy of drawing.

NO WELDMENT

The rough surface caused by welding could affect the quality and accuracy of performance. The welded wire tends to break that wastes the time to re-thread.

HIGH-DIMENSIONAL PRECISION

Wire diameter tolerance and roundness tolerance are both limited to 1/ μ m.

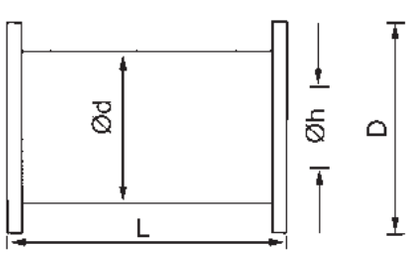
OUTSTANDING STRAIGHTNESS

Outstanding straightness ensures automatic threading successfully.

SPECIFICATION

ORDER NO.	WIRE TYPE	DIAMETER		DIAMETER TOLERANCE (mm)	BREAKING LOAD (kgs)	TENSILE STRENGTH (N/mm)	ELONGATION (%)	SUITFUL WORKING STYLE	CODE NO.
		inch	mm						
VEW-20H	HARD	0.008	0.20	±0.001	3.14	980 ≦	0.4 ≦	STRAIGHT CUTTING a.PASS CUTTING b.ROUGH CUTTING c.FINISH CUTTING	2009-003
VEW-25H		0.010	0.25		4.92				2009-004
VEW-30H		0.012	0.30		7.07				2009-005
VEW-20S	SOFT	0.008	0.20	±0.001	1.41	441 ≦	15 ≦	ANGLE CUTTING	2009-010
VEW-25S		0.010	0.25		2.21				2009-011
VEW-30S		0.012	0.30		3.18				2009-012

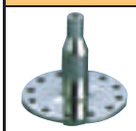
THE PACKIING USED A STANDARD COIL.
HERE THE POPULAR IS P-5R (5kgs).



PACKING COIL TYPE	COIL SHAPE	WIGHT OF WIRE ON COIL (kg)	DIAME-THE OF WIRE (mm)	D (mm)	d (mm)	L (mm)	h (mm)	LENGTH OF WIRE ON COIL (M)	NUMBER OF COILS /BOX
P-5R		5	0.20 0.25 0.30 0.33	160	90	114	20	18314 11553 8001 6750	4

Wire Dies Guide

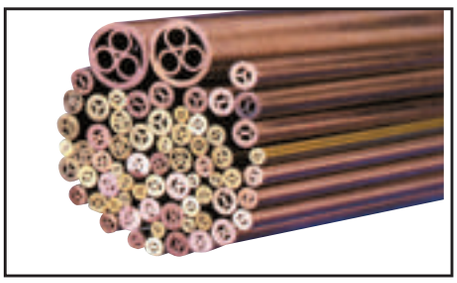
Used to guide wire in wire electro-discharge machimes.

ORDER NO.	MAKER	APPLICATION	REMARKS	CODE NO.
 **M118**	MITSUBISHI	SX, CX, FX Upper 上 (線切割眼模 M118)	C 834G	2009-030
M119		SX, CX, FX Lower 下 (線切割眼模 M119)	B 243G	2009-031
M103 Ø3		F, FL, G, Opening Ceramic Stainless (眼模螺絲 Stop screw M108)	D 162G D 123G	2009-032
M108				2009-033
M111		G, H~HA, C, CR, (偏心座 Dies Holder M111)	X 184D226H01	2009-034
M117 Ø4		H1, HA, B, Z SK/AF Lower 下 (線切割眼模 M117)	B 176G	2009-035
M107		H1, HA, B, Z SK/AF Upper 上 (線切割眼模 M107)	B123G	2009-036
M120		H1, A, B, Z/AF Upper 上 (眼模螺絲 Stop screw M120)	C524G	2009-037
Z141		Ceramic Guides for Small Hole EDM machine (放電打孔機用導管 Z141)		2009-038
S103	ソデツク SODICK	A300, 500, Aw330, 450 EPOC, AP, BF (線切割眼模 S103)	GUIDE (87-3)	2009-039
S111	SEIBE	F, K Upper & Lower (線切割眼模 S111)		2009-040
H102	HITACHI	H1-Cut 203, 304, 345, 460 Lower 下 (線切割眼模 H102)		2009-041
F120	フアナツク FANUC	∞ °A, °B Upper 上 (線切割眼模 F120) ∞ °A, °B Lower 下 (線切割眼模 F121)		2009-042
F121				2009-043
F101 **F102**		O, P, Q, R, W Upper & Lower 上、下 (線切割眼模 F101, F102)		2009-044
F123		^{1}A, ^{1}B, Upper 上 (線切割眼模 F123) ^{1}A, ^{1}B, Lower 下 (線切割眼模 F124)		2009-045
F124				2009-046

Electrode (Copper & Brass Pipe Electrode)

Used to guide wire in wire electro-discharge machimes.

STD. STYLE



SUPER 8 STYLE

- BRASS PIPE FOR STEEL & TREATMENT STEEL. COPPER PIPE FOR TUNGSTEN MATERIAL & SMALL HOLE.
- SUPER STYLE HOLE COPPER PIPE FOR HIGH SPEED MACHINNING & NON THROUGH HOLE.
- THE LENGTH 300MM OR 400MM OF PRICE IS SAME. PLEASE NOTIFY THE LENGTH WHEN YOU ORDERING.
- EACH UNIT PRICES IS 20 PCS.

STANDARD STYLE HOLE

MATERIAL \ HOLE DIA.		0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3
BRASS	ORDER NO.	VEB-04	VEB-05	VEB-06	VEB-07	VEB-08	VEB-09	VEB-10	VEB-11	VEB-12	VEB-13
	CODE NO.	2010-001	2010-002	2010-003	2010-004	2010-005	2010-006	2010-007	2010-008	2010-009	2010-010
COPPER	ORDER NO.	VEP-04	VEP-05	VEP-06	VEP-07	VEP-08	VEP-09	VEP-10	VEP-11	VEP-12	VEP-13
	CODE NO.	2010-030	2010-031	2010-032	2010-033	2010-034	2010-035	2010-036	2010-037	2010-038	2010-039

MATERIAL \ HOLE DIA.		1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2
BRASS	ORDER NO.	VEB-14	VEB-15	VEB-16	VEB-17	VEB-18	VEB-19	VEB-20	VEB-21	VEB-22
	CODE NO.	2010-011	2010-012	2010-013	2010-014	2010-015	2010-016	2010-017	2010-018	2010-019
COPPER	ORDER NO.	VEP-14	VEP-15	VEP-16	VEP-17	VEP-18	VEP-19	VEP-20	VEP-21	VEP-22
	CODE NO.	2010-040	2010-041	2010-042	2010-043	2010-044	2010-045	2010-046	2010-047	2010-048

SUPER 8 STYLE HOLE COPPER & BRASS PIPE ELECTRODE

MATERIAL \ HOLE DIA.	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7
ORDER NO.	VES-10	VES-11	VES-12	VES-13	VES-14	VES-15	VES-16	VES-17
CODE NO.	2010-064	2010-065	2010-066	2010-067	2010-068	2010-069	2010-070	2010-071

MATERIAL \ HOLE DIA.	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5
ORDER NO.	VES-18	VES-19	VES-20	VES-21	VES-22	VES-23	VES-24	VES-25
CODE NO.	2010-072	2010-073	2010-074	2010-075	2010-076	2010-077	2010-078	2010-079

EDM Filter For EDM (Oil)

Unit:mm

ORDER NO.	OUTER DIA.	INNER DIA.	LENGTH	SUITABLE MODELS	WEIGHT (kg)	CODE NO.
NH-01	150	72	450	SEIBU.JAPAX.SODICK.AMADA	1	2011-001
NH-09	150	33	360	CHARMILLES.AGIE.MITSUBISHI	0.8	2011-002
NH-09S	150	91	309		1.2	2011-003
NH-600L	150	26	600	WITH STEEL NET	1.2	2011-004

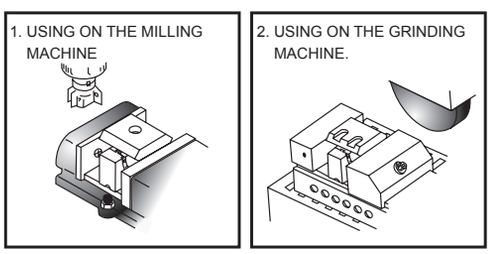
Angle Plate

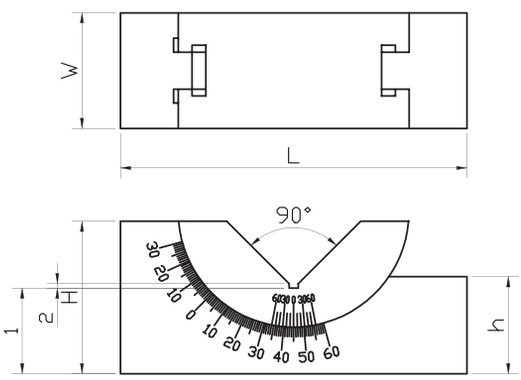
VAP-1

VAP-2

VAP-3

90º V-way. High carbon steel hardened to 50º-54º HRC, precision ground to within 0.005mm accuracy in squareness. Angle tolerance ± 10 minutes. Sets any angle 0-60º, vernier reading 10 minutes. 2 set screws provided for firmlocking at fixed angle.
Material: SK2
Hardness: HRC 50º-54º
Squareness: ±0.01 mm
Angular measures from 0º-60º
※ Not for LAB

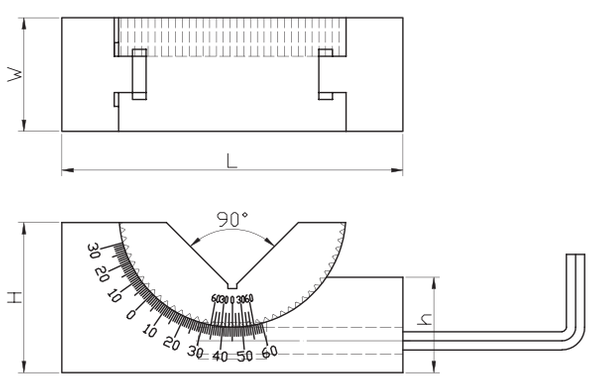




Unit:mm

ORDER NO.	H	W	L	h	N.W. (KGS)	CODE NO.
VAP-1	48	45	102	28	1.4	2005-001
VAP-2	49	30	102	28	0.9	2005-002
VAP-3	32.5	25	75	21	0.5	2005-003

Micro-Adjustable Angle Plate



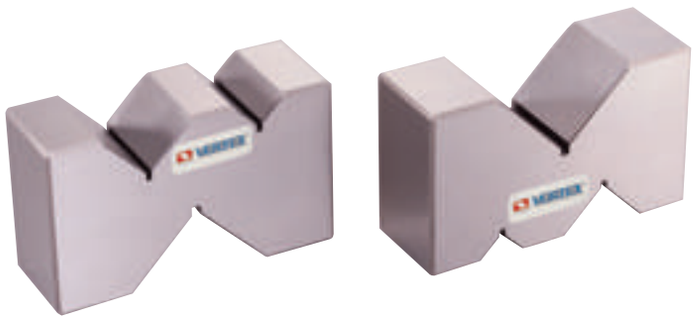
Angle Can Be Adjusted From 0º~60º By Screw
※ Not for LAB

Unit:mm

ORDER NO.	H	W	L	h	N.W. (KGS)	CODE NO.
VAPM-1	47	46	102	28	1.4	2005-010
VAPM-2	47	30	102	28	1	2005-011
VAPM-3	32	25	75	22	0.5	2005-012

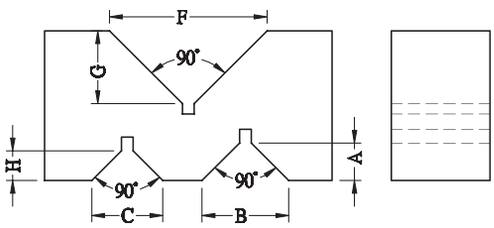
Precision V Block

VERTEX
PAIRS GROUNDED



Material : Steel
Hardness : HRC 52
Accuracy : 0.02 mm / 100 mm
- For Production

※ Not for LAB



Unit:mm

ORDER NO.	A	B	C	F	G	H	L X W X H	WEIGHT (KGS)	CODE NO.
V-5VA	14	35	40	63	29	19	124X35X61	2.8	2005-017
V-3VA-S	10	22	18	40	18	8	72.8X25X36.7	0.88	2005-018
V-4VA-S	15	32	18	50	24	8	100X36X60	2.9	2005-019
V-5VA-S	16	35	22	65	31.5	9.5	124.6X49.8X79.8	6.8	2005-020

Precision Angle Blocks

ORDER NO.AB-130 CODE NO.2006-001

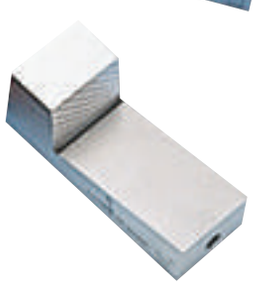
WEIGHT:1kg

Furnished in 1° increments to 5 degrees and in 5° increments to 30 degrees. With the addition of the optional $^1/_4$° and $^1/_2$°blocks virtually and conceivable angle to these increments can be established.

- Simple, quick angle set-ups.
- Eliminates calculations, avoids errors.
- Lightly magnetized for better holding.
- Manufactured of steel, hardened, stablized and ground.
- Sizes: 3″ long x $^1/_4$″thick. (75mm x 6mm)
- Accuracy: .0001″ per inch.
- Oil-hardened steel, precision ground. 12pcs angle blocks ($^1/_4$°,$^1/_2$°,1°,2°,3°,4°,5°,10°,15°,20°,25°,30°)

※ Not for LAB

Universal Angle Block Set



No sine plate, sine vise, angle chart or gauge block needed!

- A slope at any angle can be provided by installing a block or blocks on a machine vise up to 5%
- 8 pieces in a deluxe wooden box include: 10°,15° & 30° vee blocks and 5 angle plates-1° to 5° for AB-164
- Heat treated 50° HRC & ground to 10 sec.
- 9pcs angle blocks (1/2°,1°,2°,3°,4°,5°,10°,15°,30°,) for AB-163

※ Not for LAB

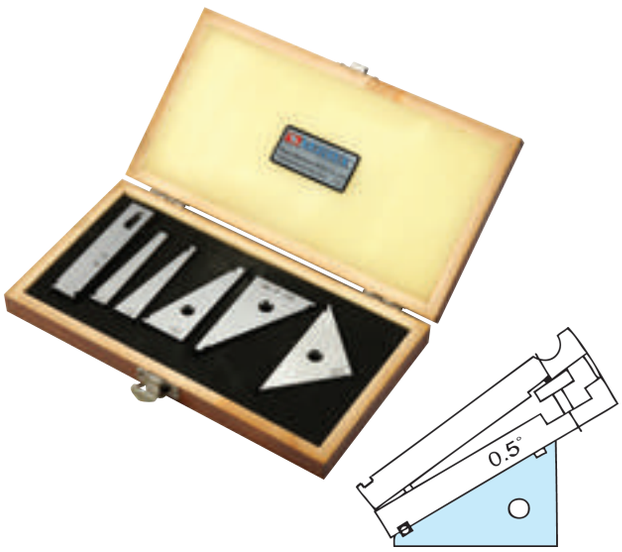
mm

ORDER NO.	L X W X H	WEIGHT (KGS)	CODE NO.
AB-163	Vee blocks:3″Lx1$^3/_{16}$″Wx1$^3/_{16}$″H Angle Plates:2$^3/_4$″Lx1$^3/_{16}$″Wx$^5/_{64}$″H	2	2006-010
AB-164	Vee blocks:4″Lx1$^1/_2$″Wx1$^1/_2$″H Angle Plates:4″Lx1$^1/_2$″Wx$^5/_{32}$″H	3.8	2006-011

Micrometric Tangent Bar & Angle Gauge Block Set

ORDER NO.AB-166 CODE NO.2006-020

WEIGHT:1kg



Micrometric Tangent Bar & Angle Gauge Block Set

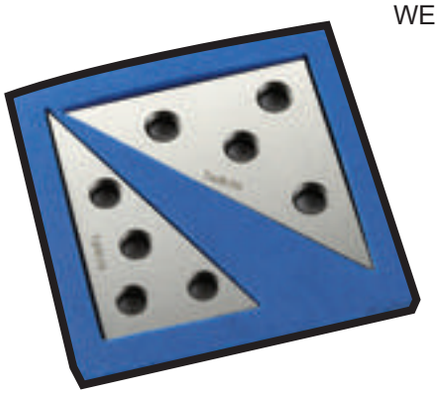
- Made of Hardened Steel, Precision Ground.
- Accuracy ±.001″ Per Inch.
- Interlocking Slots.
- Size of Angle Blocks: .35″x3″
  A Complete set for Angular set-ups. No Other Gauges Required.
- Simplicity in application.
  Angular set-ups with this are a zip. Just dial your angle direct in degrees and minutes. Add one or two angle block gauges for angles over 5º and Secure assembly by dropping 1/8" dowel or square key into slot provided.
- Complete with fitted case.
- Hardness : HRC 50˚

※ Not for LAB

Solid Angle Plates

ORDER NO.AB-167 CODE NO.2006-030

WEIGHT:0.3kg



Solid Angle Plates

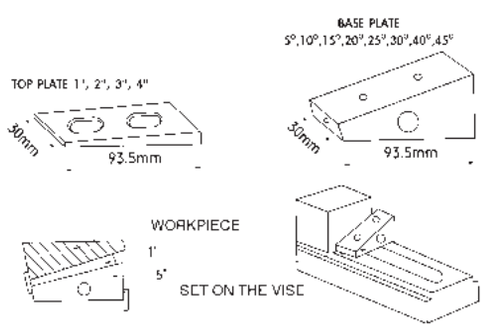
- Precision ground angles for convenient set-ups in tooling, production and inspection.
- Four holes on top of it for easy mounting.
- 1/4″ Thick, packed in cardboard box.
- Set of 3″x3″x4-3/8″, 45ºx45ºx90ºx1pc
  2″x3-15/32″x4″, 30ºx60ºx90ºx1pc
- Hardness : HRC 50˚

※ Not for LAB

Precision Angle Blocks

ORDER NO:AB-113(13PCS/SET) CODE NO:2006-040

WEIGHT:7.1kgs



FEATURES

- Angle Tolerance:0.02Mm
- Can Be Assembled Top Plate With Base Plate For 6˚-9˚,16˚-19˚,26˚-29˚, 36˚-39˚,46˚- 49˚
- Harden Treatment Up To Hrc 55˚
- Made By The Material Of Sk2
- Can Be Cooperate Two Set For Use.

※ Not for LAB

PLATE	ANGLE DEGREE
TOP PLATE	1˚,2˚,3˚,4˚
BASE PLATE	5˚,10˚,15˚,20˚,25˚,30˚,35˚,40˚,45˚

Hardened Steel Square

Hardness : HRC50˚

Squares have accurate right angles both inside and outside. Made from a single piece of fully tool steel. Beams and blades are ground and accurately lapped for straightness and parallelism. Blades are beveled on both edges of each side. Beam is grooved at inner comer for clearance of burr and dirt. All squares are fully hardened . Packed in indiviual cartons. Accuracy 0.02mm.

※ Not for LAB

ORDER NO.	L x H x thick	NEW WEIGHT (KGS)	CODE NO.
SS-304	100X75X8MM	0.3	2006-050
SS-306	100X150X8MM	0.6	2006-051
SS-308	130X200X8MM	0.8	2006-052
SS-310	250X160X10MM	1.4	2006-053
SS-312	300X200X12MM	2.2	2006-054

Square

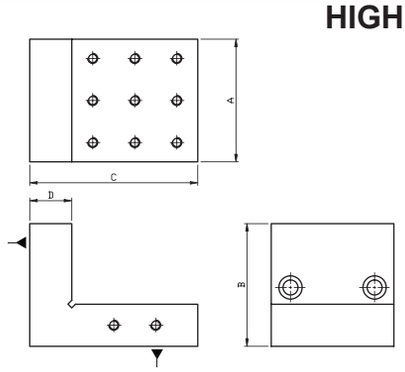
Alloysteel Grounded HRC50˚ ± 2

※ Not for LAB

ORDER NO.	LxHxthick	ACCURACY	WEIGHT(kg)	CODE.NO.
FS-204	100x75x6mm	0.02mm	0.2	2006-055
FS-206	150x100x6mm		0.3	2006-056
FS-208	200x130x6mm		0.5	2006-057

Precision Steel Angle Plate

HIGH PRECISION TYPE



MATERIAL : YK30 ALLOY STEEL
ACCURACY : 0.005/100MM
HARDEN TREATMENT UP TO HRC 58º
※ Not for LAB

ORDER NO.	A	B	C	D	N.W (KGS)	CODE NO.
VRS-33	3″ 75	3″ 75	4″ 100	1″ 25	2.2	2006-060
VRS-44	4″ 100	4″ 100	4″ 100	1″ 25	3.7	2006-061
VRS-46	4″ 100	4″ 100	6″ 150	1″ 25	4.5	2006-062
VRS-85	8″ 200	120	8″ 200	40	14.3	2006-063
VRS-1206	12″ 300	6″ 150	12″ 300	2″ 50	32.3	2006-064

V-Block With Clamp

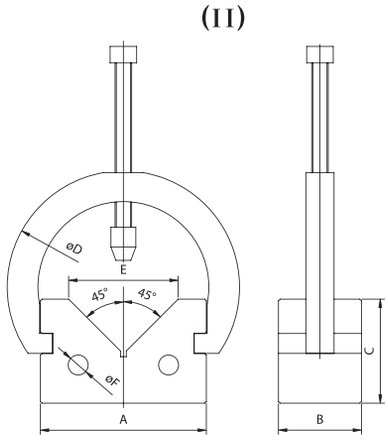
PAIRS
VBC-196
VBC-197

PAIRS
VBC-195

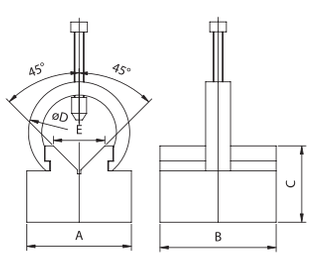
- Two V blocks and two clamps are include in the set.
- Made of hardened tool steel machined & ground in pairs close tolerances.
- A precision set for toolmakers & machinists.

※ Not for LAB

(II)



(I)

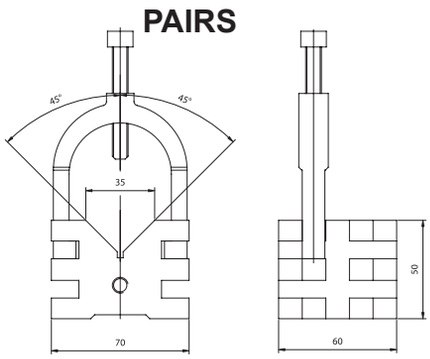


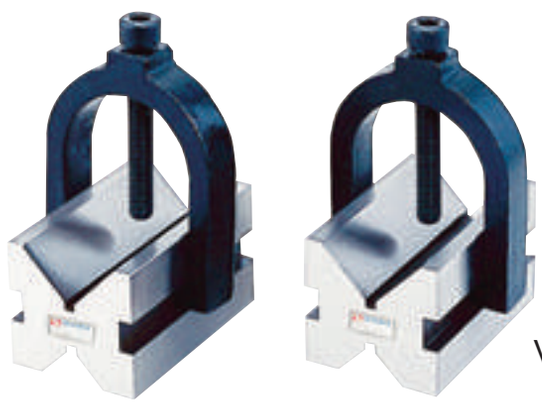
ORDER NO.		A	B	C	D	E	F	N.W. (kgs)	CODE.NO.
VBC-195	Ⅰ	63	70	46	61	31		3.1	2007-001
VBC-196	Ⅱ	100	50	63	140	66	12	5.9	2007-002
VBC-197	Ⅲ	150	64	100	193	110	12	14.7	2007-003

V-Block With Clamp

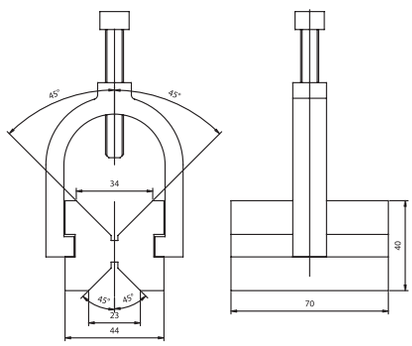
Alloysteel Grounded HRC50°

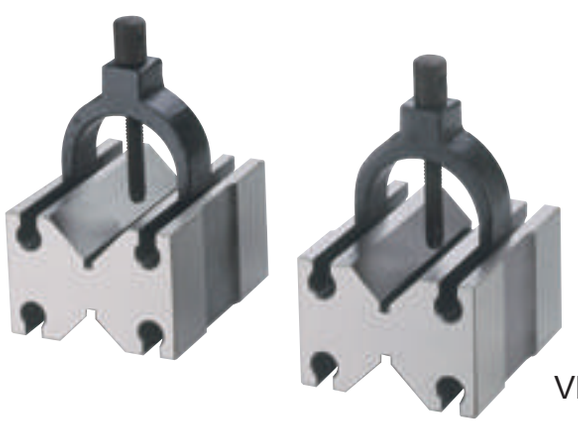
PAIRS
VBC-003



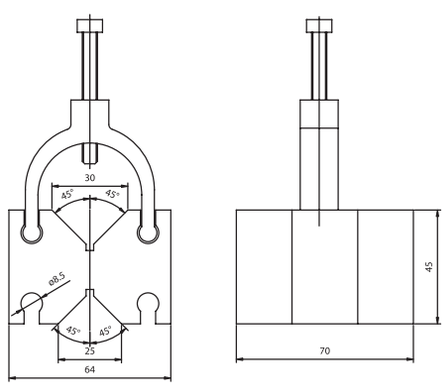


PAIRS
VBC-243

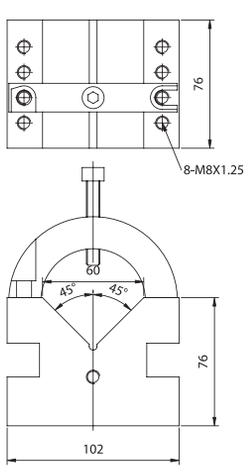




PAIRS
VBC-006



SINGLE
VBC-009



ORDER NO.	W	H	L	W.OF SMALL VEE	W.OF LARGER VEE	PACKING	G.W. (kgs)	CODE NO.
VBC-003	2.36 60mm	1.86 50mm	2.75 70mm	NON	V35 X V5.5	110x80x110mm	2.4	2007-010
VBC-243	2 3/4 70mm	1 3/4 45mm	1 5/8 42mm	NON	V32 X V3.5	75x80x100mm	1.9	2007-020
VBC-006	2 1/2 64mm	1 3/4 45mm	2 3/4 70mm	V25 X V3.5	V30 X V3.5	110x80x110mm	2.6	2007-030
VBC-009	4 102mm	3 76mm	3 76mm	NON	V59 X V4.5	70x50x110mm	3.9	2007-040

Tangimatic Dresser

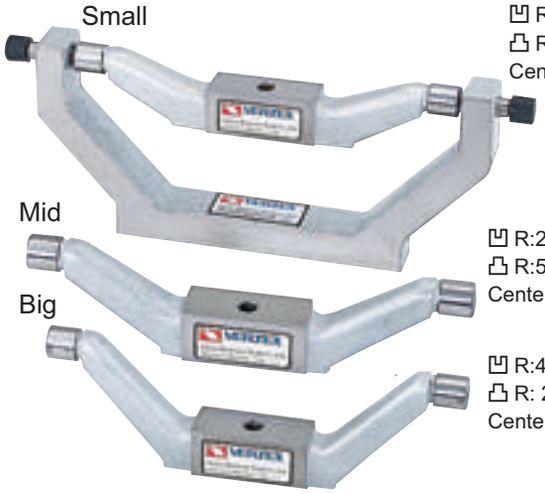
ORDER NO.V-TDA CODE NO.2012-001

WEIGHT: 7 kgs

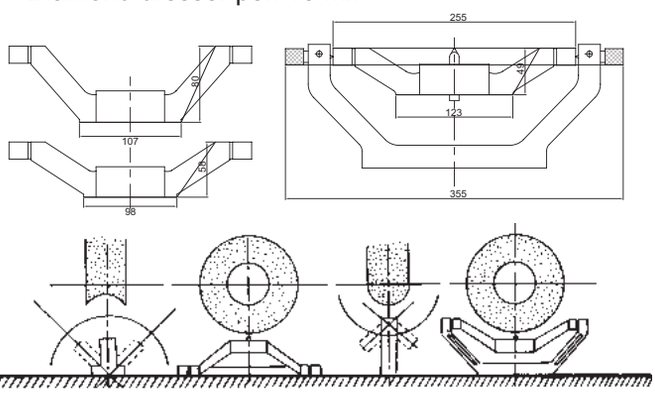
Small
凹 R:0-20
凸 R:0-5
Center:40.02 mm

Mid
凹 R:20-45
凸 R:5-20
Center:53.88 mm

Big
凹 R:45-90
凸 R: 20-40
Center: 71.95 mm



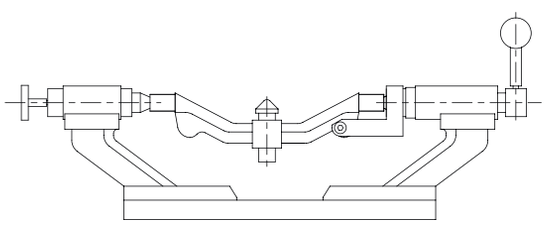
The dresser can be dressing any concave and convex of grinding wheel < Ø205 mm
Concave R: 0-40R (mm)
Convex R: 0-90R (mm)
Max. wheel DIA.: 8″(200 mm)
Diamond dresser pen 10 mm



Tangimatic Dresser Handy Type

ORDER NO.V-TDH CODE NO.2012-002

WEIGHT:4.5 kgs

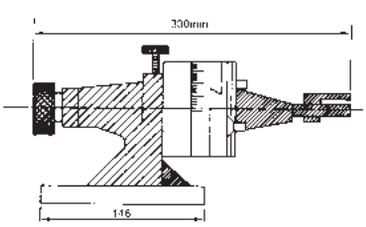


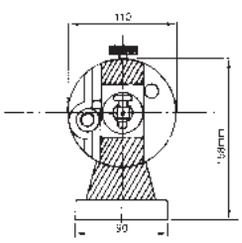
The dresser can be dressing any concave and convex of grinding wheel
Convex R: 0.2-20 (mm)
Concave R: 0.2-25 (mm)
For wheel <Ø205 mm

Radius And Angle Dresser

ORDER NO.V-TDB CODE NO.2012-010

WEIGHT:11.5 kgs





Convex dressing range: 0.8R-40R
Concave dressing range: 0-40R
Max. wheel dressing diameter: 250 mm
Max. wheel extending diameter: 375 mm

- Positive setting of the diamond to absolute center with the special gage included with the dresser.
- Simple, fast, accurate radius setting; no height gage or other set-up aids required. Radius is set on the grinder by measuring over the two pins or by inserting a gage block, as shown, for direct reading. Inside or outside radius is determined simply by sliding the dowel pin to the right for concave and to the left for convex.
- 4x90º gaduation in full 360º circle. 6 Minute vernier reading. Chrome plated.
- One push-pull type knob for radius and angle control and for safer and faster operations.
- ACCURACY. Exteremely close tolerances are held in the manufacture of this tool, assured by hardening and precision grinding of all critical parts. Ways are chrome hardened.
- ECONOMY. Set-up and dressing time reduced to a bare minimum due to simplicity.

Universal Wheel Dresser

ORDER NO.V-TDC CODE NO.2012-020

WEIGHT:7.8kgs

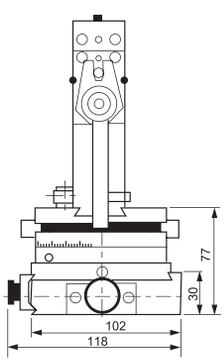
The wheel dresser that dresses two angles tangent to a radius in one continuous motion with .0001~0.0002mm accuracy.
The wheel dresser with a micrometer feed-0.98″(25mm) travel.

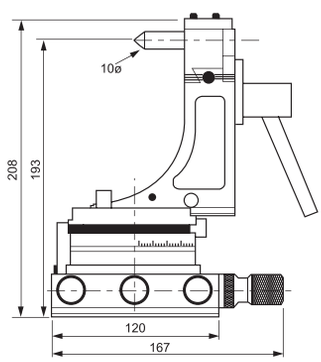
SIMPLE-ELIMINATES HEIGHLY SKILLED OPERATORS

Fluidmotion means YOU CAN dress two angles tangent to a radius in one continuous motion-with only one setting. The diamond automatically returns to center position after dressing angles. Thus even a beginner can dress complex froms quickly and accurately. (center height 195mm)

ELIMINATES ELABORATE SETUPS

No need to pre-set diamond, or use any other tool except a micrometer and a simple hex wrench.
No Gage block-Master Gage setting or Block-Parallel Bar-Surface Plate-Height Gage-Dial Indicator.
No movement of dovetails necssary to form angles. The angle is dressed by continuing to push handle in both directions after radius is formed.
No need to use Gibs & V-Ways other than positioning surfaces.

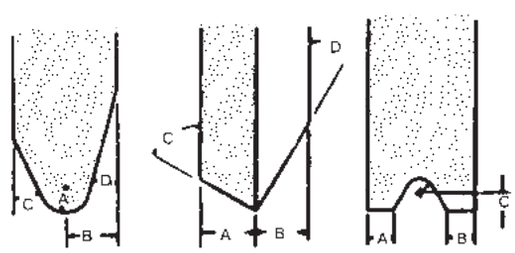




ACCURATE-RAPID, REPAT FORM-DRESSING

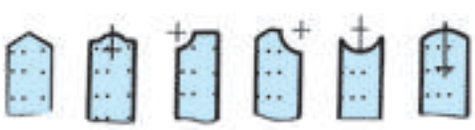
Fluidmotion generates clean, precise wheel profiles entirely free of chatter marks. Without fluidmotion a perfect blend of angles and radius is improbable.

PRECISE SHARP CONTOURS-concave or convex, at a full 180 degrees, are obtained consistently with (GUARANTEED) 0.001″ accuracy.



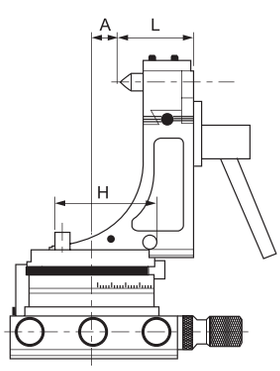
CONVEX RANGE-0R-76.2R
CONCAVE RANGE-0.8R-88.9R
ACCURATE...FLUIDMOTION...PRECISE...

HOLD INTERSECTING ANGLES 12 to 15 seconds. This is accomplished by operating upright and handle.
Setting up two angles requires 10 seconds. Setting two angles and radius requires less than 3 minutes.



THE MOST DURABLE DRESSER AVAILABLE

Manufactured from hardened, ground and lapped alloy steels.
No wearing surfaces. Swivels on sealed bearings.
This form tangent in one setting-two angles-two radius-one flat.
MAX. Swing distance of diamond cutter.....±14mm
Measuring guasi-pin dia.....ø10
MAX. Wheel dia.....ø200mm
Reading accuracy of turret index.....5′
Feed per division of handle scale.....0.01mm



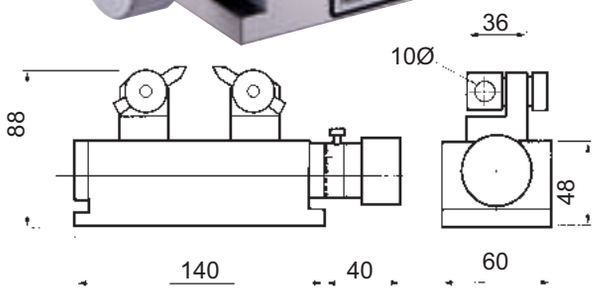
Calculation Methond

To dress convex arc surface: H=L + R
To dress concave arc surface: H=L +(-R)
H: Distance between outer generating lines of two locating pins.
R: Radius of the arc surface to be dressed
L: Distance from tip of diamond cutter to base plate

Precision Duplex Dresser

ORDER NO.V-TDF CODE NO.2012-030

WEIGHT:3.7 kgs

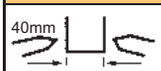


FEATURES

PRECISION DUPLEX DRESSER is designed to simultaneously dress both sides of a grinding wheel, precisely and without deformation.
It is useful for the thining of grinding wheels or the dressing of thin wheels. manufactured of tool steel and hardened through out to HRC 60 for life time use.

Specifications:

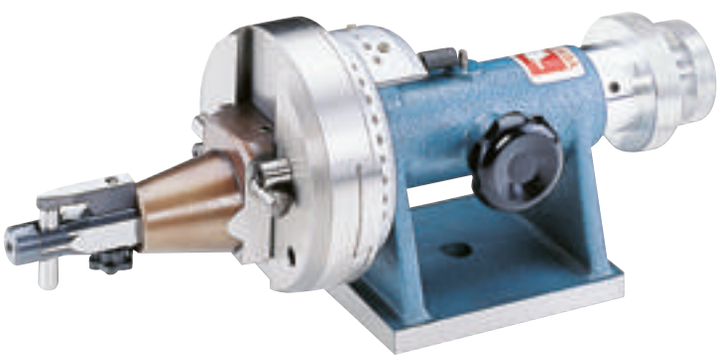
Max. width of wheel.....40 mm (1-9/16″)
Max. dressing depth.....40 mm (1-9/16″)
Mini dressing width.....0.2 mm (0.0079″)
Graduation.....0.02 mm (0.0001″)

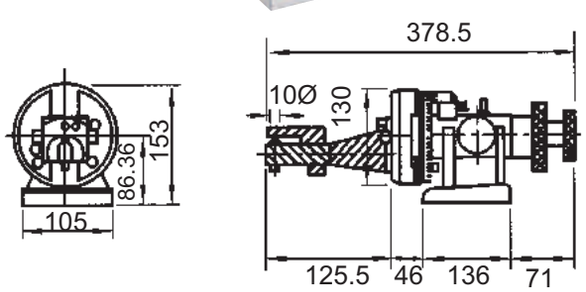
Max.thickness	Min.	Max.	Min
			0.02mm/div

Radius And Angle Dresser

ORDER NO.V-TDG CODE NO.2012-040

WEIGHT:12 kgs





FEATURES

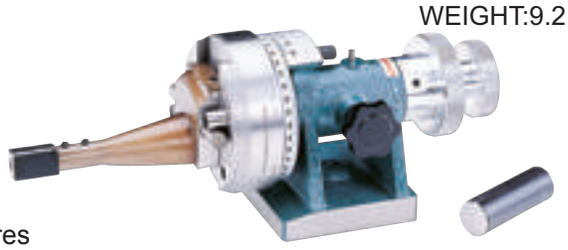
- 6 minute vernier reading.
- 5-1/2” long x 6-1/2” high.
- Dual purpose knob for drum & angle movement.
- Stop for concave and convex radius.
- Comes with setting gage for diamond tool.
- 凹 R CONCAVE = 150 mm
- 凸 CONVEX = 60 mm
- MAX. Wheel Dia = 279.4 mm
- Left & Right Stroke = 90 mm

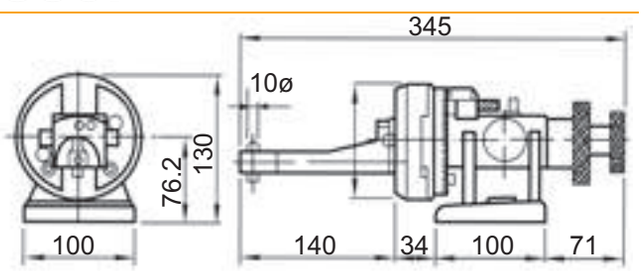
Specifications:
Max. wheel diameter, standard.....11″
Concave radius with standard diamonds.....0-2 1/4″
Concave radius with rta-tail diamonds.....0-2 1/4″
Convex radius.....0-4″
Tangent travel in either direction.....1.950″
Center line.....3.4″

Radius And Angle Dresser

ORDER NO.V-TDE CODE NO.2012-050

WEIGHT:9.2 kgs

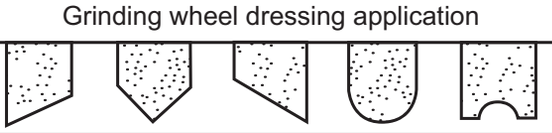




Features

- No height gauge or set-up aids required.
- Radius is set on the grinder by measuring over the two pins or by inserting a gauge block for direct reading.
- Concave radius or Convex radius is determined by using either the left or right hand pins.
- Radius = Set the DRESSER on surface grinder measuring by the 2 pins and / or inserting gauge block for direct reading.

Grinding wheel dressing application

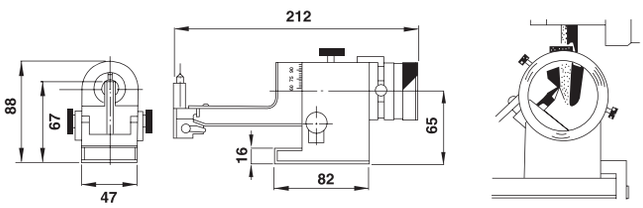


- 凹 R CONCAVE = 100 mm
- 凸 CONVEX = 45 mm
- Left & Right Stroke = 65 mm

Optical Radius Angle Dresser

ORDER NO.V-TDT CODE NO.2012-060

WEIGHT:4.3 kgs



Features

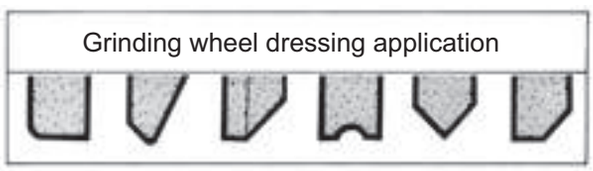
Universal Wheel Dresser is Adoptable on Surface grinder and universal tool grinder for dressing grinding wheel into various cross sections of flat or curved shapes.

By “SIGHTING” the diamond point through the lens, radius and angles can easily be made perfectly tangent Visu ally Even with diamonds. Likewise radius can be blended together with most unbelievable accuracy.

Specification

Center height.....65 mm
Max. wheel diameter.....200 mm
Max. convex radius.....10 mm
Max. concave radius.....25.4 mm
Dressing angle.....95º-0º-95º
Tangential travel.....Appo x 22.5 mm

Grinding wheel dressing application



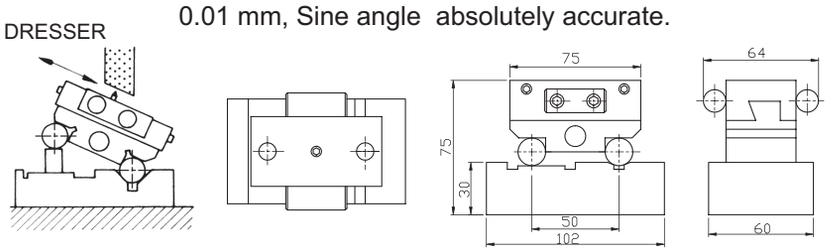
WHEEL DRESSER

Matco Sine Dresser

ORDER NO.VP-50 CODE NO.2012-070

WEIGHT:2.5 kgs

- This fine precision-made unit dresses grinding wheels to any angle from 0º-60º degrees with new smoothness and accuracy.
- The cross feed up to 50mm, center distance 0.01 mm, Sine angle absolutely accurate.



SPECIFICATION

BLOCK CENTER DISTANCE	CENTER TOLERANCE	MAX CROSS FEED
50	±0.01	50

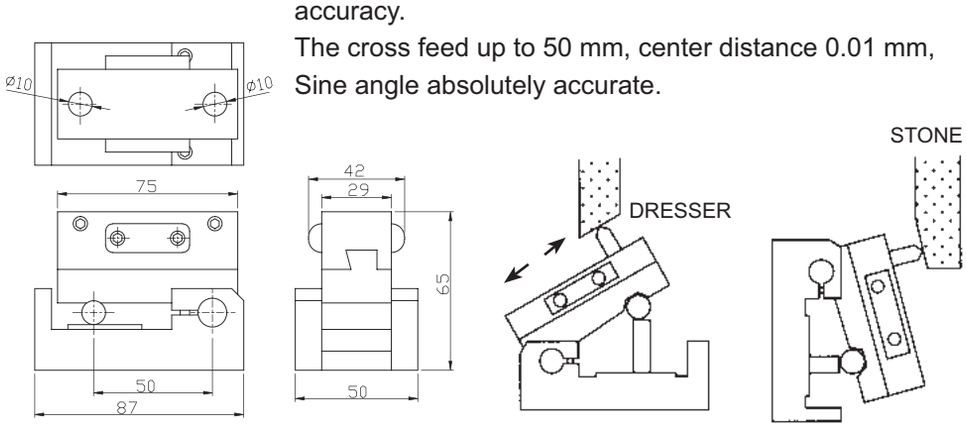
Matco Sine Dresser

ORDER NO.V-50D CODE NO.2012-080

WEIGHT:1.6 kgs

This fine precision-made unit dresses grinding wheels to any angle from 0º-60º degrees with new smoothness and accuracy.

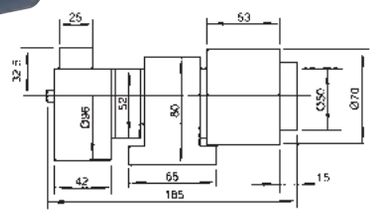
The cross feed up to 50 mm, center distance 0.01 mm, Sine angle absolutely accurate.



Diamond Wheel Dresser

ORDER NO.V-TDD **CODE NO.2012-090**

WEIGHT:4.6 kgs

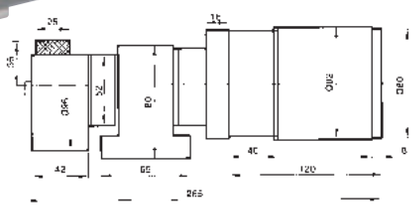


This device is suitablly used for Diamond Grinding wheel.
The surface is treated with blaze-dried lacquer.
Axis part is fixed with shaft bearing and can be rotated in high speed & with great precision.

- Sand wheel size: Ø75 x 26 x 12.7 ØWA80

※ No motor

Motor Type CBN Flat Wheel Dresser



Unit: mm

ORDER NO.	VOLTAGE	RPM	WEIGHT (kgs)	CODE NO.
V-TDM-1	110V	129	6.5	2012-100
V-TDM-2	220V	108	7.1	2012-101

5.5KGS, SINGLE PHASE 0.07HP

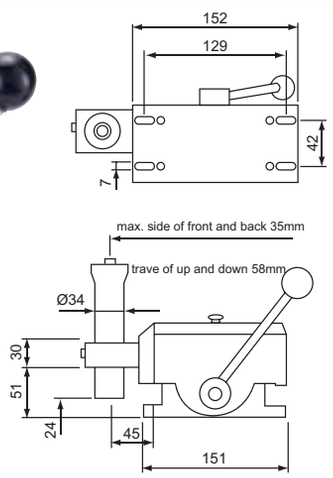
SAND WHEEL SIZE: Ø75 x 25 x 12.7 ØWA80

Parallel Wheel Dresser

ORDER NO.V-TDP

CODE NO.2012-106

WEIGHT:7.7kgs



- Smallest feed scale : 0.01 mm
- Slide movement 35 mm
- Axial movement 58 mm
- For dress / fix the flat shape grinding wheel.
- Heat hardened, HRC 58°
- Smooth movement

Accessory :

- Diamond pen : Ø10 x 35ℓ x 1
- Hex. spanner 5 mm x 1

Wheel Hanger

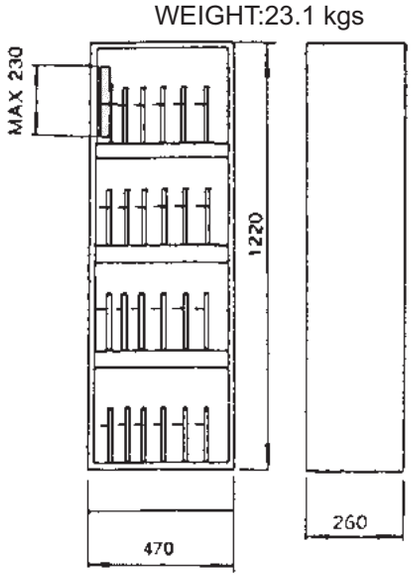
ORDER NO.VWH-24, VWH-32

CODE NO.2013-001, 2013-002

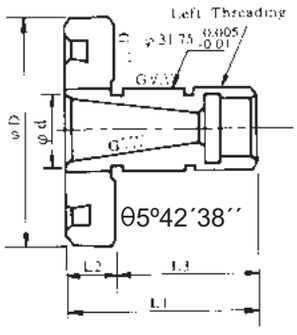
WEIGHT:23.1 kgs

VWH-24
(24 pcs)

VWH-32 (32 pcs)
653W x 600D x 1460H mm
(excl. wheel height)



Grinding Wheel Flange



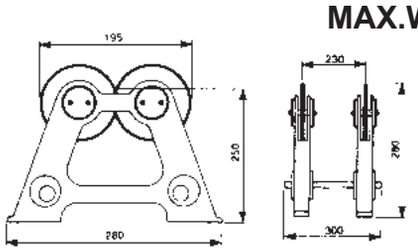
Unit: mm

ORDER NO.	ØD	Ød	L1	L2	L3	Brand Mark	WEIGHT (kg)	CODE NO.
FKT-250	78	25.7+0 -0.05	40	13	27	KENT PROTH	0.8	2013-010
FTA-350	75	25.4+0 -0.05	40	13	34	TA TUNG	1	2013-011

Wheel Balancing Stand

ORDER NO.WBS-300 CODE NO.2014-001

WEIGHT:12.5 kgs



MAX.WHEEL DIAMETER ALLOWED Ø 500mm

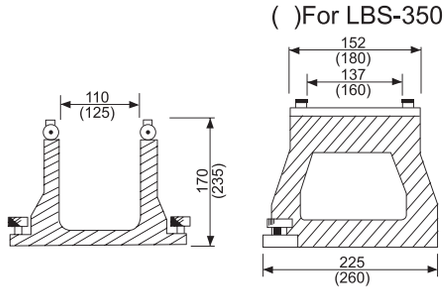
The stand is specifically designed to improve accuracy and longer life for grinding. It is finished with cast iron and fine through hardened to HRC 55º.

Level Balancing Stand

ORDER NO.LBS-100
CODE NO.2014-010
WEIGHT:8.8 kgs

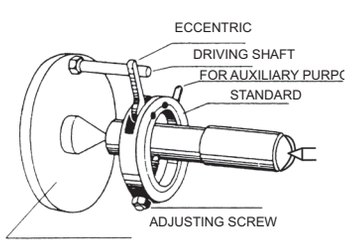
ORDER NO.LBS-350
CODE NO.2014-011
WEIGHT:15.1 kgs

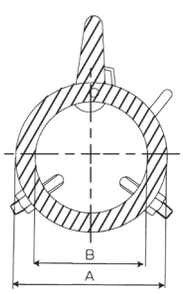
( )For LBS-350



This machine encloses minute leveling instrument.
The adjustment of horizontal enable rapidly and accurately.
MAX.WHEEL DIAMETER ALLOWED Ø200 mm, Ø350 mm

Driving Carrier





ORDER NO	CAPACITY	A	B	WEIGHT (kg)	CODE NO.
VDC-13	Ø6~Ø14	36	18	0.1	2014-020
VDC-22	Ø13~Ø24	48	28	0.2	2014-021
VDC-30	Ø20~Ø33	58	38	0.2	2014-022
VDC-40	Ø31~Ø42	68	48	0.2	2014-023
VDC-50	Ø36~Ø50	78	58	0.3	2014-024
VDC-60	Ø40~Ø62	89	68	0.3	2014-025
VDC-80	Ø60~Ø80	119	88	0.6	2014-026
VDC-100	Ø80~Ø100	140	109	0.7	2014-027

FEATURES:

- SUITABLE FOR GRINDING OF SHAFTS.
- EASY ATTACH AND DETACH BY ONE HAND.

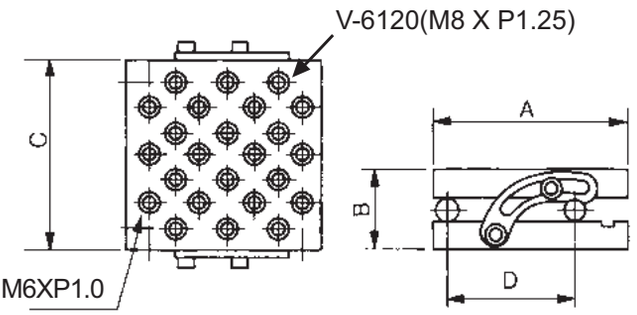
Sine Plates

Design by the principles of SINE, angle grinding can be done well. High precision of parallelism within 0.002 mm and squareness within 0.005 mm. Setup and dressing time reduced to a bare minimum due to simplicity.(ANGLE 0º - 46º)

- Made of quality steel, hardened to HRC 55º - 56º
- Two hardened and ground side rails and one.
- Locking strap included.

GAUGE BLOCK
page B76

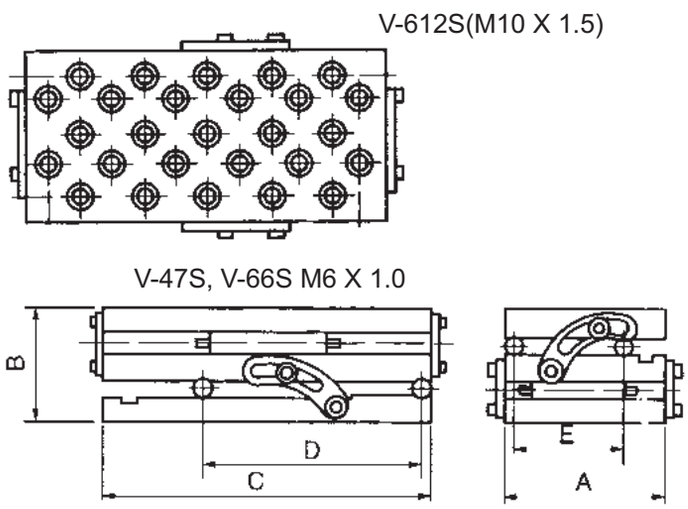
EXAMPLE



ORDER NO.	A	B	C	D	N.W (kgs)	CODE NO.
V-47	98	66	177	75	8.4	2015-001
V-66	150	62	150	100	9.4	2015-002
V-6120	147	65	300	100	19.8	2015-003

Compound Sine Plate

Made of quality steel, hardened to HRC 55º-62º,angles 0º~60º capacity.
Minute angle step 0.2 built into the front gauge block roll eliminates steps in base plate.
Two end rails and one locking strap included
Tapped holes on the top.
Center distance of tools with 0.005 mm(0.0001″)
V-612S within 0.008 mm(0.0003″)

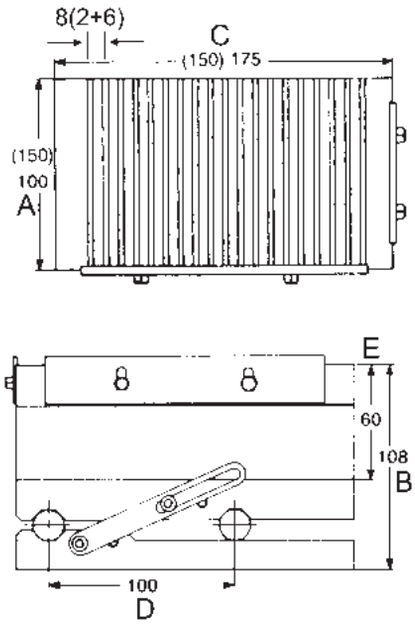


ORDER NO.	A	B	C	D	E	N.W (kgs)	CODE NO.
V-47S	100	100	175	125	75	9.9	2015-010
V-66S	150	100	150	100	100	12.4	2015-011
V-612S	150	100	300	100	100	23.7	2015-012

Magnetic Sine Plate

650 GAUSS

MAGNETIC SINE PLATES with a permanent magnetic, never lose its strong power by press down a screw based on the plate and regain the original after work.



ORDER NO.	A	B	C	D	E	ANGLE	N.W (kgs)	CODE NO.
V-47M	100	108	175	75	60	0˚~45˚	11.3	2015-020
V-66M	150	108	150	100	60	0˚~45˚	15.6	2015-021
V-612M	150	108	300	100	60	0˚~45˚	27	2015-022

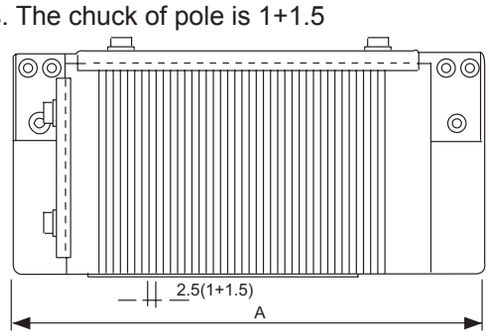
Magnetic Sine Plate With Fine Pole

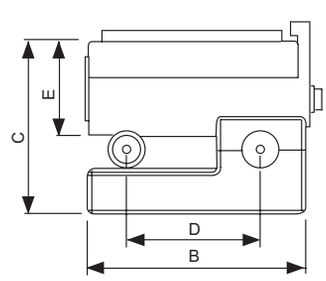
700 GAUSS

Permanent magnetic chuck. Removable handle for positive on/off control, side rails, end rails all included. All have 200 minute angle steps with 0.005 mm(0.0002″) tolerance in squareness,parallelism and roll center distances. The chuck of pole is 1+1.5

GAUGE BLOCK
page B76

SET UP EXAMPLE





ORDER NO.	A	B	C	D	E	P	ANGLE	N.W (kgs)	CODE NO.
V-47MF	225	102	87	75	47	2.5 (1+1.5)	0˚~46˚	13.1	2015-030
V-66MF	200	152	87	100	47			16.5	2015-031
V-612MF	366	152	87	100	47			30.3	2015-032

Adjustable Sine Plate With Fine Pole Magnetic Chuck

700 GAUSS

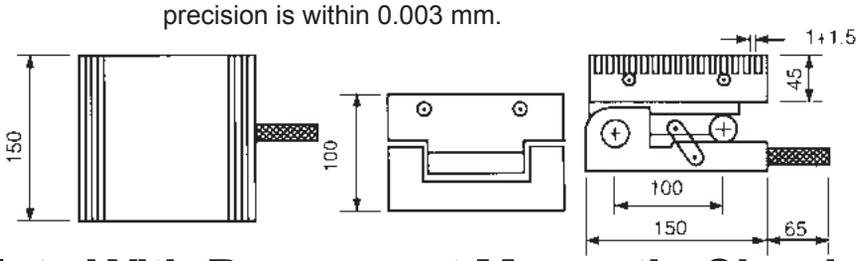
ORDER NO.V-66SA CODE NO.2015-050

WEIGHT:17.9 kgs

GAUGE BLOCK page B76

EXAMPLE

The sine plate with magnetic chuck is with high accuracy and stability. From 0º to 60º can be used for angle, the precision is within 0.003 mm.



Double Way Sine Plate With Permanent Magnetic Chuck

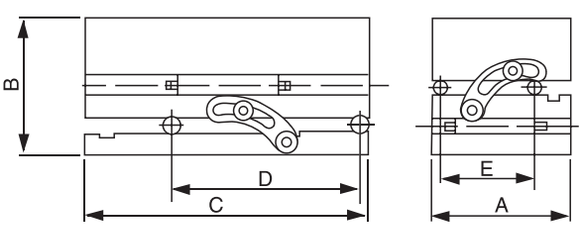
690 GAUSS

FEATURES:

- Double way sine plate, can be use to grind two way angle at same time.
- Constructed of hardened alloy tool steel.
- Precise angle setting is obtained with gauge block.
- This device provides positive locking at any angle without distortion.
- A positive locking device is mounted on the base.

Unit:mm

ORDER NO.	A	B	C	D	E	P	ANGLE	N.W (kgs)	CODE NO.
V-47MS	100	142	175	100	75	1+3	0˚~60˚	15.2	2015-060
V-66MS	150	142	150	100	100			18.1	2015-061
V-612MS	150	142	300	200	100			34.7	2015-062



Double Way Sine Plate With Fine Pole Magnetic Chuck

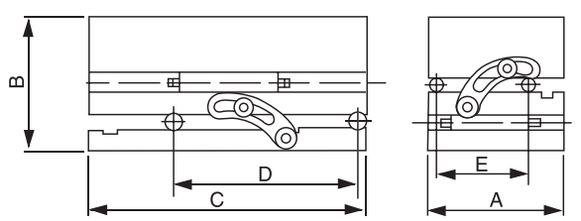
700 GAUSS

FEATURES:

- Double way sine plate, can be grind two way angle at same time.
- Special feature with micropitch magnetic chuck, can fix tiny parts firmly on the chuck.
- Constructed of hardened alloy tool steel.
- Precise angle setting is obtained with gauge block.
- This device provides positive locking at any angle without distortion.
- A positive locking device is mounted on the base.

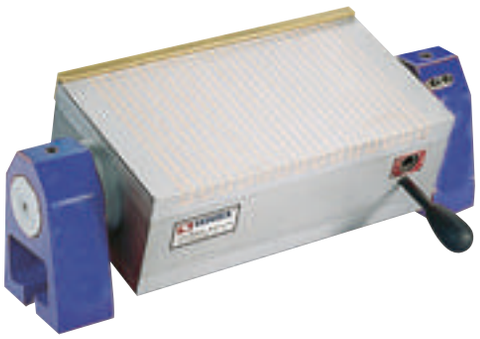
Unit:mm

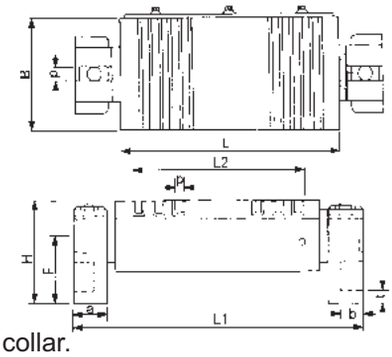
ORDER NO.	A	B	C	D	E	P	ANGLE	N.W (kgs)	CODE NO.
V-47MSF	100	122	175	100	75	2.5 (1+1.5)	0˚~60˚	14.9	2015-070
V-66MSF	150	122	150	100	100			19.8	2015-071
V-612MSF	150	122	300	200	100			35	2015-072



Rotary Permanent Magnetic Plate

650 GAUSS





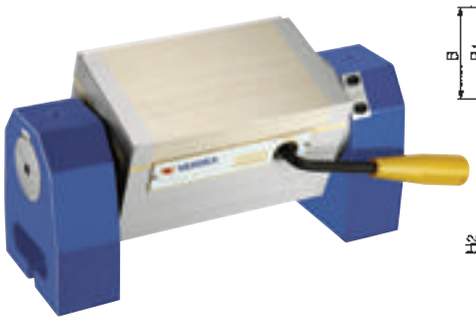
- Can grind the (0º-90º) angle work-piece, could be easily set by graduated collar.

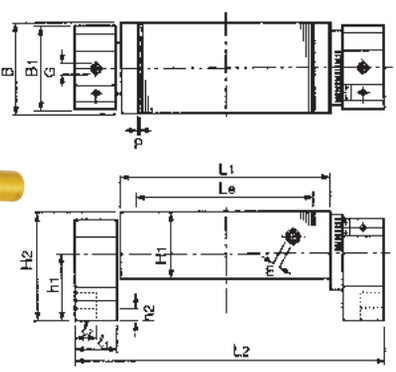
Unit:mm

ORDER NO.	SIZE	OPERATION PLANE			POLE PITCH	ROTARY SEAT PLANE						HEIGHT	WEIGHT	CODE NO.
		B	L	L2	P	a	b	t	F	L1	d	H	KGS	
VLU-510B	125x250	125	250	191	8(2+6)	50	35	17	96	380	16	150	33.2	2015-080
VLU-612B	150x300	150	300	245						430			44.5	2015-081
VLU-618B	150x450	150	450	414			27	15	90	565	-	145	43	2015-082

Rotary Fine Pole Permanent Magnetic Plate

550 GAUSS





APPLICATION

Suitable for (0º-90º) angle grinding on ginder.

FEATURES

- Rotary shaft with graduation makes it easy to grind at any angle.
- Integrated molding of machine body and rotary spindle.
- Unchanged surface accuracy during ON/OFF change over.
- Design for distance between both magnets enables machining of various unconfirm in thickness & sizes.

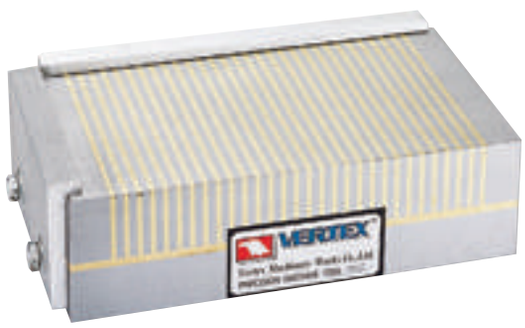
Unit:mm

ORDER NO.	Nominal Dimension	Chuck Dimension				POLE PITCH	Length	Rotary Base						HEIGHT	WEIGHT (kgs)	CODE NO.
		B	L1	L2	H1	P	L2	B	ℓ1	ℓ2	G	h1	h2	H2		
VLU-407BF	100X175	100	175	125	78	2.5 (1+1.5)	293	100	50	25	16	103	50	145	19	2015-090
VLU-510BF	125X250	125	250	200			368								27	2015-091
VLU-612BF	150X300	150	300	246			418								31	2015-092
VLU-614BF	150X350		350	296			468								37	2015-093
VLU-618BF	150X450		450	396			568								43	2015-094

Hi-Power Mini Type Permanent Magnetic Plate

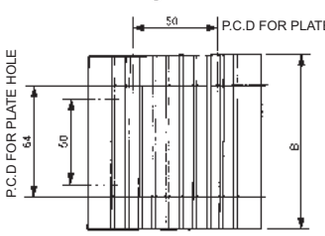
2200 Gauss

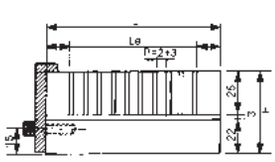
FOR CARBIDE MATERIAL ONLY
CAN NOT FOR ALL STEEL



APPLICATION

This chuck is designed for objects with weaker magnetic force.This chuck can be placed in the plate of large permanent magnetic chuck or electro-magnetic chuck for attraction or attachment.





NO ON/OFF SWITCH

Unit:mm

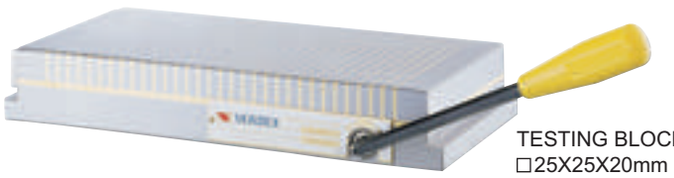
ORDER NO.	DIMENSION	CHUCKING SIZE			POLE PITCH	HEIGHT	TESTING BLOCK	WEIGHT (kgs)	CODE NO.
		B	L	Le	P	H			
VG-404H	100X100	100	100	72	5(2+3)	50	☐ 50x25t TEST BLOCK(TUNGSTEN) 210N(21kgf)	4	2015-100
VG-407H	100X180	100	180	152	5(2+3)	50		7	2015-101
VG-410H	100X250	100	250	222	5(2+3)	50		10	2015-102

Angular Permanent Magnetic Plate

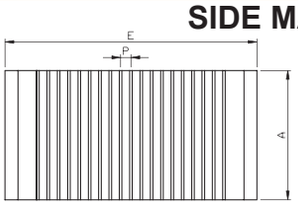
650 GAUSS

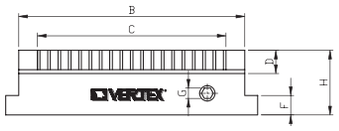
SIDE MAGNETIC FORCE 18KGF

PLATE CENTER 26 KGF



TESTING BLOCK
□25X25X20mm
BLOCK (TUNGSTEN)





(2+6)
Suit for work piece thickness≥3mm length≥25mm
Mag. force : 650 GS

Good for workpiece bigger in lenght & width

- Permanent magnetic for ce.
- Well operation, specially treated, nondeformation and high precision.

Unit:mm

ORDER NO.	SIZE	CHUCKING SIZE				POLE PITCH	CHUCK MOUNTING FACE			SWITCH TYPE	HEIGHT H	WEIGHT KGS	CODE NO.
		A	B	C	D	P	G	E	F				
VG-407	100x175	100	175	146				187				7.2	2015-110
VG-510	125x250	125	250	206				262				15	2015-111
VG-612	150x300		300	256				318				18.5	2015-112
VG-614	150x350	150	350	306				368				20.9	2015-113
VG-618	150x450		450	406				468				27.5	2015-114
VG-816	200x400		400	365	20	8(2+6)	8	418	15	LIVING HEXAGON SOCKET SCREW KEYS	50	32	2015-115
VG-818	200x450	200	450	406				468				36.3	2015-116
VG-820	200x500		500	456				518				40.4	2015-117
VG-824	200x600		600	556				620				48	2015-118
VG-1020	250x500	250	500	456				518				50.3	2015-119
VG-606	150x150	150	150	116				162				9	2015-121
VG-1224	300x600	300	600	550	18			620			48	73.5	2015-122

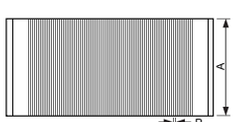
Middle Pitch Permanent Magnetic Chuck

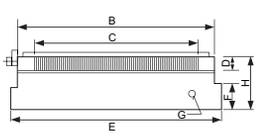
600 GAUSS

SIDE MAGNETIC FORCE 19KGF

PLATE CENTER 28 KGF

TESTING BLOCK
□25X25X20mm
BLOCK (TUNGSTEN)





(2+6)
Suit for work piece thickness≥3mm length≥25mm
Mag. force : 600 GS

Good for workpiece bigger in lenght & width

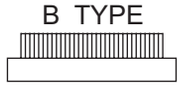
APPLICATION

New type of think chuck, in 50mm thickness, for grinding and electrodischarging works, for thin plate or small works, in wide range of applications, it features a wide effective magnetic area on the chucking face.

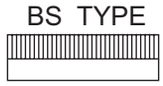
FEATURES

- Thin and light to meet versatile applications.
- Fine-pitched magnetic poles, on this model,make it ideally suitable for small and thin works.
- Hexagonal wrench key is used for the magnetic ON/OFF change over handle it is inserted through the side easily removed and operates quite lightly.
- The chuck surface has a wider effective mgnetic area than other chucks of similar type.

B TYPE



BS TYPE



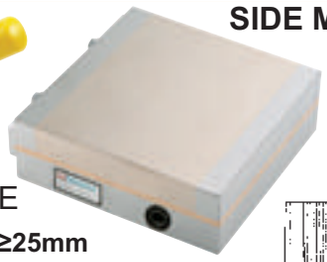
Unit:mm

ORDER NO.	DIMENSION	CHUCKING SIZE				POLE PITCH	CHUCK MOUNTING FACE			HEIGHT	HEXAGONAL HANDLE HOLE	WEIGHT KGS	CODE NO.
		A	B	C	D	P	A	E	F	H	G	N.W.	
VGF-1018B	100X175	100	175	146	18	5(1+4)	100	195	15	50	8	7.7	2015-160
VGF-1515B	150X150	150	150	116	18	5(1+4)	150	175	15	50	8	10	2015-161
VGF-1530B	150X300	150	300	256	18	5(1+4)	150	320	15	50	8	18.8	2015-162
VGF-1535B	150X350	150	350	306	18	5(1+4)	150	370	15	50	8	21.6	2015-163
VGF-1540B	150X400	150	400	356	18	5(1+4)	150	420	15	50	8	25	2015-164A
VGF-1545B	150X450	150	450	406	18	5(1+4)	150	470	15	50	8	27.4	2015-164
VGF-2040B	200X400	200	400	356	18	5(1+4)	200	420	15	50	8	32.3	2015-165
VGF-2045B	200X450	200	450	406	18	5(1+4)	200	470	15	50	8	36.3	2015-166
VGF-1018BS	100X175	100	175	146	18	5(1+4)	100	175	15	50	8	8	2015-167
VGF-1515BS	150X150	150	150	121	18	5(1+4)	150	150	15	50	8	9	2015-168
VGF-1530BS	150X300	150	300	256	18	5(1+4)	150	300	15	50	8	20	2015-169

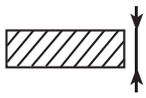
Fine Pole Magnetic Plate

SIDE MAGNETIC FORCE 21KGF
PLATE CENTER 30 KGF
550 GAUSS

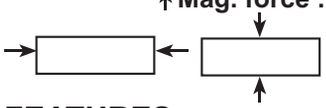
A TYPE



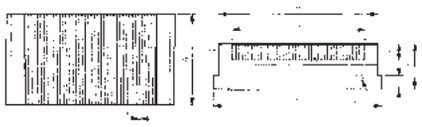
S TYPE



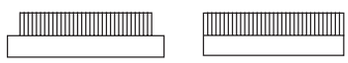
(1+1.5)
Suit for work piece thickness≤2mm, length≥25mm
Mag. force : 550 GS.



Good for workpiece smaller in lenght & width



A TYPE S TYPE



TESTING BLOCK
□25X25X20mm
BLOCK (TUNGSTEN)

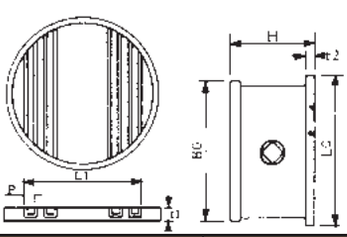
FEATURES

Thin and light weight to meet versatile applications.
Fine-pitched magnetic poles on this micropitch model. Make it ideally suitable for small and thin works.
Hexagonal wrench key is used for the magnetic ON/OFF change over handle.It is inserted through the side, easily removed and operates lightly.
The chuck surface has a wider effective magnetic area than other chuck of similar type.

Unit:mm

ORDER NO.	SIZE	CHUCKING SIZE				POLE PITCH	CHUCK MOUNTING FACE			HEIGHT	WEIGHT KGS	CODE NO.
		A	B	C	D	P	A	E	F	H		
VRTW-1018A	100X175	100	175	146	18	2.5 (1+1.5)	100	195	15	50	7.7	2015-130
VRTW-1515A	150X150	150	150	116			150	170	15		9.8	2015-131
VRTW-1530A	150X300	150	300	256			150	320	15		18.7	2015-132
VRTW-1535A	150X350	150	350	306			150	370	15		21.4	2015-133
VRTW-1540A	150x400	150	400	356			150	420	15		23.7	2015-134
VRTW-1545A	150X450	150	450	406			150	470	15		27.4	2015-135
VRTW-2040A	200X400	200	400	356			200	420	15		32.5	2015-137
VRTW-2045A	200X450	200	450	406			200	470	15		36.4	2015-138
VRTW-1224A	300X600	306	600	556			300	620	15		73	2015-138A
VRTW-1018S	100X175	100	175	146			100	175	-		8	2015-139
VRTW-1515S	150X150	150	150	121			150	150	-		9	2015-140
VRTW-1530S	150X300	150	300	256			150	300	-		20	2015-141
VRTW-1325S	125X250	125	250	206	20		125	250	15		13.1	2015-142

Round Type Magnetic Plate



ORDER NO.VGD TYPE
Magnetic field intensity:
Higher than 450 gauss

APPLICATION

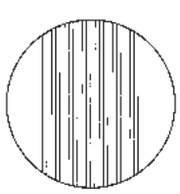
Suitable for light cutting and grinding on lathe, grinder, EDM and the Rotary Table.

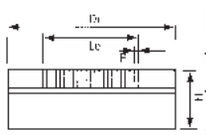
Unit:mm

ORDER NO.	FACE PLATE			BOTTOM PLATE		POLE PITCH	HEIGHT	WEIGHT	CODE NO.
	B0	t1	L1	t2	L0	P	H	KGS	
VGD-06	150	21	101	18	200	9 (2+7)	78	9.8	2015-150
VGD-08	200		137		200			12.8	2015-151
VGD-10	250		191		250			20.2	2015-152
VGD-12	300		227		305			30.4	2015-153

Fine Pole Round Type Magnetic Plate

PLATE SIDE 21KGF
PLATE CENTER 30 KGF





550 GAUSS

APPLICATION

New type of thin chuck, in 50mm thickness, for grinding and electrod-discharging works, for thin plate or small works, in wide range of applications, it features a wide effective magnetic area on the face plate (chucking face).

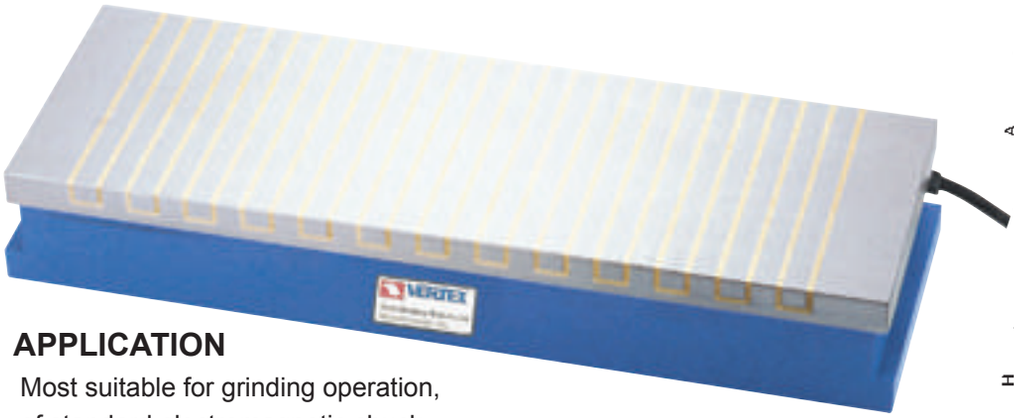
Unit:mm

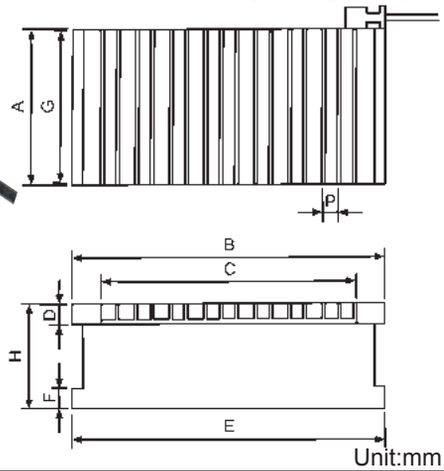
ORDER NO.	DIAMETER	TOP PLATE		POLE PITCH	HEIGHT	WEIGHT	CODE NO.
		D1	Le	P	H	KGS	
VGDW-6	160mm	160	115	2.5 (1+1.5)	50	8	2015-154
VDGW-8	200mm	200	155	2.5 (1+1.5)	50	13	2015-155
VGDW-10	250mm	250	205	2.5 (1+1.5)	50	21	2015-156
VGDW-12	300mm	300	255	2.5 (1+1.5)	50	33.5	2015-157

Standard Pole Electro Magnetic Chuck

VERTEX

450 GAUSS





APPLICATION

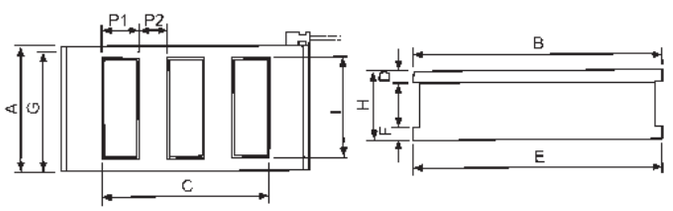
Most suitable for grinding operation, of standard electromagnetic chuck.

Unit:mm

ORDER NO.	DIMENSION	CHUCKING SIZE				POLE PITCH	CHUCK MOUNTING FACE				VOLTAGE	CURRENT	WEIGHT (kg)	CODE NO.
		A	B	C	D	P	G	E	F	H				
VEM-1530A	150x300	150	300	228	20	15(3+12)	144	316	20	70	DC-90V	0.15A	21	2015-221
VEM-1535A	150x350	150	350	288	20	15(3+12)	144	366	20	70	DC-90V	0.18A	25	2015-222
VEM-1545A	150x450	150	450	378	20	15(3+12)	144	466	20	70	DC-90V	0.24A	32	2015-223
VEM-2040A	200x400	200	400	348	20	15(3+12)	194	416	20	70	DC-90V	0.47A	38	2015-224
VEM-2045A	200x450	200	450	378	20	15(3+12)	194	466	20	70	DC-90V	0.35A	43	2015-225
VEM-2550A	250x500	250	500	438	20	15(3+12)	240	500	20	70	DC-90V	0.73A	67	2015-226
VEM-3060A	300x600	300	600	529	20	15(3+12)	290	600	20	70	DC-90V	0.97A	97	2015-227
VEM-4080A	400x800	400	800	725	25	19(3+16)	390	800	20	80	DC-90V	1.56A	182	2015-228
VEM-40100A	400x1000	400	1000	936	25	19(3+16)	390	1000	20	80	DC-90V	1.60A	228	2015-229
VEM-50100A	500x1000	500	1000	936	25	19(3+16)	490	1000	20	80	DC-90V	1.72A	285	2015-230

Super-Powerful Electric Magnetic Chuck

MILLING M / C TYPE
1200 GAUSS



APPLICATION

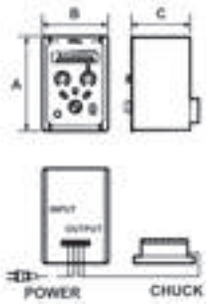
Most efficient for heavy cutting with milling machine, shaper, planer and planomiller. It displays the power for the thick work and the high speed cutting operation.

Unit:mm

ORDER NO.	DIMENSION	CHUCKING SIZE					POLE PITCH		CHUCK MOUNTING FACE				VOLTAGE	CURRENT	WEIGHT N.W. (kg)	CODE NO.
		A	B	C	D	I	P1	P2	G	E	F	H				
VEM-2040Z	200x400	200	400	332	20	160	40	35	194	400	20	110	DC-90V	0.71	54	2015-251
VEM-2050Z	200x500	200	500	422	20	160	48	34	194	500	20	110	DC-90V	0.91	75	2015-252
VEM-2060Z	200x600	200	600	520	20	160	48	30	194	600	20	110	DC-90V	1.00	80	2015-253
VEM-2550Z	250x500	250	500	422	20	200	42	34	240	500	20	120	DC-90V	1.16	90	2015-254
VEM-3060Z	300x600	300	600	520	20	240	48	30	290	600	20	120	DC-90V	1.63	130	2015-255
VEM-4080Z	400x800	400	800	718	25	340	48	30	390	800	20	120	DC-90V	2.53	230	2015-256
VEM-40100Z	400x1000	400	1000	917	25	340	45	35	390	1000	20	120	DC-90V	2.96	288	2015-257
VEM-50100Z	500x1000	500	1000	917	25	430	45	35	490	1000	20	120	DC-90V	3.96	360	2015-258
VEM-60100Z	600x1000	600	1000	917	25	530	45	35	590	1000	20	120	DC-90V	5.30	432	2015-259

MAGNETIC CHUCK CURRENT ADJUSTER (For Rectify & Demagnetize)

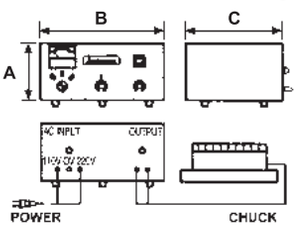
ORDER NO.VCC-705(5A)
For VGI-618~2048 / VLZ-510~612 / VIW-612~1224 / VEM-1530A~50100A



FEATURES

- Suitable for standard type of electric magnetic chucks.
- With current capacity of 5A; demagnetizing time is 6-15 seconds.
- Precisely adjust the magnetic force of electric magnetic chucks and indicate LED voltage.
- Suitable for any kind of electric magnetic chucks.

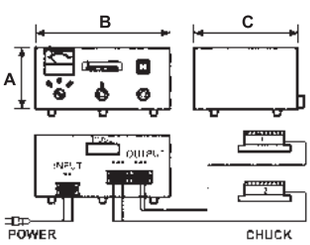
ORDER NO. VCC-805A (10A) FOR VGI-2060 / VEA-816~1640 / VEM-2040Z~40100Z
VCC-815 (15A) FOR VEA-2040~VEA2460 / VLZ-2060 / VEM-50100A / VEM-50100Z



FEATURES

- Suitable for standard type of electric magnetic chucks.
- With current capacity of 10A and 15A; demagnetizing time is 6-15 seconds.
- Precisely adjust the magnetic force of electric magnetic chucks and indicate LED voltage and current.
- Suitable for any kind of electric magnetic chucks.

ORDER NO. VCC-820 (20A) FOR VEA-2460~ / VEM-60100Z



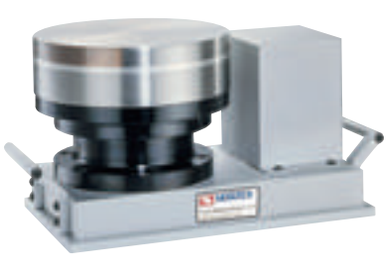
FEATURES

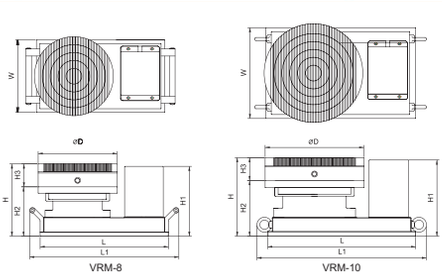
- Suitable for super powerful type of big electric magnetic chucks and could control 2 chucks at the same time.
- With current capacity of 20A; demagetizing time is 8-15 seconds.
- Precisely adjust the magnetic force of electric magnetic chucks and indicate LED voltage and current.
- Built-in fan for radiating heat.
- Suitable for any kind of electric magnetic chucks.

Unit:mm

ORDER NO.	INPUT VOLTAGE (SINGLE PHASE)	OUTPUT		DIMENSION			NET WEIGHT (KGS)	CODE NO.
		VOLTAGE	CURRENT	A	B	C		
VCC-705	AC 110V/220V	DC 0-100V	5A	200	137	122	3.5	2015-380
VCC-805A	AC 110/220/380/415/440V	DC 0-100V	10A	150	330	260	18	2015-381
VCC-815	AC 220/380/415/440V	DC 0-120V	15A	150	330	260	20	2015-382
VCC-820	AC 220/380/415/440V	DC 0-120V	20A	180	385	295	32	2015-383

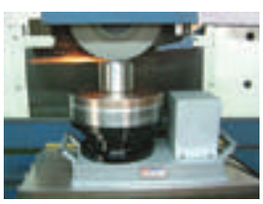
Variable Speed Rotary Magnetic Chuck





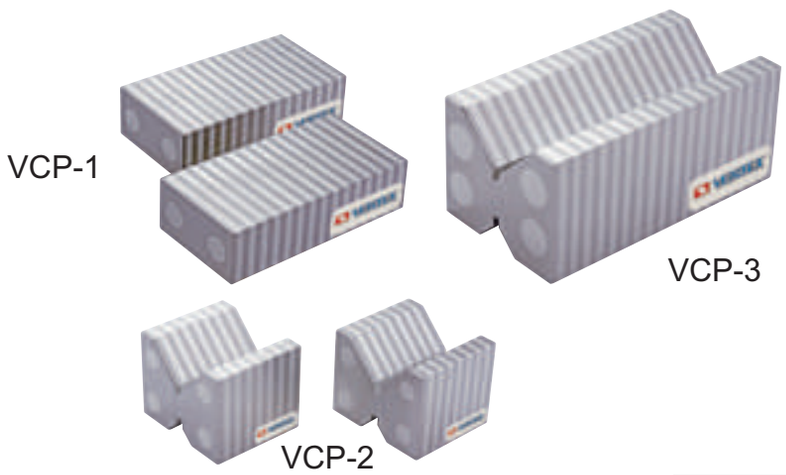
FEATURES

- This rotary magnetic chuck with the motor. The rotary speed can adjustable.
- It's easy and simple for set up on the surface grinding machine. It's for rotary grinding.
- The precision is within 0.002 mm. High precision, High efficent.
- It provides well prevention for dust, coolant, and lubricants. Spindle end be applied accuracy bearing, can be assured to keep very steady under load grinding.



ORDER NO.	L	L1	W	H	H1	H2	H3	ØD	VOLT	G.W.	CODE NO.
VRM-8	325	370	176	180	177	122	58	200	220V	60kg	8001-047
VRM-10	376	422	218	190	183	132	58	250	220V	80kg	8001-048

Magnetic Transisting Block



VCP-1 Chuck Parallels
100x50x25 mm
$3^{15}/_{16}$″x2″x1″ Matched pair.
VCP-2 Chuck Blocks
49.5x58x45.5 mm
$1^{31}/_{32}$″x$2^{5}/_{16}$″x$1^{13}/_{16}$″ Matched pair.
VCP-3 Chuck Block
109x58x46 mm
$4^{3}/_{8}$″x$2^{3}/_{8}$″x$1^{7}/_{8}$″single
VCP-4 Chuck Block
Each one of VCP-1 & VCP-2

- The V-Blocks and Parallels transfer the magnetism from permanent magnetic chucks.
  The steel used in all V-Blocks and Parallels is selected for the hightest magnetic transfer and is cast integrally with aluminum.

ORDER NO.	WEIGHT KGS	CODE NO.
VCP-1	1.3	2015-401
VCP-2	1.2	2015-402
VCP-3	1.4	2015-403
VCP-4	2.5	2015-404

Magnetic Transisting Block Set

ORDER NO.VCP-6 CODE NO.2015-410

WEIGHT:4.2 kgs

Non-magnetic laminated plates and blocks are extras to increase the versatility of chucks. These plates and blocks offer excellent guidance of the magnetic force, and can be used in combination with chucks as ‘extensions’ for the clamping of workpieces of complex shapes.

BOXED SET

Comprises a selected set of 4 pairs of blocks

NO. of Blocks	STYLE	LxHxWxPCS	USED MODEL
1Pair		60x35x15x2	VCP-0
2Pair		100x50x25x2	VCP-1
1Pair		49.5x58x45.5	VCP-2

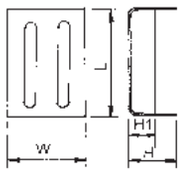
Magnetic Adjustable Link

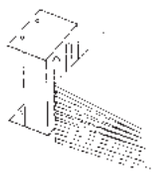
ORDER NO.VCP-5 CODE NO.2015-420

WEIGHT:0.8 kg

- Each block 2″x1″x1″.Length overall: $4^{1}/_{8}$″. width over all $2^{1}/_{8}$″.
- For Holding and welding.
- Magnetic blocks can be set at any angle by adjustment and locking of the wing nut. When used in multiples, a number of sheets can be held in complicated arrangement.
- Compact in size for holding work in confined spaces.

Magnetic Steel Sheet Separator





APPLICATION

- Suitable for separating a pile of thin iron plates or for chips separation.

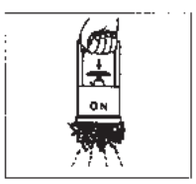
FEATURES

- By the principle of mutual repulsion between same magnetic poles, this item enable easy separation of thin iron plates.
- Also useful for chips separation on the small conveyer bilt.

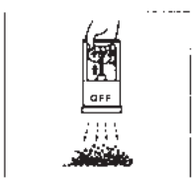
Unit:mm

ORDER NO.	DIMENSION				NET WEIGHT KGS	CODE NO.
	L	W	H	H1		
VCP-10	130	130	65	35	2.6	2015-430
VCP-11	210	155	65	35	4.2	2015-431

Magnetic Chip Collecter



Magnet turned ON attracts Powerfully.



Magnet turned OFF Releases by Plling Up Lever.

APPLICATION

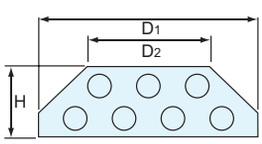
- You can use it in a wide range of fields for machining, casting food chemical processing, etc.
- Most suitable for collecting iron pieces scattered on the floor or mixed in the medium, for putting in order, and holding the work at the buffing and other types of operations. This is conveniently applied to uses in selecting and collecting iron powder and granule materials; even for house-hold and educational uses.

FEATURES

- Magnetic force is turned ON/OFF just by operating the level lightly with a hand.
- Powerful magnet ensure very strong adsorptive force with wide attractive face.

ORDER NO.	Dimension	Holding Mass	Weight kgs	CODE NO.
VCP-15	ø112x178H	0.9	1.9	2015-440

Magnetic Separating Bar Unit



VMS-9B

VMS-7B

BAR TUBE

Magnetic Separating Bar Unit made with Powerful magnet. it is essential to Increase operation efficiency in removing on substances from powder and grain Materials, as in the industries of chemical, various and plastic...etc.
A wide range of applications and easy to mount.

TEMPERATURE LIMIT 60ºC

Unit:mm

ORDER NO.	D_1	D_2	H	BAR TUBE	WEIGHT KGS	CODE NO.
VMS-7B	175	112	75	ø22.2x180	2.4	2015-450
VMS-9B	218	156	75	ø22.2x230	3.8	2015-451

Permanent-Electro Magnetic Chuck

Suitable for Milling **Mag. Power 1000 kgs / 100 cm²**

NEW

5 SIDES MACHINING

CONTROLLER TYPE:

※C1 for VPE-2540, 2560, 2580, 3030, 3040, 3060, 4040
44x40x33cm WEIGHT Kgs: 11Kgs

※C2 for VPE-25100, 3080, 3090, 4060, 4080, 5060
44x40x33cm WEIGHT Kgs: 11Kgs

※C4 for VPE-40100, 5080, 50100, 60100
52x40x40cm WEIGHT Kgs: 12Kgs

SETS CONTROLLER INCLUDED

optional:

VSB- 49X48X30 mm
SPRING BLOCK

50X50X32.5 mm
VTJ-
MAGNETIC TRANSISTING
SOFT JAW

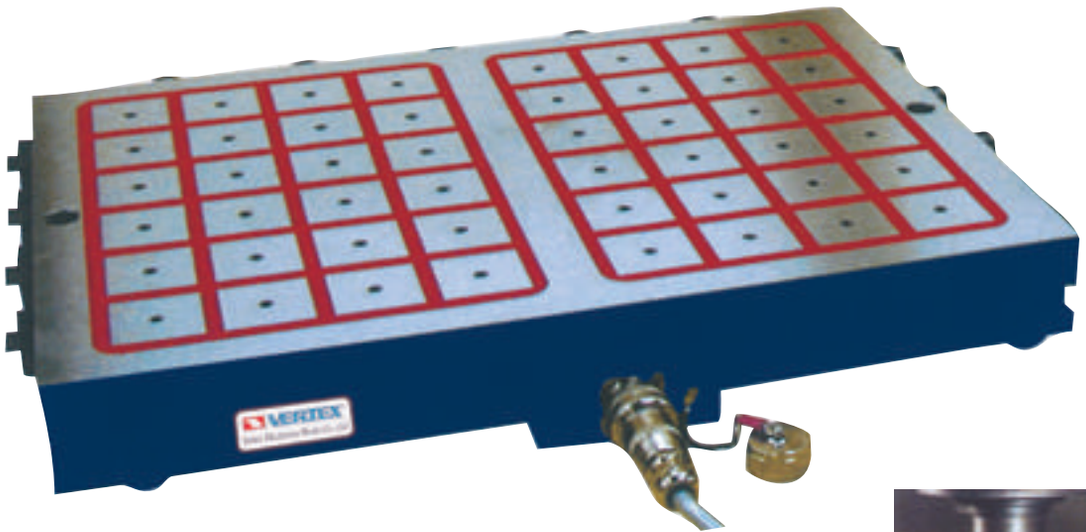
ORDER NO.	ACCESSORIES	SIZE	WEIGHT KGS	CODE NO.
VSB-	SPRING BLOCK	49x48x30 mm	0.5	2033-450
VTJ-	MAGNETIC TRANSISTING SOFT JAW	50x50x32.5 mm	0.59	2033-451

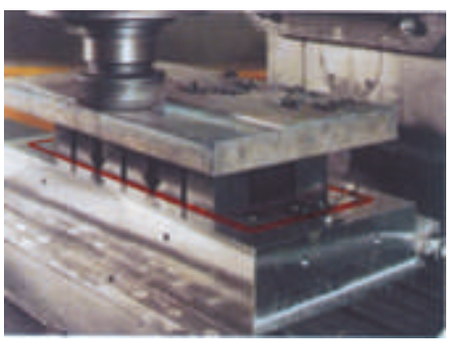
FEATURES

- Ensure higher magnetic and mechanical performances, as well as absolute reliablity.
- Owing to no power supply to keep the magnetic chuck ON, it could be used for long time and never get temperature to affect the accuracy of workpiece. “COLD” device, not subject to inetrnal wear or deformation resulting from moving internal parts.
- Easy and convenient to clamp a workpiece, shortens clamping time.
- Most suitable for heavy duty machining on medium, large or even rough components.
- Easily integrated with Pallet Change of Horizontal Machining Center and FMS System the Magnetic Chucks will be as geomertrically stable as the table itself.
- For the most powerful machine tools available. Systems are switched ON or OFF with simple electrical pulse. A variable output from 20%-100% is controlled from the operator push button unit.
- Entirely independent of external power supply when holding work pieces. There is no risk, when power fails.
- 2 seconds control for power ON & OFF. No electric Power Supply required to keep the magnetic chuck ON. Safety in case of power failure.
- 10mm MIN. Thin workpiece & MIN. 4 block magnetic pole for workpiece.
- Every work piece need 3 transisting soft jaw to stabilize holding power.
- Spring block has 2.5mm displacement up & down.

Permanent-Electro Magnetic Chuck

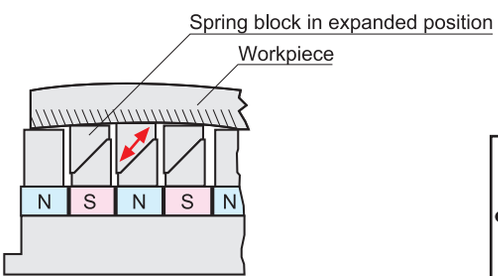
Suitable for Milling



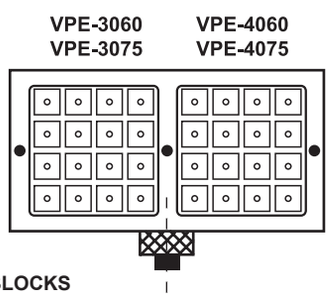


STRONG CLAMPING FORCE, FAST SETTING, HIGH SAFETY

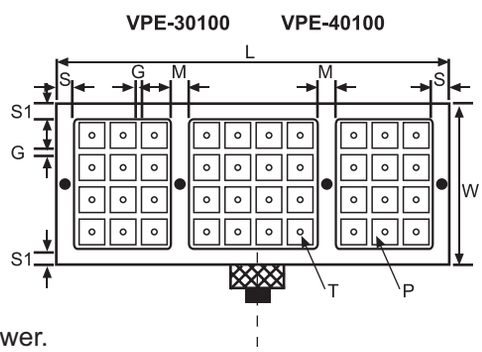
※Recommend voltage : 380V 1PH



MAGNETIC FORCE 1000 KGS / 100 cm^2



MAGNETIC FORCE 1000 KGS / 100 CM^2 / 4 SQUARE BLOCKS



※ Item / workpiece must cover at least 3 - 4 blocks to have enough holding power.

ORDER NO.	DIMENSION							PITCH G	POLE P	No. of POLE	VOLTAGE	AMP	CHUCK N.W	CONTROLLER		CODE NO.
	W	L	S	S1	M	T	HIGHT							TYPE	N.W.	
VPE-2540	240	430	30	25	--	M8	60	10	50X50	18	AC-380V 1PH	18	50	C1	10	2033-030
VPE-2560	240	590			30					24		24	69			2033-031
VPE-2580	240	800			30					30		30	92			2033-032
VPE-25100	240	990			30					42		40	111	C2		2033-033
VPE-3030	300	310			--					16		16	44	C1		2033-048
VPE-3040	300	430			--					24		24	61			2033-049
VPE-3060	300	590			30					32		35	82			2033-050
VPE-3080	300	810			30					44		32	116	C2		2033-051
VPE-3090	300	870			30					48		40	123			2033-051A
VPE-30100	300	990			30					56		35	138			2033-052
VPE-4040	420	430			--					36		18	84	C1		2033-052A
VPE-4060	420	590			30					48		25	116	C2		2033-053
VPE-4080	420	810			30					66		30	159	C2	15	2033-054
VPE-40100	420	990			30					84		45	193	C4		2033-055
VPE-5060	480	590			30					56		28	129	C2		2033-060
VPE-5080	480	800			30					70		35	185	C4		2033-061
VPE-50100	480	990			30					98		50	219			2033-062
VPE-60100	600	990			30					126		28	274			2033-063A

Permanent Magnetic Lifter (ON/OFF Type)

Safety coefficient 3.5 times!

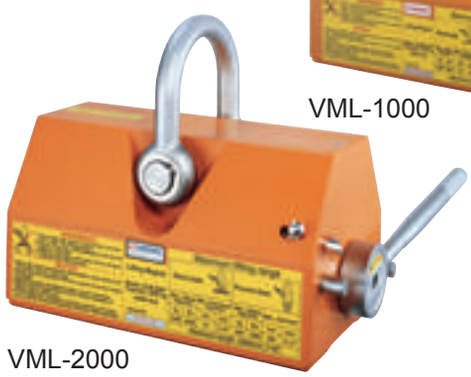
Convenient and efficiency for makes more profit
Light weight
Less dimension
Lower price

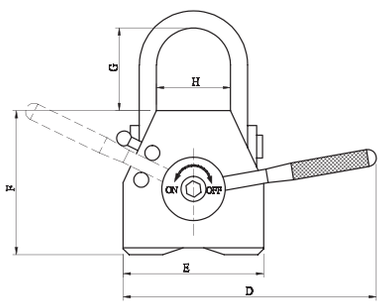
VML-100

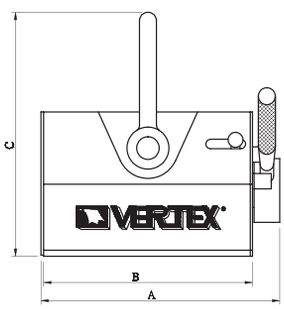
VML-300

VML-1000

VML-600


VML-2000





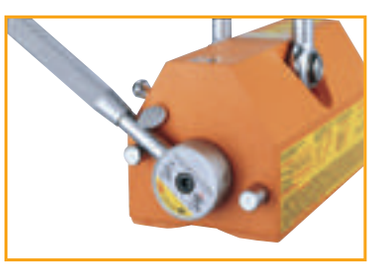
FEATURESOPERATIONNotice:

- Each size suit for plate type & round type steel using.
- All new models with " light weight" less dimension" and " lower price".
- Made by permanent magnet, require no power supply, thus eliminating hazards due to failure wiring system as electric type.
- It features powerful magnetic force, with 3.5 times safety coefficient makes more safety in use.

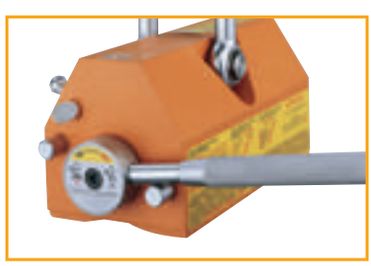
OPERATION

With ON/OFF switch, it is very easy and convenient to operate.
See as the example pictures as below

ON



OFF



Notice:

Never moves the handle to "ON" side, except on an iron object of holding.

- Never operate over human's head.

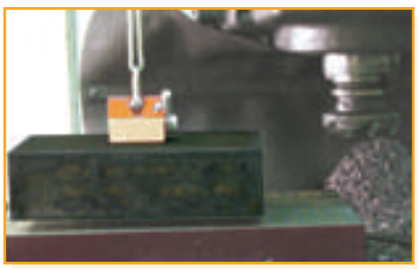
DIMENSIONS

ORDER NO.	Capacity	A	B	C	D	E	F	G	H	Weight	SAFETY COEFFICIENT	CODE NO.
	kg lbs	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	kg lbs		
VML-100	100 220	107 4.2	84 3.3	120 4.7	125 4.9	60 2.4	71 2.8	41 1.6	30 1.2	2.7 5.5	x3.5 times	2018-060
VML-300	300 660	180 7.1	155 6.1	156 6.1	185 7.3	90 3.6	93 3.7	51 2.0	41 1.6	9.1 18.9		2018-061
VML-600	600 1320	255 10	224 8.8	212 8.3	260 10.2	115 4.5	120 4.7	77 3.0	52 2.0	21.5 46		2018-062
VML-1000	1000 2200	280 11	245 9.6	286 11.3	371 14.6	165 6.5	169 6.7	97 3.8	87 3.4	53.4 101		2018-063
VML-2000	2000 4400	422 16.6	380 15	348 13.7	512 20.2	216 8.5	215 8.5	105 4.1	121 4.8	127.8 259		2018-064

Permanent Magnetic Lifter (ON/OFF Type)

APPLICATIONS

- Suitable for move plate steel, block steel and round steel, such as machine parts,press molds, plastic molds and iron material .....etc.



LOAD OF HOLDING POWER

- The load of holding power will changes depending on the thickness, attractive face roughness and quality of material and clearance between the workpiece with magnet.

	Thickness		Percentage of lifting capacity					
	mm	inch	VML-3000	VML-2000	VML-1000	VML-600	VML-300	VML-100
T1	up 60	up 2.36″	100%	100%	100%	100%	100%	100%
T2	55	2.16″	95%					
T3	50	1.97″	90%	95%				
T4	45	1.77″	85%	90%				
T5	40	1.57″	80%	85%				
T6	35	1.38″	70%	75%	90%			
T7	30	1.18″	60%	65%	80%			
T8	25	0.98″	50%	55%	70%	90%		
T9	20	0.79″	40%	45%	60%	75%	90%	
T10	15	0.59″	30%	35%	50%	60%	70%	
T11	10	0.39″	20%	25%	35%	45%	50%	70%
T12	5	0.20″	10%	15%	20%	25%	30%	40%

Table of difference in holding power by attractive face roughness For all models

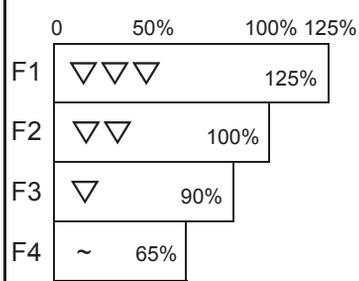
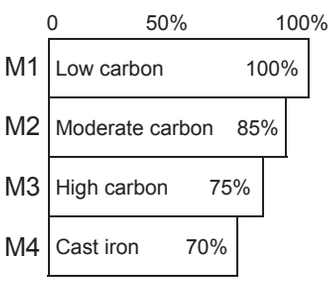


Table of difference in holding power by material quality For all models



Calculating Formula for "Range of Lifting Capacity" → (TxFxMxCapacity of Lifter)

Example:
Terms of workpiece: T8, F1 and M2
90% x 125% x 85% x 600kgs (VML-600)=573kgs

SAFETY COEFFICIENT x 3.5 times

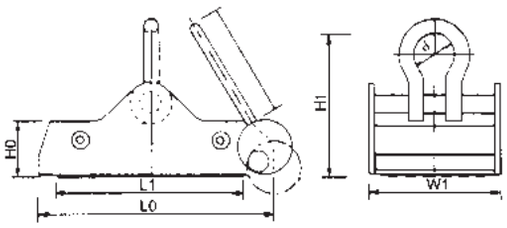
The capacity of magnet indicated as 1/3.5 of holding power, it means the real holding power is 3.3 times of capacity. For example the capacity of VML-600 is 600kgs (1320lbs) but the real holding power is 1980kgs (4350lbs).
The large safety coefficient is consideration for ensuring the use in safety.

MAXIMUM LIFTING RANGE

FORM OF MATERIAL	STEEL PLATE		ROUND STEEL			
ORDER NO.	Max.lifting capacity	Min.thickness required	Max.lifting capacity	Min Dia	Max.diameter	Maximum length
	kg lbs	mm inch	kg lbs	mm	mm inch	mm inch
VML-100	100 220	15 0.59″	58 125	80	150 5.9″	1000 40″
VML-300	300 660	25 0.98″	175 380	100	250 9.8″	1500 60″
VML-600	600 1320	30 1.18″	345 760	180	350 13.8″	2000 80″
VML-1000	1000 2200	40 1.57″	570 1255	230	450 17.8″	2500 98″
VML-2000	2000 4400	55 2.16″	1140 2510	260	550 21.6″	3000 118″
VML-3TH	3000 6600	60 2.36″	1710 3675	300	650 25.6″	3500 138″

Magnetic Lifter

CAM TYPE



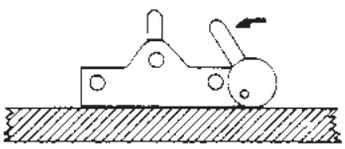
- Never operate over human's head.

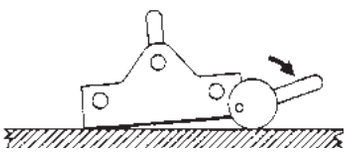
FEATURES

- Normal operation is not influenced on power off or system breakdown, as there is permanent magnet.
- Cam mechanism, easy operation.
- Ground surface of workpiece may be attracted to be scrap occasionally, please be careful.

LOADING

- Take the magnetic table on the workpiece, and move it at the vertical position.





UNLOADING

- Move th level at the horizontal position, the workpiece will be separated.

ORDER NO.	CAPACITY	W1	L1	L0	H0	H1	d	l	NET WEIGHT (KGS)	CODE NO.
VGP-100	1000kg	204	298	366	65	125	50	135	25.8	2018-040
VGP-200	2000kg	330	380	445		130			46.8	2018-041

Magnetic Holder

HANDLE TYPE

VML-80

VML-140

FEATURES

Work is held and released very smoothly.

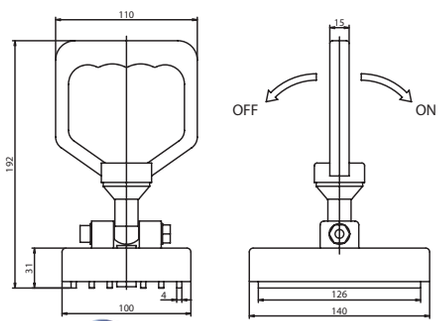
- Most suitable to move materails or semi-finished products such
- as black steel plate, flat iron and other materials etc.

HOLDING POWER

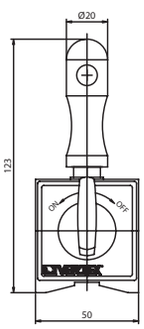
It depends on the attractive face, quality and thickness of material and clearance between the material and magnet.

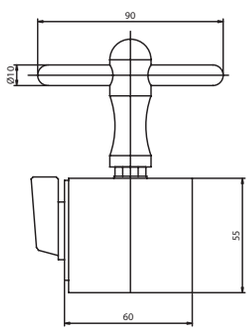
MAXIMUM HOLDING POWER

Workpiece must be thick enough and the surface must be free of dust. magnetic attraction is best and with low carbon-soft steels.

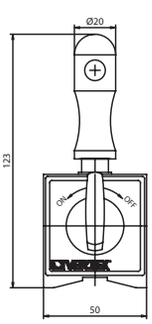


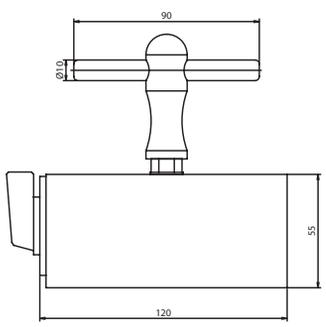
VML-150





VML-80



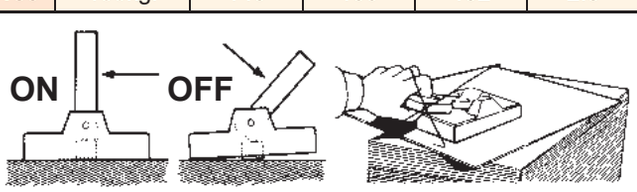


VML-140

Unit:mm

ORDER NO.	CAPACITY	L	W	H	N.W (KGS)	CODE NO.
VML-80	80kgf	60	50	55	1.23	2018-054
VML-140	140kgf	120	50	55	2.2	2018-055
VML-130	130kgf	120	50	55	1.9	2018-053
VML-150	150kgf	140	100	192	2.5	2018-056

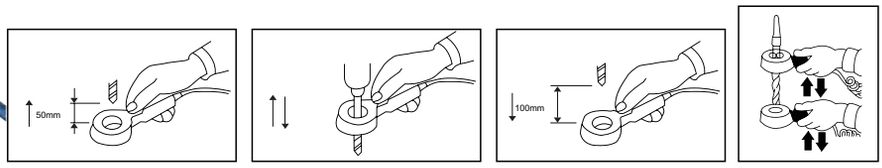
VML-150



Demagnetizer

- Suit for drill, end mill, hard ware, cutting tool...etc.
- Handy type, it can also use the cutting tool.

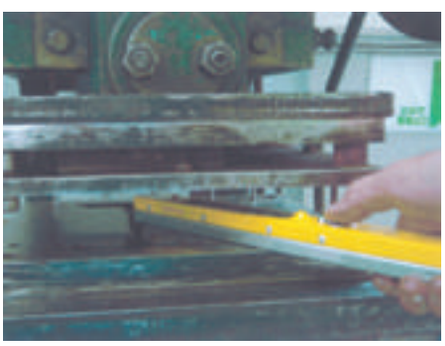
※Guaranteed for 3 months.



ORDER NO.	INPUT VOLTAG	CURRENT	POWER	DUTY CYCLE	HOLE CAPACITY	WEIGHT KGS	CODE NO.
VDM-40	AC110V/220V	0.5A	80W	20%	Ø40MM	1.3	2019-030

NEW

- Suit for molding.
- Work perfectly in the narrow place.
- No need to remove the workpiece.

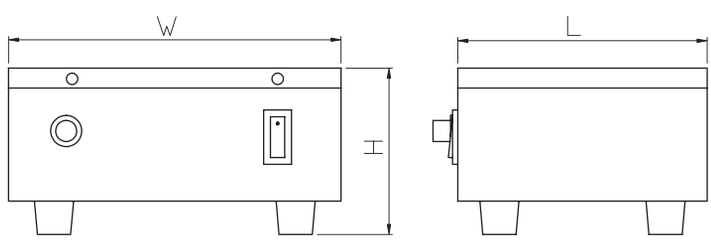


Handy Type
For Bigger Or Heavy Workpiece
※ Light Duty Only
※ Guaranteed for 3 months.
※ Built-in over-heat safety Stop

ORDER NO.	INPUT VOLTAGE (SINGLE PHASE)	CURRENT	※ USING TIME	DIMENSION			WEIGHT KGS	CODE NO.
				L	M	H		
VDM-50	110V/220V/1PH	1.2A	Demagnetize 1 minute waiting 4 minutes	345	35	25	1.2	2019-031

Demagnetizer

Demagnetizer one way only



FEATURES

- Suitable for general component spare parts, attachments, tools, etc, forfixed way demagnetization.
- Suitable for longtime use; be able to use continuously for 24 hours. Rest 10 Min Per 3 hrs.
- With the design of double coils inside to avoid heat release.

※ Guaranteed for 3 months.
※ If operate ↔ will cause item magnetized

DELUXE TYPE

Unit:mm

ORDER NO.	INPUT VOLTAGE	CAPACITY	DUTY CYCLE	DIMENSION			NW KGS	CODE NO.
				L	W	H		
VDM-68	110V/220V	AC-330VA	100%	140	195	110	7.4	2019-001

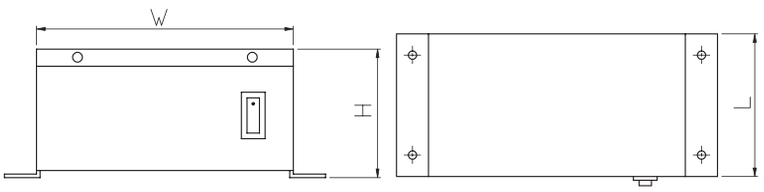
Demagnetizer

VDM-8, 11

FEATURES

- Input voltage 110-220 Volts AC.
- With On-Off switch.
- Quickly Demagnetizes tools, drills punches, dies,etc. Held by magnetic chucks. Parts are demagnetized by drawing across surface.
- Voltage 200-240 should be ordered.

※Guaranteed for 3 months.



Unit:mm

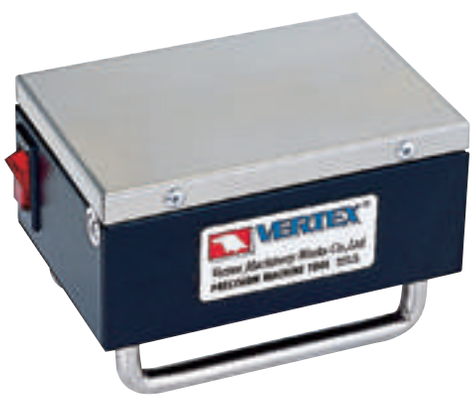
ORDER NO.	INPUT VOLTAGE	CAPACITY	WORKING SURFACE	HEIGHT	WEIGHT (KGS)	DUTY CYCLE	CODE NO.
VDM-8	AC- 110V 220V	210VA	160X110	100	4.5	50%	2019-011
VDM-11	110V 220V	550VA	200X280	130	16	100%	2019-021

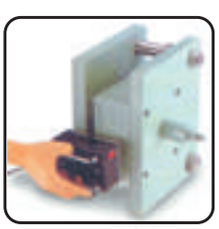
Mini Type Demagnetizer

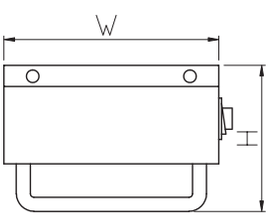
FOR HANDY AND CAN NOT BE MOVED OBJECT

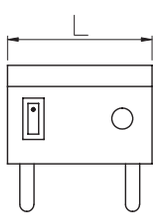
- Suitable for large type workpiece.

※Guaranteed for 3 months.





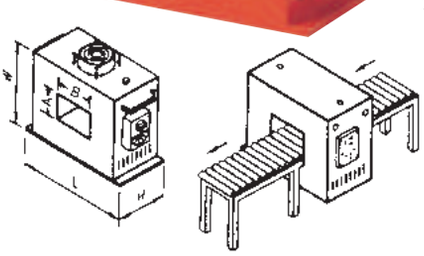




Unit:mm

ORDER NO.	INPUT VOLTAGE	CAPACITY	WORKING SURFACE	HEIGHT	WEIGHT (KGS)	DUTY CYCLE	CODE NO.
VDM-9	AC-110V 220V	110VA	123X83	83	1.8	90%	2019-020

Tunnel Type Demagnetizer And Magnetizer



FEATURES

- Merely using tools to pass through or move into a tunnel will cause a good demagnetizing effect.
- Suitable for planned automatic process; be adapted for delivery belts to proceed in order to increase productivity.
- Suitable for hand manual tools, etc. for filling magnetism.
- Suitable for large production of component spare parts, attachments, tools...etc.
- Suitable for longtime use; be able to use continuously for 24 hours.
- Super efficacy in demagnetizing and magnetizing; suitable for many kinds of metals.
- Attached a fan inside for dissipating heat.

※Guaranteed for 3 months.

ORDER NO.	POWER SOURCE	CAPACITY	DIMENSION			THROUGH HOLE		NET WEIGHT KGS	DUTY CYCLE	CODE NO.
			L	W	H	A	B			
VDM-150	AC 220/380V (single phase)	3520 VA	370	370	200	100	150	33	100%	2019-025
VDM-250		4840 VA	470	370	200	150	250	52		2019-026
VDM-450	AC 220/380V (3 phase)	4400 VA	700	500	200	250	450	80		2019-027

Chip Collector Mini Handy Type

NEW

- Pull the trigger to drop attracted items easily.
- Permanent magnet.
- Light and handy design fitting ergonomics.
- Easy to pick up various kinds of hand of hand tools and small iron or steel parts for office, house and factory.
- Impact-proof plastic materials.

※ Need normal work temp

Unit:mm

ORDER NO.	PACKING	HOLDING MASS	CUFT	DIMENSION			WEIGHT KGS	CODE NO.
				L	W	H		
VCC-16	Color BOX	0.65	0.09′	110	110	190	0.7	2019-040

Chip Collector With Adjustable Arm Type

NEW

- Work perfectly in the narrow space.
- Pick up ferrous metal items such as tools, bolt, paper clips, nails, etc.
- Deluxe handle for comfort.
- Easy to use, safe, practical and time saving.
- Permanent magnet.
- Weight : 2 kgs

ORDER NO.	MAGNETIC BASE	HOLDING MASS	CUFT	TOTAL LENGTH	CODE NO.
VCC-17A	120x70mm	0.7	0.4′	700 mm	2019-041A

Chip Collector With Wheels

NEW

- Easy to use, safe and practical time saving device.
- Release magnetic pick up tool has a magnetic device which enable to attract any metal items and spare parts laying on the floor without the trouble to pick them up one by one.
- Pull the trigger to release magnetic force.
- Permanent magnet.

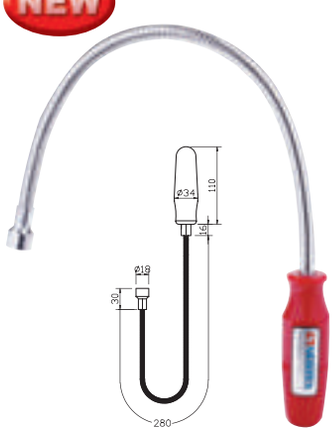
ORDER NO.	PACKING	HOLDING MASS	kgf	CUFT	LENGTH	WEIGHT KGS	TOTAL WIDTH	CODE NO.
VCC-19	In Bulk	0.85	83	1.15′	720~1035mm	1.5	377 mm	2019-043

Chip Collector With Flexible Arm

Flexible Magnetic Pick-Up Tool

WEIGHT:0.4kg

NEW



ORDER NO.	VCC-20
PACKING	Tied On Card
HOLDING MASS	0.11
CUFT	0.04′
LENGTH	533 mm
CAPACITY	1.2 lbs / 0.54kgs / 50kgf
CODE NO.	2019-044

Chip Collector With LED

Lighted Flexible Magnetic Pick-Up Tool

WEIGHT:0.2kg

NEW

ORDER NO.	VCC-21
PACKING	Tied On Card
HOLDING MASS	0.08
CUFT	0.04′
LENGTH	533 mm
CAPACITY	0.7 lbs / 0.31kgs / 30kgf
CODE NO.	2019-045

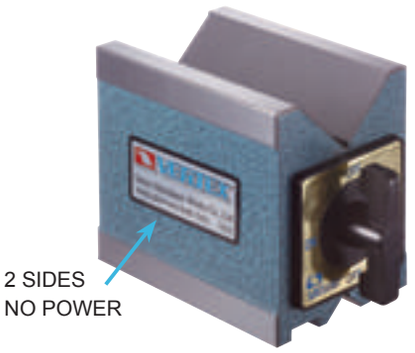
With 2pc 1.5V batteries

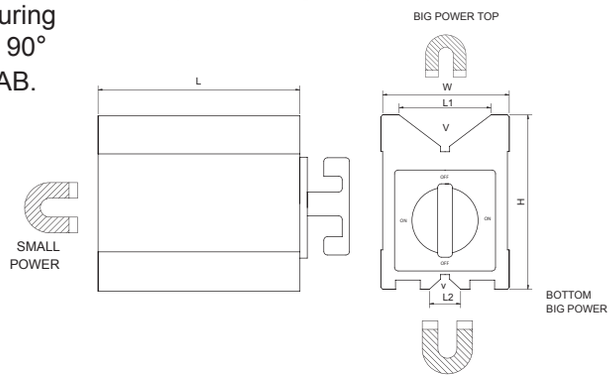
Magnetic V Block

1 PCS

- For round / square workpiece
- For checking on surface plate during the production.
- For measuring
- V ANGLE 90°

※ Not for LAB.





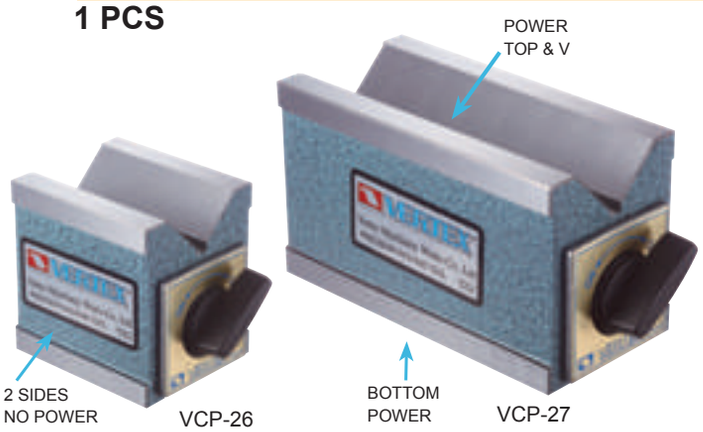
ORDER NO.	Magnetic Power(pull)	V	v	Dimension					Wt. kgs	CODE NO.
				H	W	L	L1	L2		
VCP-25	70kgf	ø7~ø60	ø7~ø25	95.3 3.75″	70 2.76″	101.6 4″	45 1.97″	18 0.75″	3.9	2015-501

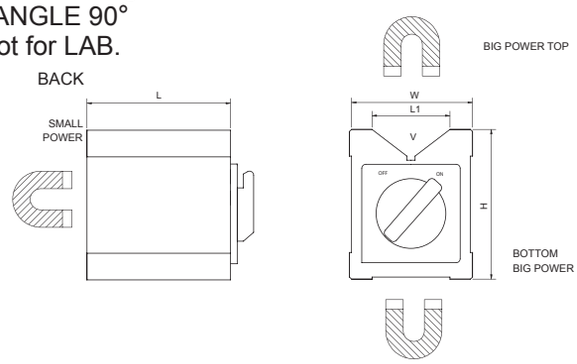
Magnetic V Block

1 PCS

- For round / square workpiece
- For checking on surface plate during the production.
- For measuring
- V ANGLE 90°

※ Not for LAB.

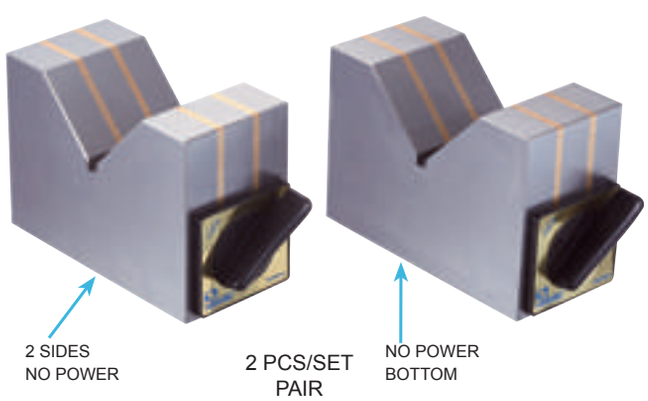




ORDER NO.	Magnetic Power(pull)	V	Dimension				Wt. kgs	CODE NO.
			H	W	L	L1		
VCP-26	50kgf	ø8~ø50	73 2.87″	60 2.13″	70 2.76″	37 1.5″	1.8	2015-510
VCP-27	70kgf	ø8~ø50	73 2.87″	60 2.36″	125 4.29″	38 1.5″	3.3	2015-511

Magnetic V Block

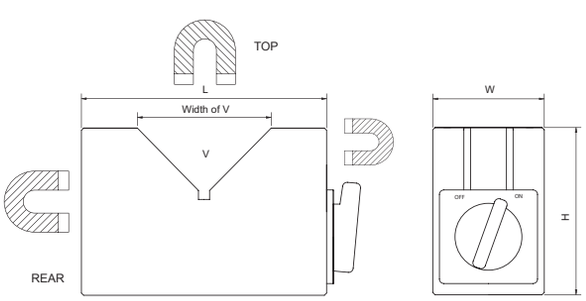
PAIR



Magnetic V-Block

- Two pieces finished to the same dimension and accuracy are used together as a set.
- For round / square workpiece
- For checking on surface plate during the production.
- V ANGLE 90°

※ Not for LAB.

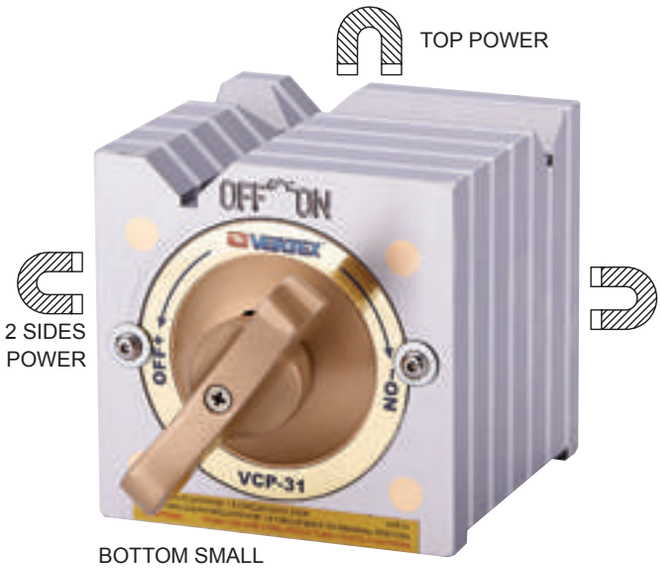


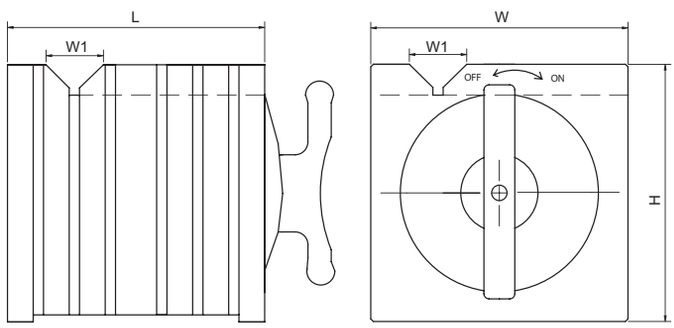
ORDER NO.	Magnetic Power(pull)	V	Dimension			Width of V	Wt. kgs	CODE NO.
			H	W	L			
VCP-29	17kgf	ø8~ø80	74 2.91″	48 1.77″	110 4.33″	60 2.36″	4.9	2015-521
VCP-30	23kgf	ø8~ø120	100 3.94″	50 1.97″	150 5.91″	90 3.54″	8.9	2015-522

Magnetic Square Block

VERTEX

FOR MEASURING





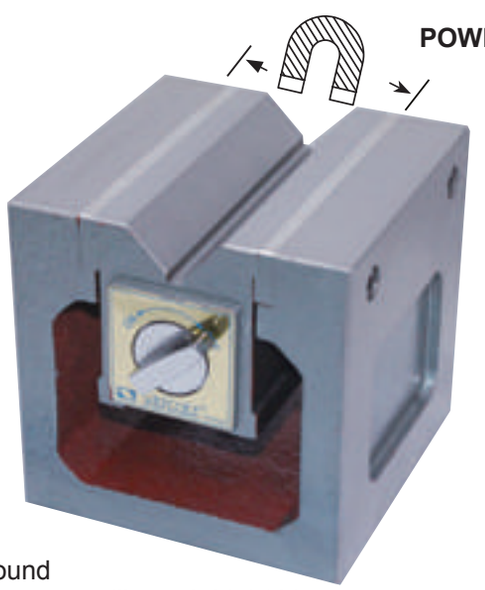
- The V-Blocks and Parallels transfer the magnetism from permanent magnetic chucks. The steel used in all V-Blocks and Parallels is selected for the hightest magnetic transfer and is cast integrally with aluminum.
- For measuring
- V ANGLE 90°

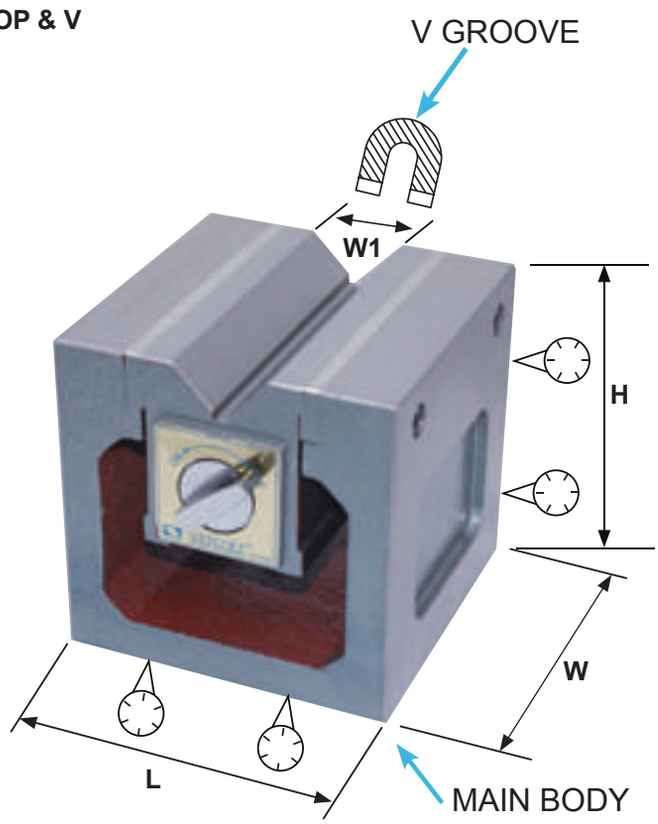
※ Not for LAB

ORDER NO.	Mag. Power of V groove	Mag. Power of base	V	H	W	L	W1	Wt. kgs	CODE NO.
VCP-31	25kgf	50kgf	ø7~ø22	100 3.94″	100 3.94″	100 3.94″	23 1.02″	6.5	2015-530
VCP-32	50kgf	140kgf	ø7~ø29	150 5.91″	150 5.91″	150 5.91″	29 1.26″	20.3	2015-531

Magnetic Square Holder

NEW





- Precision ground
- Base & V groove parallism : 0.02 / 100 mm
- Magnetic power : V groove only
- MAIN BODY : CAST IRON
- Light duty, for measuring
- Easy movement
- Multi - type
- V ANGLE 90°

※ Not for LAB.

ORDER NO.	Mag. Power of V groove	V	H	W	L	W1	Wt. kgs	CODE NO.
VCP-40	70kgf	ø8~ø50	125	125	125	37	8.54	2015-540

FIXED ARM TYPE VMB-B,01,02 THE DIAL CLAMP HOLE Ø6.5 & Ø8

ORDER NO.
VMB-B
MAGNETIC BASE
/80kgs

ORDER NO.
VMB-01
MAGNETIC BASE
(ADJUSTABLE
TYPE) /80kgs

ORDER NO.
VMB-02
MAGNETIC BASE
(ADJUSTABLE
TYPE) /80kgs

ORDER NO.
VMB-03
MAGNETIC BASE
HEIGHT ROD
TYPE/130kgs

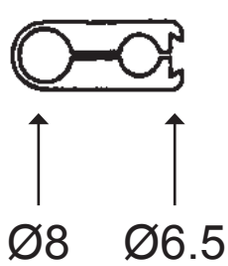
ORDER NO.
VMB-181
MAGNETIC BASE
/100kgs

ORDER NO.
VMB-185
HYDRAULIC ARM
MAGNETIC BASE
/100KGS

※knob may vary
& shape & color

Big Dia. &
Height Rod

- If you would like to turn around the ARM of VMB series, don't rotate the ARM directly, because the thread in the base will be disintegrated, please loose the knob first (in the middle of ARM), then the ARM will be rotated, thanks! After you set the position, Fix the Knob.
- Before you set the new position, you must loose the knob. Hold at the connection between Rod & Base to prevent thread breaking.



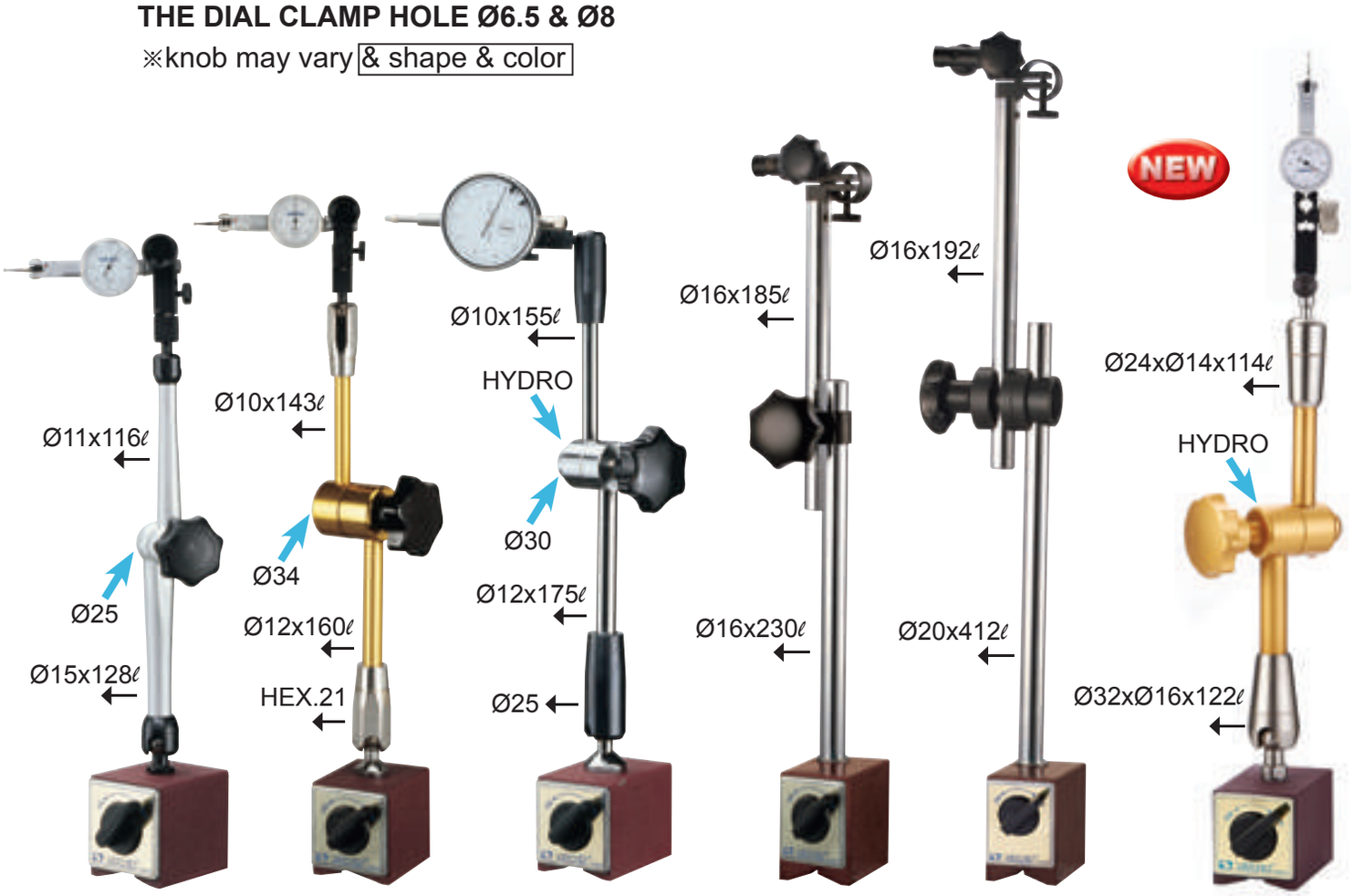
ORDER NO.	BASE SIZE LXWXH(MM)	HOLDING POWER	MAIN ROD O.D X L	SUB ROD O.D X L	WEIGHT (KGS)	CODE NO.
VMB-B	60X50X55	80KGS	Ø12X173	Ø10X162	1.6	2015-601
VMB-01	60X50X55	80KGS	Ø12X176	Ø10X150	1.6	2015-602
VMB-02	60X50X55	80KGS	Ø12X171	Ø10X153	1.6	2015-603
VMB-03	115X50X55	130KGS	Ø20X310	Ø14X200	3.9	2015-607
VMB-181	73x50x55	100KGS	Ø30X175.5	Ø21x137	1.9	2015-609A
VMB-185	73x50x55	100KGS	Ø31X124.5	Ø28x113	2.0	2015-609B

Magnetic Tools FOR DIAL GAUGE, INDICATORS

VERTEX

UNIVERSAL ARM TYPE
THE DIAL CLAMP HOLE Ø6.5 & Ø8
※knob may vary & shape & color

WITHOUT DIAL INDICATOR



ORDER NO.
VMB-70
DELUXE UNIVERSAL MAGNETIC BASE/ 100kgs

ORDER NO.
VMB-106
MECHANICAL ARM MAGNETIC BASE/ 100kgs

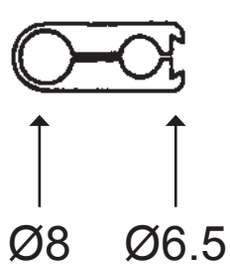
ORDER NO.
VMB-106H
HYDRAULIC ARM MAGNETIC BASE/ 100kgs

ORDER NO.
VMB-160

ORDER NO.
VMB-180

ORDER NO.
VMB-182H
HYDRAULIC ARM MAGNETIC BASE/ 100kgs

- If you would like to turn around the ARM of VMB series, don't rotate the ARM directly, because the thread in the base will be disintegrated, please loose the knob first (in the middle of ARM), then the ARM will be rotated, thanks! After you set the position, Fix the Knob.
- Before you set the new position, you must loose the knob. Hold at the connection between Rod & Base to prevent thread breaking.
- Hold the Mag. Base while moving & lifting



ORDER NO.	BASE SIZE LXWXH(MM)	HOLDING POWER	MAIN ROD O.D X L	SUB ROD O.D X L	WEIGHT (KGS)	CODE NO.
VMB-70	73X50X55	100KGS	Ø15X128	Ø11X116	1.7	2015-604
VMB-106	73X50X55	100KGS	Ø12X160	Ø10X143	1.9	2015-605
VMB-106H	75X50X55	100KGS	Ø12X175	Ø10X155	2.2	2015-606
VMB-160	70x46x60	100KGS	Ø16x230	Ø16x185	2.1	2015-608
VMB-180	75x60x80	100KGS	Ø20x412	Ø16x192	3.8	2015-609
VMB-182H	73x50x55	100KGS	Ø32xØ16x122	Ø24xØ14x114	1.75	2015-600

Magnetic Tools

MICRO ADJUSTMENT

W/O MICRO ADJUSTMENT

ORDER NO. VMF-112
MINI MAGNETIC
BASE

ORDER NO. VMF-113
MINI MAGNETIC
BASE

VMF-102A

VMF-102B

ORDER NO. VMF-102A/B
MINI DELUXE UNIVERSAL
MAGNETIC BASE
SUITABLE FOR EDM USING.

ORDER NO. VH-70
MINI MAGNETIC
BASE
ROUND BASE OR
SQUARE BASE

※knob may vary
& shape & color

ORDER NO. VMS-1/4
ORDER NO. VMS-3/8
STEEL HOSE WITH
NOZZLE

ORDER NO.	BASE SIZE LXWXH(MM)	HOLDING POWER	MAIN ROD O.D X L	SUB ROD O.D X L	WEIGHT (KGS)	CODE NO.
VMF-112	34.5X30X35	30KGS	Ø20 X 70	Ø15 X 65	0.6	2015-619
VMF-113	34.5X30X35	30KGS	Ø20 X 70	Ø15 X 65	0.55	2015-619A
VH-70	31X31X32	15KGS	Ø10 X 70	Ø6 X 90	0.4	2015-620
VMF-102A	34.5X30X35	30KGS	Ø20 X 70	Ø20 X 65	0.57	2015-621A
VMF-102B	Ø31X31H	30KGS	Ø20 X 70	Ø15 X 65	0.5	2015-621B
VMS-1/4			Ø11 X 320	HOSE THREAD 1/4	0.2	2015-640
VMS-3/8			Ø15 X 370	HOSE THREAD 3/8	0.4	2015-641

ORDER NO. VMB-06
FLEXIBLE ARM
WITH MAGNETEC BASE

ORDER NO. VML-A
MAGNETIC BASE
WORKING BEAM
※FOR 20W/40W/60W 110V
※FOR 20W/40W/60W 220V

ORDER NO. VML-B
MAGNETIC BASE
WORKING BEAM
※FOR 20W/40W/60W 110V
※FOR 20W/40W/60W 220V

ORDER NO. VML-C
MAGNETIC BASE
WORKING BEAM
※FOR 20W/40W/60W 110V
※FOR 20W/40W/60W 220V

※knob may vary
& shape & color

- If you would like to turn around the ARM of VMB series, don't rotate the ARM directly, because the thread in the base will be disintegrated, please loose the knob first (in the middle of ARM), then the ARM will be rotated, thanks!
  After you set the position, Fix the Knob.
- Before you set the new position, you must loose the knob.
  Hold at the connection between Rod & Base to prevent thread breaking.
- Hold the Mag. Base while moving & lifting

ORDER NO.	BASE SIZE LXWXH(MM)	HOLDING POWER	MAIN ROD O.D X L	WEIGHT (KGS)	CODE NO.
VMB-06	60X50X55	80KGS	Ø16X208	1.6	2015-610
VML-A	60X50X55	80KGS	Ø20X200	1.5	2015-611
VML-B	60X50X55	80KGS	Ø26X200	1.5	2015-612
VML-C	60X50X55	80KGS	Ø20X460	2.2	2015-616

Magnetic Tools

ORDER NO. VMB-00
MAGNETIC BASE ONLY
M8X1.25p,80kgs

ORDER NO. VMB-09
MAGNETIC BASE ONLY
M8X1.25p,30kgs

without dial gauge

ORDER NO. VTB-120
TESTER ARM BASE
please see page B81

ORDER NO. VMB-10
MAGNETIC BASE ONLY
M8X1.25p,100kgs

Enlarge about : 2X

ORDER NO. VML-M
MAGNETIC BASE WITH
MAGNIFYING GLASS
M8X1.25p,80kgs

ORDER NO. VMB-11
MAGNETIC BASE ONLY
M8X1.25p,140kgs

ORDER NO. VMB-12
WHEEL DRESSER
CLAMP HOLE 12MM
WITHOUT DIAMOND
DRESSER PEN
Page B65

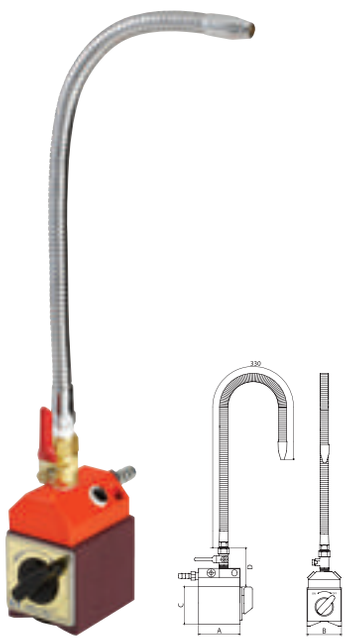
- If you would like to turn around the ARM of VMB series, don't rotate the ARM directly, because the thread in the base will be disintegrated, please loose the knob first (in the middle of ARM), then the ARM will be rotated, thanks!
  After you set the position, Fix the Knob.
- Before you set the new position, you must loose the knob.
  Hold at the connection between Rod & Base to prevent thread breaking.
- Hold the Mag. Base while moving & lifting

※knob may vary & shape & color

ORDER NO.	BASE SIZE LXWXH(MM)	HOLDING POWER	MAIN ROD O.D X L	WEIGHT (KGS)	CODE NO.
VMB-00	60X50X55	80KGS		1.1	2015-613
VMB-09	34.5X30X35	30KGS		0.2	2015-646
VMB-10	73X50X55	100KGS		1.25	2015-645
VMB-11	117X50X55	140KGS		2.1	2015-614
VMB-12	60X50X55	80KGS		1.1	2015-615
VML-M	60X50X55	80KGS	Ø15X325	1.7	2015-617
VTB-120	Ø120		Ø25 X 125	2.65	2022-015

ORDER NO. VMH-54
(2 HOSE)
MAGNETIC BASE
WITH HOSE NOZZLE

ORDER NO. VMH-62
(3 HOSE)
MAGNETIC BASE
WITH HOSE NOZZLE



ORDER NO. VMH-63
(1 HOSE)
MAGNETIC BASE
WITH STEEL NOZZLE

ORDER NO. VMH-64
(2 HOSE)
MAGNETIC BASE
WITH STEEL NOZZLE

ORDER NO. VMH-65
(3 HOSE)
MAGNETIC BASE
WITH STEEL NOZZLE

※knob may vary
& shape & color

- Hold the Mag. Base while moving & lifting

ORDER NO.	BASE SIZE LXWXH(MM)	HOLDING POWER	MAIN ROD O.D X L	SUB ROD O.D X L	WEIGHT (KGS)	CODE NO.
VMH-54	60X50X55	80KGS	Ø16 X 330	2PCS.HOSE	1.4	2015-622
VMH-62	60X50X55	80KGS	Ø16 X 330	3PCS.HOSE	1.5	2015-623
VMH-63	60X50X55	80KGS	Ø11 X 330	1PCS.HOSE	1.6	2015-642
VMH-64	60X50X55	80KGS	Ø11 X 330	2PCS.HOSE	2	2015-643
VMH-65	60X50X55	80KGS	Ø11 X 330	3PCS.HOSE	2.2	2015-644

Thin Round Magnet

NEW

VMH-D13, D30

VMH-T66, T80

- For Basic light Mag. force
- To combine with other tool
- To remove light weight iron object.
- I.D. Ø M6.6 / M8
- Can serve as hanger.

Unit : mm

ORDER NO.	HOLDING POWER	ØD	THICKNESS	WEIGHT (kg)	CODE NO.
VMH-D13	13 kgf	66	10.5	0.16	2015-711
VMH-D30	30 kgf	80	13.0	0.34	2015-712
VMH-T66	13 kgf	66	10.5	0.16	2015-716

Round Magnet Holder

NEW

VMD-R30

VMD-R50

VMD-S14

VMD-S20

- For Basic light Mag. force
- To combine with other tool
- To remove light weight iron object.
- Support for positioning
- Magnetic force only work on the bottom.

※Every magnet need to work under 70˚C

ORDER NO.	HOLDING POWER	DIMEMSIONS	TAPPER HOLE	WEIGHT (KGS)	CODE NO.
VMD-R18	18 kgf	Ø 30 x 25	M6	0.12	2015-721
VMD-R30	30 kgf	Ø 40 x 30	M8	0.26	2015-722
VMD-R50	50 kgf	Ø 50 x 40	M8	0.54	2015-723
VMD-S14	14 kgf	26 x 26 x 25	-	0.12	2015-724
VMD-S20	20 kgf	26 x 60 x 25	M6	0.28	2015-725

Magnetic Tapper

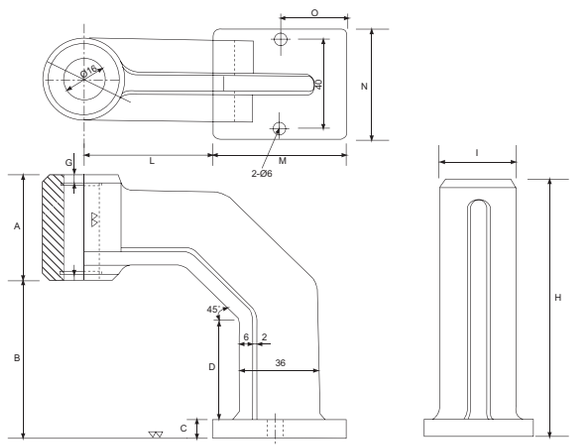
NEW

※knob may vary
& shape & color

Cost higher

Example.

- MAX. stroke 60 mm
- Suit for large workpiece
- TAP thread capacity M3-M12
- Magnetic force 80 kgf
- Horizontal / Vertical
- Portable
- Great for machine case & thin plate tapping job.
- TAP & Iron piece not included.



Unit : mm

ORDER NO.	A	B	C	D	H	I	L	M	N	O	WEIGHT (kgs)	CODE NO.
VTM-13	50	72	10	45	122	36	60	60	50	30	3.10	2015-731

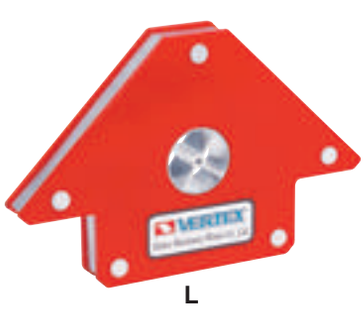
Magnetic Clamp

Welder's Magnetic Ground Clamp

Heavy-duty steel housing holds a powerful magnet for fast, yet safe ground.
Ground wire will rotate 360˚ for easy access.
Equipped with a spring-loaded brass electrode, the magnetic ground clamps attach securely direct to work surface.

ORDER NO.	MASS	CUFT	L x W x H	WEIGHT (kg)	CODE NO.
VCC-30	10kgs	0.07'	70 x 52 m/m	0.48	2033-220
VCC-31	5.6kgs	0.05'	49 x 40 m/m	0.12	2033-221

Magnetic Quick Clamp



L

M

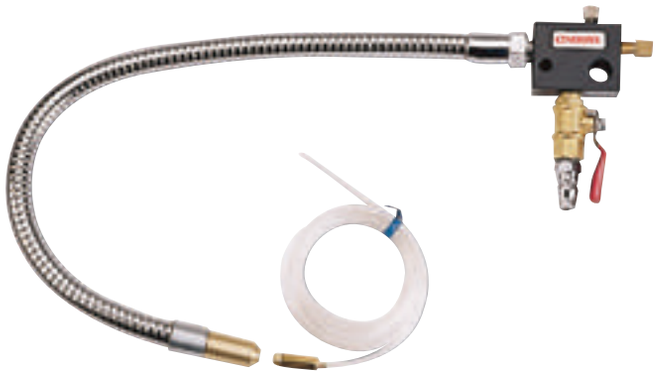
ORDER NO.	SIZE	PACKING	MASS	CUFT	DIMENSION			WEIGHT (kg)	CODE NO.
					L	W	H		
VCC-33	M	Sliding Card	26kgs	0.03'	120	82	14	0.32	2033-223
VCC-34	L	Sliding Card	25kgs	0.03'	158	102	19	0.68	2033-224

Multi-Function Mist Coolant System

VERTEX

ORDER NO.VCS-500 CODE NO.2015-700

WEIGHT:0.8kg

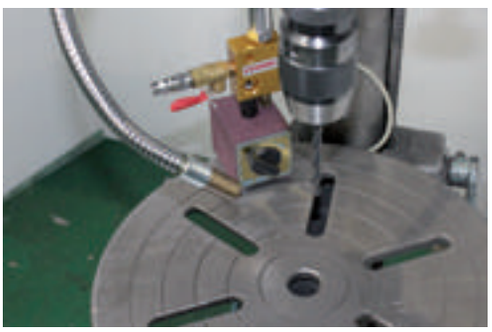


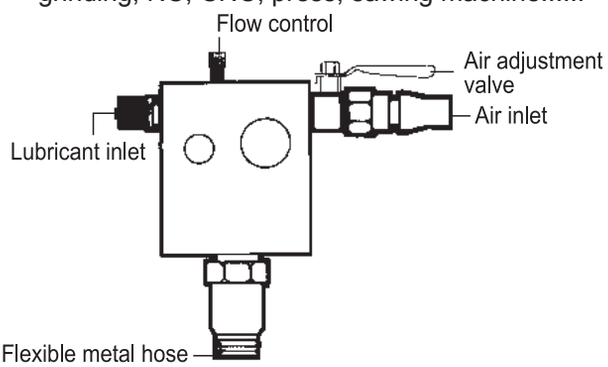
FEATURES

- Flexible functions as cooling, lubrication and blowing the metal chips can be performed at the same time.
- Designed and manufactured for improving machinability, cutting speed, and extending tool service life, Saving working time and production cost.
- It insures better quality of parts finishing and cutting performance.
- The unit help to creat micro-finish effect even working on tough alloy steels and exotic metals.

This mist coolant systems are suited to fit on lathe, milling, drilling, tapping, grinding, cutter grinding, NC, CNC, press, sawing machine.....

EXAMPLE



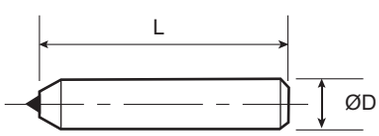


Mist Coolant With Magnetic Base

ORDER NO. VMH-71 (1 HOSE)
MAGNETIC BASE WITH
MIST COOLANT SYSTEM

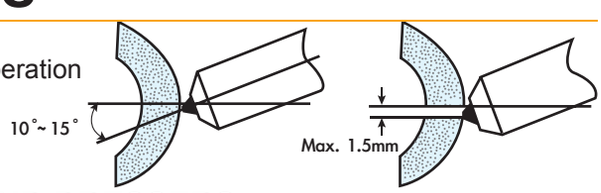
ORDER NO.	BASE SIZE LXWXH(MM)	HOLDING POWER	MAIN ROD O.D X L	SUB ROD O.D X L	WEIGHT (kgs)	CODE NO.
VMH-71	62X50X55.5	75KGS	Ø15X500	1PCS.HOSE	2	2015-618

Diamond Dressing Tools



DRESSING PEN

Installation And Operation



SINGLE POINT DIAMOND DRESSERS

ORDER NO.	ØD x L	DIAMOND SIZE. wt.(cts.)	For Grinding Wheels Size(mm)	CODE NO.
VDR-1010	Ø10D x 80L	0.20	Ø150 x 25 or smaller	2015-665
VDR-1012	Ø12D x 100L	0.20		2015-666
VDR-3310	Ø10D x 80L	0.75	Ø150 ~ Ø300 x 25	2015-667
VDR-3312	Ø12D x 100L	0.75		2015-668
VDR-5010	Ø10D x 80L	1.0	Ø300 ~Ø450 x 25~40	2015-669
VDR-5012	Ø12D x 100L	1.0		2015-670

Adjustable Magnetic Nozzle Kit

CL-01

CL-02

CL-03

S-1 MAGNETIC FORCE 8kgs

- The adjustable magnetic nozzle is suitable for cooling and lubricating in machining process.
- Can be prolonged the cutter life and advance the accuracy and beauty of workpiece.
- By different of usage, there are much models for selection.
- Machine tool made by customer's specification and cooperated to develop.
- When using, please take out the spacer (under the magnetic base)

CL-01A

WITH PLASTIC NOZZLE & VALVE
O.D.34XH230mm

CL-02A

CL-03A

WITH STEEL NOZZLE
O.D.68X330H

L2-S MAGNETIC FORCE 15kgs

ORDER NO.	Weight	CODE NO.
CL-01	0.3kgs	2015-624
CL-02		2015-625
CL-03		2015-626
CL-01A		2015-627
CL-02A		2015-628
CL-03A		2015-629
S-1	0.2kgs	2015-630
L2-S	0.5kgs	2015-631

Adjustable Coolant Hose

- 4 kinds of orifice inner diameter are available: 1/4", 3/8", 1/2", and 3/4".
- Adjustable Coolant Hose is highly pliable; it holds its shape well and will not spring back.
- Made of Dupont 100P material, this highly rigid yet resilient acetal (POM) is strongly resistant to oils and chemicals.
- Adjustable Coolant Hose will not damage cutting blade if there were accident contact.
- Adjustable Coolent Hose does not conduct electricity and is good for operating on electrical discharge machine (EDM).
- Bending hose will not reduce inner diameter, hose will not pinch or fatigue.
- Adjustable Coolant Hose is designed for the transport of low-pressure fluids.

List of suitable fluids

Ordinary Adjustable Coolant Hoses are manufactured from acetal (POM), Hose is available in dark blue and orange colors.

1/4" (6mm) 3/8" (9mm) 1/2" (12mm) 3/4" (20mm)

ITEM	SUITABLE	UNSUITABLE
ALCOHOLS, ETHUL	O	
ACIDS		X
ACETONE	O	
BASES, STRONG		X
AMMONIUM HYDROXIDE (STRONG)		X
COMMERCIAL DISH DETERGENTS	O	
GASOLINE	O	
GREASES	O	
HYPOCHLORITE LON SOLUTIONS		X
LACQUER SOLVENTS	O	
OILS	O	
SODIUM HYDROXIDE	O	
SODIUM HYPOCHLORITE		X
INSECTICIDES	O	
BRAKE OILS	O	

Caution:

our materials are good with alcohols, ethyl, acetone, commercial dish detergents, gasoline, greases, lacquer solvents, oils, sodium hydroxide, insecticides, and brake oils. Not good for acids, bases, strong, ammonium hydroxide(strong), Hypo-chlorite Lon solutions, sodium Hypochlorite. Use inappropriate liquids may cause damage.

Adjustable Coolant Hoses & Valves

CODE NO. & DESCRIPTION | **FIGURE**

1/4″ VALVE & HOSE KIT

62220
33CM Length Hose Kit
Assembled with:
1-Acid Resistant 1/4″ Male NPT Valve
1-20 Element Segments
1-(1/16″ or 1/8″ or 1/4″) Round Nozzle

ORDER NO. VHK-1/4A CODE NO.2016-001

ACID RESISTANT

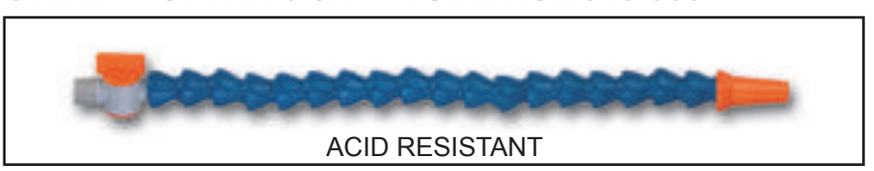
62720
33CM Length Hose Kit
Assembled with:
1-1/4″ Male NPT Valve
1-20 Element Segments
1-(1/16″or 1/8″or 1/4″) Round Nozzle

ORDER NO. VHK-1/4 CODE NO.2016-002

3/8″ VALVE & HOSE KIT

63320
36CM Length Hose Kit
Assembled with:
1-Acid Resistant 3/8″ Male NPT Valve
1-16 Element Segments
1-(1/4″or 3/8″ or 1/2″) Round Nozzle

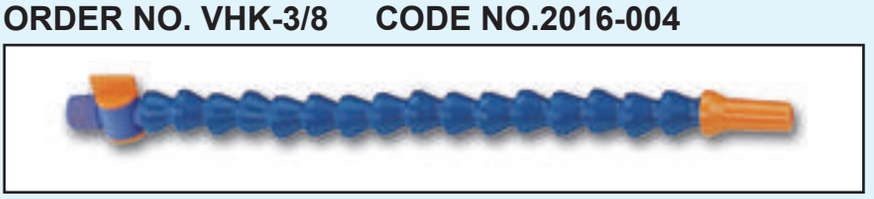
ORDER NO. VHK-3/8A CODE NO.2016-003



ACID RESISTANT

63720
36CM Length Hose Kit
Assembled with:
1-3/8″ Male NPT Valve
1-16 Element Segments
1-(1/4″ or 3/8″ or 1/2″) Round Nozzle

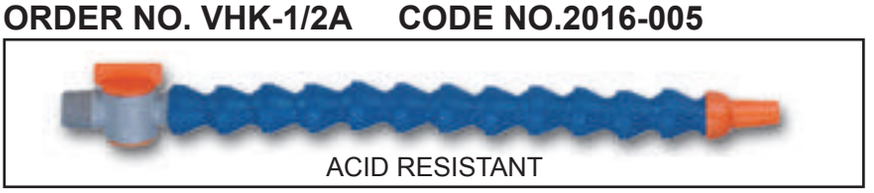
ORDER NO. VHK-3/8 CODE NO.2016-004



1/2″ VALVE & HOSE KIT

64420
33CM Length Hose Kit
Assembled with:
1-Acid Resistant 1/2″ Male NPT Valve
1-12 Element Segments
1-(1/4″or 3/8″ or 1/2″) Round Nozzle

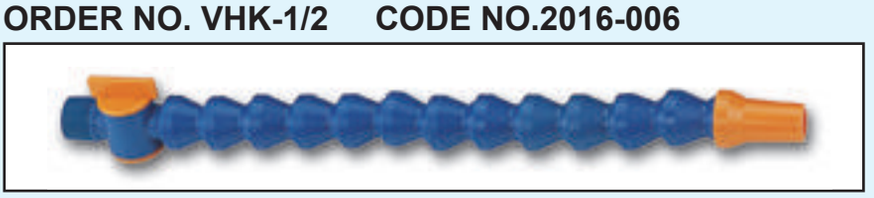
ORDER NO. VHK-1/2A CODE NO.2016-005



ACID RESISTANT

64720
33CM Length Hose Kit
Assembled with:
1-1/2″ Male NPT Valve
1-12 Element Segments
1-(1/4″or 3/8″ or 1/2″) Round Nozzle

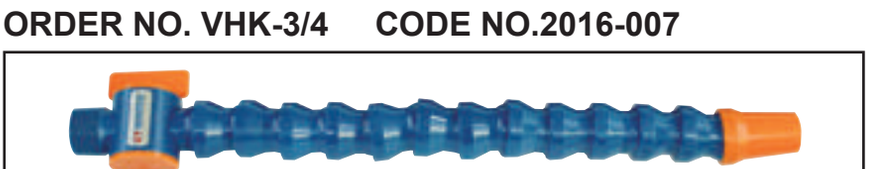
ORDER NO. VHK-1/2 CODE NO.2016-006



3/4″ VALVE & HOSE KIT

66720
44CM Length Hose Kit
Assembled with:
3/4″ Male PT or NPT Valve

ORDER NO. VHK-3/4 CODE NO.2016-007

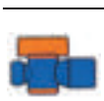
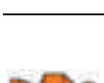
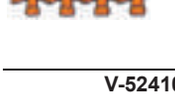


1/4” System

1/4” INSIDE DIAMETER

FIG.	ITEM NO.	DESCRIPTION
	V-82020	1/4” Hose Kit 33 CM Length with Fittings: 2-14 CM Segments 1/16”,1/8”, 1/4” Nozzles 1/4” & 1/8” Male PT connectors CODE NO.2016-101
	V-82020A	1/4” Hose Kit 33 CM Length with Fittings: 2-14 CM Segments 1/16”,1/8”,1/4” Nozzles 1/4” & 1/8” Male NPT connectors CODE NO.2016-102
	V-82220	1/4” Extenden Element Kit with Element Clamps Includes 4 each of: 1/4” Extended Elements 1/4” Element Clamps CODE NO.2016-103
	V-82021	1/4” Segment pack (2-14CM 20pcs) CODE NO.2016-104-1
	V-82051	1/4” 1524 CM coil CODE NO.2016-104-2
	V-82071	1/4” 2500 Cm coil CODE NO.2016-104-3 Weight : 0.00177kg
	V-62423	1/4” Circle Flow Nozzle Kit Assembled with 15 Side Flow Nozzles 1/4” & 1 End Cap 1/4” CODE NO.2016-105
	V-82221	1/4” Extended Elements, pack of 4 CODE NO.2016-106
	V-82241	1/4” Exdended Elements, pack of 20 CODE NO.2016-107 Weight : 0.00641kg
	V-82222	1/4” Element Clamps, pack of 4 CODE NO.2016-108
	V-82242	1/4” Element Clamps, pack of 20 CODE NO.2016-109 Weight : 0.00265kg
	V-82326	1/4” 90^{O} Nozzle Kit 1 Each: 1/16”,1/8”,1/4” & Spray Bar Nozzles CODE NO.2016-110
	V-82022	1/16” Round Nozzles Pack of 4 CODE NO.2016-111
	V-82042	1/16” Round Nozzles Pack of 50 CODE NO.2016-112 Weight : 0.0016kg
	V-82023	1/8” Round Nozzles Pack of 4 CODE NO.2016-113
	V-82043	1/8” Round Nozzles Pack of 50 CODE NO.2016-114 Weight : 0.00195kg
	V-82024	1/4” Round Nozzles Pack of 4 CODE NO.2016-115
	V-82044	1/4” Round Nozzles Pack of 50 CODE NO.2016-116 Weight : 0.00288kg
	V-82223	1/16” 90^{O} Nozzles, pack of 4 CODE NO.2016-117
	V-82243	1/16” 90^{O} Nozzles, pack of 20 CODE NO.2016-118 Weight : 0.00156kg
	V-82224	1/8” 90^{O} Nozzles, pack of 4 CODE NO.2016-119
	V-82244	1/8” 90^{O} Nozzles, pack of 20 CODE NO.2016-120 Weight : 0.00183kg

FIG.	ITEM NO.	DESCRIPTION
	V-82225	1/4”90^{O} Nozzles, pack of 4 CODE NO.2016-121
	V-82245	1/4”90^{O} Nozzles, pack of 20 CODE NO.2016-122 Weight : 0.00236kg
	V-82226	1/4”90^{O} Spray Bar Nozzles, pack of 2 CODE NO.2016-123
	V-82246	1/4”90^{O} Spray Bar Nozzles, pack of 20 CODE NO.2016-124 Weight : 0.00285kg
	V-82017	3/8”Flat Nozzles, pack of 2 CODE NO.2016-125
	V-82037	3/8”Flat Nozzles, pack of 20 CODE NO.2016-126 Weight : 0.00202kg
	V-82027	1”Flare Nozzles, pack of 2 CODE NO.2016-127
	V-82047	1”Flare Nozzles, pack of 20 CODE NO.2016-128 Weight : 0.00288kg
	V-82025	1/8”PT Connectors pack of 4 CODE NO.2016-129
	V-82035	1/8”-PT Connectors pack of 50 CODE NO.2016-130 Weight : 0.00232kg
	V-82025A	1/8”NPT Connectors pack of 4 CODE NO.2016-131
	V-82035A	1/8”NPT Connectors pack of 50 CODE NO.2016-132 Weight : 0.0023kg
	V-82026	1/4”PT Connectors pack of 4 CODE NO.2016-133
	V-82036	1/4”PT Connectors pack of 50 CODE NO.2016-134 Weight : 0.00259kg
	V-82026A	1/4”NPT Connectors pack of 4 CODE NO.2016-135
	V-82036A	1/4”NPT Connectors pack of 50 CODE NO.2016-136 Weight : 0.00267kg
	V-82028	1/4”Y Fitting Pack of 2 CODE NO.2016-137
	V-82038	1/4”Y Fitting Pack of 20 CODE NO.2016-138 Weight : 0.00269kg
	V-82011	1/4”Double Sockets, pack of 4 CODE NO.2016-139
	V-82031	1/4”Double Sockets, pack of 20 CODE NO.2016-140 Weight : 0.00177kg
	V-82012	1/4”Socket to 1/8” NPTF, pack of 4 CODE NO.2016-141
	V-82032	1/4”Socket to 1/8” NPTF, pack of 20 CODE NO.2016-142 Weight : 0.00287kg
	V-82013	3/8”SAE Flare Nut Adapters, pack of 4 CODE NO.2016-143
	V-82033	3/8”SAE Flare Nut Adapters, pack of 20(5/8-18 Thread) CODE NO.2016-144 Weight : 0.00397kg
	V-82014	1/4”SAE Flare Nut Adapters, pack of 4 CODE NO.2016-145
	V-82034	1/4”SAE Flare Nut Adapters, pack of 20 (7/16-20 Thread) CODE NO.2016-146 Weight : 0.00167kg
	V-62420	1/4”Elbow Fittings pack of 2 CODE NO.2016-147
	V-62430	1/4”Elbow Fittings pack of 20 CODE NO.2016-148 Weight : 0.00242kg
	V-62426	1/4” T Fitting pack of 2 CODE NO.2016-149
	V-62436	1/4” T Fitting pack of 20 CODE NO.2016-150 Weight : 0.00375kg
	V-62422	1/4” Side Flow Nozzles, pack of 4 CODE NO.2016-151
	V-62442	1/4” Side Flow Nozzles, pack of 20 CODE NO.2016-152 Weight : 0.00275kg

FIG.	ITEM NO.	DESCRIPTION
	V-62424	1/4”End Caps, pack of 4 CODE NO.2016-153-1
	V-62444	1/4”End caps, pack of 20 CODE NO.2016-153-2 Weight : 0.00191kg
	V-82228	1/4”Swivel Nozzle 40, pack of 2 CODE NO.2016-154
	V-82248	1/4”Swivel Nozzle 40, pack of 20 CODE NO.2016-155 Weight : 0.00875kg
	V-82229	1/4”Swivel Nozzle 60, pack of 2 CODE NO.2016-156
	V-82249	1/4”Swivel Nozzle 60, pack of 20 CODE NO.2016-157 Weight : 0.00845kg
	V-82721	1/4”NPT Male Hose Nipple Valves pack of 2 CODE NO.2016-158
	V-82731	1/4”NPT Male Hose Nipple Valves pack of 10 CODE NO.2016-159
7.8g		Weight : 0.0078kg
	V-82722	1/4”Connection Valves, pack of 2 CODE NO.2016-162
	V-82732	1/4”Connection Va.lves, pack of 10 CODE NO.2016-163 Weight : 0.00693kg
	V-82522	Acid Resistant 1/4”Connection Valves, pack of 2 CODE NO.2016-164
	V-82532	1/4”Connection Valves, pack of 10 CODE NO.2016-165 Weight : 0.00702kg
	V-82723	1/4”Male PT Valves, pack of 2 CODE NO.2016-166
	V-82733	1/4”Male PT Valves, pack of 10 CODE NO.2016-167 Weight : 0.0076kg
	V-82523	Acid Resistant 1/4”Male NPT Valves, pack of 2 CODE NO.2016-168
	V-82533	1/4”Male NPT Valves, pack of 10 CODE NO.2016-169 Weight : 0.00774kg
	V-82724	1/4”Female PT Valves, pack of 2 CODE NO.2016-170
	V-82744	1/4”Female PT Valves, pack of 10 CODE NO.2016-171 Weight : 0.00809kg
	V-82524	Acid Resistant 1/4”Female NPT Valves, pack of 2 CODE NO.2016-172
	V-82534	1/4”Female NPT Valves, pack of 10 CODE NO.2016-173 Weight : 0.00836kg
	V-82725	1/4”Connection Check Valves,pack of 2 CODE NO.2016-174
	V-82745	1/4”Connection Check Valves,pack of 10 CODE NO.2016-175 Weight : 0.00562kg
	V-52400	Modular Manifold System 1/4” 1/4”Elbow Fitting-1 pcs 1/4”Manlfold Bracket-1 pcs 1/4”T Fittings-3 pcs 1/4”Mounting screw-3 pcs CODE NO.2016-176 Weight : 0.0322kg
	V-52410	1/4”Main Flow Control Manifold System 1/4”Modular Manifold-1 pcs 1/4”Connection Valves-5 pcs CODE NO.2016-177 Weight : 0.0675kg
	V-52416	1/4”Maniford Brackets pack of 2 CODE NO.2016-178 Weight : 0.00973kg
	V-26171	1/4”Hose Assembly pliers CODE NO.2016-179

1/2” System

VERTEX

1/2” INSIDE DIAMETER

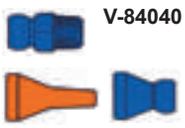
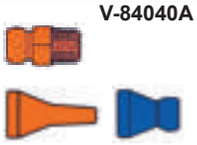
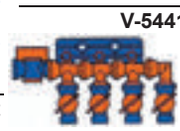
FIG.	ITEM NO.	DESCRIPTION
	V-84040	1/2” Hose Kit 33 CM Length with Fittings: 2-14 CM Segments 1/4”, 3/8”,1/2” Nozzles 3/8”,1/2” Male PT connectors CODE NO. 2016-201
	V-84040A	1/2” Hose Kit 33 CM Length with Fittings: 2-14 CM Segments 1/4”,3/8”, Nozzles 3/8”,1/2” Male NPT connectors CODE NO. 2016-202
	V-84440	1/2” Extended Element Kit with Element Clamps Includes 4 each of: 1/2” Extended Elements 1/2” Element Clamps CODE NO. 2016-203
	V-84041	Segment pack (2-14 CM 12pcs) CODE NO. 2016-204
	V-84081	1/2” 1524 CM coil CODE NO. 2016-205
	V-84091	1/2” 2500 CM coil CODE NO. 2016-206 Weight : 0.00555kg
	V-64643	1/2” Circle Flow Nozzle Kit Assembled with 15 Side Flow Nozzles 1/2” & 1 End Cap 1/2” CODE NO. 2016-207
	V-84441	1/2” Extended Elements, pack of 4 CODE NO. 2016-208
	V-84461	1/2” Extended Elements, pack of 20 CODE NO. 2016-209 Weight : 0.01186kg
	V-84346	90^{O} Nozzle Kit 1 Each: 1/4”,3/8”,1/2” & Spray Bar Nozzles CODE NO. 2016-210
	V-84044	1/4” Round Nozzles, pack of 4 CODE NO. 2016-211
	V-84064	1/4” Round Nozzles, pack of 50 CODE NO. 2016-212 Weight : 0.00339kg
	V-84042	3/8” Round Nozzles, pack of 4 CODE NO. 2016-213
	V-84062	3/8” Round Nozzles, pack of 50 CODE NO. 2016-214 Weight : 0.0435kg
	V-84043	1/2” Round Nozzles, pack of 4 CODE NO. 2016-215
	V-84063	1/2” Round Nozzles, pack of 50 CODE NO. 2016-216 Weight : 0.0597kg
	V-84443	1/4”90^{O} Nozzles, pack of 4 CODE NO. 2016-217
	V-84463	1/4” 90^{O} Nozzles, pack of 20 CODE NO. 2016-218 Weight : 0.0053kg
	V-84444	3/8” 90^{O} Nozzles, pack of 4 CODE NO. 2016-219
	V-84464	3/8” 90^{O} Nozzles, pack of 20 CODE NO. 2016-220 Weight : 0.00566kg

FIG.	ITEM NO.	DESCRIPTION
	V-84445	1/2”90^{O} Nozzles, pack of 4 CODE NO. 2016-221
	V-84465	1/2”90^{O} Nozzles, pack of 20 CODE NO. 2016-222 Weight : 0.00552kg
	V-84446	1/2”90^{O} Spray Bar, pack of 2 CODE NO. 2016-223
	V-84466	1/2”90^{O} Spray Bar, pack of 20 CODE NO. 2016-224 Weight : 0.01033kg
	V-84047	1 1/4”Flare Nozzles, pack of 2 CODE NO. 2016-225
	V-84067	1 1/4”Flare Nozzles, pack of 20 CODE NO. 2016-226 Weight : 0.00696kg
	V-84050	1 3/4”Flare Nozzles, pack of 2 CODE NO. 2016-227
	V-84070	1 3/4”Flare Nozzles, pack of 20 CODE NO. 2016-228 Weight : 0.0088kg
	V-84052	2 1/2”Flare Nozzles, pack of 2 CODE NO. 2016-229
	V-84072	2 1/2”Flare Nozzles, pack of 20 CODE NO. 2016-230 Weight : 0.00922kg
	V-84046	3/8”PT Connectors pack of 4 CODE NO. 2016-231
	V-84066	3/8”PT Connectors pack of 50 CODE NO. 2016-232 Weight : 0.0063kg
	V-84046A	3/8”NPT Connectors pack of 4 CODE NO. 2016-233
	V-84066A	3/8”NPT Connectors pack of 50 CODE NO. 2016-234 Weight : 0.00602kg
	V-84045	1/2”PT Connectors pack of 4 CODE NO. 2016-235
	V-84065	1/2”PT Connectors pack of 50 CODE NO. 2016-236 Weight : 0.00732kg
	V-84045A	1/2”NPT Connectors pack of 4 CODE NO. 2016-237
	V-84065A	1/2”NPT Connectors pack of 50 CODE NO. 2016-238 Weight : 0.00669kg
	V-84048	1/2”Y Fittings pack of 2 CODE NO. 2016-239
	V-84068	1/2”Y Fittings pack of 20 CODE NO. 2016-240 Weight : 0.0108kg
	V-84049	1/2” to 1/4” Y Reducers, pack of 2 CODE NO. 2016-241
	V-84069	1/2” to 1/4” Y Reducers, pack of 20 CODE NO. 2016-242 Weight : 0.00608kg
	V-84651	1/2”to 1/4” Adapters, pack of 2 CODE NO. 2016-243
	V-84851	1/2”to 1/4” Adapters, pack of 20 CODE NO. 2016-244 Weight : 0.00452kg
	V-84011	1/2”Double Sockets, pack of 4 CODE NO. 2016-245
	V-84031	1/2”Double Sockets, pack of 20 CODE NO. 2016-246 Weight : 0.00452kg
	V-84013	1/4”SAE Flare Nut Adapters,pack of 4 CODE NO. 2016-247
	V-84033	1/4”SAE Flare Nut Adapters,pack of 20 (5/8-18 Thread) CODE NO. 2016-248 Weight : 0.00516kg
	V-64620	1/2” Elbow Fittings, pack of 2 CODE NO. 2016-249
	V-64640	1/2” Elbow Fittings, pack of 20 CODE NO. 2016-250 Weight : 0.00666kg

FIG.	ITEM NO.	DESCRIPTION
	V-64626	1/2”T Fittings, pack of 2 CODE NO. 2016-251
	V-64646	1/2”T Fittings, pack of 20 CODE NO. 2016-252 Weight : 0.0097kg
	V-64622	1/2”Side Flow Nozzles, pack of 4 CODE NO. 2016-253
	V-64642	1/2”Side Flow Nozzles, pack of 20 CODE NO. 2016-254 Weight : 0.0078kg
	V-64624	1/2”End caps, pack of 4 CODE NO. 2016-255
	V-64644	1/2”End caps, pack of 20 CODE NO. 2016-256 Weight : 0.00466kg
	V-84722	1/2”connection Valves, pack of 2 CODE NO. 2016-257
	V-84742	1/2”connection Valves, pack of 10 CODE NO. 2016-258 Weight : 0.02201kg
	V-84522	Acid Resistant 1/2”connection Valves, pack of 2 CODE NO. 2016-259
	V-84542	1/2”connection Valves, pack of 10 CODE NO. 2016-260 Weight : 0.02227kg
	V-84723	1/2”Male PT Valves, pack of 2 CODE NO. 2016-261
	V-84743	1/2”Male PT Valves, pack of 10 CODE NO. 2016-262 Weight : 0.02287kg
	V-84523	Acid Resistant 1/2”Male NPT Valves, pack of 2 CODE NO. 2016-263
	V-84543	1/2”Male NPT Valves, pack of 10 CODE NO. 2016-264 Weight : 0.02308kg
	V-84724	1/2”Female PT Valves, pack of 2 CODE NO. 2016-265
	V-84744	1/2”Female PT Valves, pack of 10 CODE NO. 2016-266 Weight : 0.02348kg
	V-84524	Acid Resistant 1/2”Female NPT Valves, pack of 2 CODE NO. 2016-267
	V-84544	1/2”Female NPT Valves, pack of 10 CODE NO. 2016-268 Weight : 0.02286kg
	V-84725	1/2”connection Chuck Valves, pack of 2 CODE NO. 2016-269
	V-84745	1/2”connection Chuck Valves, pack of 10 CODE NO. 2016-270 Weight : 0.00878kg
56.2g	V-54400	Modular Manifold System 1/2” 1/2”-Elbow Fitting-1 pcs 1/2”-Manifold Bracket-1 pcs 1/2”-T Fittings-3 pcs 1/2”-Mounting screws-3 pcs CODE NO. 2016-271 Weight : 0.0562kg
	V-54410	Main Flow Control Manifold System1/2” 1-Modular Manifold1/2” 5-Connection Valves1/2” CODE NO. 2016-272 Weight : 0.16625kg
	V-54416	1/2”Manifold Brackets of 2 CODE NO. 2016-273 Weight : 0.01148kg
	V-26172	1/2”Hose Assembly pliers CODE NO. 2016-274

3/8” System

3/8” INSIDE DIAMETER

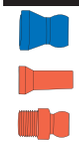
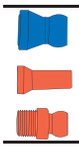
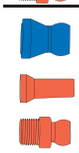
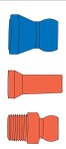
FIG.	ITEM NO.	DESCRIPTION
	V-83030	3/8” Hose Kit 8 pcs of 3/8” Segment - 2 sets 3/8” Nozzles 3/8” Male PT connectors CODE NO.2016-275
	V-83030A	3/8” Hose Kit 8 pcs of 3/8” Segment - 2 sets 3/8” Nozzles 13/8” Male NPT connectors CODE NO.2016-276
	V-83430	3/8” Hose Kit 8 pcs of 3/8” Segment - 2 pcs 1/4”, 3/8”, 1/2” Nozzles 3/8” & 1/2” Male PT connectors CODE NO.2016-277
	V-83430A	3/8” Hose Kit 8 pcs of 3/8” Segment - 2 pcs 1/4”, 3/8”, 1/2” Nozzles 3/8” & 1/2” Male NPT connectors CODE NO.2016-278
	V-83031	3/8” Segment pack (2-14.5CM 8pcs) CODE NO.2016-279
	V-83051	3/8” 762 CM coil CODE NO.2016-280
	V-83091	3/8” 1524 CM coil Weight: 2.8kgs CODE NO.2016-281
	V-83032	1/4” Round Nozzles, Pack of 4 CODE NO.2016-282
	V-83052	1/4” Round Nozzles, Pack of 50 CODE NO.2016-283

FIG.	ITEM NO.	DESCRIPTION
	V-83033	3/8” Round Nozzles, pack of 4 CODE NO.2016-2016-284
	V-83053	3/8” Round Nozzles, pack of 50 CODE NO.2016-2016-285 Wight: 197.2g
	V-83034	1/2” Round Nozzles, pack of 4 CODE NO.2016-286
	V-83054	1/2” Round Nozzles, pack of 50 CODE NO.2016-287
	V-83026	1/4” PT Connector, pack of 4 CODE NO.2016-288
	V-83046	1/4” PT Connector, pack of 50 CODE NO.2016-289
	V-83035	3/8” PT Connector, pack of 4 CODE NO.2016-290
	V-83055	3/8” PT Connector, pack of 50 CODE NO.2016-291
	V-83035A	3/8” NPT Connector, pack of 4 CODE NO.2016-292
	V-83055A	3/8” NPT Connector, pack of 50 CODE NO.2016-293
	V-83036	1/2” PT Connector, pack of 4 CODE NO.2016-294
	V-83056	1/2” PT Connector, pack of 50 CODE NO.2016-295
	V-83036A	1/2” NPT Connector, pack of 4 CODE NO.2016-296
	V-83056A	1/2” NPT Connector, pack of 50 CODE NO.2016-297

FIG.	ITEM NO.	DESCRIPTION
	V-83037	1 1/4” Flare Nozzles, pack of 2 CODE NO.2016-298
	V-83057	1 1/4” Flare Nozzles, pack of 20 CODE NO.2016-299
	V-83723	3/8” Male PT Valve, pack of 2 CODE NO.2016-302
	V-83743	3/8” Male PT Valve, pack of 10 CODE NO.2016-303 Wight: 127g
	V-83723A	3/8” Male NPT Valve, pack of 2 CODE NO.2016-304
	V-83743A	3/8” Male NPT Valve, pack of 10 CODE NO.2016-305
	V-83724	3/8” Female PT Valve, pack of 2 CODE NO.2016-306
	V-83744	3/8” Female PT Valve, pack of 10 CODE NO.2016-307
	V-83724A	3/8” Female NPT Valev, pack of 2 CODE NO.2016-308
	V-83744A	3/8” Female NPT Valev, pack of 10 CODE NO.2016-309
	V-26176	3/8” Hose Assembly pliers CODE NO.2016-310

COOLANT HOSE

3/4” System

3/4” INSIDE DIAMETER

FIG.	ITEM NO.	DESCRIPTION
	V-86060	3/4” Hose Kit 6 pcs of 3/4” Segment-2 sets 5/8” & 3/4” Nozzles 3/4” Male PT Connector CODE NO.2016-400
	V-86060A	3/4” Hose Kit 6 pcs of 3/4” Segment-2 sets 5/8” & 3/4” Nozzles 3/4” Male PT Connector CODE NO.2016-401
	V-86061	3/4” Segment Pack (2-15 CM 6pcs)
	V-86081 V-86091	CODE NO.2016-402 3/4” 1524 CM Coil CODE NO.2016-403
		3/4” 2500 CM Coil CODE NO.2016-404
	V-86063	5/8” Round Nozzle, pack of 4 CODE NO.2016-405
	V-86073	5/8” Round Nozzle, pack of 50 CODE NO.2016-406
	V-86062	3/4” Round Nozzle, pack of 4 CODE NO.2016-407
	V-86072	3/4” Round Nozzle, pack of 50 CODE NO.2016-408
	V-86064	3/4” PT Connector pack of 4 CODE NO.2016-409
	V-86074	3/4” PT Nozzle, pack of 50 CODE NO.2016-410
	V-86064A	3/4” NPT Connector pack of 4 CODE NO.2016-411
	V-86074A	3/4” NPT Nozzle, pack of 50 CODE NO.2016-412

FIG.	ITEM NO.	DESCRIPTION
	V-86021	3/4” Fixed Mount, pack of 2 CODE NO.2016-413
	V-86022	3/4” Magnetic Base, pack of 1 CODE NO.2016-414
	V-86023	Shield Mounting Elbow, pack of 2 CODE NO.2016-415
	V-86067	3” Flare Nozzle, pack of 2 CODE NO.2016-416
	V-86077	3” Flare Nozzle, pack of 20 CODE NO.2016-417
	V-86068	3/4” Y Fitting, pack of 2 CODE NO.2016-418
	V-86078	3/4” Y Fitting, pack of 20 CODE NO.2016-419
	V-86069	3/4” to 1/2” Y Reducer, pack of 2 CODE NO.2016-420
	V-86079	3/4” to 1/2” Y Reducer, pack of 20 CODE NO.2016-421
	V-86051	3/4” to 1/2” Adapter, pack of 2 CODE NO.2016-422
	V-86071	3/4” to 1/2” Adapter, pack of 20 CODE NO.2016-423
	V-86011	3/4” Double Socket, pack of 4 CODE NO.2016-424
	V-86031	3/4” Double Socket, pack of 20 CODE NO.2016-425

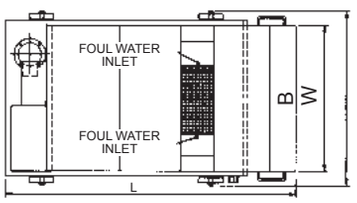
FIG.	ITEM NO.	DESCRIPTION
	V-26177	3/4” Hose Assembly Pliers CODE NO.2016-426

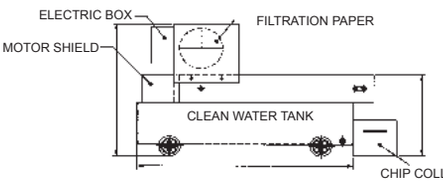
Paper Filter

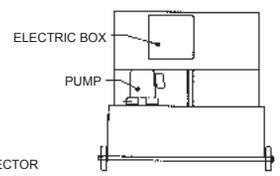
FEATURES

- Appllicable to both ferrous and non-ferrous metals.
- Filtration effect depends on paper accuracy. Use 50μ,30μ,or 15μ.
- Not suitable for heavy machining for the sake of paper consumption.
- To save filtration material, use magnetic filter for roung filtration.
- Standard accessory:one roll of paper.

※Guaranteed for 3 months.







ORDER NO.	DISPOSAL CAPACITY L/MIN	WATER TANK CAPACITY	L	A	B	C	W	H	PUMP		PAPER MOTOR	PAPER	REMARKS	N.W (kgs)	GW (kgs)	CODE NO.
									HP	OUTLET						
PF-20	20	100ℓ	1050	850	600	400	720	610	1/8	PF1/2″	25W	W:500MM L :90M	wheels attached	95	120	2020-001
PF-40	40	120ℓ	1200	1000	600	400	720	660	1/8	PF1/2″	25W			130	150	2020-002
PF-60	60	140ℓ	1350	1150	600	400	720	660	1/8	PF1/2″	25W			140	170	2020-003
PF-80	80	160ℓ	1500	1300	600	400	720	660	1/4	PF3/4″	25W			170	190	2020-004
PF-120	120	210ℓ	1500	1300	800	400	920	740	1/2	PF3/4″	40W	W:700MM L :90M		185	210	2020-005
PF-160	160	260ℓ	1800	1600	800	400	920	740	1/2	PF3/4″	40W			250	280	2020-006

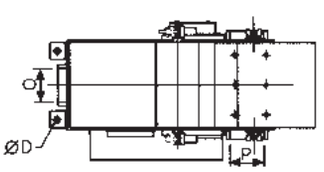
Magnetic Separator

FEATURES

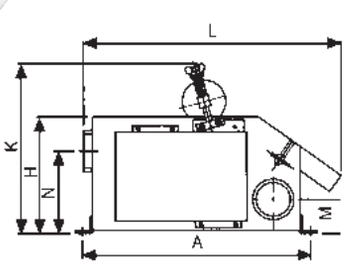
- Suitable in heavy machining for ferrous metal.
- No filtration-material consumption.
- Most economic in purchase & utilization cost.
- Able to serve rough filtration in other filtration process.
- Please notify volta & phase, when you ordering.

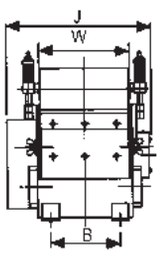
※Guaranteed for 3 months.

MC-60



MC-20~160





Standard accessories

a.Chip collector 1pc

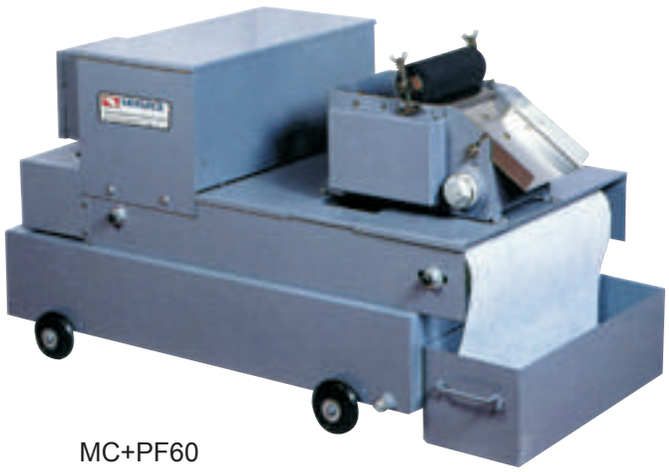
b.plugs 2pc

c.Elbow 1pc

d.Steel tubes 3pc

ORDER NO.	DISPOSAL CAPACITY L/MIN	L	W	H	M	N	A	B	D	J	K	INLET O	OUTLET P	MOTOR	N.W (kgs)	GW (kgs)	CODE NO.
MC-20	20	464	130	205	65	145	398	100	11	230	300	PF1 1/2″	PF1 1/2″	220V3Ø,25W	18	20	2020-010
MC-40	40	464	150	205	65	145	398	120	11	250	300	PF2″	PF2″	220V3Ø,25W	20	23	2020-011
MC-60	60	464	206	205	60	150	398	176	11	306	300	PF2″	PF2″	220V3Ø,25W	25	28	2020-012
MC-80	80	464	242	205	60	150	398	212	11	342	300	PF2″	PF1 1/2″	220V3Ø,25W	30	40	2020-013
MC-120	120	530	270	245	68	185	456	230	11	380	345	PF1 1/2″	PF3″	220V3Ø,40W	50	65	2020-014
MC-160	160	530	354	245	68	185	456	314	11	464	345	PF3″	PF3″	220V3Ø,40W	60	75	2020-015

Magnetic Separator & Paper Filter



MC+PF60

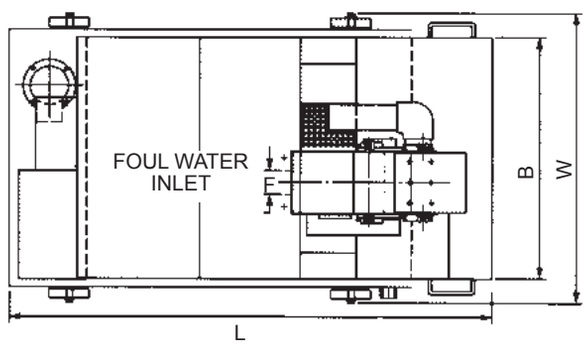
APPLICABLE TO THE FOLLOWING WORKING MACHINES

- Plane grinding machine.
- Fine-grinding machine.
- Honing machine.
- Deep-hole drill.
- Internal/exterless cyilnder grinder.
- Centerless grinder.
- Please specify the power voltage in your order list.
- Specifications are subject to change without notice.
- Please notify volta & phase, when you ordering.

※Guaranteed for 3 months.

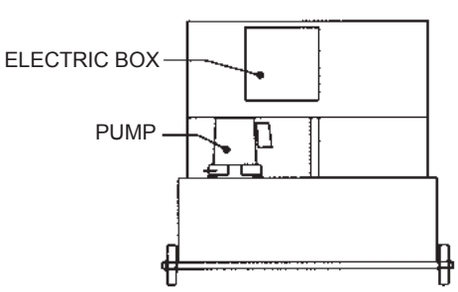
FEATURES

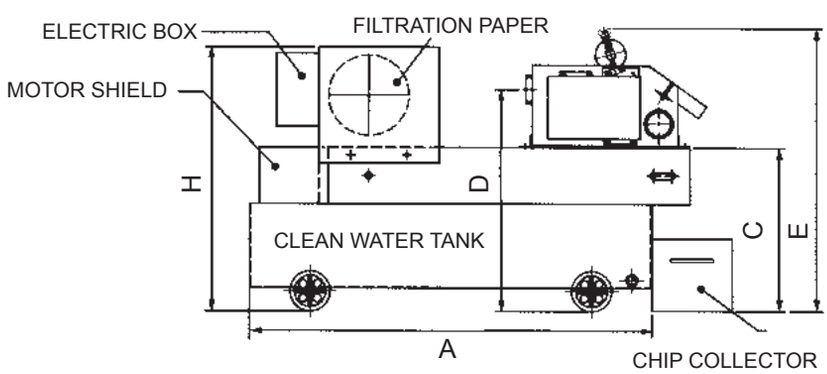
- Applicable to both ferrous and non-ferrous metals.
- Filtration effect depends on paper accuracy. Use 50μ,30μ,or 15μ.
- Rough filtration for chip in coolant with magnet and then fine filtration for impurities with paper will save the paper and upgrade filtration accuracy



DIMENSION DIAGRAM

- Standard accessory:one roll paper 30μ

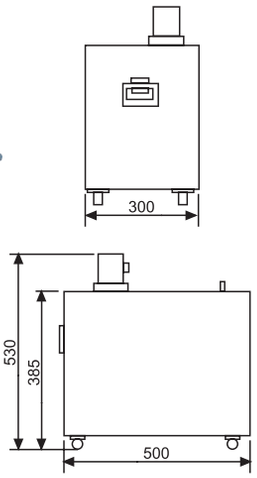




MAGNETIC SEPARATOR & PAPER FILTER SPECIFICATIONS

ORDER NO.	DISPOSAL CAPACITY L/MIN	WATER TANK CAPACITY	L	A	B	C	D	E	F	H	W	PUMP HP	PUMP OUTLET	PAPER MOTOR	PAPER	REMARKS	N.W (kgs)	GW (kgs)	CODE NO.
MC+PF-20	20	100 ℓ	1050	850	600	400	550	655	PF1 1/2"	610	720	1/8	PF1/2"	25W	W:500MM L:90M	wheels	115	140	2020-020
MC+PF-40	40	120 ℓ	1200	1000	600	400	550	705	PF2"	660	720	1/8	PF1/2"	25W			150	175	2020-021
MC+PF-60	60	140 ℓ	1350	1150	600	400	555	705	PF2"	660	720	1/8	PF1/2"	25W			165	200	2020-022
MC+PF-80	80	160 ℓ	1500	1300	600	400	555	705	PF2"	660	720	1/4	PF3/4"	25W			190	225	2020-023
MC+PF-120	120	210 ℓ	1500	1300	800	400	590	750	PF2 1/2"	740	920	1/2	PF3/4"	40W	W:700MM L:90M		235	275	2020-024
MC+PF-160	180	260 ℓ	1800	1600	800	400	605	750	PF3"	740	920	1/2	PF3/4"	40W			290	335	2020-025

Coolant Tank

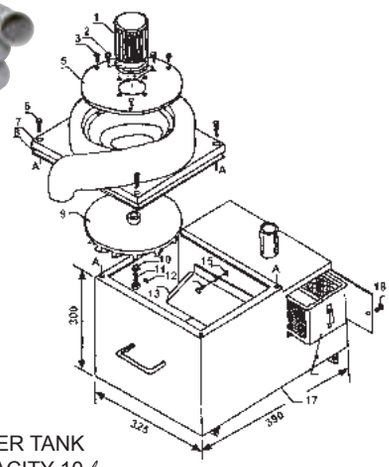


● WATER TANK CAPACITY 40 ℓ

Unit: mm

ORDER NO.	LxWxH	Motor	G.W.	CODE NO.
VC-601	500x300x530	1/8 HP	23kgs	2020-030

Dust Collector VERTEX



● WATER TANK CAPACITY 10 ℓ

Unit: mm

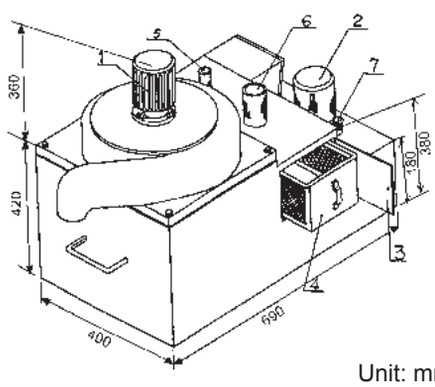
ORDER NO.	LxWxH	Motor	G.W.	CODE NO.
VC-602	560x370x720	1/2 HP	47kgs	2020-026

Dust-Suction And Coolant Tank

TWO IN ONE

PLEASE NOTIFY VOLTA & PHASE, WHEN YOU ORDERING.

Combination coolant and dust collector(10-12 J)
1. Dust suction motor
2. Coolant pump
3. Filter access door
4. Filter
5. Coolant return pipe
6. Dust inlet pipe
7. Pump outlet



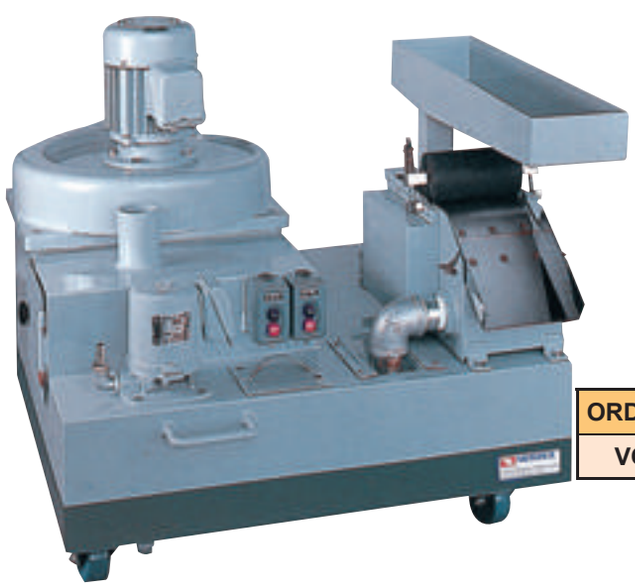
● WATER TANK CAPACITY 45 ℓ

Unit: mm

ORDER NO.	LxWxH	Motor	G.W.	CODE NO.
VC-603	690x400x780	1/2 HPx1, 1/8 HPx1	80kgs	2020-027

Dust-Suction & Coolant Tank W/Magnetic Separator

THREE IN ONE



PLEASE NOTIFY VOLTA & PHASE, WHEN YOU ORDERING.

● WATER TANK CAPACITY 45 ℓ

Unit: mm

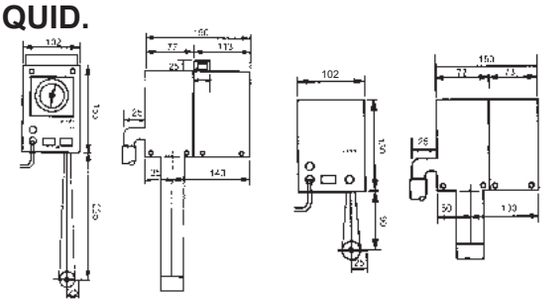
ORDER NO.	LxWxH	Motor	G.W.	CODE NO.
VC-606	900x780x850	1/2 HPx1, 1/8 HPx1	110kgs	2020-028

Oil Skimmer With Belt Type

OIL SKIMMER FOR MACHINE TOOL.
IT IS FOR CLEAR FLOATING OIL ON CUTTING LIQUID.

ORDER NO. VOS-800

ORDER NO. VOS-810



FEATURES

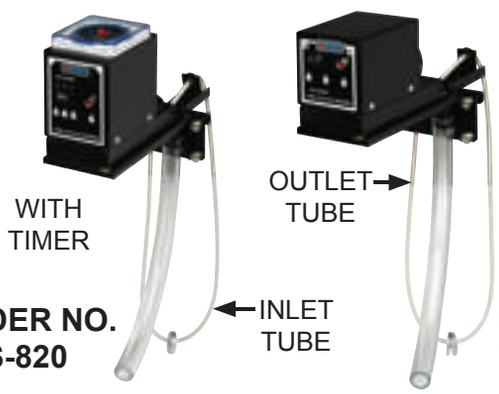
- Oily leather belt cycle for collecting oil and efficiently and completely getting rid of diryt oil.
- Much less cost of running., without any material expended.
- Small volume., light weight., easy to install and to operate.
- Special leather belt with feature of excellent durability, heat-resistance, and chemical-resistance.
- VOS-800 attached a 24 hours procedure timer to run repeatly in accordance with time proportion which it is set, and also provides the best efficiency of sucking floating oil.

OIL SKIMMER

Unit: mm

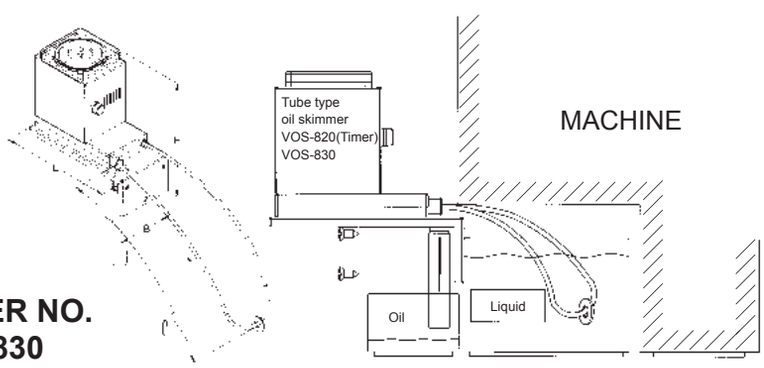
ORDER NO.	POWER SOURCE	CAPACITY	DIMENSION			WEIGHT (kgs)	BELT DIMENSION		DIMENSION OF HOSE	CODE NO.
			L	B	H		B	L		
VOS-800	AC 110/220V	4L/h	190 mm	102 mm	153 mm	3.4	39x800 mm		ø22x600 mm	2020-100
VOS-810			150 mm	102 mm	138 mm	3	39x550 mm			2020-101

Oil Skimmer With Belt Type



ORDER NO. VOS-820

ORDER NO. VOS-830

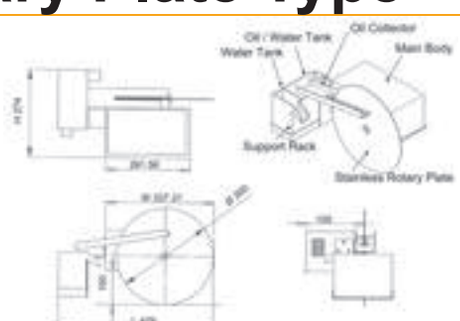


IF THE MACHINE DON'T HAVE SPACE FOR THE OIL SKIMMER. PLEASE CHOICE THIS TYPE.

Unit: mm

ORDER NO.	CAPACITY	DIMENSION			INLET TUBE SIZE	QUTLET TUBE SIZE		POWER SOVRCE	WEIGHT (kg)	CODE NO.
		L	B	H						
VOS-820	1L/hr	155 mm	78 mm	178 mm	I 2:300 mm I 3:200 mm	ø22	150 mm	AC 110/220V	1.9	2020-102
VOS-830		155 mm	78 mm	140 mm					2	2020-103

Oil Skimmer With Rotary Plate Type



Unit: mm

ORDER NO.	CAPACITY	POWER SOURCE	DIMENSION			WEIGHT (kgs)	CODE NO.
			L	W	H		
VOS-850	1L/hr	AC 220V	479	337.21	274	8.6	2020-104

Precision Gauge Blocks

Gauge blocks are fundamental standards for linear measurement. For adjusting, checking. or inspecting measuring instruments and tools, and precision workpieces. Gauge blocks are used either individually or in combination of several blocks which are wrung together.
Steel gauge blocks are made of quality alloy steel. and carbide, the ceramics are also avilable.
The hardness number of the measuring surfaces is no less than HRC64˚.
The blocks have fine wear resistance, They are heat treated in special ways so as to stabilize their lengths.

STEEL METRIC GAUGE BLOCKS

ORDER NO.	Total blocks	Nominal dimension	Steps	No. of blocks	Grade	Weight (kg)	CODE NO.
VGB-112-0	112	1.0005 1.001-1.009 1.01-1.49 0.5-24.5 25-100	- 0.001 0.01 0.05 25	1 9 49 49 4	0	3.7	2006-070
VGB-112-1					1	3.7	2006-170
VGB-112-2					2	3.7	2006-270
VGB-103-0	103	1.005 1.01-1.49 0.5-24.5 25-100	- 0.01 0.5 25	1 49 49 4	0	3.6	2006-072
VGB-103-1					1	3.6	2006-172
VGB-103-2					2	3.6	2006-272
VGB-87-0	87	1.001-1.009 1.01-1.49 0.5-9.5 10-100	0.001 0.01 0.5 10	9 49 19 10	0	3	2006-073
VGB-87-1					1	3	2006-173
VGB-87-2					2	3	2006-273
VGB-47-0	47	1.005 1.01-1.09 1.1-1.9 1-24 25-100	- 0.01 0.1 1 25	1 9 9 24 4	0	2.4	2006-074
VGB-47-1					1	2.4	2006-174
VGB-47-2					2	2.4	2006-274
VGB-38-0	38	1.005 1.01-1.09 1.1-1.9 1-9 10-100	- 0.01 0.1 1 10	1 9 9 9 10	0	2.5	2006-075
VGB-38-1					1	2.5	2006-175
VGB-38-2					2	2.5	2006-275

CARBIDE METRIC GAUGE BLOCKS

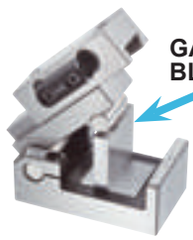
ORDER NO.	Total blocks	Nominal dimension	Steps	No. of blocks	Grade	Weight (kgs)	CODE NO.
VGB-112T-0	112	1.0005 1.001-1.009 1.01-1.49 0.5-24.5 25-100	- 0.001 0.01 0.05 25	1 9 49 49 4	0	5.8	2006-080
VGB-112T-1					1	5.8	2006-180
VGB-112T-2					2	5.8	2006-280
VGB-103T-0	103	1.005 1.01-1.49 0.5-24.5 25-100	- 0.01 0.5 25	1 49 49 4	0	5.6	2006-081
VGB-103T-1					1	5.7	2006-181
VGB-103T-2					2	5.7	2006-281
VGB-87T-0	87	1.001-1.009 1.01-1.49 0.5-9.5 10-100	0.001 0.01 0.5 10	9 49 19 10	0	4.8	2006-082
VGB-87T-1					1	4.9	2006-182
VGB-87T-2					2	4.8	2006-282
VGB-47T-0	47	1.005 1.01-1.09 1.1-1.9 1-24 25-100	- 0.01 0.1 1 25	1 9 9 24 4	0	4.6	2006-083
VGB-47T-1					1	4.6	2006-183
VGB-47T-2					2	4.6	2006-283

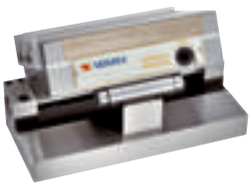
JIS/ISO/DIN ACCURACY STANDARD

SIZE OVER UP TO	ACCURACY AT 20ºC (µm) GRADE 00	GRADE 0
10mm	±0.06	±0.12
10 - 25mm	+0.07	±0.14
25 - 50mm	±0.10	±0.20
50 - 75mm	±0.12	±0.25
75 - 100mm	±0.14	±0.30
100 - 150mm	-	±0.40

SIZE OVER UP TO	ACCURACY AT 20ºC (µm) GRADE 1	GRADE 2
10mm	±0.20	±0.45
10 - 25mm	±0.30	±0.60
25 - 50mm	±0.40	±0.80
50 - 75mm	±0.50	±1.00
75 - 100mm	±0.60	±1.20
100 - 150mm	±0.80	±1.60

Ceramic Gauge Blocks





CHOICE DIFFERENT SIZE GAUGE BLOCK FOR TOTAL THE HEIGHT

Gauge blocks are fundamental standards for linear measurement. For adjusting, checking. or inspecting measuring instruments and tools, and precision workpieces.
Gauge blocks are used either individually or in combination of several blocks which are wrung together.

JIS/ISO/DIN ACCURACY STANDARD

SIZE OVER UP TO	ACCURACY AT 20ºC (µm)	
	GRADE 00	GRADE 0
10mm	±0.06	±0.12
10 - 25mm	+0.07	±0.14
25 - 50mm	±0.10	±0.20
50 - 75mm	±0.12	±0.25
75 - 100mm	±0.14	±0.30
100 - 150mm	-	±0.40

SIZE OVER UP TO	ACCURACY AT 20ºC (µm)	
	GRADE 1	GRADE 2
10mm	±0.20	±0.45
10 - 25mm	±0.30	±0.60
25 - 50mm	±0.40	±0.80
50 - 75mm	±0.50	±1.00
75 - 100mm	±0.60	±1.20
100 - 150mm	±0.80	±1.60

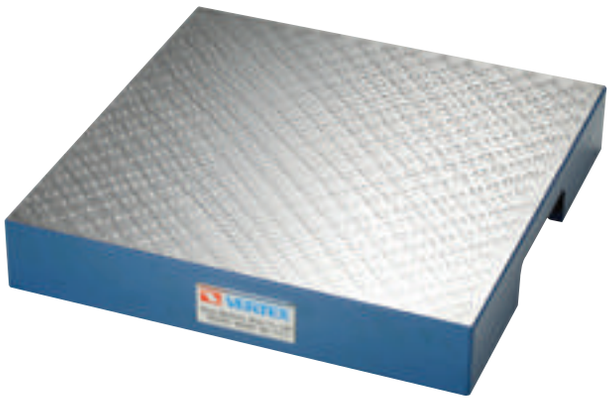
CERAMIC GAUGE BLOCKS

ORDER NO.	Total blocks	Nominal dimension	Steps	No. of blocks	Grade	Weight (kgs)	CODE NO.
VGB-112C-0	112	1.0005 1.001-1.009 1.01-1.49 0.5-24.5 25-100	- 0.001 0.01 0.05 25	1 9 49 49 4	0	3.7	2006-090
VGB-112C-1					1	3.7	2006-190
VGB-103C-0	103	1.005 1.01-1.49 0.5-24.5 25-100	- 0.01 0.5 25	1 49 49 4	0	3.6	2006-091
VGB-103C-1					1	3.6	2006-191
VGB-87C-0	87	1.001-1.009 1.01-1.49 0.5-9.5 10-100	0.001 0.01 0.5 10	9 49 19 10	0	3	2006-092
VGB-87C-1					1	3	2006-192
VGB-47C-0	47	1.005 1.01-1.09 1.1-1.9 1-24 25-100	- 0.01 0.1 1 25	1 9 9 24 4	0	2.4	2006-093
VGB-47C-1					1	2.4	2006-193

HOW TO CHOICE THE BLOCK FOR SINE BAR

DISTANCE / GAUGE BLOCK / CAN GET / HEIGHT / DEGREE	SIN BAR CENTER 50	SIN BAR CENTER 100
2˚	1.7405	3.4899
3˚	2.6168	5.2336
4˚	3.4878	6.9756
5˚	4.3578	8.7155
6˚	5.2264	10.4528
7˚	6.0935	12.1869
8˚	6.9587	13.9173
9˚	7.8217	15.6434
10˚	8.6824	17.3648
11˚	9.5404	19.0809
12˚	10.3956	20.7911
13˚	11.2476	22.4951
14˚	12.0961	24.1921
15˚	12.9401	25.8819
16˚	13.7819	27.5637
17˚	14.6186	29.2371
18˚	15.4058	30.9017
19˚	16.2784	32.5586
20˚	17.1010	34.2020
21˚	17.9184	35.8367
22˚	18.7303	37.4606
23˚	19.5366	39.0713
24˚	20.3368	40.6736
25˚	21.1309	42.2618
26˚	21.9186	43.8371
27˚	22.6995	45.3990
28˚	23.4736	46.9471
29˚	24.2405	48.4809
30˚	25.0000	50.0000
31˚	25.7519	51.5038
32˚	26.4960	52.9919
33˚	27.2320	54.4639
34˚	27.9596	55.9192
35˚	28.6788	57.3576
36˚	29.3893	58.7785
37˚	30.0908	60.1815
38˚	30.7831	61.5661
39˚	31.4660	62.9320
40˚	32.1394	64.2787
41˚	32.8030	65.6059
42˚	33.4565	66.9130
43˚	34.0999	68.1998
44˚	34.7329	69.4658
45˚	35.3553	70.7106

Cast Iron Surface Plates



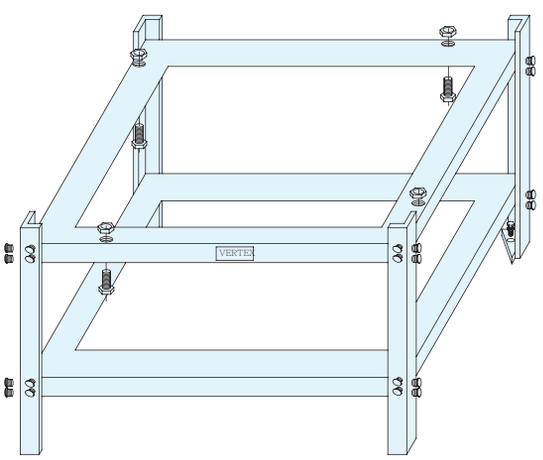
- These surface plates are designed for a diversity of applications where a smooth surface is needed.
- Rigidity and lasting accuracy are ensured by adequate top and side thickness and ribbed construcntion.
- The surfaces are free from pinholes.
  Precisely finished by planing and hand scraping, suitable for various kinds of high precision work, inspection and countless other uses.

Surface Plates

Unit:mm

ORDER NO.	SIZE	SURFACE ACCURACY	APPROX. WEIGHT	CODE NO.
	mm	mm	kgs	
VS-01	200x200x50	0.005/100	7.1	2021-001
VS-02	250x250x50		11.1	2021-002
VS-03	250x300x50		10.9	2021-003
VS-04	300x300x50		12.6	2021-004
VS-05	300x400x60	0.006/100	20.1	2021-005
VS-06	300x450x65		24	2021-006
VS-07	450x450x80		50.5	2021-007
VS-08	500x500x75		56	2021-008
VS-09	450x600x100		64.5	2021-009
VS-10	600x600x100		78	2021-010
VS-11	600x900x110	0.007/100	117	2021-011
VS-12	900x900x130		220	2021-012
VS-13	900x1200x155		305	2021-013

NEW



Separated Modular
Design DIY Type.
Low Profile Packing
With Adjustment Screw For Leveling

Cast Iron Surface Plates Stand

ORDER NO.	STAND SIZE	KGS	CODE NO.
	mm		
VSD-09N	450x600x700	25.6	2021-009N
VSD-10N	600x600x700	28.2	2021-010N
VSD-11N	600x900x700	47.8	2021-011N
VSD-12N	900x900x700	54.3	2021-012N
VSD-13N	900x1200x600	70.0	2021-013N

Black Granite Surface Plates

- Black Granite Surface Plates meet or exceed JIS B7513/ISO-8512-2 Federal Specification GGG-P-463c.
- Harder then steel.
- Does not nick or burr.
- Retains accuracy for years.
- Auto-coliimator checked for overall accuracy.
- Guaranteed repeat reading.
  Includes an inspection certificate to show the unilateral accuracy of plate.
- Does not rust or corrode.
- Surface Accuracy : 0.013~0.0065 / 100 mm

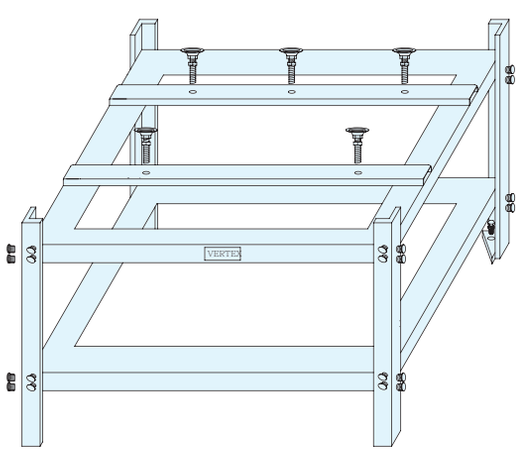
Accuracy and O-Ledge Style available only in toolroom Grade A

Surface Plates

Unit:mm

ORDER NO.	SIZE	SURFACE ACCURACY	APPROX. WEIGHT	CODE NO.
	mm	mm	kgs	
VSG-04	250x300x52	0.0065	12.6	2021-019
VSG-05	300x300x60	0.0065	17	2021-020
VSG-06	300x450x60	0.0065	25	2021-021
VSG-07	450x450x75	0.0065	46	2021-022
VSG-09	450x600x100	0.007	82	2021-023
VSG-10	600x600x100	0.009	109	2021-024
VSG-11	600x900x110	0.009	185	2021-025
VSG-13	900x1200x135	0.012	440	2021-027
VSG-14	1000x1000x135	0.012	408	2021-028
VSG-15	1000x1500x200	0.013	910	2021-029
VSG-21	900x900x160	0.013	380	2021-032

NEW



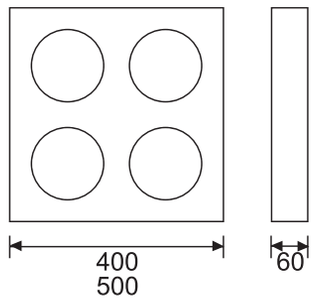
Strong & Rigid

Separated Modular
Design DIY Type.
Low Profile Packing
With Adjustment Screw For Leveling
Material : SS41

Black Granite Surface Plates Stand

ORDER NO.	STAND SIZE	KGS	CODE NO.
	mm		
VSGD-09N	450x600x700	32.6	2021-023N
VSGD-10N	600x600x700	35.9	2021-024N
VSGD-11N	600x900x700	53.7	2021-025N
VSGD-13N	900x1200x700	72.8	2021-027N
VSGD-14N	1000x1000x700	72.3	2021-028N
VSGD-15N	1000x1500x700	83.7	2021-029N
VSGD-21N	900x900x600	73.0	2021-032N

Granite Square Rulers

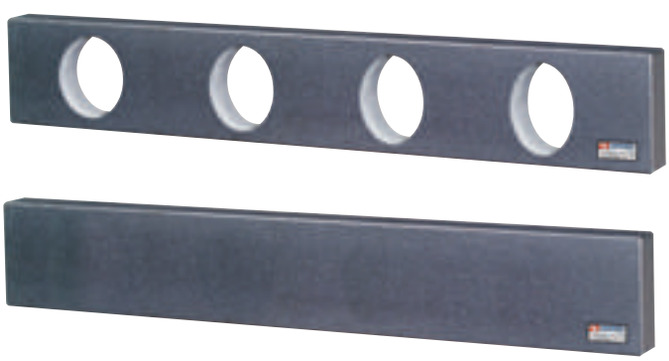


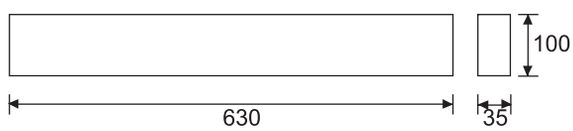
Accuracy:
SQUARENESS 0.002 / 100 mm

Unit: mm

ORDER NO.	SIZE	G.W.(kgs)	CODE NO.
VQR-400	400x400x60	24.8	2021-050
VQR-500	500x500x60	40.2	2021-051

Granite Straight Rulers





Accuracy:
PARALLELISM 0.002 / 100 mm

Unit: mm

ORDER NO.	SIZE	G.W.(kgs)	CODE NO.
VSR-630	630x100x35	8.7	2021-060
VSR-1000	1000x80x50	13.7	2021-061

Granite Triangle Ruler

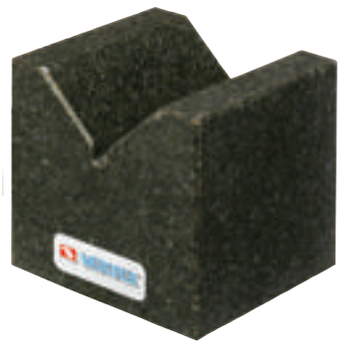
Accuracy:
SQUARENESS 0.002 / 100 mm

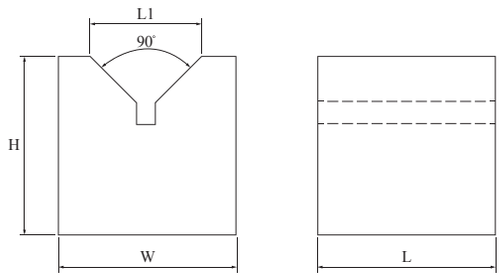
mm

ORDER NO.	Size	Thickness	Weight (kgs)	CODE NO.
VGT-300	300x200	30	5.7	2022-020
VGT-400	400x250	30	8.4	2022-021
VGT-600	600x400	63	27.5	2022-022

Granite V-Block

PAIR





Accuracy:
PARALLELISM 0.005 / 100 mm

mm

ORDER NO.	CAPACITY Ø		DIMENSION				KGS	CODE NO.
	MIN.	MAX.	H	W	L	L1		
VGV-63	Ø 4	Ø 65	65	65	65	38	1.7	2022-030
VGV-100	Ø 10	Ø 100	100	100	100	62	6.3	2022-031

Horizontal Leveling Instrument

0.02 / 100 mm

- When the bubble is in the center & touch and with in 2 red line, then the surface is leveled.

mm

ORDER NO.	DIMENSION	Weight (kgs)	CODE NO.
VLI-200A	200x46x46	1.96	2022-043
VLI-300A	300x46x45.90	2.78	2022-044

Precision Square Level

0.02 / 100 mm

- When the bubble is in the center & touch and with in 2 red line, then the surface is leveled.

mm

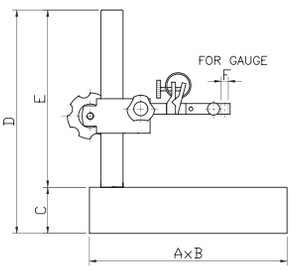
ORDER NO.	DIMENSION	Weight (kgs)	CODE NO.
VSL-200A	200x200x39.5	4.10	2022-053
VSL-300A	300x300x44.6	8.83	2022-054

Granite Surface Stand

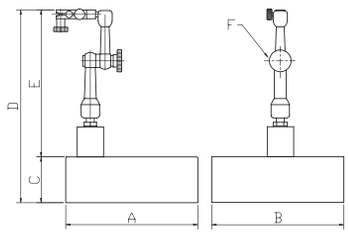
MAX. stroke 60 mm

VERTEX

VH-41,42,43



VH-45,46,47



- **THE DIAL GAUGE IS OPTIONAL**
- **ACCURACY: 0.005/100mm**

※ Guage not included

ORDER NO.	AxB GRANITE PLATE DIEMENSION	C	D	E	F	WEIGHT (kgs)	CODE NO.
VH-41	6″ x 6″ 150x150 mm	52	252	200	8 mm	6	2022-001A
VH-42	6″ x 9″ 150x220 mm	52	252	200	8 mm	9	2022-002A
VH-43	9″ x 12″ 230x300 mm	90	290	200	8 mm	22	2022-003A
VH-45	6″ x 6″ 150x150 mm	52	185	133	8 mm	6	2022-005
VH-46	6″x 9″ 150x220 mm	52	185	133	8 mm	7.9	2022-006
VH-47	9″ x 12″ 230x300 mm	90	223	133	8 mm	19.1	2022-007

Tester Arm Base

FOR SURFACE PLATE

NEW

※ **Gauge not included**

For smooth moving on granite / cast iron test surface plate.

- Measuring aid
- Equipped with flexible arm
- For smooth measuring on granite / cast iron surface plate!
- Without dial gauge
- Base fine adjustment
- Bottom high precision finish : 0.02mm tolerance
- Material : Steel
- Single-hand operation
- Great for side measuring
- Reliable 1 knob locking mechanism

2-STEP ROUND SHAPE BASES IS EASY TO MOVE WITH 1 HAND.

※ WITHOUT DIAL GUAGE

EXAMPLE

mm

ORDER NO.	BASE (Ø)	MAIN ROD O.D x L	SUB ROD O.L x L	WEIGHT (kgs)	CODE NO.
VTB-120	120	Ø25 x 125	Ø25 x 125	2.65	2022-015

Cleaning Paper

ORDER NO. P-1000(PAPER)
CODE NO.2021-200

SIZE: WIDTH: 240 MM (±1CM)
LENGTH: 350 M, G.W. 11 kgs
PACK: 2 ROLL/CARTON
COLOR: WHITE

ORDER NO. S-1000(STAND)
CODE NO.2021-220

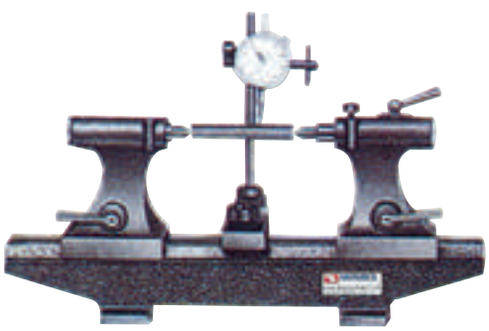
450L x 330W x 800H
G.W. 2.7 kgs

Concentric Test Stand

NEW

● For work shop use only

VCI-400



※ **Gauge not included**

VCI-200

mm

ORDER NO.	LENGTH	WIDTH	HEIGHT	CENTER DISTANCE	CENTER HEIGHT	WEIGHT (kgs)	CODE NO.
VCI-200	490	90	100	200	145	22	2021-101
VCI-300	530	90	100	300	145	26.8	2021-105
VCI-400	650	90	100	400	145	29.6	2021-102
VCI-600	1000	200	230	600	200	138.5	2021-106

Pin Gauge

FEATURES:

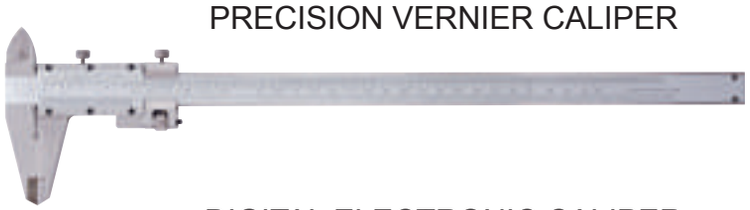
DIAMETER	EACH STEP SIZE	LENGTH	ACCURACY IN DIAMETER	ROUNDNESS TOLERENCE	HARDNESS
0.05~0.09	0.01	5~10	±0.5um	0.5um	HV480
0.10~0.19	0.01	20	±0.5um	0.5um	HV480
0.20~0.99	0.01	40	±1um	0.8um	HV650
1.00~10.00	0.01	50	±1um	0.8um	HV650
10.01~20.00	0.01	50	±1.5um	1.6um	HV650
20.00~30.00	0.01	50	±1.5um	1.6um	HV650

EACH 0.01mm FOR ONE STEP SIZE

ORDER NO.	NOMINAL DIMENSION EACH 0.01mm FOR 1 PCS	PCS/SET	WEIGHT (kgs)	CODE NO.
VPG-0B	0.50, 0.51, 0.52~1.00	51	1	2022-060
VPG-1A	1.00, 1.01, 1.02~1.50	51	1	2022-061
VPG-1B	1.50, 1.51, 1.52~2.00	51	1	2022-062
VPG-2A	2.00, 2.01, 2.02~2.50	51	1	2022-063
VPG-2B	2.50, 2.51, 2.52~3.00	51	1	2022-064
VPG-3A	3.00, 3.01, 3.02~3.50	51	1	2022-065
VPG-3B	3.50, 3.51, 3.52~4.00	51	1	2022-066
VPG-4A	4.00, 4.01, 4.02~4.50	51	1.5	2022-067
VPG-4B	4.50, 4.51, 4.52~5.00	51	1.5	2022-068
VPG-5A	5.00, 5.01, 5.02~5.50	51	1.5	2022-069
VPG-5B	5.50, 5.51, 5.52~6.00	51	1.5	2022-070
VPG-6A	6.00, 6.01, 6.02~6.50	51	3.1	2022-071
VPG-6B	6.50, 6.51, 6.52~7.00	51	3.2	2022-072
VPG-7A	7.00, 7.01, 7.02~7.50	51	3.5	2022-073
VPG-7B	7.50, 7.51, 7.52~8.00	51	3.5	2022-074
VPG-8A	8.00, 8.01, 8.02~8.50	51	3.8	2022-075
VPG-8B	8.50, 8.51, 8.52~9.00	51	3.8	2022-076
VPG-9A	9.00, 9.01, 9.02~9.50	51	4	2022-077
VPG-9B	9.50, 9.51, 9.52~10.00	51	4	2022-078
VPG-10A	10.00, 10.01, 10.02~10.50	51	5	2022-079
VPG-10B	10.50, 10.51, 10.52~11.00	51	5	2022-080

Measuring Instrument

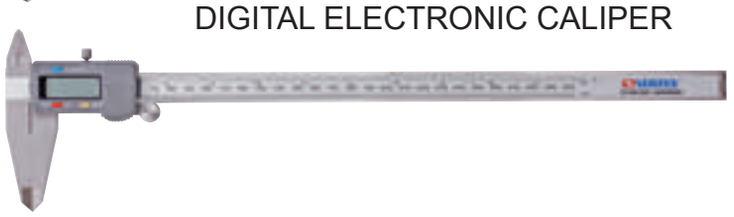
PRECISION VERNIER CALIPER



L: 150, 200, 300 mm

ORDER NO.	1 SCALE	WEIGHT(kg)	CODE NO.
VVC-6″	0.02 mm 1/1000”	0.4	2023-001
VVC-8″		0.5	2023-002
VVC-12″		0.8	2023-003

DIGITAL ELECTRONIC CALIPER



L: 150, 200, 300 mm

ORDER NO.	1 SCALE	WEIGHT(kg)	CODE NO.
VEC-6″	0.01 mm	0.4	2023-010
VEC-8″		0.5	2023-011
VEC-12″		0.8	2023-012

DIAL CALIPER

L: 150, 200, 300 mm

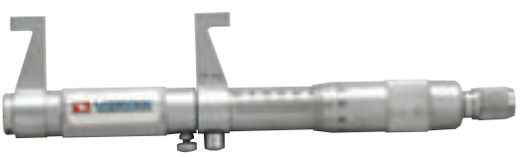
ORDER NO.	1 SCALE	WEIGHT(kg)	CODE NO.
VDC-6	0.02 mm	0.4	2023-050
VDC-8		0.5	2023-051
VDC-12		0.9	2023-052

OUTSIDE MICROMETER

0 - 25 mm
25 - 50 mm
50 - 75 mm
75 - 100 mm
100-125 mm

ORDER NO.	1 SCALE	WEIGHT(kg)	CODE NO.
VOM-0025	0.01 mm	0.3	2023-060
VOM-2550		0.4	2023-061
VOM-5075		0.5	2023-062
VOM-75100		0.6	2023-063

INSIDE MICROMETER



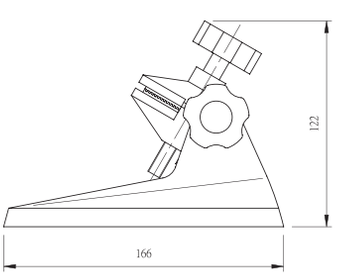
5 - 30 mm
25 - 50 mm
50 - 75 mm
75 - 100 mm
100-125 mm

ORDER NO.	1 SCALE	WEIGHT(kg)	CODE NO.
VIM-5075	0.01 mm	0.4	2023-067
VIM-75100		0.4	2023-068
VIM-100125		0.42	2023-069

Measuring Instrument

MICROMETER STAND

MAX.OPENED
17mm

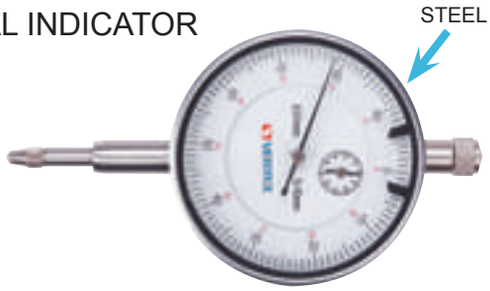


166x110x122 mm

ORDER NO.	WEIGHT(kg)	CODE NO.
VH-19	1.3	2023-090

Measuring Instrument

DIAL INDICATOR

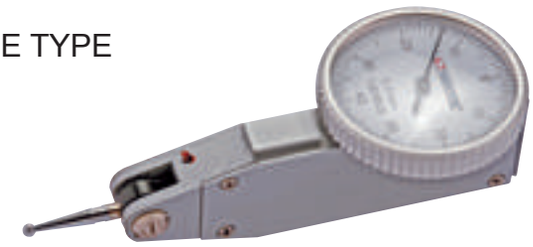


0.01~10 mm

ORDER NO.	1 SCALE	WEIGHT(kg)	CODE NO.
VDI-1	0.01 mm	0.3	2023-020

DIAL TEST INDICATOR

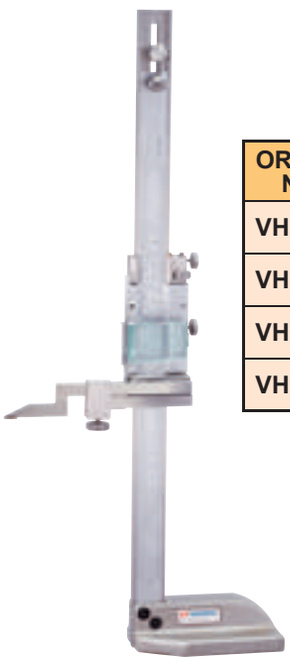
NIDDLE TYPE



0.01~0.8 mm

ORDER NO.	1 SCALE	WEIGHT(kg)	CODE NO.
VDI-0.8A	0.01 mm	0.2	2023-070

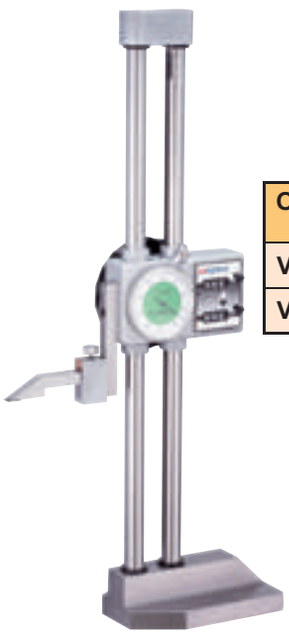
HEIGHT VERNIER CALIPER



H: 300, 450,500,600

ORDER NO	1 SCALE	WEIGHT (kgs)	CODE NO.
VHG-12	0.02 mm	4	2023-034
VHG-18		11.9	2023-035
VHG-20		10.7	2023-036
VHG-24		11.8	2023-037

HEIGHT DIAL CALIPER



H: 300, 600 mm

ORDER NO.	1 SCALE	WEIGHT (kgs)	CODE NO.
VHD-12	0.01 mm	4	2023-080
VHD-24		9.4	2023-081

Measuring Instrument

MICROMETER HEAD

ORDER NO.	SCALE x L	WEIGHT(kg)	CODE NO.
VMH-25	0.01x25 mm	0.2	2023-040

Angle Level

Oil Type Protractor With Magnets

VAL-60

VAL-50

VAL-30

VAL-10

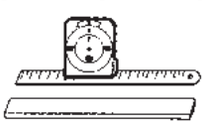
VAL-20

ORDER NO.	LxWxH	BASE	ACU	WEIGHT (kg)	CODE NO.
VAL-10	78x62x14mm	ABS	0.2º	0.2	2033-100
VAL-30	93x79x15mm	ABS	0.1º	0.2	2033-101
VAL-50	93x79x16mm	METAL	0.083º	0.4	2033-102
VAL-60	140x130x20mm	METAL	0.05º	1	2033-103
VAL-20	70x65x30mm	ABS	0.2º	0.2	2033-104
	13mm/1/2"x3M/10'				

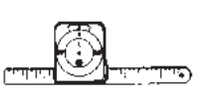
- The pointer is rotating in a hydraulic oil for stable, precise and error-eliminating reading, even to a differential subgraduation less than one degree. The two pointers or the vernier versus the annular graduations are read supper imposedly with minimum reading error.
- Double annular graduations are provided for preventing wisual reading error.
- The transparent temperature-resistant oil may visually amplify the pointer for a better optical reading.
- The double-rail magnet may attract this angle level on a round pipe or a surface of ferrous material.
- An extension rule could be inserted into the bottom slot for measurement and drawing line for wider area.

1. RESET: For setting a pseude-horizon, upon which a new angle on the pseudo-horizon can be directly measured.
2. DOUBLE CHECK: Double annular grduations provided for caliibrating either positive or negative degrees.

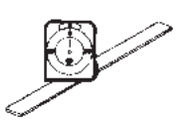
MULTI-FUNCTION ANGLE LEVEL



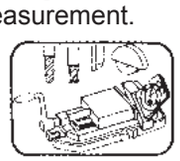
A Thin iron plate (The magnet power the thicker the weaker) may be attracted under the angle level for wider measurement.



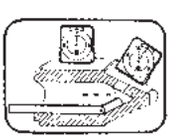
Inserting a straight extension rule into a bottom slot If the angle level.



Attracting the angle level on an iron plate for measuring an angle inside a tank.

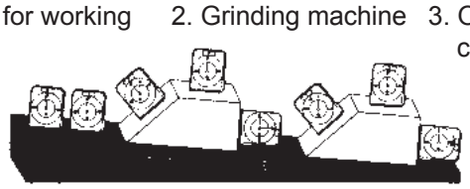


1. Suitable for working machines

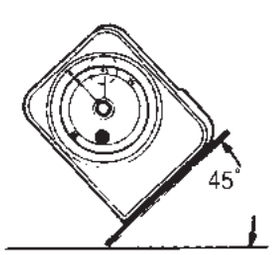


2. Grinding machine

3. Out & inner cone angle

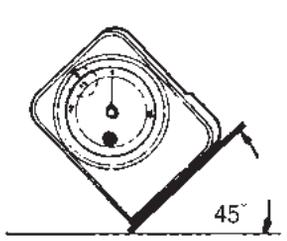


A standard angle block laid on a Non-horizontal Plane showing several measured positions by this angle level.



Finding an angle

Align the movable degree scale 0º reading, in line with the fixed vernier, 0º mark. Set your instrument's bottom surface on the object to be measured. Your reading off the pointer is your angle of inclination from 0º



OVERLAP

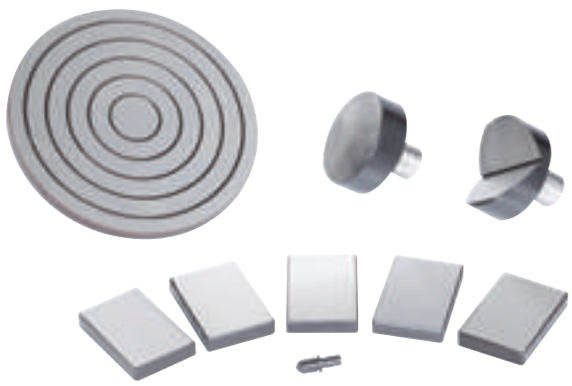
Setting Specific angles

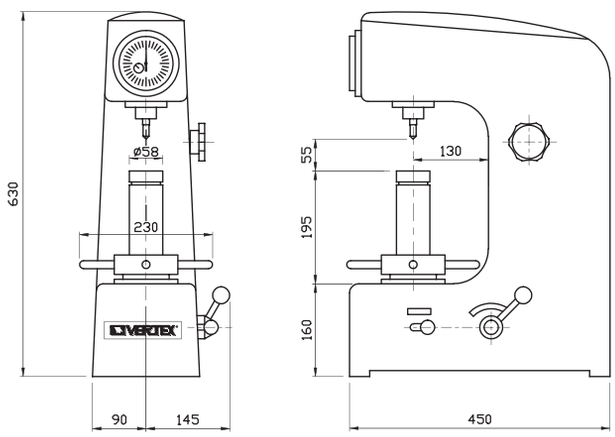
Align the desired angle on the movable scale to the vernier 0º mark.
Tilt the instrument until the pointer is aligned with the 0º mark.

Hardness Tester

ORDER NO.VHT-260 CODE NO.2033-201

NEW





- Swing 260mm
- Workpiece max. height : 170mm
- L x W x H : 466 x 238 x 630 mm
- Weight : 86.2 kgs
- 3 pressure degree : 60, 100, 150 kgs
  Rockwell scale : HRA>70
  HRB 30 - 100
  HRC 20 - 67

ACCESSORIES :

- Diamond tester x 1
- Steel ball tester x 1
- Flat testing table x 2
- Prisma testing table x 1
- Rockwell standard manual x 1

Stainless Steel Ruler

NEW

- Scale : acid - etched,engraved
- Surface treatment : polished finishing.

ORDER NO.	SIZE	DIMENSION(mm)	N.W.(kg)	CODE NO.
VSR-150	6”/15 cm	170x14.7x0.6	0.015	2033-321
VSR-200	8”/20 cm	226x20.0x0.6	0.03	2033-322
VSR-300	12”/30 cm	334x23.7x1.0	0.06	2033-323

Thread Size & Depth Gauge

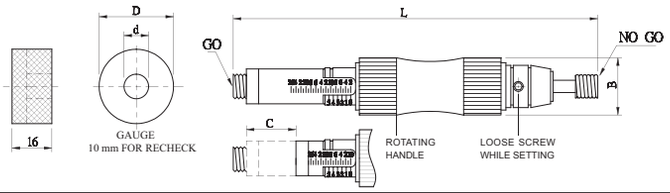
VERTEX

HANDY TYPE

NEW

GO NO GO

- INSTANT RESULT, QUICK READING
- THREAD PLUG GAUGE CHECK SIZE BY GO / ØD mm STD ACTION & THREAD DEPTH.
- RING GAUGE TO SET O POINT BEFORE USE
- 1 MARK : 0.2 mm,M3 x 0.5-6H H IS GRADE.
- ALLOW TO PRESET THE DESIRED THREAD DEPTH



ORDER NO.	SPECIFICATION					C MEASURING Depth(mm)	WEIGHT (kg)	CODE NO.
	A	B	L	D	d			
VSD-M3	M3x0.5-6H	17	102	Ø30	Ø3.3	8	0.12	2022-400
VSD-M4	M4x0.7-6H	17	102	Ø30	Ø4.3	8	0.12	2022-401
VSD-M5	M5x0.8-6H	17	114	Ø30	Ø5.5	20	0.14	2022-402
VSD-M6	M6x1-6H	17	114	Ø30	Ø6.5	20	0.14	2022-403
VSD-M8	M8x1.25-6H	23	140	Ø30	Ø10	26	0.2	2022-404
VSD-M10	M10x1.5-6H	23	140	Ø30	Ø10.5	26	0.2	2022-405

Plug Gauge

NEW

GO NO GO

The metric thread plug gauge & ring gauge

- Plug Gauge conform to DIN13 / DIN2280.

The Metric Thread Plug Gauge In Coarse Thread

Unit : mm

ORDER NO.	Size (mm)	Weight (kg)	CODE NO.
VPG-3M	M3 x 0.5P	0.03	2033-340
VPG-4M	M4 x 0.7P	0.03	2033-341
VPG-5M	M5 x 0.8P	0.03	2033-342
VPG-6M	M6 x 1.0P	0.04	2033-343
VPG-8M	M8 x 1.25P	0.07	2033-344
VPG-10M	M10 x 1.5P	0.07	2033-345
VPG-12M	M12 x 1.75P	0.11	2033-346
VPG-14M	M14 x 2.0P	0.12	2033-347
VPG-16M	M16 x 2.0P	0.12	2033-348

ORDER NO.	Size (mm)	Weight (kg)	CODE NO.
VPG-18M	M18 x 2.5P	0.19	2033-349
VPG-20M	M20 x 2.5P	0.24	2033-350
VPG-22M	M22 x 2.5P	0.24	2033-351
VPG-24M	M24 x 3.0P	0.28	2033-352
VPG-27M	M27 x 3.0P	0.34	2033-353
VPG-30M	M30 x 3.5P	0.40	2033-354
VPG-33M	M33 x 3.5P	0.66	2033-355
VPG-36M	M36 x 4.0P	0.71	2033-356

Ring Gauge

GO TYPE

NEW

The metric thread plug gauge & ring gauge

- Ring Gauge conform to DIN13 / DIN2285.

Standard Size
The Metric Thread Ring Gauge In Coarse Thread

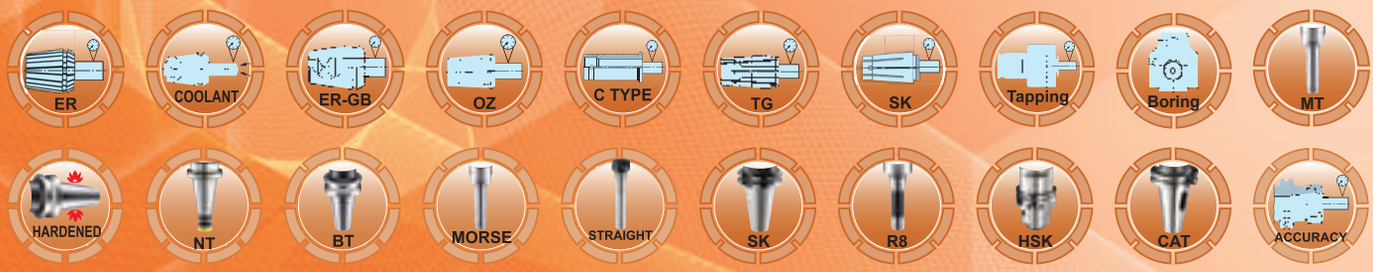
Unit : mm

ORDER NO.	Size (mm)	Weight (kg)	CODE NO.
VRG-3	M3 x 0.5P	0.04	2033-370
VRG-4	M4 x 0.7P	0.04	2033-371
VRG-5	M5 x 0.8P	0.04	2033-372
VRG-6	M6 x 1.0P	0.07	2033-373
VRG-8	M8 x 1.25P	0.08	2033-374
VRG-10	M10 x 1.5P	0.09	2033-375
VRG-12	M12 x 1.75P	0.15	2033-376
VRG-14	M14 x 2.0P	0.15	2033-377
VRG-16	M16 x 2.0P	0.20	2033-378
VRG-18	M18 x 2.5P	0.24	2033-379
VRG-20	M20 x 2.5P	0.24	2033-380
VRG-22	M22 x 2.5P	0.42	2033-381
VRG-24	M24 x 3.0P	0.42	2033-382
VRG-27	M27 x 3.0P	0.51	2033-383
VRG-30	M30 x 3.5P	0.56	2033-384
VRG-33	M33 x 3.5P	0.72	2033-385
VRG-36	M36 x 4.0P	0.78	2033-386

MEMO

C

TOOLING SYSTEM



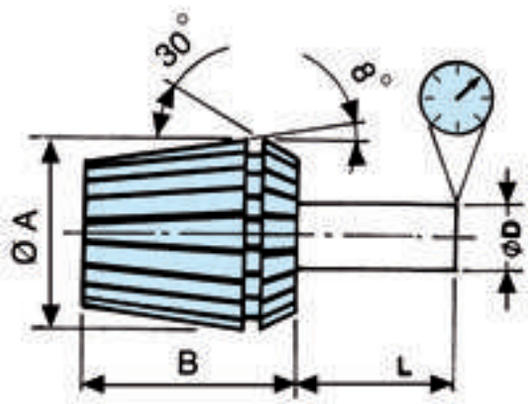
C1~C26	ER SERIES COLLET CHUCK SYSTEM
C27~C34	OZ SERIES COLLET CHUCK SYSTEM
C35~C36	MULTI-LOCK MILLING CHUCK
C37	C TYPE COLLET CHUCK SYSTEM
C38~C39	QUICK-CHANGE TOLLING / TG 100 COLLET SYSTEM
C40~C41	COLLETS (5C,R8,MT3,U2)
C42~C43	TAPER SLEEVE
C44~C51	TOOL HOLDER (DIN2080 / 69871A ISO / NT / BT)
C52~C55	PULL STUDS
C56~C58	COMPLETE NC TOOLING SET
C59~C61	TOOL HOLDER
C62~C64	HSK-A63 / HIGH SPEED TOOLING SYSTEM
C65~C70	SK SPRING COLLET SYSTEM
C71~C79	KEYLESS DRILL CHUCK / 3D-TASTER
C80~C86	BORING HEAD SERIES
C87~C98	PRECISION FINISH BORING HEAD SETS
C99~C105	TOUCH POINT / PRESETTER SERIES
C106~C127	TAPPING SYSTEM
C128~C132	AIR TAPPING UNIT
C133~C135	TOOL STAND / LOCKING DEVICE
C136~C138	SHEATH RACK TOOL CARTS SPINDLE TAPER WIRE
C139~C142	TOOL CABINET / WORK BENCH
C143	PARTS CABINET / TOOL BOX
C144	ECONOMICAL PALLET / HEAVY DUTY PALLET

ER Spring Collet Chuck System

ER collet system of VERTEX is made of special elastic steel material under excellent heat treament and precise grinding process, so it has precise accuracy, powerful clamping ability, and is durable. This collet can clamp for a specific standard size and its next size, (Refer to the data sheet on page 2). It can be widely used for boring, milling, drilling and tapping as well as for grinding operation, and is available for all sizes.

ER COLLET DIMENSIONS

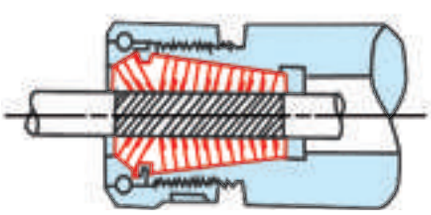
TYPE	A	B
ER-8	8.5	13.5
ER-11	11.5	18
ER-16	17	27
ER-20	21	31
ER-25	26	35
ER-32	33	40
ER-40	41	46
ER-50	52	60



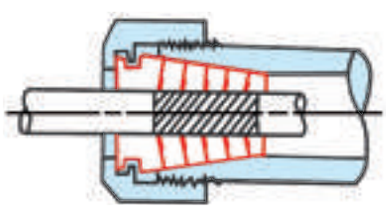
L mm	D mm	DIN6343 Standard precision	VERTEX Standard precision	A Grade Optional
6	1.0-1.4	0.02	0.015	0.01
10	1.5-2.9	0.02	0.015	0.01
16	3.0-5.9	0.02	0.015	0.01
25	6.0-9.9	0.02	0.015	0.01
40	10.0-17.9	0.03	0.02	0.01
50	18.0-26.9	0.03	0.02	0.01
60	27.0-34.9	0.03	0.02	0.01

THE HIGH PRECISION OF A GRADE IS AVAILABLE

double-taper chuck



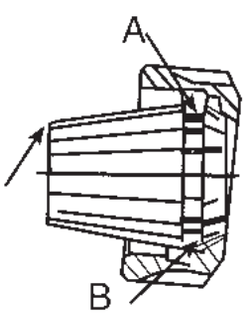
single-taper chuck



POWERFUL CLAMPING STRENGTH

The handle of the drill with double-taper chuck is longer than that with single-taper (grinding spring) collet. The clamping strength will be more powerful, if a screw-driver fastened by steel ball is adopted.

NOTE:
Mounting instructions for ER collets DIN 6499-A and DIN 6499-B



A - Place collet inside nut and rotate the nut to engage with the extractor spiral in collet groove.

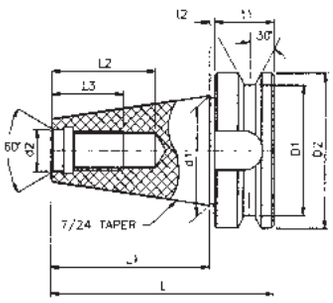
B - Only then mount nut and collet together into the collet holder or machine spindle.

Note: Never use a 12-11mm collet to clamp a 12.2mm diameter, but rather use a 13-12mm collet.

Standard

Shank For Machining Center

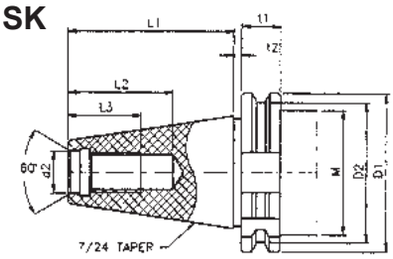
BT



MAS BT SHANK

SPECIFICATION	D1	D2	t1	t2	L1	L2	L3	L	d1	d2	G
BT30	46	38	20	2	48.4	34	24	70.4	31.75	12.5	M12
BT40**	63	53	25	2	65.4	70	30	92.4	44.45	17	M16
BT50**	100	85	35	3	101.8	90	45	139.8	69.85	25	M24

SK

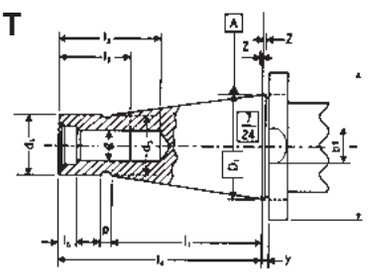


DIN 69871A SHANK

SPECIFICATION	D1	D2	t1	t2	L1	L2	L3	d1	d2	M	P	G
SK40	63.55	56.25	15.9	3.2	68.4	42.5	32	44.45	17	44.7	35	M16
SK50	97.5	91.25			101.75	61.5	47	69.85	25	70.1		M24

*DRAW BAR DIN 69872 A TYPE

NT



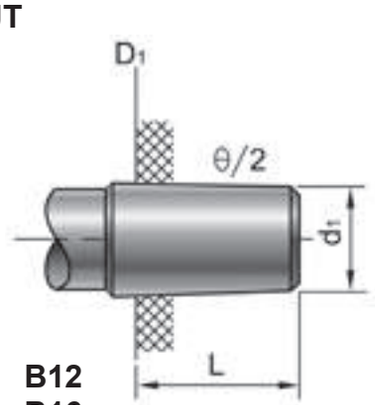
JIS B6101

TYPE	D1	Z	d1	d3	l	l1	p	y	g	l5	b1
NT30	31.750	0.4	17.4	16.5	68.4	48.4	3	1.6	M12, 1/2-12NC	6	16.1
NT40	44.450	0.4	25.3	24	93.4	65.4	5	1.6	M16, 5/8-11NC	8	16.1
NT50	69.850	0.4	39.6	38	126.8	101.8	8	3.2	M24,1”-8NC	11.5	25.7

ER COLLET

Drill Chuck Taper

JT



B12
B16
B18

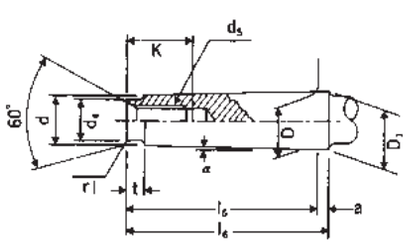
JACOBS TAPER

TYPE	θ /2 TAPER	D1	d1	L
JT0		6.35	5.802	11.12
JT1		9.754	8.469	16.669
JT2	2° 19′52″	14.199	12.386	22.225
JT33	1° 49′01″	15.850	14.237	25.400
JT6	1° 29′88″	17.170	15.852	25.400
JT3	1° 31′26″	20.599	18.951	30.956
JT4	1° 29′59″	28.550	26.346	42.069
JT5	1° 29′05″	35.890	33.422	47.625

DIN 238

TYPE	θ /2 TAPER	D1	d1	L
B12	1° 25′43″	12.065	11.1	18.5
B16	1° 25′50″	15.733	14.5	24.0
B18	1° 25′50″	17.780	16.2	32.0

Morse Taper Shank MT



TYPE	D	a	D1	d	l5	l6	d4	d5
MT.0	9.045	3	9.2	6.4	50	53	6	-
MT.1	12.065	3.5	12.2	9.4	53.5	57	9	M6, 1/4-20NC
MT.2	17.780	5	18.0	14.6	64	69	14	M10, 3/8-16NC
MT.3	23.825	5	24.1	19.8	81	86	19	M12, 1/2-12NC
MT.4	31.267	6.5	31.6	25.9	102.5	109	25	M16, 5/8-11NC
MT.5	44.399	6.5	44.7	37.6	129.5	136	35.7	M20, 3/4-10NC
MT.6	63.348	8	63.8	53.9	182	190	51	M24, 1”-8NC

ER Spring Collet Chuck System

VERTEX

STANDARD PRECISION TYPE

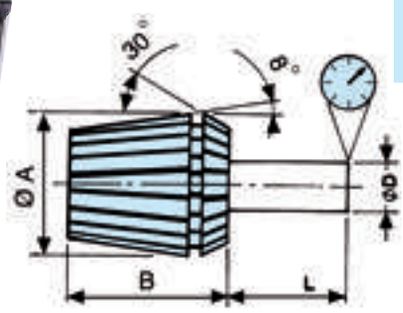
DIN 6499

ER COLLET SET WITH CLAMPING RANGE

TYPE	ER-8			ER-11			ER-16			ER-20		
COMPLET SET	9PCS/SET			7PCS/SET			10PCS/SET			12PCS/SET		
FULL SET	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.
	V08000	0.5-5.0	3001-101	V11000	0.5-7.0	3002-101	V16000	0.5-10.0	3003-101	V20000	1-13	3004-101
INDIVIDUAL UNIT	V08010	1.0-0.5	3001-001	V11010	1.0-0.5	3002-001	V16010	1.0-0.5	3003-001	V20020	2-1	3004-001
	V08015	1.5-1.0	3001-002	V11020	2.0-1.5	3002-002	V16020	2.0-1.0	3003-002	V20030	3-2	3004-002
	V08020	2.0-1.5	3001-003	V11030	3.0-2.5	3002-003	V16030	3.0-2.0	3003-003	V20040	4-3	3004-003
	V08025	2.5-2.0	3001-004	V11040	4.0-3.5	3002-004	V16040	4.0-3.0	3003-004	V20050	5-4	3004-004
	V08030	3.0-2.5	3001-005	V11050	5.0-4.5	3002-005	V16050	5.0-4.0	3003-005	V20060	6-5	3004-005
	V08035	3.5-3.0	3001-006	V11060	6.0-5.5	3002-006	V16060	6.0-5.0	3003-006	V20070	7-6	3004-006
	V08040	4.0-3.5	3001-007	V11070	7.0-6.5	3002-007	V16070	7.0-6.0	3003-007	V20080	8-7	3004-007
	V08045	4.5-4.0	3001-008	V11015	1.5	3002-008	V16080	8.0-7.0	3003-008	V20090	9-8	3004-008
	V08050	5.0-4.5	3001-009	V11025	2.5	3002-009	V16090	9.0-8.0	3003-009	V20100	10-9	3004-009
				V11035	3.5	3002-010	V16100	10.0-9.0	3003-010	V20110	11-10	3004-010
				V11045	4.5	3002-011	V16015	1.5	3003-011	V20120	12-11	3004-011
				V11055	5.5	3002-012	V16025	2.5	3003-012	V20130	13-12	3004-012
				V11065	6.5	3002-013	V16035	3.5	3003-013	V20010	1.0	3004-013
							V16045	4.5	3003-014	V20025	2.5	3004-014
	Note: APPROXIMATE FOR EACH		WEIGHT (kgs)				V16055	5.5	3003-015	V20035	3.5	3004-015
							V16065	6.5	3003-016	V20045	4.5	3004-016
	ER-8		0.01				V16075	7.5	3003-017	V20055	5.5	3004-017
	ER-11		0.02				V16085	8.5	3003-018	V20065	6.5	3004-018
	ER-16		0.03				V16095	9.5	3003-019	V20075	7.5	3004-019
	ER-20		0.05							V20085	8.5	3004-020
	ER-25		0.07							V20095	9.5	3004-021
	ER-32		0.15							V20105	10.5	3004-022
	ER-40		0.28							V20115	11.5	3004-023
	ER-50		0.54							V20125	12.5	3004-024

ER Spring Collet Chuck System

STANDARD PRECISION TYPE



ER

DIN 6499

L mm	D mm	DIN6343 Standard precision	VERTEX Standard precision
6	1.0-1.4	0.02	0.015
10	1.5-2.9	0.02	0.015
16	3.0-5.9	0.02	0.015
25	6.0-9.9	0.02	0.015
40	10.0-17.9	0.03	0.02
50	18.0-26.9	0.03	0.02
60	27.0-34.9	0.03	0.02

ER COLLET SET WITH CLAMPING RANGE

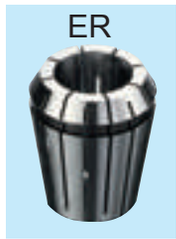
ER-25			ER-32			ER-40			ER-50		
15PCS/SET			18PCS/SET			23PCS/SET			12PCS/SET		
ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.
V25000	1-16	3005-101	V32000	2-20	3006-101	V40000	3-26	3007-101	V50000	10-34	3008-101
V25020	2-1	3005-001	V32030	3-2	3006-001	V40040	4-3	3007-001	V50120	12-10	3008-001
V25030	3-2	3005-002	V32040	4-3	3006-002	V40050	5-4	3007-002	V50140	14-12	3008-002
V25040	4-3	3005-003	V32050	5-4	3006-003	V40060	6-5	3007-003	V50160	16-14	3008-003
V25050	5-4	3005-004	V32060	6-5	3006-004	V40070	7-6	3007-004	V50180	18-16	3008-004
V25060	6-5	3005-005	V32070	7-6	3006-005	V40080	8-7	3007-005	V50200	20-18	3008-005
V25070	7-6	3005-006	V32080	8-7	3006-006	V40090	9-8	3007-006	V50220	22-20	3008-006
V25080	8-7	3005-007	V32090	9-8	3006-007	V40100	10-9	3007-007	V50240	24-22	3008-007
V25090	9-8	3005-008	V32100	10-9	3006-008	V40110	11-10	3007-008	V50260	26-24	3008-008
V25100	10-9	3005-009	V32110	11-10	3006-009	V40120	12-11	3007-009	V50280	28-26	3008-009
V25110	11-10	3005-010	V32120	12-11	3006-010	V40130	13-12	3007-010	V50300	30-28	3008-010
V25120	12-11	3005-011	V32130	13-12	3006-011	V40140	14-13	3007-011	V50320	32-30	3008-011
V25130	13-12	3005-012	V32140	14-13	3006-012	V40150	15-14	3007-012	V50340	34-32	3008-012
V25140	14-13	3005-013	V32150	15-14	3006-013	V40160	16-15	3007-013			
V25150	15-14	3005-014	V32160	16-15	3006-014	V40170	17-16	3007-014			
V25160	16-15	3005-015	V32170	17-16	3006-015	V40180	18-17	3007-015			
			V32180	18-17	3006-016	V40190	19-18	3007-016			
			V32190	19-18	3006-017	V40200	20-19	3007-017			
			V32200	20-19	3006-018	V40210	21-20	3007-018			
						V40220	22-21	3007-019			
						V40230	23-22	3007-020			
						V40240	24-23	3007-021			
						V40250	25-24	3007-022			
						V40260	26-25	3007-023			
						V40115	11.5	3007-024			
						V40125	12.5	3007-025			
						V40135	13.5	3007-026			
						V40145	14.5	3007-027			
						V40155	15.5	3007-028			
						V40165	16.5	3007-029			
						V40175	17.5	3007-030			
						V40185	18.5	3007-031			
						V40195	19.5	3007-032			
						V40205	20.5	3007-033			
						V40215	21.5	3007-034			
						V40225	22.5	3007-035			
						V40235	23.5	3007-036			
						V40245	24.5	3007-037			
						V40255	25.5	3007-038			
						V40265	26.5	3007-039			

ER Spring Collet Chuck System

VERTEX

SUPER ULTRA PRECISION TYPE

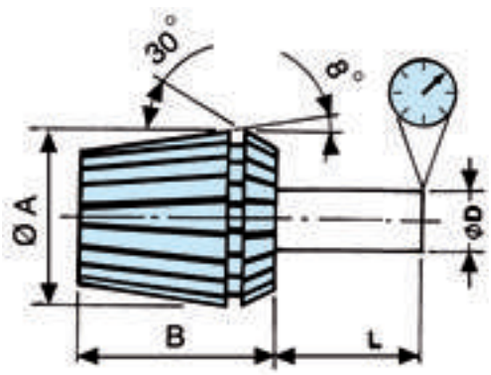
A GRADE



TYPE	ER-8			ER-11			ER-16			ER-20		
COMPLET SET	9PCS/SET			7PCS/SET			10PCS/SET			12PCS/SET		
FULL SET	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.
	V08000S	0.5-5.0	3000-001	V11000S	0.5-7.0	3000-002	V16000S	0.5-10.0	3000-003	V20000S	1-13	3000-004
INDIVIDUAL UNIT	V08010S	1.0-0.5	3000-010	V11010S	1.0-0.5	3000-020	V16010S	1.0-0.5	3000-040	V20020S	2-1	3000-060
	V08015S	1.5-1.0	3000-011	V11020S	2.0-1.5	3000-021	V16020S	2.0-1.0	3000-041	V20030S	3-2	3000-061
	V08020S	2.0-1.5	3000-012	V11030S	3.0-2.5	3000-022	V16030S	3.0-2.0	3000-042	V20040S	4-3	3000-062
	V08025S	2.5-2.0	3000-013	V11040S	4.0-3.5	3000-023	V16040S	4.0-3.0	3000-043	V20050S	5-4	3000-063
	V08030S	3.0-2.5	3000-014	V11050S	5.0-4.5	3000-024	V16050S	5.0-4.0	3000-044	V20060S	6-5	3000-064
	V08035S	3.5-3.0	3000-015	V11060S	6.0-5.5	3000-025	V16060S	6.0-5.0	3000-045	V20070S	7-6	3000-065
	V08040S	4.0-3.5	3000-016	V11070S	7.0-6.5	3000-026	V16070S	7.0-6.0	3000-046	V20080S	8-7	3000-066
	V08045S	4.5-4.0	3000-017	V11015S	1.5	3000-027	V16080S	8.0-7.0	3000-047	V20090S	9-8	3000-067
	V08050S	5.0-4.5	3000-018	V11025S	2.5	3000-028	V16090S	9.0-8.0	3000-048	V20100S	10-9	3000-068
				V11035S	3.5	3000-029	V16100S	10.0-9.0	3000-049	V20110S	11-10	3000-069
				V11045S	4.5	3000-030	V16015S	1.5	3000-050	V20120S	12-11	3000-070
				V11055S	5.5	3000-031	V16025S	2.5	3000-051	V20130S	13-12	3000-071
				V11065S	6.5	3000-032	V16035S	3.5	3000-052	V20010S	1.0	3000-072
							V16045S	4.5	3000-053	V20025S	2.5	3000-073
							V16055S	5.5	3000-054	V20035S	3.5	3000-074
							V16065S	6.5	3000-055	V20045S	4.5	3000-075
							V16075S	7.5	3000-056	V20055S	5.5	3000-076
							V16085S	8.5	3000-057	V20065S	6.5	3000-077
							V16095S	9.5	3000-058	V20075S	7.5	3000-078
										V20085S	8.5	3000-079
										V20095S	9.5	3000-080
										V20105S	10.5	3000-081
										V20115S	11.5	3000-082
										V20125S	12.5	3000-083

ER Spring Collet Chuck System

SUPER ULTRA PRECISION TYPE

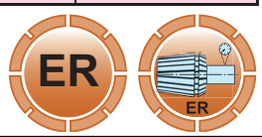


DIMENSIONS

TYPE	A	B
ER08	8.5	13.5
ER11	11.5	18
ER16	17	27
ER20	21	31
ER25	26	35
ER32	33	40
ER40	41	46
ER50	52	60

S GRADE / A GRADE Accuracy

L(mm)	øD(mm)	Ultra Precision(MM)
6	1.0-1.4	0.01
10	1.5-2.9	0.01
16	3.0-5.9	0.01
25	6.0-9.9	0.01
40	10.0-17.9	0.01
50	18.0-26.9	0.01
60	27.0-34.9	0.01



ER-25			ER-32			ER-40			ER-50		
15PCS/SET			18PCS/SET			23PCS/SET			12PCS/SET		
ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.
V25000S	1-16	3000-005	V32000S	2-20	3000-006	V40000S	3-26	3000-007	V50000S	10-34	3000-008
V25020S	2-1	3000-090	V32030S	3-2	3000-110	V40040S	4-3	3000-130	V50120S	12-10	3000-160
V25030S	3-2	3000-091	V32040S	4-3	3000-111	V40050S	5-4	3000-131	V50140S	14-12	3000-161
V25040S	4-3	3000-092	V32050S	5-4	3000-112	V40060S	6-5	3000-132	V50160S	16-14	3000-162
V25050S	5-4	3000-093	V32060S	6-5	3000-113	V40070S	7-6	3000-133	V50180S	18-16	3000-163
V25060S	6-5	3000-094	V32070S	7-6	3000-114	V40080S	8-7	3000-134	V50200S	20-18	3000-164
V25070S	7-6	3000-095	V32080S	8-7	3000-115	V40090S	9-8	3000-135	V50220S	22-20	3000-165
V25080S	8-7	3000-096	V32090S	9-8	3000-116	V40100S	10-9	3000-136	V50240S	24-22	3000-166
V25090S	9-8	3000-097	V32100S	10-9	3000-117	V40110S	11-10	3000-137	V50260S	26-24	3000-167
V25100S	10-9	3000-098	V32110S	11-10	3000-118	V40120S	12-11	3000-138	V50280S	28-26	3000-168
V25110S	11-10	3000-099	V32120S	12-11	3000-119	V40130S	13-12	3000-139	V50300S	30-28	3000-169
V25120S	12-11	3000-100	V32130S	13-12	3000-120	V40140S	14-13	3000-140	V50320S	32-30	3000-170
V25130S	13-12	3000-101	V32140S	14-13	3000-121	V40150S	15-14	3000-141	V50340S	34-32	3000-171
V25140S	14-13	3000-102	V32150S	15-14	3000-122	V40160S	16-15	3000-142			
V25150S	15-14	3000-103	V32160S	16-15	3000-123	V40170S	17-16	3000-143			
V25160S	16-15	3000-104	V32170S	17-16	3000-124	V40180S	18-17	3000-144			
			V32180S	18-17	3000-125	V40190S	19-18	3000-145			
			V32190S	19-18	3000-126	V40200S	20-19	3000-146			
			V32200S	20-19	3000-127	V40210S	21-20	3000-147			
						V40220S	22-21	3000-148			
						V40230S	23-22	3000-149			
						V40240S	24-23	3000-150			
						V40250S	25-24	3000-151			
						V40260S	26-25	3000-152			

ER Spring Collet Chuck System

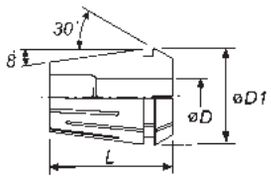
ER COLLET SET STANDARD PRECISION TYPE DIN 6499

COLLET KITS STANDARD TYPE

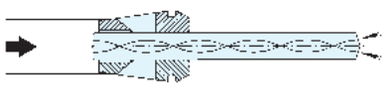
ORDER NO.	TYPE	COLLET SIZE INSIDE DIA.	PCS/SET	KGS/PACKING	CODE NO.
V-08000	ER-8	1+0.5-5mm(1,1.5,2,2.5,3,3.5,4,4.5,5mm)	9PCS	1.065(C)	3001-101
V-11000	ER-11	1-7mm(1,2,3,4,5,6,7mm)	7PCS	1.075(C)	3002-101
V-11013		1+0.5-7mm(1,1.5,2,2.5,3,3.5,4,4.5,5,5.5,6,6.5,7mm)	13PCS	0.3(C)	3002-102
V-16000	ER-16	1-10mm(1,2,3,4,5,6,7,8,9,10mm)	10PCS	0.7(C)	3003-101
V-16008		3-10mm(3,4,5,6,7,8,9,10mm)	8PCS	0.6(C)	3003-102
V-20000	ER-20	2-13mm(2,3,4,5,6,7,8,9,10,11,12,13mm)	12PCS	0.9(C)	3004-101
V-20008		4-13mm(4,5,6,7,8,9,10,11,12,13mm)	10PCS	0.8(C)	3004-102
V-25000	ER-25	2-16mm(2,3,4,5,6,7,8,9,10,11,12,13,14,15,16mm)	15PCS	1.3(W)	3005-101
V-25008		4-16mm(4,5,6,7,8,9,10,11,12,13,14,15,16mm)	13PCS	1.0(W)	3005-102
V-25009		6,8,10,12,16mm	5PCS	1.325(C)	3005-103
V-25010		4,6,8,10,12,14,16mm	7PCS	0.35(C)	3005-104
V-32000	ER-32	3-20mm(3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20mm)	18PCS	3.3(P)	3006-101
V-32008		4,5,6,8,10,12,13,15,16,18,20mm	11PCS	2.8(C)	3006-102
V-32009		6,8,10,12,16,20mm	6PCS	0.9(C)	3006-103
V-40000	ER-40	4-26mm(4,5,6,7,8,9,10,11,12,13,14,15, 16,17,18,19,20,21,22,23,24,25,26mm)	23PCS	6.5(P)	3007-101
V-40008		4,5,6,8,10,12,13,15,16,18,20,21,22,25,26mm	15PCS	4.2(P)	3007-102
V-40009		6,8,10,12,16,20,25mm	7PCS	2.0(P)	3007-103
V-50000	ER-50	12,14,16,18,20,22,24,26,28,30,32,34mm	12PCS	6.5(P)	3008-101

ER-Type Coolant Collet

- Collets to DIN6499B

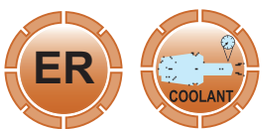


FOR COOLANT



COOLANT COLLETS HAS ROUND SMALL THROUGH HOLE ON THE SLOTS, ONLY WHEN THE DIAMETER IS SMALL. THE REST IS SAME AS NORMAL ER COLLET.

ER20 Ø4,5 MM
ER25 Ø4,5,6,7 MM
ER32 Ø4,5,6,7,8,9 MM
ER40 Ø4,5,6,7,8,9 MM



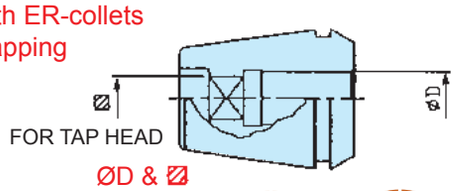
ER-16			ER-20			ER-25			ER-32			ER-40		
PCS/SET			PCS/SET			PCS/SET			PCS/SET			PCS/SET		
ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.	ORDER NO.	CAP. mm Ø	CODE NO.
V16040L	4	3000-200	V20040L	4	3000-210	V25040L	4	3000-221	V32040L	4	3000-240	V40040L	4	3000-260
V16050L	5	3000-201	V20050L	5	3000-211	V25050L	5	3000-222	V32050L	5	3000-241	V40050L	5	3000-261
V16060L	6	3000-202	V20060L	6	3000-212	V25060L	6	3000-223	V32060L	6	3000-242	V40060L	6	3000-262
V16070L	7	3000-203	V20070L	7	3000-213	V25070L	7	3000-224	V32070L	7	3000-243	V40070L	7	3000-263
V16080L	8	3000-204	V20080L	8	3000-214	V25080L	8	3000-225	V32080L	8	3000-244	V40080L	8	3000-264
V16090L	9	3000-205	V20090L	9	3000-215	V25090L	9	3000-226	V32090L	9	3000-245	V40090L	9	3000-265
V16100L	10	3000-206	V20100L	10	3000-216	V25100L	10	3000-227	V32100L	10	3000-246	V40100L	10	3000-266
			V20110L	11	3000-217	V25110L	11	3000-228	V32110L	11	3000-247	V40110L	11	3000-267
			V20120L	12	3000-218	V25120L	12	3000-229	V32120L	12	3000-248	V40120L	12	3000-268
			V20130L	13	3000-219	V25130L	13	3000-230	V32130L	13	3000-249	V40130L	13	3000-269
						V25140L	14	3000-231	V32140L	14	3000-250	V40140L	14	3000-270
						V25150L	15	3000-232	V32150L	15	3000-251	V40150L	15	3000-271
						V25160L	16	3000-233	V32160L	16	3000-252	V40160L	16	3000-272
									V32170L	17	3000-253	V40170L	17	3000-273
									V32180L	18	3000-254	V40180L	18	3000-274
									V32190L	19	3000-255	V40190L	19	3000-275
									V32200L	20	3000-256	V40200L	20	3000-276
												V40210L	21	3000-277
												V40220L	22	3000-278
												V40230L	23	3000-279
												V40240L	24	3000-280
												V40250L	25	3000-281
												V40260L	26	3000-282

ER-GB Tap Collets

NEW

- Collets to DIN6499B
- Interchangeable with ER-collets
- For syschronized tapping

ER-TAP



TYPE	ER-16GB						ER-20GB					
FULL SET	ORDER NO.	øD mm	□ mm	TAP SIZE DIN	TAP SIZE JIS	CODE NO.	ORDER NO.	øD mm	□ mm	TAP SIZE DIN	TAP SIZE JIS	CODE NO.
INDIVIDUAL UNIT	**GB160450**	4.5	3.4	M6		3000-400	**GB200450**	4.5	3.4	M6		3000-420
	GB160500	5	4		M4	3000-401	**GB200500**	5	4		M4	3000-421
	GB160550	5.5	4.5		M5	3000-402	**GB200550**	5.5	4.5		M5	3000-422
	GB160600	6	4.5		M6 1/4U	3000-403	**GB200600**	6	4.5		M6 1/4U	3000-423
	GB160601	6	4.9	M8		3000-404	**GB200601**	6	4.9	M8		3000-424
	GB160610	6.1	5		5/16U	3000-405	**GB200610**	6.1	5		5/16U	3000-425
	GB160620	6.2	5		M8	3000-406	**GB200620**	6.2	5		M8	3000-426
	GB160700	7	5.5	M10	M10 3/8U	3000-407	**GB200700**	7	5.5	M10	M10 3/8U	3000-427
	GB160800	8	6.2		7/16U	3000-408	**GB200800**	8	6.2		7/16U	3000-428
							GB200850	8.5	6.5		M12	3000-429
							GB200900	9	7.1	M12	1/2U	3000-430
							GB201000	10	8			3000-431

ER-GB Tap Collets

NEW

ER-TAP

- Collets to DIN6499B
- Interchangeable with ER-collets
- For syschronized tapping

ØD & ⊠

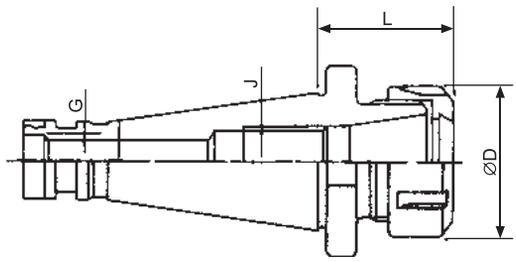
ER GB TAP COLLET

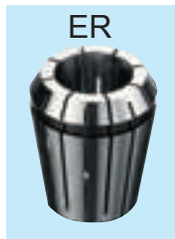
ER-25GB						ER-32GB						ER-40GB					
ORDER NO.	øD mm	□ mm	TAP SIZE DIN	TAP SIZE JIS	CODE NO.	ORDER NO.	øD mm	□ mm	TAP SIZE DIN	TAP SIZE JIS	CODE NO.	ORDER NO.	øD mm	□ mm	TAP SIZE DIN	TAP SIZE JIS	CODE NO.
GB250450	4.5	3.4	M6		3000-440	**GB320450**	4.5	3.4	M6		3000-460						
GB250500	5	4		M4	3000-441	**GB320500**	5	4		M4	3000-461						
GB250550	5.5	4.5		M5	3000-442	**GB320550**	5.5	4.5		M5	3000-462						
GB250600	6	4.5		M6 1/4U	3000-443	**GB320600**	6	4.5		M6 1/4U	3000-463	**GB400600**	6	4.5		M6 1/4U	3000-490
GB250601	6	4.9	M8		3000-444	**GB320601**	6	4.9	M8		3000-464	**GB400601**	6	4.9	M8		3000-491
GB250610	6.1	5		5/16U	3000-445	**GB320610**	6.1	5		5/16U	3000-465	**GB400610**	6.1	5		5/16U	3000-492
GB250620	6.2	5		M8	3000-446	**GB320620**	6.2	5		M8	3000-466	**GB400620**	6.2	5		M8	3000-493
GB250700	7	5.5	M10	M10 3/8U	3000-447	**GB320700**	7	5.5	M10	M10 3/8U	3000-467	**GB400700**	7	5.5	M10	M10 3/8U	3000-494
GB250800	8	6.2		7/16U	3000-448	**GB320800**	8	6.2		7/16U	3000-468	**GB400800**	8	6.2		7/16U	3000-495
GB250850	8.5	6.5		M12	3000-449	**GB320850**	8.5	6.5		M12	3000-469	**GB400850**	8.5	6.5		M12	3000-496
GB250900	9	7.1	M12	1/2U	3000-450	**GB320900**	9	7.1	M12	1/2U	3000-470	**GB400900**	9	7.1	M12	1/2U	3000-497
GB251000	10	8			3000-451	**GB321000**	10	8			3000-471	**GB401000**	10	8			3000-498
GB251050	10.5	8		M14 9/16U	3000-452	**GB321050**	10.5	8		M14 9/16U	3000-472	**GB401050**	10.5	8		M14 9/16U	3000-499
GB251100	11	9	M14		3000-453	**GB321100**	11	9	M14		3000-473	**GB401100**	11	9	M14		3000-500
GB251200	12	9	M16	5/8U	3000-454	**GB321200**	12	9	M16	5/8U	3000-474	**GB401200**	12	9	M16	5/8U	3000-501
GB251250	12.5	10		M16	3000-455	**GB321250**	12.5	10		M16	3000-475	**GB401250**	12.5	10		M16	3000-502
						GB321400	14	11	M18	M18 3/4U	3000-476	**GB401400**	14	11	M18	M18 3/4U	3000-503
						GB321500	15	12		M20	3000-477	**GB401500**	15	12		M20	3000-504
						GB321600	16	12	M20		3000-478	**GB401600**	16	12	M20		3000-505
						GB321700	17	13		M22 7/8U	3000-479	**GB401700**	17	13		M22 7/8U	3000-506
												GB401800	18	14.5	M22		3000-507
												GB401900	19	15		M24	3000-508
												GB402000	20	15		M27 1"U	3000-509
												GB402001	20	16	M27		3000-510
												GB402200	22	18	M30		3000-511

ER Spring Collet Chuck System

Collet Chuck Kit Whit ISO Taper Shank DIN 2080/ISO SHANK DIN 6499

NT-40





ORDER NO.	TAPER	COLLET TYPE	L	D	G	WEIGHT KGS	CODE NO.
V-101	NT-30	ER-32	55	50	1/2″-12W, M12X1.75P (USA 1/2″-UNC13)	0.7	3020-301
V-102		ER-40	70	63		1.1	3020-302
V-103	NT-40	ER-32	50	60	5/8″-11W or M16X2.0P	1.1	3021-301
V-104		ER-40	60	63		1.3	3021-302
V-105		ER-50	80	78		2	3021-303
V-106	NT-50	ER-32	60	50	1″-8W or M24X3.0P	3.1	3022-301
V-107		ER-40	65	63		3.4	3022-302
V-108		ER-50	65	78		4	3022-303
※ V-109	NT-30	ER-25	55	42	1/2″-12W, M12X1.75P	0.7	3020-303
※ V-110	NT-40	ER-25	50	42	5/8″-11W, M16X2.0P	1.1	3021-304

Collet Chuck kit With ISO Taper Shank

Including shank, full set of collets, wrench and case.

NT-30

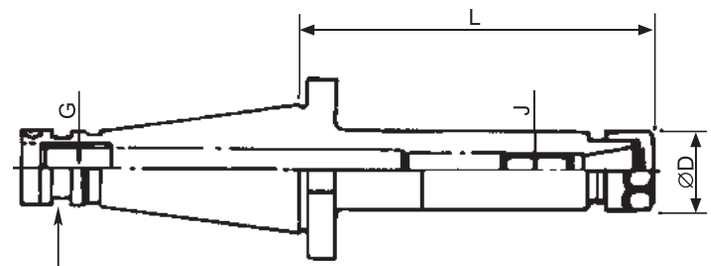
Caution:

Please notify the taper size, collte type, set range, and set numbers when ordering.

ORDER NO.	TAPER	COLLET TYPE	SET RANGE	SET PCS	WEIGHT KGS	CODE NO.
V-201	NT-30	ER-32	3-20	18	4.2	3020-401
V-202			4-20	11	3.2	3020-402
V-203			6-20	6	2.8	3020-403
V-204	NT-30	ER-40	4-26	23	7.3	3020-404
V-205			4-26	15	6	3020-405
V-206			6-25	7	4.6	3020-406
V-207	NT-40	ER-32	3-20	18	4.8	3021-401
V-208			4-20	11	3.8	3021-402
V-209			6-20	6	3.4	3021-403
V-210	NT-40	ER-40	4-26	23	8.2	3021-404
V-211			4-26	15	6.9	3021-405
V-212			6-25	7	5.2	3021-406
V-213	NT-40	ER-50	12-34	12	10	3021-407
V-214	NT-50	ER-32	3-20	18	6.4	3022-401
V-215			4-20	11	5.4	3022-402
V-216			6-20	6	5.5	3022-403
V-217	NT-50	ER-40	4-26	23	9.8	3022-404
V-218			4-26	15	8.5	3022-405
V-219			6-25	7	7	3022-406
V-220	NT-50	ER-50	12-34	12	11	3022-407
※ V-223	NT-30	ER-25	2-16	7	2.8	3020-407
※ V-224			4-16	15	2.4	3020-408
※ V-225	NT-40	ER-25	2-16	7	3.3	3021-409
※ V-226			4-16	15	3.0	3021-410

ER Spring Collet Chuck System

Extended Collet Holder With ISO Shank DIN 6499
DIN 2080/ISO SHANK EXTENDED CHUCK



NT40 WITH MAHO GROOVE

ORDER NO.	TAPER	COLLET TYPE	L	D	G	WEIGHT KG	CODE NO.
V-231	NT-30	ER-16	76	28	1/2″-12W, M12X1.75P (USA 1/2″-UNC13)	0.6	3020-304
V-232	NT-40	ER-16	76	28	5/8″-11W or M16X2.0P	1.1	3021-314
V-233		ER-16	100	28		1.2	3021-305
V-234	NT-40	ER-20	76	34	5/8″-11W or M16X2.0P	1.2	3021-306
V-235		ER-20	100	34		1.4	3021-307

Extended Collet Chuck Kit With ISO Shank

Including shank, full set of collets, wrench and case

Caution:

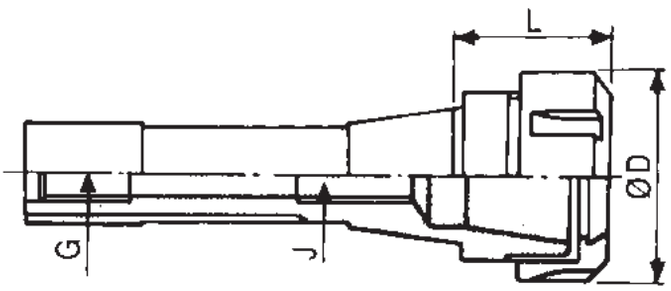
Please notify the taper size, collte type, set range, and set numbers when ordering.

ORDER NO.	TAPER	COLLET TYPE	RANGE	PCS/SET	L	WEIGHT KGS	CODE NO.
V-241	NT-30	ER-16	1-10	10	76	1.9	3020-409
V-242			3-10	8		1.8	3020-410
V-242A	NT-30	ER-20	2-13	12	76	1.8	3020-411
V-243	NT-40	ER-16	1-10	10	76	2.2	3021-411
V-244			3-10	8		2.1	3021-412
V-245		ER-16	1-10	10	100	2.4	3021-413
V-246			3-10	8		2.3	3021-414
V-247	NT-40	ER-20	2-13	12	76	2.3	3021-415
V-248			4-13	10		2.2	3021-416
V-249		ER-20	2-13	12	100	2.6	3021-417
V-250			4-13	10		2.5	3021-418

ER Spring Collet Chuck System

Collet Holders With R-8 shank

R-8 SHANK



ORDER NO.	TAPER	COLLET TYPE	L	D	G	WEIGHT KG	CODE NO.
V-301	R8	ER-16	38	28	7/16″X20 UNF	0.5	3027-301
V-302		ER-32	40	50	7/16″X20 UNF	0.8	3027-302
V-303		ER-40	70	63	7/16″X20 UNF	1.3	3027-303

Collet Chuck Kit With R-8 Shank

Including shank, full set of collets, wrench and case.
(ER16 no Wrench)

Caution:

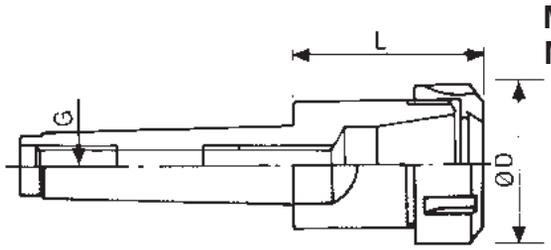
Please notify the taper size, collte type, set range, and set numbers when ordering.

ORDER NO.	TAPER	COLLET TYPE	SET RANGE	SET PCS	WEIGHT KGS	CODE NO.
V-311	R8	ER16	1-10	10	1.5(W)	3027-401
V-312			3-10	8	1.45(P)	3027-402
V-313		ER32	3-20	18	4.3(P)	3027-403
V-314			4-20	11	3.2(P)	3027-404
V-315			6-20	6	2.9(P)	3027-405
V-316		ER40	4-26	23	7.3(P)	3027-406
V-317			4-26	15	6.1(P)	3027-407
V-318			6-25	7	4.6(P)	3027-408

ER Spring Collet Chuck System

Collet Holders With Morse Taper Shank

DIN 6499 DIN 228
MT-SHANK
MT / MK



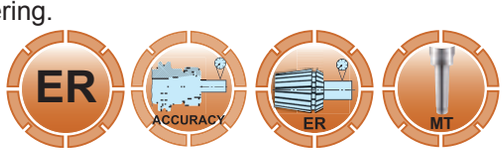
ORDER NO.	TAPER	COLLET TYPE	L	D	G	WEIGHT KGS	CODE NO.
V-401	MT2	ER16	40	28	3/8″-16W or M10X1.5P	0.2	3023-301
V-402		ER20	43	34		0.3	3023-302
V-403		ER25	47	42		0.4	3023-303
V-404	MT3	ER16	40	28	3/8″-16W or 1/2″-12W	0.3	3024-301
V-405		ER32	70	50	M10X1.5P, M12X1.75P	0.8	3024-302
V-406		ER40	80	63	USA 1/2″-UNC13	1.1	3024-303
NEW V-451	MT3	ER20	43	34	1/2″-12NC or M12X1.75P	0.3	3024-304
V-452		ER25	47	42		0.5	3024-305
V-407	MT4	ER32	60	50	5/8″-11W or M16X2.0P	1	3025-301
V-408		ER40	82	63		1.4	3025-302
V-409		ER50	85	78		2.2	3025-303
V-410	MT5	ER40	82	63	1″-8W or M24X3.0P	2.1	3026-301
V-411		ER50	85	78		2.9	3026-302

Collet Chuck Kit With Morse Taper Shank

Including shank, full set of collets, wrench and case.
(ER16, ER20 no Wrench)
1. ER16,20,25 Packed in Wooden Box(W)
2.ER32,40,50, Packed in Plastic Box(P)

Caution:

Please notify the taper size, collte type, set range, and set numbers when ordering.



ORDER NO.	TAPER	COLLET TYPE	SET RANGE	SET PCS	WEIGHT KGS.	CODE NO.
V-412	MT2	ER16	1-10	10	1.05	3023-401
V-413			3-10	8	1	3023-402
V-414	MT2	ER20	2-13	12	1.3	3023-403
V-415			4-13	10	1.2	3023-404
V-416	MT2	ER25	2-16	15	2.4	3023-405
V-418			4-16	7	1.3	3023-407
V-419	MT3	ER16	1-10	10	1.5	3024-401
NEW V-420			3-10	8	1.1	3024-402
V-441	MT3	ER20	2-13	12	1.35	3023-408
V-442			4-13	10	1.3	3023-409
V-443	MT3	ER25	2-16	15	2.5	3023-410
V-444			4-16	7	2.1	3023-411
V-421	MT3	ER32	3-20	18	4.1	3024-403
V-422			4-20	11	3	3024-404
V-423			6-20	6	2.7	3024-405
V-424	MT3	ER40	4-26	23	7.2	3024-406
V-425			4-26	15	6	3024-407
V-426			6-25	7	4.5	3024-408
V-427	MT4	ER32	3-20	18	4.3	3025-401
V-428			4-20	11	3.2	3025-402
V-429			6-20	6	2.9	3025-403
V-430	MT4	ER40	4-26	23	7.3	3025-404
V-431			4-26	15	6.1	3025-405
V-432			6-25	7	4.6	3025-406
V-433	MT4	ER50	12-34	12	9	3025-407
V-434	MT5	ER40	4-26	23	8.2	3026-401
V-435			4-26	15	6.9	3026-402
V-436			6-25	7	5.4	3026-403
V-437	MT5	ER50	12-34	12	9.5	3026-404

ER Spring Collet Chuck System

Collet Holders With Straight Shank

DIN6499 STRAIGHT SHANK

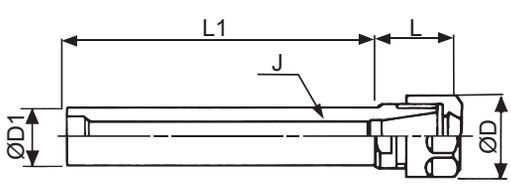
With Flat Shank

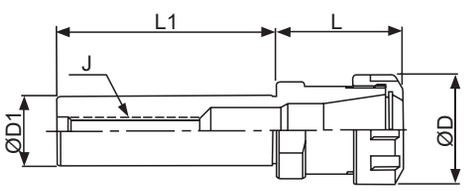
NEW

NEW

METRIC SIZE

ORDER NO.	COLLET TYPE	SHANK D1XL1	L	D	J	KGS	CODE NO.
V-530	ER11	Ø16X50	21	19	M6	0.1	3007-300
V-531		Ø16X100	21	19	M6	0.2	3007-311
V-532		Ø16X150	21	19	M6	0.3	3007-312
V-501A	ER16	Ø16X100	21	28	M10	0.3	3003-301A
V-501	ER16	Ø20X50	30	28	M10	0.2	3003-301
V-502		Ø20X100	30	28	M10	0.3	3003-302
V-503		Ø20X150	30	28	M10	0.4	3003-303
V-504	ER16	Ø25X100	30	28	M10	0.5	3003-304
V-504A		Ø25X50	30	28	M10	0.3	3003-306
V-505		Ø25X150	30	28	M10	0.7	3003-305
V-505A		Ø25X200	30	28	M10	0.5	3003-307
V-506	ER20	Ø20X50	36	34	M12	0.3	3004-301
V-507		Ø20X100	36	34	M12	0.3	3004-302
V-508		Ø20X150	36	34	M10	0.5	3004-303
V-509	ER20	Ø25X150	36	34	M10	0.7	3004-304
V-509A		Ø25X100	36	34	M12	0.5	3004-305
V-509B		Ø25X50	36	34	M12	0.3	3004-306
V-510	ER25	Ø20X50	46	42	M12	0.4	3005-301
V-511		Ø20X100	46	42	M12	0.5	3005-302
V-512		Ø20X150	46	42	M12	0.6	3005-303
V-513	ER25	Ø25X100	46	42	M12	0.6	3005-304
V-514		Ø25X150	46	42	M12	0.7	3005-305
V-515		Ø32X60	46	42	M12	0.6	3005-306
V-516	ER32	Ø25X80	54	50	M12	0.8	3006-301
V-517		Ø32X100	54	50	M12	1.1	3006-302
V-517A		Ø32X150	54	50	M12	1.5	3006-305
V-518		Ø40X100	54	50	M12	1.4	3006-303
V-523	ER40	Ø32X100	55	63	M16	1.5	3007-302
V-524		Ø40X100	55	63	M16	1.8	3007-303





INCH SIZE

ORDER NO.	COLLET TYPE	SHANK D1XL1	L	D	J	KGS	CODE NO.
V-571	ER16	ST 5/8″X 4″	36	28	3/8″-16	0.2	3003-320
V-572		ST 3/4″X 4″	32			0.24	3003-321
V-573		ST 3/4″X 6″	32			0.32	3003-322
V-574		ST 1″X 4″	32			0.35	3003-323
V-575	ER20	ST 3/4″X 4″	34	34	3/8″-16	0.25	3004-320
V-576		ST 3/4″ X 6″	34			0.33	3004-321
V-577		ST 1″X 4″	34		M12	0.36	3004-322
V-578	ER32	ST 1″X 3″	58	50	M12	0.5	3006-320
V-579		ST 1-1/4″X 4″	58			0.6	3006-321

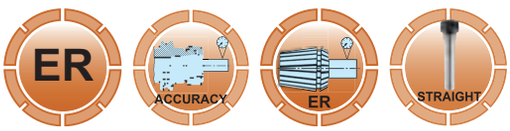
ER Spring Collet Chuck System

VERTEX

DIN 6499 STRAIGHT SHANK

Collet Chuck Kit With Straight Shank

Including shank, full set of collets, wrench and case.



ER SYSTEM

ORDER NO.	SHANK D1XL1	COLLET TYPE	SET RANGE	SET PCS	KGS	CODE NO.
V-601	Ø20X50L	ER16	1-10	10	0.9	3003-401
V-602	Ø20X50L		3-10	8	0.8	3003-402
• V-603	Ø20X100L		1-10	10	1	3003-403
• V-604	Ø20X100L		3-10	8	0.9	3003-404
V-605	Ø20X150L		1-10	10	1.1	3003-405
V-606	Ø20X150L		3-10	8	0.5	3003-406
V-607	Ø25X100L	ER16	1-10	10	1.1	3003-407
V-607A	Ø25X50L		1-10	10	1.1	3003-411
V-608	Ø25X100L		3-10	8	1.1	3003-408
V-608A	Ø25X50L		3-10	8	1.1	3003-412
V-609	Ø25X150L		1-10	10	1.3	3003-409
V-610	Ø25X150L		3-10	8	1.3	3003-410
V-611	Ø20X50L	ER20	2-13	12	1.2	3004-401
V-612	Ø20X50L		4-13	10	1.2	3004-402
• V-613	Ø20X100L		2-13	12	1.2	3004-403
• V-614	Ø20X100L		4-13	10	1.2	3004-404
V-615	Ø20X150L		2-13	12	1.4	3004-405
V-616	Ø20X50L		4-13	10	1.3	3004-406
V-615A	Ø25X50L	ER20	2-13	12	1.3	3004-409
V-616A	Ø25X50L		4-13	10	1.3	3004-410
V-617	Ø25X100L		2-13	12	1.4	3004-407
V-617A	Ø25X150L		2-13	12	1.5	3004-411
V-618	Ø25X100L		4-13	10	1.4	3004-408
V-618A	Ø25X150L		4-13	10	1.5	3004-412
V-619	Ø20X50L	ER25	2-16	15	2.2	3005-401
V-621	Ø20X50L		4-16	7	1.7	3005-403
V-622	Ø20X100L		2-16	15	2.3	3005-404
V-624	Ø20X100L		4-16	7	1.8	3005-406
V-625	Ø20X150L		2-16	15	2.4	3005-407
V-627	Ø20X150L		4-16	7	2	3005-409
V-628	Ø25X100L	ER25	2-16	15	2.3	3005-410

COLLET CHUCK SETS

ORDER NO.	SHANK D1XL1	COLLET TYPE	SET RANGE	SET PCS	KGS	CODE NO.
V-681	Ø16X50L	ER11	1-7	13	0.5	3002-401
V-682	Ø16X50L		1-7	7	0.5	3002-402
V-683	Ø16X100L	ER11	1-7	13	0.6	3002-403
V-684	Ø16X100L		1-7	7	0.5	3002-404

ORDER NO.	SHANK D1XL1	COLLET TYPE	SET RANGE	SET PCS	KGS	CODE NO.
V-630	Ø25X100L	ER25	6-16	7	2	3005-412
V-631	Ø25X150L		2-16	15	2.6	3005-413
V-633	Ø25X150L		6-16	7	1.9	3005-415
V-634	Ø32X60L	ER25	2-16	15	2.5	3005-416
V-636	Ø32X60L		6-16	7	1.9	3005-418
V-637	Ø25X80L	ER32	3-20	18	4.1	3006-401
V-638	Ø25X80L		4-20	11	3	3006-402
V-639	Ø25X80L		3-20	6	2.7	3006-403
V-640	Ø32X100L	ER32	4-20	18	4.3	3006-404
V-641	Ø32X100L		6-20	11	3.2	3006-405
V-642	Ø32X100L		6-20	6	2.9	3006-406
V-643	Ø40X100L	ER32	3-20	18	4.6	3006-407
V-644	Ø40X100L		4-20	11	3.5	3006-408
V-645	Ø40X100L		6-20	6	3.2	3006-409
V-646	Ø1″X3L	ER32	3-20	18	4.1	3006-410
V-647	Ø1″X3L		4-20	11	3	3006-411
V-648	Ø1″X3L		6-20	6	2.9	3006-412
V-658	Ø32X100L	ER40	4-26	23	7.3	3007-404
V-659	Ø32X100L		4-26	15	6.1	3007-405
V-660	Ø32X100L		6-25	7	4.6	3007-406
V-661	Ø40X100L	ER40	4-26	23	7.6	3007-407
V-662	Ø40X100L		4-26	15	6.5	3007-408
V-663	Ø40X100L		6-25	7	5	3007-409

- **V-603, V-604 are the most popular item.**
- **THE ER-20/25/32/40 ARE TO BE CONTINUED**
- **V-613, V-614 are the most popular item.**

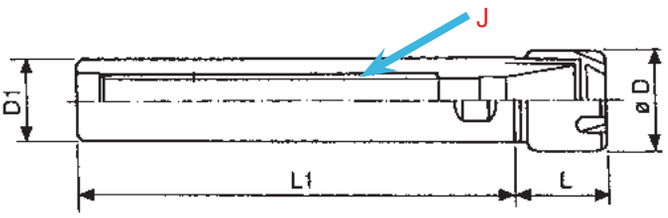
ER Spring Collet Chuck System

MINI TYPE STRAIGHT SHANK HOLDER

DIN 6499 MINI STRAIGHT SHANK

NEW

MINI TYPE NUT



COLLET HOLDER (MINI TYPE)

ORDER NO.	COLLET TYPE	SHANK D1XL1	D	L	J	KGS	CODE NO.
V-541	ER8M	ST08X50L	12	24		0.04	3001-290
V-542		ST10X50L		19		0.05	3001-291
V-543		ST10X80L		19		0.07	3001-292
V-544	ER8M	ST12X50L	12	14		0.05	3001-293
V-545		ST12X100L		14		0.09	3001-294
V-546		ST12X150L		14		0.12	3001-295
V-551	ER11M	ST16X50L	16	22	M6	0.1	3011-301
V-552		ST16X100L	16			0.2	3011-302
V-552A		ST16X150L	16			0.3	3011-303
V-553	ER16M	ST20X50L	22	32	M10	0.2	3012-301
V-554		ST20X100L	22			0.3	3012-302
V-555		ST20X150L	22			0.4	3012-303
V-555A		ST20X200L	22			0.4	3012-307
V-556	ER20M	ST20X50L	28	33	M12	0.2	3013-301
V-557		ST20X100L	28			0.3	3013-302
V-558		ST20X150L	28			0.4	3013-303
V-559	ER20M	ST25X100L	28	33	M12	0.4	3013-304
V-560		ST25X150L	28			0.6	3013-305
V-561	ER16M	ST16X100L	22	22	M10	0.2	3012-304
V-562	ER16M	ST25X100L	22	22	M10	0.4	3012-305
V-563		ST25X150L	22			0.6	3012-306
V-563A		ST25X200L	22	32		0.5	3012-308
V-557A	ER20M	ST20X200L	28	35	M10	0.4	3013-306
V-560A		ST25X200L	28		M12	0.5	3013-307

※ For the 50L A side of the shank is milled has flate surface.

Collet Chuck Kit With Straight Shank

Including shank,
full set of collets,
wrench and case.

MINI TYPE NUT

MINI TYPE

ORDER NO.	SHANK D1XL1	COLLET TYPE	SET RANGE	SET PCS	KGS	CODE NO.
V-691A	ST16X50L	ER11M	1-7	7	0.5	3011-401
V-691B	ST16X50L		1-7	13	0.5	3011-402
V-692A	ST16X100L	ER11M	1-7	7	0.6	3011-403
V-692B	ST16X100L		1-7	13	0.6	3011-404
V-693A	ST20X50L	ER16M	1-10	10	0.7	3012-401
V-693B	ST20X50L		3-10	8	1.0	3012-402
V-693C	ST16X100L	ER16M	1-10	10	0.6	3012-407
V-694A	ST20X100L	ER16M	1-10	10	0.9	3012-403
V-694B	ST20X100L		3-10	8	1.1	3012-404
V-695A	ST20X150L		1-10	10	1.3	3012-405
V-695B	ST20X150L		3-10	8	1.2	3012-406
V-695C	ST25X100L	ER16M	1-10	10	1.2	3012-408
V-695D	ST25X150L		1-10	10	1.4	3012-409
V-696A	ST20X50L	ER20M	2-13	12	1.3	3013-401
V-696B	ST20X50L		4-13	10	1.2	3013-402
V-697A	ST20X100L		2-13	12	1.1	3013-403
V-697B	ST20X100L		4-13	10	1.1	3013-404
V-698A	ST20X150L		2-13	12	1.2	3013-405
V-698B	ST20X150L		4-13	10	1.2	3013-406
V-698C	ST25X100L	ER20M	2-13	12	1.4	3013-407
V-698D	ST25X150L		2-13	12	1.5	3013-408

Clamping Nuts For Collets

ER CLAMPING NUT SYSTEM

DIN 6499

ER20M

ER16M

ER11MS

ER40KM
WITH A BEARING

ER40UM

ER16UM

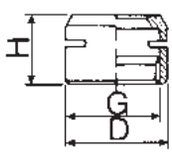


FIG.1 ER11,16,20MS

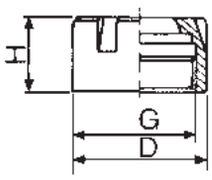


FIG.2 ER11,16,20M
ER8M, 25M

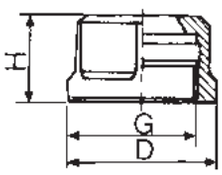


FIG.3 ER11,16,20UM

BEARING TYPE

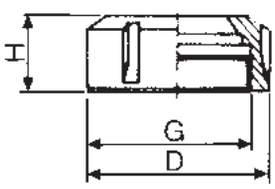


FIG.4 ER25,32,40,50UM

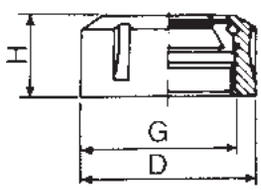


FIG.5 ER40,50KM

ER

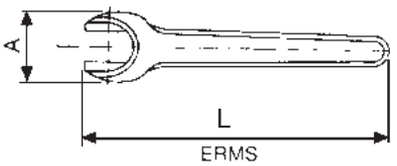
CLAMPING NUTS

ORDER NO.	Fig.	COLLET TYPE	D	H	G	WEIGHT KG.	CODE NO.
V-800	3	ER11UM	19	11.5	M14X0.75P	0.04	3015-001
V-801	3	ER16UM	28	17	M22X1.5P	0.05	3015-002
V-802	3	ER20UM	34	19	M25X1.5P	0.09	3015-003
V-803	4	ER25UM	42	20	M32X1.5P	0.13	3015-004
V-804	4	ER32UM	50	23	M40X1.5P	0.14	3015-005
V-805	4	ER40UM	63	25	M50X1.5P	0.25	3015-006
V-806	4	ER50UM	78	35	M64X2.0P	0.5	3015-007
V-807	1	ER11MS	16	12	M13X0.75P	0.008	3015-008
V-808	2	ER16M	22	18	M19X1.0P	0.03	3015-009
V-809	2	ER20M	28	19	M24X1.0P	0.045	3015-010
V-810A	5	ER40KM	63	29	M50X1.5P	0.3	3015-011
V-810B	5	ER50KM	78	40	M64X2.0P	0.58	3015-012
V-810C	2	ER11M	16	12	M13X0.75P	0.02	3015-013
V-810D	2	ER8M	12	10.8	M10X0.75P	0.05	3015-014
V-810E	2	ER25M	35	20	M30X1.0P	0.05	3015-015
V-811A		ER16MS	22	18	M19X1.0P	0.02	3015-016
V-811B		ER20MS	28	19	M24X1.0P	0.035	3015-017

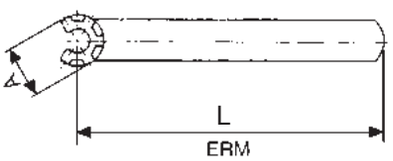
Clamping Wrench For Collets

ER WRENCH SYSTEM **DIN6499**

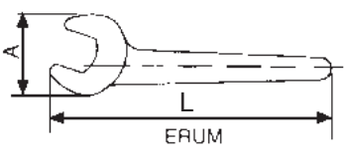
ERMS



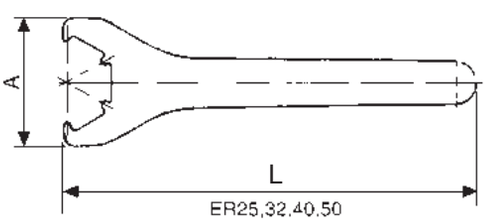
ERM



ERUM11, 16, 20



ERUM25, 32, 40, 50



ER

ORDER NO.	TYPE	A	L	KGS	CODE NO.
V-820	ER11UM	35	135	0.07	3015-100
V-821	ER11MS	22	100	0.07	3015-101
V-822	ER11M	17	95	0.05	3015-102
V-823	ER16M	22.5	118	0.06	3015-103
V-815	ER16UM	44	140	0.08	3015-104
V-824	ER20M	28	130	0.08	3015-105
V-816	ER20UM	53	170	0.1	3015-106
V-811	ER25UM	65	210	0.2	3015-107
V-812	ER32UM	75	250	0.4	3015-108
V-813	ER40UM	90	290	0.5	3015-109
V-814	ER50UM	110	350	0.9	3015-110
V-817	ER8M	13	75	0.04	3015-111
V-818	ER25M	36.5	135	0.1	3015-112
V-825	ER40KM	90	290	0.5	3015-113
V-826	ER50KM	110	350	0.9	3015-114
V-827	ER16MS	32	120	0.12	3015-115
V-828	ER20MS	38	150	0.15	3015-116

ER Spring Collet Chuck System

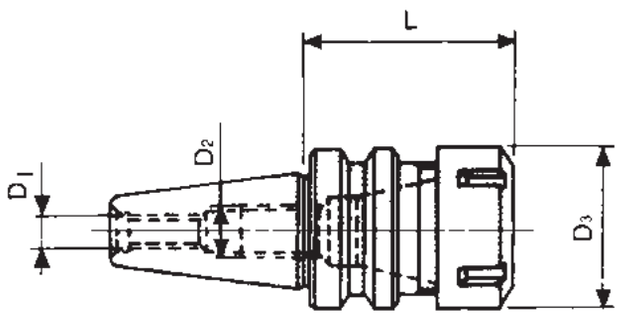
Collet Holders With BT Taper Shank
(For CNC Machine Center)
ER-32 ER-40

MAS403 BT-SHANK

BT-40-ER32

BT-40-ER20M

ACCURACY
RUNOUT 0.005mm
TAPER SHANK AT-3
R.P.M. 7000



ORDER NO.	TAPER	COLLET TYPE	D1	D2	D3	L	KGS	CODE NO.
V-700	BT30	ER32	M12	M12X1.75P	50	60	0.7	3031-303
V-703A	BT40	ER32	M16X2.0P	M22X1.5P	50	70	1.4	3032-305
V-703B		ER32	M16X2.0P	M22X1.5P	50	100	1.7	3032-306
V-704		ER40	M16X2.0P	M22X1.5P	63	80	1.7	3032-307
V-704B		ER40	M16X2.0P	M22X1.5P	63	100	2	3032-421
V-705	BT50	ER32	M24X3.0P	M28X1.5P	50	100	4.5	3033-305
V-706		ER40	M24X3.0P	M28X1.5P	63	100	4.6	3033-306
V-706B		ER40	M24X3.0P	M28X1.5P	63	150	5.7	3033-307
V-707		ER50	M24X3.0P	M36X1.5P	78	100	5.1	3033-308
V-710	BT30	ER11	M12	M12X1.75P	19	60	0.5	3033-311
V-711		ER11	M12	M12X1.75P	19	100	0.6	3033-312
V-712		ER11M	M12	M12X1.75P	16	100	0.9	3033-313
V-713		ER16	M12	M12X1.75P	28	100	0.8	3033-314
V-714		ER16M	M12	M12X1.75P	22	100	0.7	3033-315
V-715		ER20	M12	M12X1.75P	34	60	0.6	3033-316
V-716		ER20	M12	M12X1.75P	34	100	0.9	3033-317
V-717		ER20M	M12	M12X1.75P	28	100	0.9	3033-318
V-718		ER25	M12	M12X1.75P	42	60	0.7	3033-319
V-719		ER40	M12	M12X1.75P	63	70	1	3033-320
V-720	BT40	ER11	M16	M22X11.5P	19	70	1.2	3033-321
V-721		ER11	M16	M22X11.5P	19	100	1.5	3033-322
V-722A		ER11M	M16	M22X11.5P	16	100	1.05	3033-323
V-722B		ER11M	M16	M22X11.5P	16	150	1.3	3033-323A
V-723A		ER16M	M16	M22X11.5P	22	100	1.3	3033-324
V-723B		ER16M	M16	M22X11.5P	22	150	1.5	3033-330
V-724A		ER20M	M16	M22X11.5P	28	100	1.6	3033-325
V-724B		ER20M	M16	M22X11.5P	28	150	1.6	3033-331
V-725		ER25	M16	M22X11.5P	42	70	1.3	3033-326
V-726		ER25	M16	M22X11.5P	42	100	1.6	3033-327
V-727		ER50	M16	M22X11.5P	78	90	2.2	3033-328

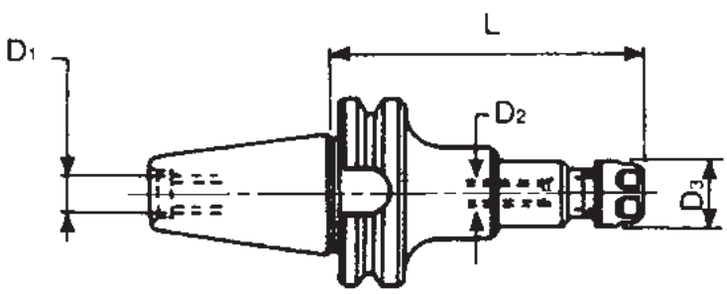
ER Spring Collet Chuck System

Collet Holders With Extension Type BT Taper Shank
ER-16, ER-20

BT-40-ER20

ER

ACCURACY
RUNOUT 0.005mm
TAPER SHANK AT-3
R.P.M. 7000



ORDER NO.	TAPER	COLLET TYPE	D3	L	D1	WEIGHT KGS	CODE NO.
V-770	BT30	ER16	28	60	M12	0.6	3031-301
V-772	BT40	ER16	28	70	M16	1.2	3032-301
V-773			28	100	M16	1.4	3032-302
V-774			28	150	M16	1.7	3032-308
V-774A	BT40	ER20	34	70	M16	1.3	3032-303
V-775			34	100	M16	1.5	3032-304
V-775A			34	135	M16	1.6	3032-309
V-775B			34	150	M16	1.9	3032-310
V-775C	BT40	ER25	42	150	M16	2.1	3032-311
V-733	BT40	ER32	50	150	M16	2	3033-354
V-776	BT50	ER16	28	100	M24	2.3	3033-301
V-777			28	150	M24	4.3	3033-302
V-743A			28	200	M24	7.5	3033-364
V-778	BT50	ER20	34	100	M24	4.1	3033-303
V-779			34	150	M24	4.8	3033-304
V-735			34	200	M24	5	3033-356
V-736	BT50	ER25	42	100	M24	4.3	3033-357
V-737A			42	150	M24	4.8	3033-358
V-744A			42	200	M24	8	3033-365
V-738A	BT50	ER32	50	150	M24	5.5	3033-359
V-739A			50	200	M24	6.5	3033-360
V-741A	BT50	ER40	63	200	M24	7.5	3033-362
V-742A	BT50	ER50	78	150	M24	6.7	3033-363

ER Spring Collet Chuck System

MAS403 BT-SHANK DIN 6499

Collet Chuck Kit With BT Taper Shank

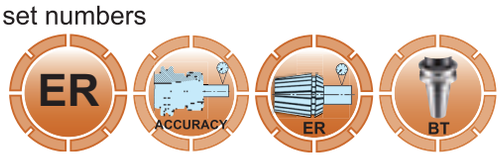
Including shank, full set of collets,
wrench and case.

1.ER16, ER20 PACKED IN WOODEN BOX

2.ER32, ER40, ER50, PACKED IN PLASTIC BOX

3.PACKAGE INCLUDING : CHUCK, COLLET, WRENCH, BOX

Caution:
Please notify the taper size, collet type, set range,and set numbers when ordering.



ER SYSTEM

ORDER NO.	BT TAPER	COLLET TYPE	SET RANGE	COLLET PCS	WEIGHT KGS	CODE NO.
V-780	BT30-60L	ER16	1-10	10	1.9	3031-401
V-780A	BT30-100L	ER16	1-10	10	2	3031-406
V-781	BT40-70L	ER16	1-10	10	2.3	3032-401
V-782	BT40-100L	ER16	1-10	10	2.7	3032-402
V-783	BT30-60L	ER20	2-13	12	2.5	3031-402
V-783A	BT30-100L	ER20	2-13	12	2.6	3032-413
V-783B	BT30-60L	ER25	2-16	15	2.5	3032-414
V-783C	BT30-60L	ER25	4-16	7	2.8	3032-415
V-784	BT40-100L	ER20	2-13	12	3	3032-403
V-784A	BT40-70L	ER20	2-13	12	2.8	3032-416
V-784B	BT40-70L	ER25	2-16	15	3.2	3032-417
V-784C	BT40-100L	ER25	4-16	7	3	3032-418
V-785	BT30-60L	ER32	3-20	18	4.4	3031-403
V-786	BT30-60L	ER32	4-20	11	3.8	3031-404
V-787	BT30-60L	ER32	6-20	6	3.4	3031-405
V-788	BT40-70L	ER32	3-20	18	5.2	3032-404
V-789	BT40-70L	ER32	4-20	11	4.2	3032-405
V-790	BT40-70L	ER32	6-20	6	3.8	3032-406
V-791	BT40-100L	ER32	3-20	18	5.7	3032-407
V-792	BT40-100L	ER32	4-20	11	4.7	3032-408
V-793	BT40-100L	ER32	6-20	6	4.3	3032-409
V-794	BT40-80L	ER40	4-26	23	8.9	3032-410
V-795	BT40-80L	ER40	4-26	15	7.6	3032-411
V-796	BT40-80L	ER40	6-25	7	6	3032-412
V-797	BT50-100L	ER40	4-26	23	11.3	3033-401
V-798	BT50-100L	ER40	4-26	15	10	3033-402
V-799	BT50-100L	ER40	6-26	7	8.5	3033-403
V-737	BT50-150L	ER40	4-26	23	12.2	3033-404
V-738	BT50-150L	ER40	4-26	15	11	3033-405
V-739	BT50-150L	ER40	6-26	7	9.5	3033-406
V-740	BT50-100L	ER50	12-34	12	12	3033-407
V-740C	BT40-90L	ER50	12-34	12	9	3033-408
V-740B	BT50-100L	ER32	3-20	18	7.5	3033-409

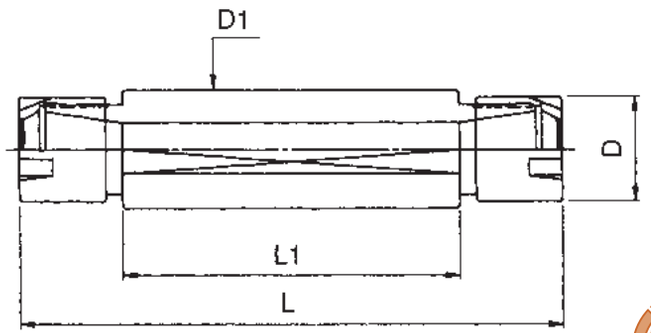
ST/ER Straight Shank With Double Head Spindle

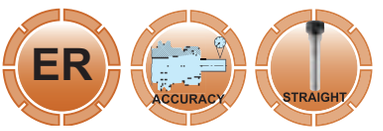
M TYPE DOUBLE HEAD

FOR CNC LATHE ONLY

UM TYPE

M TYPE





M TYPE

ORDER NO.	COLLET TYPE	SHANK (ØD1-ER-L1)	L	L1	D	WEIGHT (KGS)	CODE NO.
V-830	ER11	ø20-ER11M2-50	70	50	16	0.2	3032-430
V-831		ø20-ER11M2-78	108	78	16	0.3	3032-431
V-832	ER16	ø20-ER16M2-50	82	50	22	0.2	3032-432
V-833		ø20-ER16M2-70	112	70	22	0.32	3032-433
V-834	ER16	ø25-ER16M2-50	92	50	22	0.25	3032-434
V-835		ø25-ER16M2-80	122	80	22	0.35	3032-435
V-836	ER20	ø25-ER20M2-50	92	50	28	0.3	3032-436
V-837		ø25-ER20 M2-80	122	80	28	0.35	3032-437

UM TYPE

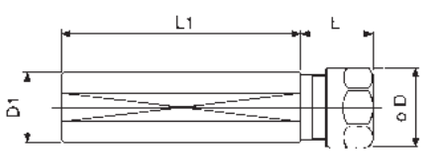
ORDER NO.	COLLET TYPE	SHANK (ØD1-ER-L1)	L	L1	D	WEIGHT (KGS)	CODE NO.
V-855	ER11	ø20-ER11 UM2-50	80	50	19	0.15	3032-428
V-856		ø20-ER11 UM2-70	100	70	19	0.19	3032-429
V-859	ER16	ø20-ER16 UM2-80	124	80	28	0.35	3032-439
V-862	ER20	ø20-ER20 UM2-80	134	80	34	0.38	3032-438

ST/ER Straight Shank With Single Head Spindle

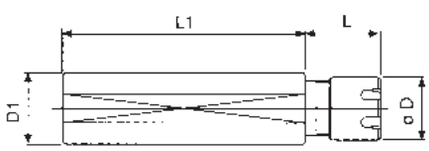
FOR CNC LATHE ONLY

M TYPE SINGLE HEAD

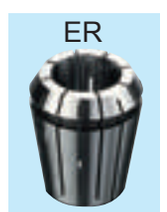
UM TYPE



M TYPE SINGLE HEAD



UM TYPE

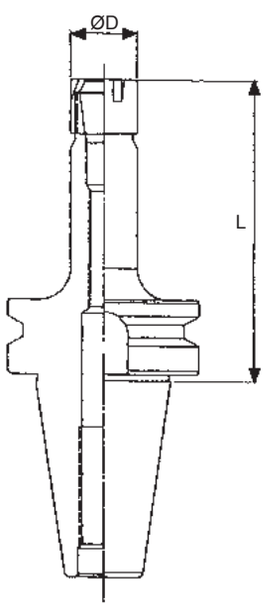


ORDER NO.	COLLET TYPE	SHANK (ØD1-ER-L1)	L	L1	D	WEIGHT (KGS)	CODE NO.
V-841	ER16	ø20-ER16M-70	21	70	22	0.2	3032-441
V-842		ø25-ER16M-70	21	70	22	0.25	3032-442
V-843		ø3/4"-ER16M-70	21	70	22	0.2	3032-443
V-844	ER16	ø20-ER16UM-70	21	70	28	0.2	3032-444
V-845		ø25-ER16UM-70	21	70	28	0.25	3032-445
V-846		ø3/4"-ER16UM-70	21	70	28	0.2	3032-446
V-847	ER20	ø22-ER20UM-70	23	70	34	0.25	3032-447
V-848		ø25-ER20UM-70	23	70	34	0.3	3032-448

ER Collet Chuck System

MAS403 BT30/40/50 SHANK

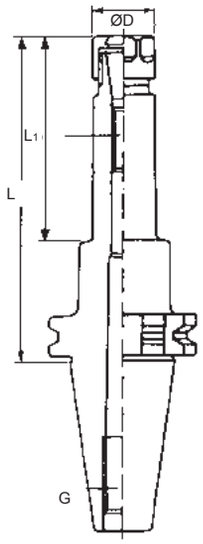
ULTRA PRECISION TYPE
MAX. SPEED: 15,000RPM; G2.5
DYNAMIC BALANCE TESTED



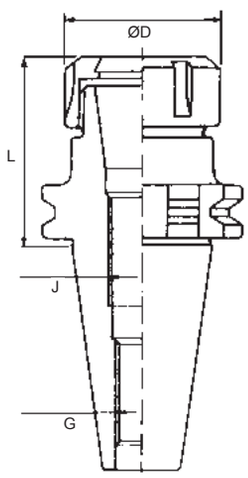
ORDER NO.	L	ØD	COLLET	WEIGHT (kg)	CODE NO.
BT30-ER11-60-B	60	19	ER11	0.5	3033-500
BT30-ER11-100-B	100	19	ER11	0.55	3033-501
BT30-ER16-60-B	60	28	ER16	0.5	3033-502
BT30-ER16-100-B	100	28	ER16	0.7	3033-503
BT30-ER20-60-B	60	34	ER20	0.55	3033-504
BT30-ER20-100-B	100	34	ER20	0.8	3033-505
BT30-ER25-60-B	60	42	ER25	0.6	3033-506
BT30-ER32-60-B	60	50	ER32	0.65	3033-507
BT40-ER11-70-B	70	19	ER11	1	3033-509
BT40-ER11-100-B	100	19	ER11	1.1	3033-510
BT40-ER16-70-B	70	28	ER16	1.1	3033-511
BT40-ER16-100-B	100	28	ER16	1.2	3033-512
BT40-ER20-70-B	70	34	ER20	1.2	3033-514
BT40-ER20-100-B	100	34	ER20	1.4	3033-515
BT40-ER25-70-B	70	42	ER25	1.2	3033-518
BT40-ER25-100-B	100	42	ER25	1.45	3033-519
BT40-ER32-70-B	70	50	ER32	1.3	3033-521
BT40-ER32-100-B	100	50	ER32	1.5	3033-522
BT30-ER11M-100-B	100	16	ER11	0.5	3033-523
BT30-ER16M-100-B	100	22	ER16	0.55	3033-524
BT30-ER20M-100-B	100	28	ER20	0.65	3033-525
BT40-ER11M-100-B	100	16	ER11	1.05	3033-526
BT40-ER16M-100-B	100	22	ER16	1.1	3033-527
BT40-ER20M-100-B	100	28	ER20	1.2	3033-528

ER-SK Taper Shank

COLLET HOLDER WITH SK-SHANK DIN 69871 & COLLET CHUCK SET DIN 69871



ORDER NO.	COLLET TYPE	TAPER	D	L	G	WEIGHT KGS	CODE NO.
V-741	ER16	SK40	28	100	M16	1.5	3029-301
V-741K	ER16	SK30	28	60	M12	0.45	3029-311
V-741B	ER16	SK50	28	100	M24	3.5	3029-317
V-742	ER20	SK40	34	100	M16	1.5	3029-302
V-742C	ER16	SK40	28	70	M16	1.1	3029-315
V-742D	ER20	SK40	34	70	M16	1.2	3029-316
V-742E	ER20	SK50	34	100	M24	3.5	3029-318
V-744	ER20	SK50	34	150	M24	4.8	3030-302



ORDER NO.	COLLET TYPE	TAPER	D	L	G	WEIGHT KGS	CODE NO.
V-745	ER32	SK40	50	70	M16	1.2	3029-303
V-745A	ER32	SK30	50	60	M12	0.8	3029-314
V-745B	ER32	SK50	50	100	M24	3.7	3029-320
V-746	ER40	SK40	63	80	M16	1.6	3029-304
V-747	ER40	SK50	63	100	M24	4.2	3030-303
V-749	ER25	SK40	42	70	M16	1.1	3030-304
V-749A	ER25	SK50	42	100	M24	3.4	3029-319

COLLET CHUCK KIT WITH SK-SHANK DIN 69871

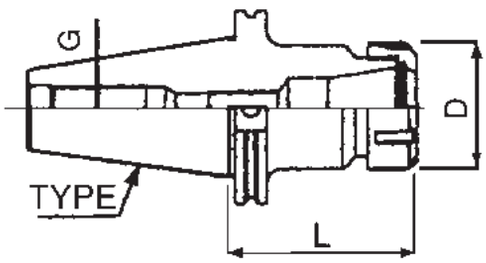
INCLUDING SHANK, FULL SET OF COLLETS, WRENCH AND CASE.

ORDER NO.	ER TYPE	SK TAPER	SET RANGE	SET PCS	WEIGHT KGS	CODE NO.
V-751	ER16	SK40-70L	1-10	10PCS	2.3	3029-401
V-751A	ER16	SK30-60L	1-10	10PCS	1.8	3029-420
V-752	ER20	SK40-70L	2-13	12PCS	3	3029-402
V-753	ER32	SK40-70L	3-20	18PCS	5.2	3029-403
V-754	ER32	SK40-70L	4-20	11PCS	4.2	3029-404
V-754A	ER32	SK30-60L	3-20	18PCS	4.2	3029-423
V-754B	ER32	SK50-100L	3-20	18PCS	7	3029-424
V-755	ER32	SK40-60L	6-20	6PCS	3.8	3029-405
V-756	ER40	SK40-80L	4-26	23PCS	8.9	3029-406
V-757	ER40	SK40-80L	4-26	15PCS	7.6	3029-407
V-758	ER40	SK40-80L	6-25	7PCS	6	3029-408
V-759	ER40	SK50-100L	4-26	23PCS	11.3	3030-401
V-760	ER40	SK50-100L	4-26	15PCS	10	3030-402
V-761	ER40	SK50-100L	6-26	7PCS	8.5	3030-403
V-762	ER25	SK40-70L	2-16	15PCS	3.5	3029-409
V-763	ER25	SK40-70L	4-26	7PCS	3.2	3029-410

ER16, ER20 PACKED IN WOODEN CASE
ER32, ER40 PACKED IN PLASTIC CASE

ER Spring Collet Chuck System

COLLET HOLDER WITH CAT-SHANK



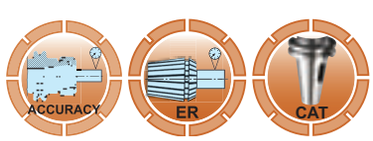
ORDER NO.	COLLET TYPE	TAPER	D	L	G	WEIGHT KGS	CODE NO.
V-870	ER16	CAT30	28	2″	1/2”-13	0.8	3034-301
V-871	ER16	CAT40	28	3″	5/8”-11	1.1	3035-301
V-872	ER20		34	3″		1.2	3035-302
V-873	ER25		42	2-1/2″		1.2	3035-303
V-874	ER32		50	2-1/2″		1.2	3035-304
V-875	ER40		63	3″		1.5	3035-305
V-876	ER40	CAT50	63	3-1/2″	1/8”	4	3036-301

ER SYSTEM

COLLET CHUCK KIT WITH CAT-SHANK

INCLUDING SHANK, FULL SET OF COLLET, WRENCH AND CASE.

1. ER16, ER20, ER25 PACKED IN WOODEN BOX.
2. ER32,ER40, PACKED IN PLASTIC BOX.
3. PACKAGE INCLUDING: CHUCK, COLLET, WRENCH, BOX.



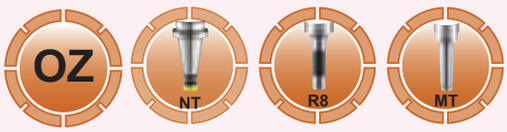
ORDER NO.	COLLET TYPE	CAT TAPER	SET RANGE	SET PCS	WEIGHT KGS	CODE NO.
V-878	ER16	CAT40-3″L	1.0-10	10	2.3	3035-401
V-879	ER20	CAT40-3″L	2.0-13	12	2.5	3035-402
V-880	ER25	CAT40-2 1/2″L	2.0-16	15	3	3035-403
V-881		CAT40-2 1/2″L	4.0-16	7	2.8	3035-404
V-882	ER32	CAT40-2 1/2″L	3.0-20	18	5.2	3035-405
V-883		CAT40-2 1/2″L	4.0-20	11	4.2	3035-406
V-884		CAT40-2 1/2″L	6.0-20	6	3.8	3035-407
V-885	ER40	CAT40-3″L	4.0-26	23	8.9	3035-408
V-886		CAT40-3″L	4.0-26	15	7.6	3035-409
V-887		CAT40-3″L	6.0-25	7	6	3035-410
V-888	ER40	CAT50-3 1/2″L	4.0-26	23	11.2	3036-401
V-889		CAT50-3 1/2″L	4.0-26	15	9.8	3036-402
V-890		CAT50-3 1/2″L	6.0-25	7	8.3	3036-403

Milling Chuck

COLLET HOLDER WITH #25
COLLET CHUCK DIN 6388 TYPE A
OZ-25

DIN 6388 # 25 SERIES
DIN 2080 NT-SHANK

1. Best selected quality tool teel hardened & Precision ground.
2. Accuracy of concentric to within 0.008" per inch. (0.02mm per 25 mm)
3. Hign rigidity & Clamping force.
4. 1 set including : 1 chuck shank holder
   1 wrench ; 1 case.
   7 or 15 pcs of collet.



CHUCK SHANK ONLY

ORDER NO.	CHUCK SHANK	DRAW BAR THREADS		WEIGHT(kg)		MEAS. CFT	CODE NO.
		SAE	METRIC	SAE	METRIC		
VB-MT-2	MT2		M10X1.5P	1	1	0.3	3101-001
VB-MT-3	MT3	3/8"-16	M10X1.5P	1.1	1	0.3	3101-002
		1/2"-12					
		1/2"-13	M12X1.75P				
VB-MT-4	MT4	5/8"-11	M16X2.0P		1.4	0.3	3101-003
VB-MT-5	MT5	1"-8	M24X3.0P		2	0.5	3101-004
VB-R8	R-8	7/16"-20		1.3		0.3	3101-005
VB-NT30	NT30	1/2"-12	M12X1.75P	1.1	1.1	0.3	3101-006
		1/2"-13					
VB-NT40	NT40	5/8"-11	M16X2.0P	1.5	1.5	0.3	3101-007
VB-NT50	NT50	1"-8	M24X3.0P	3.4	3.4	0.5	3101-008

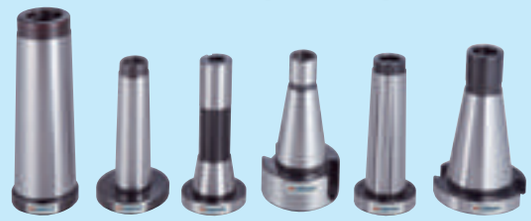
Please Notify the Draw Bar Thread Size When ordering.

Milling Collet Chuck Kit

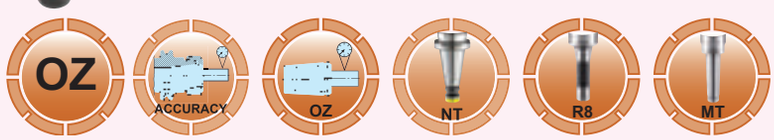
INCLUDING SHANK, FULL SET OF COLLETS, WRENCH AND CASE, COOLET CHUCK KIT

DIN 6388 OZ-25 TYPE

DIFFERENT SHANK STYLE



OZ



OZ SYSTEM

FULL SET

ORDER NO.	COLLETS SIZE OZ-25		PCS	WEIGHT (KGS)	CODE NO.
	TAPER	COLLETS			
VB-101	NT30	Inch 1/8″-1″ 15PCS 1/4″-1″ 7PCS Metric 3mm-25mm 15pcs 6mm-25mm 7pcs	7	3.7	3101-101
VB-102			15	5.2	3101-102
VB-103	NT40		7	4	3101-103
VB-104			15	5.5	3101-104
VB-105	NT50		7	6.5	3101-105
VB-106			15	8.5	3101-106
VB-107	MT3		7	3.3	3101-107
VB-108			15	5.2	3101-108
VB-109	MT4		7	3.9	3101-109
VB-110			15	5.4	3101-110
VB-111	MT5		7	4.7	3101-111
VB-112			15	6.2	3101-112
VB-113	R8		7	3.7	3101-113
VB-114			15	5.2	3101-114
VB-115	MT2		7	3.6	3101-115
VB-116			15	5.1	3101-116

NEW

Please Notify the Type Size, Collet Type, Set Range,and Set Numbers When Ordering.

CONTENT COLLET SET SIZE

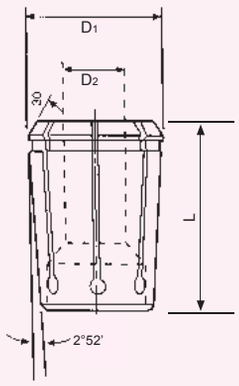
7 PCS/SET	MM	6, 8, 10, 12,16, 20, 25MM
	INCH	1/4″, 5/16″, 3/8″, 1/2″, 5/8″, 3/4″, 1″v
15 PCS/SET	MM	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 18, 20, 25MM
	INCH	1/8″, 3/16″, 1/4″, 5/16″, 3/8″, 7/16″, 1/2″, 9/16″, 5/8″, 11/16″, 3/4″, 13/16″, 7/8″, 15/16″, 1″

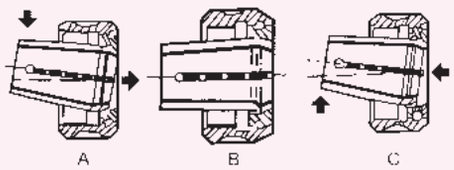
DIN 6388 Collet For Milling Chuck

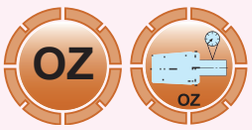
COLLET DIN 6388, TYPE A

DIN 6388 #16,#25,#32 SERIES

COLLET MUST BE ASSEMBLED INTO THE CLAMPING NUT BEFORE INSERTING INTO THE CHUCK







METRIC

ORDER NO.	D1	L	D_2(MM)
OZ-16-□	25.5	40	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
OZ-25-□	35.05	52	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 20, 25
OZ-32-□	44	60	6, 8, 10, 12, 16, 20, 25, 32

INCH

ORDER NO.	D1	L	D_2(INCH)
OZ-25-□	35.05	52	1/8″, 3/16″, 1/4″, 5/16″, 3/8″, 7/16″, 1/2″, 9/16″, 5/8″, 11/16″, 3/4″, 13/16″, 7/8″, 15/16″, 1″
OZ-32-□	43.7	60	1/4″, 5/16″, 3/8″, 7/16″, 1/2″, 9/16″, 5/8″, 11/16″, 3/4″, 13/16″, 7/8″, 15/16″, 1″, $1\frac{1}{8}$″, $1\frac{1}{4}$″

■ RANGE SIZE:3-25(1/8″-1″)

OZ-25 ■ D:35.05 ■ L:52 ■ TAPER:1:10 ■ WEIGHT:0.18KGS

ORDER NO.	MM SIZE	CODE NO.
OZ-2503	3.0	3100-101
OZ-2504	4.0	3100-102
OZ-2505	5.0	3100-103
OZ-2506	6.0	3100-104
OZ-2507	7.0	3100-105
OZ-2508	8.0	3100-106
OZ-2509	9.0	3100-107
OZ-2510	10	3100-108
OZ-2511	11	3100-109
OZ-2512	12	3100-110
OZ-2513	13	3100-111
OZ-2514	14	3100-112
OZ-2515	15	3100-113
OZ-2516	16	3100-114
OZ-2517	17	3100-115
OZ-2518	18	3100-116
OZ-2519	19	3100-117
OZ-2520	20	3100-118
OZ-2521	21	3100-119
OZ-2522	22	3100-120
OZ-2523	23	3100-121
OZ-2524	24	3100-122
OZ-2525	25	3100-123

ORDER NO.	INCH SIZE	CODE NO.
OZ-2526	1/8″	3100-124
OZ-2527	3/16″	3100-125
OZ-2528	1/4″	3100-126
OZ-2529	5/16″	3100-127
OZ-2530	3/8″	3100-128
OZ-2531	7/16″	3100-129
OZ-2532	1/2″	3100-130
OZ-2533	9/16″	3100-131
OZ-2534	5/8″	3100-132
OZ-2535	11/16″	3100-133
OZ-2536	3/4″	3100-134
OZ-2537	13/16″	3100-135
OZ-2538	7/8″	3100-136
OZ-2539	15/16″	3100-137
OZ-2540	1″	3100-138

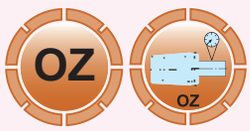
DIN 6388 Collet For Milling Chuck

COLLET DIN 6388, TYPE A

DIN 6388 #16,#25,#32 SERIES

COLLET MUST BE ASSEMBLED INTO THE CLAMPING NUT BEFORE INSERTING INTO THE CHUCK

OZ



DIN6388 32#
OZ-32

■ **RANGE SIZE:6-32(1/4″-1 1/4″)**
■ **D:43.7** ■ **L:60** ■ **TAPER:1:10**
■ **WEIGHT:0.25KGS**

ORDER NO.	MM SIZE	CODE NO.
OZ-3206	6.0	3100-201
OZ-3207	7.0	3100-202
OZ-3208	8.0	3100-203
OZ-3209	9.0	3100-204
OZ-3210	10	3100-205
OZ-3211	11	3100-206
OZ-3212	12	3100-207
OZ-3213	13	3100-208
OZ-3214	14	3100-209
OZ-3215	15	3100-210
OZ-3216	16	3100-211
OZ-3217	17	3100-212
OZ-3218	18	3100-213
OZ-3219	19	3100-214
OZ-3220	20	3100-215
OZ-3221	21	3100-216
OZ-3222	22	3100-217
OZ-3223	23	3100-218
OZ-3224	24	3100-219
OZ-3225	25	3100-220
OZ-3226	26	3100-221
OZ-3227	27	3100-222
OZ-3228	28	3100-223
OZ-3229	29	3100-224
OZ-3230	30	3100-225
OZ-3231	31	3100-226
OZ-3232	32	3100-227

ORDER NO.	INCH SIZE	CODE NO.
OZ-3233	1/4″	3100-228
OZ-3234	5/16″	3100-229
OZ-3235	3/8″	3100-230
OZ-3236	7/16″	3100-231
OZ-3237	1/2″	3100-232
OZ-3238	9/16″	3100-233
OZ-3239	5/8″	3100-234
OZ-3240	11/16″	3100-235
OZ-3241	3/4″	3100-236
OZ-3242	13/16″	3100-237
OZ-3243	7/8″	3100-238
OZ-3244	15/16″	3100-239
OZ-3245	1″	3100-240
OZ-3246	1-1/8″	3100-241
OZ-3247	1-1/4″	3100-242

NEW

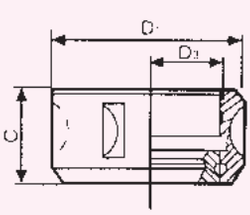
■ **DIN 6388 16#**
■ **OZ-16 COLLET**

ORDER NO.	MM SIZE	CODE NO.
OZ-1602	2.0	3100-001
OZ-1603	3.0	3100-002
OZ-1604	4.0	3100-003
OZ-1605	5.0	3100-004
OZ-1606	6.0	3100-005
OZ-1607	7.0	3100-006
OZ-1608	8.0	3100-007
OZ-1609	9.0	3100-008
OZ-1610	10	3100-009
OZ-1611	11	3100-010
OZ-1612	12	3100-011
OZ-1613	13	3100-012
OZ-1614	14	3100-013
OZ-1615	15	3100-014
OZ-1616	16	3100-015

OZ SYSTEM

DIN 6388 Nuts & Wrench

BALL BEARING, NUTS FOR COLLETS DIN6388, TYPE A



Unit:mm

ORDER NO.	C	D1	D3	COLLETS	WEIGHT kgs	CODE NO.
OZ-25N	33	60	M48X2	OZ-25	0.3	3100-301
OZ-32N	40	72	M60X2.5	OZ-32	0.7	3100-302

WRENCH FOR COLLETS DIN6388 TYPE A

Unit:mm

ORDER NO.	D1	COLLETS	WEIGHT kgs	CODE NO.
OZ-25W	60	OZ-25	0.35	3100-310
OZ-32W	72	OZ-32	0.4	3100-311

Milling Collet Chuck

OZ-25
COLLET HOLDER WITH BT-SHANK

DIN 6388 # 25 SERIES MAS 403
BT-SHANK

ORDER NO.	TAPER	DIN 6388	L	DRAW BAR	WEIGHT KGS	CODE NO.
VB-BT40	BT40	#25	80	M16X2.0P	1.7	3101-009
VB-BT50	BT50	#25	100	M24X3.0P	4.6	3101-010

Milling Collet Chuck Kit

Including Shank, full set of collets, wrench and case.

METRIC COLLET SYSTEM

ORDER NO.	TAPER	PCS/SET	WEIGHT KGS	CODE NO.
VB-241	BT40	7	4.4	3101-117
VB-242		15	5.9	3101-118
VB-251	BT50	7	7.5	3101-119
VB-252		15	9.5	3101-120

CONTENT COLLET SET SIZE

METRIC RANGE SET SIZE
7PCS:6, 8, 10, 12, 16, 20, 25mm
15PCS:3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 18, 20, 25mm

INCH COLLET SET SIZE

ORDER NO.	TAPER	PCS/SET	WEIGHT KGS	CODE NO.
VB-231	BT40	7	4.4	3101-121
VB-232		15	5.9	3101-122
VB-233	BT50	7	7.5	3101-123
VB-234		15	9.5	3101-124

INCH RANGE SET SIZE
7PCS:$^{1}/_{4}$",$^{5}/_{16}$",$^{3}/_{8}$",$^{1}/_{2}$",$^{5}/_{8}$",$^{3}/_{4}$",1"
15PCS:$^{1}/_{8}$",$^{3}/_{16}$",$^{1}/_{4}$",$^{5}/_{16}$",$^{3}/_{8}$",$^{7}/_{16}$",$^{1}/_{2}$",$^{9}/_{16}$",$^{5}/_{8}$",
$^{11}/_{16}$",$^{3}/_{4}$",$^{13}/_{16}$",$^{7}/_{8}$",$^{15}/_{16}$",1"

Milling Collet Chuck

COLLET HOLDER WITH BT-SHANK
OZ-32 MAS 403

DIN 6388 # 32 SERIES

ORDER NO.	TAPER	DIN 6388	L	DRAW BAR	WEIGHT KGS	CODE NO.
VB-226	BT40-OZ-32	#32	90	M16X2.0P	2.3	3102-003
VB-227	BT50-OZ-32	#32	100	M24X3.0P	5.1	3102-004
VB-228			150	M24X3.0P	6.8	3102-005

Milling Collet Chuck Kit

Including Shank, full set of collets, wrench and case.

#32 SERIES BT-TYPE
MAS 403 BT-SHANK

METRIC COLLET SYSTEM SET

ORDER NO.	TAPER	PCS/SET	WEIGHT KGS	CODE NO.
VB-243	BT40	8	7.4	3102-109
VB-244		15	9.4	3102-110
VB-253	BT50	8	10	3102-111
VB-254		15	12	3102-112

CONTENT COLLET SET SIZE

METRIC RANGE SET SIZE
8PCS:6, 8, 10, 12, 16, 20, 25, 32mm
15PCS:6, 8, 9, 10, 12, 13, 14, 15, 16, 18, 20, 22, 25, 26, 30, 32mm

INCH COLLET SYSTEM SET

ORDER NO.	TAPER	PCS/SET	WEIGHT KGS	CODE NO.
VB-256	BT40	10	7.4	3102-113
VB-257		15	9.4	3102-114
VB-258	BT50	10	10	3102-115
VB-259		15	12	3102-116

INCH RANGE SET SIZE
10PCS:1/4",5/16",3/8",1/2",5/8",3/4",7/8",1",1-1/8",1-1/4"
15PCS:1/4",5/16",3/8",7/16",1/2",9/16",5/8",11/16",3/4"
13/16",7/8",15/16",1",1-1/8",1-1/4"

Milling Collet Chuck

COLLET HOLDER WITH ISO-SHANK
OZ-32

DIN 6388 # 32 SERIES
DIN 2080 NT-SHANK

ORDER NO.	TAPER	DIN 6388	DRAW BAR	WEIGHT KGS	CODE NO.
VB-130	NT30	#32	1.M12X1.75P 2.1/2″-12W	2	3102-006
VB-131	NT40	#32	1.M16X2.0P 2.5/8″-11W	2.2	3102-001
VB-132	NT50	#32	1.M24X3.0P 2.1″-8W	3.9	3102-002

METRIC COLLET SYSTEM

ORDER NO.	TAPER	PCS/SET	WEIGHT KGS	CODE NO.
VB-121	NT40	8	7.5	3102-101
VB-121B	NT40	15	9.2	3102-102
VB-122	NT50	8	9.8	3102-103
VB-122B	NT50	15	11.8	3102-104
VB-123	NT30	8	7	3102-090
VB-123B	NT30	15	9	3102-091
VB-124	MTB5	8	8	3102-092
VB-124B	MTB5	15	10	3102-093

Milling Collet Chuck Kit

luding Shank, full set of
collets, wrench and case.

OZ-32 DIN 6388

CONTENT COLLET SET SIZE

METRIC RANGE SET SIZE
8PCS:6, 8, 10, 12, 16, 20, 25, 32mm
15PCS:6, 7, 8, 9, 10, 11, 12, 13, 16, 18, 20, 25, 26,30, 32mm

INCH COLLET SYSTEM

ORDER NO.	TAPER	PCS/SET	WEIGHT KGS	CODE NO.
VB-162	NT30	10	7	3102-094
VB-162B	NT30	15	9	3102-095
VB-163	NT40	10	7.2	3102-105
VB-164	NT40	15	9.2	3102-106
VB-165	NT50	10	9.8	3102-107
VB-166	NT50	15	11.8	3102-108
VB-167	MTB5	10	8	3102-096
VB-167B	MTB5	15	10	3102-097

INCH RANGE SET SIZE
10PCS:1/4″,5/16″,3/8″,1/2″,5/8″,3/4″,7/8″,1″,1-1/8″,1-1/4″
15PCS:1/4″,5/16″,3/8″,7/16″,1/2″,9/16″,5/8″,11/16″,3/4″,
13/16″,7/8″,15/16″,1″,1-1/8″,1-1/4″

Milling Collet Chuck

COLLET HOLDER WITH DIN 69871 & CAT TPE

DIN 6388 # 25, #32 SERIES

DIN 69871A & CAT SHANK

ORDER NO.	TAPER	DIN 6388	DRAW BAR	WEIGHT KGS	CODE NO.
VB-261	SK40-OZ25-80L	#25	M16X2.0P	1.6	3101-011
VB-262	SK50-OZ25-100L		M24X3.0P	4.2	3101-012
VB-263	CAT40-OZ25-3″L		5/8″-11W	1.9	3101-013
VB-264	CAT50-OZ25-3 1/2″L		1″-8W	4	3101-014
VB-265	SK40-OZ32-80L	#32	M16X2.0P	2.3	3102-011
VB-266	SK50-OZ32-100L		M24X3.0P	5	3102-012
VB-267	CAT40-OZ32-3″L		5/8″-11W	2.3	3102-013

OZ

Milling Collet Chuck Kit

Including Shank, full set of collets, wrench and case.

METRIC COLLET SYSTEM SET DIN69871A SK-TYPE WITH #25,#32

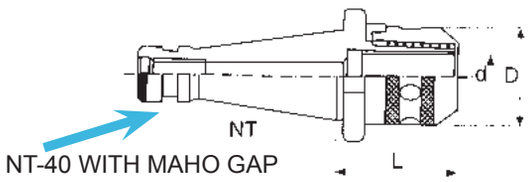
ORDER NO.	COLLET HOLDER	TYPE	DIN 6388	RANGE	SET PCS	KGS	CODE NO.
VB-271	SK40-OZ25-80L	SK40	#25	3.0-25	15PCS	5.7	3101-125
VB-272	SK40-OZ25-80L		#25	6.0-25	7PCS	4.2	3101-126
VB-273	SK40-OZ32-80L	SK40	#32	6.0-32	15PCS	9.2	3101-127
VB-274	SK40-OZ32-80L		#32	6.0-32	8PCS	7.2	3101-128
VB-275	SK50-OZ25-100L	SK50	#25	3.0-25	15PCS	9.3	3101-129
VB-276	SK50-OZ25-100L		#25	6.0-25	7PCS	7.3	3101-130
VB-277	SK50-OZ32-100L	SK50	#32	6.0-32	15PCS	11.8	3102-117
VB-278	SK50-OZ32-100L		#32	6.0-32	8PCS	9.8	3102-118

INCH COLLET SYSTEM SET CAT-TYPE WITH #25,#32

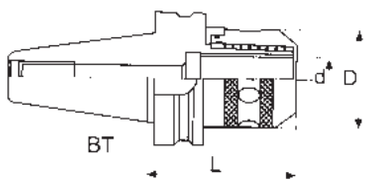
ORDER NO.	COLLET HOLDER	TYPE	DIN 6388	RANGE	SET PCS	KGS	CODE NO.
VB-281	CAT40-OZ25-3″L	CAT40	#25	1/8″-1″	15PCS	5.7	3101-131
VB-282	CAT40-OZ25-3″L		#25	1/4″-1″	7PCS	4.2	3101-132
VB-286	CAT40-OZ32-3″L	CAT40	#32	1/4″-1 1/4″	15PCS	9.2	3102-119
VB-287	CAT40-OZ32-3″L		#32	1/4″-1 1/4″	10PCS	7.2	3102-120
VB-288	CAT50-OZ25-3 1/2″L	CAT50	#25	1/8″-1″	15PCS	9.3	3101-133
VB-289	CAT50-OZ25-3 1/2″L		#25	1/4″-1″	7PCS	7.3	3101-134
VB-290	CAT50-OZ32-3 1/2″L	CAT50	#32	1/4″-1 1/4″	15PCS	11.8	3102-121
VB-291	CAT50-OZ32-3 1/2″L		#32	1/4″-1 1/4″	10PCS	10	3102-122

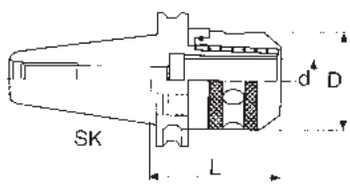
Multi-Lock Milling Chuck

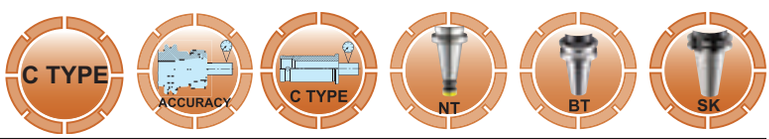
COLLET HOLDER WITH ISO, BT & SK TAPER SHANK
STRAIGHT COLLET TYPE
C-32 C-42
DIN 2080,MAS 403 DIN 69871A
C-20,25,32,42 TYPE



NT-40 WITH MAHO GAP





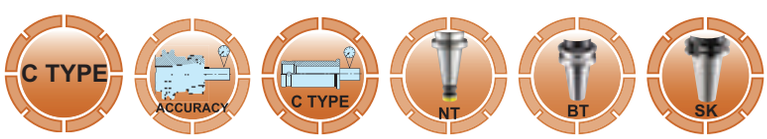


ORDER NO.	TAPER	CHUCK	d	D	L	DRAW BAR	KGS	CODE NO.
VB-431	NT40	NT40-MC32-95L	32	75	95	5/8″-11	3	3202-001
VB-432		NT40-MC32-95L	32	75	95	M16x2.0P	3.1	3202-002
VB-433	NT50	NT50-MC32-100L	32	75	100	1″-8	4.8	3202-003
VB-434		NT50-MC32-100L	32	75	100	M24x3.0P	5.1	3202-004
VB-435A	BT40	BT40-MC32-105L	32	75	105	M16x2.0P	3.2	3202-005
VB-435B		BT40-MC32-150L	32	75	150	M16x2.0P	3.5	3202-020
VB-436	BT50	BT50-MC32-110L	32	75	110	M24x3.0P	5.2	3202-006
VB-437		BT50-MC32-150L	32	75	135	M24x3.0P	7	3202-007
VB-438	NT50	NT50-MC42-110L	42	87	110	1″-8	6	3202-008
VB-439		NT50-MC42-110L	42	87	110	M24x3.0P	6.1	3202-009
VB-440	BT50	BT50-MC42-115L	42	87	115	M24x3.0P	6.1	3202-010
VB-441		BT50-MC42-150L	42	87	140	M24x3.0P	7.8	3202-011
VB-442	SK40	SK40-MC32-100L	32	75	100	M16x2.0P	3.1	3202-012
VB-443	SK50	SK50-MC32-105L	32	75	105	M24x3.0P	5.3	3202-013
VB-444A	BT30	BT30-MC20-95	20	52	95	M12x1.75P	1.3	3202-014
VB-446A	BT40	BT40-MC20-80	20	52	80	M16x2.0P	3	3202-016
VB-446B		BT40-MC20-120	20	52	120	M16x2.0P	2.7	3202-017
VB-447A		BT40-MC25-90	25	58	90	M16x2.0P	4.5	3202-018
VB-447B		BT40-MC25-135	25	58	135	M16x2.0P	3.2	3202-019
VB-448A	NT30	NT30-MC20-80	20	52	80	1. M12X1.75P 2. 1/2″-12	1.5	3202-030
VB-448B		NT30-MC25-85	25	58	85	1. M12X1.75P 2. 1/2″-12	1.5	3202-031
VB-451A	SK40	SK40-MC20-80	20	52	80	M16X2.0P	2	3202-035
VB-451B		SK40-MC25-90	25	58	90	M16X2.0P	2	3202-036
VB-452	SK50	SK50-MC42-110	42	87	110	M24X3.0P	5.7	3202-037

Multi-Lock Milling Chuck

MULTI-LOCK
MILLING CHUCK KIT
Including shank, full set of collets, wrench and case.
DIN 2080 NT-SHANK
MAS 403 BT-SHANK
DIN 69871A SK-SHANK

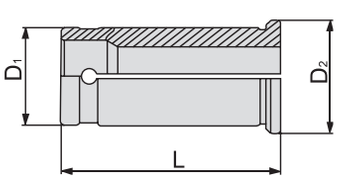
C TYPE



ORDER NO.	TAPER	CHUCK	COLLET	DRAW BAR	KGS	CODE NO.
VB-444I	NT40	NT40-MC32-95L	7PCS	5/8″-11	7	3202-101
VB-444		NT40-MC32-95L	7PCS	M16x2.0P	7	3202-102
VB-454I	NT50	NT50-MC32-100L	7PCS	1″-8	9	3202-103
VB-454		NT50-MC32-100L	7PCS	M24x3.0P	9	3202-104
VB-344A	BT40	BT40-MC32-105L	7PCS	M16x2.0P	7	3202-105
VB-344B		BT40-MC32-150L	7PCS	M16x2.0P	11.5	3202-118
VB-354A	BT50	BT50-MC32-110L	7PCS	M24x3.0P	9.5	3202-106
VB-354B		BT50-MC32-150L	7PCS	M24x3.0P	13	3202-119
VB-554	NT50	NT50-MC42-110L	8PCS	M24x3.0P	12	3202-107
VB-554I		NT50-MC42-110L	8PCS	1″-8	12	3202-108
VB-564A	BT50	BT50-MC42-115L	8PCS	M24x3.0P	12	3202-109
VB-564B		BT50-MC42-150L	8PCS	M24x3.0P	14	3202-109B
VB-565	SK-40	SK40-MC32-100L	7PCS	M16x2.0P	7	3202-110
VB-566	SK-50	SK50-MC32-105L	7PCS	M24x3.0P	9.5	3202-111
VB-567	BT-30	BT30-MC20-95	6PCS	M12x1.75P	6	3202-112
VB-569A	BT-40	BT40-MC20-80	6PCS	M16x2.0P	7	3202-114
VB-569B		BT40-MC20-120	6PCS	M16x2.0P	8	3202-115
VB-570A		BT40-MC25-90	7PCS	M16x2.0P	9.5	3202-116
VB-570B		BT40-MC25-135	7PCS	M16x2.0P	10.5	3202-117
VB-571	NT30	NT30-MC20-80L	6PCS	1. M12X1.75P 2. 1/2″-12	4	3202-120
VB-572		NT30-MC25-85L	7PCS	1. M12X1.75P 2. 1/2″-12	4	3202-121
VB-574	NT40	NT40-MC25-85L	7PCS	1. M16X2.0P 2. 5/8″-11	4.5	3202-123
VB-576	SK40	SK40-MC20-80L	6PCS	M16X2.0P	4.5	3202-125
VB-577		SK40-MC25-90L	7PCS	M16X2.0P	4.8	3202-126
VB-578	SK50	SK50-MC42-110L	8PCS	M24X3.0P	12	3202-127

C-20,25,32,42 Collet

C-TYPE COLLET



ORDER NO.	WEIGHT
C-20	0.1
C-25	0.18
C-32	0.22
C-42	0.35

20, 25, 32, 42 STRAIGHT COLLET

METRIC

ORDER NO.	COLLET	COLLETS SIZE d INSIDE DIAMETER	D1 O.D.	D2	L	PCS/SET	CODE NO.
C-20-6P	C-20	4, 6, 8, 10, 12, 16	20	25	52	6	3202-180
C-25-7P	C-25	4, 6, 8, 10, 12, 16, 20	25	31	60	7	3202-181
C-32-7P	C-32	6, 8, 10, 12, 16, 20, 25	32	37	73	7	3202-182
C-42-8P	C-42	6, 8, 10, 12, 16, 20, 25, 32	42	48	80	8	3202-183

20, 25, 32, 42 STRAIGHT COLLET

INCH

ORDER NO.	COLLET	COLLETS SIZE d INSIDE DIAMETER	D1 O.D.	D2	L	PCS/SET	CODE NO.
C-20-6I	C-20	1/4", 5/16", 3/8", 1/2", 5/8", 3/16"	20	25	52	6	3202-184
C-25-7I	C-25	1/4", 5/16", 3/8", 1/2", 5/8", 3/16", 3/4"	25	31	60	7	3202-185
C-32-7I	C-32	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 1"	32	37	73	7	3202-186
C-42-8I	C-42	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 1",1 1/4"	42	48	80	8	3202-187

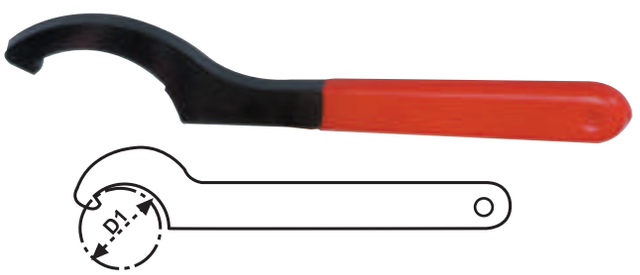
METRIC

ORDER NO.	d	CODE NO.
C-20-4	4	3202-200
C-20-6	6	3202-201
C-20-8	8	3202-202
C-20-10	10	3202-203
C-20-12	12	3202-204
C-20-16	16	3202-205
C-25-4	4	3202-229
C-25-6	6	3202-230
C-25-8	8	3202-231
C-25-10	10	3202-232
C-25-12	12	3202-233
C-25-16	16	3202-234
C-25-20	20	3202-235
C-32-6	6	3202-250
C-32-8	8	3202-251
C-32-10	10	3202-252
C-32-12	12	3202-253
C-32-16	16	3202-254
C-32-20	20	3202-255
C-32-25	25	3202-256
C-42-6	6	3202-280
C-42-8	8	3202-281
C-42-10	10	3202-282
C-42-12	12	3202-283
C-42-16	16	3202-284
C-42-20	20	3202-285
C-42-25	25	3202-286
C-42-32	32	3202-287

INCH

ORDER NO.	d	CODE NO.
C-20-3/16"	3/16"	3202-210
C-20-1/4"	1/4"	3202-211
C-20-5/16"	5/16"	3202-212
C-20-3/8"	3/8"	3202-213
C-20-1/2"	1/2"	3202-214
C-20-5/8"	5/8"	3202-215
C-25-3/16"	3/16"	3202-240
C-25-1/4"	1/4"	3202-241
C-25-5/16"	5/16"	3202-242
C-25-3/8"	3/8"	3202-243
C-25-1/2"	1/2"	3202-244
C-25-5/8"	5/8"	3202-245
C-25-3/4"	3/4"	3202-246
C-32-3/16"	3/16"	3202-260
C-32-1/4"	1/4"	3202-261
C-32-5/16"	5/16"	3202-262
C-32-3/8"	3/8"	3202-263
C-32-1/2"	1/2"	3202-264
C-32-5/8"	5/8"	3202-265
C-32-3/4"	3/4"	3202-266
C-32-7/8"	7/8"	3202-267
C-32-1"	1"	3202-268
C-42-1/4"	1/4"	3202-290
C-42-5/16"	5/16"	3202-291
C-42-3/8"	3/8"	3202-292
C-42-1/2"	1/2"	3202-293
C-42-5/8"	5/8"	3202-294
C-42-3/4"	3/4"	3202-295
C-42-7/8"	7/8"	3202-296
C-42-1"	1"	3202-297
C-42-1 1/4"	1 1/4"	3202-298

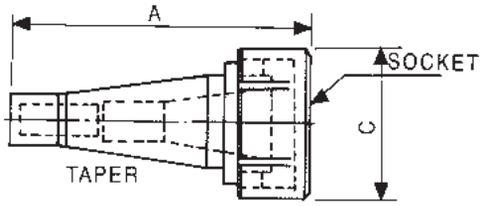
C-20,25,32,42 Wrenchs



ORDER NO.	L	D	WEIGHT KGS	COLLETS	CODE NO.
C-20W	227	52	0.22	C-20	3202-311
C-25W	227	58	0.22	C-25	3202-312
C-32W	260	75	0.33	C-32	3202-313
C-42W	270	87	0.35	C42	3202-314

Quick-Change Tooling System

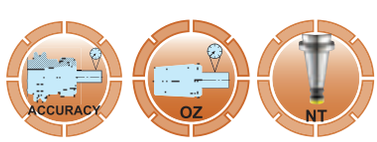
MILLING-QUICK CHANGE HOLDER OZ DIN 6388



- QUICK-CHANG CHUCK TAPER ACCORDING TO DIN 2080 SPECIFICATION.
- EASY AND FAST CHANGING MILLING CHUCK(HOLDER).
- CHUCK TAPER PRECISELY MACHINED SUITABLE FOR HEAVY CUTTING.
- ALL THE HOLDER SIZE ARE SPECIAL FOR THIS QUICK-CHANGE TOOLING SYSTEM ONLY.

ORDER NO.	TAPER	SOCKET	A	C	WEIGHT KGS	CODE NO.
VD-101	NT30	NT30	144	70	1.3	3201-001
VD-102	NT40	NT30	150	70	2	3201-002
VD-103	NT40	NT40	181	89	2.4	3201-003
VD-105	NT50	NT40	175	89	3.8	3201-004

MILLING-QUICK CHANGE SYSTEM KIT

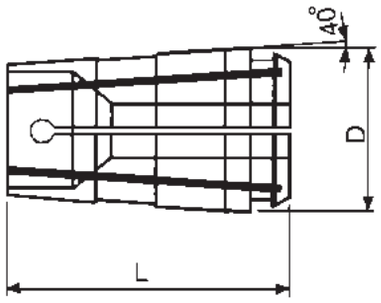


ORDER NO.	TAPER	SOCKET	FULL SET	WEIGHT KGS	CODE NO.
VD-111	NT30	NT30	1.MILLING QUICK-CHANGE HOLDER 2.DRILL CHUCK HOLDER 3.MORSE TAPER HOLDER 4.FACE MILL HOLDER 5.DIN6388 #25 COLLET CHUCK HOLDER 6.DIN6388 #25 15PCS COLLET 7.WRENCH 8.WOODEN BOX	10	3201-006
VD-112	NT40	NT30		10.5	3201-007
VD-113	NT40	NT40		14	3201-008
VD-115	NT50	NT40		16	3201-009

TG 100 Collet System

DIN 464E

- PRECISION TG10 COLLET WITHIN 20 MICRON



■ RANGE SIZE:1/8″-63/64″

TG-100 ■ D:35 ■ L:61 ■ TAPER:4 ■ WEIGHT:0.2KGS ■ HRC:47˚

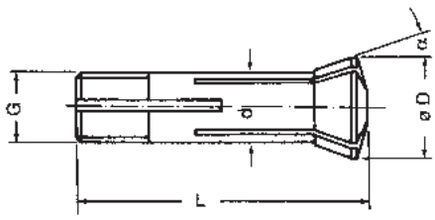
ORDER NO.	INCH	CODE NO.
TG10-01	1/8″	3204-001
TG10-02	3/6″	3204-002
TG10-03	1/4″	3204-003
TG10-04	5/16″	3204-004
TG10-05	3/8″	3204-005
TG10-06	7/16″	3204-006
TG10-07	1/2″	3204-007
TG10-08	9/16″	3204-008
TG10-09	5/8″	3204-009
TG10-10	11/16″	3204-010
TG10-11	3/4″	3204-011
TG10-12	13/16″	3204-012
TG10-13	7/8″	3204-013
TG10-14	15/16″	3204-014
TG10-15	1″	3204-015
TG10-16	5/32″	3204-016
TG10-17	7/32″	3204-017
TG10-18	9/32″	3204-018
TG10-19	11/32″	3204-019
TG10-20	13/32″	3204-020
TG10-21	15/32″	3204-021
TG10-22	17/32″	3204-022
TG10-23	19/32″	3204-023
TG10-24	21/32″	3204-024
TG10-25	23/32″	3204-025
TG10-26	25/32″	3204-026
TG10-27	27/32″	3204-027
TG10-28	29/32″	3204-028
TG10-29	31/32″	3204-029

ORDER NO.	INCH	CODE NO.
TG10-30	9/64″	3204-030
TG10-31	11/64″	3204-031
TG10-32	13/64″	3204-032
TG10-33	15/64″	3204-033
TG10-34	17/64″	3204-034
TG10-35	19/64″	3204-035
TG10-36	21/64″	3204-036
TG10-37	23/64″	3204-037
TG10-38	25/64″	3204-038
TG10-39	27/64″	3204-039
TG10-40	29/64″	3204-040
TG10-41	31/64″	3204-041
TG10-42	33/64″	3204-042
TG10-43	35/64″	3204-043
TG10-44	37/64″	3204-044
TG10-45	39/64″	3204-045
TG10-46	41/64″	3204-046
TG10-47	43/64″	3204-047
TG10-48	45/64″	3204-048
TG10-49	47/64″	3204-049
TG10-50	49/64″	3204-050
TG10-51	51/64″	3204-051
TG10-52	53/64″	3204-052
TG10-53	55/64″	3204-053
TG10-54	57/64″	3204-054
TG10-55	59/64″	3204-055
TG10-56	61/64″	3204-056
TG10-57	63/64″	3204-057

5C Collet System

5C RANGE

5C Collet



■L:87 ■D:37.5 ■d:31.75 ■Accuracy: ±0.02mm
■α:10° ■WEIGHT:0.21KGS ■Hardness: HRC47°

ORDER NO.	Q'TY	RANGE SIZE
5C-□	1 PC	Ø 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25MM
5C-□	1 PC	Ø 1/8″, 3/16″, 1/4″, 5/16″, 3/8″, 7/16″, 1/2″, 9/16″, 5/8″, 11/16″, 3/4″, 13/16″, 7/8″, 15/16″, 1″

COMPLETE SET AVAILABLE SIZE

ORDER NO.	Q'TY	RANGE SIZE	PACKING	WEIGHT KGS	CODE NO.
VE-102	7PCS	6, 8, 10, 12, 16, 20, 25	CARTON	1.5	3205-100
VE-102	7PCS	1/4″, 5/16″, 3/8″, 1/2″, 5/8″, 3/4″, 1′	CARTON	1.5	3205-101

EMERGENCY TYPE SOFT COLLET

ORDER NO.	MATERIAL	kgs	CODE NO.
VE-5CS	STEEL		3205-201
VE-5CB	BRASS	0.35	3205-202
VE-5CN	NYLON		3205-203

mm

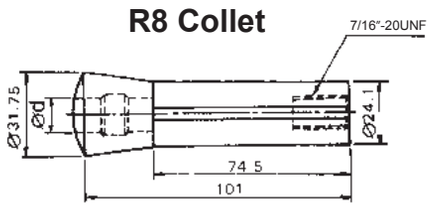
ORDER NO.	d	CODE NO.
5C-3	3	3205-001
5C-4	4	3205-002
5C-5	5	3205-003
5C-6	6	3205-004
5C-7	7	3205-005
5C-8	8	3205-006
5C-9	9	3205-007
5C-10	10	3205-008
5C-11	11	3205-009
5C-12	12	3205-010
5C-13	13	3205-011
5C-14	14	3205-012
5C-15	15	3205-013
5C-16	16	3205-014
5C-17	17	3205-015
5C-18	18	3205-016
5C-19	19	3205-017
5C-20	20	3205-018
5C-21	21	3205-019
5C-22	22	3205-020
5C-23	23	3205-021
5C-24	24	3205-022
5C-25	25	3205-023

inch

ORDER NO.	d	CODE NO.
5C-1/8	1/8″	3205-024
5C-3/16	3/16″	3205-025
5C-1/4	1/4″	3205-026
5C-5/16	5/16″	3205-027
5C-3/8	3/8″	3205-028
5C-7/16	7/16″	3205-029
5C-1/2	1/2″	3205-030
5C-9/16	9/16″	3205-031
5C-5/8	5/8″	3205-032
5C-11/16	11/16″	3205-033
5C-3/4	3/4″	3205-034
5C-13/16	13/16″	3205-035
5C-7/8	7/8″	3205-036
5C-15/16	15/16″	3205-037
5C-1	1″	3205-038

R8 Collet System

R8 Collet



■L:101■D:31.75 ■d:24.1 ■Accuracy: ±0.02mm
■G:7/16″-20UNF ■α:8°30′ ■WEIGHT:0.21KGS ■Hardness: HRC47°

ORDER NO.	Q'TY	RANGE SIZE
R8-□	1 PC	Ø 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 MM
R8-□	1 PC	Ø1/8″, 3/16″, 1/4″, 5/16″, 3/8″, 7/16″, 1/2″, 9/16″, 5/8″, 11/16″, 3/4″

COMPLETE SET AVAILABLE SIZE

ORDER NO.	Q'TY	RANGE SIZE	WEIGHT KGS	CODE NO.
VE-110	6PCS	6, 8, 10, 12, 16, 20 MM	1.5	3206-100
VE-114	7PCS	6, 8, 10, 12, 14, 16, 20 MM	1.5	3206-101

EMERGENCY TYPE SOFT COLLET

ORDER NO.	Q'TY	RANGE SIZE	WEIGHT KGS	CODE NO.
VE-109I	5PCS	1/4″, 3/8″, 1/2″, 5/8″, 3/4″,	1.1	3206-102
VE-110I	6PCS	1/4″, 5/16″, 3/8″, 1/2″, 5/8″, 3/4″	1.5	3206-103
VE-114I	7PCS	3/16″, 1/4″, 5/16″, 3/8″, 1/2″, 5/8″, 3/4″	1.5	3206-104

mm

ORDER NO.	d	CODE NO.
R8-3	3	3206-001
R8-4	4	3206-002
R8-5	5	3206-003
R8-6	6	3206-004
R8-7	7	3206-005
R8-8	8	3206-006
R8-9	9	3206-007
R8-10	10	3206-008
R8-11	11	3206-009
R8-12	12	3206-010
R8-13	13	3206-011
R8-14	14	3206-012
R8-15	15	3206-013
R8-16	16	3206-014
R8-17	17	3206-015
R8-18	18	3206-016
R8-19	19	3206-017
R8-20	20	3206-018

inch

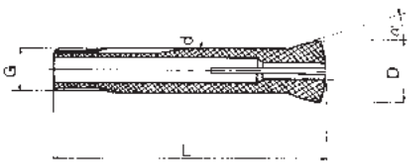
ORDER NO.	d	CODE NO.
R8-1/8	1/8″	3206-019
R8-3/16	3/16″	3206-020
R8-1/4	1/4″	3206-021
R8-5/16	5/16″	3206-022
R8-3/8	3/8″	3206-023
R8-7/16	7/16″	3206-024
R8-1/2	1/2″	3206-025
R8-9/16	9/16″	3206-026
R8-5/8	5/8″	3206-027
R8-11/16	11/16″	3206-028
R8-3/4	3/4″	3206-029

U2 Collet System

NO.1 U2 COLLET RANGE SIZE 3~16mm
NO.2 U2 COLLET RANGE SIZE 18~25mm

NO.1

NO.2



■ L:120 ■ D:28 ■ d:20 ■ G:2.0P ■ Accuracy: ±0.02mm
■ α:17°30′ ■ WEIGHT:0.18KGS ■ Hardness: HRC47°

ORDER NO.	Q'TY	RANGE SIZE
VE-U2-□	1 PC	NO.1 Ø 1.5, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15,16 NO.2 Ø 18, 20, 25MM
VE-U2-□	1 PC	Ø 1/8″, 3/16″, 1/4″, 5/16″, 3/8″, 1/2″, 5/8″

mm

ORDER NO.	d	CODE NO.
VE-U2-1.5	1.5	3207-026
VE-U2-2	2	3207-027
VE-U2-3	3	3207-001
VE-U2-4	4	3207-002
VE-U2-5	5	3207-003
VE-U2-6	6	3207-004
VE-U2-7	7	3207-005
VE-U2-8	8	3207-006
VE-U2-9	9	3207-007

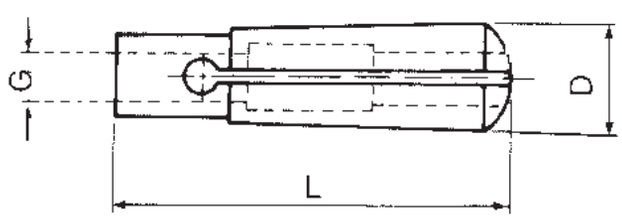
mm

ORDER NO.	d	CODE NO.
VE-U2-10	10	3207-008
VE-U2-11	11	3207-009
VE-U2-12	12	3207-010
VE-U2-13	13	3207-011
VE-U2-14	14	3207-012
VE-U2-15	15	3207-013
VE-U2-16	16	3207-014
VE-U2-18	18	3207-015
VE-U2-20	20	3207-016
VE-U2-25	25	3207-017

inch

ORDER NO.	d	CODE NO.
VE-U2-1/8	1/8″	3207-018
VE-U2-3/16	3/16″	3207-019
VE-U2-1/4	1/4″	3207-020
VE-U2-5/16	5/16″	3207-021
VE-U2-3/8	3/8″	3207-022
VE-U2-1/2	1/2″	3207-023
VE-U2-5/8	5/8″	3207-024

MT3 Collet System



■ D:24.1 ■ L:87 ■ WEIGHT:0.18KGS
■ DRAW BAR SIZE: G1.M12X1.75P

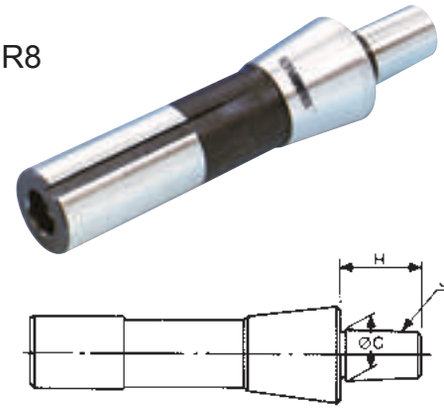
ORDER NO.	Q'TY	RANGE SIZE	DRAW BAR SIZE
MT3-□	1 PC	Ø 4, 6, 8, 10, 12, 16, 20MM	G1

mm

ORDER NO.	d	CODE NO.
MT3-4	4	3208-100
MT3-6	6	3208-101
MT3-8	8	3208-102
MT3-10	10	3208-103
MT3-12	12	3208-104
MT3-16	16	3208-105
MT3-20	20	3208-106

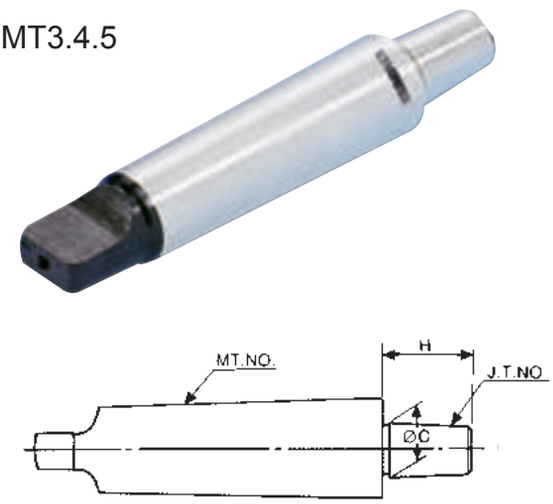
Drill Chucks Arbor

R8



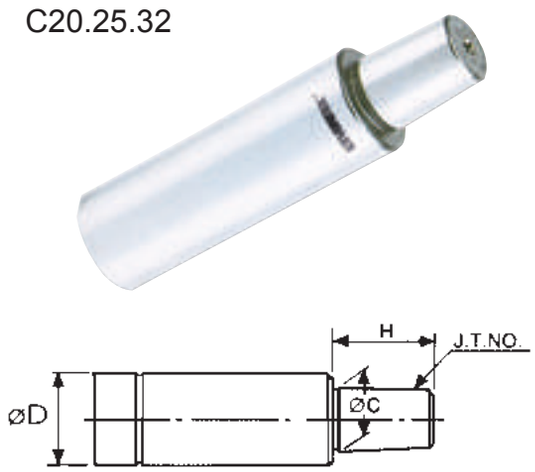
ORDER NO.	TAPER	JT NO.	C	H	WEIGHT (kg)	CODE NO.
VJ-120	R8	JT3	20.60	34	0.5	3209-000
VJ-121		JT1	9.754	18	0.5	3209-001
VJ-122		JT2	13.94	20	0.5	3209-002
VJ-123		JT6	17.17	26	0.5	3209-003
VJ-124		B16	15.733	24	0.5	3209-004

MT3.4.5



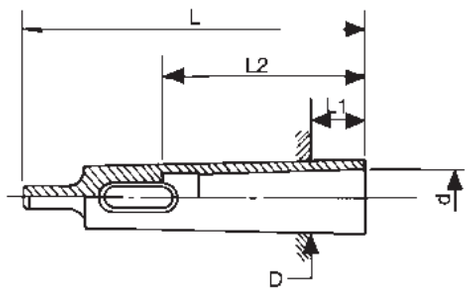
ORDER NO.	TAPER	JT NO.	C	H	WEIGHT (kg)	CODE NO.
VJ-126	MT2	JT3	20.6	34	0.24	3209-006
VJ-126-1		B16	15.733	29	0.2	3209-006A
VJ-126-3		B18	17.78	37	0.21	3209-006B
VJ-130		JT6	17.17	28	0.22	3209-029
VJ-130-2		JT5	35.89	50	0.5	3209-029A
VJ-130-4		JT4	28.55	45	0.4	3209-029B
VJ-137		JT2	14.2	25	0.2	3209-056
VJ-131	MT3	JT6	17.17	26	0.4	3209-030
VJ-131-2		JT5	35.89	50	0.7	3209-030A
VJ-131-4		JT33	15.85	28	0.3	3209-030B
VJ-134		B16	15.733	24	0.3	3209-033
VJ-134-2		B18	17.78	37	0.4	3209-033A
VJ-138		JT2	14.20	25	0.3	3209-034A
VJ-138-1		JT3	20.60	34	0.35	3209-034
VJ-138-2		JT4	28.55	45	0.5	3209-035
VJ-132	MT4	JT6	17.17	26	0.7	3209-031
VJ-132-1		JT3	20.60	34	0.7	3209-031A
VJ-132-7		JT4	28.55	45	0.85	3209-031B
VJ-132-4		JT5	35.89	50	1	3209-031C
VJ-132-5		JT2	14.2	25	0.64	3209-031D
VJ-132-6		JT33	15.85	28	0.65	3209-031E
VJ-132-8		B18	17.78	37	0.7	3209-031F
VJ-135		B16	15.733	29	0.7	3209-036
VJ-133	MT5	JT6	17.17	26	1.6	3209-032
VJ-133-1		JT3	20.60	35	1.6	3209-032A
VJ-133-2		JT4	28.55	46	1.8	3209-032B
VJ-133-3		JT5	35.89	51	2	3209-032C
VJ-133-4		JT2	14.2	26	1.6	3209-032D
VJ-133-5		JT33	15.85	29	1.6	3209-032E

C20.25.32



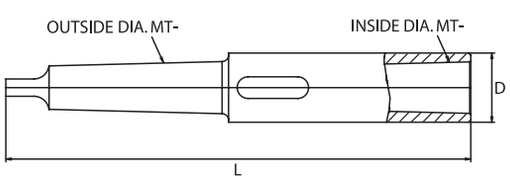
ORDER NO.	SHANK ØD	JT NO.	C	H	WEIGHT (kg)	CODE NO.
VJ-139	C20	JT1	9.754	19	0.2	3209-058
VJ-139-1		JT0	6.35	9	0.2	3209-058A
VJ-140		JT2	14.20	25	0.2	3209-059
VJ-140-1		JT3	20.60	35	0.2	3209-059A
VJ-140-2		B10	10.25	21	0.15	3209-059B
VJ-141		JT6	17.17	26	0.2	3209-060
VJ-140-3		B12	12.1	22.5	0.2	3209-060A
VJ-140-4		B16	15.733	29	0.2	3209-060B
VJ-142	C25	JT6	17.17	26	0.3	3209-061
VJ-143	C32	JT6	17.17	26	0.5	3209-062

Morse Taper Sleeve



ORDER NO.	I.D.xO.D.	D	d	L	l1	l2	WEIGHT (kg)	CODE NO.
VQ-101	MT2xMT3	23.825	17.780	112	18	67	0.2	3210-001
VQ-102	MT2xMT4	31.267	17.780	124	6.5	67	0.5	3210-002
VQ-103	MT2xMT5	44.399	17.780	156	6.5	67	1.4	3210-003
VQ-104	MT2xMT6						4.13	3210-004
VQ-105	MT3xMT4	31.267	23.825	140	22.5	84	0.4	3210-005
VQ-106	MT3xMT5	44.399	23.825	156	6.5	84	1.3	3210-006
VQ-107	MT3xMT6	63.348	23.825	218	8	84	4	3210-007
VQ-108	MT4xMT5	44.399	31.267	171	21.5	107	1	3210-008
VQ-109	MT4xMT6	63.348	31.267	218	8	107	3.7	3210-009
VQ-110	MT5xMT6	63.348	44.399	218	8	133	2.9	3210-010
VQ-100	MT1xMT3	23.825	12.065	100	6	55	0.2	3210-011
VQ-100-1	MT1xMT2	17.780	12.065	89	14	55	0.22	3210-012
VQ-100-2	MT1xMT4	31.267	12.065	124	6.5	55	0.89	3210-013
VQ-100-3	MT1xMT5	44.399	12.065	156	7	55	1.33	3210-014

Morse Taper Extension Sockets

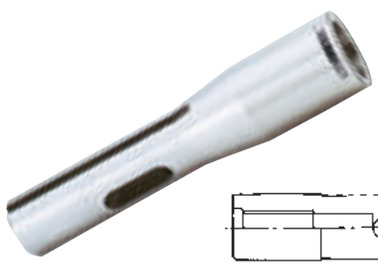


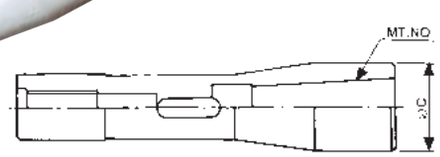
MORSE TAPER EXTENSION SOCKETS

- For adapting tools with morse taper shanks to machine having smaller morse taper spindle or for adapting tools with morse taper shanks to machine having the same or larger morse taper spindle.
- Hardened and ground throughout.

ORDER NO.	I.D.xO.D.	D	L	WEIGHT (kg)	CODE NO.
VQ-111-3	MT1xMT2	18.2	160	0.28	3210-018
VQ-111-1	MT1xMT3	20.2	175	0.4	3210-019
VQ-111-2	MT1xMT4	20.2	204	0.35	3210-020
VQ-112	MT2xMT2	24.2	175	0.35	3210-021
VQ-112-1	MT2xMT3	24.2	194	0.5	3210-022
VQ-112-2	MT2xMT4	24.2	219	0.9	3210-022A
VQ-112-3	MT2xMT5	24.2	254	1.85	3210-022B
VQ-113	MT3xMT2	32.2	196	0.56	3210-023
VQ-114	MT3xMT3	32.2	215	0.7	3210-024
VQ-115	MT3xMT4	32.2	240	1.1	3210-025
VQ-115-1	MT3xMT5	32.2	275	2.1	3210-025A
VQ-115-2	MT4xMT2	45.2	221	1.25	3210-026A
VQ-116	MT4xMT3	45.2	240	1.4	3210-026
VQ-117	MT4xMT4	45.2	265	1.7	3210-027
VQ-118	MT4xMT5	45.2	300	2.7	3210-028
VQ-119-1	MT5xMT3	63.2	275	3	3210-029A
VQ-119	MT5xMT4	63.2	300	3.25	3210-029
VQ-120	MT5xMT5	63.2	335	4.2	3210-030

R8 With Morse Taper Sleeve





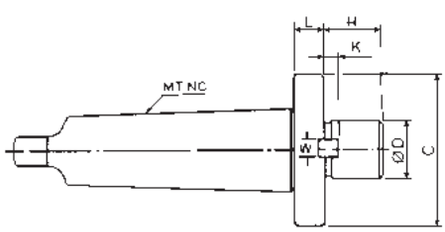
ORDER NO.	SHANK	SIZE	MT NO.	WEIGHT (kg)	CODE NO.
VQ-121	R8	R8-MT1	MT1	0.36	3211-003
VQ-122	R8	R8-MT2	MT2	0.4	3211-001
VQ-123	R8	R8-MT3	MT3	0.5	3211-002

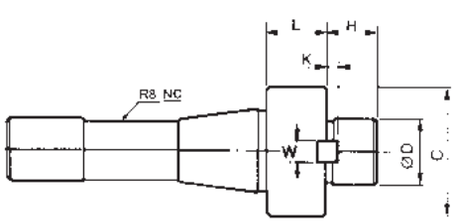
Face Mill Arbor

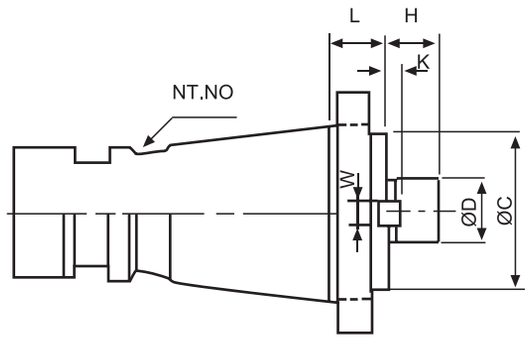
NT30, 40, 50, R8, MT3, 4 **DIN 2080/ISO SHANK**

NT40 WITH MAHO GAP

NT30







MATERIAL:SCM-21 HARDNESS:HRC 50°-55°

Squareness of mounting surface:Less than 0.0002″(0.005mm)
Deflection in shaft and taper:Less than 0.0002″(0.005mm)

INCH THREAD

INCH FMA TYPE

ORDER NO.	TAPER	SHAFT SIZE				MOUNTING SIZE		WEIGHT (kg)	CODE NO.
		D	H	W	K	C	L		
VF-101	NT30	25.4	20	9.57	5	65	20	0.7	3212-001
VF-102		31.75	23	12.75	7	73	20	1	3212-002
VF-103		38.1	22	15.90	9	82	20	1.1	3212-003
VF-104	NT40	25.4	20	9.57	5	65	20	1.2	3212-004
VF-105		31.75	22	12.75	7	73	20	1.5	3212-005
VF-106		38.1	23	15.90	9	82	20	1.8	3212-006
VF-109	NT50	25.4	20	9.57	5	65	20	3.2	3212-009
VF-110		31.75	22	12.75	7	73	20	3.3	3212-010
VF-111		38.1	23	15.90	9	82	20	3.6	3212-011
VF-112		50.8	24	19.05	10	95	20	4	3212-012
VF-114	R8	25.4	20	9.57	5	40	20	0.9	3212-014
VF-115		31.75	22	12.75	7	53	20	1.2	3212-015
VF-116	MT-3	25.4	20	9.57	5	40	20	0.7	3212-016
VF-117	MT-4	25.4	20	9.57	5	40	20	1	3212-017

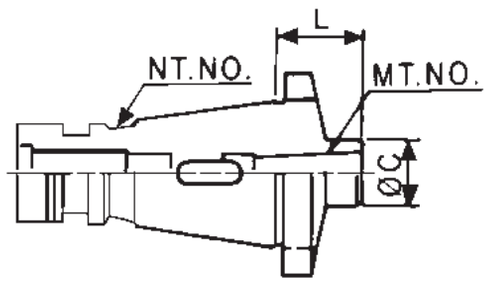
METRIC FMB TYPE MM THREAD

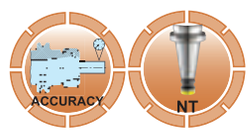
ORDER NO.	TAPER	SHAFT SIZE				MOUNTING SIZE		WEIGHT (kg)	CODE NO.
		D	H	W	K	C	L		
VF-120	NT30	22	18	9.57	5	40	20	0.7	3212-100
VF-121		27	20	12.75	7	53	20	0.8	3212-101
VF-122		32	23	15.90	7	63	20	1.1	3212-102
VF-123	NT40	22	18	9.57	5	40	20	1.2	3212-103
VF-123-1		16	17	16.4		40	20	1.17	3212-103A
VF-124		27	20	12.75	7	53	20	1.3	3212-104
VF-125		32	23	15.90	7	63	20	1.4	3212-105
VF-126		40	26	19.05	8	85	20	1.9	3212-106
VF-127		60	32	25.40	5	128	24	4	3212-107
VF-128	NT50	22	18	9.57	5	40	20	3.1	3212-108
VF-129		27	20	12.75	7	53	20	3.3	3212-109
VF-130		32	23	15.90	7	63	20	3.5	3212-110
VF-131		40	26	19.05	8	85	20	3.7	3212-111
VF-132		60	32	25.40	5	128.57	24	5.4	3212-112
VF-134	R8	22	18	9.57	5	40	20	0.9	3212-113
VF-135		27	20	12.75	7	53	20	1	3212-114
VF-136	MT-3	27	20	9.57	7	53	20	0.7	3212-115
VF-137	MT4	27	20	9.57	7	53	20	1.1	3212-116

Morse Taper Adapter

NT-30, 40, 50, R8, MT3, 4 **DIN 2080/ISO SHANK**

MORSE TAPER ADAPTER WITH STRAIGHT SHANK

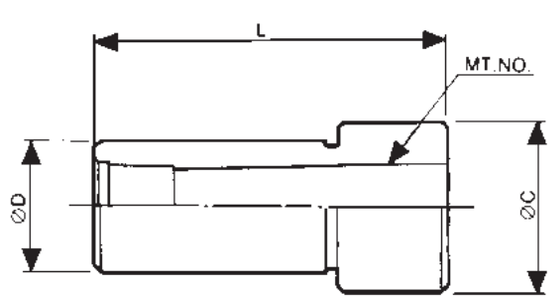




STANDARD TYPE

ORDER NO.	TAPER	TYPE	C	L	WEIGHT (kgs)	CODE NO.
VI-102	NT30	MT2	32	50	0.6	3211-031
VI-103		MT3	35	65	0.7	3211-032
VI-104	NT40	MT1	25	30	0.9	3211-033
VI-105		MT2	32	30	1	3211-034
VI-106		MT3	40	70	1.2	3211-035
VI-107		MT4	50	90	1.5	3211-036
VI-108	NT50	MT2	32	30	2.8	3211-037
VI-109		MT3	40	30	2.7	3211-038
VI-110		MT4	50	45	3.2	3211-039
VI-111		MT5	65	105	3.7	3211-040

PLEASE NOTIFY THE DRAW BAR THREAD SIZE IS MM SIZE OR INCH SIZE WHEN ORDERING.

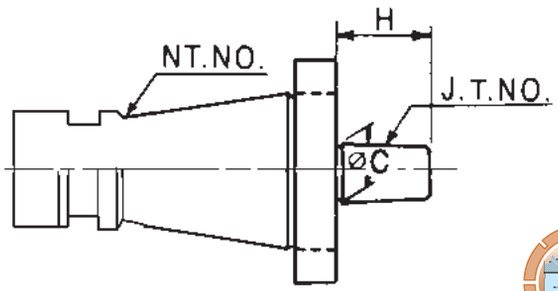


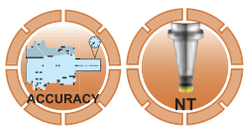
STANDARD TYPE

ORDER NO.	TAPER	SIZE	D	MT NO	C	L	WEIGHT (kg)	CODE NO.
VI-131	C20	C20-MT1	20	MT1	27	60	0.2	3211-060
VI-132		C20-MT2	20	MT2	27	70	0.2	3211-061
VI-133	C25	C25-MT1	25	MT1	33	60	0.3	3211-062
VI-134		C25-MT2	25	MT2	33	70	0.2	3211-063
VI-135		C25-MT3	25	MT3	33	90	0.2	3211-064
VI-136	C32	C32-MT1	32	MT1	37	60	0.36	3211-065
VI-137		C32-MT2	32	MT2	37	70	0.37	3211-066
VI-138		C32-MT3	32	MT3	37	90	0.35	3211-067
VI-138-4		C32-MT4	32	MT4	37	112	0.3	3211-068

Jacobs Taper Drill Chuck Arbor

NT30, 40, 50-JT & B **DIN 2080/ISO SHANK**



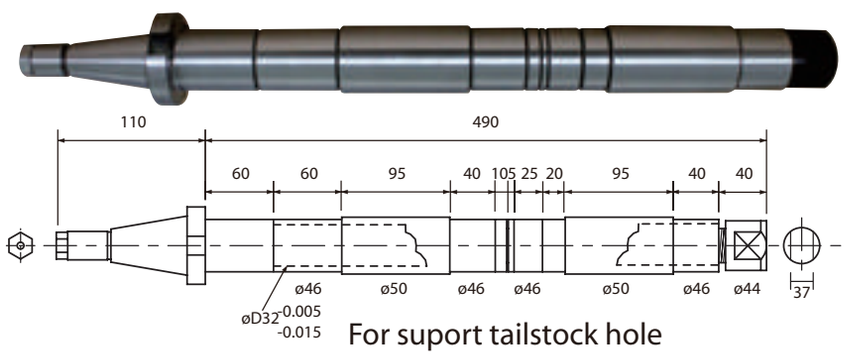


ORDER NO.	TAPER	JT NO	C	H	WEIGHT (kgs)	CODE NO.
VJ-106	NT40	JT6	17.17	26	1	3209-095
VJ-109	NT50	JT6	17.17	26	3.2	3209-098
VJ-111	NT30	B16	15.733	24	0.5	3209-099
VJ-112	NT40	B16	15.733	24	1	3209-100

PLEASE NOTIFY THE DRAW BAR THREAD SIZE IS MM SIZE OR INCH SIZE WHEN ORDERING.

Horizontal Milling Arbor

NEW **With Key Way Wide 5/16”**



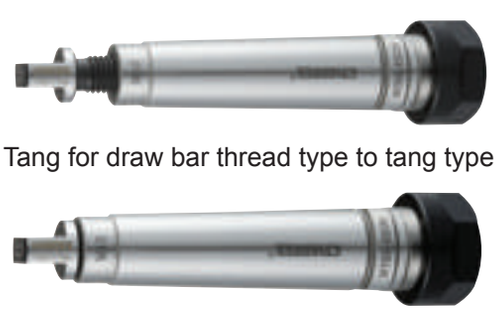
For suport tailstock hole
& for cutter inside dianieter

ORDER NO.	TAPER	ØD	ØC	G	L	L1	WEIGHT (kg)	CODE NO.
VL-110	NT40 M16x2.0P	32	46	M30 x P2	600	490	7.5	3209-130

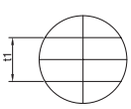
Tang For Morse Taper Shank

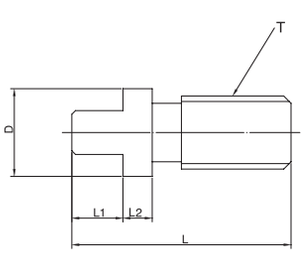
SURFACE TREATMENT: BLACKENING **HRC 45º**

NEW



Tang for draw bar thread type to tang type



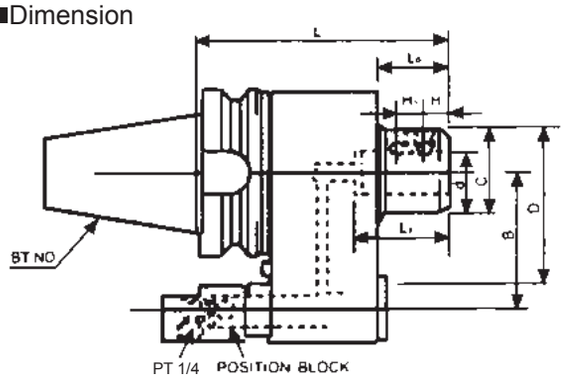


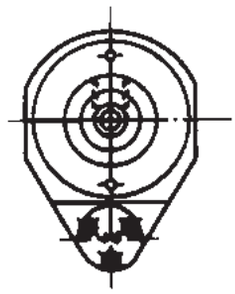
ORDER NO.	Morse	D	L	L1	L2	T	t1	WEIGHT	CODE NO.
VMTS-2	2	12	30	7	4	M10X1.5	6	0.02	3209-201
VMTS-3	3	17	40	12	4	M12X1.75	7.5	0.04	3209-202
VMTS-4	4	24	46	13	5	M16X2	11.5	0.09	3209-203
VMTS-5	5	34	47	14	5	M24X3	15.5	0.18	3029-204

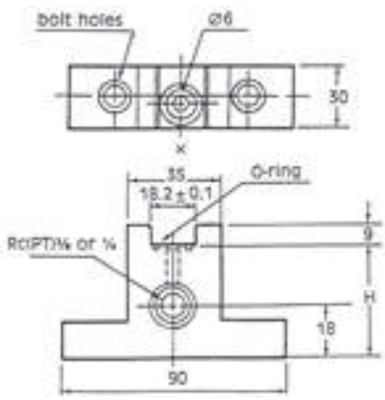
Oli-Feed Holder / Slo

Coolant hole holder for straight shank
BT40,BT50

■Dimension







(Note)H & X dimensions differ depending on machines employed.

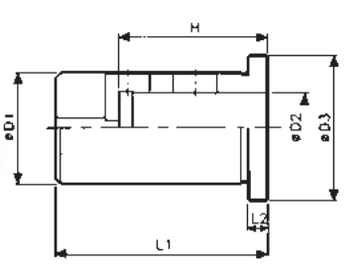
POSITIONING BLOCK

Inusing, OIL-FEED holder, positioning blockillustrated here is necessary.
The positioning block can be mounted to the spindle guide but it shall be mounted so as not to interfere with ATC arm, etc. of machine. it is necessary to consult the machine manufacturer about the proper mouting.

Unit:mm

ORDER NO.	d	L	B	C	D	L0	L1	H	H1	WEIGHT(kgs)	CODE NO.
BT40SLO32-165	32	165	65	53	90	52	60	15	15	4KGS	3214-001
BT40SLO40-165	40	165	65	70	90	52	70	19	18	4.6KGS	3214-002
BT50SLO32-165	32	165	80	54	100	42	60	15	15	7.1KGS	3214-003
BT50SLO40-165	40	165	80	64	100	52	70	19	18	7.8KGS	3214-004

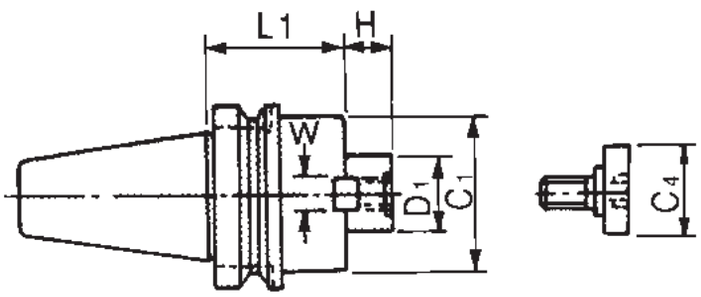
Reducing sleeve for oil feed holder.

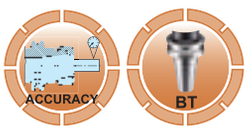


ORDER NO.	D1	D2	D3	L1	L2	H	WEIGHT(kg)	CODE NO.
OC32-20	32	20	42	63	6	48	0.4	3214-103
OC32-25		25				54	0.3	3214-104
OC40-25	40	25	50	63	6	54	0.6	3214-105
OC40-32		32				58	0.5	3214-106

Face Mill Arbor

BT30,40,50 **BT-SHANK MAS 403**





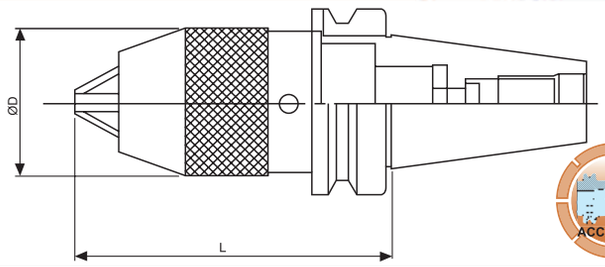
INCH FMA TYPE

ORDER NO.	TAPER	D1	L1	H	C1	W	C4	N.W. (KG)	CODE NO.
BT-101	BT30	25.4	45	22	45	9.5	33	1.0	3212-201
BT-103	BT40	25.4	45	22	50	9.5	33	1.6	3212-203
BT-105		25.4	90	22	50	9.5	33	1.6	3212-205
BT-106		31.75	45	30	60	12.7	40	1.8	3212-206
BT-108		31.75	90	30	60	12.7	40	2.8	3212-208
BT-109		38.1	60	34	74	15.9	50	2.5	3212-209
BT-111	BT50	25.4	45	22	60	9.5	33	4.2	3212-211
BT-112		25.4	105	22	50	9.5	33	4.9	3212-212
BT-113		25.4	150	22	50	9.5	33	6.2	3212-213
BT-114		31.75	45	30	70	12.7	40	4.0	3212-214
BT-115		31.75	75	30	60	12.7	40	4.8	3212-215
BT-116		31.75	105	30	60	12.7	40	5.6	3212-216
BT-117		38.1	45	34	85	15.9	50	4.6	3212-217
BT-118		38.1	75	34	85	15.9	50	5.6	3212-218
BT-119		50.8	45	36	95	19.05	65	4.8	3212-219
BT-121		47.625	75	38	128.57	25.4	-	7.9	3212-221

METRIC FMB TYPE

ORDER NO.	TAPER	D1	L1	H	C1	W	C4	N.W. (KG)	CODE NO.
BT-150	BT30	22	45	18	48	10	33	2.0	3212-267
BT-151		27	45	20	60	12	33	2.2	3212-268
BT-152	BT40	22	45	18	48	10	50	1.5	3212-269
BT-153		22	90	18	48	10	33	2.2	3212-270
BT-154		27	45	20	60	12	33	1.7	3212-271
BT-155		27	90	20	60	12	33	2.7	3212-272
BT-156		32	45	22	62	14	50	1.8	3212-273
BT-157		40	60	26	85	16	50	2.7	3212-274
BT-158	BT50	22	45	18	60	10	33	4.2	3212-275
BT-159		22	75	18	60	10	33	4.6	3212-276
BT-160		27	45	20	70	12	33	4.3	3212-277
BT-161		27	75	20	60	12	33	4.9	3212-278
BT-162		27	105	20	60	12	33	5.7	3212-279
BT-163		32	75	22	75	14	50	5.5	3212-280
BT-164		32	105	22	80	14	33	6.5	3212-281
BT-165		32	150	22	80	14	33	8.7	3212-282
BT-166		40	75	26	85	16	50	6	3212-283

Drill Chuck Holder / APU

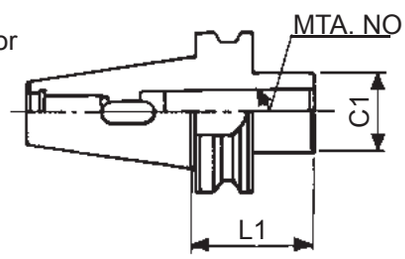


ORDER NO.	TAPER	ØD	KGS	CODE NO.
BT-180	BT30-APU08	37	1	3212-301
BT-181	BT30-APU13	50	1.4	3212-302
BT-182	BT40-APU08	37	1.5	3212-303
BT-183	BT40-APU13	50	2	3212-304
BT-184	BT40-APU16	58	2.5	3212-305
BT-186	BT50-APU13	50	4.7	3212-307
BT-188	BT50-APU16	58	4.8	3212-309

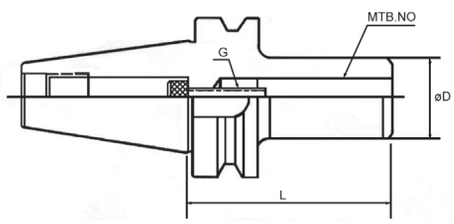
Morse Taper Adaptor

BT30,40,50-MTA,MTB **MAS 403 BT-SHANK**

Pull Stud For MTA Adaptor



Pull Stud For MTB Adaptor



MTA TYPE (STANDARD TYPE)

ORDER NO.	TAPER	MT.NO.	L1	C1	WEIGHT(KG)	CODE NO.
BT-204	BT30	MT-2	60	32	0.6	3211-091
BT-207		MT-3	80	40	1.2	3211-092
BT-209	BT40	MT-1	50	25	1.1	3211-094
BT-212		MT-2	50	32	1.1	3211-095
BT-213		MT-2	120	32	1.4	3211-095A
BT-215		MT-3	75	40	1.3	3211-096
BT-216		MT-3	135	40	1.7	3211-096A
BT-218		MT-4	95	48	1.5	3211-097
BT-219		MT-4	165	48	2.3	3211-097A
BT-220	BT50	MT-1	45	25	3.5	3211-098
BT-223		MT-2	50	32	3.5	3211-099
BT-224		MT-2	135	32	4	3211-099A
BT-226		MT-3	65	40	3.6	3211-100
BT-227		MT-3	150	40	4.4	3211-100A
BT-229		MT-4	75	48	3.6	3211-101
BT-230		MT-4	180	48	4.9	3211-101A
BT-231		MT-5	105	65	4.2	3211-102

Morse Taper Adaptor

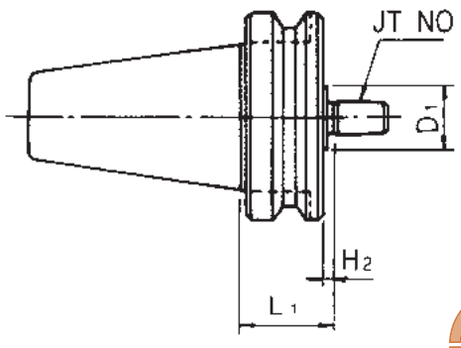
MTB TYPE (STANDARD TYPE)

ORDER NO.	TAPER	MT.NO.	L	ØD	G	WEIGHT(KG)	CODE NO.
BT-236	BT40	MTB1	45	25	M16	1	3211-105
BT-237		MTB2	45	32	M10	1	3211-106
BT-238		MTB3	75	40	M12	1.2	3211-107
BT-239		MTB4	75	48	M16	1.3	3211-108
BT-241	BT50	MTB2	45	32	M10	3.6	3211-110
BT-242		MTB3	60	40	M12	3.7	3211-111
BT-243		MTB4	75	48	M16	3.7	3211-112
BT-244		MTB5	120	65	M20	5.2	3211-113

Jacobs Taper Arbor

VERTEX

MAS 403 BT-SHANK

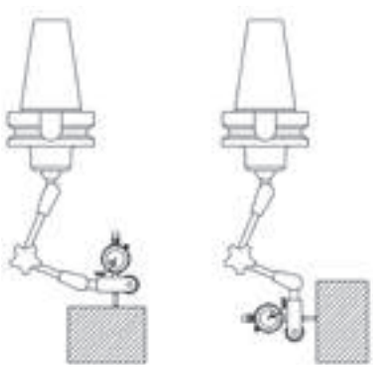


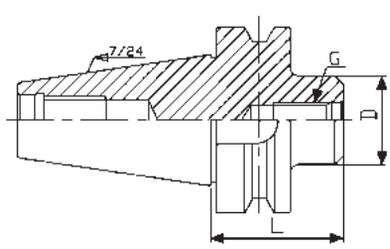
ACCURACY BT

ORDER NO.	TAPER	JT.NO.	L1	D1	H2	WEIGHT (KG)	CODE NO.
BT-315	BT40	JT-6	45	30	4	1.2	3209-147
BT-316		JT-6	90	30	4	1.4	3209-148
BT-325	BT50	JT-6	45	30	4	4.2	3209-151
BT-332	BT40	B16※	45	30	4	1.45	3209-155
BT-332-1		B18※	45				3209-155A
BT-333	BT50	B16※	45	30	4	5.1	3209-156
BT-333-1		B18※	45				3209-156A

JACOBS TAPER ARBOR

Lever Checking Holders





ACCURACY BT

ORDER NO.	L	ØD	G	kgs	CODE NO.
BT40-M8	47	30	M8	1.3	3029-160
BT50-M8	58	30	M8		3029-161

Test Arbor

BT

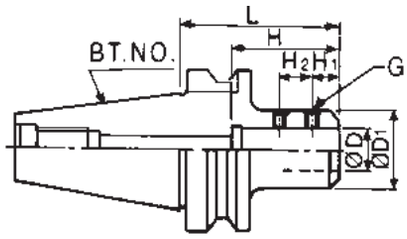
ORDER NO.	TAPER	G CAN FOR PULL STUD	A	L	KGS	CODE NO.
A50	BT-50	M24xP3.0	40	250	5.3	3405-412
A40	BT-40	M16xP2.0	40		3.9	3405-413
A30	BT-30	M12xP1.75	30		2.4	3405-414

Sidelock End Mill Holder

VERTEX

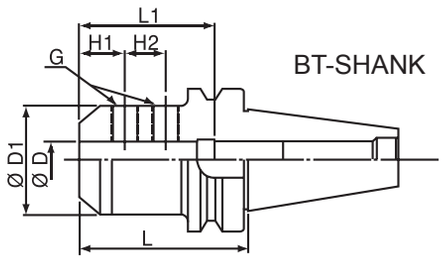
BT 30, 40, 50-SLA

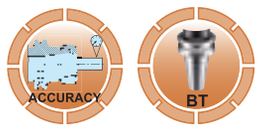
WELDON TYPE



MAS 403

BT-SHANK



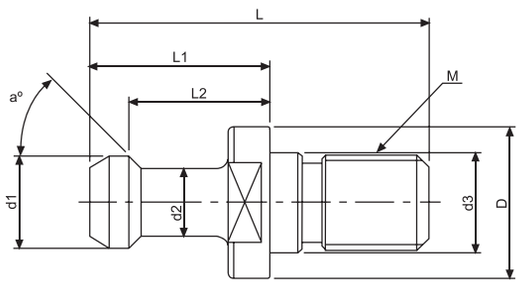


Unit:mm

ORDER NO.	SIZE	ØD	ØD1	L	L1	H1	H2	G	WEIGHT (kgs)	CODE NO.
BT-436	BT30-SLA6-60	6	25	60	30	12	10	M6x1.0	0.7	3213-126
BT-437	BT30-SLA8-60	8	28	60	35	14	12	M8x1.25	0.7	3213-127
BT-438	BT30-SLA10-60	10	35	60	40	15	14	M8x1.25	0.7	3213-128
BT-439	BT30-SLA12-60	12	42	60	50	20	16	M12x1.5	0.8	3213-129
BT-440	BT30-SLA16-75	16	48	75	60	20	18	M12x1.5	0.9	3213-130
BT-441	BT30-SLA20-75	20	52	75	70	23	19	M12x1.5	1.2	3213-131
BT-442	BT40-SLA6-75	6	25	75	30	12	10	M6x1.0	1.2	3213-132
BT-443	BT40-SLA8-75	8	28	75	35	14	12	M8x1.25	1.3	3213-133
BT-444	BT40-SLA10-75	10	35	75	40	15	14	M8x1.25	1.4	3213-134
BT-445	BT40-SLA12-75	12	42	75	50	20	16	M12x1.5	1.5	3213-135
BT-446	BT40-SLA14-75	14	44	75	50	20	16	M12x1.5	1.5	3213-136
BT-447	BT40-SLA16-75	16	48	75	60	20	18	M12x1.5	1.6	3213-137
BT-448	BT40-SLA18-75	18	50	75	60	20	18	M12x1.5	1.6	3213-138
BT-449	BT40-SLA20-90	20	52	90	70	23	19	M12x1.5	1.9	3213-139
BT-450	BT40-SLA25-90	25	62	90	80	24	25	M18x1.5	2.2	3213-140
BT-451	BT40-SLA32-90	32	63	90	80	24	28	M20x1.5	2	3213-141
BT-452	BT40-SLA40-105	40	79	105	80	24	28	M20x1.5	3.2	3213-142
BT-453	BT40-SLA42-105	42	79	105	80	24	28	M20x1.5	3.1	3213-143
BT-454	BT50-SLA6-90	6	25	90	30	12	10	M6x1.0	3.9	3213-144
BT-455	BT50-SLA6-150	6	25	150	30	12	10	M6x1.0	4	3213-145
BT-456	BT50-SLA8-90	8	28	90	35	14	12	M8x1.25	3.7	3213-146
BT-457	BT50-SLA8-150	8	28	150	35	14	12	M8x1.25	4.2	3213-147
BT-458	BT50-SLA10-90	10	35	90	40	15	14	M8x1.25	4.2	3213-148
BT-459	BT50-SLA10-150	10	35	150	40	15	14	M8x1.25	4.3	3213-149
BT-460	BT50-SLA12-90	12	42	90	50	20	16	M12x1.5	4.2	3213-150
BT-461	BT50-SLA12-150	12	42	150	50	20	16	M12x1.5	4.9	3213-151
BT-462	BT50-SLA14-90	14	44	90	55	20	16	M12x1.5	4.2	3213-152
BT-463	BT50-SLA16-90	16	48	90	60	20	18	M12x1.5	4.3	3213-153
BT-464	BT50-SLA16-150	16	48	150	60	20	18	M12x1.5	5	3213-154
BT-465	BT50-SLA18-90	18	50	90	60	20	18	M12x1.5	4.3	3213-155
BT-466	BT50-SLA20-105	20	52	105	70	23	19	M12x1.5P	4.5	3213-156
BT-466-1	BT50-SLA20-90	20	50	90	60	20	18	M12x1.5P	4.4	3213-156A
BT-467	BT50-SLA20-150	20	52	150	70	23	19	M12x1.5	4.5	3213-157
BT-468	BT50-SLA20-200	20	52	200	70	23	19	M12x1.5	6.4	3213-158
BT-470	BT50-SLA25-105	25	65	105	80	24	25	M18x1.5	5	3213-160
BT-471	BT50-SLA25-150	25	65	150	80	24	25	M18x1.5P	6.3	3213-161
BT-472	BT50-SLA25-200	25	65	200	80	24	25	M18x1.5P	7.6	3213-162
BT-474	BT50-SLA32-105	32	72	105	80	24	28	M20x1.5	5.3	3213-164
BT-477	BT50-SLA32-250	32	72	250	80	24	28	M20x1.5	9.8	3213-167
BT-478	BT50-SLA40-120	40	90	120	90	30	32	M20x1.5	6.5	3213-168
BT-479	BT50-SLA42-120	42	90	120	90	30	32	M20x1.5	6.7	3213-169

Pull Studs

BT 30, 40, 50 **FOR MAS 403**



THREAD GROUND

- MATERIAL: SNCM 21
- HARDNESS: HRC 54°±2°
- SHANK BT-30(P 30T)
- SHANK BT-40(P 40T)
- SHANK BT-50(P 50T)

Unit:mm

ORDER NO.	TAPER NO.	a°	L	L1	L2	D	d1	d2	d3	M	NOTE	CODE NO.
BT-510	BT30X90°	90	43	23	18	16.5	11	7	12.5	M12	P30T-3(90°)	3215-007
BT-501	BT30X45°	45	43	23	18	16.5	11	7	12.5	M12	P30T-1(45°)	3215-008
BT-502	BT30X60°	60	43	23	18	16.5	11	7	12.5	M12	P30T-2(60°)	3215-009
BT-511	BT40X90°	90	60	35	28	23	15	10	17	M16	P40T-3(90°)	3215-010
BT-503	BT40X45°	45	60	35	28	23	15	10	17	M16	P40T-1(45°)	3215-011
BT-504	BT40X60°	60	60	35	28	23	15	10	17	M16	P40T-2(60°)	3215-012
BT-512	BT50X90°	90	85	45	35	38	23	17	25	M24	P50T-3(90°)	3215-013
BT-505	BT50X45°	45	85	45	35	38	23	17	25	M24	P50T-1(45°)	3215-014
BT-506	BT50X60°	60	85	45	35	38	23	17	25	M24	P50T-2(60°)	3215-015

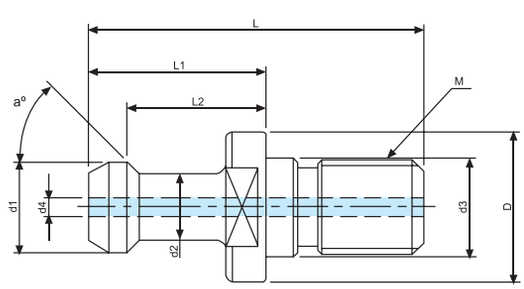
Pull Studs

MAS 403
BT-40,50

JIS B6339-1986

- With through hole for internal coolant

FOR MAS 403

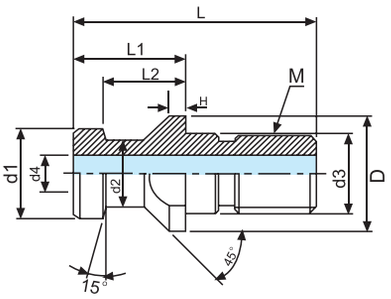


Unit:mm

ORDER NO.	TAPER NO.	a°	L	L1	L2	D	d1	d2	d3	d4	M	CODE NO.
BT-516	BT40X45°W	45	60	35	28	23	15	10	17	4	M16	3215-060
BT-517	BT40X60°W	60	60	35	28	23	15	10	17	4	M16	3215-061
BT-518	BT40X90°W	90	60	35	28	23	15	10	17	4	M16	3215-062
BT-519	BT50X45°W	45	85	45	35	38	23	17	25	7	M24	3215-063
BT-520	BT50X60°W	60	85	45	35	38	23	17	25	7	M24	3215-064
BT-521	BT50X90°W	90	85	45	35	38	23	17	25	7	M24	3215-065

Pull Studs

FOR DIN 69872-1988

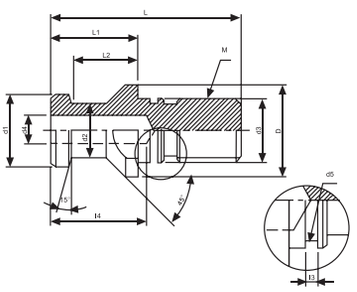


With Collant Hole

DIN 69872, (WITH THROUGH HOLE)-A TYPE

Unit:mm

ORDER NO.	TAPER NO.	L	L1	L2	D	d1	d2	d3	d4	M	H	CODE NO.
BT-522	DIN30-A	44	24	19	17	13	9	13	3	M12		3215-066
BT-523	DIN40-A	54	26	20	23	19	14	17	7	M16	4	3215-067
BT-524	DIN40-A-L	54	29	23	23	19	14	17	7	M16		3215-068
BT-525	DIN50-A	74	34	25	36	28	21	25	11.5	M14		3215-069

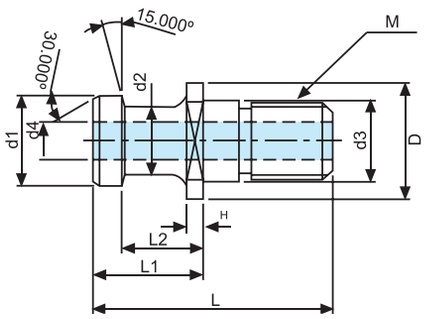


WITHOUT O-RING DIN69872-B TYPE

Unit:mm

ORDER NO.	TAPER NO.	L	L1	L2	l3	l4	D	d1	d2	d3	d4	M	CODE NO.
BT-526	DIN30-B	44	24	19	1.4		17	13	9	13		M12	3215-070
BT-527	DIN40-B	54	26	20	1.9	27	23	19	14	17	7	M16	3215-071
BT-528	DIN50-B	74	34	25	3	37	36	28	21	25	11.5	M24	3215-072

ISO-A TYPE FOR ISO/JIS 7388/2/A-1984A

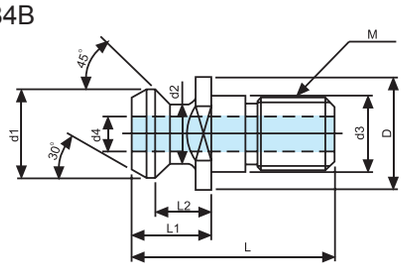


With Collant Hole

Unit:mm

ORDER NO.	TAPER NO.	L	L1	L2	D	d1	d2	d3	d4	M	H	CODE NO.
BT-529	ISO40-A	54	26	20	23	29	24	27	7	M16	3	3215-073
BT-530	ISO50-A	74	34	25	36	28	21	25	11.5	M24		3215-074

ISO-B TYPE FOR ISO/JIS 7388/2/B-1984B

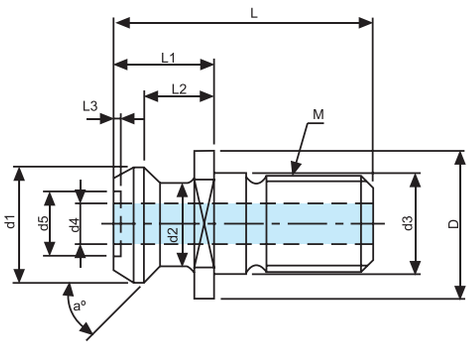


With Collant Hole

Unit:mm

ORDER NO.	TAPER NO.	L	L1	L2	D	d1	d2	d3	d4	M	CODE NO.
BT-531	ISO40-B	44.5	16.4	11.15	22.5	18.95	12.95	17	7.35	M16	3215-075
BT-532	ISO50-B	65.5	25.5	17.95	37	29.1	19.6	25	11.55	M24	3215-076

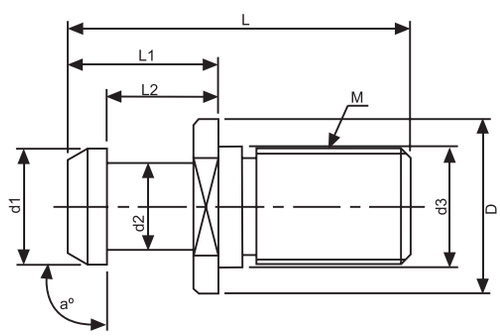
MAZAK FOR MAZAK MACHINE



Unit:mm

ORDER NO.	TAPER NO.	a°	L	L1	L2	L3	D	d1	d2	d3	d4	d5	M	CODE NO.
BT-533	MAZAK BT50	45	65.2	25.2	17.58	1.8	37	28.95	20.83	25	10	16	M24	3215-077
BT-534	MAZAK BT40	45	44.1	19.1	14		22	18.8	12.45	17	7		M16	3215-078
BT-535	MAZAK CAT40	45	44.1	16.1	11		22	18.8	12.45	17	7		M16	3215-079

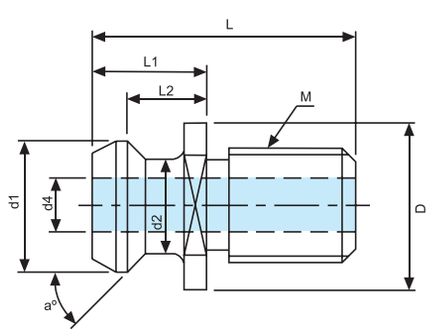
MITSUI FOR MITSUI MACHINE



Unit:mm

ORDER NO.	TAPER NO.	a°	L	L1	L2	D	d1	d2	d3	M	CODE NO.
BT-536	MITSUI BT40	90	50	25	18	23	15	10	17	M16	3215-080
BT-537	MITSUI BT50	90	71	31	23	36	24	18	25	M24	3215-081

CAT FOR ANSI B5-50

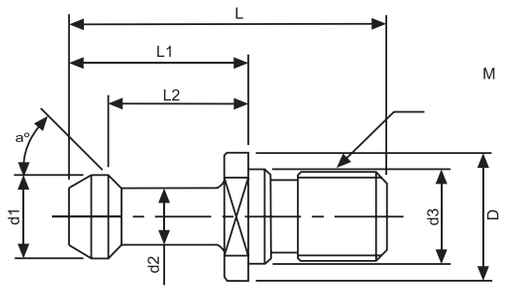


Unit:mm

ORDER NO.	TAPER NO.	a°	L	L1	L2	D	d1	d2	d4	M	CODE NO.
BT-538	CAT40	45	38.1	16.2	11.2	23.8	18.8	12.4	7.1	5/8″	3215-082
BT-539	CAT50	45	58.4	25.4	17.8	36	28.9	20.8	11.8	1″	3215-083

Pull Studs

CAT-BT FOR BT MACHINE

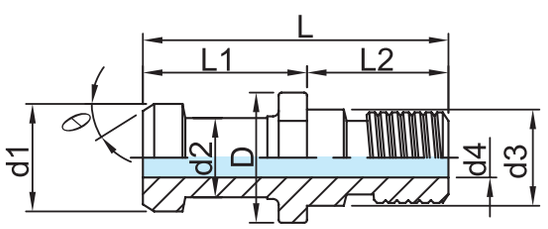


Unit:mm

ORDER NO.	TAPER NO.	a°	L	L1	L2	D	d1	d2	d3	M	CODE NO.
BT-540	CAT40X45°	45	57	32	25	23	15	10		5/8″	3215-084
BT-541	CAT40X60°	60	57	32	25	23	15	10		5/8″	3215-085
BT-542	CAT40X90°	90	57	32	25	23	15	10		5/8″	3215-086
BT-543	CAT50X45°	45	78.6	45	35.2	38	23	17		1″	3215-087
BT-544	CAT50X60°	60	78.6	45	35.2	38	23	17		1″	3215-088
BT-545	CAT50X90°	90	78.6	45	35.2	38	23	17		1″	3215-089
BT-546	CAT40X45°M	45	57	32	25	23	15	10	17	M16	3215-090
BT-547	CAT40X60°M	60	57	32	25	23	15	10	17	M16	3215-091
BT-548	CAT40X90°M	90	57	32	25	23	15	10	17	M16	3215-092

Pull Studs

FOR JIS 6339B-40P



With Collant Hole

OKUNMA JIS #40

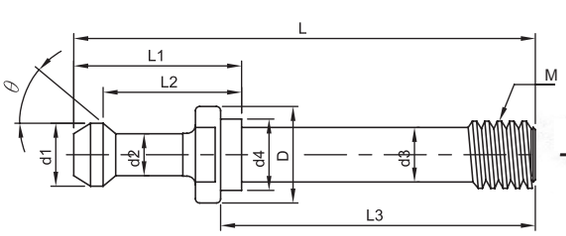
Unit:mm

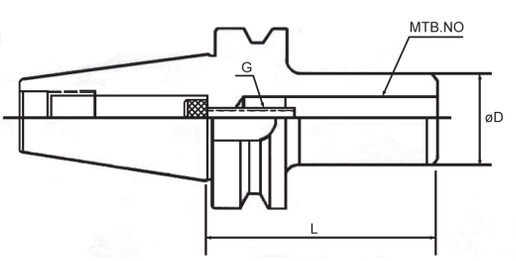
ORDER NO.	TAPER NO.	a°	L	L1	L2	D	d1	d2	d3	d4	M	CODE NO.
BT-556	JIS	30	54	29	23	23	19	14	17	7	M16	3215-111

STEEL: SNCM-21

Pull Studs

FOR MAS 403





Unit:mm

ORDER NO.	TAPER NO.	a°	L	L1	L2	L3	D	d1	d2	d3	d4	M	CODE NO.
BT-560	BT40-MTB3	45	105	35	28	70	23	15	10	17	13	M12	3215-121
BT-561	BT40-MTB4	45	110	35	28	75	23	15	10	17	13	M16	3215-122

Complete NC Tooling Set

We recommend a complete set which is included tool holder, collet chuck, collet set, pull stud, tooling locking stand, edge finder for NC machining center. it is popular and suitable sale-mix in the market.

ORDER NO. VBT-30-0720 CODE NO. 3216-001 BT-30 WITH 7PCS. HOLDER & ER-20 COLLET

ITEM NO.	Descriptions	Figures	Quantity	Explanation
1	ER20 COLLET CHUCK BT30-ER20-60		3pcs.	For small Dia. End mill and Drills
2	MORSE TAPER ADAPTOR BT30-MTA1-50		1pc.	For drills with Morse taper Shank No.1.
3	MORSE TAPER ADAPTOR BT30-MTA2-60		1pc.	For drills with Morse taper Shank No.2.
4	END MILL HOLDER BT-30-SL12-60		1pc.	For straight shank end mill with Sidelock edge Dia. 12mm(WELDON Type)
5	END MILL HOLDER BT30-SL16-75		1pc.	For straight shank end mill with Sidelock edge Dia. 16mm(WELDON Type)
6	ER20 SPRING COLLET ER20-dØ		11pcs.	For item 1. Including 11 collets as below: Ø3,4,5,6,7,8,9,10,11,12,13mm
7	PULL STUD BT-501, BT-502		7pcs.	BT-501 θ =45° BT-502 θ =60°
8	TOOL HOLDER LOCKING STAND VTS-BT-30		1pc.	For locking the pull studs or preparing Cutting tools of tool holders.
9	ELECTRONIC EDGE FINDER VPS-20B		1pc.	For setting work coordinate on Machine Centers.

ORDER NO. VBT-30-1520 CODE NO. 3216-011 BT-30 WITH 15PCS. HOLDER & ER-20 COLLET

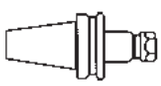
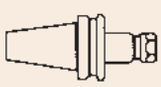
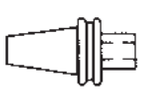
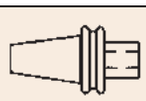
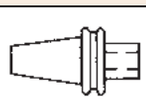
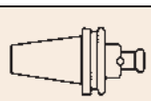
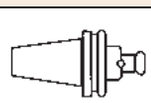
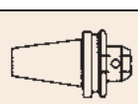
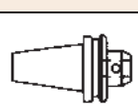
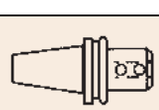
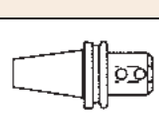
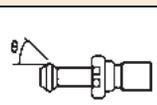
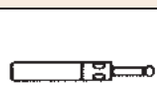
ITEM NO.	Descriptions	Figures	Quantity	Explanation
1	ER20 COLLET CHUCK BT30-ER20-60		6pcs.	For small Dia. End mill and Drills
2	MORSE TAPER ADAPTOR BT30-MTA1-50		1pc.	For drills with Morse taper Shank No.1.
3	MORSE TAPER ADAPTOR BT30-MTA2-60		1pc.	For drills with Morse taper Shank No.2.
4	FACE MILL ARBOR BT30-FMB22-45		1pc.	For Holding the face milling Cutter Dia.50, 63mm
5	END MILL HOLDER BT-30-SL12-60		2pcs.	For straight shank end mill with Sidelock edge Dia. 12mm(WELDON Type)
6	END MILL HOLDER BT30-SL16-60		2pcs.	For straight shank end mill with Sidelock edge Dia. 16mm(WELDON Type)
7	END MILL HOLDER BT30-SL20-75		2pcs.	For straight shank end mill with Sidelock edge Dia. 20mm(WELDON Type)
8	ER20 SPRING COLLET ER20-dØ		11pcs.	For item 1. Including 11 collets as below: Ø3,4,5,6,7,8,9,10,11,12,13mm
9	PULL STUD BT-501, BT-502		15pcs.	BT-501 θ =45° BT-502 θ =60°
10	TOOL HOLDER LOCKING STAND VTS-BT-30		1pc.	For locking the pull studs or preparing Cutting tools of tool holders.
11	ELECTRONIC EDGE FINDER VPS-20B		1pc.	For setting work coordinate on Machine Centers.

Complete NC Tooling Set

We recommend a complete set which is included tool holder, collet chuck, collet set, pull stud, tooling locking stand, edge finder for NC machining center. it is popular and suitable sale-mix in the market.

G.W.:39.6 kgs

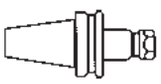
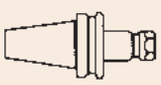
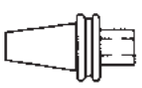
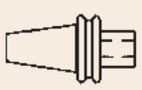
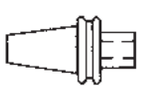
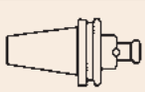
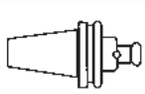
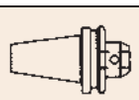
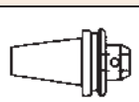
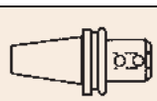
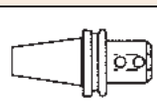
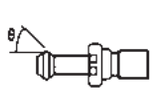
ORDER NO. VBT-40-1532 CODE NO. 3216-002 BT-40 WITH 15PCS. HOLDER & ER-32 COLLET

ITEM NO.	Descriptions	Figures	Quantity	Explanation
1	ER32 COLLET CHUCK V-703A BT40-ER32-70		3pcs.	For small Dia. End mill and Drills
2	ER32 COLLET CHUCK V-703B BT40-ER32-100		3pcs.	For small Dia. End mill and Drills
3	MORSE TAPER ADAPTOR BT-209 BT40-MTA1-50		1pc.	For drills with Morse taper Shank No.1.
4	MORSE TAPER ADAPTOR BT-212 BT40-MTA2-50		1pc.	For drills with Morse taper Shank No.2.
5	MORSE TAPER ADAPTOR BT-215 BT40-MTA3-75		1pc.	For drills with Morse taper Shank No.3.
6	FACE MILL ARBOR BT-152 BT40-FMB22-45		1pc.	For holding the face milling Cutter Dia.50, 63mm
7	FACE MILL ARBOR BT-154 BT40-FMB27-45		1pc.	For holding the face milling Cutter Dia.80mm
8	END MILL HOLDER BT-447 BT40-SLA16-75		1pc.	For straight shank end mill with Sidelock edge Dia. 16mm(WELDON Type)
9	END MILL HOLDER BT-449 BT40-SLA20-90		1pc.	For straight shank end mill with Sidelock edge Dia. 20mm(WELDON Type)
10	END MILL HOLDER BT-450 BT40-SLA25-90		1pc.	For straight shank end mill with Sidelock edge Dia. 25mm(WELDON Type)
11	END MILL HOLDER BT-451 BT40-SLA32-90		1pc.	For straight shank end mill with Sidelock edge Dia. 32mm(WELDON Type)
12	ER32 SPRING COLLET V-32008 ER32-dØ		11pcs./set	For item 1.2. Including 11 collets as below: Ø4,5,6,8,10,12,13,15,16,18,20mm
13	PULL STUD BT-503 OR BT-504		15pcs./set	BT-503 θ =45° BT-504 θ =60°
14	TOOL HOLDER LOCKING STAND VTS-BT-40		1pc.	For locking the pull studs or preparing Cutting tools of tool holders.
15	ELECTRONIC EDGE FINDER VPS-20B		1pc.	For setting work coordinate on Machine Centers.

Complete NC Tooling Set

We recommend a complete set which is included tool holder, collet chuck, collet set, pull stud, tooling locking stand, edge finder for NC machining center. it is popular and suitable sale-mix in the market.

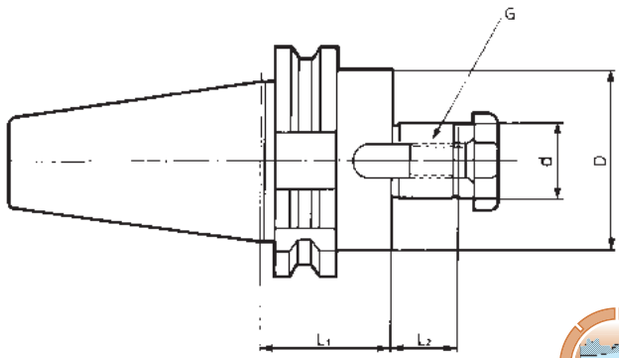
ORDER NO. VBT-40-2432 CODE NO. 3216-003 BT-40 WITH 23PCS. HOLDER & ER-32 COLLET

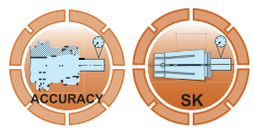
ITEM NO.	Descriptions	Figures	Quantity	Explanation
1	ER32 COLLET CHUCK BT40-ER32-70		4pcs.	For small Dia. End mill and Drills
2	ER32 COLLET CHUCK BT40-ER32-100		4pcs.	For small Dia. End mill and Drills
3	MORSE TAPER ADAPTOR BT40-MTA1-50		1pc.	For drills with Morse taper Shank No.1.
4	MORSE TAPER ADAPTOR BT40-MTA2-50		2pc.	For drills with Morse taper Shank No.2.
5	MORSE TAPER ADAPTOR BT40-MTA3-75		2pc.	For drills with Morse taper Shank No.3.
6	FACE MILL ARBOR BT40-FMB22-45		1pc.	For holding the face milling Cutter Dia.50, 63mm
7	FACE MILL ARBOR BT40-FMB27-45		1pc.	For holding the face milling Cutter Dia.80mm
8	END MILL ARBOR BT40-SLA16-75		2pc.	For straight shank end mill with Sidelock edge Dia. 16mm(WELDON Type)
9	END MILL ARBOR BT40-SLA20-90		2pc.	For straight shank end mill with Sidelock edge Dia. 20mm(WELDON Type)
10	END MILL ARBOR BT40-SLA25-90		2pc.	For straight shank end mill with Sidelock edge Dia. 25mm(WELDON Type)
11	END MILL ARBOR BT40-SLA32-90		2pc.	For straight shank end mill with Sidelock edge Dia. 32mm(WELDON Type)
12	ER32 SPRING COLLET ER32-dØ		11pcs./set	For item 1.2. Including 11 collets as below: Ø4,5,6,8,10,12,13,15,16,18,20mm
13	PULL STUD BT-503 OR BT-504		23pcs./set	BT-503 θ =45° BT-504 θ =60°
14	TOOL HOLDER LOCKING STAND VTS-BT-40		1pc.	For locking the pull studs or preparing Cutting tools of tool holders.
15	ELECTRONIC EDGE FINDER VPS-20B		1pc.	For setting work coordinate on Machine Centers.

Face Mill Holder

Holder For Face Mill Cutter.
DIN69871 A

DIN 69871A





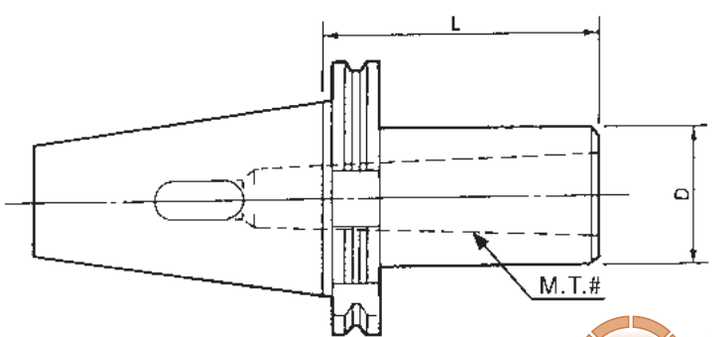
Unit:mm

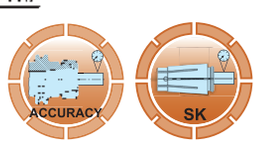
ORDER NO.	SIZE	d	D	L1	L2	G	WEIGHT(kg)	CODE NO.
SK-112	SK40-FMB22-50	22	48	50	18	M10	1.5	3211-202
SK-113	SK40-FMB27-50	27	60	50	20	M12	1.6	3211-203
SK-114	SK40-FMB32-50	32	62	50	22	M16	2.1	3211-204
SK-117	SK50-FMB22-50	22	60	50	18	M10	3.5	3211-205
SK-118	SK50-FMB27-50	27	70	50	20	M12	3.5	3211-206
SK-119	SK50-FMB32-60	32	75	60	22	M16	3.7	3211-207
SK-120	SK50-FMB40-60	40	85	60	26	M20	4.7	3211-208

Morse Taper Holder-DIN 6383

Holder For Morse Taper Shank With Tang.
DIN69871 A

DIN 69871A





Unit:mm

ORDER NO.	SIZE	M.T.#	L	D	WEIGHT(kg)	CODE NO.
SK-214	SK40-MT1-45	1	45	25	1	3211-133
SK-215	SK40-MT2-50	2	50	32	1	3211-134
SK-216	SK40-MT3-70	3	70	40	1.2	3211-135
SK-217	SK40-MT4-95	4	95	48	1.3	3211-136
SK-218	SK50-MT1-45	1	45	25	3	3211-137
SK-219	SK50-MT2-60	2	60	32	2.9	3211-138
SK-220	SK50-MT3-65	3	65	40	3	3211-139

Sidelock End Mill Holder

DIN69871 A WELDON TYPE **DIN 69871A**

Dimensions:

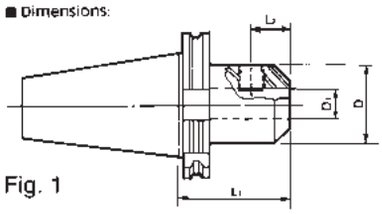


Fig. 1

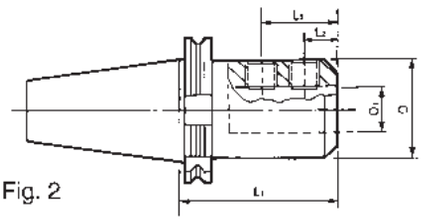
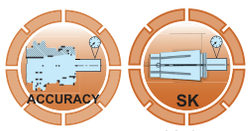


Fig. 2

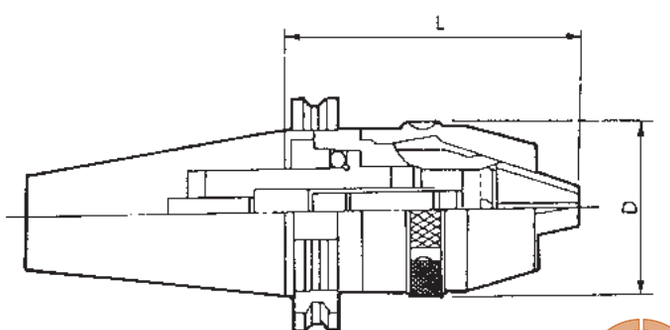


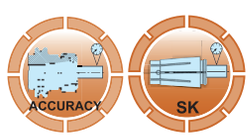
Unit:mm

ORDER NO.	SIZE	Fig.	D1	D	L1	L2	L3	WEIGHT (kg)	CODE NO.
SK-417	SK40-EM6-50	1	6	25	50	18	-	1	3213-207
SK-418	SK40-EM8-50	1	8	28	50	18	-	1.1	3213-208
SK-419	SK40-EM10-50	1	10	35	50	20	-	1.1	3213-209
SK-420	SK40-EM12-50	1	12	42	50	22.5	-	1.2	3213-210
SK-421	SK40-EM16-63	1	16	48	63	24	-	1.5	3213-211
SK-422	SK40-EM20-63	1	20	52	63	25	-	1.4	3213-212
SK-423	SK40-EM25-100	2	25	65	100	24	49	2.4	3213-213
SK-427	SK50-EM10-63	1	10	35	63	20	-	3.4	3213-217
SK-428	SK50-EM12-63	1	12	42	63	22.5	-	3.4	3213-218
SK-429	SK50-EM16-63	1	16	48	63	24	-	3.5	3213-219
SK-430	SK50-EM20-63	1	20	52	63	25	-	3.5	3213-220
SK-431	SK50-EM25-80	2	25	65	80	24	49	3.8	3213-221

Drill Chuck Holder / APU

DIN 69871A





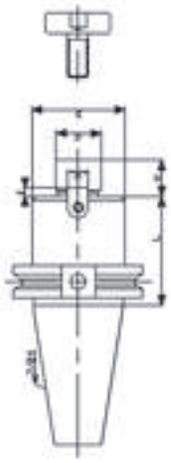
Unit:mm

ORDER NO.	SIZE DIN 69871A	SAME SIZE	Clamping range (Ømm)	D	L		WEIGHT (kg)	CODE NO.
					Minimum	Maximum		
SK-511	SK40-APU08	INT-8-SK40	0.5-8	35.6	81	90	1.4	3301-001
SK-512	SK40-APU13	INT-13-SK40	1-13	52	99	111	1.9	3301-002
SK-514	SK50-APU13	INT-13-SK50	1-13	52	93	106	3.9	3301-004
SK-509	SK30-APU08	INT-8-SK30	0.5-8	35.6	80	88	0.7	3301-005
SK-510	SK30-APU13	INT-13-SK30	1-13	52	98	104	1.34	3301-006
SK-515	SK40-APU16	INT-16-SK40	3-16	56.8	127	140	2.4	3301-007
SK-516	SK50-APU16	INT-16-SK50	3-16	56.8	98	111	3.9	3301-008

Face Mill Holder

VERTEX

CAT-FMA

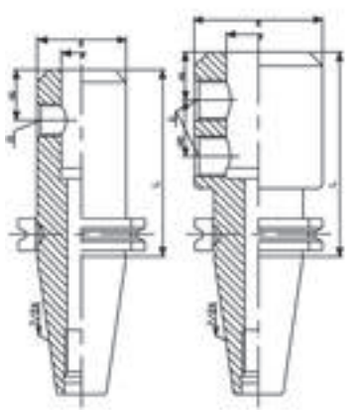


ORDER NO.	L	Ø d(h6)	ØD	H	K	W	CODE NO.
CAT40-FMA25.4-2.0″	2.0″	25.4	50	20	5	9.5	3213-230
CAT40-FMA31.75-2.25″	2.25″	31.75	60	22	7	12.7	3213-231
CAT40-FMA38.1-2.4″	2.4″	38.1	80	25	9	15.9	3213-232
CAT50-FMA25.4-2.0″	2.0″	25.4	50	20	5	9.5	3213-233
CAT50-FMA31.75-1.5″	1.5″	31.75	60	22	7	12.7	3213-234
CAT50-FMA38.1-2.4″	2.4″	38.1	80	25	9	15.9	3213-235
CAT50-FMA50.8-2.4″	2.4″	50.8	100	28	12	15.9	3213-236

Side Lock Holders

CAT-SL

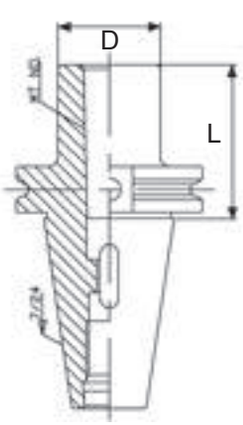
FIG 1 FIG 2



ORDER NO.	FIG	L	Ød	ØD	H1	H2	G	CODE NO.
CAT40-SL08-2.50″	1	2.5″	8	28	18	-	M8	3213-240
CAT40-SL10-2.50″			10	35	20		M10	3213-241
CAT40-SL12-2.62″		2.62″	12	42	22.5		M12	3213-242
CAT40-SL16-2.75″		2.75″	16	48	24		M14	3213-243
CAT40-SL20-3.50″		3.5″	20	48	25		M16	3213-244
CAT40-SL25-4.00″	2	4.0″	25	62	24	25	M18	3213-245
CAT40-SL32-4.00″			32	72		28	M20	3213-246
CAT50-SL08-2.50″	1	2.5″	8	28	18	-	M8	3213-247
CAT50-SL10-2.50″			10	35	20		M10	3213-248
CAT50-SL12-2.62″		2.62″	12	42	22.5		M12	3213-249
CAT50-SL16-2.75″		2.75″	16	48	24		M14	3213-250
CAT50-SL20-3.50″		3.5″	20	52	25		M16	3213-251
CAT50-SL25-4.00″	2	4.0″	25	65	24	25	M18	3213-252
CAT50-SL32-4.00″			32	72		28	M20	3213-253
CAT50-SL40-4.70″		4.7″	40	90	30	32		3213-254

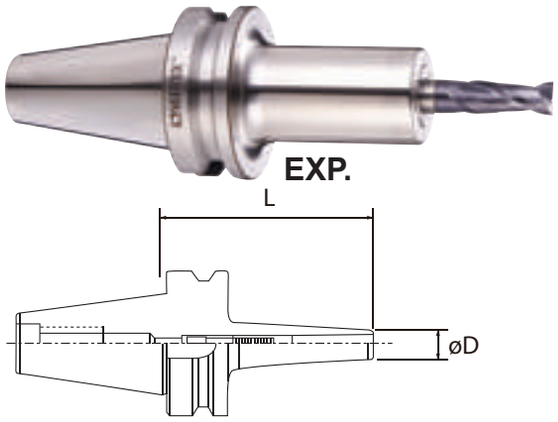
Morse Taper Holders

CAT-MTA



ORDER NO.	MT NO.	L	ØD	CODE NO.
CAT30-MTA2-60	2	60	32	3213-260
CAT30-MTA3-80	3	80	40	3213-261
CAT40-MTA2-60	2	60	32	3213-262
CAT40-MTA3-75	3	75	40	3213-263
CAT40-MTA4-90	4	90	50	3213-264
CAT50-MTA2-45	2	45	32	3213-265
CAT50-MTA3-45	3	45	40	3213-266
CAT50-MTA4-75	4	75	50	3213-267
CAT50-MTA5-105	5	105	65	3213-268

DC High Speed Slim Chuck System



DC Collet System

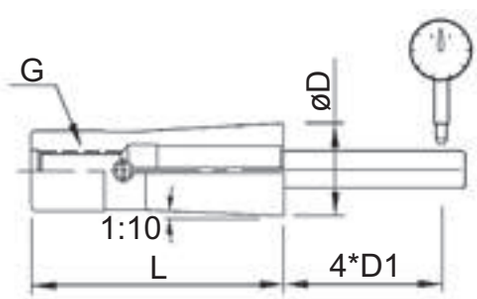
- Back pulling lock design.
- High clamping force.
- Rigid & high stability.
- For high precision cutting.
- Collets with different sizes can be used on all kind of end mills, reamers, drills and tapping.
- Runout: below 0.005mm.
- Smallest outer diameter.
- Max speed :30.000rpm;G2.5.

ORDER NO.	COLLET TYPE	L	ØD	CLAMPING RANGE	WRENCH	BACK SCREW	WEIGHT (kg)	CODE NO.
BT40-DC6-60	DC6	60	15	2~6	4mm	M5	1.1	3218-046
BT40-DC6-90	DC6	90	15	2~6			1.2	3218-047
BT40-DC8-90	DC8	90	22	3~8	5mm	M6	1.2	3218-100
BT40-DC8-120	DC8	120	22	3~8			1.4	3218-101
BT40-DC10-90	DC10	90	28	3~10	6mm	M8	1.3	3218-102
BT40-DC10-120	DC10	120	28	3~10			1.5	3218-103
BT40-DC12-90	DC12	90	35	3~12	8mm	M10	1.35	3218-104
BT40-DC12-120	DC12	120	35	3~12			1.6	3218-105

Small Collet Of Slim Collet Chuck

- DC6 Series : For Clamping End Mills Drills,Reamers And Taps.
- Max. Clamping Diameter
- Runout : Below 0.005 mm

Precision DC Collet within 5 micron



DC Collet System

Dimension

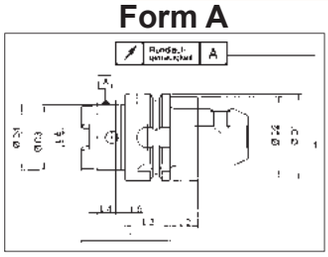
TYPE	ØD	L	G
DC6	9.5	36	M5*0.8P
DC8	15	45	M6*1.0P
DC10	19	52	M8-1.25P
DC12	22	60	M10*1.5P

ORDER NO.	øD	L	CLAMPING CAPACITY FOR END MILL DLA.	CLAMPING CAPACITY FOR DRILL REAMER. TAP	WEIGHT(kg)	CODE NO.
DC6-2	9.5	36	2	2.00-1.75	0.02	3218-056
DC6-2.5	9.5	36	2.5	2.50-2.25	0.02	3218-058
DC6-3	9.5	36	3	3.00-2.75	0.02	3218-065
DC6-3.5	9.5	36	3.5	3.50-3.25	0.02	3218-067
DC6-3.175	9.5	36	3.175	3.50-3.175	0.02	3218-068
DC6-4	9.5	36	4	4.00-3.75	0.02	3218-069
DC6-4.5	9.5	36	4.5	4.50-4.25	0.02	3218-071
DC6-5	9.5	36	5	5.00-4.75	0.02	3218-073
DC6-5.5	9.5	36	5.5	5.50-5.25	0.02	3218-075
DC6-6	9.5	36	6	6.00-5.75	0.02	3218-077
DC8-3	15	45	3	3.00-2.75	0.037	3218-120
DC8-3.175	15	45	3.175	3.175-2.92	0.037	3218-121
DC8-4	15	45	4	4.00-3.75	0.036	3218-122
DC8-5	15	45	5	5.00-4.75	0.035	3218-123
DC8-6	15	45	6	6.00-5.75	0.034	3218-124
DC8-7	15	45	8	8.00-7.75	0.03	3218-125
DC10-3	19	52	3	3.00-2.75	0.074	3218-140
DC10-4	19	52	4	4.00-3.75	0.074	3218-141
DC10-5	19	52	5	5.00-4.75	0.074	3218-142
DC10-6	19	52	6	6.00-5.75	0.072	3218-143
DC10-8	19	52	8	8.00-7.75	0.068	3218-144
DC10-10	19	52	10	10.00-9.75	0.062	3218-145
DC12-3	22	60	3	3.00-2.75	0.11	3218-160
DC12-4	22	60	4	4.00-3.75	0.11	3218-161
DC12-5	22	60	5	5.00-4.75	0.108	3218-162
DC12-6	22	60	6	6.00-5.75	0.108	3218-163
DC12-8	22	60	8	8.00-7.75	0.104	3218-164
DC12-10	22	60	10	10.00-9.75	0.096	3218-165
DC12-12	22	60	12	12.00-11.75	0.084	3218-166

HSK-A63,A100(DIN-69893) Tool Holder

VERTEX

Form A



DIN 69893

Compared to the steep taper the HSK has the following advantages

- High repetition accuracy when clamping tools into spindle
- Fix axial positioning by flat contact surface
- Suitable for high speed cutting
- No pull stud necessary

Material

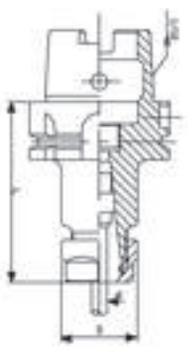
- Special Cast-hardening steel for highly stressed parts
- Surface hardness 58-2 HRC

Tensile strength in core min.1000 N / mm²

SIZE	ØD1	ØD2	ØD3	ØD4	L1	L2	L3	L4	L5	L6
HSK 63	63	53	46.53	48	58	16	26	14.7	6.3	12.54

HSK-A63,A100(DIN69893A) ER Collet Chucks

DIN69893 A



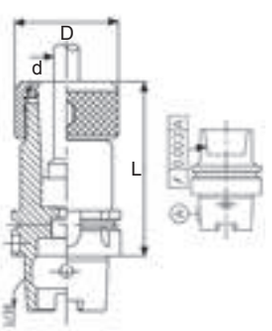
10000 R.P.M. G6.3

Caution:Excessive torque will damage the chuck, nut or collet.

ORDER NO.	L	ØD	Ød RANGE	WEIGHT (kgs)	CODE NO.
HSK-A63-ER16-100	100	30	0.5-10	1.07	3217-100
HSK-A63-ER16-150	150			1.33	3217-101
HSK-A63-ER20-100	100	35	1.0-13	1.07	3217-102
HSK-A63-ER20-150	150			1.47	3217-103
HSK-A63-ER25-100	100	42	1.0-16	1.29	3217-104
HSK-A63-ER25-150	150			1.80	3217-105
HSK-A63-ER32-100	100	50	2.0-20	1.48	3217-106
HSK-A63-ER32-150	150			2.16	3217-107
HSK-A63-ER40-100	100	63	3.0-26	1.56	3217-108
HSK-A63-ER40-150	150			2.27	3217-109
HSK-A100-ER16-100	100	30	0.5-10	2.3	3217-110
HSK-A100-ER16-150	150			2.5	3217-111
HSK-A100-ER20-100	100	35	1.0-13	2.4	3217-112
HSK-A100-ER20-150	150			2.7	3217-113
HSK-A100-ER25-100	100	42	1.0-16	2.64	3217-114
HSK-A100-ER25-150	150			3.2	3217-115
HSK-A100-ER32-100	100	50	2.0-20	2.8	3217-116
HSK-A100-ER32-150	150			3.67	3217-117
HSK-A100-ER40-100	100	63	3.0-26	3.1	3217-118
HSK-A100-ER40-150	150			4.2	3217-119

HSK-A63,A100(DIN69893A) OZ Collet Chucks

DIN69893 A



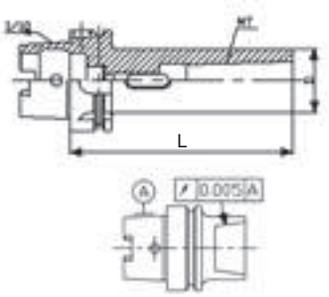
10000 R.P.M. G6.3

ORDER NO.	L	ØD	Ød RANGE	WEIGHT (kgs)	CODE NO.
HSK-A63-OZ25-100	100	60	2-25	1.6	3217-121
HSK-A63-OZ32-120	120	78	4-32	2.3	3217-122
HSK-A100-OZ25-100	100	60	2-25	2.9	3217-123
HSK-A100-OZ32-120	120	78	4-32	3.6	3217-124

HSK-A63,A100 Morse Taper Holders

DIN69892 A

DIN 69892A



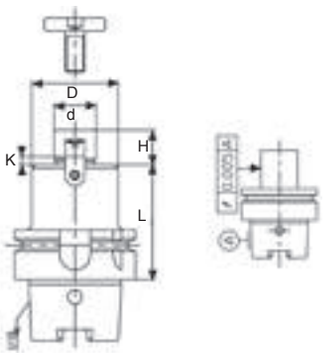
10000 R.P.M. G6.3

ORDER NO.	MT NO.	L	ØD	kgs	CODE NO.
HSK-A63-MTA1-100	1	100	25	1	3217-130
HSK-A63-MTA2-120	2	120	35	1.3	3217-131
HSK-A63-MTA3-140	3	140	40	1.6	3217-132
HSK-A63-MTA4-160	4	160	50	2.2	3217-133
HSK-A100-MTA1-110	1	100	25	2.2	3217-134
HSK-A100-MTA2-120	2	120	35	2.5	3217-135
HSK-A100-MTA3-150	3	140	40	2.9	3217-136
HSK-A100-MTA4-170	4	160	50	3.5	3217-137
HSK-A100-MTA5-200	5	200	65	5.3	3217-138

HSK-A63,A100 Face Mill Holders

DIN69893 A

DIN 69893A



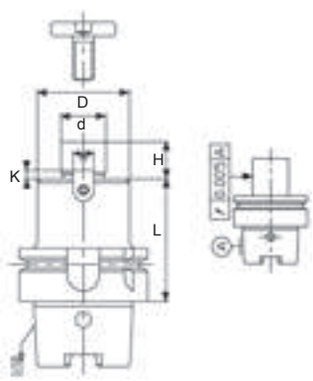
10000 R.P.M. G6.3

ORDER NO.	L	Ød(h6)	ØD	H	K	W	kgs	CODE NO.
HSK-A63-FMA25.4-60	60	25.4	50	20	5	9.5	1.4	3217-140
HSK-A63-FMA25.4-120	120						2.4	3217.141
HSK-A63-FMA31.75-60	60	31.75	60	22	7	12.7	1.6	3217-142
HSK-A63-FMA31.75-120	120						2.6	3217-143
HSK-A63-FMA38.1-60	60	38.1	80	25	9	15.9	2.0	3217-144
HSK-A63-FMA38.1-120	120						3.0	3217-145
HSK-A100-FMA25.4-60	60	25.4	50	20	5	9.5	2.7	3217-146
HSK-A100-FMA25.4-120	120						3.7	3217-147
HSK-A100-FMA31.75-60	60	31.75	60	22	7	12.7	2.9	3217-148
HSK-A100-FMA31.75-120	120						3.9	3217-149
HSK-A100-FMA38.1-60	60	38.1	80	25	9	15.9	3.3	3217-150
HSK-A100-FMA38.1-120	120						4.3	3217-151
HSK-A100-FMA50.8-60	60	50.8	100	28	12		4.1	3217-152
HSK-A100-FMA50.8-120	120						5.6	3217-153

HSK-A63,A100 Face Mill Holders

DIN69893 A

DIN 69893A



10000 R.P.M. G6.3

ORDER NO.	L	Ød(h6)	ØD	H	K	W	kgs	CODE NO.
HSK-A63-FMB22-50	50	22	48	18	5	10	1.1	3217-156
HSK-A63-FMB22-120	120						2.1	3217-157
HSK-A63-FMB27-60	60	27	60	20	6	12	1.5	3217-158
HSK-A63-FMB27-120	120						2.8	3217-159
HSK-A63-FMB32-60	60	32	72	22	7	14	1.8	3217-160
HSK-A63-FMB32-120	120						3.8	3217-161
HSK-A63-FMB40-60	60	40	80	25	8	16	2.1	3217-162
HSK-A63-FMB40-120	120						3.2	3217-163
HSK-A100-FMB22-50	50	22	48	18	5	10	2.5	3217-164
HSK-A100-FMB22-120	120						3.4	3217-165
HSK-A100-FMB27-60	60	27	60	20	6	12	2.9	3217-166
HSK-A100-FMB27-120	120						4.3	3217-167
HSK-A100-FMB32-60	60	32	72	22	7	14	3.4	3217-168
HSK-A100-FMB32-120	120						5.3	3217-169
HSK-A100-FMB40-60	60	40	80	25	8	16	3.6	3217-170
HSK-A100-FMB40-120	120						6.0	3217-171

HSK-A63,A100 Sidelock End Mill Holder

DIN69893 A

DIN 69893A

FIG 1

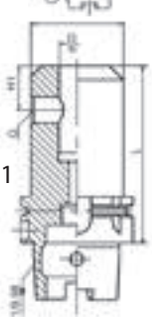
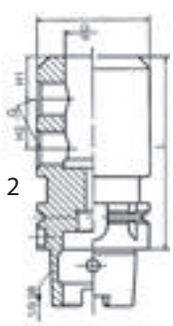


FIG 2

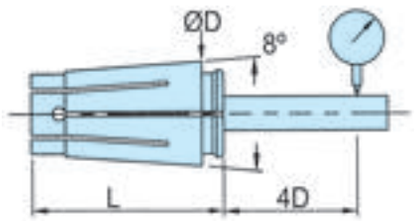


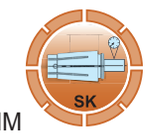
ORDER NO.	L	Ød	ØD	H1	H2	G	FIG	WEIGHT kg	CODE NO.
HSK-A63-SLA6-80	80	6	25	18		M6x0.75	1	0.8	3217-180
HSK-A63-SLA8-80	80	8	28	18		M8x1.0		0.9	3217-181
HSK-A63-SLA10-80	80	10	35	20		M10x1.0		1.0	3217-182
HSK-A63-SLA12-90	90	12	42	22.5		M12x1.5		1.2	3217-183
HSK-A63-SLA14-90	90	14	45	23				1.3	3217-184
HSK-A63-SLA16-100	100	16	48	24		M14x1.5		1.5	3217-185
HSK-A63-SLA18-100	100	18	50					1.6	3217-186
HSK-A63-SLA20-100	100	20	52	25		M16x1.5		1.7	3217-187
HSK-A63-SLA25-110	110	25	62	24	25	M18x2.0	2	2.2	3217-188
HSK-A63-SLA32-110	110	32	63		28	M20x2.0		2.1	3217-189
HSK-A100-SLA10-80	80	10	35	20		M10x1.0	1	2.4	3217-190
HSK-A100-SLA12-90	90	12	42	22.5		M12x1.5		2.6	3217-191
HSK-A100-SLA16-100	100	16	48	24		M14x1.5		2.9	3217-192
HSK-A100-SLA20-100	100	20	52	25		M16x1.5		3.0	3217-193
HSK-A100-SLA25-110	110	25	64	24	25	M18x2.0	2	3.6	3217-194
HSK-A100-SLA32-110	110	32	72		28	M20x2.0		4.1	3217-195
HSK-A100-SLA40-120	120	40	80	30	32			4.7	3217-196

SK Spring Collet System

HRC:47° 10μm JIS STD. 15000 R.P.M.

A GRADE





SCM 440
THE RUNOUT OF A COLLET IS 10μ.
THE GRIPPING RANGE OF DIA. OVER 3MM IS 0.5MM
THE GRIPPING RANGE OF DIA. BELOW 3MM IS 0.25MM

TYPE	SK-6A				SK-10A				SK-13A			
WEIGHT (KGS)	0.005				0.02				0.048			
	ORDER NO.	ØD	CAP. mm Ø	CODE NO.	ORDER NO.	ØD	CAP. mm Ø	CODE NO.	ORDER NO.	ØD	CAP. mm Ø	CODE NO.
INDIVIDUAL UNIT	SK0601A	2	2-1.75	3218-400	SK1001A	2	2-1.75	3218-411	SK1301A	3	3-2.75	3218-700
	SK0602A	2.5	2.5-2.25	3218-401	SK1002A	2.5	2.5-2.25	3218-412	SK1302A	3.5	3.5-3	3218-701
	SK0603A	3	3-2.75	3218-402	SK1003A	3	3-2.75	3218-413	SK1303A	4	4-3.5	3218-702
	SK0604A	3.5	3.5-3	3218-403	SK1004A	3.175	3.175-2.7	3218-414	SK1304A	4.5	4.5-4	3218-703
	SK0605A	4	4-3.5	3218-404	SK1005A	3.5	3.5-3	3218-415	SK1305A	5	5-4.5	3218-704
	SK0606A	4.5	4.5-4	3218-405	SK1006A	4	4-3.5	3218-416	SK1306A	5.5	5.5-5	3218-705
	SK0607A	5	5-4.5	3218-406	SK1007A	4.5	4.5-4	3218-417	SK1307A	6	6-5.5	3218-706
	SK0608A	5.5	5.5-5	3218-407	SK1008A	5	5-4.5	3218-418	SK1308A	6.5	6.5-6	3218-707
	SK0609A	6	6-5.5	3218-408	SK1009A	5.5	5.5-5	3218-419	SK1309A	7	7-6.5	3218-708
					SK1010A	6	6-5.5	3218-420	SK13010A	7.5	7.5-7	3218-709
					SK1011A	6.5	6.5-6	3218-421	SK13011A	8	8-7.5	3218-710
					SK1012A	7	7-6.5	3218-422	SK13012A	8.5	8.5-8	3218-711
					SK1013A	7.5	7.5-7	3218-423	SK13013A	9	9-8.5	3218-712
					SK1014A	8	8-7.5	3218-424	SK13014A	9.5	9.5-9	3218-713
					SK1015A	8.5	8.5-8	3218-425	SK13015A	10	10-9.5	3218-714
					SK1016A	9	9-8.5	3218-426	SK13016A	10.5	10.5-10	3218-715
					SK1017A	9.5	9.5-9	3218-427	SK13017A	11	11-10.5	3218-716
					SK1018A	10	10-9.5	3218-428	SK13018A	11.5	11.5-11	3218-717
									SK13019A	12	12-11.5	3218-718
									SK13020A	12.5	12.5-12	3218-719
									SK13021A	13	13-12.5	3218-720

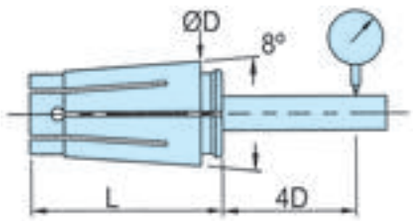
TYPE	D	L	WEIGHT (kgs)
SK6	10.5	25	0.005
SK10	15.5	30.5	0.02
SK13	20	39	0.048
SK16	24.5	45	0.08
SK20	28.5	54	0.135
SK25	35.5	57	0.205

SK Spring Collet System

VERTEX

HRC:47° 10μm JIS STD. 15000 R.P.M.

A GRADE



SCM 440
THE RUNOUT OF A COLLET IS 10μ.
THE GRIPPING RANGE OF DIA. OVER 3MM IS 0.5MM
THE GRIPPING RANGE OF DIA. BELOW 3MM IS 0.25MM

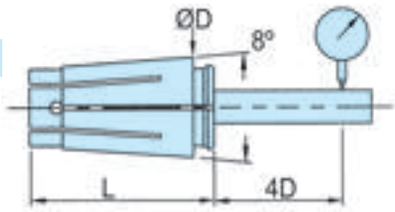
TYPE	SK-16A				SK-20A				SK-25A			
WEIGHT (KGS)	0.08				0.135				0.205			
	ORDER NO.	ØD	CAP. mm Ø	CODE NO.	ORDER NO.	ØD	CAP. mm Ø	CODE NO.	ORDER NO.	ØD	CAP. mm Ø	CODE NO.
INDIVIDUAL UNIT	SK1601A	3	3-2.75	3218-430	SK2001A	3	3-2.75	3218-460	SK2501A	6	6-5.5	3218-470
	SK1602A	3.175	3.175-2.7	3218-431	SK2002A	4	4-3.5	3218-461	SK2502A	8	8-7.5	3218-471
	SK1603A	3.5	3.5-3	3218-432	SK2003A	6	6-5.5	3218-462	SK2503A	10	10-9.5	3218-472
	SK1604A	4	4-3.5	3218-433	SK2004A	8	8-7.5	3218-463	SK2504A	12	12-11.5	3218-473
	SK1605A	4.5	4.5-4	3218-434	SK2005A	10	10-9.5	3218-464	SK2505A	14	14-13.5	3218-474
	SK1606A	5	5-4.5	3218-435	SK2006A	12	12-11.5	3218-465	SK2506A	16	16-15.5	3218-475
	SK1607A	5.5	5.5-5	3218-436	SK2007A	16	16-15.5	3218-466	SK2507A	18	18-17.5	3218-476
	SK1608A	6	6-5.5	3218-437	SK2008A	20	20-19.5	3218-467	SK2508A	20	20-19.5	3218-477
	SK1609A	6.5	6.5-6	3218-438					SK2509A	22	22-21.5	3218-478
	SK1610A	7	7-6.5	3218-439					SK2510A	24	24-23.5	3218-479
	SK1611A	7.5	7.5-7	3218-440					SK2511A	25	25-24.5	3218-480
	SK1612A	8	8-7.5	3218-441					SK2512A	25.4	25.4-25	3218-481
	SK1613A	8.5	8.5-8	3218-442								
	SK1614A	9	9-8.5	3218-443								
	SK1615A	9.5	9.5-9	3218-444								
	SK1616A	10	10-9.5	3218-445								
	SK1617A	10.5	10.5-10	3218-446								
	SK1618A	11	11-10.5	3218-447								
	SK1619A	11.5	11.5-11	3218-448								
	SK1620A	12	12-11.5	3218-449								
	SK1621A	12.5	12.5-12	3218-450								
	SK1622A	13	13-12.5	3218-451								
	SK1623A	13.5	13.5-13	3218-452								
	SK1624A	14	14-13.5	3218-453								
	SK1625A	14.5	14.5-14	3218-454								
	SK1626A	15	15-14.5	3218-455								
	SK1627A	15.5	15.5-15	3218-456								
	SK1628A	16	16-15.5	3218-457								

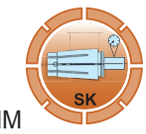
SK Spring Collet System

VERTEX

HRC:47˚ 5μm JIS STD. 15000 R.P.M.

AA GRADE





SCM 440
THE RUNOUT OF AA COLLET IS 5μ.
THE GRIPPING RANGE OF DIA. OVER 3MM IS 0.5MM
THE GRIPPING RANGE OF DIA. BELOW 3MM IS 0.25MM

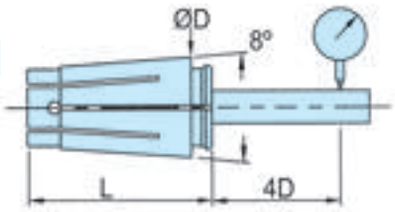
TYPE	SK-6AA				SK-10AA				SK-13AA			
WEIGHT (KGS)	0.005				0.02				0.048			
	ORDER NO.	ØD	CAP. mm Ø	CODE NO.	ORDER NO.	ØD	CAP. mm Ø	CODE NO.	ORDER NO.	ØD	CAP. mm Ø	CODE NO.
INDIVIDUAL UNIT	SK0601AA	2	2-1.75	3218-500	SK1001AA	2	2-1.75	3218-511	SK1301AA	3	3-2.75	3218-730
	SK0602AA	2.5	2.5-2.25	3218-501	SK1002AA	2.5	2.5-2.25	3218-512	SK1302AA	3.5	3.5-3	3218-731
	SK0603AA	3	3-2.75	3218-502	SK1003AA	3	3-2.75	3218-513	SK1303AA	4	4-3.5	3218-732
	SK0604AA	3.5	3.5-3	3218-503	SK1004AA	3.175	3.175-2.7	3218-514	SK1304AA	4.5	4.5-4	3218-733
	SK0605AA	4	4-3.5	3218-504	SK1005AA	3.5	3.5-3	3218-515	SK1305AA	5	5-4.5	3218-734
	SK0606AA	4.5	4.5-4	3218-505	SK1006AA	4	4-3.5	3218-516	SK1306AA	5.5	5.5-5	3218-735
	SK0607AA	5	5-4.5	3218-506	SK1007AA	4.5	4.5-4	3218-517	SK1307AA	6	6-5.5	3218-736
	SK0608AA	5.5	5.5-5	3218-507	SK1008AA	5	5-4.5	3218-518	SK1308AA	6.5	6.5-6	3218-737
	SK0609AA	6	6-5.5	3218-508	SK1009AA	5.5	5.5-5	3218-519	SK1309AA	7	7-6.5	3218-738
					SK1010AA	6	6-5.5	3218-520	SK13010AA	7.5	7.5-7	3218-739
					SK1011AA	6.5	6.5-6	3218-521	SK13011AA	8	8-7.5	3218-740
					SK1012AA	7	7-6.5	3218-522	SK13012AA	8.5	8.5-8	3218-741
					SK1013AA	7.5	7.5-7	3218-523	SK13013AA	9	9-8.5	3218-742
					SK1014AA	8	8-7.5	3218-524	SK13014AA	9.5	9.5-9	3218-743
					SK1015AA	8.5	8.5-8	3218-525	SK13015AA	10	10-9.5	3218-744
					SK1016AA	9	9-8.5	3218-526	SK13016AA	10.5	10.5-10	3218-745
					SK1017AA	9.5	9.5-9	3218-527	SK13017AA	11	11-10.5	3218-746
					SK1018AA	10	10-9.5	3218-528	SK13018AA	11.5	11.5-11	3218-747
									SK13019AA	12	12-11.5	3218-748
									SK13020AA	12.5	12.5-12	3218-749
									SK13021AA	13	13-12.5	3218-750

SK Spring Collet System

VERTEX

HRC:47˚ 5μm JIS STD. 15000 R.P.M.

AA GRADE



SCM 440
THE RUNOUT OF AA COLLET IS 5μ.
THE GRIPPING RANGE OF DIA. OVER 3MM IS 0.5MM
THE GRIPPING RANGE OF DIA. BELOW 3MM IS 0.25MM

TYPE	SK-16AA				SK-20AA				SK-25AA			
WEIGHT (KGS)	0.08				0.135				0.205			
	ORDER NO.	ØD	CAP. mm Ø	CODE NO.	ORDER NO.	ØD	CAP. mm Ø	CODE NO.	ORDER NO.	ØD	CAP. mm Ø	CODE NO.
INDIVIDUAL UNIT	SK1601AA	3	3-2.75	3218-530	SK2001AA	3	3-2.75	3218-560	SK2501AA	6	6-5.5	3218-570
	SK1602AA	3.175	3.175-2.7	3218-531	SK2002AA	4	4-3.5	3218-561	SK2502AA	8	8-7.5	3218-571
	SK1603AA	3.5	3.5-3	3218-532	SK2003AA	6	6-5.5	3218-562	SK2503AA	10	10-9.5	3218-572
	SK1604AA	4	4-3.5	3218-533	SK2004AA	8	8-7.5	3218-563	SK2504AA	12	12-11.5	3218-573
	SK1605AA	4.5	4.5-4	3218-534	SK2005AA	10	10-9.5	3218-564	SK2505AA	14	14-13.5	3218-574
	SK1606AA	5	5-4.5	3218-535	SK2006AA	12	12-11.5	3218-565	SK2506AA	16	16-15.5	3218-575
	SK1607AA	5.5	5.5-5	3218-536	SK2007AA	16	16-15.5	3218-566	SK2507AA	18	18-17.5	3218-576
	SK1608AA	6	6-5.5	3218-537	SK2008AA	20	20-19.5	3218-567	SK2508AA	20	20-19.5	3218-577
	SK1609AA	6.5	6.5-6	3218-538					SK2509AA	22	22-21.5	3218-578
	SK1610AA	7	7-6.5	3218-539					SK2510AA	24	24-23.5	3218-579
	SK1611AA	7.5	7.5-7	3218-540					SK2511AA	25	25-24.5	3218-580
	SK1612AA	8	8-7.5	3218-541					SK2512AA	25.4	25.4-25	3218-581
	SK1613AA	8.5	8.5-8	3218-542								
	SK1614AA	9	9-8.5	3218-543								
	SK1615AA	9.5	9.5-9	3218-544								
	SK1616AA	10	10-9.5	3218-545								
	SK1617AA	10.5	10.5-10	3218-546								
	SK1618AA	11	11-10.5	3218-547								
	SK1619AA	11.5	11.5-11	3218-548								
	SK1620AA	12	12-11.5	3218-549								
	SK1621AA	12.5	12.5-12	3218-550								
	SK1622AA	13	13-12.5	3218-551								
	SK1623AA	13.5	13.5-13	3218-552								
	SK1624AA	14	14-13.5	3218-553								
	SK1625AA	14.5	14.5-14	3218-554								
	SK1626AA	15	15-14.5	3218-555								
	SK1627AA	15.5	15.5-15	3218-556								
	SK1628AA	16	16-15.5	3218-557								

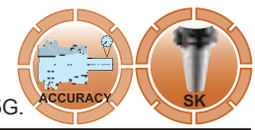
BT-SK Collet Chuck System

VERTEX

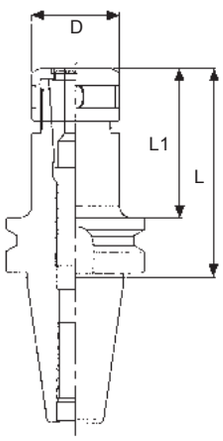
JIS STD. 15000 R.P.M. 2.5G

AA

- THE SK CHUCK IS ACCORDING TO THE DESIGN OF ANGEL 8 WITH HIGH ACCURACY AND HIGH GRIPPING RANGE. THE GRIPPING TORQUE IS HIGHER THAN STANDARD ER CHUCK.
- THE DYNAMIC BALANCE OF SK CHUCK CAN BE REACHED 15000RPM X 2.5G.



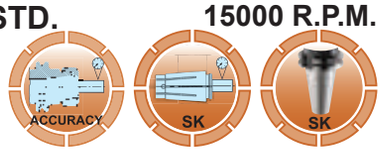
SK



ORDER NO.	BT TYPE	COLLET TYPE	COLLET SIZE	D	L	L1	WEIGHT (kgs)	CODE NO.
SKB-201	BT-30-SK6-60	SK6	2-6	20	60	38	0.5	3218-600
SKB-202	BT-30-SK6-90	SK6	2-6	20	90	68	0.55	3218-601
SKB-203	BT-30-SK10-60	SK10	2-10	28	60	38	0.5	3218-602
SKB-204	BT-30-SK10-90	SK10	2-10	28	90	68	0.7	3218-603
SKB-205	BT-30-SK16-60	SK16	3-16	40	60	38	0.6	3218-604
SKB-206	BT-30-SK16-90	SK16	3-16	40	90	68	0.7	3218-605
SKB-207	BT-40-SK6-60	SK6	2-6	20	60	33	0.9	3218-606
SKB-208	BT-40-SK6-90	SK6	2-6	20	90	63	1	3218-607
SKB-209	BT-40-SK6-120	SK6	2-6	20	120	93	1.2	3218-608
SKB-210	BT-40-SK10-60	SK10	2-10	28	60	33	1	3218-609
SKB-211	BT-40-SK10-90	SK10	2-10	28	90	63	1.1	3218-610
SKB-212	BT-40-SK10-120	SK10	2-10	28	120	93	1.2	3218-611
SKB-213	BT-40-SK10-150	SK10	2-10	28	150	123	1.3	3218-612
SKB-214	BT-40-SK16-60	SK16	3-16	40	60	33	1.2	3218-613
SKB-215	BT-40-SK16-90	SK16	3-16	40	90	63	1.3	3218-614
SKB-216	BT-40-SK16-120	SK16	3-16	40	120	93	1.4	3218-615
SKB-217	BT-40-SK16-150	SK16	3-16	40	150	123	1.5	3218-616
SKB-218	BT-40-SK20-60	SK20	3-20	50	60	33	1.2	3218-617
SKB-219	BT-40-SK20-90	SK20	3-20	50	90	63	1.3	3218-618
SKB-221	BT-40-SK20-150	SK20	3-20	50	150	123	1.5	3218-620
SKB-222	BT-40-SK25-80	SK25	6-25	55	80	53	1.5	3218-621
SKB-223	BT-40-SK25-100	SK25	6-25	55	100	73	1.65	3218-622
SKB-224	BT-50-SK6-100	SK6	2-6	20	100	62	3.6	3218-623
SKB-225	BT-50-SK6-150	SK6	2-6	20	150	112	4	3218-624
SKB-226	BT-50-SK10-100	SK10	2-10	28	100	62	3.6	3218-625
SKB-227	BT-50-SK10-150	SK10	2-10	28	150	112	4	3218-626
SKB-228	BT-50-SK16-100	SK16	3-16	40	100	62	4	3218-627
SKB-229	BT-50-SK16-150	SK16	3-16	40	150	112	4.5	3218-628
SKB-230	BT-50-SK20-100	SK20	3-20	50	100	62	4.3	3218-629
SKB-231	BT-50-SK20-150	SK20	3-20	50	150	112	5.3	3218-630
SKB-232	BT-50-SK25-100	SK25	6-25	55	100	62	4.5	3218-631
SKB-233	BT-50-SK25-150	SK25	6-25	55	150	112	5.5	3218-632

Set Of SK Collet And MAS BT Chuck

DYNAMIC BALANCE TESTED **JIS STD.** **15000 R.P.M.**



AA

SK COLLET SET

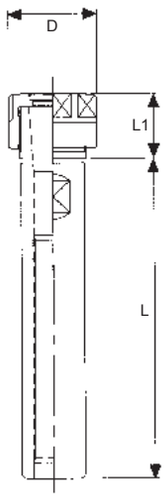
METRIC RANGE SET SIZE
SK06/5pcs : Ø2, 3, 4, 5, 6
SK10/8pcs : Ø3, 4, 5, 6, 7, 8, 9, 10
SK16/8pcs : Ø3, 4, 6, 8, 10, 12, 14, 16
SK20/8pcs : Ø3, 4, 6, 8, 10, 12, 16, 20
SK25/7pcs : Ø6, 8, 10, 12, 16, 20, 25

ORDER NO.	BT TYPE	COLLET TYPE	SET RANGE	COLLET PCS	WEIGHT (kg)	CODE NO.
SKB-301	BT-30-SK6-60L	SK6	2-6	5	1.3	3218-640
SKB-302	BT-30-SK6-90L	SK6	2-6	5	1.45	3218-641
SKB-303	BT-30-SK10-60L	SK10	3-10	8	1.7	3218-642
SKB-304	BT-30-SK10-90L	SK10	3-10	8	1.9	3218-643
SKB-305	BT-30-SK16-60L	SK16	3-16	8	2.5	3218-644
SKB-306	BT-30-SK16-90L	SK16	3-16	8	2.8	3218-645
SKB-307	BT-40-SK6-60L	SK6	2-6	5	2.1	3218-646
SKB-308	BT-40-SK6-90L	SK6	2-6	5	2.3	3218-647
SKB-309	BT-40-SK10-60L	SK10	3-10	8	2.6	3218-648
SKB-310	BT-40-SK10-90L	SK10	3-10	8	2.8	3218-649
SKB-311	BT-40-SK16-60L	SK16	3-16	8	3	3218-650
SKB-312	BT-40-SK16-90L	SK16	3-16	8	3.3	3218-651
SKB-313	BT-40-SK20-60L	SK20	4-20	8	3.8	3218-652
SKB-314	BT-40-SK20-90L	SK20	4-20	8	4.1	3218-653
SKB-315	BT-40-SK25-80L	SK25	6-25	7	4.5	3218-654

ST-SK Straight Chuck

JIS STD. 15000 R.P.M.

AA



SK

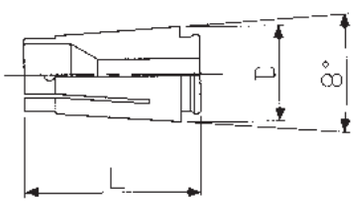
ORDER NO.	TYPE	COLLET	D	L	L1	WEIGHT(kg)	CODE NO.
SKS-210	ST-20-SK6-100	SK6	20	100	20	0.25	3218-660
SKS-211	ST-20-SK6-150	SK6	20	150	20	0.3	3218-661
SKS-212	ST-20-SK10-100	SK10	28	100	20	0.3	3218-662
SKS-213	ST-20-SK10-150	SK10	28	150	20	0.45	3218-663
SKS-214	ST-20-SK10-200	SK10	28	200	20	0.55	3218-664

Set Of SK Collet And Straight Chuck

JIS STD. 15000 R.P.M.

AA

SK

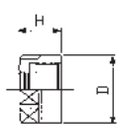


SK COLLET SET

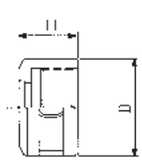
METRIC RANGE SET SIZE
SK06/5pcs : Ø2, 3, 4, 5, 6
SK10/8pcs : Ø3, 4, 5, 6, 7, 8, 9, 10

ORDER NO.	ST TYPE	COLLET	SET RANGE	COLLET SET	WEIGHT (kg)	CODE NO.
SKS-231	ST-20-SK6-100	SK6	2-6	5	0.7	3218-670
SKS-232	ST-20-SK6-150	SK6	2-6	5	0.8	3218-671
SKS-233	ST-20-SK10-100	SK10	3-10	8	1.1	3218-672
SKS-234	ST-20-SK10-150	SK10	3-10	8	1.3	3218-673

SK Nut And Wrench



Fg1



Fg2

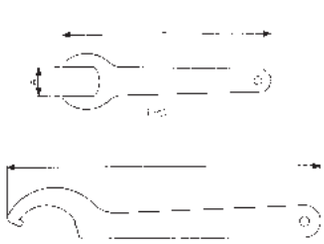
SK

SK NUT

ORDER NO.	FIG	COLLET TYPE	D	H	WEIGHT (kg)	CODE NO.
SKN-601	1	SK06	19.5	15	0.05	3218-680
SKN-101	1	SK10	28	17	0.05	3218-681
SKN-161	2	SK16	40	24	0.08	3218-682
SKN-201	2	SK20	50	25	0.1	3218-683
SKN-251	2	SK25	55	30	0.12	3218-684

SK WRENCH

ORDER NO.	FIG	COLLET TYPE	A	L	WEIGHT (kg)	CODE NO.
SKW-601	1	SK06	18	130	0.08	3218-690
SKW-101	1	SK10	25	140	0.08	3218-691
SKW-161	2	SK16	X	195	0.2	3218-692
SKW-201	2	SK20	X	228	0.22	3218-693
SKW-251	2	SK25	X	228	0.22	3218-694

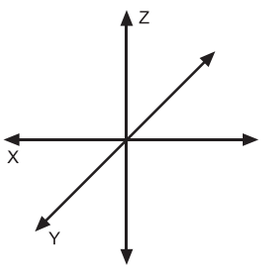


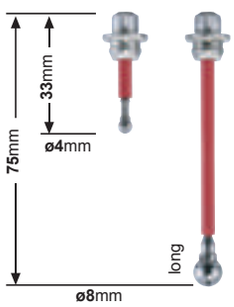
3D-Taster

ORDER NO.V-3D CODE NO.3219-001

Find your exact zero points in all three axes in seconds with the new distance measuring scale (graduated and analogue).

- Black scale for radial deflection.
- Red scale for axial deflection
- Precise and effortless calipering of fixtures and workpiece edges.
- Setting of NC-programme zero points in seconds.
- Measuring of clamped workpieces.
- Generous overrun allowances prevent damage to Taster stylus.
- Easy and precise change of stylus.
- Weight: 0.93 KGS





STYLUS

Change stylus in seconds

No screws or special tools required

Easy precision plug-in mechanism

ORDER NO.	TYPE	WEIGHT	CODE NO.
V-3D-05	ø4x33 standard stylus	10g	3219-005
V-3D-06	ø8x75 long stylus	15g	3219-006

TYPE	ACCURACY
3D-Taster	0.01mm

KNT Type Keyless Drill Chucks

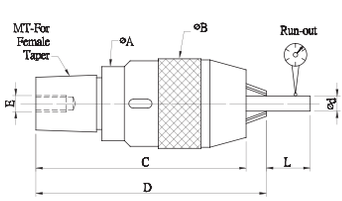
FOR DRILL ONLY , NOT FOR END MILL OR TAP

This chuck for CNC keyless drill chuck holders, built by the highest engineering standard.

- Integrated drill chuck and holder once lock with a pull stud, the chuck will never come off.
- Special design ensures high rigidity.
- High service reliability.
- Easy to operate, long service life.
- 100% test and strict quality control assure the highest accuracy.
- 2500R.P.M

ACCURACY

ITEM NO.	Ød mm	L mm	Max Run-out mm	Torque kgf-cm
KNT-8	3	35	0.05	160
	6			
	8	50		
KNT-13	5	55	0.05	320
	10			
	13	75		
KNT-16	5	55	0.05	480
	10			
	16	80		

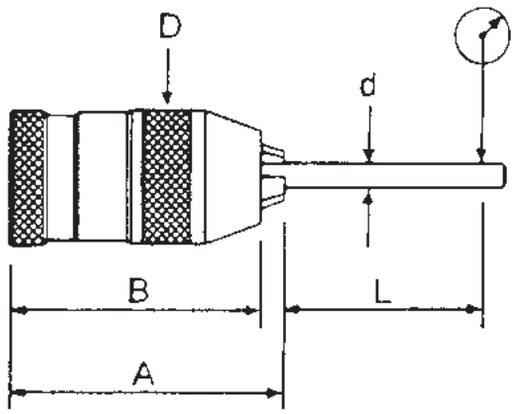


ORDER NO.	Clamping Capacity	For Female Taper	ØA	ØB	C	D	E	kg	QTY Pcs/Cu-Ft	NW/GW Kgs	CODE NO.
KNT-8	0.5-8	MT2	30	35	82.5	90	M6x1.0	0.3	40/0.6	15/16	3033-600
KNT-13	0.5-13	MT2	30	56	76	101	M8x1.25	1	30/0.6	30/31	3033-601
		MT3	38		106	118					3033-601A
KNT-16	3-16	MT3	43	56	115	128	M8x1.25	1.3	18/0.6	24/25	3033-602

Integrated Type Keyless Drill Chucks

FOR DRILL ONLY , NOT FOR END MILL OR TAP

CAT-TYPE



ORDER NO.	Clamping Capacity		Taper	OUTER Ø / mm	WEIGHT (kgs)	CODE NO.
	mm	inch				
INT-8-CAT30	0.5-8	1/64″-1/8″	CAT30	Ø35	0.8	3301-073
INT-13-CAT30	0.5-13	1/64″-1/2″		Ø51.5	1	3301-074
INT-8-CAT40	0.5-8	1/64″-1/8″	CAT40	Ø35	1.32	3301-075
INT-13-CAT40	0.5-13	1/64″-1/2″		Ø51.5	2.1	3301-076
INT-16-CAT40	3-16	1/8″-5/8″		Ø58	2.26	3301-077
INT-13-CAT50	0.5-13	1/64″-1/2″	CAT50	Ø51.5	3.95	3301-078
INT-16-CAT50	3-16	1/8″-5/8″		Ø58	4.2	3301-079

ACCURACY

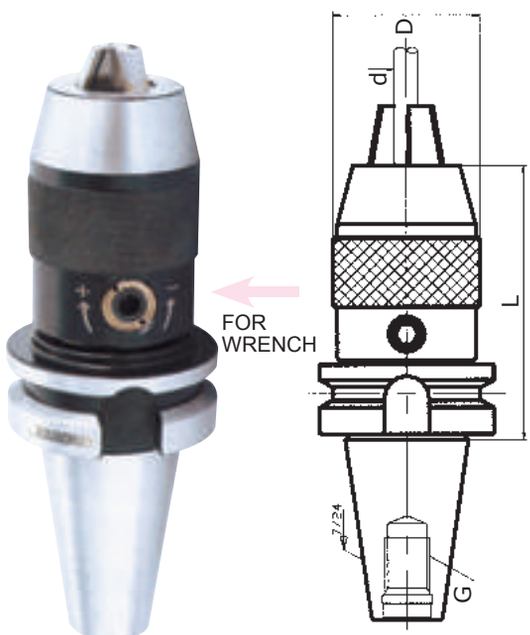
ITEM NO.	d mm	L mm	Max Tolerance mm	Torque kgf-cm
INT-8	3	25	0.05	160
	6			
	8	30		
INT-10	3	25	0.05	260
	6			
	10	30		
INT-13	5	30	0.05	400
	10			
	13	25		
INT-16	5	25	0.05	480
	10			
	16	30		

KEYLESS DRILL CHUCK

Integrated Type Keyless Drill Chucks

CAN FOR TAP

RL type keyless drill chuck with BT SHANK
SK SHANK
NT SHANK



- RL type drill has reinforce torque design to increase more clamping capacity.
- Right turn and left turn allowable.
- No sudden drop when stop or suddenly shift to different direction.
- Highest speed 6000rpm.
- Shorten the shank length which is stronger than traditional design improves the total rigidity.

ORDER NO.	Clamping Capacity mm / d	L	D	G	CODE NO.
BT40-VRL13	0.5-13	95	50	M16	3301-090
BT40-VRL16	3-16	113	57	M16	3301-091
SK40-VRL13	0.5-13	85	50	M16	3301-092
SK40-VRL16	3-16	95	57	M16	3301-093
NT40-VRL13	0.5-13	112	50	5/8″-11unc M16	3301-094
NT40-VRL16	3-16	120	57		3301-095

Integrated Type Keyless Drill Chucks

FOR DRILL ONLY , NOT FOR END MILL OR TAP

FOR SPECIFICATION PLEASE SEE P.C76

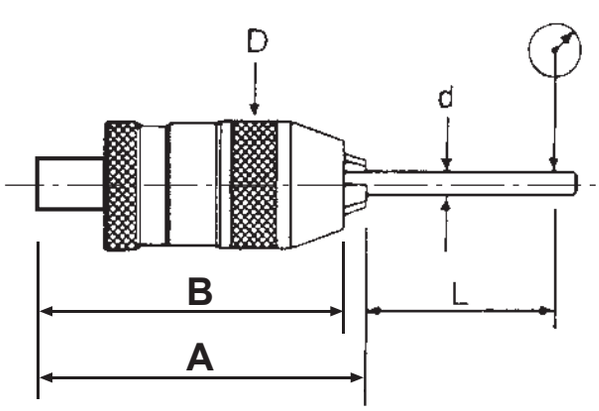
The main-shafts is of integrated type, which is much more superior than the traditional design. The major features are as follows:

- Extremely rigid construction. Accuracy is same as page C66
- The accumulative tolerances can be reduced to a minimum, since the traditional mechanism requiring an ARBOR to connect the Drill Chucks which will generate the accumulative tolerances. The Integrated type Keyless Drill Chuck is designed to solve this problem totally.
- Prevent the Drill Chucks from falling out.
- Extremely safe in operation.
- 2500 R.P.M.

STANDARD ACCES.

ACCURACY

ITEM NO.	d mm	L mm	Max Tolerance mm	Torque kgf-cm
INT-8	3	25	0.05	160
	6			
	8	30		
INT-10	3	25	0.05	260
	6			
	10	30		
INT-13	5	30	0.05	400
	10			
	13	25		
INT-16	5	25	0.05	480
	10			
	16	30		



Integrated Type Keyless Drill Chucks

ORDER NO.	Clamping Capacity		Female Taper DIN or Jacobs	OUTER Ø / mm	Length		WEIGHT (kgs)	CODE NO.
	Ø mm	Ø inch			Open B mm	Closed A mm		
INT-8-MT-2	0.5-8	0-5/16″	MT-2	36	150	157	0.8	3301-030
INT-8-JC-20	0.5-8	0-5/16″	JC-20	36	134	141	0.8	3301-031
INT-8-BT30	0.5-8	1/64″-1/8″	BT30	36	78	85	1	3301-070
INT-8-BT40	0.5-8	1/64″-1/8″	BT40	36	77	86	1.5	3301-072
INT-8-NT30	0.5-8	1/64″-1/8″	NT30	36	67	75	0.8	3301-080
INT-8-NT40	0.5-8	1/64″-1/8″	NT40	36	66	74	1.3	3301-081
INT-8-SK40	0.5-8		SK-40	36	81	87	1.4	3301-083
INT-13-R8	1-13	1/64″-1/2″	R8	50	196	205	1.5	3301-032
INT-13-MT2	1-13	0-1/2″	MT-2	50	172	184	1.3	3301-082
INT-13-MT3	1-13	0-1/2″	MT-3	50	190	201	1.4	3301-033
INT-13-MT4	1-13	0-1/2″	MT-4	50	216	227	1.8	3301-034
INT-13-JC-20	1-13	0-1/2″	JC-20	50	153	164	1.4	3301-035
INT-13-JC-25	1-13	0-1/2″	JC-25	50	163	174	1.6	3301-036
INT-13-JC-32	1-13	0-1/2″	JC-32	50	173	185	1.8	3301-037
INT-13-NT30	1-13	0-1/2″	NT-30	50	86	99	1.4	3301-038
INT-13-NT40	1-13	0-1/2″	NT-40	50	85	96	1.8	3301-039
INT-13-BT30	1-13	1/64″-1/2″	BT30	50	96	108	1.4	3301-071
INT-13-BT40	1-13	0-1/2″	BT-40	50	100	111	2	3301-040
INT-13-BT50	1-13	0-1/2″	BT-50	50	106	117	4.7	3301-041
INT-13-NT50	1-13	0-1/2″	NT-50	50	100	112	4.3	3301-059
INT-13-SK30	1-13		SK-30	50	99	111	1.34	3301-084
INT-13-SK40	1-13		SK-40	50	100	113	1.9	3301-085
INT-13-SK50	1-13		SK-50	50	93	106	3.9	3301-087
INT-16-R8	3-16	1/8″-5/8″	R8	57	198	211	1.9	3301-042
INT-16-MT3	3-16	1/8″-5/8″	MT3	57	194	207	1.9	3301-043
INT-16-MT4	3-16	1/8″-5/8″	MT4	57	219	232	2	3301-044
INT-16-JC-20	3-16	1/8″-5/8″	JC-20	57	152	165	1.8	3301-045
INT-16-JC-25	3-16	1/8″-5/8″	JC-25	57	162	178	1.7	3301-046
INT-16-JC-32	3-16	1/8″-5/8″	JC-32	57	184	179	2.2	3301-047
INT-16-NT40	3-16	1/8″-5/8″	NT-40	57	113	126	2.6	3301-049
INT-16-BT40	3-16	1/8″-5/8″	BT-40	57	113	127	2.5	3301-050
INT-16-BT50	3-16	1/8″-5/8″	BT-50	57	111	124	5	3301-051
INT-16-NT50	3-16	1/8″-5/8″	NT-50	57	104	117	4.5	3301-056
INT-16-SK40	3-16	1/8″-5/8″	SK-40	57	127	141	2.4	3301-057
INT-16-SK50	3-16	1/8″-5/8″	SK-50	57	97	110	3.9	3301-058

ORDER NO.	SIZE DIN 69871A	Clamping range (Ømm)	D	L		WEIGHT (kg)	CODE NO.
				Minimum	Maximum		
INT-8-SK40	SK40-APU08	0.5-8	35.6	81	87	1.4	3301-001
INT-13-SK40	SK40-APU13	1-13	52	100	113	1.9	3301-002
INT-13-SK50	SK50-APU13	1-13	52	93	106	3.9	3301-004
INT-13-SK30	SK30-APU13	1-13	52	99	111	1.34	3301-006
INT-16-SK40	SK40-APU16	3-16	56.8	127	140	2.4	3301-007
INT-16-SK50	SK50-APU16	3-16	56.8	97	110	3.9	3301-008

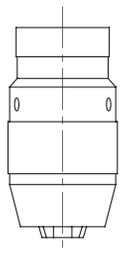
ORDER NO.	Clamping Capacity		Taper	OUTER Ø / mm	WEIGHT (kgs)	CODE NO.
	mm	inch				
INT-8-CAT30	0.5-8	1/64″-1/8″	CAT30	Ø36	0.8	3301-073
INT-13-CAT30	0.5-13	1/64″-1/2″		Ø50	1	3301-074
INT-8-CAT40	0.5-8	1/64″-1/8″	CAT40	Ø36	1.32	3301-075
INT-13-CAT40	0.5-13	1/64″-1/2″		Ø50	2.1	3301-076
INT-16-CAT40	3-16	1/8″-5/8″		Ø57	2.26	3301-077
INT-13-CAT50	0.5-13	1/64″-1/2″	CAT50	Ø50	3.95	3301-078
INT-16-CAT50	3-16	1/8″-5/8″		Ø57	4.2	3301-079

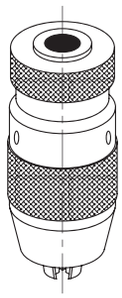
Keyless Drill Chucks

TYPE: XHSP **SPECIAL HEAVY DUTY TYPE**

FOR DRILL ONLY , NOT FOR END MILL OR TAP

OPTIONAL ACCES.





- Special design & manufacture against for super heavy torque(Clamping capacity) use.
- Owing to inspecting strictly & with excellent RUNOUT Accuracy and quality guanteed the gripping power is double than the general brand.
- Avoid the drill dropped when used in instaneous change of direction and equipped with spanner hole for tightening perfect safety.
- Especially suitable for CNC machining center & milling machine use.
- Accuracy: 50 mm length within 0.05 mm
- The key is optional

Unit:mm

ORDER NO.	TYPE	Clamping Capacity Ø mm	Clamping Capacity Ø inch	Female Taper DIN or Jacobs	OUTER Ø / mm	Length Open B mm	Length Closed A mm	Wt g	QTY Pcs./ Cu-Ft	N.W/G.W kgs	CODE NO.
11015	8XHSP	0.5-8	0-5 / 16″	B10	34.3	64.8	72.7	320	40/0.6	13/14	3302-002
11016				J1	34.3	64.8	72.7	320	40/0.6	13/14	3302-003
11017				B12	34.3	64.8	72.7	320	40/0.6	13/14	3302-004
11018	10XHSP	1-10	0-3 / 8″	J33	42.4	80.8	91.1	700	40/0.6	28/29	3302-005
11019				J2S	42.4	80.8	91.1	700	40/0.6	28/29	3302-006
11020				B12	42.4	80.8	91.1	700	40/0.6	28/29	3302-007
11021				B16	42.4	80.8	91.1	700	40/0.6	28/29	3302-008
11025	13XHSP	1-13	0-1 / 2″	J6	50.3	93.7	105.3	1030	30/0.6	31/32	3302-009
11026				J33	50.3	93.7	105.3	1035	30/0.6	31/32	3302-010
11027				B16	50.3	93.7	105.3	1030	30/0.6	31/32	3302-011
11028	16XHSP	3-16	1/8 - 5/8″	J6	52	97	110.3	1450	24/0.6	35/36	3302-012
11029				B16	52	96.1	110.3	1450	24/0.6	35/36	3302-013
11030				B18	52	97	110.4	1450	24/0.6	35/36	3302-014
11035				J3	52	100.5	105.3	1450	24/0.6	35/36	3302-015
17000	6XHSP	0.5-6.5	1/64″- 1/4″	B12	34	64.8	72.7	320	40/0.6	13/14	3304-010
17002				J1	34	64.8	72.7	320	40/0.6	13/14	3304-011
17004				B10	34	64.8	72.7	320	40/0.6	13/14	3304-012
11031	Key	13XHSP		OPTIONAL ACCEES.							3304-001
11032		16XHSP									3304-002
11033		8XHSP									3304-003
11034		10XHSP									3304-004

Keyless Drill Chucks

TYPE: H FOR DRILL ONLY , NOT FOR END MILL OR TAP **STANDARD TYPE**

- Industrial design especially for life and safety while in operation.
- All hardened parts ensure long term for milling machines and drilling.
- Accuracy: 35 m/m length within 0.08 m/m

Unit:mm

ORDER NO.	TYPE	Clamping Capacity Ø mm	Clamping Capacity Ø inch	Female Taper DIN or Jacobs	OUTER Ø mm	Length Open B mm	Length Closed A mm	Wt g	CODE NO.
11061	6H	0-6.5	0-1 / 4″	J1	34	64.8	72.7	410	3302-030
11062				B10	34	64.8	72.7	400	3302-031
11063	8H	0.5-8	0-5 / 16″	J1	34	64.8	72.7	400	3302-032
11064				B10	34	64.8	72.7	400	3302-033
11065	10H	1-10	0-3 / 8″	J2S	42.5	80.8	91.1	720	3302-034
11066				J33	42.5	80.8	91.1	700	3302-035
11067				B12	42.5	80.8	91.1	720	3302-036
11068				B16	42.5	80.8	91.1	700	3302-037
11070	13H	1-13	0-1 / 2″	J6	50.5	93.7	105.3	1070	3302-039
11071				J33	50.5	93.7	105.3	1035	3302-040
11072				B16	50.5	93.7	105.3	1080	3302-041
11073	16H	3-16	1/8 - 5/8″	J6	50.5	93.7	105.8	1070	3302-042
11074				B16	50.5	93.8	105.9	1080	3302-043
11075				B18	50.5	97.7	110	1090	3302-044

Keyless Drill Chucks

TYPE:S FOR DRILL ONLY , NOT FOR END MILL OR TAP

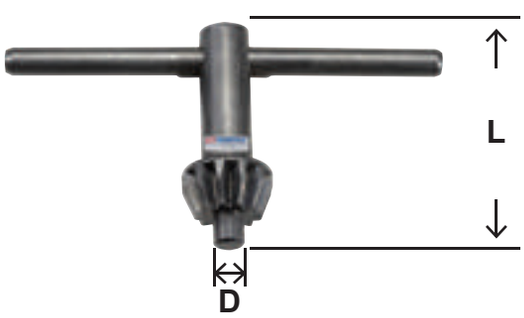
VERTEX

HEAVY DUTY TYPE S

Extremely high accuracy and precision design, suitable for CNC machines and machine center. All parts are ground,heat treated,surface treated and under specific QC condition.

ORDER NO.	Size	Capacity		Taper Mount No DIN or Jacabs	Length(m/m)		Outer Dia (m/m)	Weight (g)	CODE NO.
		mm	inch		Open	Closed			
12201-1	8S	0.5-8	0-5/16	JT1	68	76	38	460	3302-060
12201-2				JT2S	68	76	38	450	3302-061
12201-3				B10	68	76	38	420	3302-062
12201-4				B12	68	76	38	450	3302-063
12202-1	10S	1-10	0-3/8	JT2	80	92	43	660	3302-064
12202-2				JT33	80	92	43	630	3302-065
12202-3				B10	80	92	43	640	3302-066
12202-4				B12	80	92	43	670	3302-067
12203-1	13S	1-13	0-1/2	JT33	90	102	49	970	3302-068
12203-2				JT6	90	102	49	1020	3302-069
12203-3				B12	90	102	49	1040	3302-070
12203-4				B16	90	102	49	1030	3302-071
12205-1	16S	3-16	1/8-5/8	JT6	97	110	55	1330	3302-073
12205-2				JT3	97	110	55	1330	3302-074
12205-3				B16	97	110	55	1340	3302-075
12205-4				B18	97	110	55	1360	3302-076

Keys Steel



ORDER NO.	Type	Dmm	Lmm	Weight(g)	Packing	CODE NO.
14001	T1	3.2	35	20	Plastic Bag	3304-100
14002	T2	4	42	40		3304-101
14003	T3	5.5	44	45		3304-102
14004	T4	6	45	55		3304-103
14005	T5	6.5	45	50		3304-104
14007	T7	8	50	80		3304-106
14008	T8	9.5	65	150		3304-107
14009	T9	11	100	320		3304-108

Note

CAUTIONS

CAUTIONS

CAUTIONS:

※ DO NOT USE END MILL AND TAP WITH DRILL CHUCK

- DRILL CHUCK ONLY CAN PROCESS VERTICAL JOB.
- ADD COOLANT WHILE HEAVY CUTTING.

※ WHILE PROCESSING:

DO NOT MAKE HORIZONTAL MOVEMENT
OR ELSE, IT WILL CAUSE 3 JAWS' DEFORMATION.
NOT FOR END MILL.

Key Type Drill Chucks

TYPE: G **HIGH PRECISION**

- Remarkable products, super precision durable & rigity
- Big outside diameter suit for heavy duty
- The nut and jaws adopt AISI-52100 (bearing steel) and heat-treated,durability
- Precision can be assured.
- The taper is precision ground.
- Accuracy: 90mm length within 0.08 mm
- With keys

ORDER NO.	TYPE	Clamping Capacity		Female Taper DIN or Jacobs	OUTER Ø / mm	Length		Wt g	Key Size	QTY Pcs./ Cu-Ft	N.W/G.W kgs	CODE NO.
		mm	inch			Open B mm	Closed A mm					
10006	G-6H	0.5-6.5	1/64″-1/4″	J1	32	41	50	200	T2	100/0.82	20/21	3303-001
10050	G-13XH	0.5-13	1/64″-1/2″	J6	56	70.5	88	800	P6	36/0.83	30/31	3303-006
10051				B16	56	70.5	88	800	P6	36/0.83	30/31	3303-007
10052				J33	56	70.5	88	800	P6	36/0.83	30/31	3303-008
10068	G-16XH	1-16	1/32″-5/8″	J3	65	81	101	1000	P7	24/0.84	24/25	3303-009
10070				B18	65	81	101	1000	P7	24/0.84	24/25	3303-010
10074	G-19XH	3-19	1/8″-3/4″	J4	70	99.5	126	2150	P7	18/0.83	39/40	3303-011

Key Type Drill Chucks

- Suitable for heavy duty & extra heavy duty.
- For milling machine, lathe, drill machine & wood working machine.
- With keys

ORDER NO.	TYPE	Clamping Capacity		Female Taper DIN or Jacobs	Female Thread Inch or metic	OUTER Ø / mm	Length		Wt g	Key Size	CODE NO.
		mm	inch				Open B mm	Closed A mm			
10001	4H	0.5-4	1/64″-5/32″	JO		22	29	35	120	T1	3303-060
10003	6H	0.5-6.5	1/64″-1/4″	J1		32	40	50	230	T2	3303-062
10004				B10		32	40	50	190	T2	3303-063
10010	10H	1-10	1/32″-3/8″	J2		38	50.5	64	320	T3	3303-065
10011				J2S		38	50.5	64	320	T3	3303-066
10012				B12		38	50.5	64	330	T3	3303-067
10038	13H	1-13	1/32″-1/2″	J2S		47	65	81	520	T5	3303-071
10038-2					3/8-24	47	65	81	520	T5	3303-071-2
10038-3					1/2-20	47	65	81	330	T5	3303-071-3
10039				J6		47	65	81	570	T5	3303-072
10040				B16		47	65	81	580	T5	3303-073
10041				J33		47	65	81	580	T5	3303-074
10061	16H	1-16	1/32″-5/8″	J6		56	78	96	990	T7	3303-077
10062				J3		56	78	96	960	T7	3303-078
10063				B16		56	78	96	990	T7	3303-079
10064				B18		56	78	96	970	T7	3303-080
10072	19H	3-19	1/8″-3/4″	B22		67.5	89	126	1660	T8	3303-083
10073				J3		67.5	89	126	1680	T8	3303-084
10046	13XH	1-13	1/32″-1/2″	J6	1/2-20	52	69	82	770	T7	3303-086
10079	19XH	1-19		J4		69	94	132	1720	T8	3303-089

Material Analysis Table

PART NO.	PART NAME	MATERIAL	HEAT TREATED
1	Body	JIS-4051 SAE 1045	HRC45-48
2	Case	JIS-4018 SAE 1018	HRC38-40
3	Jaw	JIS-4051 SAE 1045	HRC52±2
4	Nut	JIS-4051 SAE 1045	HRC61±2

Run-out Accuracy & Torque Inspection Table

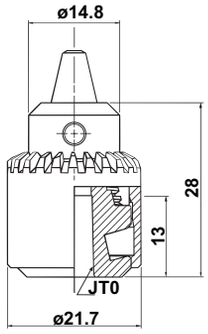
Type	4H	5H	6.5H	10H	13H	16H	19H	13XH	19XH
Ødmm	3.5	4.5	6	9	12	15	18	12	18
Lmm	60	80	90	110	140	150	150	140	150
L1mm	40	60	70	85	110	120	120	110	120
Max Run-out	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Torque kg-m	18	20	45	75	85	250	300	190	300

Key Type Drill Chucks Stainless

VERTEX

TAPER & THREAD MOUNT

NEW



ORDER NO. 10090

Enlarged photo

FEATURES:

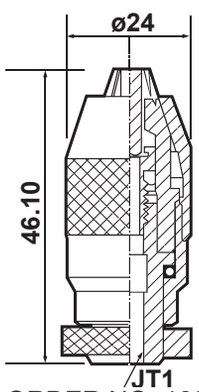
- Stainless - Anti - Rust
- Good Resistance - Acid Resistance
- Smooth operation
- Suit for EDM, Food, marine industry.

ORDER NO.	TYPE	Clamping Capacity		Female Taper DIN or Jacobs	OUTER Ø / mm	Length		Pitch	Wt g	Key Size	CODE NO.
		mm	inch			Open B mm	Closed A mm				
10090	4KST	0.3-4	1/64-5/32	JT0	22	28	35	5/16"-24	50	T0-3S	3303-100
10091	6KST	0.3-6.5	1/64-1/4	JT1	28.5	40.5	49	3/8"-24	125	T1-3S	3303-101
10092-1	10KST	0.3-10	1/64-3/8	JT2S	39	51	63	3/8"-24	250	T2-3S	3303-102
10092-2				ØD13	37	57	69		250		3303-103
10092-3				ØD15	37	57	69		250		3303-104

Keyless Drill Chucks Stainless

KEYLESS TAPER & THREAD MOUNT

NEW



ORDER NO. 16001-31

FEATURES:

- Stainless - Anti - Rust
- Good Resistance - Acid Resistance
- Smooth operation
- Suit for EDM, Food, marine industry.

Enlarged photo

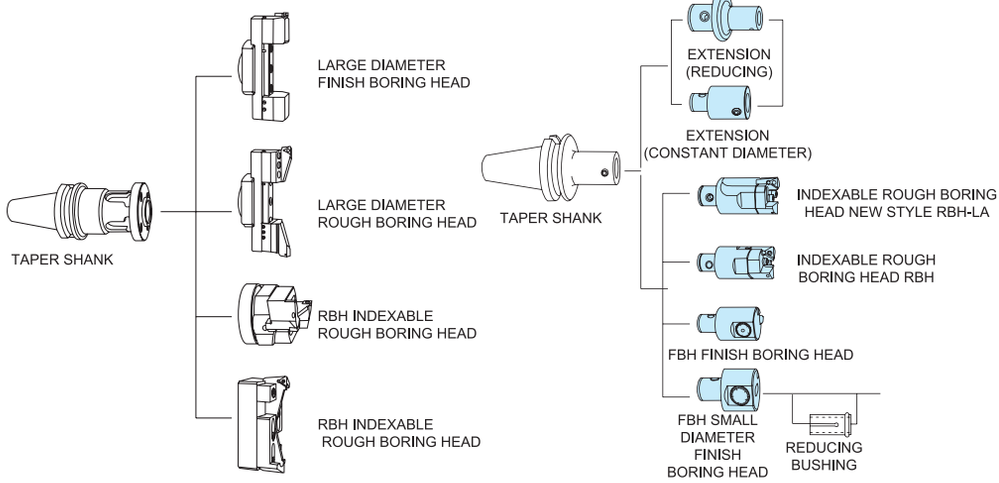
ORDER NO.	Size	Capacity		Taper Mount No DIN or Jacabs	Length(m/m)		Outer Dia (m/m)	Weight (g)	CODE NO.
		mm	inch		Open	Closed			
16001-30	3ST	0.3-3	1/64-1/8	JT0	44	50	30	110	3303-111
16001-31				JT1	44	48.5	24	110	3303-112
16001-61	6ST	0.3-6.5	1/64-1/4	JT1	62	68	33	300	3303-113

Keys For Stainless Key Type Drill Chuck

NEW

ORDER NO.	Type	Dmm	Lmm	Weight(g)	Packing	CODE NO.
15001	T0-3S	3.2	60	16		3303-121
15002	T1-3S	4.0	65	40		3303-122
15003	T2-3S	5.5	71	45		3303-123

Modular Boring Systems

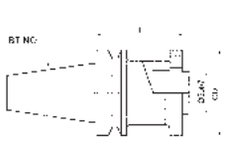


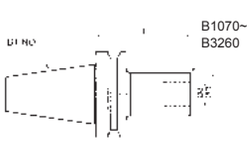
Taper Shank For Boring Heads Series BS70,100,200,300,400

Taper Shank For Boring Heads Series B1070~B6230

BS70~400 SERIES

B1070~6230 SERIES



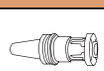
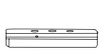


ORDER NO.	Length (L)	External Diameter (D)	Applicable Boring Heads	Weight (kgs)	CODE NO.
VT-BT30-B1070	70	19	FBB20	0.5	3320-214
VT-BT30-B2080	80	24	VRB25 ; FBB25	0.6	3320-215
VT-BT30-B3080	80	31	VRB32 ; FBB32	0.7	3320-216
VT-BT30-B4070	70	39	VRB40 ; FBB40 ; FBB44	0.8	3320-217
VT-BT30-B5060	60	50	VRB52 ; FBB52 ; FBB55	0.8	3320-218
VT-BT30-B6060	60	64	VRB68 ; VRB90 ; FBB68 FBB100 ; FBB150 ; FBB66	1.0	3320-219
VT-BT40-B1075	75	19	FBB20	1.2	3320-220
VT-BT40-B2085	85	23	VRB25 ; FBB25	1.2	3320-221
VT-BT40-B3095	95	30	VRB32 ; FBB32	1.45	3320-222
VT-BT40-B4085	85	38	VRB40 ; FBB40 ; FBB44	1.5	3320-223
VT-BT40-B5075	75	50	VRB52 ; FBB52 ; FBB55	1.8	3320-225
VT-BT40-B6065	65	64	VRB68 ; VRB90 ; FBB68 FBB100 ; FBB150 ; FBB66	2.15	3320-227
VT-BT40-BS70	70	95	VRB120 ; FBB200 VRB120 and above; FBB200 and above	3.2	3320-228
VT-BT50-B1115	115	19	FBB20	3.5	3320-229
VT-BT50-B2110	110	23	VRB25 ; FBB25	4	3320-230
VT-BT50-B3125	125	30	VRB32; FBB32	4.4	3320-232
VT-BT50-B4115	115	38	VRB40; FBB40; FBB44	4.8	3320-234
VT-BT50-B4175	175			5.2	3320-235
VT-BT50-B5105	105	50	VRB52; FBB52; FBB55	5.4	3320-236
VT-BT50-B5180	180			6.2	3320-237
VT-BT50-B5240	240			6.4	3320-238
VT-BT50-B6095	95	64	VRB68 ; VRB90 ; FBB68 FBB100 ; FBB150 ; FBB66	5.9	3320-239
VT-BT50-B6170	170			6.5	3320-240
VT-BT50-B6230	230			6.9	3320-241
VT-BT50-BS100	100	95	VRB120 VRB120 and above; VRB200 - 500; large diameter boring heads series FBB200-500	5.71	3320-242
VT-BT50-BS200	200			8.79	3320-244
VT-BT50-BS300	300			11.25	3320-246
VT-BT50-BS400	400			19.3	3320-247

Large Diameter 2 Inserts Rough Boring

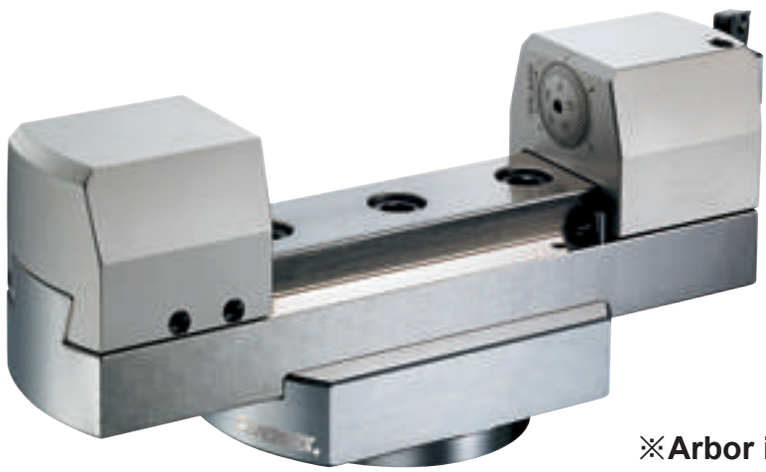
Modular Style For Diameter Over 200 mm
Boring øD range from ø200-ø1,250 mm

※Insert Not Included
※RB200C12 / RB200T16 / RB200T22 / RB200S12
ARE FOR VRB200 ~ VRB900
※Arbor is not included

Boring Head Type	ORDER NO.		VRB200	VRB300	VRB400	VRB500	VRB600	VRB900
	Length		130	130	130	130	150	150
	(kgs) Total Weight Steel/Alloy		9.5	11.5	13.5	15.5	33	43
	D(mm) Boring Diameter Range		200-310	300-410	400-510	500-610	600-900	900-1200
Module	Taper Shank		BT50-BS				BT50-FMA-47.625	
	Flange (kgs)Weight Steel/Alloy		BR200 2.7				BR600 8.8kg	BR900 13.5kg
	Extension Slide		RST200	RST300	RST400	RST500	RST300 x2pcs	RST400 x2pcs
	(kg)Weight Steel/Alloy		3.4 kg	5.4 kg	7.4 kg	9.4 kg	10.8 kg	14.8 kg
	Clamp Base (kg)Weight		RS200 0.98 kg					
	Height Seting Shim (kg)Weight		RS201 0.05 kg					
	Insert Holder		RB200C12		RB200T16	RB200T22		RB200S12
	Applicable Insert		CCMT120404		TCMT16T304	TCMT220404		SCMT120404
	(kg)Weight		0.68 kg					
	CODE NO.		3320-250	3320-251	3320-252	3320-253	3320-254	3320-255

Enlargeable Finish Boring Head

Modular Style For Diameter Over 200 mm
Boring øD from ø200-ø1,250 mm



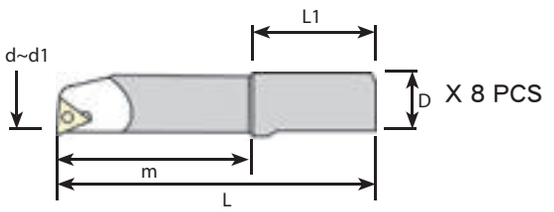
※Arbor is not included

Boring Head Type	ORDER NO.		VFB200	VFB300	VFB400	VFB500	VFB600	VFB900
	Length		130	130	130	130	150	150
	(kgs) Total Weight Steel/Alloy		7	7.8	8.6	9.4	15.8	22.1
	D(mm) Boring Diameter		200-310	300-410	400-510	500-610	600-900	900-1200
Module	Taper Shank		BT50-BS				BT50-FMA-47.625	
	Flange (kg)Weight Steel/Alloy		BR200 2.7 kg				BR600	BR900
							8.8kg	13.5kg
	Extension Slide		RST200	RST300	RST400	RST500	RST300 x2pcs	RST400 x2pcs
	(kgs)Weight		1.1 kg	1.9 kg	2.7 kg	3.5 kg	3.8 kg	5.4 kg
	Balance Weight (kg)Weight		RBN200 1.6 kg					
	Finish Head (kgs)Weight		CB200 1.6 kg					
	Applicable Insert		TP08/Ø3.2xM2/T6, TP09/M2.5/T8, TC11/M2.5/T8					
	CODE NO.		3320-260	3320-261	3320-262	3320-263	3320-264	3320-265

Insert Type Boring Bar

ORDER NO. BBAR-D16 CODE NO.6004-071

※All inserts are floating price.
Contact us before ordering from F1~F49



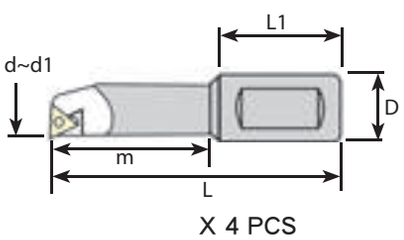
BORING BAR FOR BORING HEAD

8 PCS/SET

BORING BAR	SHANK D.	RANGE d~d1	DEPTH m	L1	SHANK L. L	INSERT	FIXING UNIT	WRENCH	WEIGHT (kg)
BRB1608-32	16	8-11	32	32	80	TBGT060102L	TS2001	T6	2
BRB1610-40	16	10-13	40	32	80				
BRB1612-53	16	12-15	53	32	85	TPGH090204L	TS2504	T8	
BRB1616-68	16	16-21	68	32	100				
BRB1620-83	16	20-26	83	32	115	TPGH110304L	TS3005	T10	
BRB1625-90	16	25-31	90	32	122				
BRB1630-90	16	30-36	90	32	122				
BRB1640-90	16	40-46	90	32	122				

Insert Type Boring Bar

ORDER NO. BBAR-D18A CODE NO.6004-072A



X 4 PCS

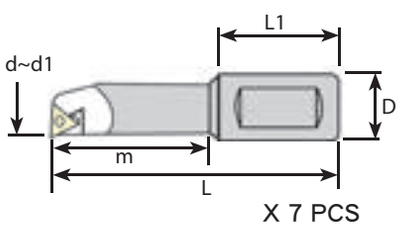
BORING BAR FOR BORING HEAD

4 PCS/SET

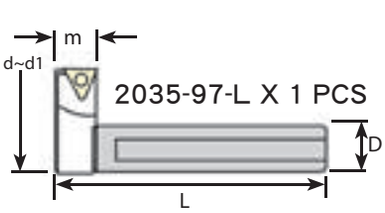
BORING BAR	SHANK D.	RANGE d~d1	DEPTH m	L1	SHANK L. L	INSERT	FIXING UNIT	WRENCH	WEIGHT (kg)
BRB1810-40	18	10-13	40	32	80	TBGT060102L	TS2001	T6	1.0
BRB1812-53	18	12-17	53	32	88	TPGH090204L	TS2504	T8	
BRB1816-68	18	16-21	68	32	104				
BRB1820-83	18	20-130	83	32	118	TPGH110304L	TS3005	T10	

Insert Type Boring Bar

ORDER NO. BBAR-D20 CODE NO.6004-073



X 7 PCS



BORING BAR FOR BORING HEAD

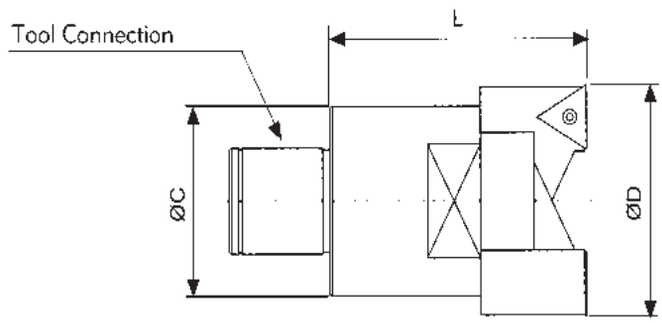
8 PCS/SET

BORING BAR	SHANK D.	RANGE d~d1	DEPTH m	L1	SHANK L. L	INSERT	FIXING UNIT	WRENCH	WEIGHT (kg)
BRB2008-32	20	8-11	23	32	80	TBGT060102L	TS2001	T6	2.65
BRB2010-40	20	10-13	40	32	80				
BRB2012-53	20	12-17	53	32	85	TPGH090204L	TS2504	T8	
BRB2016-68	20	16-21	68	32	100				
BRB2020-83	20	20-130	83	32	115	TPGH110304L	TS3005	T10	
BRB2025-96	20	25-135	96	32	135				
BRB2030-115	20	30-140	115	32	154				
BRB2035-97-L	20	120-280	14		99				

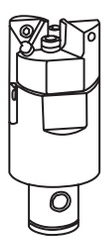
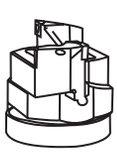
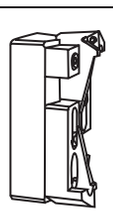
Changeable 2 Inserts Rough Boring Head VRB

VMH-SYSTEM **Boring diameter from ø25-ø350mm**

※Adjustable



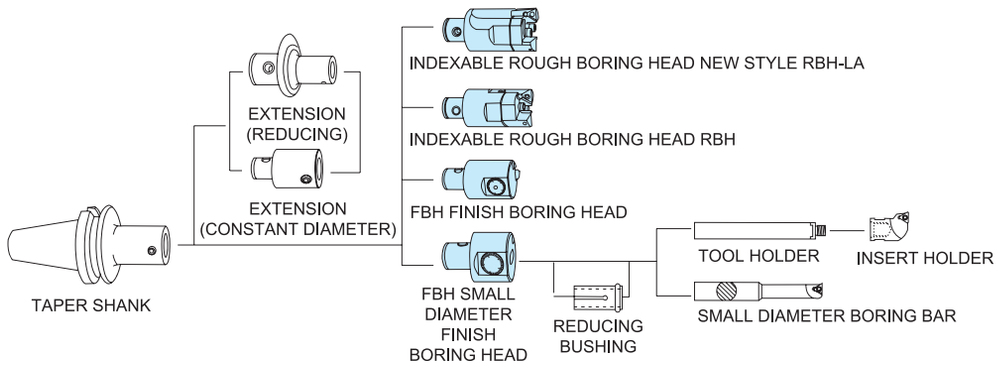
INSERT STYLE -C ◆ -T ▲ -S ■

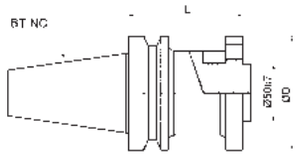
	ORDER NO.	Tool connection	D(mm) Boring Range		L (mm)	C (mm)	Insert	Weight (g)	CODE NO.
	VRB25-33C	B2080	25	33	45	24	CCMT060204	0.15	3320-270
	VRB32-42C	B3080	32	42	55	31	CCMT060204	0.3	3320-271
	VRB32-42T						TCMT110204		3320-272
	VRB40-55C	B4070	40	55	65	39	CCMT09T304	0.5	3320-273
	VRB40-55T						TCMT16T304		3320-274
	VRB40-55S						SCMT09T304		3320-275
	VRB52-70C	B5060	52	70	75	50	CCMT09T304	1	3320-276
	VRB52-70T						TCMT16T304		3320-277
	VRB52-70S						SCMT09T304		3320-278
	VRB68-92C	B6065	68	92	85	64	CCMT120408	2	3320-279
	VRB68-92T						TCMT16T304		3320-280
	VRB68-92S						SCMT120404		3320-281
	VRB90-122C	B6065	90	122	100	80	CCMT120408	2.9	3320-282
	VRB90-122T						TCMT220408		3320-283
	VRB90-122S						SCMT120404		3320-284
	VRB120-164C	VT-BT40-BS70 VT-BT50-BS100 VT-BT50-BS200 VT-BT50-BS300 VT-BT50-BS400	120	164	95	100	CCMT120408	3.8	3320-285
	VRB120-164T						TCMT220408		3320-286
	VRB120-164S						SCMT120404		3320-287
	VRB160-204C		160	204		130	CCMT120408	4.8	3320-288
	VRB160-204T						TCMT220408		3320-289
	VRB160-204S						SCMT120404		3320-290
	VRB200-300C		200	300	95	170	CCMT120408	6.5	3320-291A
	VRB200-300T						TCMT220408		3320-292A
	VRB200-300S						SCMT120404		3320-293A
	VRB300-400C		300	400		260	CCMT120408	10	3320-297A
	VRB300-400T						TCMT220408		3320-298A
	VRB300-400S						SCMT120404		3320-299A

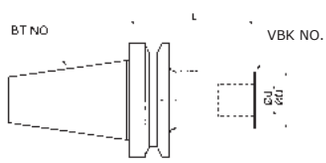
Taper Shank For Boring Heads Series

VERTEX

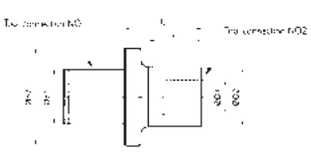
Modular Boring Systems





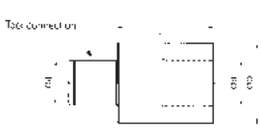


Extension (Reduced)



ORDER NO.	d1	d2	D1	D2	L	ℓ	Applicable Boring Heads	Weight (kg)	CODE NO.
VBQ2-1-36	14	24	11	19	36	30	FBB20	0.1	3320-301
VBQ3-1-41	18	31			41	30	FBB20	0.15	3320-302
VBQ3-2-37			14	24	37	25	VRB25 ; FBB25	0.15	3320-303
VBQ4-1-58	22	39	11	19	58	40	FBB20	0.3	3320-304
VBQ4-2-50			14	24	50	36	VRB25 ; FBB25	0.3	3320-305
VBQ4-3-50			18	31	50	37	VRB32 ; FBB32	0.35	3320-306
VBQ5-1-60	28	50	11	19	60	40	FBB20	0.45	3320-307
VBQ5-2-54			14	24	54	35	VRB25 ; FBB25	0.45	3320-308
VBQ5-2-74					74	55	VRB25 ; FBB25	0.5	3320-309
VBQ5-3-47			18	31	47	29	VRB32 ; FBB32	0.5	3320-310
VBQ5-3-72					72	54	VRB32 ; FBB32	0.6	3320-311
VBQ5-4-42			22	39	42	25	VRB40 ; FBB40	0.5	3320-312
VBQ5-4-67					67	50	VRB40 ; FBB40	0.7	3320-313
VBQ6-1-70	36	64	11	19	70	40	FBB20	0.9	3320-314
VBQ6-2-63			14	24	63	45	VRB25 ; FBB25	0.7	3320-315
VBQ6-2-93					93	75	VRB25 ; FBB25	0.8	3320-316
VBQ6-3-56			18	31	56	39	VRB32 ; FBB32	0.75	3320-317
VBQ6-3-96					96	79	VRB32 ; FBB32	0.95	3320-318
VBQ6-4-51			22	39	51	35	VRB40 ; FBB40	0.85	3320-319
VBQ6-4-101					101	85	VRB40 ; FBB40	1.3	3320-320
VBQ6-5-41			28	50	41	25	VRB52 ; FBB52	0.85	3320-321
VBQ6-5-91					91	75	VRB52 ; FBB52	1.45	3320-322

Extension (Constant Diameter)

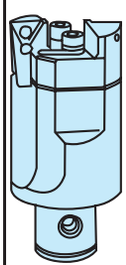


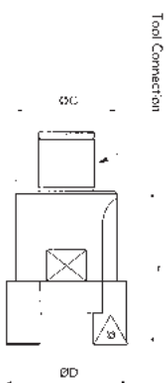
ORDER NO.	d	D	L	Applicable Boring Heads	Weight (kg)	CODE NO.
VBQ1-1-30	11	19	30	FBB20	0.07	3320-323
VBQ2-2-30	14	24	30	VRB25 ; FBB25	0.1	3320-324
VBQ3-3-30	18	31	30	VRB32 ; FBB32	0.15	3320-325
VBQ4-4-45	22	39	45	VRB40 ; FBB40 ; FBB44	0.4	3320-326
VBQ5-5-60	28	50	60	VRB52 ; FBB52 ; FBB55	0.8	3320-327
VBQ6-6-60	36	64	60	VRB68/VRB90 ; FBB68, 100, 150 ; FBB66	1.4	3320-328

Changebale 2 Inserts Rough Boring Head VRB-L

※**Adjustable**

Boring ronge from ø25mm to ø1250mm;
a variety of tool holders and boring heads are for your selection.



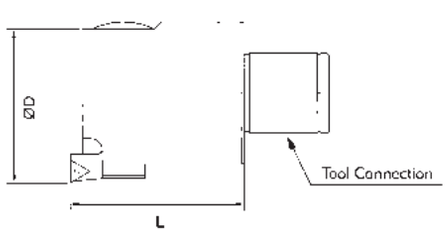


ORDER NO.	Tool connection	D(mm) Boring Range	L (mm)	C (mm)	Insert	Weight (g)	CODE NO.
VRB25-35LC	B2080	25~35	50	24	CCMT060204	0.15	3320-340
VRB32-45LC	B3080	32~45	60	31	CCMT060204	0.3	3320-341
VRB32-45LT					TCMT110204		3320-342
VRB40-55LC	B4070	40~55	74	39	CCMT09T304	0.6	3320-343
VRB40-55LT					TCMT16T304		3320-344
VRB40-55LS					SCMT09T304		3320-345
VRB52-75LC	B5060	52~75	80	50	CCMT09T304	1	3320-346
VRB52-75LT					TCMT16T304		3320-347
VRB52-75LS					SCMT09T304		3320-348
VRB68-100LC	B6065	68~100	90	66	CCMT120408	2.5	3320-349
VRB68-100LT					TCMT16T304		3320-350
VRB68-100LS					SCMT120404		3320-351
VRB90-130LC	B6065	90~130	100	88	CCMT120408	3.1	3320-352
VRB90-130LT					TCMT16T304		3320-353
VRB90-130LS					SCMT120404		3320-354
VRB120-164LC	VT-BT40-BS70 VT-BT50-BS100 VT-BT50-BS200 VT-BT50-BS300 VT-BT50-BS400	120~164	95	100	CCMT120408	3.8	3320-355
VRB120-164LT					TCMT220408		3320-356
VRB120-164LS					SCMT120404		3320-357
VRB160-204LC		160~204		130	CCMT120408	4.8	3320-358
VRB160-204LT					TCMT220408		3320-359
VRB160-204LS					SCMT120404		3320-360
VRB200-310L		200~310	130	180	Optional Inserts CCMT120408 TCMT16T304 TCMT220408 SCMT120404	9.5	3320-361
VRB300-410L		300~410		280		11.5	3320-362
VRB400-510L		400~510		380		13.5	3320-363
VRB500-610L		500~610		480		15.5	3320-364
VRB600-900L	FMA-47.625	600~900	150	580		23	3320-365
VRB900-1200L		900~1200		680		32	3320-366

BORING SYSTEM

FBB Finish Boring Head

Boring diameter from ø20-ø1250mm



Ordering Example

FBH — 52-75 — VBQ5

FBH: Head Type; 52-75: Boring Diameter; VBQ5: Tool Connection

FEATURES:

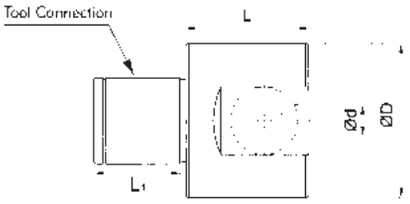
- FBH finish boring head is suitable for finish boring with working ranges from Ø20mm to Ø1250mm on diameter.
- The dial has been graduated into 50 divisions, each of which is 0.01mm on diameter. Available is a sub-dial for finer adjustment.
- High precision internal lead screw with inner lubrication is free from the effects of chip, featuring high durability.
- Coolant nozzle easily cools the insert and prolongs insert's working life.
- Cartridge unit is housed in a square structure with two face support, proving high stability and rigidity.

ORDER NO. / Boring Head Type	Tool Connection	ØD Boring Range	length	Weight (kg)	Insert/Clamping/Screw	CODE NO.
FBB20	B1070	20-26	35	0.1	TPGH080204/Ø2.7xM2/T6	3320-370
FBB25	B2080	25-33	40	0.2		3320-371
FBB32	B3080	32-42		0.3		3320-372
FBB40	B4070	40-55	50	0.5		3320-373
FBB52	B5075	52-75	60	1	TPGH080204/Ø3.2xM2/T6	3320-374
FBB68	B6065	68-102	70	2		3320-375
FBB100	B6065	100-152		2.9		3320-376
FBB150	B6065	150-202		4.2		3320-377

FBB Finish Boring Head

Boring diameter from Ø3 - Ø40 mm

BORING CAPACITY
FBB44 Ø8 - Ø20 m/m
FBB55 Ø12 - Ø40 m/m
FBB66 Ø8 - Ø40 m/m

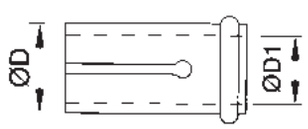


FEATURES:

- Available are three different styles enabling small diameter boring from Ø8mm to Ø40mm. Boring range can be within Ø3mm to Ø10mm if small diameter solid carbide boring bar has been employed.
- The dial has been graduated into 50 divisions, each of which is 0.01mm on diameter. Available is a subdial for finer adjustment.
- High precision internal lead screw with inner lubrication is free from the effects of chip, featuring high durability.
- Cartridge unit is housed in a square structure with two face support, proving high stability and rigidity.

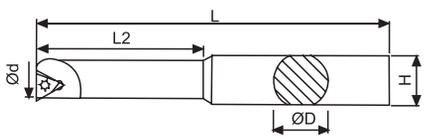
ORDER NO. / Boring Head Type	Tool Connection	Ød Internal Diameter	ØD External Dimeter	L length	L_1	mm feed	Weight (kg)	CODE NO.
FBB44	B4070	10	39	32	Ø22x24L	0-2	0.4	3320-390
FBB55	B5060	12	50	40	Ø28x30L	0-3.5	0.8	3320-391
FBB66	B6065	16	64	50	Ø36x40L	0-5	1.4	3320-392

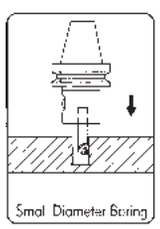
BORING BAR SLEEVE FOR FBB66



ORDER NO.	D mm	D1 mm	Applicable Carbide Tool Holder	CODE NO.
EC1608	16	8	ST08-5M	3320-393
EC1610	16	10	ST10-6M	3320-394
EC1612	16	12	ST12-6M	3320-395

Small Diameter Boring Head FBB44





FOR FBB44 BORING CAPACITY FROM Ø8 - Ø20 MM

ORDER NO.	ØD mm	Ød mm	L mm	L2 mm	H mm	Insert	Clamp Screw	Wrench	CODE NO.
BRB1008-32	10	8	64	32	9	TBGT060104 KYOCERA	M2	T6	3320-400
BRB1010-40		10	72	40					3320-401
BRB1012-45		12	77	27		TPGB090204 KYOCERA	M2.5	T8	3320-402
BRB1016-45		16	77	27					3320-403
BRB1020-45		20	77	27		TPGB090204 KYOCERA	M2.5	T8	3320-404
BRB10-5PCS/SET	BRB1008-32 BRB1010-40 BRB1012-45 BRB1016-45 BRB1020-45								3320-405

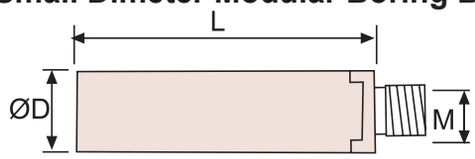
FOR FBB66 BORING CAPACITY FROM Ø8 - Ø40 MM

ORDER NO.	ØD mm	Ød mm	L mm	L2 mm	H mm	Insert	Clamp Screw	Wrench	CODE NO.
BRB1608-32	16	8	74	32	15	TBGT060104 KYOCERA	M2	T6	3320-406
BRB1610-40		10	75	40					3320-407
BRB1612-53		12	85	53		TPGB090204 KYOCERA	M2.5	T8	3320-408
BRB1616-68		16	100	68					3320-409
BRB1620-83		20	115	83		TPGB090204 KYOCERA	M2.5	T8	3320-410
BRB1625-90		25	122	90					3320-411
BRB1630-90		30	122	90					3320-412
BRB1640-90		40	122	90					3320-413
BRB16-8PCS/SET	BRB1608-32 BRB1610-40 BRB1612-53 BRB1616-68 BRB1620-83 BRB1625-90 BRB1630-90 BRB1640-90								3320-414

Carbide Shank Holder

VERTEX

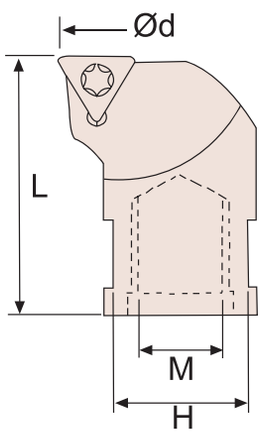
Small Dimeter Modular Boring Bar **Boring diameter from Ø8 - Ø16 mm**



ORDER NO.	L mm	D mm	M mm	Applicable Insert Holder	Applicable Bushing	CODE NO.
ST08-5M-100	100	8	M5	IH09, IH10.5	EC1608	3320-420
ST10-6M-110	110	10	M6	IH12	EC1610	3320-421
ST12-6M-120	120	12		IH14, IH16	EC1612	3320-424
ST16-10M-160	160	16	M10x1.25P	IH18,IH20,IH22,IH24 IH26,IH28,IH30,IH32 IH34,IH36,IH38,IH40	---	3320-426

Insert Holder For Carbide Shank Holder

Boring diameter from Ø9 - Ø40 mm



ORDER NO.	d(mm)	H(mm)	L(mm)	M(mm)	Insert	Clamping Screw	Wrench	CODE NO.
IH09	9	7	18	M5	TPGT080204L SUMITOMO	Ø3.2xM2	T6	3320-430
IH10.5	10.5	7	23	M6				3320-431
IH12	12	8						3320-432
IH14	14	10						3320-433
IH16	16	10	27	M10x1.25P				3320-434
IH18	18	14						3320-435
IH20	20	14						3320-436
IH22	22	14						3320-437
IH24	24	14						3320-438
IH26	26	14						3320-439
IH28	28	14						3320-440
IH30	30	14						3320-441
IH32	32	14						3320-442
IH34	34	14						3320-443
IH36	36	14						3320-444
IH38	38	14						3320-445
IH40	40	14						3320-446

VRB Changeable 2 Inserts Rough Boring Head

Boring diameter from Ø25 - Ø500 mm

- The head is suitable for single bit boring, twin-bit boring and step boring with working diameter from Ø25 mm to Ø350 mm on diameter.
- New cartridge style with built-up rib. The pressure imposed on both cartridges counteracts producing highest rigidity and cutting efficiency, most suitable for a variety of borings.
- Boring head can be easily abjusted to different boring needs for machining on demand. Boring depth can be extended by tool connection.
- Clear side division provides a convenient adjustment without using a tool pre-setter.
- Most suitable for boring on various machine centers or boring mills. Universal design accepts inserts of any brands, which will reduce tool grinding and greatly improve boring performance.
- Patented step boring design; suitable for both level boring and step boring.

Changeable 2 InsertsRough Boring Head VRB 200~900

Boring diameter from Ø25 - Ø204 mm

- Thickened cartridge with higher rigidity.
- Coolant nozzle easily cools the insert elongating its working life.
- Completed with chip pocket, improving chip flow of deep boring.
- Clamp plate solidifies cartridges and head, upgrading cutting rigidity.
- Patented step boring design; suitable for both level boring and step boring.

Enlageable Modular Rough Boring Head With Diameter Over Ø200mm

Boring diameter from Ø200 - Ø2,000 mm

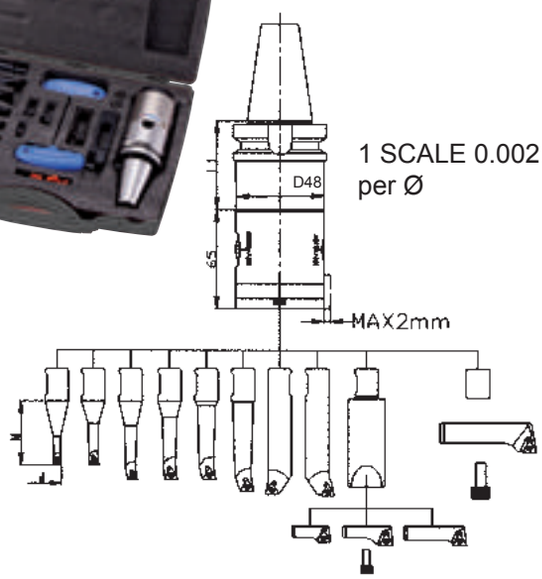
- This type is suitable for large diameter boring with ranges from 200 mm to 810 mm.
- The structure includes common flange and extension slide for both rough and finish boring heads. Adjustment range is within 110 mm on diameter.
- Options of various inserts for rough boring of different materials and boring styles.
- Available is the horizontal slide made of Aluminum alloy to reduce total weight.
- Options of external boring kit with boring range from Ø20mm to Ø300mm.

Precision Finish Boring Head Sets

Boring diameter Ø 6-90 mm

NEW

● Boring Bar PAGE C83



1 SCALE 0.002 MM per Ø

- Processing range Ød 6-90 mm.
- This slim set allows customer to process boring work in the narrow space with high precision.
- Precisely ground and hardened shank integrating with boring head for routing and smooth operation.
- Please keep boring head clean and lubricate constantly.

Boring

SET TYPE

ORDER NO.	Boring Range Ø	Shank	L1	Head Dia. ØD	PCS/SET	CODE NO.
VBHD-BT-30	6-90	BT30-VCK4-45	45	48	14 PCS/SET	3320-450
VBHD-BT-40		BT40-VCK4-60	60			3320-451
VBHD-BT-50		BT50-VCK4-75	75			3320-452
VBHD-SK-40		SK40-VCK4-65	65			3320-453
VBHD-SK-50		SK50-VCK4-75	75			3320-454
VBHD-NT-40		NT40-40-VCK4-60	60			3320-455
VBHD-NT-50		NT50-50-VCK4-60	60			3320-456
VBHD-HSK63A		HSK63A-VCK4-75	75			3320-457
VBHD-HSK100A		HSK100A-VCK4-75	75			3320-458

VBHD SHANK

ORDER NO.	L	WEIGHT	CODE NO.
BT30-VCK4-45	45		3320-450S
BT40-VCK4-60	60		3320-451S
BT50-VCK4-75	75		3320-452S
SK40-VCK4-65	65		3320-453S
SK50-VCK4-75	75		3320-454S
NT40-40-VCK4-60	60		3320-455S
NT50-50-VCK4-60	60		3320-456S
HSK63A-VCK4-75	75		3320-457S
HSK100A-VCK4-75	75		3320-458S

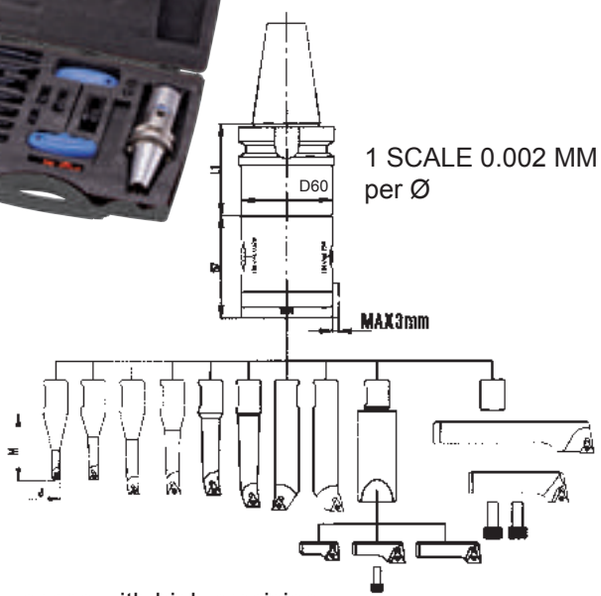
ACCESSORIES: BORING BAR SIZE FOR SET TYPE

Boring Bar	Range d	Depth m	Insert	Screw	Wrench	Feed mm/REV.
BR-1606-20	6-9	20	WBGT060102L	TS2	T6	0.05-0.1
BR-1608-28	8-11	28	TBGT060102L			0.05-0.1
BR-1610-36	10-13	36	TBGT060104L			0.07-0.15
BR-1612-42	12-15	42	TPGT090202L	TS25	T8	0.05-0.1
BR-1614-50	14-17	50				
BR-1616-60	16-20	60				
BR-1620-63	20-24	63	TPGT090204L			0.07-0.15
BR-1624-64	24-28	64				
BM5		60+SRTP2838/SRTP3652/SRTP4470		M5 X15 CAP	4	0.05-0.1
SRTP2838	28-38	+10	TPGT090202L	TS25	T8	
SRTP3652	36-52	+12				
SRTP4470	44-70	+12	TPGT090204L			0.07-0.15
BM8				M8 X 15 CAP	6	
SRTP58-90	58-90	+20	TPGT090204L	TS25	T8	

Precision Finish Boring Head Sets

Boring diameter Ø 6-150 mm

● Boring Bar PAGE C83



1 SCALE 0.002 MM per Ø

- Processing range Ød 6-150 mm.
- This slim set allows customer to process boring work in the narrow space with high precision.
- Please keep boring head clean and lubricate constantly.
- Precisely ground and hardened shank integrating with boring head for routing and smooth operation.

Boring

SET TYPE

ORDER NO.	Boring Range Ø	Shank	L1	Head Dia. ØD	PCS/SET	CODE NO.
VBHE-BT-40	6-150	BT40-VCK5-60	60	60	15 PCS/SET	3320-460
VBHE-BT-50		BT50-VCK5-75	75			3320-461
VBHE-SK-40		SK40-VCK5-65	65			3320-462
VBHE-SK-50		SK50-VCK5-75	75			3320-463
VBHE-NT-40		NT40-40-VCK5-60	60			3320-464
VBHE-NT-50		NT50-50-VCK5-75	75			3320-465
VBHE-HSK63A		HSK63A-VCK5-75	75			3320-466
VBHE-HSK100A		HSK100A-VCK5-75	75			3320-467

VBHE SHANK

ORDER NO.	L	WEIGHT	CODE NO.
BT40-VCK5-60	60		3320-460S
BT50-VCK5-75	75		3320-461S
SK40-VCK5-65	95		3320-462S
SK50-VCK5-75	75		3320-463S
NT40-40-VCK5-60	60		3320-464S
NT50-50-VCK5-75	75		3320-465S
HSK63A-VCK5-75	75		3320-466S
HSK100A-VCK5-75	75		3320-467S

ACCESSORIES: BORING BAR SIZE FOR SET TYPE

Boring Bar	Range d	Depth m	Insert	Screw	Wrench	Feed mm/REV.
BR-1606-20	6-9	20	WBGT060102L	TS2	T6	0.05-0.1
BR-1608-28	8-11	28	TBGT060102L			0.05-0.1
BR-1610-36	10-13	36	TBGT060104L			0.07-0.15
BR-1612-42	12-15	42	TPGT090202L	TS25	T8	0.05-0.1
BR-1614-50	14-17	50				
BR-1616-60	16-20	60				
BR-1620-63	20-24	63	TPGT090204L			0.07-0.15
BR-1624-64	24-28	64				
BM5		60+SRTP2838/SRTP3652/SRTP4470		M5 X15 CAP	4	0.05-0.1
SRTP2838	28-38	+10	TPGT090202L	TS25	T8	
SRTP3652	36-52	+12				
SRTP4470	44-70	+12	TPGT090204L			0.07-0.15
BM8				M8 X 15 CAP	6	
SRTP70110	70-110	+20	TPGT090202L	TS25	T8	0.05-0.1
SRTP110150	110-150	+20	TPGT090204L			0.07-0.15

Micro Boring Head Set

I Scale 0.002 mm Boring diameter from Ø6 - Ø154mm

NEW

Boring Bar
PAGE C83

- Processing range Ø6-154 mm.
- Precisely ground and hardened shank integrating with boring head for routing and smooth operation.
- Please keep boring head clean and lubricated constantly.
- Easy & Simple operation.
- Compelete set.
- Fine adjustment.
- Luxury box.
- Material : tool steel

Boring

SET TYPE

ORDER NO.	Boring Range Ø	Shank	L	Pcs/SET	Weight (kgs)	CODE NO.
VBH55-BT40	6-154	BT40-VBK5-75	75	18		3320-470
VBH55-BT50		BT50-VBK5-105	105	18		3320-471

INCLUDING ACCESSORIES : BORING BAR SIZE FOR SET TYPE

Boring Bar		Range	Insert	Screw	Wrench
BR1606A-21		Ø6 - Ø9	WBGT060102	Ø3 x M2	T6
BR1608A-28		Ø8 - Ø11	TBGT060102	Ø2.7 x M2	T6
BR1610A-35		Ø10 - Ø13			
BR1612A-42		Ø12 - Ø15	TPGT090204	M2.5	T8
BR1614A-50		Ø14 - Ø17			
BR1616A-60		Ø16 - Ø20			
BR1620A-65		Ø20 - Ø24			
BR1624A-68		Ø24 - Ø28			
C16-BRM-SP27		Ø27 - Ø40			
C16-BRM-SP35		Ø35 - Ø50			
C16-BRM-SP45		Ø45 - Ø68			
CB-M10-SP55		Ø55 - Ø80			
CB-M10-SP68		Ø68 - Ø104			
CB-M10-SP100		Ø100 - Ø154			

Micro Boring Head Set

I Scale 0.002 mm Boring diameter from Ø6 - Ø204mm

NEW

Boring Bar
PAGE C83

- Processing range Ø6-204 mm.
- Precisely ground and hardened shank integrating with boring head for routing and smooth operation.
- Please keep boring head clean and lubricated constantly.
- Easy & Simple operation.
- Compelete set.
- Fine adjustment.
- Luxury box.
- Material : tool steel

Boring

SET TYPE

ORDER NO.	Boring Range Ø	Shank	L	Pcs/SET	Weight (kgs)	CODE NO.
VBH68-BT40	6-204	BT40-VBK6-65	65	19		3320-476
VBH68-BT50		BT50-VBK6-95	95	19		3320-477

INCLUDING ACCESSORIES : BORING BAR SIZE FOR SET TYPE

Boring Bar		Range	Insert	Screw	Wrench
BR1606A-21		Ø6 - Ø9	WBGT060102	Ø3 x M2	T6
BR1608A-28		Ø8 - Ø11	TBGT060102	Ø2.7 x M2	T6
BR1610A-35		Ø10 - Ø13			
BR1612A-42		Ø12 - Ø15	TPGT090204	M2.5	T8
BR1614A-50		Ø14 - Ø17			
BR1616A-60		Ø16 - Ø20			
BR1620A-65		Ø20 - Ø24			
BR1624A-68		Ø24 - Ø28			
C16-BRM-SP27		Ø27 - Ø40			
C16-BRM-SP35		Ø35 - Ø50			
C16-BRM-SP45		Ø45 - Ø68			
CB-M10-SP68		Ø68 - Ø104			
CB-M10-SP100		Ø100 - Ø154			
CB150-RCM100-SP100		Ø150 - Ø204			

High Precision Boring Head Set

NEW

1 SCALE 0.005 mm
0.01 mm per Ø
BORING CAPACITY Ø8-Ø46

Boring Bar
PAGE C83

Clamping Screw For Boring Bar

VBH 620

- Good for high speed, high precision boring work.
- Made of tool steel, high rigidity, no deformation.
- Each dividing scale is 0.005 mm, total stroke: 6 mm. For Ø diameter is 0.01 mm
- Can choose any taper (BT40, BT50, SK40, SK50) shank.
- Include 8 boring bars, range Ø8 ~ Ø46 mm.
- Boring bar size = Ø16 x 8 pcs
- Insert locking screw 8 x 3 = 24 pcs
- Wrench x 6 pcs
- 4 mm T wrench x 1 pcs

Boring

SET TYPE

ORDER NO.	SHANK TYPE	DRAWBAR S.A.E	THREAD METRIC	Weight (kgs)	CODE NO.
VBH620-NT40	NT-40	5/8″-11W	M16X2.0P	6.5	3320-480
VBH620-NT50	NT-50	1″-8W	M24X3.0P	7.8	3320-481
VBH620-BT40	BT-40		M16X2.0P	6.5	3320-482
VBH620-BT50	BT-50		M24X3.0P	8	3320-483
VBH620-SK40	SK-40		M16X2.0P	6.5	3320-484
VBH620-SK50	SK-50		M24X3.0P	7.8	3320-485

BORING BAR FOR BORING HEAD

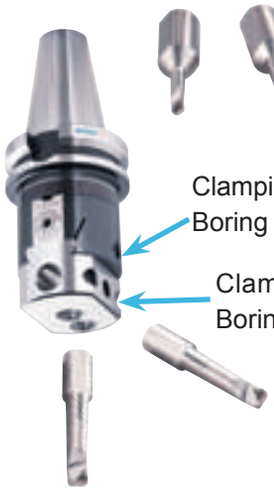
BORING BAR	RANGE d	DEPTH m	SHANK L	INSERT	SCREW	WRENCH
BRB1608-32	8-11	32	80	TBGT060102L	TS2001	T6
BRB1610-40	10-13	40	80			
BRB1612-53	12-15	53	85	TPGH090204L	TS2504	T8
BRB1616-68	16-21	68	100			
BRB1620-83	20-26	83	115	TPGH110304L	TS3005	T10
BRB1625-90	25-31	90	122			
BRB1630-90	30-36	90	122			
BRB1640-90	40-46	90	122			

High Precision Boring Head Set

NEW

1 SCALE 0.005 mm
0.01 mm per Ø
BORING CAPACITY Ø8-Ø280

Boring Bar
PAGE C83



VBH 2084

- Good for high speed, high precision boring work.
- Made of tool steel, high rigidity, no deformation.
- Each dividing scale is 0.005 mm, total stroke: 27 mm. For Ø diameter is 0.01 mm
- Can choose any taper (BT40, BT50, SK40, SK50) shank.
- Include 8 boring bars, range Ø8 ~ Ø280 mm.
- Boring bar size = Ø20 x 8 pcs
- Insert locking screw 8 x 3 = 24 pcs
- Wrench x 6 pcs
- Hexa 6 wrench x 1 pcs

Boring

SET TYPE

ORDER NO.	SHANK TYPE	DRAWBAR S.A.E	THREAD METRIC	Weight (kgs)	CODE NO.
VBH2084-R8	R-8	7/16″-20UNF	n/a	6.6	3320-491
VBH2084-NT30	NT-30	1/2″-12W	M12X1.75P	6.6	3320-492
VBH2084-NT40	NT-40	5/8″-11W	M16X2.0P	7	3320-493
VBH2084-NT50	NT-50	1″-8W	M24X3.0P	9	3320-494
VBH2084-BT40	BT-40		M16X2.0P	8	3320-495
VBH2084-BT50	BT-50		M24X3.0P	10.4	3320-496
VBH2084-SK40	SK-40		M16X2.0P	8	3320-497
VBH2084-SK50	SK-50		M24X3.0P		3320-501
VBH2084-MT3	MT-3		M12X1.5P	6.6	3320-498
VBH2084-MT4	MT-4		M16X2.0P	7	3320-499
VBH2084-MT5	MT-5		M24X3.0P	8	3320-500

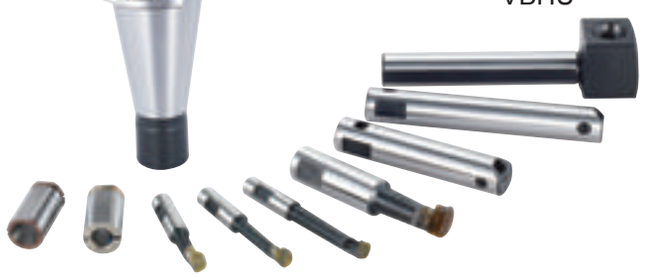
BORING BAR FOR BORING HEAD

BORING BAR	RANGE d	DEPTH m	SHANK L	INSERT	SCREW	WRENCH
BRB2008-32	8-11	32	80	TBGT060102L SUMITOMO	TS2001	T6
BRB2010-40	10-13	40	80			
BRB2012-53	12-17	53	85	TPGH090204L MITSUBISHI	TS2504	T8
BRB2016-68	16-21	68	100			
BRB2020-83	20-130	83	115	TPGH110304L MITSUBISHI	TS3005	T10
BRB2025-96	25-135	96	135			
BRB2030-115	30-140	115	154			
BRB2035-97-L	120-280	14	99			

Universal Boring And Facing Master Head

BORING CAPACITY Ø5-Ø250 **1 SCALE 0.01 mm per Ø**
FOR VERTICAL HOLE BORING IS Ø110

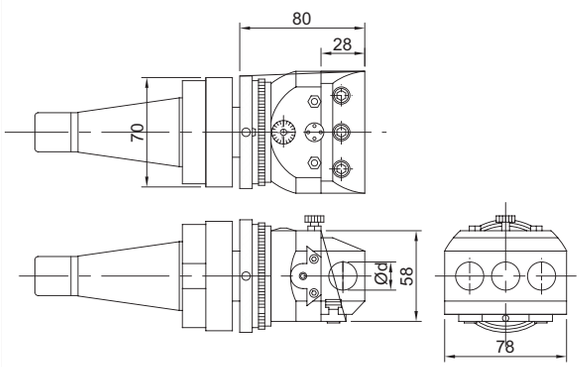
VBHU



Boring

Boring Bar
PAGE C83

ORDER NO.	SHANK TYPE	DRAWBAR THREAD		Weight (kg)	CODE NO.
		S.A.E	METRIC		
VBHU-202	MT-3	1/2″-12W	M12X1.5P	6	3401-001
VBHU-203	MT-4	5/8″-11W	M16X2.0P	6.3	3401-002
VBHU-204	MT-5	1″-8W	M24X3.0P	7	3401-003
VBHU-205	R-8	7/16″-”20UNF	n/a	6.2	3401-004
VBHU-206	NT-30	1/2″-12W	M12X1.75P	6	3401-005
VBHU-207	NT-40	5/8″-11W	M16X2.0P	6.2	3401-006
VBHU-208	NT-50	1″-8W	M24X3.0P	8.5	3401-007
VBHU-209	BT-40		M16X2.0P	6.9	3401-008
VBHU-210	C-25			4.5	3401-009
VBHU-211	SK-40		M16X2.0P	5.6	3401-010
VBHU-212	SK-50		M24X3.0P	8.3	3401-011
VBHU-213	BT-50		M24X3.0P	9.7	3401-012
VBHU-214	C-20			6	3401-013



SPECIFICATION VBHU

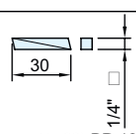
Unit:mm

ACTUAL SIZE	OVERING BAR HOLE SIZE	BORING BAR HOLE SIZE	CENTER DIST BETWEEN HOLES.	CROSS HOLE DIA	OFFSET
78	100	18	23	18	15

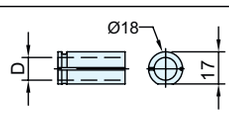
It is construction with precision parts, freedom of selection feeding quantity, auto feed and stop. Processing range from 5mm to 250mm.

Stop Rod

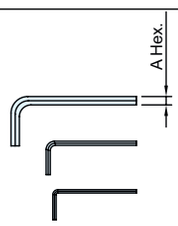
BP-17



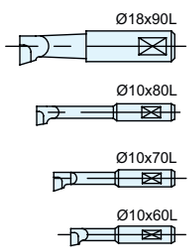
Square Bit(HSS) BP-18



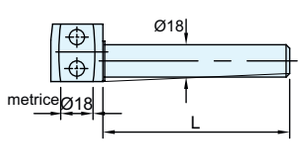
Clamping Sleeve	
metrice	D
BP-7	Ø10
BP-8	Ø12



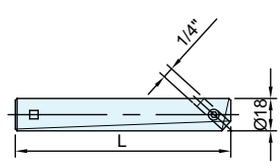
Allen Key	
	A
BP-14	4
BP-15	5
BP-16	6



Boring Bar	
metric	ØxL
BP-9	Ø18x90
BP-10	Ø10x80
BP-11	Ø10x70
BP-12	Ø10x60



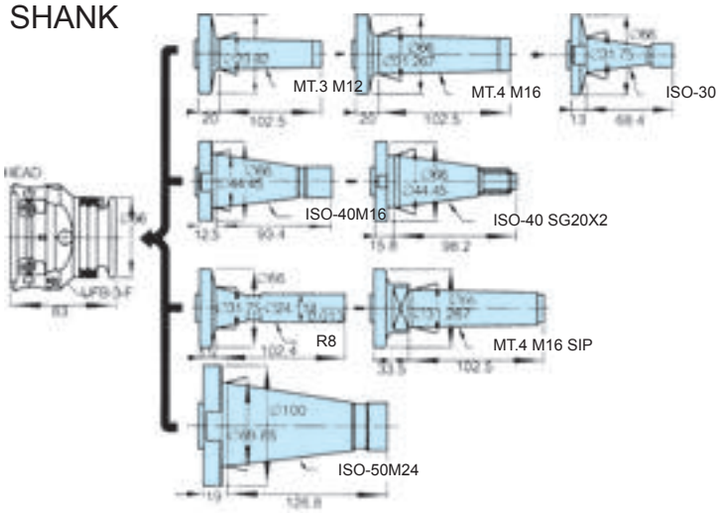
Boring Bar	
metrice	L
BP-21	104

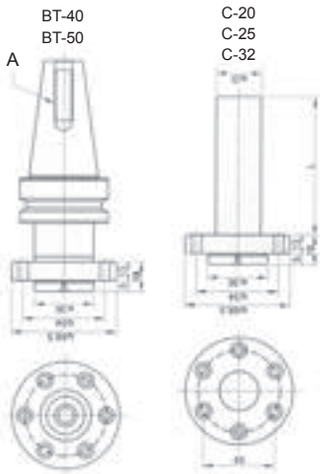


Boring Bar	
metrice	L
BP-1	90
BP-2	120

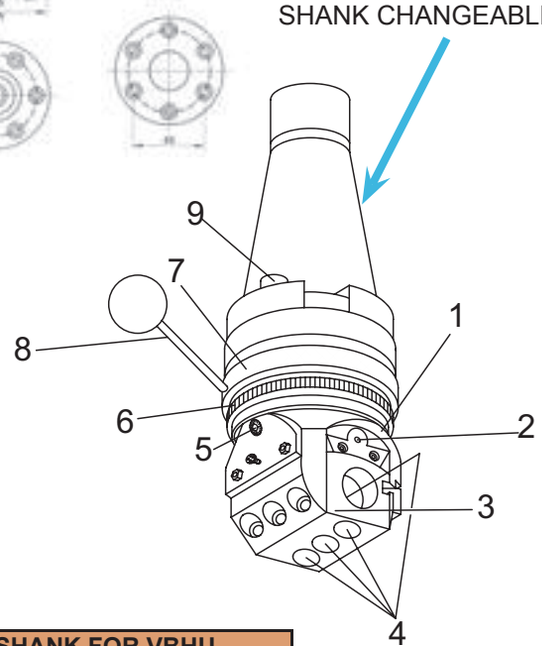
Interchangeable Shanks

SHANK





SHANK CHANGEABLE



Main part of the universal boring heads is the body(1), in which the tool slide (3) moves on dovetail guideways. The tool slide is provided with holes for accommodation of tools and tool holders(4). In boring holes or turning extenal cylindrical surfaces, the tool is adjusted with the aid of the graduated dial for fine setting of tool slide(5), one division of which means a change in diameter of bored hole by .0005″.

On the types rapid adjustment of the tool slide(3) can be produced by rotating the graduated dial for quick adjustment of the tool slide(2).

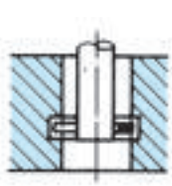
During recessing, turning of front or rear facings or similar jobs calling for automatic transverse feed movement to the tool slide, the preselected feed movement to the tool slide is engaged with the aid of the engagement ring (6). After setting of tool, the automatic transverse feed movement to the tool slide is started by braking of the brake ring(7), by means of the handle(8).

The cluth(9) provides for tripping of the automatic feed movement when cutting resistance increases or when the trip dog is approached.

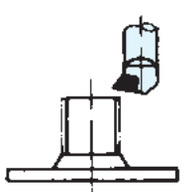
Mechanism of the boring heads has a lubrication circuit delivering oil from two lubricators to all friction surfaces.

All parts are hardened and working surfaces are ground.

SHANK FOR VBHU-		
MT-3	MT-4	MT-5
NT-30	NT-40	NT-50
R-8		
C-20	C25	C-32
BT-40		BT-50
	SK-40	SK-50

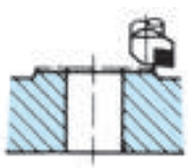


Recessing

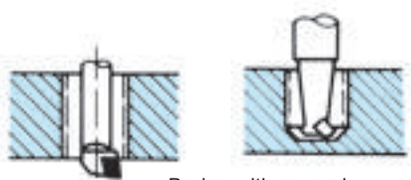


Outside turning

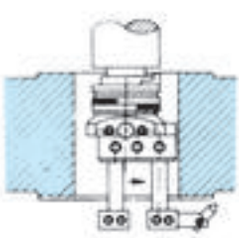
From inside inward



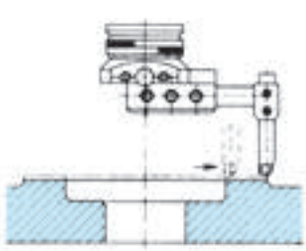
From inside outward



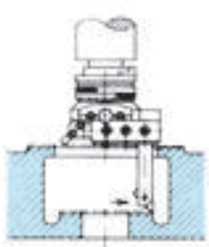
Boring with several different bits from 5Ø -250mm



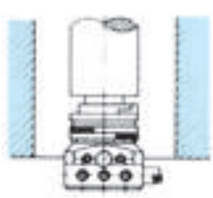
Facing of the reverse side by using boringbar holders contained in attachment.



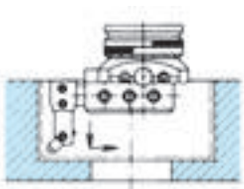
Facing of large ø with long bor ingbar holden reinforced by rings and draw in screw



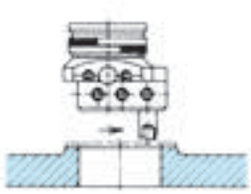
Facing in two areas with one boringbar and boringbar holder



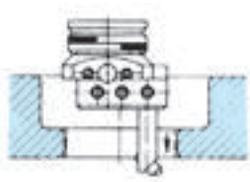
Because of the small construction of the facing and boring heads deep bores can be made. In this case the boring bit is fixed directly in the side.



Boring and facing with short boringbar holder and a bor ingbar



Facing with bit fixed directly in slide



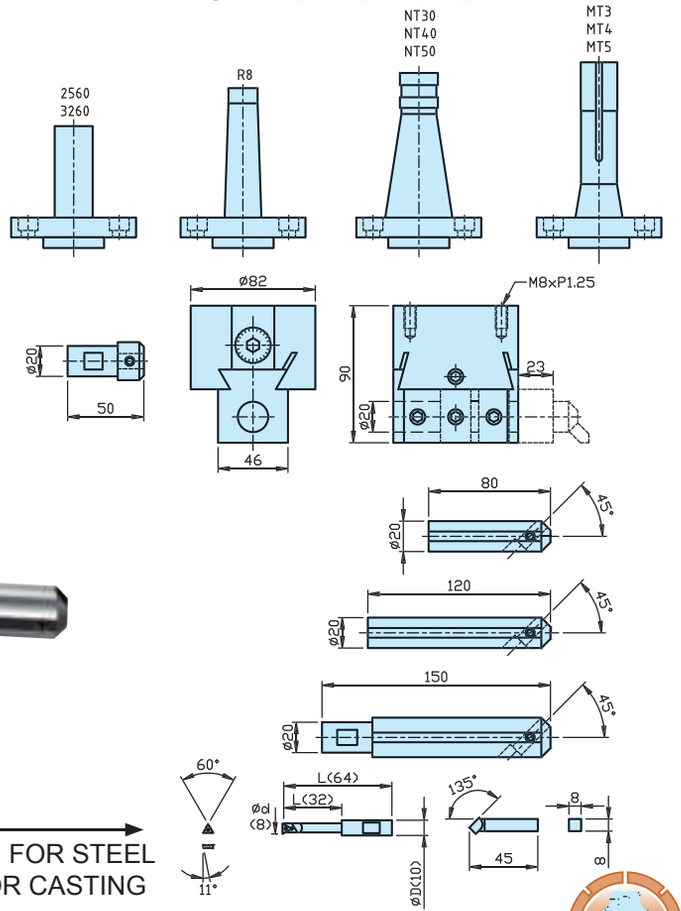
Boring with long boringbar

Boring Head Sets

VERTEX

STANDARD TYPE

● Boring Bar
PAGE C83



INSERT NO. ⟶
TBGT060102L-W-T1200A FOR STEEL
TBGT060102L-W-G11 FOR CASTING
"SUMITOMO" BRAND

Boring

1 SCALE 0.005 mm, 0.01 mm per Ø

Processing Range ø10 ~ ø240 mm

Simple, extremely rigid construction, Finest materials and craftsmanship are employed to combine strength, flexibillity and accuracy in a tool of unique design. 2 vertical boring tool holes: one centered and one offset. One cross hole for greater versatility and capacity. Dependable adjustment --- far spread graduation for closer reading. Perfectly balanced for high speed operation.
Precision ground & hardened shank are integrating with the head for routing and smoother operation.

MT-3, 4, 5
NT-30, 40 , 50
BT-40, 50
SK-40, 50
C-25, 32

FULL SET

ORDER NO.	SHANK TYPE	DRAWBAR THREAD		Weight (kgs)	CODE NO.
		S.A.E	METRIC		
VBH-102	MT-3		M12X1.75P	5.9	3401-101
VBH-103	MT-4		M16X2.0P	6.1	3401-102
VBH-104	MT-5		M20X3.0P	7	3401-103
VBH-105	R-8	7/16" ~20UNF		5.9	3401-104
VBH-106	NT-30	1/2"-12W or 1/2"-13W	M12X1.75P	5.8	3401-105
VBH-107	NT-40	5/8"-11W	M16X2.0P	6	3401-106
VBH-108	NT-50	1"-8W	M24X3.0P	8.9	3401-107
VBH-109	BT-40	-	M16X2.0P	7.1	3401-108
VBH-110	SK-40	-	M16X2.0P	6.8	3401-109
VBH-111	C-25			5.7	3401-110
VBH-112	BT-50		M24X3.0P	9.4	3401-111
VBH-113	SK-50		M24X3.0P	5.9	3401-112
VBH-114	C-32			5.9	3401-113

SHANK FOR BORING HEAD

ORDER NO.	VBH-MT3	VBH-MT4	VBH-MT5	VBH-R8
WEIGHT (KG)	0.6	1.2	2.1	1
CODE NO.	3401-120	3401-121	3401-122	3401-123

ORDER NO.	VBH-NT30	VBH-NT40	VBH-NT50	VBH-BT40
WEIGHT (KG)	1.1	1.2	3.9	1.9
CODE NO.	3401-124	3401-125	3401-126	3401-127

ORDER NO.	VBH-SK40	VBH-C25	VBH-BT50	VBH-SK50
WEIGHT (KG)	1.9	1.5	3.1	3.98
CODE NO.	3401-128	3401-129	3401-130	3401-131

Boring Head Set C-Type

1 SCALE 0.01 mm
0.02 mm per Ø

● Boring Bar
PAGE C83

VBHC-BC2 SET TYPE

MAX. BORING DEPTH 50 mm

Here is a sturdy unit of extended boring range, capable of peeling off heavy roughing cuts as well as a tool of extreme sensitivity.
The use of a wide base bar holder, resting securely on the body, eliminates the need for a separate side plate. You will note this has now become an integral part of the body.
The direct reading adjusting screw is ground affer hardening and a plainly marked dial face in nonreflecting satin chrome allows easy reading and adjustments of 0.01 or less.
All Criterion Boring Heads have threaded backs for use with a variety of shanks. This model takes a 1-1/2"-18 threaded shank.
SHANK SIZE: NT-30,40,50, MT-3,4,5,R8

VBHC-BC3 SET TYPE

BORING CAPACITY Ø10~Ø110

ORDER NO.	WEIGHT (kgs)	CODE NO.
VBHC-R-8-BC-2	2	3401-150
VBHC-MT-2-BC-2	1.66	3401-149
VBHC-MT-3-BC-2	1.9	3401-151
VBHC-MT-4-BC-2	2.1	3401-152
VBHC-NT-30-BC-2	2.2	3401-153
VBHC-NT-40-BC-2	2.8	3401-154
VBHC-BT-30-BC-2	2.65	3401-155
VBHC-BT-40-BC-2	2.65	3401-156
VBHC-BT-50-BC-2	5.65	3401-157
VBHC-C-20-BC-2	1.75	3401-158
VBHC-SK-40-BC-2		3401-174
VBHC-SK-50-BC-2		3401-176

BORING CAPACITY Ø10~Ø220

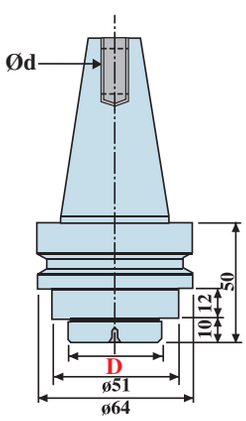
ORDER NO.	WEIGHT (kgs)	CODE NO.
VBHC-R-8-BC-3	4.2	3401-160
VBHC-MT-2-BC-3	4	3401-148
VBHC-MT-3-BC-3	4	3401-161
VBHC-MT-4-BC-3	4.3	3401-162
VBHC-NT-30-BC-3	4.1	3401-163
VBHC-NT-40-BC-3	4.7	3401-164
VBHC-NT-50-BC-3	6.9	3401-165
VBHC-BT-30-BC-3	4.34	3401-166
VBHC-BT-40-BC-3	4.7	3401-167
VBHC-BT-50-BC-3	7.7	3401-168
VBHC-C-20-BC-3	4	3401-169
VBHC-SK-40-BC-3		3401-175
VBHC-SK-50-BC-3		3401-177

Boring Head Shank C-Type

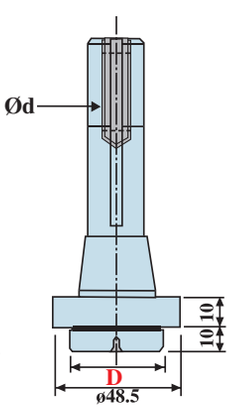
FOR VBHC-TYPE
AND BC-2, BC-3, BC-4
BORING HEAD

D: 1 1/2″-18UNC
The shanks are made tor for C-type boring head use.
Also it can be replaced from time to time.

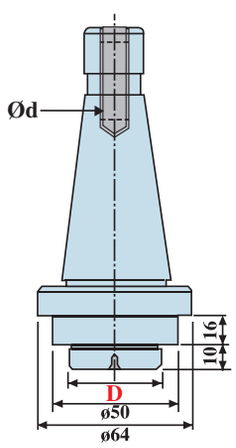
BT-40, 50



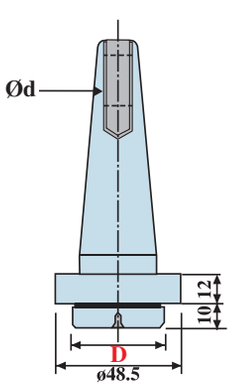
R-8



	Ød
NT-30	M12x1.75P 1/2″-12UNC
NT-40	M16x2.0P 5/8″-11UNC
NT-50	M24x3.0P 1″-8UNC



	Ød
MT-2	M10x1.5P 3/8-16NC
MT-3	M12x1.75P 3/8″-16UNC
MT-4	M16x2.0P 5/8″-11UNC
MT-5	M24x3.0P 1″-8UNC

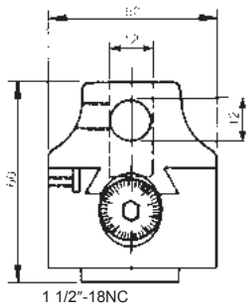


ORDER NO.	VBC-R8	VBC-NT30	VBC-NT40	VBC-MT2	VBC-MT3	VBC-MT4	VBC-MT5
WEIGHT (KG)	0.4	0.7	1.3	0.39	0.6	0.9	1.6
CODE NO.	3401-210	3401-211	340-212	3401-209	3401-213	3401-214	3401-215

ORDER NO.	VBC-BT40	VBC-BT50	VBC-C20	VBC-SK40	VBC-BT30	VBC-SK50
WEIGHT (KG)	1.4	3.97	0.4	1.28	1.1	1.3
CODE NO.	3401-216	3401-217	3401-219	3401-222	3401-223	3401-224

C-Type Boring Head

ORDER NO. VBC-2



1 SCALE 0.01 mm
0.02 mm per Ø

Here is a small head that will be in constant demand in any shop.
Note the wide base bearing surface that assures maximum rigidity even when the bar holder is in an off-set position. This wide base design is a recent Criterion innovation that increases bearing surfaces by 50% over the older models.

A 1/2″ double hole bar holder with a 1/2″ cross hole is available.
The unit has a 1 1/2″-18NC threaded back and also features a direct reading dial screw.

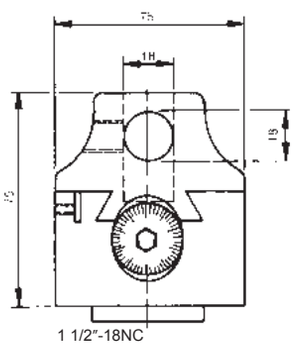
BORING HEAD

SPECIFICATION

BORING CAPACITY Ø10-Ø100

ORDER NO.	ACTUAL SIZE	OVERALL LENGTH	BORING BAR HOLE SIZE	CENTER DIST BETWEEN HOLES.	CROSS HOLE DIA	OFFSET	WEIGHT (kg)	CODE NO.
VBC-2(I)	2″Dia.	2-7/16″	1/2″	5/8″	1/2″	5/8″	0.7	3401-301
VBC-2(m)	50	62	12	15	12	15	0.8	3401-302

ORDER NO. VBC-3



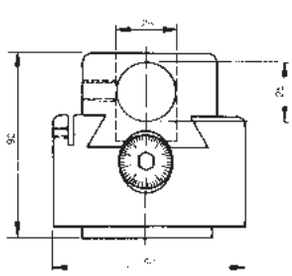
1 SCALE 0.01 mm
0.02 mm per Ø

Here is a sturdy unit of extended boring range, capable of peeling off heavy roughing cuts as well tool of extreme sensitivity. The use of a wide-base bar-holder resting securely on the body, eliminates the need for a separate side plate. You will notice it has now become an integral part of the body.
The direct reading adjusting screw is ground after hardening and a plainly marked dial face in non-reflecting satin chrome allows easy reading and adjustmens of. 0005 or less.
All Criterion Boring Heads have threaded backs for use with a variety of shanks. This model takes a 1-1/2″-18NC threaded shank.

SPECIFICATION

BORING CAPACITY Ø10-Ø220

ORDER NO.	ACTUAL SIZE	OVERALL LENGTH	BORING BAR HOLE SIZE	CENTER DIST BETWEEN HOLES.	CROSS HOLE DIA	OFFSET	WEIGHT (kg)	CODE NO.
VBC-3(I)	3″Dia.	3.5/32″	3/4″	15/16″	3/4″	1″	2	3401-303
VBC-3(m)	75	80	18	23	18	25	2	3401-304



1 SCALE 0.01 mm
0.02 mm per Ø

This is a bigger boring head which can be put on alarge machine to process more as you want. The radius of boring hole can reach on about ø 400mm long by a boring bar of 160mm.
All Criterion Boring Heads have threaded backs for use with a variety of shanks. This model takes a 1-1/2”-18NC threaded shank.

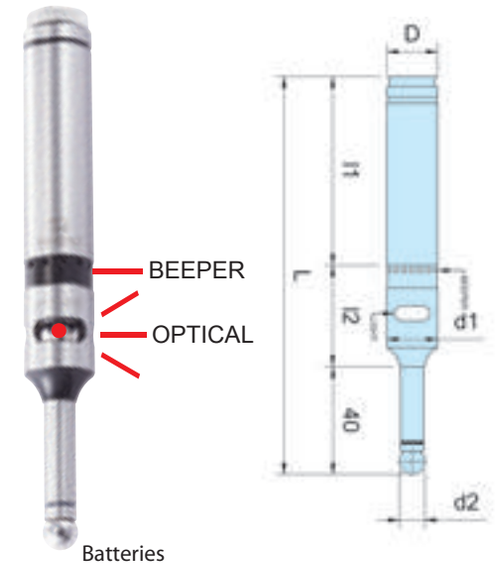
SPECIFICATION

BORING CAPACITY Ø10-Ø250

ORDER NO.	ACTUAL SIZE	OVERALL LENGTH	BORING BAR HOLE SIZE	CENTER DIST BETWEEN HOLES.	CROSS HOLE DIA	OFFSET	WEIGHT (kg)	CODE NO.
VBC-4(I)	4″Dia.	3-1/2″	1″	1-1/4″	1″	1″	4	3401-305
VBC-4(m)	100	90	25	32	25	25	4	3401-306

Touch Point Sensor

Edge Finder with Beeper & Optical



- No need to rotate while measuring.
- The red light was sealed with setting red-glue; it can concentrate the light and resist water.
- The sensor beeps while the red light is on.
- The sensor will beep when the user couldn't see the reverse side or get a clear sight.
- Example. If sensor's light is working, visually you couldn't see inside of the inner hole, while probing the user can be warned by the beeper.
- When probe the deep hole, you can't see the red light, but you can hear the sound from beeper.
- Accuracy: within ±0.005mm.

Batteries
used:UM5#,12V*1PCS

OPTICAL TYPE WITH BEEPER

Unit:mm

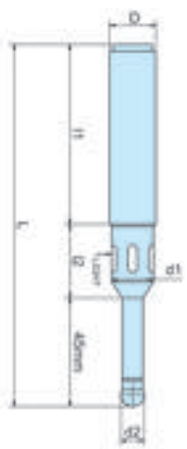
ORDER NO.	D	d1	d2	L	l1	l2	BATTERY TYPE	WEIGHT (kg)	CODE NO.
VPS-20B	Ø20	18	10	157	77	41	UM-5#(SP) x1PCS/12V	0.4	3402-001
VPS-32B	Ø32	18	10	157	74	41		0.7	3402-002
VPS-3/4B	Ø3/4	18	10	157	74	41		0.7	3402-012

Touch Point Sensor

Optical Type

Without Beeper

VPS-20 VPS-32



- High sensitivity position sensor.
- Red pilot can be seen clearly.
- Whole travel of red pilot is sparkling, detecting also can be done during turning while spindle stops.
- Location of end surface, outter circle dia.,inner circle dia. of the work-piece for processing can be detected with full effect.
- Deviced with safety line excess, ball supported by spring, so even line excess, it will be separtated easily from the base shown as the fig.
- The precision will reach up to micrometer while the ball returns to center position.
- Edge Finder
- Accuracy:Within ±0.005mm

OPTICAL TYPE

Unit:mm

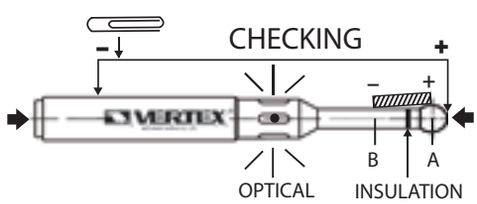
ORDER NO.	D	d1	d2	L	l1	l2	BATTERY TYPE	WEIGHT (kg)	CODE NO.
VPS-20	20	18	10	157	76	33	UM-5#(SP) x2P/R1./1.5V	0.4	3402-003
VPS-32	32	18	10	157	74	41		0.7	3402-004

After Reading the Following instruction,please use touch point sensor correctly due to it's a highly sensitive position detector. Don't Rotate the touch point sensor while using it.

1.Install BATTERY

Take off the screw cover and insert batteries correctly. Do not insert batteries upside down.

Batteries
used:UM5#,12V*2PCS

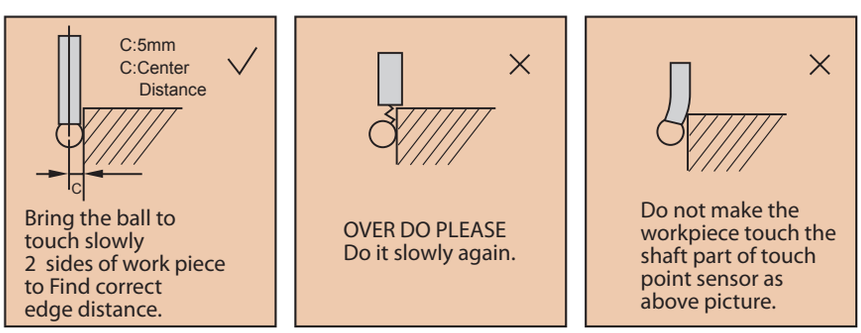


2.CONFIRMATION OF LIGHTING

CHECK the lighting of red lamp by touching A-B part with a metal (clip,L-PLATE etc.)

3.MEASURING METHOD

As soon as the ball (outside dia. 10mmø)touches the work piece with the main spindle stopped, The red lamp lights on.

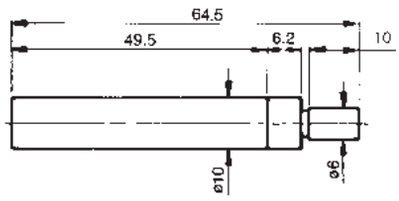


請注意／光電式尋邊器不適合迴轉使用
Notice: optical edge finder is not suited FOR Rotation.

Touch Point Sensor

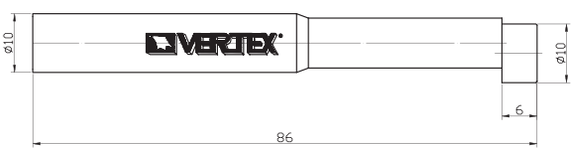
Edge Finder

VPS-201



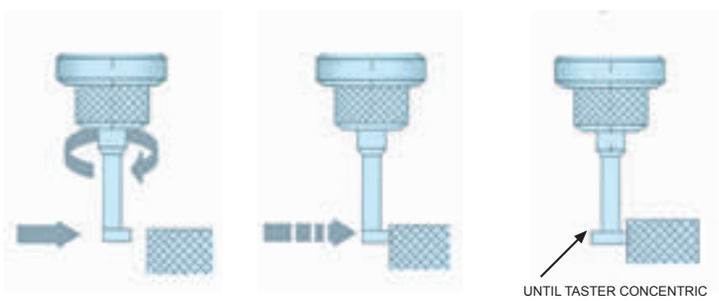
This series is a high precision setting device for positioning the accurate center between tool spindle of machine and reference surface of working at low-cost and saving time.
Accuracy : within ±0.005 mm
Made of tool steel, hardened and ground.
Suitable rotation speed : VPS-201 450 to 600rpm.
VPS-401 600 to 1,000 rpm

CREAMIC TYPE VPS-201C



MECHANICAL TYPE

ORDER NO.	VPS-201	VPS-201C
WEIGHT (KG)	0.03	0.06
CODE NO.	3402-005	3402-007



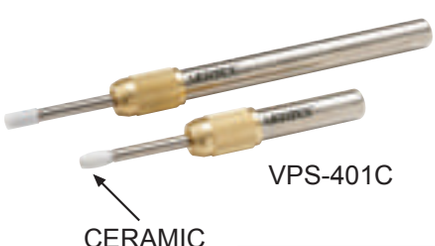
TOUCH POINT SENSOR

Touch Point Sensor

Deluxe Type

VPS-401

STEEL



VPS-401C

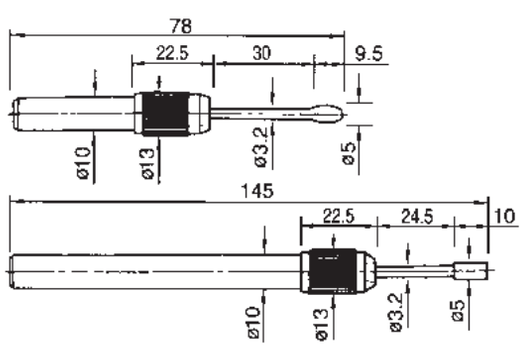
CERAMIC

FEATURES:

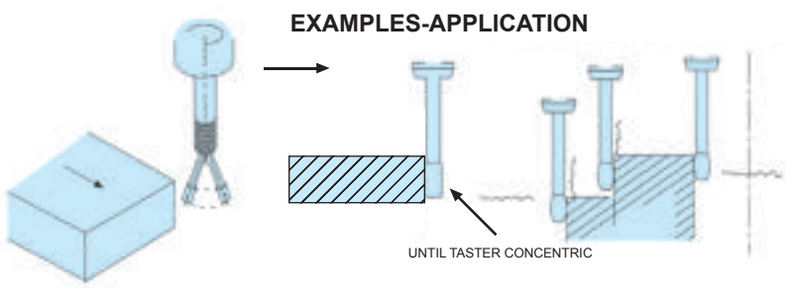
- Material: high-carbon steel.
- Accuracy: within ±0.003mm
- Hardness: HRC 58˚± 1˚
- R.P.M. Within 600-1000
- Suitable for milling machine. Drill machine and boring machine.
- Edge Finder

VPS-401 (2 PCS/SET)
VPS-402A(LONG) SINGLE
VPS-402B(SHORT) SINGLE

ORDER NO.	VPS-401	VPS-401C
PCS/SET	2PCS/SET	2PCS/SET
MATERIAL	STEEL	CERAMIC
WEIGHT (KG)	0.26	0.26
CODE NO.	3402-006	3402-008

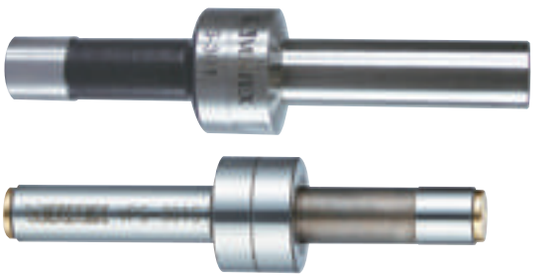


EXAMPLES-APPLICATION

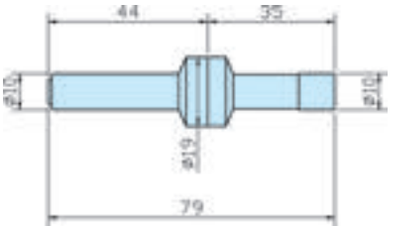


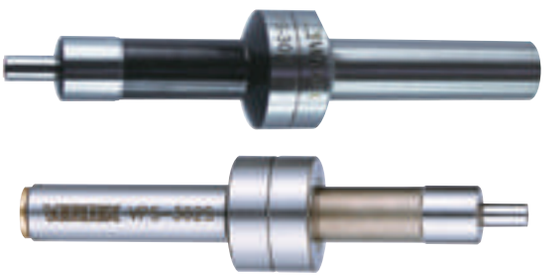
Touch Point Sensor

MECHANICAL TYPE

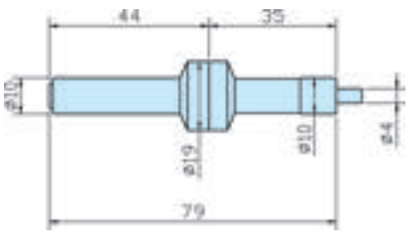


VPS-301 STEEL
VPS-301S STAINLESS

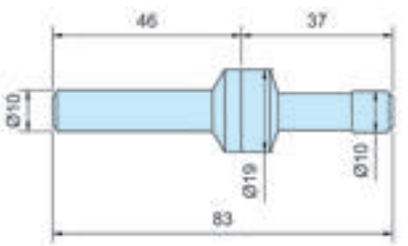




VPS-302 STEEL
VPS-302S STAINLESS

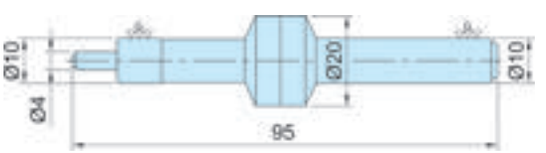


VPS-301C CERAMIC TYPE



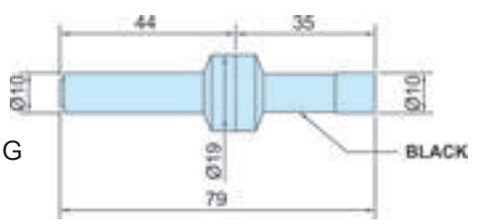
NEW

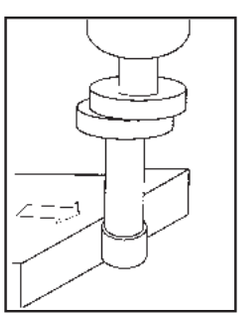
VPS-302C CERAMIC TYPE



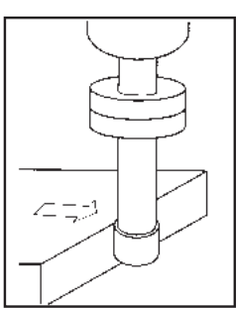
NEW

VPS-303 NON-MAGNETIC COATING

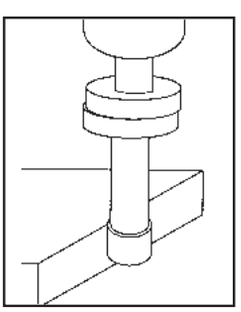




Spindle runs about 500rpm. move spindle closed to measuring surface.



When measuring probe touches workpiece, it looks in one part.



When the probe and shank are in alignment, probe will slide out of rotating center. Now,the center spindle is located 5mm away from measuring surface

- Accuracy of zero point to point is within ± 0.003mm
- R.P.M. within 450-600.
- Max. flange can be clear your sight sense.
- MIN.(4mm) can be test mini hole for your workpiece.

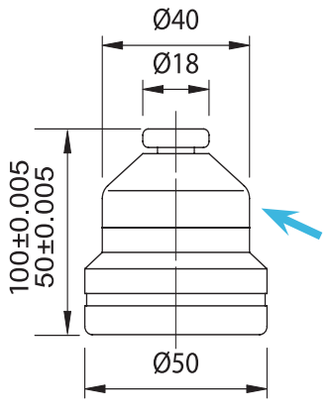
ORDER NO.	MATERIAL	HARDNESS	WEIGHT (kg)	CODE NO.
VPS-301	ALLOY STEEL	HRC 56˚	0.06	3402-100
VPS-302			0.05	3402-101
VPS-301S	STAINLESS	HRC 60˚	0.06	3402-102
VPS-302S			0.06	3402-103
VPS-301C	CERAMIC	HRC 60˚	0.06	3402-104
VPS-302C	CERAMIC	HRC 60˚	0.06	3402-105
VPS-303	NON-Magnetic Coating	HRC 56˚	0.06	3402-106

Height Presetter

OPTICAL TYPE

HP-50Z

MODEL For NEXT



HP-50Z BATTERY
LR4476AG13
1SET/2PCS
HP-50ZM
LR44
1SET/2PCS

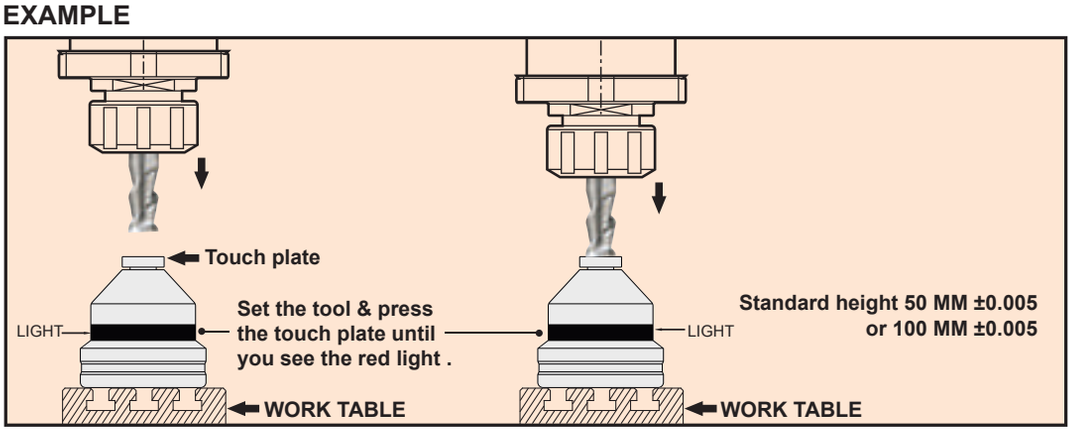
- Height 50 mm and 100 mm.
- With Magnetic base.
- The red lamp will be lighted up when touched.
- Accuracy 0.005 mm.
- Combined vertical and horizontal in a unit.
- Weight:0.7 kgs

HP-100ZM **HP-100Z**

HEIGHT PRESETTER

A. HP-50 / 100 / ZM / EM SERIES BUILT-IN MEGNETS FOR EASIER SETUP. VERTICAL & HORIZONTAL !
B. STANDARD HEIGHT : 50 OR 100 MM
C. WEIGHT ABOUT 0.7-1.2 KGS
D. WHEN TOUCHED, THE RED LAMP LIGHTS ON.
E. ACCURACY : WITHIN 0.005 MM
F. BATTERY TYPE : LR44 / A76 / G13 X 2 PCS
MANUAL:
1. THERE IS A MECHNISM BELOW THE TOUCH PLATE CAN BE ADJUSTED BY GAUGE BLOCK.
2. WHEN MACHINE SPEED IS HIGH, PLEASE REDUCE THE SPEED & GO UP /DOWNWARD UNTIL THE RED LIGHT IS OFF.
3. PROCEED AGAIN IN LOWER SPEED.
4. HORIZONTAL POSITION (HPXXX-XXEM/ZM SERIES-MAGNETIC FUNC.ONLY)
PLEASE USE THE TOP TIP OF THE CUTTER TO TOUCH THE TOUCH PLATE.
※ CAN NOT USE VERNIER TO CHECK / RE-SET

EXAMPLE

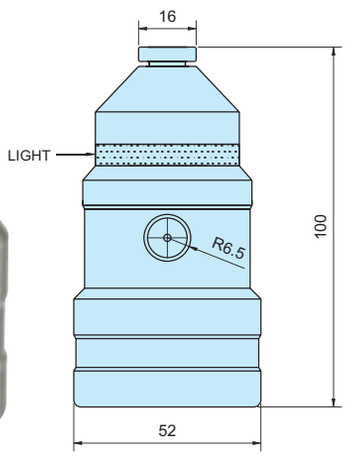


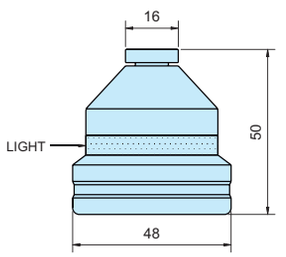
ORDER NO.	H	STYLE	WEIGHT (kg)		CODE NO.
			N.W.	G.W.	
HP-50Z	50mm	STANDARD TYPE	0.32	0.7	3403-001
HP-50ZM	50mm	WITH MAGNETIC BASE	0.32	0.7	3403-002
HP-100Z	100mm	STANDARD TYPE	1.0	1.25	3403-003
HP-100ZM	100mm	WITH MAGNETIC BASE	1.0	1.22	3403-004

NEW

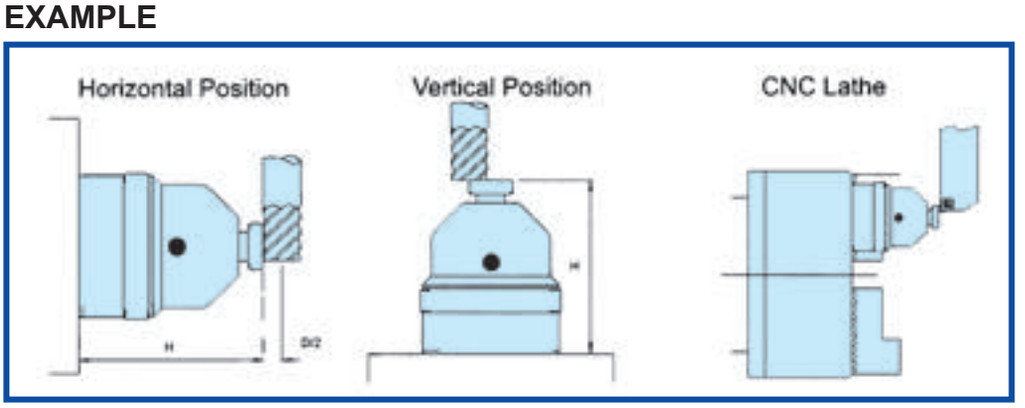
Electronic Tool Length Setter

STAINLESS STEEL BASE WITH MAGNET





EXAMPLE



- **HIGH ACCURACY**
- **EASY OPERATION**
- Be sure to remove all chips and all from the sensor plate and the base of the HP-50E as well as from the workpiece and tool.
- To move the tool approaching the sensor plate slowly.
- When touching, the “LED” turns on immediately and “H” is just 50.00 mm.(or2″)
- LED will not function if batteries are not set in correctly.
- Designed to be used on ferrous.

ORDER NO.	H	STYLE	WEIGHT(kg) N.W.	CODE NO.
HP-50EM	50mm	WITH MAGNETIC BASE	0.32	3403-032
HP-100EM	100mm		1.0	3403-033

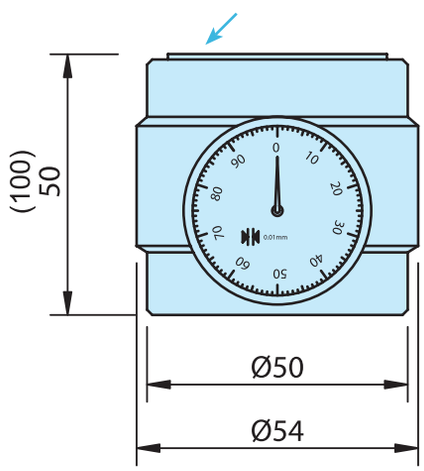
Stainless Steel Base With Magnet

TOOL PRE-SETTER FOR MACHINING CENTERS.
CNC & STANDARD MILLING MACHINES AND
CNC & STANDARD LATHES

HP-50A

HP-100AM

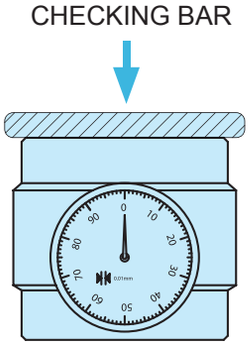
COMPENSATION
PLAIN SURFACE



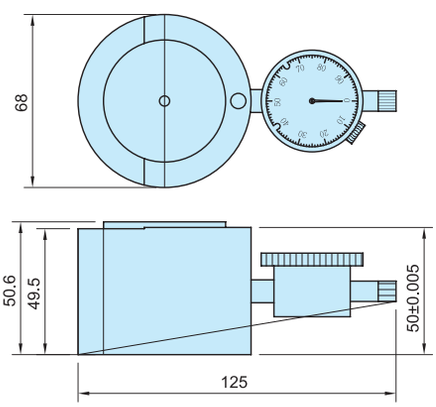
CHECKING BAR FOR
50 OR 100 MM POSITION
AT ZERO POINT

HP-50B

CHECKING BAR

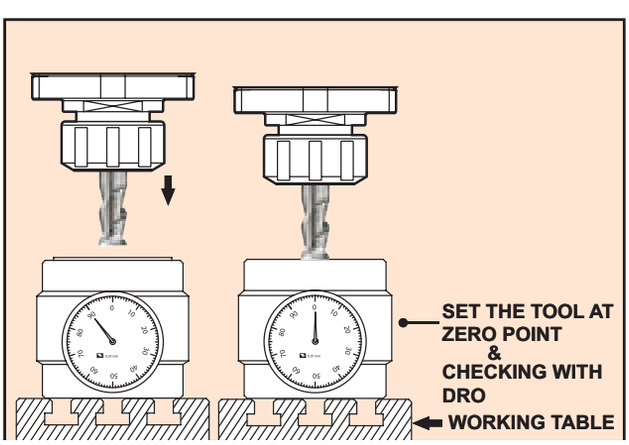


CHECKING BAR FOR
50 OR 100 MM POSITION
AT ZERO POINT



- Have the central measuring part of the zero setter presetter against a plain surface and aligned if with the outer reference surface. Turn the dial gauge for zero setting.
  Have the cutter touched against the z zero setter.
- Once the indicator position at zero, the distance between the tool tip to workpiece is 50mm, ±0.005, 100 mm, ±0.005.

EXAMPLE



ORDER NO.	H	STYLE	WEIGHT (kg)	CODE NO.
HP-50A	50mm	STANDARD TYPE	1.1	3403-020
HP-50B			1.7	3403-021
HP-50AM		WITH MAGNETIC BASE	1.2	3403-022
HP-50BM			1.7	3403-023
HP-100A	100mm	STANDARD TYPE	1.78	3403-024
HP-100AM		WITH MAGNETIC BASE	1.77	3403-025

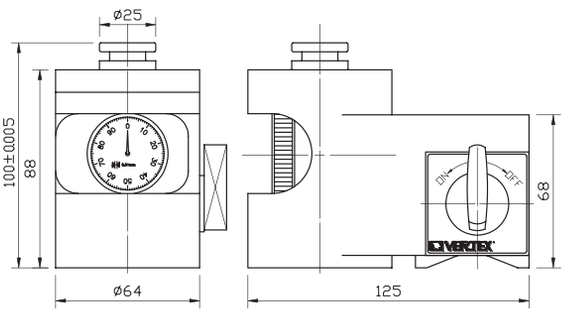
NEW

Height Presetter (For Machining Center)

ORDER NO.HP-100 CODE NO.3403-010

Height from reference surface	WEIGHT(kgs)
100mm	2.6

WITH CHECKING GAUGE



- Locate the height presetter on a place suitable for a reference surface of work piece.
- Apply the cutter on the measuring surface and slowly lower the Z-axis. Then, cutter gets near to the measuring position.
- A distance from the reference surface to the tool tip can be measured easily and precisely so that this presetter is most suitable not only for machineing centers but for NC lathes and NC milling machines.

* Magnetic base function can be used in vertical position & horizontal position.
* HEIGHT:100mm±0.005 , 1 scale 0.01mm

Centering Indicator

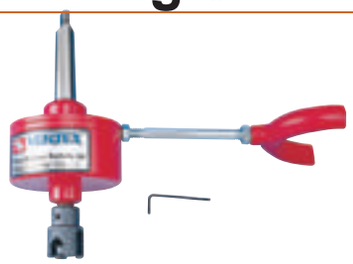
ORDER NO.VCI-170 CODE NO.3402-130

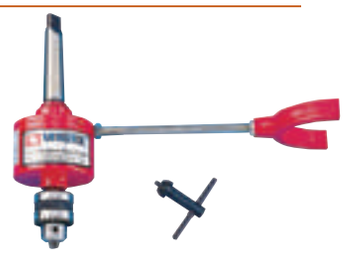
(WITH STOP BAR FOR FIXING THE HEAD)

- RPM Within 800.
- Use for Internal or External.
- Use for Vertical or Horizontal.
- While Spindle Rotates,With Stop bar for Fixing The Head The Centering Indicator Always faces the operator.

SHANK	ø10	mm
LENGTH	170	mm
INTERNAL	ø4~ø108	mm
EXTERNAL	ø0~ø108	mm
MIN. INDICATOR	0.01	mm
INDICATOR RANGE	0~6	mm
WEIGHT	0.8 kgs	

Reversible Tapping Attachment for Drilling & Milling Machine



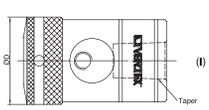


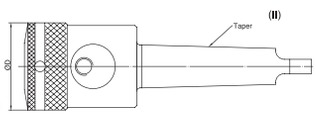
ORDER NO.	TAPPING CAPACITY	SHANK	TO WORK WITH DRILLING MACHINE	WEIGHT (KG)	PACKING mm	SPEED	CODE NO.
K1-1/2	Ø3-8mm	1/2″	DRILLING MACHINE MUST EQUIPPED WITH DRILL CHUCK CAPACITY 13M/M	0.8	90X90X190	1 : 1	3404-001
K1-MT-2	Ø3-8mm	MT-2	DRILLING MACHINE MUST EQUIPPED WITH MT-2 HOLE	1	90X90X240	1 : 1	3404-002
K2-1/2	Ø5-10mm	1/2″	DRILLING MACHINE MUST EQUIPPED WITH DRILL CHUCK CAPACITY 13M/M	1.5	100X100X210	1 : 1	3404-003
K2-MT-2	Ø5-10mm	MT-2	DRILLING MACHINE MUST EQUIPPED WITH MT2 HOLE	1.6	100X100X260	1 : 1	3404-004
K3-MT-3	Ø6-14mm	MT-3	OTHERS LIKE MT-3 SHANK BORING HOLE DRILLING MACHINE N.T. AVAILABLE	3.1	125X125X300	1 : 1	3404-005
K4-MT-3	Ø12-22mm	MT-3	OTHERS LIKE MT-3 SHANK BORING HOLE DRILLING MACHINE N.T. AVAILABLE	5.4	160X160X360	1 : 1	3404-006

K1 TYPE USED CHUCK TO FIX THE TAP
K2, K3, K4 TYPE USED THE SLIDING PLATE OF THE SQUARE SHARP HOLE TO FIX THE TAP.

Tap Chuck Series

VTA13

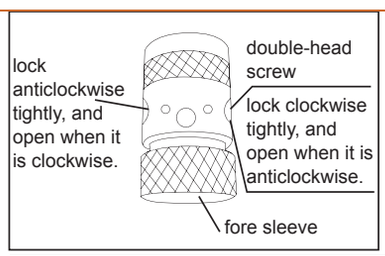




VTA16-3
MT2

TAP CHUCK WRENCH

Extra Purchase Welcome.



- THE DESIGN CAN PREVENT THE TAPS CHUCK FROM LOOSENING AFTER TAPPING.
- SUIT FOR VARIOUS TAPS. LARGE TAPPING CAPACITY. HIGH POWER TORSION.

ORDER NO.		TAPPING CAPABILITY mm	TAPPING CAPABILITY inch	D	Taper	N.W (kg)	CODE NO.
VTA13-1	I	M3-M12	W1/8”~W1/2”	43	J6	0.55	3404-000
VTA13-2	I			43	B16	0.76	3404-007
VTA13-3	II			47	MT2	0.76	3404-008
VTA16-1	I	M3-M16	W1/8”~W5/8”	54	J3	1	3404-016
VTA16-2	I			54	B18	1	3404-017
VTA16-3	II			48.5	MT2	0.9	3404-018
VTA16-4	II			48.5	MT3	1.1	3404-019
VTA18-2	II	M9-M18	W3/8”~W3/4”	51	MT2	0.924	3404-019A
VTA18-3	III			51	MT3	1.074	3404-019B

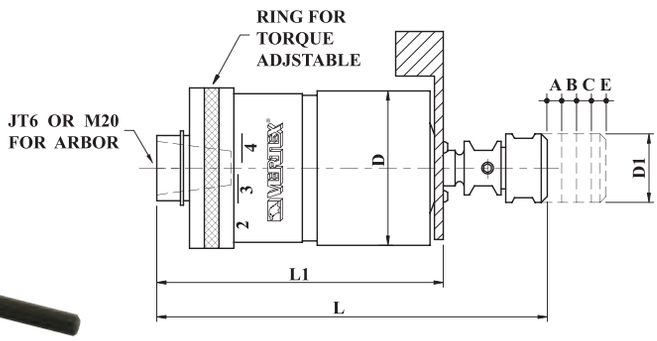
Drill Tapper

Including shank, full set of collets, wrench and case.
(Used for radial drilling, lathe and tapping machines.
1 Main body, 6 Tap Collet, 1 Drill Chuck Holder
Optional in Collets & Tapper Sleeves.)0.6CUFT.

Unit:mm

ORDER NO.	STANDARD ASSEMBLY SPECIFICATION MAIN BODY 1PC/SET	TAP COLLET 6PCS/SET	TAPER SLEEVE 2PCS/SET	DRILL CHUCK HOLDER 1PC/SET	G.W. kg	MEAS. CFT	CODE NO.
VDT-33	MT-3	M8, 10, 12, 14, 16, 18, 20, 22, 24, 27, 30, 33(MM) 1, 1-1/8, 1-1/4(INCH) PT1/8, 1/4, 3/8, 1/2, 3/4, 1(INCH)	33-MT1	33-JT6 With 1/2″ Drill Chuck	11.9	0.6	3404-010
	MT-4		33-MT2		12		3404-011
	MT-5		33-MT3		12.8		3404-012
			33-MT4				

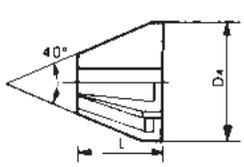
Reversible Tapping Attachments



- Radial Float is SELFCENTERING to compensate for hole center misalignment.
- Unique Double Spring Mechanism produces Automatic Feed and Cushion Drive. There are two springs for the feed and two springs for the reversal. Each set gives you double smoothness for ULTRA accurate tapping applications(not possible with this type of tapping head in the past).
- Pre-set Torque Control Permits easy operation of tap brake torque control
- JACOBS RUBBER FLEX COLLETS are standard accessory.

Reversing Type

ATTACHMENT DESIGNATIONS ORDER NO.	FOR TAPS	SUITABLE ADAPTERS SIZE	REC.MAX SPEED	LENGTH COMPENSATION R.H.ROTATION NON ROTAT LH.ROTAT.				D DIA	D1 DIA	L	L1	WEIGHT (kgs)	CODE NO.
				COMP A	EXP. B	EXP. C	EXP. E						
VTA7-JT6	M2-M7	FC-10/FC-11	1500RPM	5	3.5	1.5	7.0	52	23	125.5	94.5	1.3	3404-020
VTA12-JT6	M3-M12	FC-20/FC-21	1000RPM	5	4.5	1.5	8.5	73.5	28	169	122	3.1	3404-021
VTA20-M20	M8-M20	FC-30/FC-31	600RPM	5.5	5	2.0	9.0	91	38	190	128	5.7	3404-022



Rubber Flex Collet For VTA Tapper

ORDER NO.	COLLETS CAPACITY	D4	L	CODE NO.
FC-10	Ø 2.5 - Ø 4.5	16	11	3404-030
FC-11	Ø 4.5 - Ø 6.5	16	11	3404-031
FC-20	Ø 4 - Ø 7	21.5	13	3404-032
FC-21	Ø 7 - Ø 10	21.5	13	3404-033
FC-30	Ø 5.36 - Ø 9	26.5	15	3404-034
FC-31	Ø 10.38 - Ø 14	26.5	15	3404-035

CONNECTING ARBOR FOR VTA20-M20	
MT3-M20	3404-036A
MT4-M20	3404-037A

ARBOR EXAMPLE :

MT TYPE

please see page C46

VJ TYPE

Tap Chuck

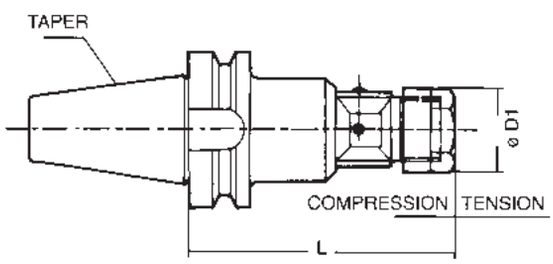
- It's suitable for various taps, so it is much more economic and efficient than other brands of taps chuck.
- The design can prevent the taps chuck from loosening after tapping.

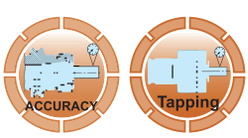
Unit:mm

ORDER NO.	SIZE	TAPPING CAPACITY		Taper Mount NO. DIN or Jacobs	Length (m/m)	Outer Dia. (m/m)	Weight (g)	CODE NO.
		mm	inch					
VTA-13-11	1/2	M3-M12	1/8-1/2	JT6	75	42	850	3404-056A
VTA-13-12	1/2	M4-M12	1/8-1/2	B16	75	42	585	3404-057A

Expansible Tapping Holder

Compression Distance 6mm



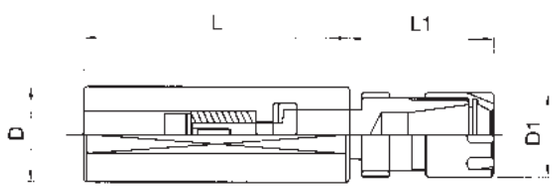


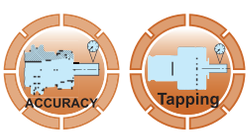
HOLDER-BT-TYPE

Unit:mm

ORDER NO.	COLLET	HOLDER (DXL)	L	D_1	TAPPING RANGE	WEIGHT (KGS)	CODE NO.
VET-271	ER20	BT40 20X100	100	34	M2-M16	2.2	3404-026
VET-272	ER20	BT50 20X95	95	34		4	3404-027
VET-273	ER32	BT40 32X110	110	50	M3-M25	2.4	3404-028
VET-274	ER32	BT50 32X110	110	50		4.5	3404-029

WITH SPANNER





HOLDER-MINI TYPE

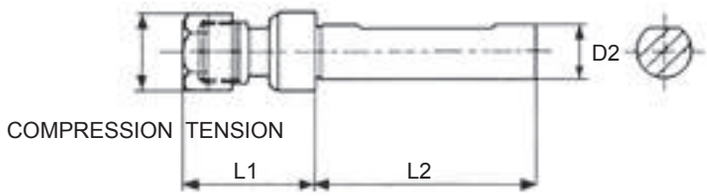
Unit:mm

ORDER NO.	COLLET	HOLDER (DXL)	L_1	D_1	TAPPING RANGE	WEIGHT (KG)	CODE NO.
VET-260	ER16	ER16M 20X70	35	22	M3-M10 1/8″-3/8″	0.2	3404-036
VET-261	ER16	ER16M 25X70	35	22		0.2	3404-037

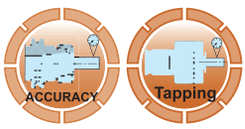
Expansible Tapping Holder

- Floating and expansion design will reducte the differential of motor rotary speed and feeding speed so will extend the life of tap.
- Use ER High Spring Collet, you don't need to worry the few size will delay working, so their value is more than any other tapping system.
- Strong Vise clamping function which is controlled by one screw will keep the outlet which have been controlled by ER collet, so it can auto-center and you own the double lock and save in clamping.
- The series. can be fitted with ER20 collet as optional accessory.

STRAIGHT SHANK



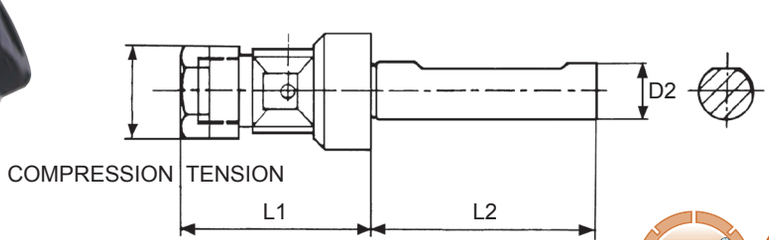
Compression Distance 6mm

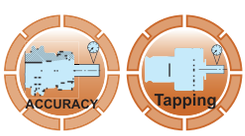


SINGLE HOLDER

Unit:mm

ORDER NO.	COLLET	HOLDER (D_2XL_2)	L_1	D_1	TAPPING RANGE	WEIGHT (KG)	CODE NO.
VET-102	ER16	20X80	47	28	(1/8″-3/8″)	0.4	3404-041

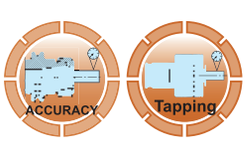




SINGLE HOLDER

Unit:mm

ORDER NO.	COLLET	HOLDER (D_2XL_2)	L_1	D_1	TAPPING RANGE	WEIGHT (KG)	CODE NO.
VET-202	ER20	20X80	70	34	M3-M16	1	3404-043
VET-252	ER20	25X80	70	34	(1/8-5/8″)	1.2	3404-044
VET-303	ER32	32X100	90	50	(M3-M25) (1/8-1″)	2	3404-045



SETS TYPE

Unit:mm

ORDER NO.	COLLET	HOLDER (D_2XL_2)	SET/PCS	WEIGHT (KG)	CODE NO.
VET-105	ER16	20X80	8	1	3404-046
VET-106	ER16	20X80	10	1.1	3404-047
VET-253	ER20	20X80	10	1.6	3404-048
VET-254	ER20	20X80	12	1.7	3404-049

Quick Change Tapping Chuck

European Type

SPECIAL!

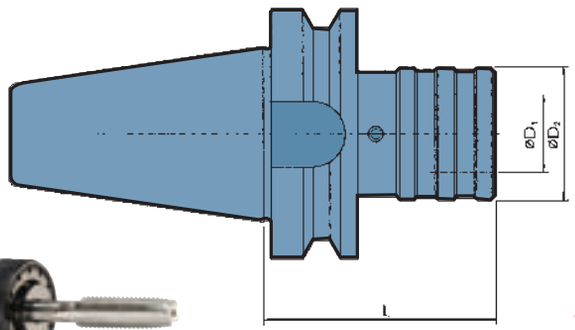
SAFETY !
QUICK !

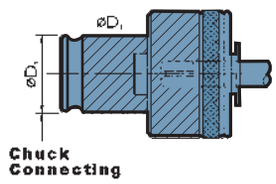
QUICK CHANGE TAPPING CHUCKS (with length compensation)
MAS-BT-30, 40, 50 Shank / DIN69871A SK-40, 50 / ST-20 , 32 / MT-2 , 3 , 4

- Tension and compression feature allows taps to follow their own thread lead.
- With extreme light compression compression and tension operated by ball cage.

Quick Change Tapping Chucks

VERTEX



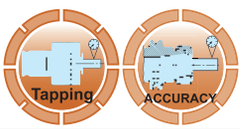


WITH OVERLOAD SAFETY COLLET

TC-312

Safety Collet

- Tension and compression feature allows taps to follow their own thread lead.
- With extreme light compensation compression and tension operated by ball cage.



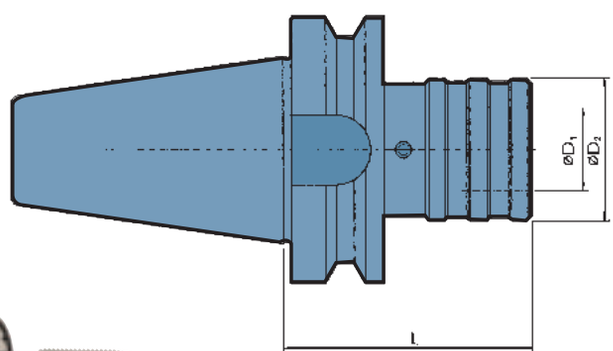
WF-BT30/BT40/SK30/SK40 LENGTH COMPENSATION TYPE

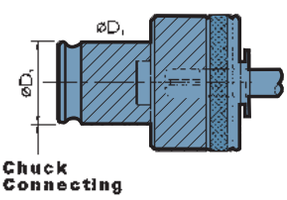
ORDER NO.	Thread Size	L	ØD1 Chuck Connecting DIA.	ØD2	Length Compensation		Tapping Collets	WEIGHT (kg)	CODE NO.
					Compression	Tension			
BT30-WF12	M2-M14	70	Ø19	36	7.5	7.5	TC-312	0.8	3404-050A
BT40-WF12	M2-M14	75	Ø19	36	7.5	7.5	TC-312	1.3	3404-050
SK40-WF12								1.3	3404-051
BT30-WF20	M5-M24	94	Ø31	53	12.5	12.5	TC-820	1.3	3404-052A
BT40-WF20	M5-M24	95	Ø31	53	12.5	12.5	TC-820	1.8	3404-052
SK40-WF20	M5-M24	95	Ø32	53	12.5	12.5	TC-820	1.8	3404-053

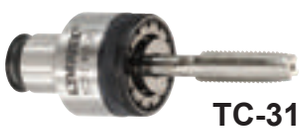
※Tapping Collet Reducer Adapter : TC820 / TC312-AD

Quick Change Tapping Chucks

European Type



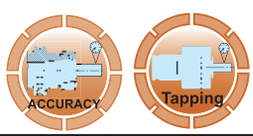




TC-312

WITH OVERLOAD SAFETY COLLET

- Tension and compression feature allows taps to follow their own thread lead.
- With extreme light compensation compression and tension operated by ball cage.



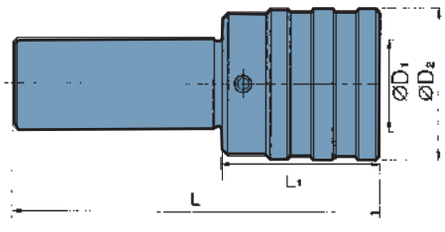
WF-BT50/SK50 LENGTH COMPENSATION TYPE

ORDER NO.	Thread Size	L	ØD1 Chuck Connecting DIA.	ØD2	Length Compensation		Collets	WEIGHT (kg)	CODE NO.
					Compression	Tension			
BT50-WF12	M2-M14	85	Ø19	36	7.5	7.5	TC-312	4	3404-060
SK50-WF12								4	3404-061
BT50-WF20	M5-M24	105	Ø31	53	12.5	12.5	TC-820	4.1	3404-062
SK50-WF20								4.1	3404-063
BT50-WF33	M14-M36	142	Ø48	78	20	20	TC-1433	5.8	3404-064

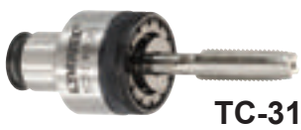
※Tapping Collet Reducer Adapter : TC820 / TC312-AD TC1433 / TC820-AD

Quick Change Tapping Chucks

QUICK CHANGE TAPPING CHUCKS (with length compensation)
STRAIGHT SHANK

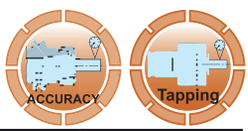


WITH OVERLOAD SAFETY COLLET



TC-312

- Tension and compression feature allows taps to follow their own thread lead.
- With extreme light compensation compression and tension operated by ball cage.



WF-ST LENGTH COMPENSATION TYPE

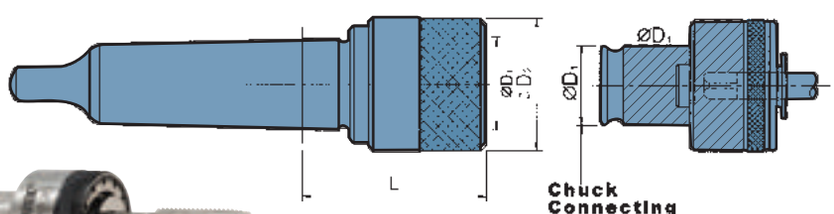
ORDER NO.	Thread Size	L	L1	ØD1 Chuck Connecting DIA.	ØD2	Length Compensation		Collets	WEIGHT (kg)	CODE NO.
						Compression	Tension			
ST20-WF12	M2-M14	105	40	Ø19	36	7.5	7.5	TC-312	0.4	3404-087
ST32-WF12									0.6	3404-088
ST20-WF20	M5-M24	120	65	Ø31	53	12.5	12.5	TC-820	1	3404-089
ST32-WF33	M14-M36	183	80	Ø48	78	20	15	TC-1433	2.7	3404-092

※Tapping Collet Reducer Adapter : TC820 / TC312-AD TC1433 / TC820-AD

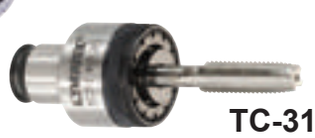
TAPPING CHUCKS

Quick Change Tapping Chucks

Solid Type

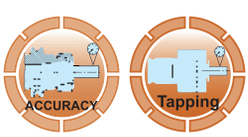


WITH OVERLOAD SAFETY COLLET



TC-312

- Tension and compression feature allows taps to follow their own thread lead.
- With extreme light compensation compression and tension operated by ball cage.



WF-MT LENGTH COMPENSATION TYPE

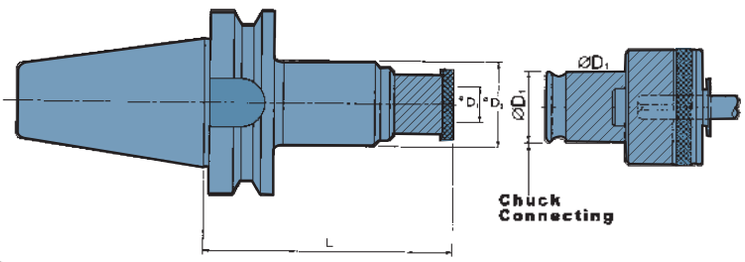
ORDER NO.	Thread Size	Morse.Taper MT	L	ØD1 Chuck Connecting DIA.	ØD2	Lenght Compensation		Collets	WEIGHT (kg)	CODE NO.
						Compression	Tension			
MT2-WF12	M2-M14	MT2	47.5	Ø19	36	7.5	7.5	TC-312	0.4	3404-123
MT3-WF12		MT3							0.56	3404-123A
MT4-WF12		MT4	49						0.86	3404-123B
MT2-WF20	M5-M24	MT2	70	Ø31	53	12.5	12.5	TC-820	0.8	3404-124
MT3-WF20		MT3							0.96	3404-124A
MT4-WF20		MT4							1.5	3404-124B
MT3-WF33	M14-M36	MT3	103	Ø48	78	20	15	TC-1433	2.2	3404-125
MT4-WF33		MT4							2.76	

※Tapping Collet Reducer Adapter : TC820 / TC312-AD TC1433 / TC820-AD

Quick Change Tapping Chucks

QUICK CHANGE TAPPING CHUCKS (with length compensation)
MAS-BT SHANK / DIN69871A SHANK

- Tension and compression feature allows taps to follow their own thread lead.



WITH OVERLOAD SAFETY COLLET

TC-312

WFE-BT40 LENGTH COMPENSATION TYPE

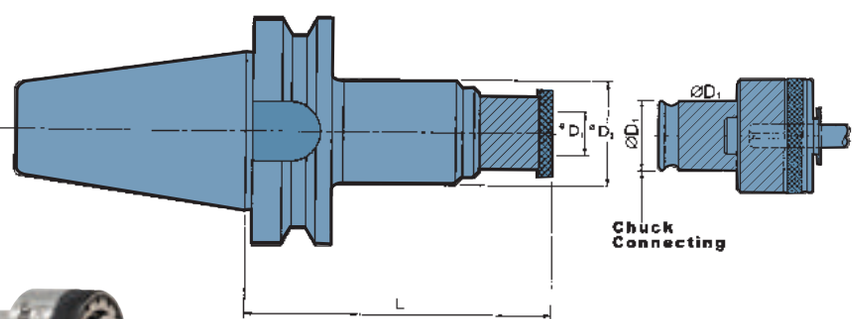
ORDER NO.	Thread Size	L	ØD1 Chuck Connecting DIA.	ØD2	Length Compensation		Collets	WEIGHT (kg)	CODE NO.
					Compression	Tension			
BT40-WFE12-135	M2-M14	135	Ø19	46	15	20	TC-312	1.5	3404-070
BT40-WFE12-165		165						2.4	3404-072

※Tapping Collet Reducer Adapter : TC820 / TC312-AD TC1433 / TC820-AD

Quick Change Tapping Chucks

QUICK CHANGE TAPPING CHUCKS (with length compensation)
MAS-BT SHANK / DIN69871A SHANK

- Tension and compression feature allows taps to follow their own thread lead.



WITH OVERLOAD SAFETY COLLET

TC-312

WFE-BT50 LENGTH COMPENSATION TYPE

ORDER NO.	Thread Size	L	ØD1 Chuck Connecting DIA.	ØD2	Length Compensation		Collets	WEIGHT (kg)	CODE NO.
					Compression	Tension			
BT50-WFE12-135	M2-M14	135	Ø19	46	15	20	TC-312	4.54	3404-080
BT50-WFE12-165		165						4.94	3404-082
BT50-WFE20-165	M5-M24	165	Ø31	58	15	15	TC-820	7	3404-084

※Tapping Collet Reducer Adapter : TC820 / TC312-AD TC1433 / TC820-AD

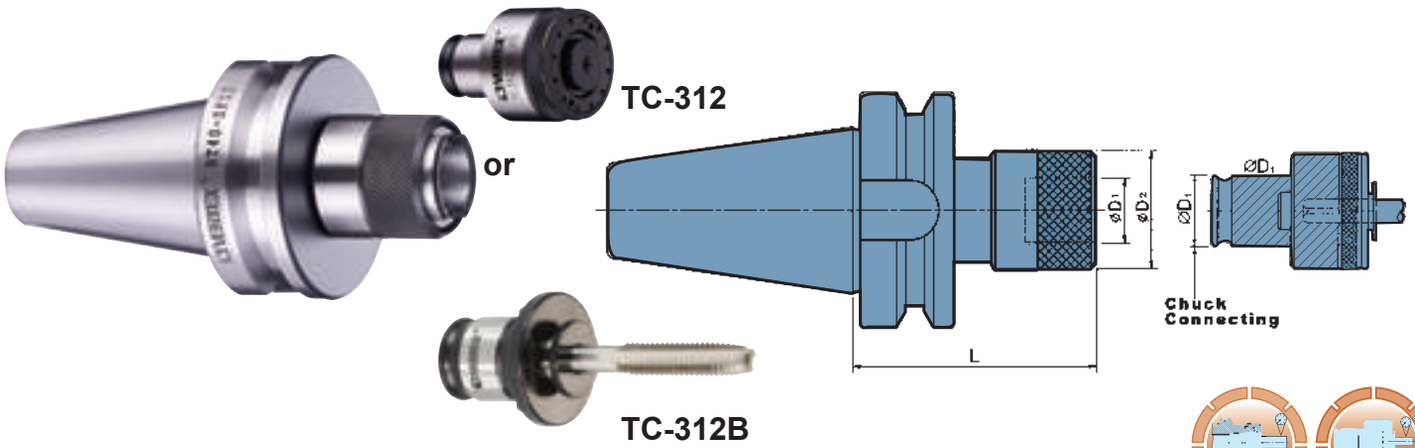
Quick Change Tapping Chucks

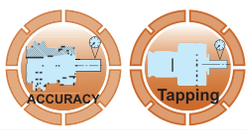
VERTEX

MSA-BT SHANK & DIN 69871A SHANK

Solid Type

- No tension or compensation stroke for use in synchronous tapping(rigid tapping) cycle.





TAPPING CHUCKS

BT40-SF- RIGID TAPPING TYPE , NO LENGTH COMPENSATION

ORDER NO.	Thread Size	L	ØD1 Chuck Connecting DIA.	ØD2	Collets	WEIGHT (kg)	CODE NO.
BT40-SF12	M2-M14	72	Ø19	34	TC-312 TC-312B	1	3404-100
BT40-SF20	M5-M24	91	Ø31	50	TC-820 TC-820B	1.4	3404-102
BT40-SF33	M14-M36	130	Ø48	74	TC-1433 TC-1433B	3.5	3404-104

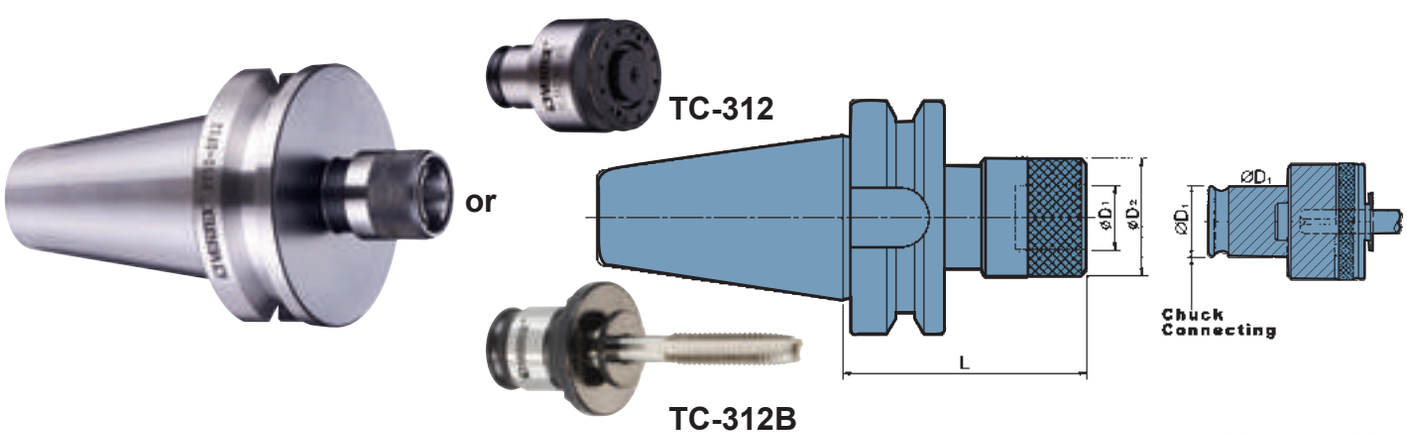
※Tapping Collet Reducer Adapter : TC820 / TC312-AD TC1433 / TC820-AD

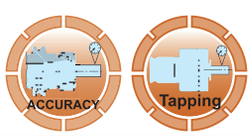
Quick Change Tapping Chucks

MSA-BT SHANK & DIN 69871A SHANK

Solid Type

- No tension or compensation stroke for use in synchronous tapping(rigid tapping) cycle.





BT50-SF- RIGID TAPPING TYPE, NO LENGTH COMPENSATION

ORDER NO.	Thread Size	L	ØD1 Chuck Connecting DIA.	ØD2	Collets	WEIGHT (kg)	CODE NO.
BT50-SF12	M2-M14	78	Ø19	34	TC-312 TC-312B	3.6	3404-110
BT50-SF20	M5-M24	95	Ø31	50	TC-820 TC-820B	4	3404-112
BT50-SF33	M14-M36	142	Ø48	74	TC-1433 TC-1433B	5.6	3404-116

※Tapping Collet Reducer Adapter : TC820 / TC312-AD TC1433 / TC820-AD

Quick Change Tapping Chucks

VERTEX

QUICK CHANGE TAPPING CHUCKS

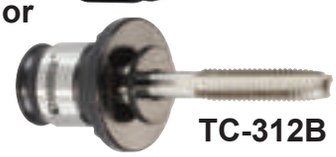
Solid Type

MORSE TAPER SHANK

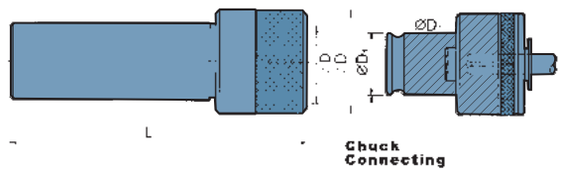
- Tension and compression feature allows taps to follow their own thread lead.
- With extreme light compensation compression and tension operated by ball cage.

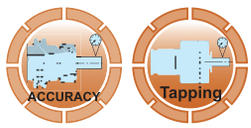
TC-312

or



TC-312B

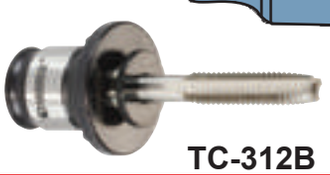




ST-SF- TYPE SOLID RIGID TAPPING TYPE

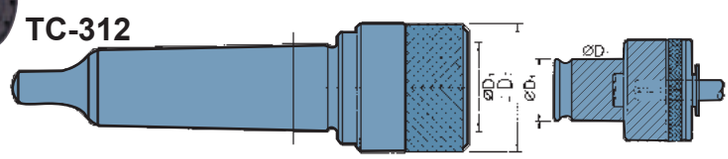
ORDER NO.	Thread Size	L	L_1	$ØD_1$ Chuck Connecting DIA.	$ØD_2$	Collets	WEIGHT (kg)	CODE NO.
ST20-SF12	M2-M14	104	70	Ø19	34	TC-312 TC-312B	0.3	3404-140
ST32-SF12		106		Ø19			0.66	3404-140A
ST20-SF20	M5-M24	105		Ø31	50	TC-820 TC-820B	0.74	3404-141
ST32-SF20				Ø31			1.02	3404-141A
ST32-SF33	M14-M36	169		Ø48	76	TC-1433 TC-1433B	2.86	3404-142A

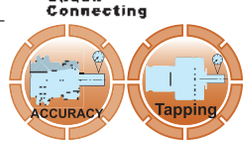
or



TC-312B

TC-312

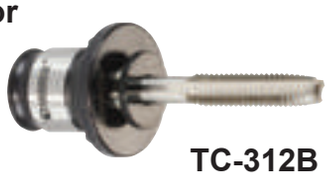




MT-SF- TYPE SOLID RIGID TAPPING TYPE, NO LENGTH COMPENSATION

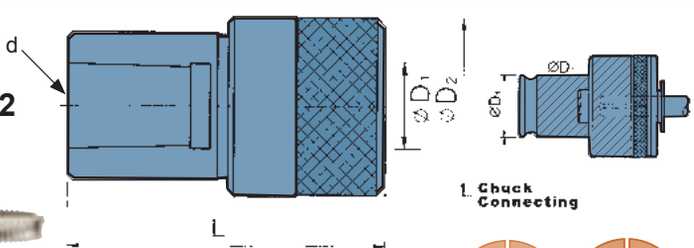
ORDER NO.	Thread Size	Morse. Taper MT	L	$ØD_1$ Chuck Connecting DIA.	$ØD_2$	Collets	WEIGHT (kg)	CODE NO.
MT2-SF12	M2-M14	MT2	45	Ø19	34	TC-312 TC-312B	0.3	3404-120
MT3-SF12		MT3					0.8	3404-120A
MT4-SF12		MT4	46				0.8	3404-120B
MT2-SF20	M5-M24	MT2	70	Ø31	50	TC-820 TC-820B	0.6	3404-121A
MT3-SF20		MT3					0.8	3404-121
MT4-SF20		MT4	75				1.18	3404-121B
MT3-SF33	M14-M36	MT3	99	Ø48	74	TC-1433 TC-1433B	0.84	3404-122A
MT4-SF33		MT4	99				2.2	3404-122

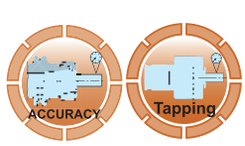
or



TC-312B

TC-312





JTA -SF- B16-SF RIGID TAPPING TYPE

ORDER NO.	Thread Size	L	$ØD_1$ Chuck Connecting DIA.	$ØD_2$	d	Collets	WEIGHT (kg)	CODE NO.
JTA6-SF12	M2-M14	66	Ø19	32	JT6	TC-312 TC-312B	0.3	3404-130
B16-SF12					B16		0.22	3404-130A
B12-SF12		61			B12		0.2	3404-130B

※Tapping Collet Reducer Adapter : TC820 / TC312-AD TC1433 / TC820-AD

Quick Change Tapping Chucks Set

VERTEX

Shank with length compensation

European Type

- Tension and compression feature allows taps to follow their own thread lead.
- With extreme light compensation compression and tension operated by ball cage.

NEW

SET TYPE BT-WF
SHANK WITH 7 PCS/SET OVERLOAD CLUTCH
TAPPING COLLET DIN, ISO & JIS SYSTEMS:
PLEASE SEE PAGE 121.

Collets Size	
TC-312	M3, M4, M5, M6, M8, M10, M12
TC-820	M8, M10, M12, M14, M16, M18, M20

Please inform the collet size when ordering.
Please use following page as reference for collet size.

SETS

ORDER NO.	Shank Size	Thread Size	L	ØD1	ØD2	Length Compensation		Collets	PCS/ SET	CODE NO.
						Compression	Tension			
VQT-312	BT-30-WF12	M3-M12	70	19	36	7.5	7.5	TC-312	7PCS	3404-190
VQT-320	BT-30-WF20	M8-M20	105	31	53	12.5	12.5	TC-820	7PCS	3404-191
VQT-412	BT-40-WF12	M3-M12	75	19	36	7.5	7.5	TC-312	7PCS	3404-192
VQT-420	BT-40-WF20	M8-M20	95	31	53	12.5	12.5	TC-820	7PCS	3404-193
VQT-512	BT-50-WF12	M3-M12	85	19	36	7.5	7.5	TC-312	7PCS	3404-194
VQT-520	BT-50-WF20	M8-M20	105	31	53	12.5	12.5	TC-820	7PCS	3404-195

Quick Change MT Tapping Chuck Set

With Overload Clutch

NEW

- Tension and compression feature allows taps to follow their own thread lead.
- With extreme light compensation compression and tension operated by ball cage.

SET TYPE MT-SF
SHANK WITH 7 PCS/SET OVERLOAD CLUTCH
TAPPING COLLET DIN, ISO & JIS SYSTEMS:
PLEASE SEE PAGE 121.

Collets Size	
TC-312	M3, M4, M5, M6, M8, M10, M12
TC-820	M8, M10, M12, M14, M16, M18, M20

Please inform the collet size when ordering.
Please use following page as reference for collet size.

SETS

ORDER NO.	Shank Size	Thread Size	L	ØD2	Collets	PCS/ SET	CODE NO.
VQT-712	MT3-SF12	M3-M12	39	32	TC-312	7PCS	3404-196
VQT-812	MT4-SF12	M3-M12	34	32	TC-312	7PCS	3404-197
VQT-720	MT3-SF20	M8-M20	59	50	TC-820	7PCS	3404-198
VQT-820	MT4-SF20	M8-M20	55	50	TC-820	7PCS	3404-199

Tapping Collet Reducer Adapter

EXAMPLE

ADAPTER

This adapter is for transforming
This adapter allows the tapping chuck to use smaller size.
Transforming the big tapping size to smaller one.
large range type for tap M3~M24, TC312, TC820, TC1433
COST SAVING!

SIZE CONVERTER

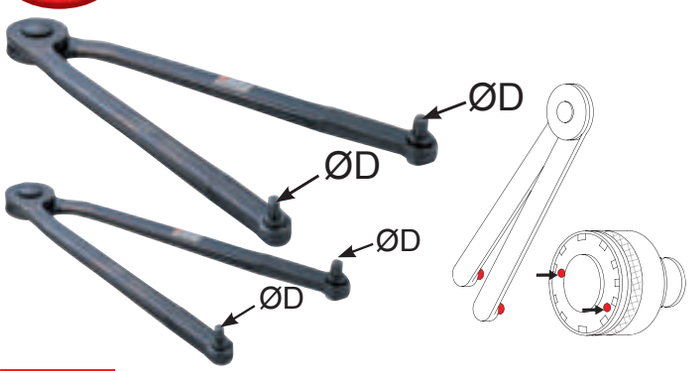
ORDER NO.	TRANSFORMING SIZE	WIGHT	CODE NO.
TC820/TC312-AD	TC820 TO TC312	0.2	3404-461
TC1433/TC820-AD	TC1433 TO TC820	0.6	3404-462

※Every tap needs a match size tapping collet.

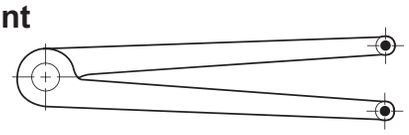
Adjustable Wrenches

NEW

For Tapping Collet's Torque Force Adjustment



- Tool for Setting
- Time Saving



EXAMPLE

ORDER NO.	SIZE	ØD	COLLETS	WEIGHT	CODE NO.
VWR-40	7-40	2.5	TC-820	0.15 kgs	3404-150
VWR-60	11-60	4	TC1433	0.15 kgs	3404-151

Quick Change Tapping Collet TC312 8PCS/SET

ORDER NO. TC-312-DIN371-A CODE NO. 3404-175

NEW

QUICK CHANGE TAP COLLETS
(with overload safety collet)

TC-312 DIN371 8PCS/SET
(M1, M2, M3, M3.5, M4, M4.5, M8, M10)

NO.	ØD X □ SIZE SAME AS DIN371 TC312
1	M1, M1.1~M1.8
2	M2, M2.5, M2~M2.5
3	M3
4	M3.5
5	M4
6	M4.5, M5, M6
7	M8
8	M10

Quick Change Tapping Collet TC312 8PCS/SET

ORDER NO. TC-312-DIN376-B CODE NO. 3404-176

NEW

QUICK CHANGE TAP COLLETS
(with overload safety collet)

TC-312 DIN376 8PCS/SET
(M4, M5, M6, M7, M8, M10, M12 M14)

NO.	ØD X □ SIZE SAME AS DIN376 TC312
1	M4
2	M5, M4.5
3	M6
4	M7
5	M8
6	M10
7	M12
8	M14

Quick Change Tapping Collet TC820 8PCS/SET

ORDER NO. TC820-DIN 376-C **CODE NO. 3404-177**

NEW

QUICK CHANGE TAP COLLETS
(with overload safety collet)

TC-820 DIN376 8PCS/SET
(M8, M10, M12, M14, M16, M18, M20, M22)

NO.	ØD X □ SIZE SAME AS DIN376 TC820
1	M8
2	M10
3	M12
4	M14
5	M16
6	M18
7	M20
8	M22, M24

Quick Change Tapping Collet TC820 4PCS/SET

ORDER NO. TC820-DIN 371-D **CODE NO. 3404-178**

NEW

QUICK CHANGE TAP COLLETS
(with overload safety collet)

TC-820 DIN371 4PCS/SET
(M5, M6, M8, M10)

NO.	ØD X □ SIZE SAME AS DIN371 TC820
1	M5, M6
2	M6, M5
3	M8
4	M10

Quick Change Tapping Collet TC820 8PCS/SET

ORDER NO. TC820-ISO2283-E **CODE NO. 3404-179**

NEW

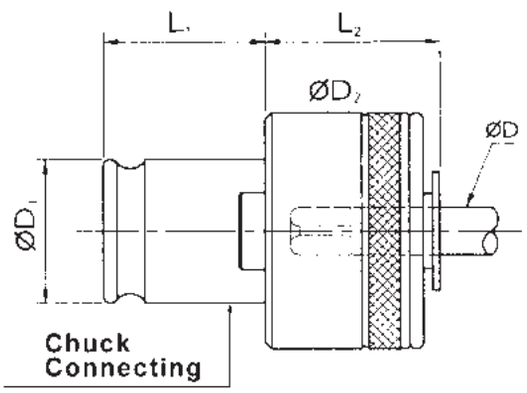
QUICK CHANGE TAP COLLETS
(with overload safety collet)

TC-820 ISO2283 8PCS/SET
(M8, M10, M12, M14, M16, M18, M22, M24)

NO.	ØD X □ SIZE SAME AS ISO2283 TC820
1	M8
2	M10
3	M12
4	M14
5	M16
6	M18, M20
7	M22
8	M24

Quick Change Tapping Collet

QUICK CHANGE TAP COLLETS
(with overload safety collet)



CHUCK SUIT FOR DIA.ØD1
TC-312,312B IS Ø19 MM
TC-820,820B IS Ø31 MM
TC-1433,1433B IS Ø48 MM

- Torque is factory-set to protect the tap.Small adjustments can be made by a trained user to accomodate tap strength and material variations.
- Collet stops driving when set torque is exceeded.
- Every tap needs a match size tapping collet.
- ØD1 is chuck suit for dia.

Tapping Collet
Reducer / Adapter

This adapter is for transforming
This adapter allows the VAT-tapping spindle to use smaller size.
Transforming the big tapping size to smaller one.
Large range type for tap M3~M24, TC312, TC820, TC1433
COST SAVING!
Please see the page C118

Connecting Size List

QUICK CHANGE TAP COLLETS
(with overload safety collet)

JIS SYSTEM SIZE ※ORDER NO. SAME COLOR ARE INTER-CHANGEABLE

1PC≒0.18kg

Size	Thread	Tap Shank ØD	Tap Shank □	Ø D1	L1	L2	ORDER NO.	CODE NO.	ØD x □ Size same as JIS inch or mm
TC 312 (#1)	M2	3	2.5	Suit for DIA. 19	22	25	**312-00**	3404-200A	
	M3	4	3.2				**312-01**	3404-200	W1/8”
	M4	5	4				**312-02**	3404-201	M4.5
	M5	5.5	4.5				**312-03**	3404-202	M5.5, W3/16”
	M6	6	4.5				**312-04**	3404-203	W1/4”, UNC1/4”
	M7	6.2	5				**312-05**	3404-204	M8
	M8	6.2	5				**312-06**	3404-205	M7
	M9	7	5.5				**312-07**	3404-206	M10, W3/8”, UNC3/8”
	M10	7	5.5				**312-08**	3404-207	M9, W3/8”, UNC3/8”
	M11	8	6				**312-09**	3404-208	W7/16”, PT1/8”, PS1/8”, PF1/8”, UNC7/16”
	M12	8.5	6.5				**312-10**	3404-209	
	•M14	10.5	8				**•312-11**	3404-210	M15, W9/16”, UNC9/16”
	•M15	10.5	8				**•312-12**	3404-211	M14, W9/16”, UNC9/16”
	UNC 1/4	6	4.5				**312-13**	3404-212	M6, W1/4”
	UNC 5/16	6.1	5				**312-14**	3404-213	
	UNC 3/8	7	5.5				**312-15**	3404-214	M9, M10, W3/8”
	UNC 7/16	8	6				**312-16**	3404-215	M11, W7/16”, PT1/8” ,PS1/8” ,PF1/8”
	UNC 1/2	9	7				**312-17**	3404-216	W1/2”
	•UNC 9/16	10.5	8				**•312-18**	3404-217	M14, M15, W9/16”
	PT 1/8	8	6				**312-19**	3404-218	M11, W7/16, PS1/8” ,PF1/8” ,UNC7/16”
	PT 1/4	11	9				**312-20**	3404-219	PS1/4, PF1/4

Matching Size List

JIS SYSTEM SIZE

※ORDER NO. SAME COLOR ARE INTER-CHANGEABLE

1PC≒0.6kg

Size	Thread	Tap Shank ØD	Tap Shank □	ØD1	L1	L2	ORDER NO.	CODE NO.	ØD x □ Size same as JIS inch or mm
TC820 (#2)	M6	6	4.5	Suit for DIA. 31	36	30.5	820-00A	3404-228	W1/4",UNC1/4"
	M7	6.2	5				820-01	3404-230	M8
	M8	6.2	5				820-02	3404-231	M7
	M9	7	5.5				820-03	3404-232	M10, W3/8", UNC3/8"
	M10	7	5.5				820-04	3404-233	M9, W3/8", UNC3/8"
	M11	8	6				820-05	3404-234	W7/16", UNC7/16", PT1/8", PS1/8", PF1/8"
	M12	8.5	6.5				820-06	3404-235	
	M14	10.5	8				820-07	3404-226	M15, W9/16", UNC9/16"
	M15	10.5	8				820-08	3404-237	M14, W9/16", UNC9/16"
	M16	12.5	10				820-09	3404-238	
	M17	13	10				820-10	3404-239	
	M18	14	11				820-11	3404-240	W3/4", PT3/8", PS3/8", PF3/8", UNC3/4"
	M20	15	12				820-12	3404-241	
	M22	17	13				820-13	3404-242	W7/8", UNC7/8"
	UNC 3/8	7	5.5				820-14	3404-243	M9, M10 , W3/8"
	UNC 7/16	8	6				820-15	3404-244	M11, W7/16", PT1/8", PS1/8", PF1/8"
	UNC 1/2	9	7				820-16	3404-245	W1/2"
	UNC 9/16	10.5	8				820-17	3404-246	M14, M15, W9/16"
	UNC 5/8	12	9				820-18	3404-247	W5/8"
	UNC 3/4	14	11				820-19	3404-248	M18, W3/4", PT3/8", PS3/8", PF3/8"
	UNC 7/8	17	13				820-20	3404-249	M22, W7/8"
	PT 1/8	8	6				820-21	3404-250	M11, W7/16", UNC7/16", PS1/8", PF1/8"
	PT 1/4	11	9				820-22	3404-251	PS1/4", PF1/4"
	PT 3/8	14	11				820-23	3404-252	M18, W3/4", PS3/8",PF3/8", UNC3/4"
	PT 1/2	18	14				820-24	3404-253	PS1/2", PF1/2"
	M24	19	15				820-25	3404-254	M25, PF5/8"

JIS SYSTEM SIZE

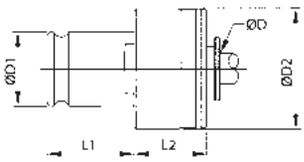
※ORDER NO. SAME COLOR ARE INTER-CHANGEABLE

1PC≒1.8kg

Size	Thread	Tap Shank ØD	Tap Shank □	ØD1	L1	L2	ORDER NO.	CODE NO.	ØD x □ Size same as JIS inch or mm
TC 1433 (#3)	M14	10.5	8	Suit for DIA. 48	56	45	1433-01	3404-260	M15, W9/16", UNC9/16"
	M15	10.5	8				1433-02	3404-261	M14, W9/16", UNC9/16"
	M16	12.5	10				1433-03	3404-262	
	M17	13	10				1433-04	3404-263	
	M18	14	11				1433-05	3404-264	W3/4", UNC3/4", PT3/8", PS3/8", PF3/8"
	M20	15	12				1433-06	3404-265	
	M22	17	13				1433-07	3404-266	W7/8", UNC7/8"
	M24	19	15				1433-08	3404-267	M25, PF5/8"
	M25	19	15				1433-09	3404-268	M24, PF5/8"
	M26	20	15				1433-10	3404-269	M27, W1", UNC1"
	M27	20	15				1433-11	3404-270	M26, W1", UNC1"
	M28	21	17				1433-12	3404-271	
	M30	23	17				1433-13	3404-272	PT3/4", PS3/4", PF3/4"
	M32	24	19				1433-14	3404-273	W1-1/4", PF7/8", UNC1-1/4"
	M33	25	19				1433-15	3404-274	
	M34	26	21				1433-16	3404-275	M35, W1-3/8", PT1", PS1", PF1", UNC1-3/8"
	M35	26	21				1433-17	3404-276	M34, W1-3/8", PT1", PS1", PF1", UNC1-3/8"
	M36	28	21				1433-18	3404-277	
	UNC 9/16	10.5	8				V433-19	3404-278	M14, M15, W9/16"
	UNC 5/8	12	9				1433-20	3404-279	
	UNC 3/4	14	11				1433-21	3404-280	M18, W3/4", PT3/8", PS3/8", PF3/8"
	UNC 7/8	17	13				1433-22	3404-281	M22, W7/8"
	UNC 1	20	15				1433-23	3404-282	M26, M27, W1"
	UNC 1 1/8	22	17				1433-24	3404-283	
	UNC 1 1/4	24	19				1433-25	3404-284	M32, W1-1/4", PF7/8"
	UNC 1 3/8	26	21				1433-26	3404-285	M34, M35, W1-3/8", PT1", PS1", PF1"
	PT 1/4	11	9				1433-27	3404-286	
	PT 3/8	14	11				1433-28	3404-287	M18, W3/4", PT3/8", PS3/8", PF3/8",UNC3/4"
	PT 1/2	18	14				1433-29	3404-288	
	PT 3/4	23	17				1433-30	3404-289	M30, PS3/4", PF3/4"
	PT 1	26	21				1433-31	3404-290	M34, M35,W1-3/8", PS1", PF1", UNC1-3/8"

Quick Change Tapping Collet

※ORDER NO. SAME COLOR ARE INTER-CHANGEABLE



- Torque is factory-set to protect the tap for which a particular collet is designed. Small adjustments can be made by a trained user to accomodate tap strength and material variations.
- Collet stops driving when set torque is exceeded.
- Every tap needs a match size tapping collet.
- ØD1 is chuck suit for dia.

With Overload Safety Collet

DIN 371 Type

ORDER NO.	Size	TC312 DIN 371 Tap	Tap Shank ØD	Tap Shank □	Capacity	L1 (m/m)	L2 (m/m)	ØD1 (m/m)	ØD2 (m/m)	CODE NO.	ØD x □ Size same as DIN 371
312-01D	TC 312 DIN 371	M1~M1.8	2.5	2.1	M1~M14	22.5	25	Suit for DIA. 19	32	3404-501	
312-02D		M2~M2.5	2.8	2.1						3404-502	M2,M2.5
312-02DA		M2	2.8	2.1						3404-502A	M2~M2.5,M2.5
312-02DB		M2.5	2.8	2.1						3404-502B	M2,M2~M2.5
312-03D		M3	3.5	2.7						3404-503	
312-04D		M3.5	4.0	3.0						3404-504	
312-05D		M4	4.5	3.4						3404-505	
312-06D		M4.5	6.0	4.9						3404-506	M5,M6
312-07D		M5	6.0	4.9						3404-507	M4.5,M6
312-08D		M6	6.0	4.9						3404-508	M4.5,M5
312-09D		M8	8.0	6.2						3404-509	
312-10D		M10	10.0	8.0						3404-510	

ORDER NO.	Size	TC820 DIN 371 Tap	Tap Shank ØD	Tap Shank □	Capacity	L1 (m/m)	L2 (m/m)	ØD1 (m/m)	ØD2 (m/m)	CODE NO.	ØD x □ Size same as DIN 371
820-01D	TC 820 DIN 371	M5	6.0	4.9	M5~M24	35	30.5	Suit for DIA. 31	50	3404-521	M6
820-02D		M6	6.0	4.9						3404-522	M5
820-03D		M8	8.0	6.2						3404-523	
820-04D		M10	10.0	8.0						3404-524	

DIN 376 Type

*Custom-build products are available on request.

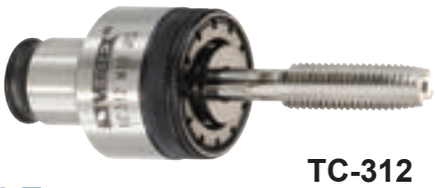
ORDER NO.	Size	TC312 DIN 376 Tap	Tap Shank ØD	Tap Shank □	Capacity	L1 (m/m)	L2 (m/m)	ØD1 (m/m)	ØD2 (m/m)	CODE NO.	ØD x □ Size same as DIN 376
312-21D	TC 312 DIN 376	M3.5	2.5	2.1	M3~M14	22.5	25	Suit for DIA. 19	32	3404-531	
312-22D		M4	2.8	2.1						3404-532	
312-23D		M4.5	3.5	2.7						3404-533	M5
312-24D		M5	3.5	2.7						3404-534	M4.5
312-25D		M6	4.5	3.4						3404-535	
312-26D		M7	5.5	4.3						3404-536	
312-27D		M8	6.0	4.9						3404-537	
312-28D		M10	7.0	5.5						3404-538	
312-29D		M12	9.0	7.0						3404-539	
312-30D		M14	11.0	9.0						3404-540	

ORDER NO.	Size	TC820 DIN 376 Tap	Tap Shank ØD	Tap Shank □	Capacity	L1 (m/m)	L2 (m/m)	ØD1 (m/m)	ØD2 (m/m)	CODE NO.	ØD x □ Size same as DIN 376
820-21D	TC 820 DIN 376	M8	6.0	4.9	M8~M24	35	30.5	Suit for DIA. 31	50	3404-551	
820-22D		M10	7.0	5.5						3404-552	
820-23D		M12	9.0	7.0						3404-553	
820-24D		M14	11.0	9.0						3404-554	
820-25D		M16	12.0	9.0						3404-555	
820-26D		M18	14.0	11.0						3404-556	
820-27D		M20	16.0	12.0						3404-557	
820-28D		M22	18.0	14.5						3404-558	M24
820-29D		M24	18.0	14.5						3404-559	M22

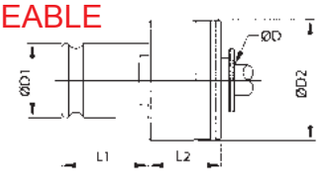
ORDER NO.	Size	TC1433 DIN 376 Tap	Tap Shank ØD	Tap Shank □	Capacity	L1 (m/m)	L2 (m/m)	ØD1 (m/m)	ØD2 (m/m)	CODE NO.	ØD x □ Size same as DIN 376
1433-01D	TC 1433 DIN 376	M14	11.0	9.0	M14~M36	55.5	45	Suit for DIA. 48	72	3404-571	
1433-02D		M16	12.0	9.0						3404-572	
1433-03D		M18	14.0	11.0						3404-573	
1433-04D		M20	16.0	12.0						3404-574	
1433-05D		M22	18.0	14.5						3404-575	M24
1433-06D		M24	18.0	14.5						3404-576	M22
1433-07D		M27	20.0	16.0						3404-577	
1433-08D		M30	22.0	18.0						3404-578	
1433-09D		M33	25.0	20.0						3404-579	
1433-10D		M36	28.0	22.0						3404-580	

Quick Change Tapping Collet

※ORDER NO. SAME COLOR ARE INTER-CHANGEABLE



TC-312



With Overload Safety Collet

ISO 529/2283 Type

*Custom-build products are available on request.

ORDER NO.	Size	TC312 ISO 529/2283 Tap	Tap Shank ØD	Tap Shank □	Capacity	L1 (m/m)	L2 (m/m)	ØD1 (m/m)	ØD2 (m/m)	CODE NO.	ØD x □ Size same as ISO 529
312-21I	TC 312 ISO 529/2283	M3	2.24	1.8	M3~M14	22.5	25	Suit for DIA. 19	32	3404-631	
312-22I		M3.5	2.5	2.0						3404-632	M1~M2,M2
312-23I		M4	3.15	2.5						3404-633	M3
312-24I		M4.5	3.55	2.8						3404-634	M3.5
312-25I		M5	4.0	3.15						3404-635	M4
312-26I		M6	4.5	3.55						3404-636	M4.5
312-27I		M7	5.6	4.5						3404-637	
312-28I		M8	6.3	5.0						3404-638	M6
312-29I		M9	7.1	5.6						3404-639	M7
312-30I		M10	8.0	6.3						3404-640	M8
312-31I		M12	9.0	7.1						3404-641	M9
312-32I		M14	11.2	9.0						3404-642	

ORDER NO.	Size	TC820 ISO 529/2283 Tap	Tap Shank ØD	Tap Shank □	Capacity	L1 (m/m)	L2 (m/m)	ØD1 (m/m)	ØD2 (m/m)	CODE NO.	ØD x □ Size same as ISO 529 / 2283	ØD x □ Size same as ISO 529
820-21I	TC 820 ISO 529/2283	M8	6.3	5.0	M8~M24	35	30.5	Suit for DIA. 31	50	3404-651		M6
820-22I		M9	7.1	5.6						3404-652		M7
820-23I		M10	8.0	6.3						3404-653		M8
820-24I		M12	9.0	7.1						3404-654		M9
820-25I		M14	11.2	9.0						3404-655		
820-26I		M16	12.5	10.0						3404-656		
820-27I		M18	14.0	11.2						3404-657	M20	
820-29I		M20	14.0	11.2						3404-658	M18	
820-30I		M22	16.0	12.5						3404-659		
820-31I		M24	18.0	14.0						3404-660		

ORDER NO.	Size	TC1433 ISO 529/2283 Tap	Tap Shank ØD	Tap Shank □	Capacity	L1 (m/m)	L2 (m/m)	ØD1 (m/m)	ØD2 (m/m)	CODE NO.	ØD x □ Size same as ISO 529 / 2283
1433-01I	TC 1433 ISO 529/2283	M14	11.2	9.0	M14~M36	55.5	45	Suit for DIA. 48	72	3404-671	
1433-02I		M16	12.5	10.0						3404-672	
1433-03I		M18	14.0	11.2						3404-673	M20
1433-04I		M20	14.0	11.2						3404-674	M18
1433-05I		M22	16.0	12.5						3404-675	
1433-06I		M24	18.0	14.0						3404-676	
1433-07I		M27	20.0	16.0						3404-677	M30
1433-08I		M30	20.0	16.0						3404-678	M27
1433-09I		M33	22.4	18.0						3404-679	
1433-10I		M36	25.0	20.0						3404-680	

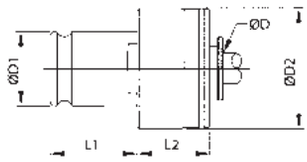
ISO 529 Type

ORDER NO.	Size	TC312 IOS 529 Tap	Tap Shank ØD	Tap Shank □	Capacity	L1 (m/m)	L2 (m/m)	ØD1 (m/m)	ØD2 (m/m)	CODE NO.	ØD x □ Size same as ISO 529 / 2283	ØD x □ Size same as ISO 529
312-01I	TC 312 ISO 529	M1~M2	2.5	2.0	M1~M14	22.5	25	Suit for DIA. 19	32	3404-601	M3.5	M2
312-01IA		M2	2.5	2.0						3404-601A	M3.5	M1~M2
312-02I		M2.2~M2.5	2.8	2.24						3404-602		M2.5
312-02IA		M2.5	2.8	2.24						3404-602A		M2.2~M2.5
312-03I		M3	3.15	2.5						3404-603	M4	
312-04I		M3.5	3.55	2.8						3404-604	M4.5	
312-05I		M4	4.0	3.15						3404-605	M5	
312-06I		M4.5	4.5	3.55						3404-606	M6	
312-07I		M5	5.0	4.0						3404-607		
312-08I		M6	6.3	5.0						3404-608	M8	
312-09I		M7	7.1	5.6						3404-609	M9	
312-10I		M8	8.0	6.3						3404-610	M10	
312-11I		M9	9.0	7.1						3404-611	M12	
312-12I		M10	10.0	8.0						3404-612		

ORDER NO.	Size	TC820 ISO 529 Tap	Tap Shank ØD	Tap Shank □	Capacity	L1 (m/m)	L2 (m/m)	ØD1 (m/m)	ØD2 (m/m)	CODE NO.	ØD x □ Size same as ISO 529 / 2283
820-01I	TC 820 ISO 529	M6	6.3	5.0	M6~M24	35	30.5	Suit for DIA. 31	50	3404-621	M8
820-02I		M7	7.1	5.6						3404-622	M9
820-03I		M8	8.0	6.3						3404-623	M10
820-04I		M9	9.0	7.1						3404-624	M12
820-05I		M10	10.0	8.0						3404-625	

Quick Change Tapping Collet

QUICK CHANGE TAP COLLETS



With Overload Safety Collet

ANSI TYPE

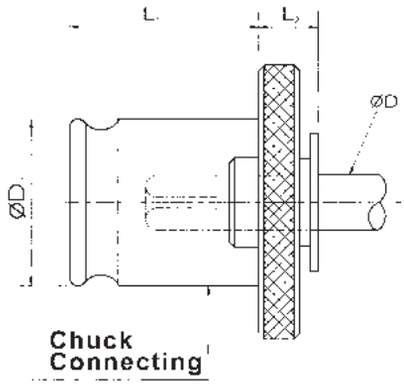
ORDER NO.	Size	TC312 ANSI Tap	Tap Shank ØD inch	Tap Shank ØD mm	Tap Shank □ inch	Tap Shank □ mm	Capacity	L1 / L2 (mm)	ØD1 / ØD2 (mm)	CODE NO.	ØD x □ Size same as ANSI
TC312-#5-ANSI	TC312 ANSI	#5	0.141	3.581	0.11	2.794	#5~#14	21.5	Suit for DIA. 19.0	3404-701	UNC1/8",M3,M3.15
TC312-#6-ANSI		#6	0.141	3.581	0.11	2.794				3404-702	M3.5
TC312-#8-ANSI		#8	0.168	4.267	0.131	3.327				3404-703	UNC5/32",M4
TC312-#10-ANSI		#10	0.194	4.928	0.152	3.861				3404-704	UNC3/16",M4.5,M5
TC312-#12-ANSI		#12	0.220	5.588	0.165	4.191				3404-705	
TC312-#14-ANSI		#14	0.255	6.477	0.191	4.851				3404-706	UNC1/4",M6,M6.3
TC312-M3-ANSI		M3	0.141	3.581	0.11	2.794	M3~M14			3404-707	#5,UNC1/8",M3.15
TC312-M4-ANSI		M4	0.168	4.267	0.131	3.327				3404-708	#8,UNC5/32"
TC312-M5-ANSI		M5	0.194	4.928	0.52	3.861				3404-709	#10,UNC3/16",M4.5
TC312-M6-ANSI		M6	0.255	6.477	0.191	4.851				3404-710	#14,UNC1/4",M6.3
TC312-M8-ANSI		M8	0.318	8.077	0.238	6.045				3404-711	UNC5/16",M7
TC312-M10-ANSI		M10	0.323	8.204	0.242	6.147				3404-712	UNC7/16"
TC312-M12-ANSI		M12	0.367	9.322	0.275	6.985				3404-713	UNC1/2",M12.5
TC312-M14-ANSI		M14	0.429	10.897	0.322	8.179				3404-714	UNC9/16"
TC312-UNC1/8-ANSI		UNC1/8	0.141	3.581	0.11	2.794	UNC1/8 ~ UNC9/16	25.0	32.0	3404-715	#5,M3,M3.15
TC312-UNC3/16-ANSI		UNC3/16	0.194	4.928	0.152	3.861				3404-716	#10,M4.5,M5
TC312-UNC1/4-ANSI		UNC1/4	0.255	6.477	0.191	4.851				3404-717	#14,M6,M6.3
TC312-UNC5/16-ANSI		UNC5/16	0.318	8.077	0.238	6.045				3404-718	M7,M8
TC312-UNC7/16-ANSI		UNC7/16	0.323	8.204	0.242	6.147				3404-719	M10
TC312-UNC1/2-ANSI		UNC1/2	0.367	9.322	0.275	6.985				3404-720	M12,M12.5
TC312-UNC3/8-ANSI		UNC3/8	0.381	9.677	0.286	7.264				3404-721	
TC312-UNC9/16-ANSI		UNC9/16	0.429	10.897	0.322	8.179				3404-722	M14

ANSI TYPE

ORDER NO.	Size	TC820 ANSI Tap	Tap Shank ØD inch	Tap Shank ØD mm	Tap Shank □ inch	Tap Shank □ mm	Capacity	L1 / L2 (mm)	ØD1 / ØD2 (mm)	CODE NO.	ØD x □ Size same as ANSI
TC820-UNC7/16-ANSI	TC820 ANSI	UNC7/16	0.323	8.204	0.242	6.147	UNC7/16 ~ UNC7/8 M6~M24	35.0	Suit for DIA. 31.0	3404-731	M10
TC820-UNC1/2-ANSI		UNC1/2	0.367	9.322	0.275	6.985				3404-732	M12,M12.5
TC820-UNC3/8-ANSI		UNC3/8	0.381	9.677	0.286	7.264				3404-733	
TC820-UNC9/16-ANSI		UNC9/16	0.429	10.897	0.322	8.179				3404-734	M14
TC820-UNC5/8-ANSI		UNC5/8	0.480	12.192	0.36	9.144				3404-735	M16
TC820-UNC11/16-ANSI		UN11/16	0.542	13.767	0.406	10.312				3404-736	M18
TC820-UNC3/4-ANSI		UNC3/4	0.590	14.986	0.442	11.227				3404-737	
TC820-UNC13/16-ANSI		UNC13/16	0.652	16.561	0.489	12.421				3404-738	M20
TC820-UNC7/8-ANSI		UNC7/8	0.697	17.704	0.523	13.284		34.0	50.0	3404-739	M22

Quick Change Tapping Collet

QUICK CHANGE TAP COLLETS



JIS SYSTEM SIZE

1PC≒0.08kg

Size	Thread	Tap Shank ØD	Tap Shank □	ØD1	L1	L2	ORDER NO.	CODE NO.	ØD x □ Same JIS inch or mm
TC312B (#1)	M3	4	3.2	Suit for DIA. 19	21.5	7	**312B-01**	3404-300	W1/8”
	M4	5	4				**312B-02**	3404-301	M4.5
	M5	5.5	4.5				**312B-03**	3404-302	M5.5,W3/16”
	M6	6	4.5				**312B-04**	3404-303	W1/4”,UNC1/4”
	UNC 5/16	6.1	5				**312B-05**	3404-304	
	M7/M8	6.2	5				**312B-06**	3404-305	
	M9/M10	7	5.5				**312B-07**	3404-306	W3/8”, UNC3/8”
	M11	8	6				**312B-08**	3404-307	W7/16”,PT1/8”,PS1/8”,PF1/8”,UNC7/16”
	M12	8.5	6.5				**312B-09**	3404-308	
	UNC 1/2	9	7				**312B-10**	3404-309	W1/2”
	M14	10.5	8				**312B-11**	3404-310	M15,W9/16”
	PT 1/4	11	9				**312B-12**	3404-311	PS1/4”,PF`/4”

1PC≒0.28kg

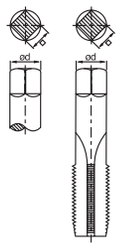
Size	Thread	Tap Shank ØD	Tap Shank □	ØD1	L1	L2	ORDER NO.	CODE NO.	ØD x □ Same JIS inch or mm
TC820B (#2)	M7/M8	6.2	5	Suit for DIA. 31	35	11	**820B-01**	3404-330	
	M9/M10	7	5.5				**820B-02**	3404-331	W3/8”,UNC3/8”
	M11	8	6				**820B-03**	3404-332	W7/16”,UNC7/16”,PT1/8”,PS1/8”,PF1/8”
	M12	8.5	6.5				**820B-04**	3404-333	
	UNC 1/2	9	7				**820B-05**	3404-334	W1/2”
	M14	10.5	8				**820B-06**	3404-335	M15,W9/16”,UNC9/16”
	PT 1/4	11	9				**820B-07**	3404-336	PS1/4”,PF1/4”
	UNC 5/8	12	9				**820B-08**	3404-337	W5/8”
	M16	12.5	10				**820B-09**	3404-338	
	M17	13	10				**820B-10**	3404-339	
	M18	14	11				**820B-11**	3404-340	W3/4”,PT3/8”,PS3/8”,PF3/8”,UNC3/4”
	M20	15	12				**820B-12**	3404-341	
	M22	17	13				**820B-13**	3404-342	W7/8”UNC7/8”
	PT 1/2	18	14				**820B-14**	3404-343	PS1/2”,PF1/2”

1PC≒0.8kg

Size	Thread	Tap Shank ØD	Tap Shank □	ØD1	L1	L2	ORDER NO.	CODE NO.	ØD x □ Same JIS inch or mm
TC1433B (#3)	M14/M15	10.5	8	Suit for DIA. 48	55.5	14	**1433B-01**	3404-360	W9/16”,UNC9/16”
	PT 1/4	11	9				**1433B-02**	3404-361	
	UNC 5/8	12	9				**1433B-03**	3404-362	
	M16	12.5	10				**1433B-04**	3404-363	
	M17	13	10				**1433B-05**	3404-364	
	M18	14	11				**1433B-06**	3404-365	W3/4”,UNC3/4”,PT3/8”,PS3/8”,PF3/8”
	M20	15	12				**1433B-07**	3404-366	
	M22	17	13				**1433B-08**	3404-367	W7/8”,UNC7/8”
	PT 1/2	18	14				**1433B-09**	3404-368	
	M24/M25	19	15				**1433B-10**	3404-369	PF5/8”
	M26/M27	20	15				**1433B-11**	3404-370	W1”,UNC1”
	M28	21	17				**1433B-12**	3404-371	
	UNC $1^1/_8$	22	17				**1433B-13**	3404-372	
	M30	22	18				**1433B-14**	3404-373	PT3/4”,PS3/4”,PF3/4”
	M32	24	19				**1433B-15**	3404-374	W1-1/4”,PF7/8”,UNC1-1/4”
	M33	25	20				**1433B-16**	3404-375	
	M34/M35	26	21				**1433B-17**	3404-376	W1-3/8”,PT1”,PS1”,PF1”,UNC1-3/8”
	M36	28	22				**1433B-18**	3404-377	PS1-1/8”,PF1-1/8”

Tap Shank Dimensions INT. STD

For Tapping Chuck



JIS STANDARD

METRIC THREAD	INCH THREAD	Ød	□
M3	W 1/8	4	3.2
M4 M4.5		5	4
M5 M5.5		5.5	4.5
M6	W 1/4	6	4.5
	W 5/16	6.1	5
M8 M7		6.2	5
M10 M9	W 3/8	7	5.5
M11	W 7/16	8	6
M12		8.5	6.5
	W 1/2	9	7
M14 M15	W 9/16	10.5	8
	W 5/8	12	9
M16		12.5	10
M17		13	10
M18	W 3/4	14	11
M20		15	12
M22	W 7/8	17	13
M24 M25		19	15
M27 M26	W1	20	15
M28		21	17
	W 1-1/8	22	17
M30		23	17
M32	W1-1/4	24	19
M33		25	19
M35 M34	W1-3/8	26	21
M36 M38		28	21
M39 M40	W1-1/2	30	23
M42	W1-5/8	32	26
M45	W1-3/4	35	26
M48	W1-7/8	38	29

FOR TAP	JIS		ISO		DIN 371		DIN 376	
Thread	Ød	□	Ød	□	Ød	□	Ød	□
W 1/8″	4	3.2						
W 3/16″	5.5	4.5						
W 1/4″	6	4.5						
W 5/16″	6.1	5						
W 3/8″	7	5.5						
W 7/16″	8	6						
W 1/2″	9	7						
W 5/8″	12	9						
W 3/4″	14	11						
W 7/8″	17	13						
W 1″	20	15						

JIS STANDARD PIPE THREAD

For Tap Style			Tapping Chuck Tap Size	
PT	PS	PF	Ød	□
1/8	1/8	1/8	8	6
1/4	1/4	1/4	11	9
3/8	3/8	3/8	14	11
1/2	1/2	1/2	18	14
		5/8	19	15
3/4	3/4	3/4	23	17
		7/8	24	19
1	1	1	26	21
	1 - 1/8	1 - 1/8	28	21
1 - 1/4	1 - 1/4	1 - 1/4	32	26
1 - 3/8	1 - 3/8	1 - 3/8	35	26
1 - 1/2	1 - 1/2	1 - 1/2	38	29

FOR TAP	JIS		ISO		DIN 371		DIN 376	
Thread	Ød	□	Ød	□	Ød	□	Ød	□
M3	4	3.2	3.15	2.5	3.5	2.7	2.2	-
M4	5	4	4	3.15	4.5	3.4	2.8	2.1
M5	5.5	4.5	5	4	6	4.9	3.5	2.7
M6	6	4.5	6.3	5	6	4.9	4.5	3.4
M8	6.2	5	8	6.3	8	6.2	6	4.9
M10	7	5.5	10	8	10	8	7	5.5
M12	8.5	6.5	9	7.1			9	7
M14	10.5	8	11.2	9			11	9
M16	12.5	10	12.5	10			12	9
M18	14	11	14	11.2			14	11
M20	15	12	14	11.2			16	12
M22	17	13	16	12.5			18	14.5
M24	19	15	18	14			18	14.5
M27	20	15	20	16			20	16
M30	23	17	20	16			22	18
PT 1/8	8	6						
PT 1/4	11	9						
PT 3/8	14	11						
PT 1/2	18	14						
PT 5/8	19	15						
PT 3/4	23	17						

DIN STANDARD

FOR TAP	DIN 371		DIN 352		DIN 376	
Thread	Ød	□	Ød	□	Ød	□
M1,M1.1,M1.2,M1.4,M1.6,M1.8	2.5	2.1	2.5	2.1		
M2,M2.2,M2.5	2.8	2.1	2.8	2.1		
M3	3.5	2.7	3.5	2.7	2.2	-
M3.5	4	3	4	3		
M4	4.5	3.4	4.5	3.4	2.8	2.1
M5,M6	6	4.9	6	4.9		
M8	8	6.2			6	4.9
M8			6	4.9	6	4.9
M10	10	8			7	5.5
M10			7	5.5	7	5.5
M12			9	7	9	7
M14			11	9	11	9
M16			12	9	12	9
M18			14	11	14	11
M20			16	12	16	12
M22,M24			18	14.5	18	14.5
M27			20	16	20	16
M30			22	18	22	18

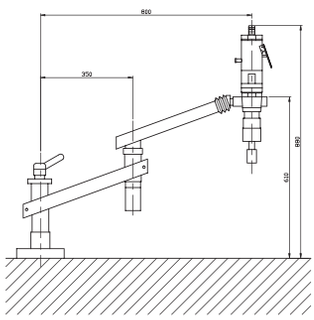
DRILL HOLE SIZE FOR TAP THREAD

TAP THREAD	PITCH(P)	DRILL HOLE (d mm)
M1	0.25	0.75
M1.1	0.25	0.85
M1.2	0.25	0.95
M1.4	0.3	1.1
M1.6	0.35	1.25
M1.8	0.35	1.45
M2	0.4	1.6
M2.2	0.45	1.75
M2.5	0.45	2.05
M3	0.5	2.5
M3.5	0.6	2.9
M4	0.7	3.3
M4.5	0.75	3.75
M5	0.8	4.2
M6	1	5
M7	1	6
M8	1.25	6.75
M9	1.25	7.75
M10	1.5	8.5
M11	1.5	9.5
M12	1.75	10.2
M14	2	12
M16	2	14
M18	2.5	15.5
M20	2.5	17.5
M22	2.5	19.5
M24	3	21
M27	3	24
M30	3.5	26.5
M33	3.5	29.5
M36	4	32

Mini Type Arm Type Air Tapping Unit

HIGH TORQUE HIGH EFFICENCY EASY OPERATION

※Base not included



ACCESSORIES

- Air tapping spindle
- Parallel arm & Air combination
- Table mounting column
- Choose any six safety clutch tapping adapters
- Radial jib
- Air pressure: 6~8 kgs/cm²
- VAT-08/12 series require: 5HP compressor
- VAT-16/20 series require: 10HP compressor

※GUARNTEED FOR 3 MONTHS.
※MUST INSTALL ON A STABLE / HARD SURFACE FOR PARALLE WORK.

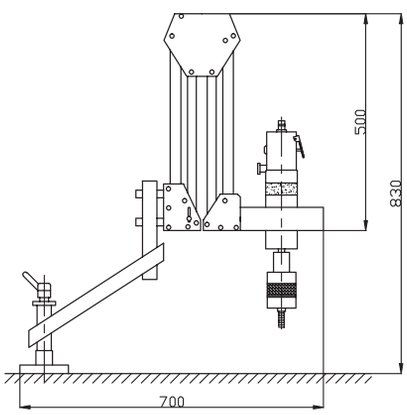
ORDER NO.	VAT-708	VAT-712	VAT-716	VAT-720	VAT-722	VAT-724
For Tap	M3~M8	M5~M12	M8~M16	M10~M20	M12~M22	M14~M24
	TC-312	TC-312	TC-820	TC-820	TC-820	TC-820
Speed (rpm)	630/700	350/400	250	200	200	100
Weight (kgs)	13.2	13.1	17.3	20.6	20.6	22.1
Work Range	Rmax 700mm					
CODE NO.	3404-410	3404-411	3404-412	3404-413	3404-413A	3404-413B

AIR TAPPING UNIT

Small Arm Type Air Tapping Unit

HIGH TORQUE HIGH EFFICENCY EASY OPERATION

※Base not included



ACCESSORIES

- Air tapping spindle
- Parallel arm & Air combination
- Table mounting column
- Choose any six safety clutch tapping adapters
- Radial jib, increases arm reach by 500 mm

- Without stand plate
- Air pressure: 6~8 kgs / cm²
- VAT-08/12 series require: 5HP compressor
- VAT-16/20 series require: 10HP compressor

※ GUARNTEED FOR 3 MONTHS.
※ MUST INSTALL ON A STABLE / HARD SURFACE FOR PARALLE WORK.

ORDER NO.	VAT-1408	VAT-1412	VAT-1416	VAT-1420	VAT-1422	VAT-1424
For Tap	M3~M8	M5~M12	M8~M16	M10~M20	M12~M22	M14~M24
	TC-312	TC-312	TC-820	TC-820	TC-820	TC820
Speed (rpm)	700	400	250	200	200	100
Weight (kgs)	18.2	18.2	24.6	25.6	25.6	27.1
Work Range	Rmax 1400mm					
	Rmin 200mm					
CODE NO.	3404-415	3404-416	3404-417	3404-418	3404-418A	3404-418B

※VAT-1424 can be replaced by VAT-1624

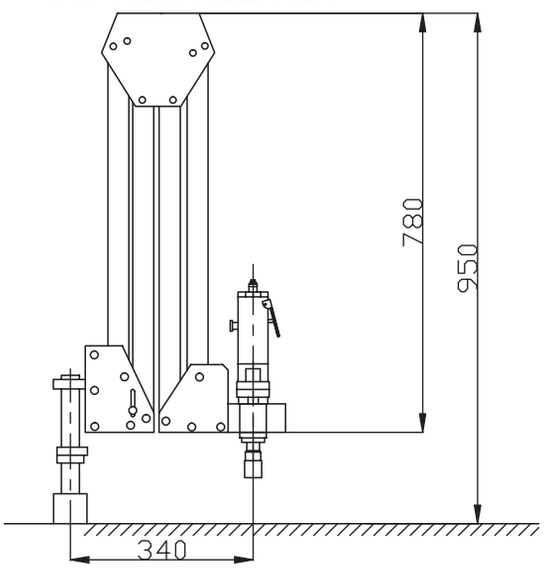
Arm Type Air Tapping Unit

HIGH TORQUE HIGH EFFICENCY EASY OPERATION

WORK RANGE 1600X500m/m RMAX. X MIN.

※Base not included

VAT-1608/1612/1616
VAT-1620/1622/1624



To solve all tapping problems

- Rapid positoning and high machining speed increase productivity.
- Lower tap damage rate, high thread accuracy.
- Tap shall never break for tapping through-hole or blind-hole.
- Tapping for heavier workpiece requires neither positioning equipments nor movement or large work area.
- Lower machining cost than that by CNC maghine, drilling machine or manual tapping operation.
- Drilling to max: 6mm diameter
- Easy operation, no experience or strength required.
- Without stand plate.
- Air pressure: 6~8 kgs/cm²
- VAT-08/12 series require: 5HP compressor
- VAT-16/20 series require: 10HP compressor

※ GUARNTEED FOR 3 MONTHS.

※ MUST INSTALL ON A STABLE / HARD SURFACE FOR PARALLE WORK.

Suggest collet size for standard acces

VAT-□□08 COLLET SIZE TC312-M3,M4,M5,M6*2,M8
VAT-□□12 COLLET SIZE TC312-M5,M6,M8*2,M10,M12
VAT-□□16 COLLET SIZE TC312/TC820
TC312-M8,M10
TC820-M10,M12,M14,M16
VAT-□□20 COLLET SIZE TC820-M10,M12,M14,M16,M18,M20
VAT-□□22 COLLET SIZE TC820-M12,M14,M16,M18,M20,M22
VAT-□□24 COLLET SIZE TC820-M14,M16,M18,M20,M22,M24

JIS & DIN376 Most Populared

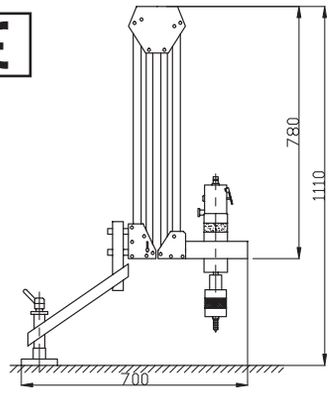
ORDER NO.	VAT-1608	VAT-1612	VAT-1616	VAT-1620	VAT-1622	VAT-1624
For Tap	M3~M8	M5~M12	M8~M16	M10~M20	M12~M22	M14~M24
	TC-312	TC-312	TC-820	TC-820	TC-820	TC-820
Speed (rpm)	700	400	250	200	200	100
Weight (kgs)	16.9	17	21.1	24.6	24.6	26.10
Work Range	Rmax 1600mm					
	Rmin 500mm					
CODE NO.	3404-420	3404-421	3404-422	3404-428	3404-428A	3404-428B

VAT-1608, 1612, 1616, 1620, 1622, 1624 STANDARD ACCESSORIES

- Air tapping spindle
- Parallel arm
- Table mounting column
- Air combination
- Choose any six safety clutch tapping adapters

Air Tapping Unit

※Base not included



STANDARD ACCESSORIES:

- Air tapping spindle
- Parallel arm & Air combination
- Table mounting column
- Choose any six safety clutch taping adapters
- Radial jib, increases arm reach by 500 mm
- Air pressure: 6~8 kgs / cm²
- VAT-08/12 series require: 5HP compressor
- VAT-16/20 series require: 10HP compressor

ORDER NO.	VAT-1908	VAT-1912	VAT-1916	VAT-1920	VAT-1922	VAT-1924
For Tap	M3~M8	M5~M12	M8~M16	M10~M20	M12~M22	M14~M24
	TC-312	TC-312	TC-820	TC-820	TC-820	TC-820
Speed (rpm)	700	400	250	180/200	185/205	90/100
Weight (kgs)	19.7	23.9	23.5	26	28	28
Work Range	Rmax 1900mm					
	Rmin 200mm					
CODE NO.	3404-425	3404-426	3404-427	3404-430	3404-431	3404-431A

※VAT-1924 can be replaced by VAT-1624

※GUARNTEED FOR 3 MONTHS.

AIR TAPPING UNIT

Air Tapping Spindle

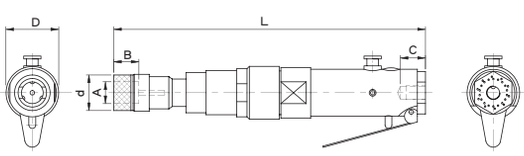
High torque, high efficiency for maching all tapping requirement. Light and handy main shaft design, easy operation.

The required pressure is 6.3kg/cm²=90 PSI.

- SP08 & SP12 Required 5 HP compressor and more.
- SP16 & SP20 Required 10 HP compressor and more. (must keep the air pressure at 6.3kg/cm²)

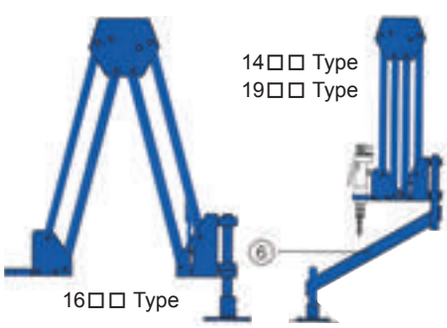
※GUARNTEED FOR 3 MONTHS.

ORDER NO.	TAPPING CAPACITY	SPEED (rpm)	MOUNTING DIA.	WEIGHT (kgs)	CODE NO.
VAT-SP08	M3-M8	630/700	ø38.5 (1 1/2")	1.5	3404-432
VAT-SP12	M5-M12	350/400	ø38.5 (1 1/2")	1.5	3404-433
VAT-SP16	M8-M16	230/250	ø61.3 (2 13/32")	3.9	3404-434
VAT-SP20	M10-M20	180/200	ø61.3 (2 13/32")	3.9	3404-435
VAT-SP22	M12-M22	185/205	ø61.3 (2 13/32")	3.9	3404-435A
VAT-SP24	M14-M24	90/100	ø61.3 (2 13/32")	4.3	3404-435B



ORDER NO.	A	B	C	D	d	L	CODE NO.
VAT-SP08	19	30	22	46	32	263	3404-432
VAT-SP12	19	30	22	46	32	263	3404-433
VAT-SP16	31	48	27	65	50	360	3404-434
VAT-SP20	31	48	27	65	50	360	3404-435
VAT-SP22	31	48	27	65	50	360	3404-435A
VAT-SP24	31	48	27	65	50	395	3404-435B

Parallel Arm For Air Tapping Unit



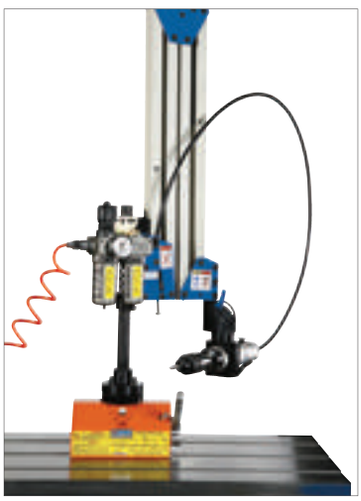
PARALLEL ARM

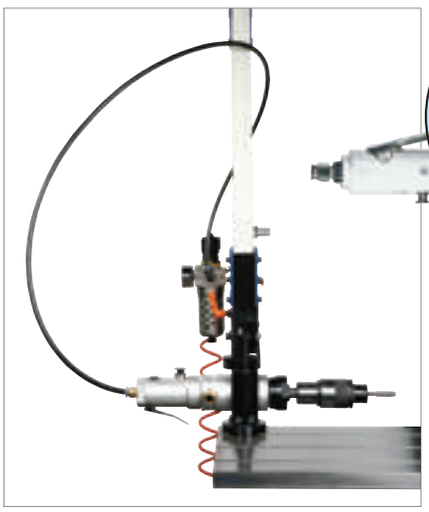
FOR THE AIR TAPPING UNIT

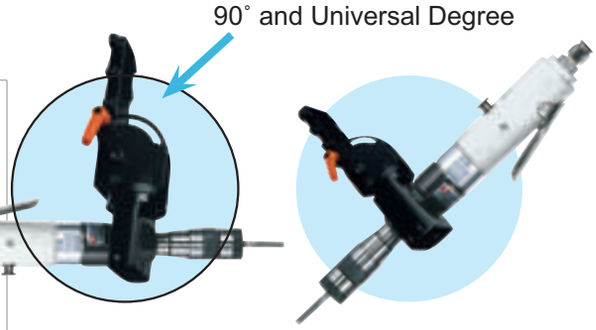
ORDER NO.	WEIGHT SP-08	WEIGHT SP-12	WEIGHT SP-16	CODE NO.
VAT-ARM700-SP 08, 12, 16	12kgs	12kgs	14kgs	3404-436
VAT-ARM1400x200-SP 08, 12, 16	17kgs	17kgs	18kgs	3404-437
VAT-ARM1600x500-SP 08, 12, 16	17kgs	17kgs	18kgs	3404-438
VAT-ARM1900x200-SP 08, 12, 16	19kgs	19kgs	20kgs	3404-439

※ MUST INSTALL ON A STABLE / HARD SURFACE FOR PARALLE WORK.

Adjustable Angle Head For Air Tapping Unit







ORDER NO.	FOR VAT-TYPE	WEIGHT (kg)	CODE NO.
AT08-90˚	VAT-1408 VAT-1608 VAT-1908	1.1	3404-440
AT12-90˚	VAT-1412 VAT-1612 VAT-1912	1.1	3404-441

ORDER NO.	FOR VAT-TYPE	WEIGHT (kg)	CODE NO.
AT16-90˚	VAT-1416 VAT-1616 VAT-1916	1.5	3404-442
AT20-90˚	VAT-1920	1.5	3404-443
AT22-90˚	VAT-1922	1.5	3404-444
AT24-90˚	VAT-1924	1.5	3404-446

Magnetic Base For Air Tapping Unit

PORTABLE & MOVEABLE AIR TAPPING ARM

EXAMPLE

- Special Accessory for VAT-Series

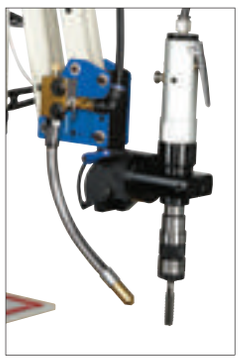
※ MUST INSTALL ON A STABLE / HARD SURFACE FOR PARALLE WORK.

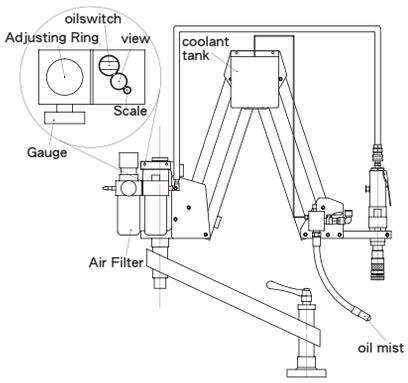
ORDER NO.	Magnetic Base		suit For VAT-Type	Weight (kgs)	CODE NO.
	Holding Power	Dimension LXWXH(mm)			
VLM-300A	300kg	155x90x93	VAT-708, 712, 716 VAT-1408, 1412, 1416 VAT-1608, 1612, 1616 VAT-1908, 1912, 1916	9.4	3404-450
VLM-600A	600kg	224x115x120	VAT-720, 722, 724 VAT-1420, 1422, 1424 VAT-1620, 1622, 1624 VAT-1920, 1922, 1924	21.9	3404-451

Mist Coolant System For Air Tapping Unit

Without Oil

ORDER NO.VAC-08 CODE NO.3404-452

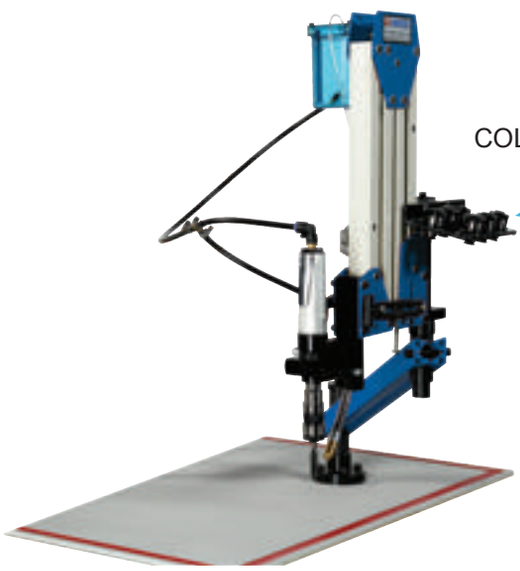




ENLARGE THE TAPPER LIFE 50%

Collet Rack For Air Tapping Unit

ORDER NO.VCR-08 CODE NO.3404-453



COLLET RACK

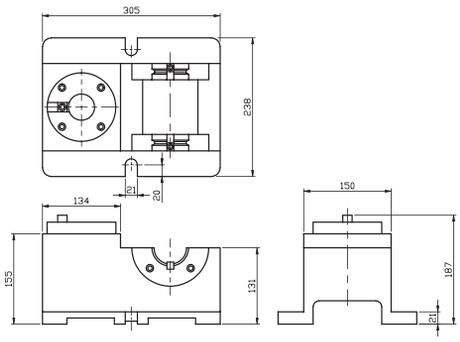
Note For VAT-Series / VAG-Series

CAUTIONS

⚠ CAUTIONS:

1. AIR COMPRESSOR PRESSURE 6~8 kg/cm² ,DRY AIR.
2. Always check oil level of the 3 in 1 air combination.
3. Tapping ARM has to be mounted on the same hardened work plate.
4. SET THE WORKPIECE SURFACE TO BE PARALLELED WITH TAPPING ARM STAND.
5. Always supply cutting oil while tapping.
6. Work every 1 hour rest 10 to 15 minutes, 8 hours per day. Every 3 months need service.
7. After use, drop some #60 oil/lubrication into air inlet. Air hose & connector must be cleaned before use!

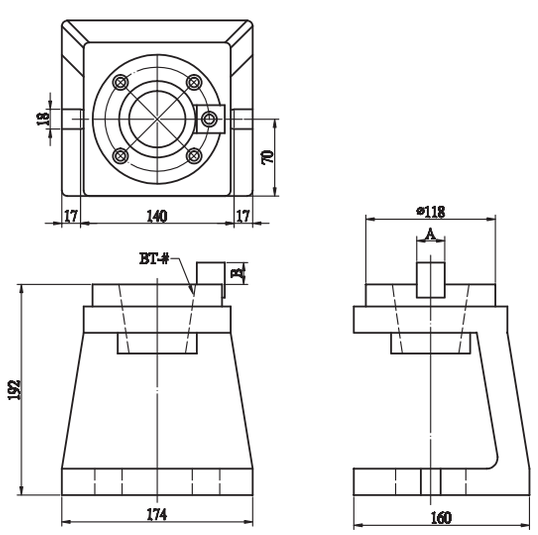
Deluxe Type Tool Setting Stand



- This tool setting stand is one kind of subsidize tool for helping machine center to work efficiently. To be used fixing the tools on tool holder. It could avoid the method of using draw bar to fix (on machine center). It is safe, and doesn't effect the precision of machine's spindle.
- It's best for using on horizontal or vertical lines, simple & quick operations.
- A multi-function tool, it is changeable, has two kinds of specifications can be used. That is to say, one machine could be used as two sets machines.
- Additional special accessories to make your operating more convenient.
- CAT & SK share same model.

ORDER NO.	SHANK TAPERS		WEIGHT (kgs)	CODE NO.
	TOOL POST	ADAPTER HOLDING		
VTD-1	BT-#40x1	BT-#40x2	22.4	3405-001
VTD-2	BT-#50x1	BT-#50x2	22	3405-002
VTD-3	BT-#50x1	BT-#50x1 BT-#40x1	24	3405-003
VTD-4	BT-#40x1	BT-#50x1 BT-#40x1	24	3405-004
VTD-5	SK-40x1	SK-40x2	26	3405-005
VTD-6	SK-50x1	SK-50x2	24	3405-006
VTD-7	SK-50x1	SK-50x1 SK-40x1	25	3405-007
VTD-8	SK-40x1	SK-50x1 SK-40x1	25	3405-008
VTD-9	BT-30x1	BT-30x2	23	3405-009
VTD-10	SK-30x1	SK-30x2	23	3405-009A

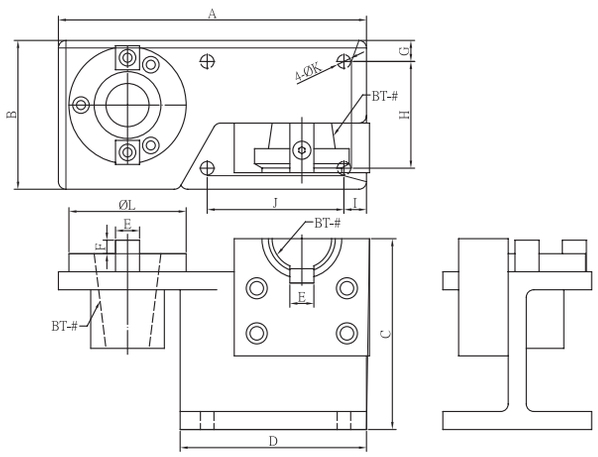
Simple Type Tool Setting Stand



- This tool setting stand is one kind of subsidize tool for helping machine center to work efficiently.
  To be used fixing the tools on tool holder. It could avoid the method of using draw bar to fix (on machine center). It is safe, and doesn't effect the precision of machine's spindle.
- It is simple structive type. And could fix tooling on the above and hold the pull studs on the below of it. This is the excellent helping tools for simple, rapid and safe.

ORDER NO.	SHANK TAPERS	STD	WEIGHT (kg)	CODE NO.
VTS-BT-30	30	BT ISO NT	11.9	3405-010
VTS-BT-40	40		12.4	3405-011
VTS-BT-50	50		11.9	3405-012
VTS-SK-30	30	CAT DIN 69871A	11.9	3405-013
VTS-SK-40	40		12.4	3405-014
VTS-SK-50	50		11.9	3405-015

Tool Holder Locking Device

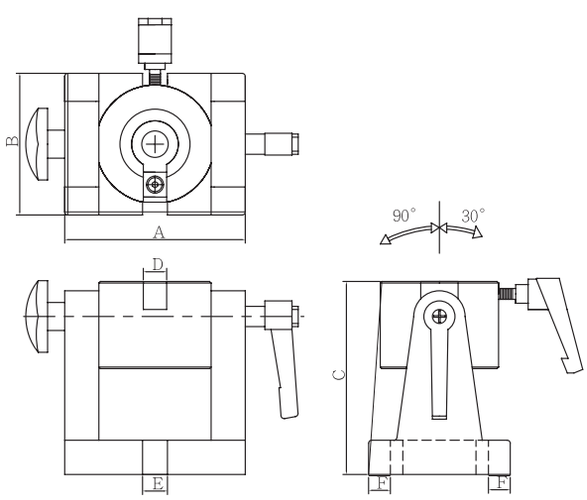


ORDER NO.	A	B	C	D	E	F	G	H	I	J	K	L	CODE NO.
VTG-BT30	205	99	127	124	15	10	16	71	15	91	9	78	3405-020
VTG-BT40	205	99	127	124	16	9	14	71	15	91	9	78	3405-021
VTG-BT50	282	152	203	162	25	16	22	108	25	115	9	115	3405-022

ORDER NO.	STD	WEIGHT (KGS)	CODE NO.
VTG-BT30	ISO BT	4.1	3405-020
VTG-BT40		4.2	3405-021
VTG-BT50		11.8	3405-022
VTG-SK30	CAT SK DIN69871A	3.7	3405-023
VTG-SK40		4	3405-024
VTG-SK50		12.3	3405-025

Tool Holder Locking Device

TILTING TYPE



Example Shank Not Included

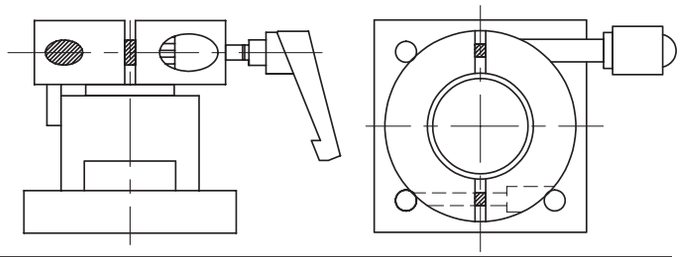
ORDER NO.	STD	WEIGHT (KGS)	CODE NO.
VTL-BT30	ISO BT	4.2	3405-030
VTL-BT40		4.3	3405-031
VTL-BT50		9.8	3405-032
VTL-SK30	DIN69871A	4	3405-033
VTL-SK40		4	3405-034
VTL-SK50		8	3405-035
VTL-NT30	NT	4.2	3405-036
VTL-NT40		4.3	3405-037
VTL-NT50		9.8	3405-038

ORDER NO.	A	B	C	D	E	F	CODE NO.
VTL-BT30	116	91	126	16	15	14	3405-030
VTL-BT40	117	91	136	16	15	14	3405-031
VTL-BT50	149	121	189	25	15	15	3405-032

Tool Holder Locking Fixtures

HSK TYPE

NEW



ORDER NO.	STD	WEIGHT (KGS)	CODE NO.
VTL-HSK40	DIN69893 HSK	2.5	3405-046
VTL-HSK50		3.5	3405-047
VTL-HSK63		4.5	3405-048

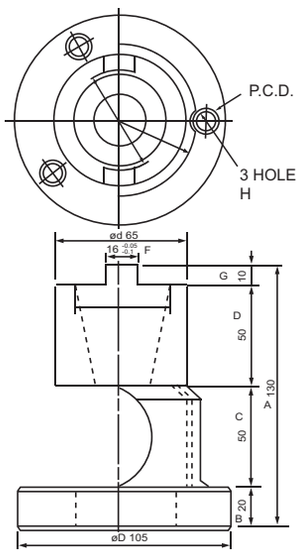
Round Tool Locking Device

NEW

Example

Feature:

- Light weight & compact desigh
- Quick setup time
- For tool holder locking
- Space saving



ORDER NO.	SHANK TAPER	ØD	Ød	3HOLE P.C.D.	H	A	B	C	D	E	F	WEIGHT (kg)	CODE NO.
VTO-BT30	30	90	50	70	ø14x9xø9	108	20	48	30	10	16	1.2	3405-190
VTO-BT40	40	105	65	85	ø14x9xø9	130	20	50	50	10	16	2.2	3405-191
VTO-BT50	50	135	95	115	ø14x9xø9	188	24	82	70	12	25.4	5	3405-192

Fast Tool Setting Stand

NEW

HSK TYPE

LEVER FOR CLAMPING & UNCLANPING

SETTING INSIDE FOR CLAMPING

※MOVEABLE KEY FOR FLEXIBLE PURPOSE FLEXIBLE

Example

ORDER NO.	STD	WEIGHT (kg)	CODE NO.
VTS-HSK63	DIN69893HSK	10.5	3405-193
VTS-HSK100		11.5	3405-194

Spindle Taper Wiper

- Easily and quickly for cleaning spindle hole.
- Plastic body, the taper wiper is made of special cotton material, will not damage the spindle.
- The BT & DIN of taper are same

ORDER NO.	TAPER NO.	TOTAL LENGTH	WEIGHT (kg)	CODE NO.
VTW-30	#30	169mm	0.07	3405-060
VTW-40	#40	187mm	0.08	3405-061
VTW-50	#50	241mm	0.02	3405-062

Spindle Taper Wiper

NEW

WITH REPLACE WIPER

- Easily and quickly for cleaning spindle hole.
- Plastic body, the taper wiper is made of special cotton material, will not damage the spindle.
- The BT & DIN of taper are same
- Replaceable Wiper.
- Easy to replace new wipers.
- Included 2 sets x disposable wipers
- ECO Friendly

ORDER NO.	TAPER NO.	TOTAL LENGTH	WEIGHT (kg)	CODE NO.
VTW-30R	#30	162mm	0.08	3405-065
VTW-40R	#40	180mm	0.09	3405-066
VTW-50R	#50	230mm	0.18	3405-067

ORDER NO.	CONTAINS SPARE	WEIGHT (kg)	CODE NO.
VTW-30R-WIPER	20pcs / box	0.01	3405-530
VTW-40R-WIPER	20pcs / box	0.02	3405-531
VTW-50R-WIPER	25pcs / box	0.04	3405-532

Spindle Taper Wiper

H Type

ORDER NO.	TAPER NO.	TOTAL LENGTH	WEIGHT (kg)	CODE NO.
VTW-50H	HSK50	159mm	0.1	3405-071
VTW-63H	HSK63	167mm	0.12	3405-072

Tooling Rack Stand

NEW

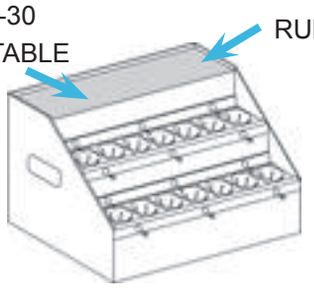
VTT-30

VTT-31

- Compact design
- Clear Storage
- Easy to clean
- Portable design
- Large tooling storage
- VTT-30 with Rubber mate
- Big size variety

VTT-30
FLAT TABLE

RUBBER



LxWxH : 550x430x360 mm
CAPACITY VTT-30 WITH
BT-30 16 SHEATH, 1FLAT TABLE
BT-40 14 SHEATH, 1FLAT TABLE
BT-50 10 SHEATH, 1FLAT TABLE
HSK63 12 SHEATH, 1FLAT TABLE

LxWxH : 550x430x360 mm
VTT-31 WITH
BT-30 24 SHEATH
BT-40 21 SHEATH
BT-50 15 SHEATH
HSK63 18 SHEATH

ORDER NO.	STD	TOOLING SHEATH CAPACITY	CODE NO.
VTT-30-30	BT-30, DIN69871A	16 pcs/set	3405-211
VTT-30-40	BT-40, DIN69871A	14 pcs/set	3405-212
VTT-30-50	BT-50, DIN69871A	10 pcs/set	3405-213
VTT-30-HSK63	HSK63	12 pcs/set	3405-214
VTT-31-30	BT-30, DIN69871A	24 pcs/set	3405-215
VTT-31-40	BT-40, DIN69871A	21 pcs/set	3405-216
VTT-31-50	BT-50, DIN69871A	15 pcs/set	3405-217
VTT-31-HSK63	HSK63	18 pcs/set	3405-218

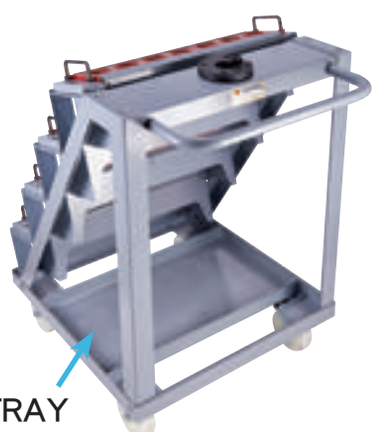
Tooling Cart

FOR BT30,40,50 / SK30,40,50 / CAT30,40,50 / ISO30,40,50

NEW

TOOL LOCKING DEVICE

VTT-21



TOOL TRAY

WITH VTTR-FOLDING HANDLE
TOOLING SHEATH RACK

OVERALL SIZE:626 X 655X 980 mm WEIGHT:43KGS

- LARGE CAPACITY,CAN PUT MORE SHANK TOOLING TROLLEY.
- TAPER ANGLE RACK STAND DESIGN,ERGONOMIC DESIGN,USER FRIENDLY SAVE YOU ENERGY & EASY TO TAKE OUT YOUR TOOL HOLDER.
- CAN TAKE OUT/PUT IN WHOLE SET OF THE NEW TOOLING SHEATH RACK (VTTR-30/40/50 TR SERIES).CAN FOR SEPARATE USING.
- WITH FOLDING HANDLE CAN SAVE SPACE AND BETTER FREE ACTION MOVEMENT.
- CONVENIENT & SPEED INSTALLATION.
- STABLE & HEAVY DUTY.

ORDER NO.	FOR STD	TOOL LOCKING DEVICE	TOOLING SHEATH CAPACITY	CODE NO.
VTT-21-30	BT-30 DIN 69871A SK30, CAT30, ISO30	BT-30 DIN 69871A SK30, CAT30, ISO30	32PCS/SET	3405-080
VTT-21-40	BT-40 DIN 69871A SK40, CAT40, ISO40	BT-40 DIN 69871A SK40, CAT40, ISO40	28PCS/SET	3405-081
VTT-21-50	BT-50 DIN 69871A SK50, CAT50, ISO50	BT-50 DIN 69871A SK50, CAT50, ISO50	20PCS/SET	3405-082

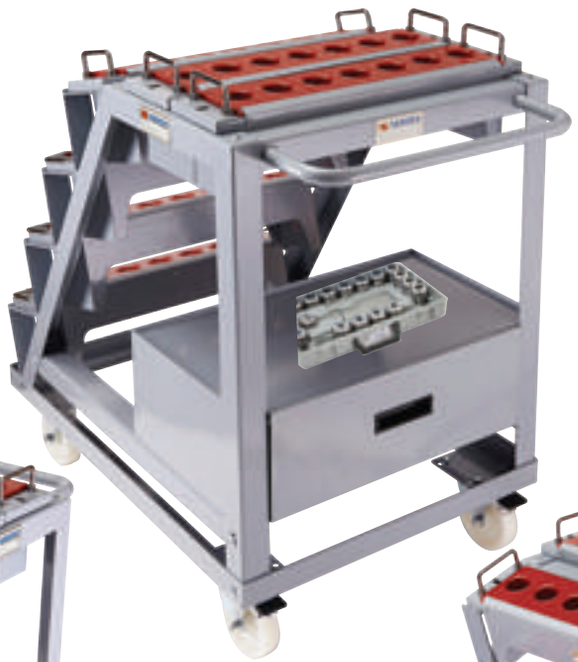
Tooling Cart

VERTEX

FOR BT30,40,50 / SK30,40,50
CAT30,40,50 / ISO30,40,50

2 TIMES CAPACITY COMPARE WITH
For VTT-2 BT-40 IS 28 PCS
For VTT-11-40 IS 56 PCS

NEW



EXAMPLE

VTT-11

VTT-12

ORDER NO. VTT-11

TOOLING SHEATH TYPE

ORDER NO.	FOR STD	TOOLING SHEATH CAPACITY	CODE NO.
VTT-11-30	BT-30,SK30,CAT30, ISO30 DIN 69871A	64 PCS/SET	3405-230
VTT-11-40	BT-40,SK40,CAT40, ISO40 DIN 69871A	56 PCS/SET	3405-231
VTT-11-50	BT-50,SK50,CAT50, ISO50 DIN 69871A	40 PCS/SET	3405-232

OVERALL SIZE:626 X 960 X 1000MM,WEIGHT:63KGS

ORDER NO.VTT-12

TOOLING SHEATH WITH 1 DRAWERS

ORDER NO.	FOR STD	TOOLING SHEATH CAPACITY	CODE NO.
VTT-12-30	BT-30,SK30,CAT30, ISO30 DIN 69871A	48 PCS/SET	3405-240
VTT-12-40	BT-40,SK40,CAT40, ISO40 DIN 69871A	42 PCS/SET	3405-241
VTT-12-50	BT-50,SK50,CAT50, ISO50 DIN 69871A	30 PCS/SET	3405-242

OVERALL SIZE:626 X 960 X 1000MM,WEIGHT:65KGS

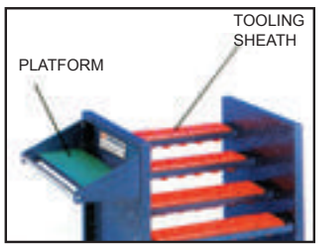
- LARGE CAPACITY,CAN PUT MORE SHANK TOOLING TROLLEY.
- TAPER ANGLE RACK STAND DESIGN,ERGONOMIC DESIGN,USER FRIENDLY
- SAVE YOU ENERGY & EASY TO TAKE OUT YOUR TOOL HOLDER.
- CAN TAKE OUT/PUT IN WHOLE SET OF THE NEW TOOLING SHEATH RACK
- (VTTR-30/40/50 TR SERIES).CAN FOR SEPARATE USING.
- WITH FOLDING HANDLE CAN SAVE SPACE AND BETTER FREE ACTION MOVEMENT.
- CONVENIENT & SPEED INSTALLATION.
- STABLE & HEAVY DUTY.

▭ DRAWER:LxWxH: 610x360x215 mm

Tooling Trolleys

※COLOR MAY VARY

VTT-2 PACKING
SET / 1 PAPER BOX



ORDER NO.:VTT-2
WEIGHT:51kgs

ORDER NO.	STD	TOOLING SHEATH CAPACITY	CODE NO.
VTT-2-30	BT-30 DIN 69871A	32 PCS/SET	3405-100
VTT-2-40	BT-40 DIN 69871A	28 PCS/SET	3405-101
VTT-2-50	BT-50 DIN 69871A	20 PCS/SET	3405-102
VTT-2-HSK63	HSK63	24 PCS/SET	3405-103

Overall Size : 1002x650x810 mm
Gray color

VTT-5 PACKING
SET / 3 PAPER BOXES
(2 DRAWERS/BOXES)

ORDER NO.:VTT-5
WEIGHT:64kgs
WITH 2 DRAWERS

ORDER NO.	STD	TOOLING SHEATH CAPACITY	CODE NO.
VTT-5-30	BT-30 DIN 69871A	32 PCS/SET	3405-110
VTT-5-40	BT-40 DIN 69871A	28 PCS/SET	3405-111
VTT-5-50	BT-50 DIN 69871A	20 PCS/SET	3405-112
VTT-5-HSK63	HSK63	24 PCS/SET	3405-113

Overall Size : 1002x650x810 mm
Gray color

VTT-6 PACKING
SET / 2 PAPER BOXES

ORDER NO.:VTT-6
WEIGHT:53kgs
WITH 1 DRAWERS

ORDER NO.	STD	TOOLING SHEATH CAPACITY	CODE NO.
VTT-6-30	BT-30 DIN 69871A	32 PCS/SET	3405-105
VTT-6-40	BT-40 DIN 69871A	28 PCS/SET	3405-106
VTT-6-50	BT-50 DIN 69871A	20 PCS/SET	3405-107
VTT-6-HSK63	HSK63	24 PCS/SET	3405-108

Overall Size : 1002x650x810 mm
Gray color

Tooling Rack

NEW

FOR BT30,40,50 / SK30,40,50
CAT30,40,50 / ISO30,40,50

WITH FOLDING HANDLE

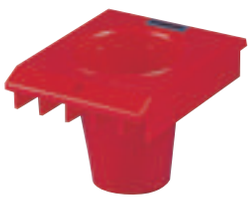
※SHOWS VTTR-40TR

SIZE:604mm(L) / 140mm(W) / 160mm(H)

ORDER NO.	FOR STD	TOOLING SHEATH CAPACITY	WEIGHT (kgs)	CODE NO.
VTTR-30TR	BT30,SK30, CAT30,ISO30	8 PCS	4.0	3405-250
VTTR-40TR	BT40,SK40, CAT40,ISO40	7 PCS	4.0	3405-251
VTTR-50TR	BT50,SK50, CAT50,ISO50	5 PCS	4.0	3405-252

Tooling Sheath

※COLOR MAY VARY



THE BT & DIN OF TAPER ARE SAME.
ORDER NO.: VTTS-BT-30
WEIGHT:0.077kg
CODE NO. 3405-130
SIZE: 48 X138 X 65mm
ORDER NO.: VTTS-BT-40
WEIGHT:0.085kg
CODE NO. 3405-131
SIZE: 63 X 138X 74mm
ORDER NO.: VTTS-BT-50
WEIGHT:0.123kg
CODE NO. 3405-132
SIZE: 93 X 138X 104mm

End Mill Sheath Rack

ORDER NO.VMS-2 CODE NO.3405-050

Material:ABS
with 62 sheaths.
※End mills not included

Unit:mm

CAPACITY RANGE	SIZE	WEIGHT (kg)
Ø6~Ø42	205x205x80	0.4

Cutting Tool Sheath Rack

ORDER NO.VMS-3 CODE NO.3405-051

- For Drill & End Mill Use
- Ø1.0~Ø10.0(Ø1.0,1.1~9.9,10.0)EACH0.1^{MM} ONE POSITION
  Ø10.5, 10.9, 11.0, 11.5, 11.9, 12.0, 12.5, 12.9, 13.0 TOTAL 100 POSITION FOR DRILL & END MILL
- 360° ROTATION

Unit:mm

CAPACITY RANGE	SIZE	WEIGHT (kg)
Ø1.0~Ø13.0	Ø174x90$^{m}/_{m}$	0.21

Tooling Rack Stand

ORDER NO.VTC-20 CODE NO. 3405-221

NEW

- Suit for different kind small machine
- Powerful desing
- Compact & with big capacity
- With rubber mate
- 3 size drawer could store
- Different size tools

LxWxH : 460x370x860 mm
VTC-20 3 DRAWERS
1 FLAT TABLE CAN
USING FOR VDG-, VEG, U2, VCF-500 ETC.
STRONG TYPE
WEIGHT: 30.25 KGS

DRAWER:

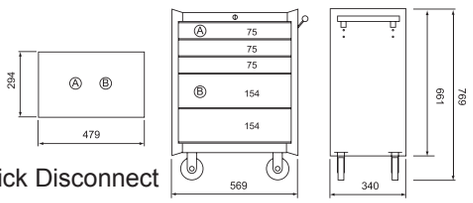
- W x L x H: 330 x 315 x 130 mm
- W x L x H: 330 x 315 x 280 mm

Example

Tool Cabinet

ALL THE OVERALL SIZE IS WITH WHEELS HEIGHT.
※COLOR MAY VARY

5 Drawers Roll Cabinet
Cuft: 6.9′
Net Weight: 31.3 kgs
Gross Weight: 34 kgs



- Ball bearing slide with Quick Disconnect
- Heavy Duty 4″x1″ Caster
- Double wall construction
- Electro - Powder Coating to Resist Scratch & solvent markings
- 10mm Top Mat
- All drawers appended to Drawer Liners
- Red color

※COLOR MAY VARY

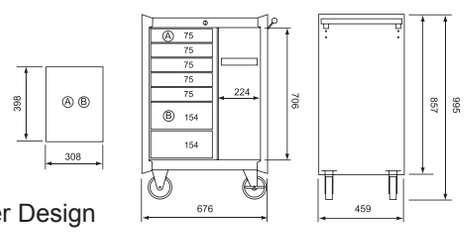
ORDER NO.	CODE NO.
VTC-23	3405-144

570WX345DX650Hmm

mm

	W	D	H
DRAWERS	480	292	75
DRAWERS	480	292	154

7 Drawers Roll Cabinet
Cuft: 13′
Net Weight: 67.9 kgs
Gross Weight: 77.5 kgs



- Ergonomic Large Drawer Design
- Ball bearing slide with Quick Disconnect
- Heavy Duty 5″x2″ Caster
- Double wall construction
- Electro - Powder Coating to Resist Scratch & solvent markings
- 10mm Top Mat
- All drawers appended to Drawer Liners
- Gray color

※COLOR MAY VARY

ORDER NO.	CODE NO.
VTC-25	3405-149

680WX460DX830Hmm

mm

	W	D	H
DRAWERS	308	395	75
DRAWERS	308	395	154

Tooling Trolleys

ORDER NO.VTC-100 CODE NO.3405-154
※COLOR MAY VARY

NEW

WxDxH	873x500x880 mm
Package	1PC/1CTN/2.73CUFT
N.W.	23.91KGS
G.W.	25.90KGS

- Grey color

Workbench

ORDER NO.VWB-1580 CODE NO.3405-158

NEW

SIZE : 1500W x 750D x 800H mm

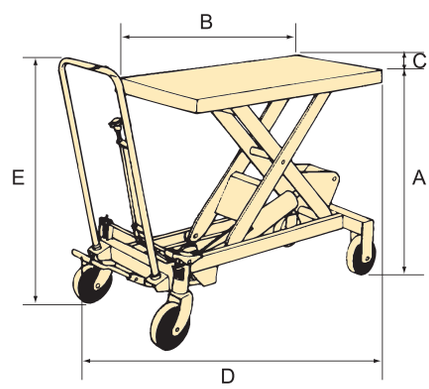
※COLOR MAY VARY

DESCRIPTION	W	D	H	N.W.	G.W.	CUFT
OVERALL	1500	750	800	69.7	74.04	4.68

Hydro Lift Table

NEW

※COLOR MAY VARY



WITHOUT WOODEN CASE

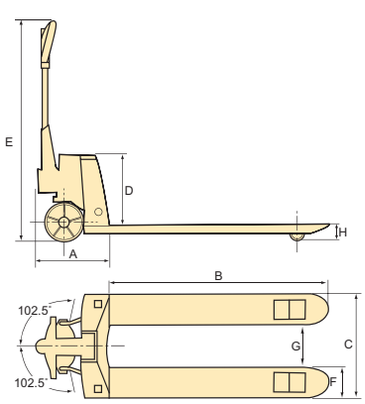
ORDER NO.	A		B	C	D	E		Wheel	Brake Wheel	Load Capacity kgs	Weight	CODE NO.
	MAX. High From The Floor	MIN. Low From The Floor	Worktable Length	Worktable Width	Overall Length	Handle Bar High From The Floor	Overall Width					
VLT-300	900	270	815	500	1020	960	500	127 × 38	1	300	72	3405-170

Hydro Pallet Trolleys

NEW

※COLOR MAY VARY

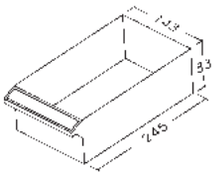
WITHOUT WOODEN CASE



ORDER NO.	Overall Length A+B	Overall Height E	Body(Not Include Fork) A	The Fork Surface width F	Fork width C	Fork Length B	Fork Wide G	MAX. Fork Height	MIN. Fork High From The Floor H	Load Capacity kgs	Weight Kgs	CODE NO.
HPT-20NS	1300	1200	390	160	520	910	200	200	85	2000		3405-181
HPT-20NM	1460	1200	390	160	520	1070	200	200	85	2000		3405-182
HPT-20WL	1610	1200	390	160	685	1220	365	200	85	2000		3405-183

Parts Cabinet

※COLOR MAY VARY



ORDER NO. VA6-212H

THE SIZE OF DRAWER
245D x 143W x 83H (m/m)

ORDER NO. VA6-330H

GRAY COLOR

ORDER NO. VA7-324P

THE SIZE OF DRAWER
218D x 120W x 70H (m/m)

ORDER NO. VA7-448P

ORDER NO.	SIZE (mm) W x D x H	DRAWER SIZE(mm)	METAL	DRAWER NUMBERS	WEIGHT(kgs)	CODE NO.
VA6-212H	362 x 265 x 571	245 x 143 x 83	STEEL PLATE COVER WITH ZINC. Drawer material: GPS	12PCS	10.8	3405-200
VA6-330H	533 x 264 x 937	245 x 143 x 83		30PCS	25.3	3405-201
VA7-324P	440 x 222 x 642	218 x 120 x 70		24PCS	15.5	3405-202
VA7-448P	586 x 222 x 937	218 x 120 x 70		48PCS	27.5	3405-203
VA1-525	586 x 222 x 350	218 x 90 x 55		25PCS	10	3405-204
VA1-575	586 x 222 x 937	218 x 90 x 55		75PCS	32.3	3405-205

Tool Box

※COLOR MAY VARY

● COMES IN DIFFERENT COLOR

ORDER NO. VTB-102

ORDER NO. VTB-901

ORDER NO.	SIZE (mm) W x D x H	MATERIAL	WEIGHT(kg)	CODE NO.
VTB-102	420 x 235 x 180	ABS	1.9	3405-300
VTB-901	378 x 182 x 144		0.9	3405-301

Parts Storage

COLOR: RED, BLUE, YELLOW

- Easy parts storage
- Organize

ORDER NO.	SIZE	PACKED	EACH WEIGHT (kg)	CODE NO.
VHB-1218	120Wx180Dx80H mm	60 PCS/CASE	8.6	1021-100
VHB-1525	150Wx250Dx120H mm	36 PCS/CASE	9.6	1021-101
VHB-2035	200Wx350Dx150H mm	18 PCS/CASE	0.585	1021-102
VHB-2045	200Wx450Dx177H mm	12 PCS/CASE	0.8	1021-103
VHB-3045	300Wx450Dx177H mm	8 PCS/CASE	1.8825	1021-104

Economical Pallet

PACKAGE 5PCS / SET

NEW

- Zinc Coating
- For Transport
- Light Weight Duty
- Recyclable
- Disposable: 1 Time Use
- Load: 500 Kgs

ORDER NO.	SIZE	WEIGHT (kgs / 5 sets)	CODE NO.
VEPT-01	1100 x 1400 x 120 mm	85 kgs	3405-601
VEPT-02	1000 x 1100 x 120 mm	55 kgs	3405-602

Heavy Duty Pallet

PACKAGE 5PCS / SET

NEW

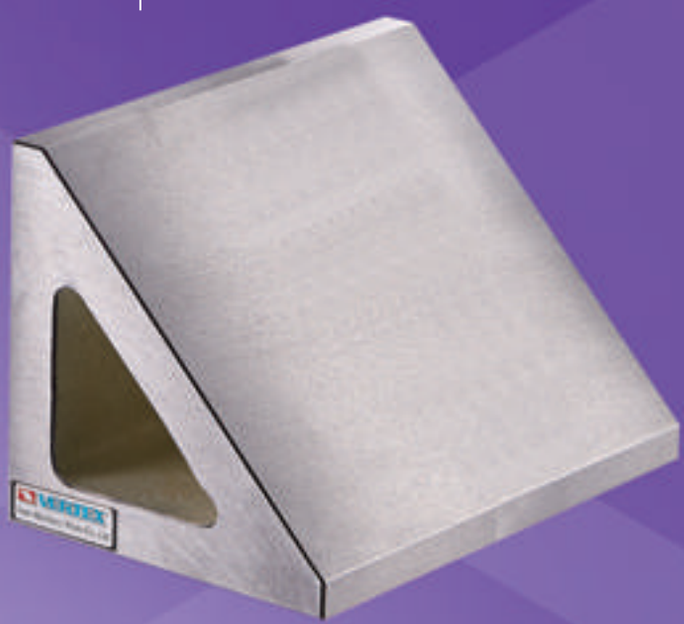
- Heavy Duty
- Zinc Coating
- Material: Steel
- For Transport
- Multiple Use
- Load: 1800 Kgs

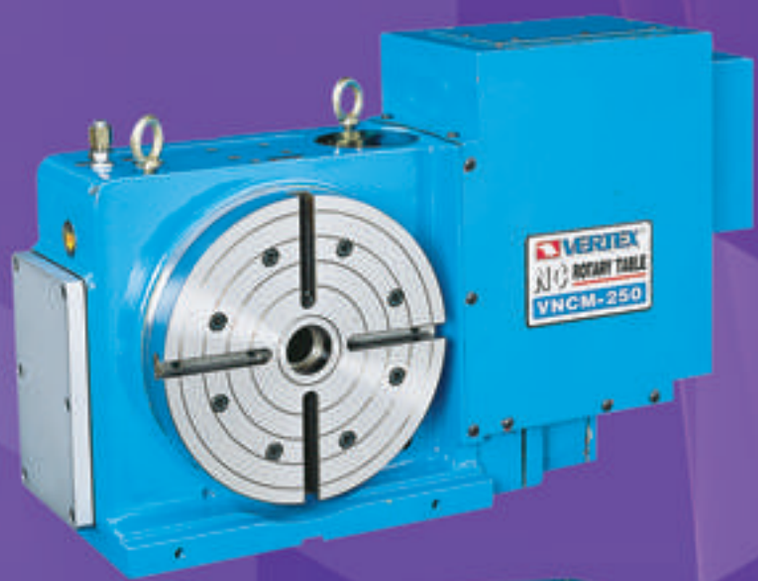
ORDER NO.	SIZE	WEIGHT (kgs / 5 sets)	CODE NO.
VHPT-H01	1100 x 1400 x 120 mm	215 kgs	3405-611

MACHINE CENTER

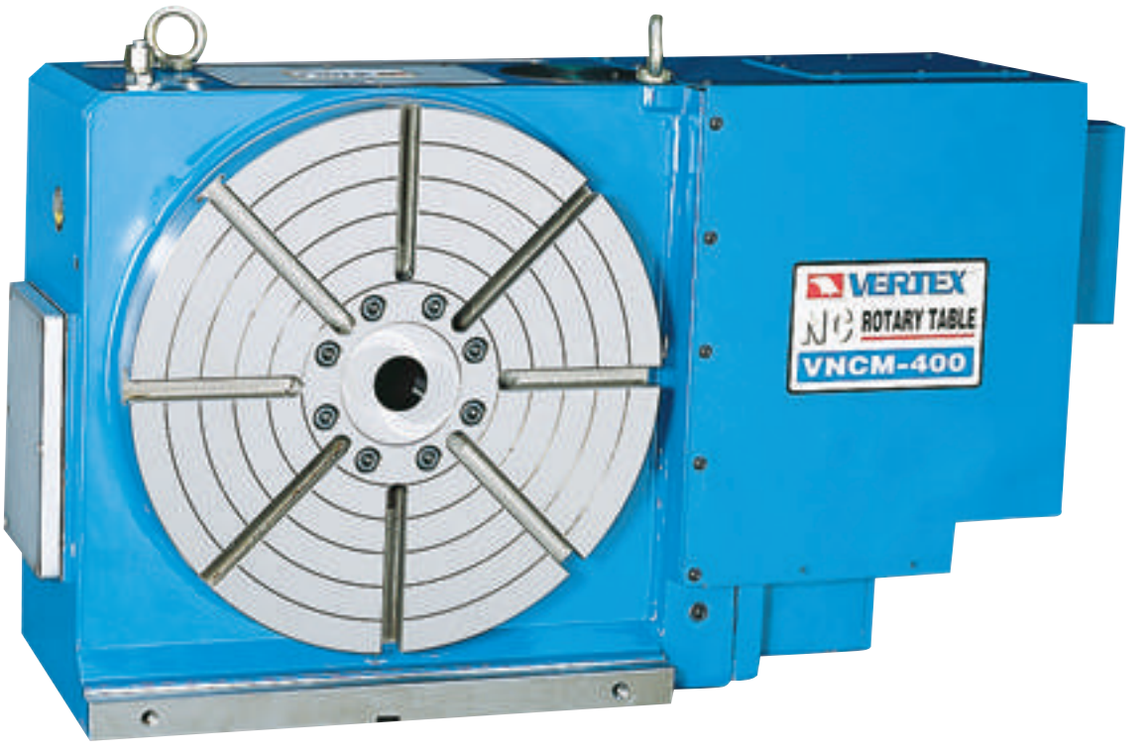
ACCESSORIES

D1~D5	NC ROTARY TABLE SERIES
D6~D8	MC POWER VISE
D9	BASE PLATE SERIES
D10	M/C ANGLE PLATE
D11	M/C CLAMPING CUBE
D12	ANGULAR HOLLOW BLOCKS
D13~D17	FLEXIBLE LINE UP VICE





NC-Rotary Table



HIGH ACCURACY AND HIGH RIGIDITY

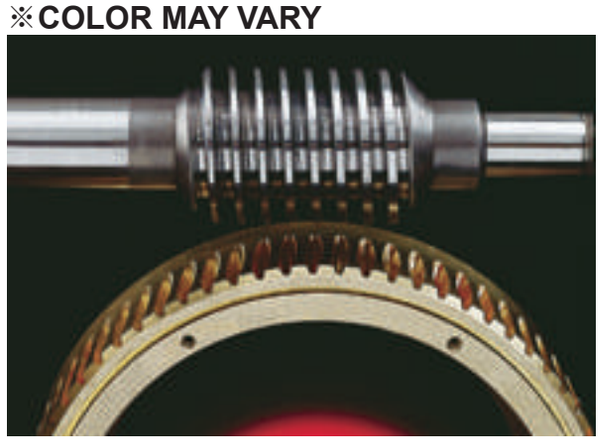
Adoption of new double-lead worm gear--engagement between worm wheel and worm shaft has been improved, and tooth profile has been modified--has contributed greatly to increased dynamic accuracy. To remove the defect of single-lead worm gear. Close-tolerance taper roller bearing assembly is used, and the rotating slide part is finished in a super precision manner, which in turm, implements highly improved overall accuracy.

SLEEVE TYPE CLAMPING MECHANISM

with this system, the Rotary Table is clamped by applying hydraulic pressure to the outer circumference of the turn table. Since the sleeve is positioned closest to the workpiece, the table clamp force is enlarged. This system is not only advantageous for heavy duty cutting but also helps improve the machining accuracy and extend the service life of the Rotary Table.

- This rotary table has been specifically developed to fulfill the requirements of a fully automatic machinging process in association with a machine tool. They are used for miling, grinding and drilling of spindles, slots, plannes or bores in the radial or axial direction of the workpiece.
- Can be equipped with stepping motor or DC/AC servo motors.
- Carefully designed, rigid construction to assure high and constant indexing accuracy.
- Can operate as function M or as 4th axis or more, in machining units or numerically controlled machines, and are equally capable of being fitted to any other type of non-NC machine-tools.
- Hardened and ground steel worm, mounted on high precision combined radial-axial bearings.
- Worm mounted on an axial support system, which allows adjustment and suppression of any backlash existing between the worn and the worm-wheel after long-time service.
- High precision
  Axial and radial runout within 0.01mm, Cumulative indexing accurace within 15 sec.

※COLOR MAY VARY



DOUBLE LEAD WORM GEARS SYSTEM

- **New design/special material**

PROGRAMMABLE SERVO MOTOR CONTROLLER

● SPECIFICATIONS

Unit:mm

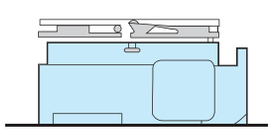
ORDER NO.	VNCM-150 L/R	VNCM-220 L/R	VNCM-250 L/R	VNCM-320 L/R		VNCM-400 L/R
Right-hand type	O	O	O	O		O
Left-hand type	O	O	O	O		O
Turntable diameter	Ø160	Ø225	Ø250	Ø320		Ø400
Table height(Horizontal pos.)	150	165	165	220		250
Table center height(Vertical pos.)	135	160	160	210		255
Center bore diameter	Ø35H7	Ø40H7	Ø40H7	Ø40H7		Ø40H7
T-slot size	12H7	12H7	12H7	14H7		14H7
Guide-block size	14h7	14h7	14h7	18h7		18h7
Number of worm wheel teeth	72	72	72	72		72
Servo motor type	FANUC α 3	FANUC α 6	FANUC α 6	FANUC α 12	FANUC α 6	FANUC α 12
Speed reduction ratio	1/90	1/180	1/180	1/180	1/360	1/180
Table graduation angle per 1 pulse	0.001˚	0.001˚	0.001˚	0.001˚		0.001˚
Table rotation speed	22.2r.p.m./ (Motor 2,000r.p.m.)	11.1r.p.m./ (Motor 2,000r.p.m.)	11.1r.p.m./ (Motor 2,000r.p.m.)	11.1r.p.m./ (Motor 2,000r.p.m.)	5.5r.p.m./ (Motor 2,000r.p.m.)	11.1r.p.m./ (Motor 2,000r.p.m.)
Clamp method & Clamp torque (kg-m)	8/ (Air 5kg/cm²)	50/ (Hydraulic 35kg/cm²)	50/ (Hydraulic 35kg/cm²)	85/ (Hydraulic 35kg/cm²)		180/ (Hydraulic 35kg/cm²)
Load capacity, horizontal(kg)	150	250	250	350		500
Load capacity, vertical(kg)	75	100	100	150		200
Inertia force (kg-cm-sec²)	4.3	12.3	12.3	38.5		99.8
Max.torque capacity of worm gear (kg-m)	15	48	48	78		170
Max. workpiece diameter	160	225	225	320		400
Cumulative indexing accuracy sec.	20″	15″	15″	15″		15″
Repeatability sec.	4″	4″	4″	4″		4″
Inertia force(convert into motor shaft) kg-cm-sec²X10⁻²	0.2	0.24	0.34	1.85	1.35	1.94
Net weight (kg)	55	75	75	200		300
CODE NO.	4001-001	4001-002	4001-003	4001-004		4001-005

● Other makers' servo motors can be installed.

● ACCURACY STANDARD

Unit:mm

NO.	Inspection Item		Inspection Item
1	Table top flatness (concave)	Per overall length	0.01
2	Table top runout		0.015
3	Parallelism of table top and frame bottom	Per overall length	0.02
4	Table spindle center runout		0.01
5	Center bore runout	Hole end	0.01
		Per 100mm	0.01
6	Perpendicularity of table top to frame bottom	Per overall length	0.02
7	Perpendicularit of table top to frame bottom guide block	Per overall length	0.02
8	Cumulative indexing accuracy		15″
9	Parallelism of center line between headstock and tailstock to frame bottom guide block	Per 300mm	0.02
10	Height difference of both center lines of headstock (Tailstock center line should be higher)		0.02

1


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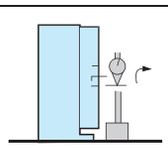

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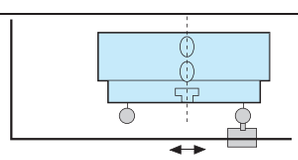

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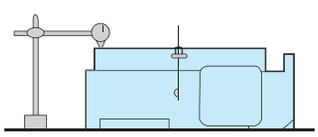

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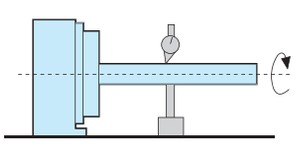
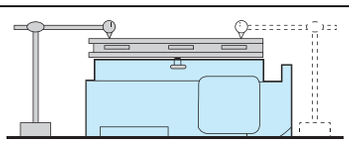


8 An optical measuring instrument should be used for indexing accuracy measurements.

3


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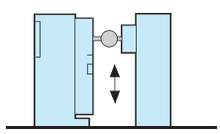

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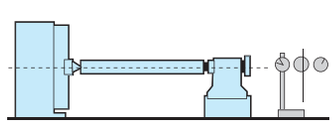
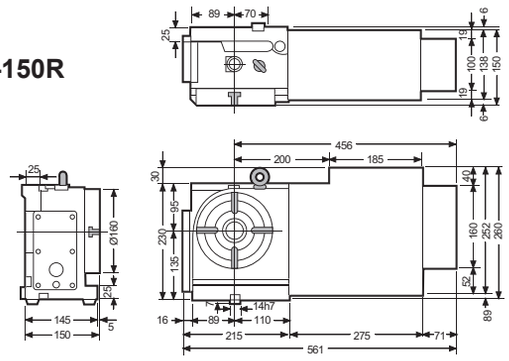


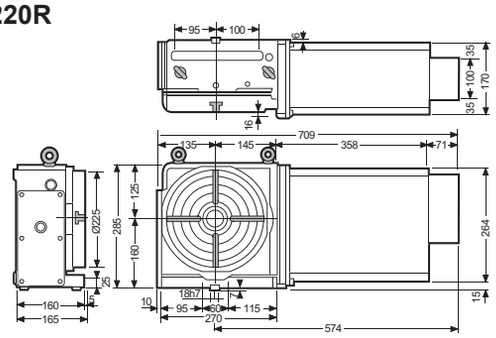
VNCM-150R

VNCM-150R



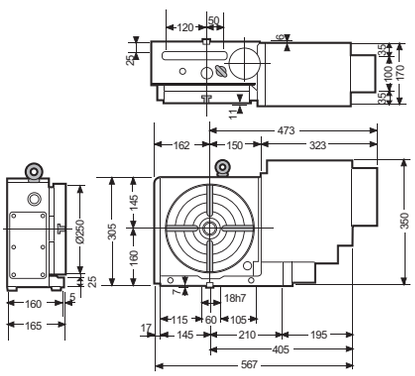
VNCM-220R

VNCM-220R

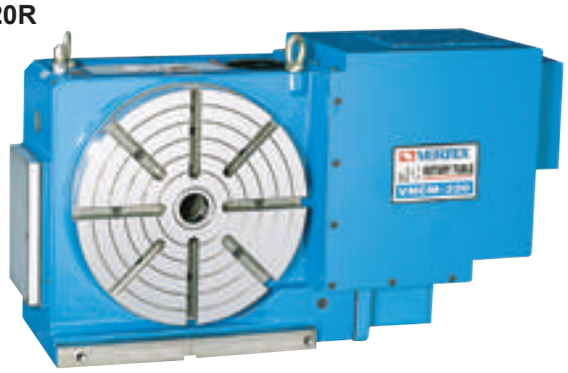


VNCM-250R

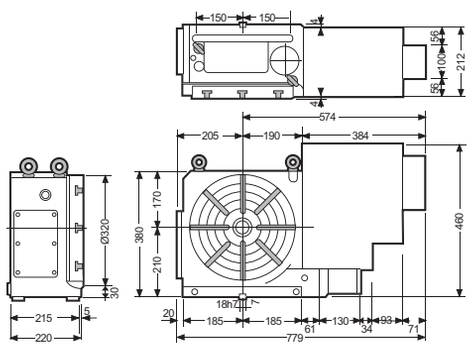
VNCM-250R



VNCM-320R

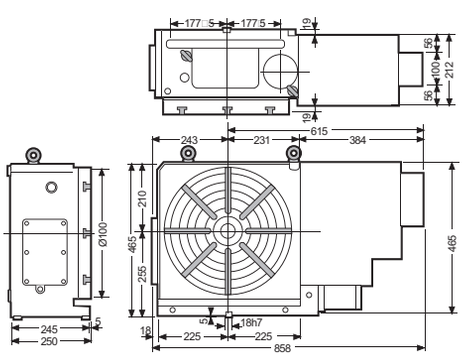


VNCM-320R



VNCM-400R

VNCM-400R



NC-Rotary Table

ORDER NO.VNCX-10 CODE NO.4001-010

- Motor case setted on the back of the body, increased the space for moving forward and backward, suitable for large or small NC machine using.
- Use of precision lead worm gear assures highly accurate dividing independently of table rotating direction. Further, no backlash will be produced.
- Wide range of machining is accomplished by connecting the Drive Table with Mcode of machining center.
- When used with machining center, the Drive Table will widen the range of applications; circular cutting dividing into equal parts, dividing into unequal parts, lead cutting, can cutting etc.
- MACHINE ZERO AND WORK ZERO. Zero Return Function to either Zero.
- BACKLASH COMPENSATION.
- BUILT-IN PNEUMATIC BRAKE FUNCTION.

Dimensions

Unit:mm

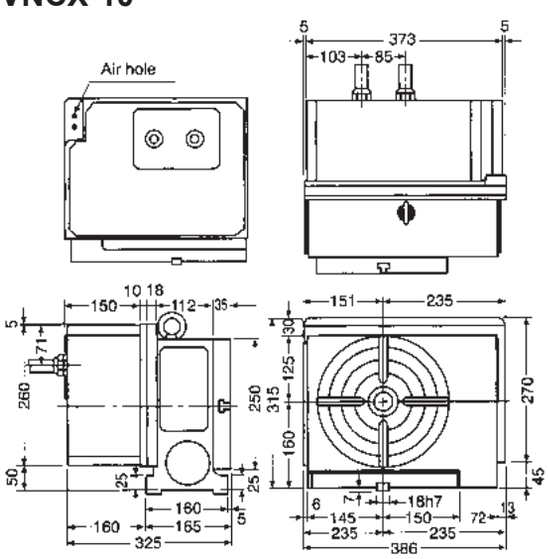
Item		
Table diameter		250
Table height		315
Center height		160
Center hole diameter		32
Table reference groove width		14
Key way		18
Clamping force(kgf-m)	Penumatic	20
Allowable work diameter		250
Allowable weight	Horizontal setup Vertical setup	200 100
Allowable work inertia(kgf-cm sec2)		12.5
Total reduction ratio		1:90
Rotary speed(rpm)		11.1
Allowable machine torque(kgf-m)		48

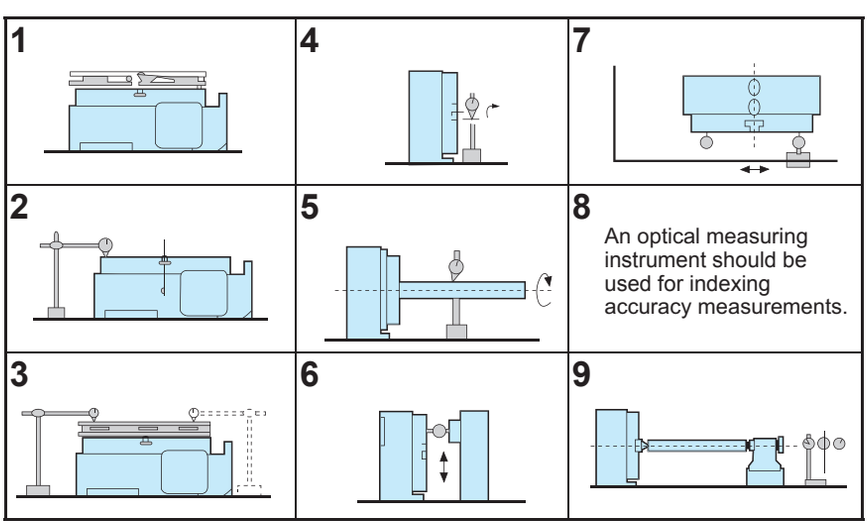
ACCURACY STANDARD

Unit:mm

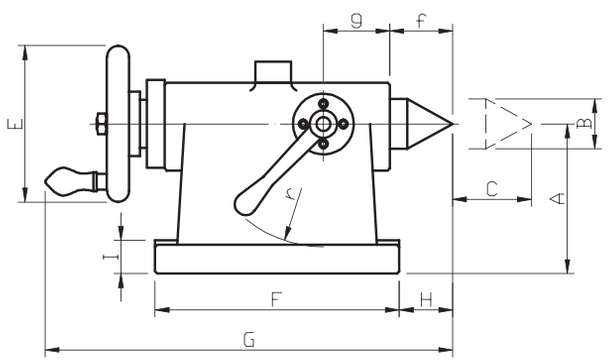
NO	Inspection Itme		Tolerance
1	Table top flatness(concave)	Per overall length	0.01
2	Table top runout		0.015
3	Parallelism of table top and frame bottom	Per overall length	0.02
4	Table spindle center runout		0.01
5	Center bore runout	Hole end	0.01
		Per 100mm	0.01
6	Perpendicularity of table top to frame bottom	Per overall length	0.02
7	Perpendicularity of table top to frame bottom guide block	Per overall length	0.02
8	Cumulative indexing accuracy		15″
9	Parallelism of center line between headstock and tailstok to frame bottom guide block	Per 300mm	0.02
10	Height difference of both headstock and tailstock center lines(Tailstock center line should be higher)		0.02

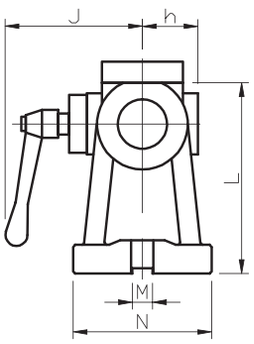
VNCX-10





Tailstock For NC Rotary Table





Unit:mm

Main dimension / ORDER NO. / For		Center height A	Center diameter B	Storke C	pointed end diameter D	Handle diameter E	Base dimensions FXM	G	H	I	J	K	L
TS-135	VNCM-150	135	ø45 MT#3	55	ø14	125	215x120	332	25	25	109	-	164
TS-135-MT3													
TS-160	VNCM-220 VNCX-10 VNCM-250	160	ø45 MT#3		ø18	140	230x130	356	30	30	129	53	193
TS-160-MT3													
TS-210	VNCM-320	210					230x146						243
TS-210-MT3													

Unit:mm

Main dimension / ORDER NO. / For		Guide -block size M	c	u	f	g	h	j	r	Net weight (kgs)	CODE NO.
TS-135	VNCM-150	18	42	19	40	69	44	70	80	20.6	4002-001
TS-135-MT3			46								4002-001A
TS-160	VNCM-220 VNCX-10 VNCM-250		46								
TS-160-MT3			49	19	45	70	52	80	95	23.1	4002-002
TS-210	VNCM-320		51								4002-002A
TS-210-MT3			51							29.4	4002-003
			57	23							4002-003A

Listed in the above table are examples of applicable models. Those not listed above should be selected so that the center height of the rotary table and dividing heads is the same as that of the tailstock.

MC Power Vise

4005~SERIES

PLEASE SEE A SYSTEM FORM PAGE A SERIES

VQC-160

VQC-160H

VQC-160LC

VQC-160HC

VMC-160HV

VMC-160M

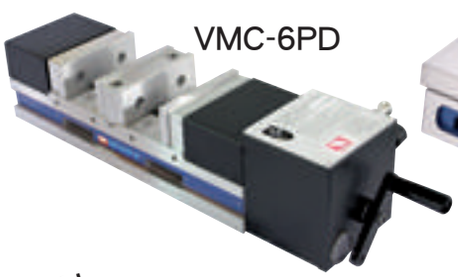
VMC-4L

VNC-125H

VNC-6AD

VMC-6P

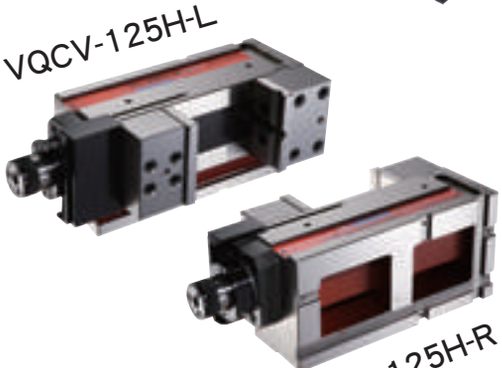
VMC-6PD



VCV-4D

VQCV-125H-L

CC-12



VQCV-125H-R

VUT-12

VCV-0611

VMC-6

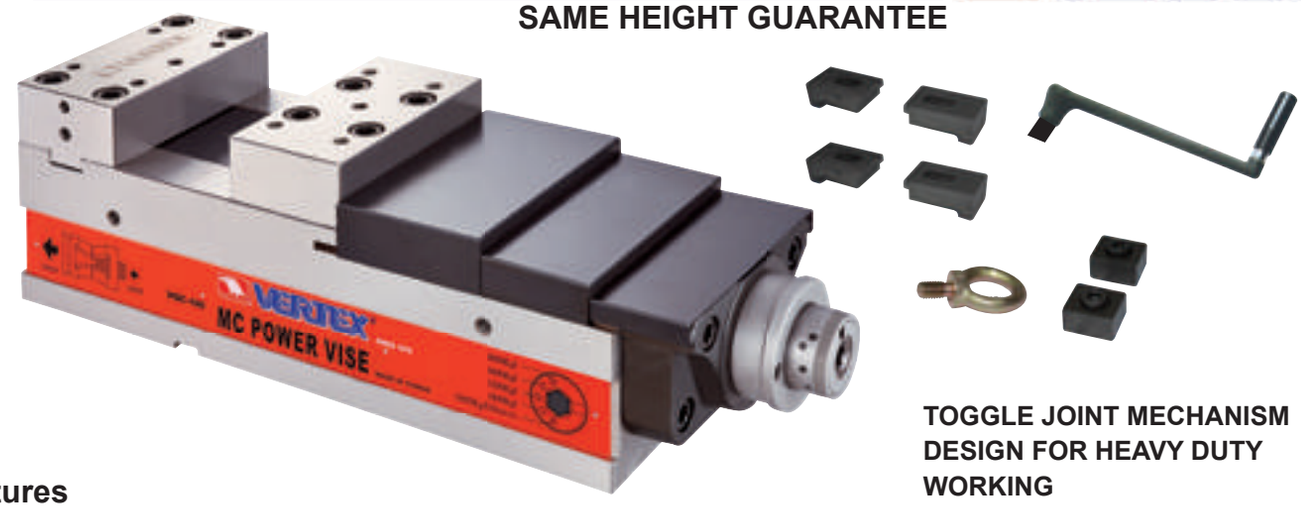
VUT-300

VIT-450

MC Power Vise

VERTEX

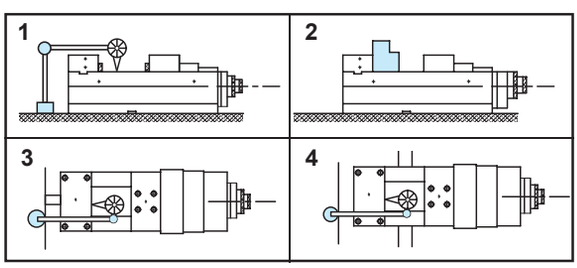
SAME HEIGHT GUARANTEE



TOGGLE JOINT MECHANISM DESIGN FOR HEAVY DUTY WORKING

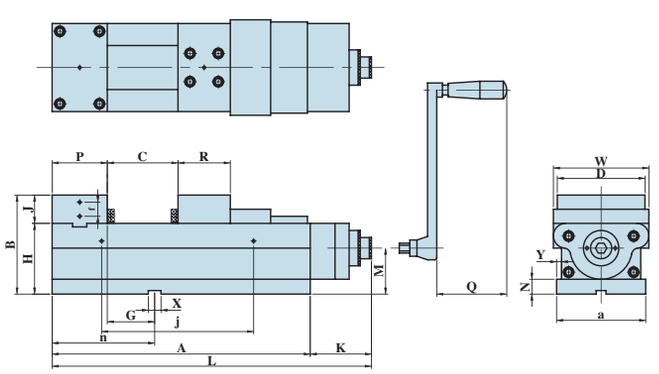
Features

- Compact design. Great clamping capacity & rigid.
- “Toggle joint mechanism”. Provides a steady clamping force against shocks and vibrations during the operatioons, since it clamps the workpiece resiliently with an aid of the “disc-springs” mounted inside.
- Strong clamping force.
- Large jaw stroke range.
- Exclusive Power Vise provide same height same position for horizontal and vertical MC, NC, Machine.
- Body is made of FCD60 high quaility ductile cast iron, resists deflection or bending.
- Sliding bed ways flame hardened and ground.
- Concealed spindle for protection against chips and dirt.
- Quick of clamping & locking and easy of operation.



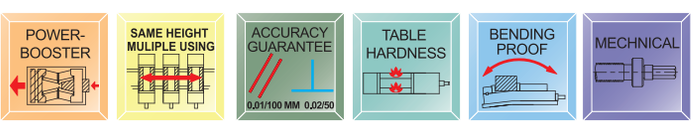
INSPECTION SPECIFICATION

NO.	Inspection Item Per (100mm)	Guaranteed
1	Parallelism: table face to bottom of bed.	0.01/100mm
2	Squareness :between table face and jaw plate.	0.02/100mm
3	Squareness: keways on bottom of table face to jaw plate.	0.02/100mm
4	Parallelism: table face of the table face block to bottom of bed.	0.02/100mm



CLAMPING CAPACITY

ORDER NO.	JAW J	JAW Open C	B	MAX. Clamping Force (KN)	G.W. kg
VQC-100	35	128	120	30	26.2
VQC-125	40	205	140	40	40.4
VQC-160	45	275	165	60	72.3
VQC-160L	45	355	165	60	78.6
VQC-200L	70	405	190	60	108



ORDER NO.	A	B	a	D	P	R	G	H	J	K	L
VQC-100	273	120	105	99	73	64	39	85	35	82.5	356.5
VQC-125	364	140	126	124.5	78	74	59	100	40	86	452
VQC-160	456	165	161	159.5	86	86	58	120	45	98	554
VQC-160L	536	165	162	160	86	86	58	120	45	98	634
VQC-200L	616	180	202	200	102	98	74	120	70	95	711

ORDER NO.	M	N	Q	W	X	Y	C OPEN	f	j	n	CODE NO.
VQC-100	50	15	74	110	14	6.5	128	20	105	112	4005-004
VQC-125	65	21	74	135	18	7	205	20	215	139	4005-005
VQC-160	78	21	94	170	18	7	275	20	286	145	4005-006
VQC-160L	78	21	94	174	18	7	355	20	286	145	4005-007
VQC-200L	75	21	96	217	18	7	405	20	386	177	4005-008

MC Power Vise

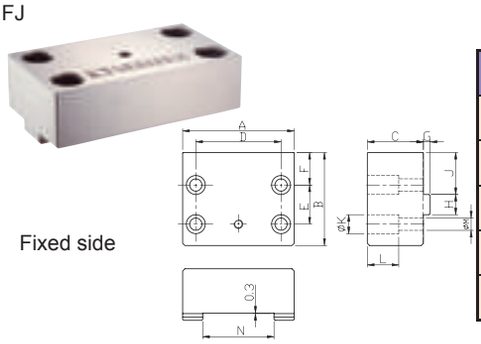
ADJUSTING METHOD
1. FIXED COLLAR
2. TURN BY WENCH TO GET NO.
   0, 1, 2, 3, 4. TO HAVE CLAMPING FORCE
3.NO.2 IS MOST SUIT FOR WORKING.

CLAMPING FORCE CHART

ORDER NO. \ SCALE KN	4	3	2	1	0
VQC-100	-	30KN	21KN	12KN	6KN
VQC-125	-	40KN	28KN	16KN	8KN
VQC-160	60KN	46KN	32KN	18KN	10KN
VQC-160L	60KN	46KN	32KN	18KN	10KN
VQC-200L	60KN	46KN	32KN	18KN	10KN

OPTIONAL: Soft jaw for different shape workpiece FJ & MJ can for cutting

FJ

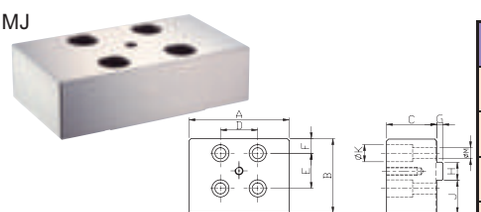


Fixed side

SOFT FIXED JAW

ORDER NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	CODE NO.
VQC-100FJ	99.5	73	50	76	35	19	6	18	27.5	17	26	11	55	4005-013
VQC-125FJ	124.5	91	60	88	45	29.5	8	24	40	19	33.5	13	63	4005-014
VQC-160FJ	159.5	102	60	124	50	34	9	28	45	22	30	15	84	4005-015
VQC-160L-FJ	159.5	102	60	124	50	34	9	28	45	22	30	15	84	4005-016
VQC-200L-FJ	200	122	75	140	62	40	9	28	57	25	37	17	100	4005-016A

MJ



Movable side

SOFT MOVEABLE JAW

ORDER NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	CODE NO.
VQC-100MJ	99.5	64	50	37	35	14.5	6	18	23	17	26	11	51.5	4005-017A
VQC-125MJ	124.5	87	60	35	42	29	8	24	38	19	33.5	13	59.5	4005-017
VQC-160MJ	159.5	102	60	56	50	34	9	28	45	22	30	15	80.5	4005-018
VQC-160L-MJ	159.5	102	60	56	50	34	9	28	45	22	30	15	80.5	4005-019
VQC-200L-MJ	200	117	75	62	59	39	9	28	54.5	25	37	17	95	4005-019A

VISE JAWS CAN TURN 180º FOR YOUR REQUIREMENT.

OPTIONAL: Hard jaw for thin type workpiece

FJL

L TYPE FIXED JAW

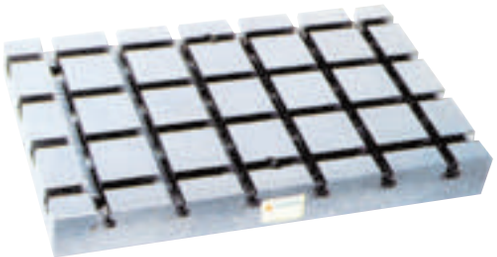
ORDER NO.	A	B	C	D	E	G	H	J	K	CODE NO.
VQC-100FJL	99.5	73	35	76	35	6	18	36.5	20	4005-010B
VQC-125FJL	124.5	78	40	88	45	8	24	39	20	4005-008A
VQC-160FJL	159.5	86	50	124	50	9	28	43	25	4005-009
VQC-160L-FJL	159.5	86	50	124	50	9	28	43	25	4005-010
VQC-200L-FJL	200	102	70	140	62	9	28	51	35	4005-010A

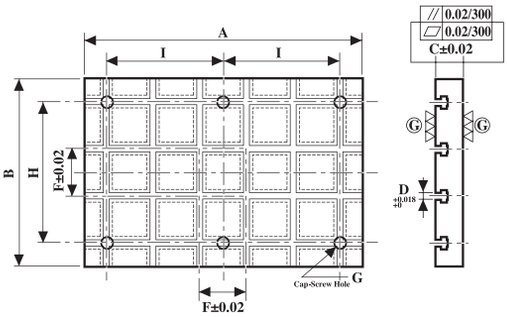
MJL

L TYPE MOVEABLE JAW

ORDER NO.	A	B	C	D	E	G	H	J	K	CODE NO.
VQC-100MJL	99.5	64	35	37	35	6	18	32	20	4005-013B
VQC-125MJL	124.5	74	40	35	42	8	24	37	20	4005-011
VQC-160MJL	159.5	86	50	56	50	9	28	43	25	4005-012
VQC-160L-MJL	159.5	86	50	56	50	9	28	43	25	4005-013
VQC-200L-MJL	200	98	70	62	59	9	28	49	35	4005-013A

Base Plate Series





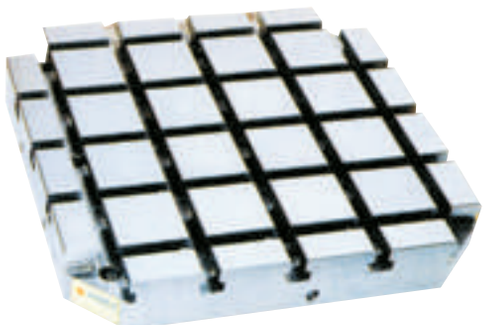
SUB TABLE T-SLOT TYPE

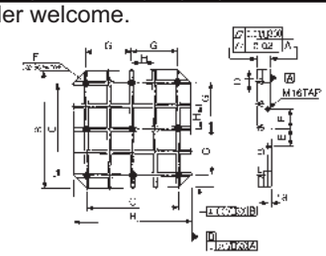
Sub-plates used on vertical machining centers and larger milling machines.
They protect the surface of machine table, and provide larger space for setting workpieces and minimize loss of operating time of expensive machine tools.
Material: Close grained cast iron, Annealed
Finish: Top and bottom ground

Unit:mm

ORDER NO.	A	B	C(±0.02)	D	E	F(±0.02)	G	kg	CODE NO.
TBP-6040	600	400	60	14	50	100	Ø18	120	4006-001
TBP-6050	600	500	60	14	50	100	Ø18	150	4006-002
TBP-6060	600	600	60	14	50	100	Ø18	179	4006-003
TBP-8040	800	400	60	14	50	100	Ø18	160	4006-004
TBP-9045	900	450	60	14	50	100	Ø18	204	4006-005
TBP-10050	1000	500	60	14	50	100	Ø18	248	4006-006
TBP-6040D	600	400	75	18	50	100	Ø18	100	4006-007
TBP-6050D	600	500	75	18	50	100	Ø18	125	4006-008
TBP-6060D	600	600	75	18	50	100	Ø18	149	4006-009
TBP-8040D	800	400	75	18	50	100	Ø18	133	4006-010
TBP-9045D	900	450	75	18	50	100	Ø18	169	4006-011
TBP-10050D	1000	500	75	18	50	100	Ø18	207	4006-012

Special dimension's order welcome.



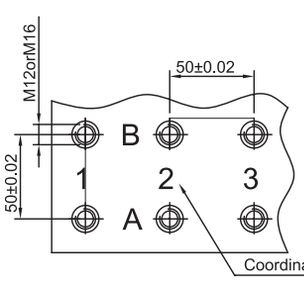


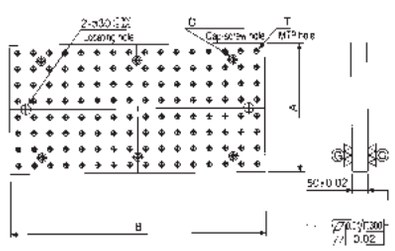
SQUARE TYPE

Unit:mm

ORDER NO.	A(±0.02)	B	C	D(H7)	E	F	G(±0.02)	H(±0.02)	kg	CODE NO
SBP-4040	60	400	320	14	55	Ø18	160	80	56	4006-020
SBP-5050	60	500	400	14	75	Ø18	200	100	90	4006-021
SBP-6363	60	630	500	14	100	Ø18	250	125	149	4006-022
SBP-8080	60	800	640	14	135	Ø18	320	160	230	4006-023
SBP-4040A	75	400	320	18	55	Ø18	160	80	85	4006-024
SBP-5050A	75	500	400	18	75	Ø18	200	100	118	4006-025
SBP-6363A	75	630	500	18	100	Ø18	250	125	195	4006-026
SBP-8080A	75	800	640	18	135	Ø18	320	160	298	4006-027

Special dimension's order welcome.





SUB TABLE THERAD TYPE

Unit:mm

ORDER NO.	A	B	D	T		NO. OF MTP holse	KGS	CODE NO.
				(F7)	TAP			
HBP-4060	400	600	Ø18	Ø12	M12	96	90	4006-030
HBP-5060	500	600	Ø18	Ø12	M12	120	112	4006-031
HBP-6060	600	600	Ø18	Ø12	M12	144	134	4006-032
HBP-4080	400	800	Ø18	Ø12	M12	128	119	4006-033
HBP-4590	450	900	Ø18	Ø12	M12	162	151	4006-034
HBP-50100	500	1000	Ø18	Ø12	M12	200	187	4006-035
HBP-4060T	400	600	Ø18	Ø16	M16	96	87	4006-036
HBP-5060T	500	600	Ø18	Ø16	M16	120	108	4006-037
HBP-6060T	600	600	Ø18	Ø16	M16	144	129	4006-038
HBP-4080T	400	800	Ø18	Ø16	M16	128	115	4006-039
HBP-4590T	450	900	Ø18	Ø16	M16	162	146	4006-040
HBP-50100T	500	1000	Ø18	Ø16	M16	200	180	4006-041

Special dimension's order welcome.

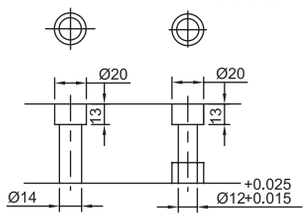
M/C Angle Plate 90º

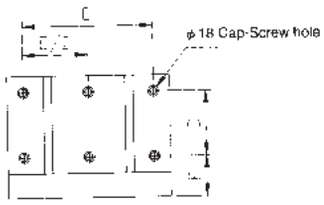
VERTEX

●COLOR MAY VARY

M12

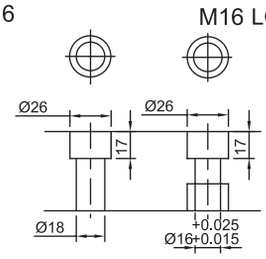
M12 LOCATION HOLE

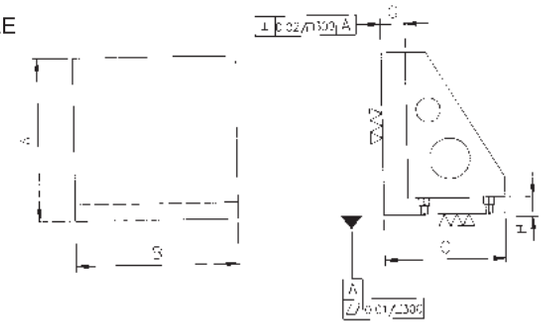




M16

M16 LOCATION HOLE





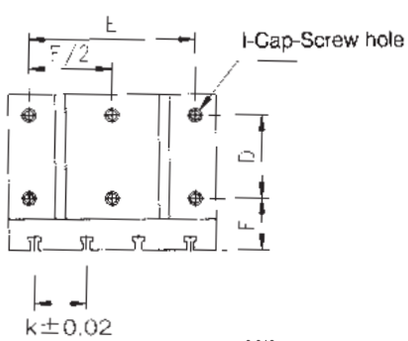
- Material/Finish:
  Material:FC30(JIS)/GG30(DIN)
  Heat treated (Normalized)
- Application:Good for horizontal M/C
- eye bolt incuded.

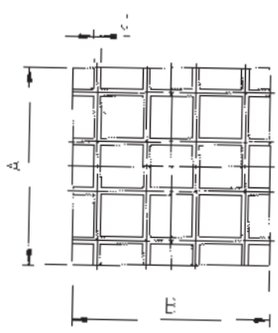
ORDER NO.	A	B	C	D	E	F	G	H	kgs	CODE NO.
BP20-30	300	300	220	100	250	90	40	30	52	4007-001
BP20-40	400	400	280	160	320	90	40	30	90	4007-002
BP20-50	500	500	350	200	400	90	50	35	175	4007-003
BP20-60	630	630	450	250	500	100	50	40	305	4007-004
BP20-80	800	800	550	302	640	115	50	45	480	4007-005

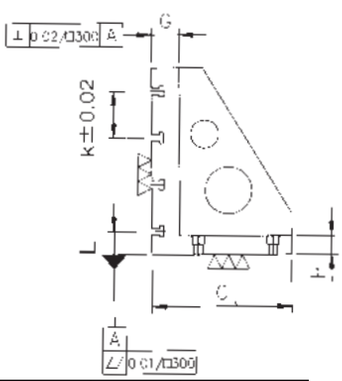
M/C ANGLE PLATE

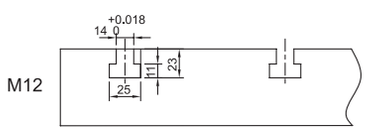
M/C Angle Plate 90º

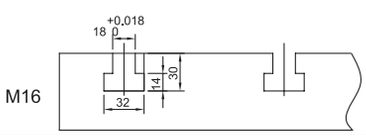
T-SLOT TYPE









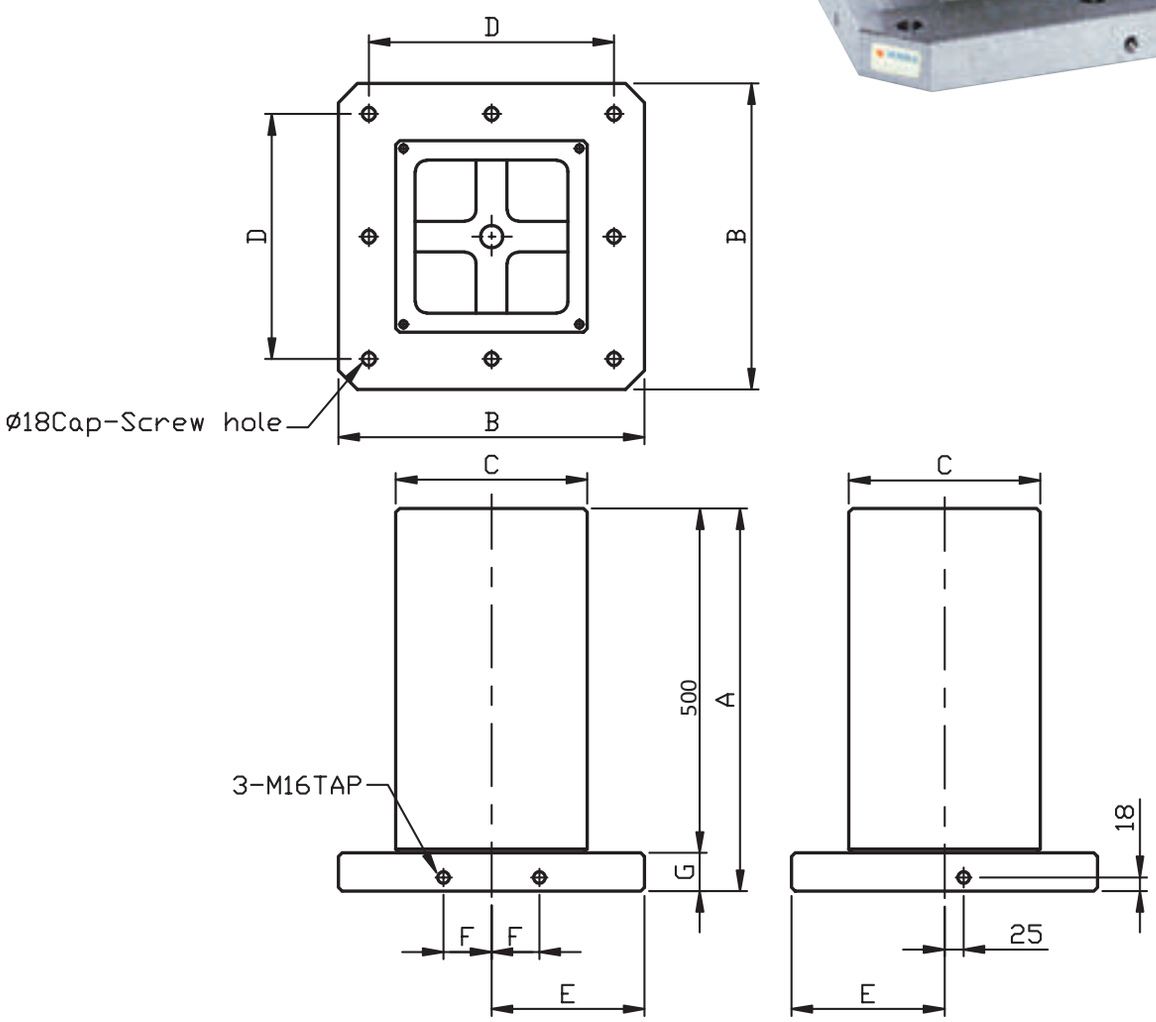


●COLOR MAY VARY

ORDER NO.	A	B	C	D	E	F	G	H	I	J	K (+0.02)	L	KGS	CODE NO.
BP22-30	300	300	220	100	250	90	60	30	ø18	14	100	50	62.5	4007-010
BP22-40	400	400	280	160	320	90	60	30	ø18	14	100	50	114.2	4007-011
BP22-50	500	500	350	200	400	90	60	35	ø18	14	100	50	184	4007-012
BP22-60	630	630	450	250	500	100	60	40	ø18	14	125	65	316	4007-013
BP22-80	800	800	550	320	640	115	75	45	ø18	14	150	100	577	4007-014
BP22-830	300	300	220	100	250	90	60	30	ø18	18	100	50	59.2	4007-015
BP22-840	400	400	300	160	320	90	60	30	ø18	18	100	50	111.2	4007-016
BP22-850	500	500	350	200	400	90	60	35	ø18	18	100	50	184	4007-017
BP22-860	630	630	450	250	500	100	65	40	ø18	18	125	65	304	4007-018

M/C Clamping Cube

- Material/Finish:
  Material:FC30(JIS)/GG30(DIN)
  Heat treated (Normalized)
- Application:Good for horizontal M/C
- Features:Free to finish an actual required hole pattern for your special jig.
- eye bolt included.
- COLOR MAY VARY

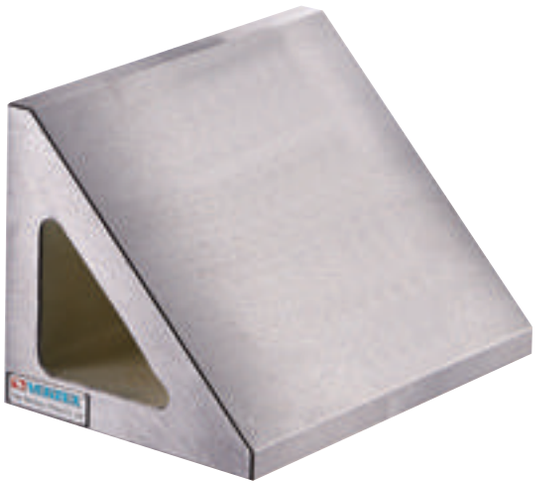


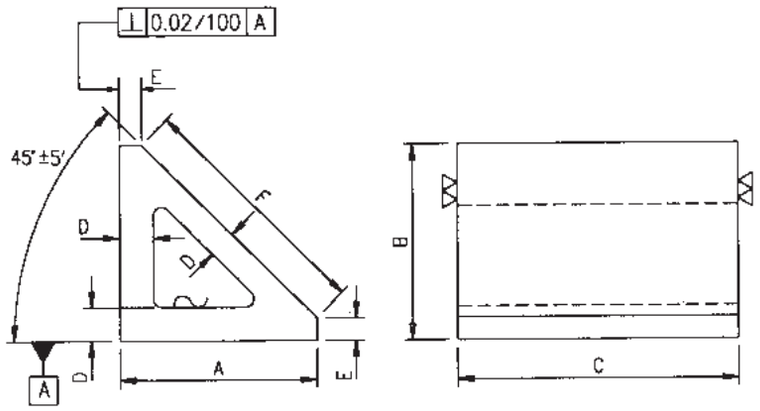
SPECIAL DESIGN WELCOM

ORDER NO.	A	B	C	D	E	F	G	NO.of Mounting holes	kg	CODE NO.
BP07-10	500	400	250	320	200	55	50	4	175	4007-020
BP07-20	600	500	300	400	250	75	50	8	240	4007-021
BP07-30	700	630	350	500	315	100	50	8	390	4007-022
BP07-40	800	800	500	640	400	135	50	8	745	4007-023

Angular Hollow Block 45º

●COLOR MAY VARY





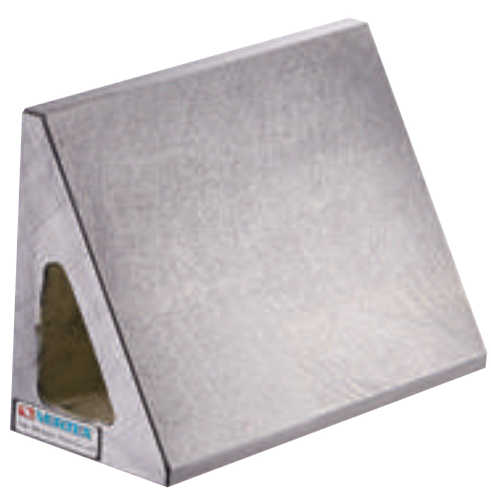
Material:Cast Iron
FC-300
GG-30

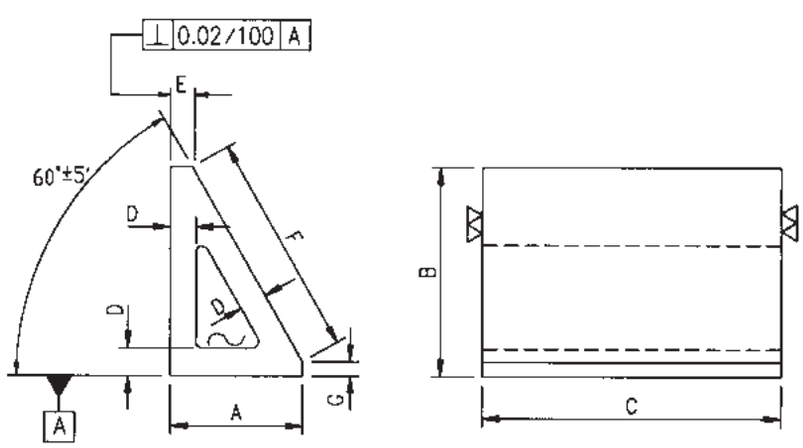
ORDER NO.	A	B	C	D	E	F	kgs	CODE NO.
BC45-15	100	100	150	14	10	127	4.5	4007-030
BC45-30	100	100	300	14	10	127	8.8	4007-031
BC45-151	200	200	150	22	20	255	15.0	4007-032
BC45-301	200	200	300	22	20	255	29.0	4007-033

Angular Hollow Block 30º

●COLOR MAY VARY

T-SLOT TYPE



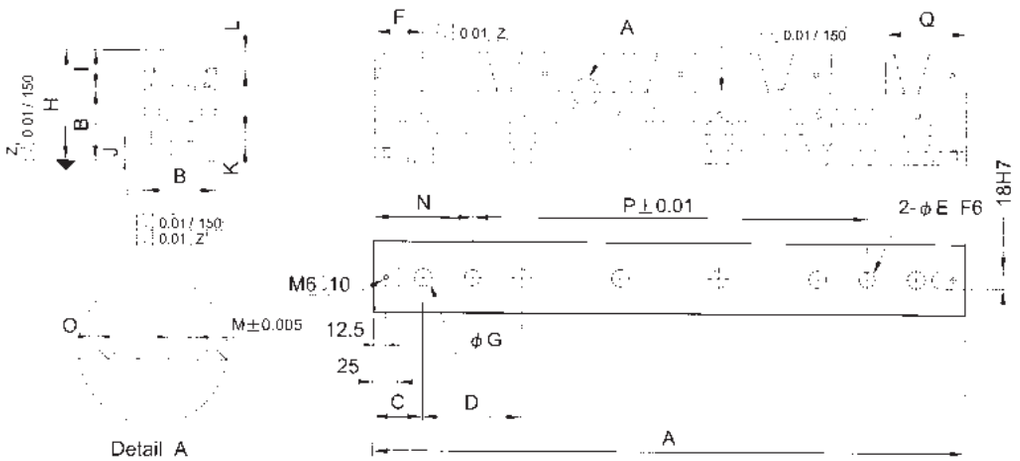


Material: Cast Iron
FC-300
GG-30

ORDER NO.	A	B	C	D	E	F	G	kgs	CODE NO.
BC30-15	63	100	150	12	9	108	6	3.0	4007-040
BC30-30	63	100	300	12	9	108	6	6.0	4007-041
BC30-151	125	200	150	20	14	222	8	9.5	4007-042
BC30-301	125	200	300	20	14	222	8	19.0	4007-043

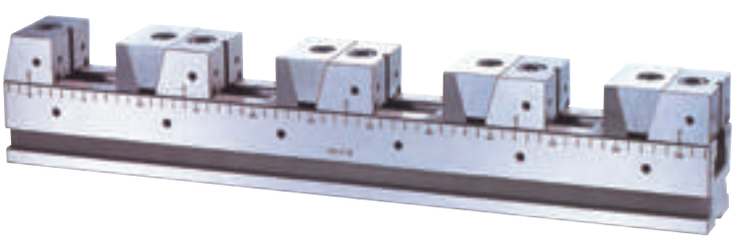
Flexible Line Up Vice

STANDARD STYLE
4 POSITION FOR EACH ITEM.



ORDER NO.	A	B±0.01	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	KG	CODE NO.
VFS-5030	300	50	30	80	12	36	14	75	24.8	10	12	12.5	1.5	70	0.5	160	60	6.5	4007-050
VFS-5030G			50	100										100		100			4007-051
VFS-5040	400	50	40	80	12	36	14	75	24.8	10	12	12.5	1.5	80	0.5	240	60	8.5	4007-052
VFS-5040G			50	100										100		200			4007-053
VFS-5050	500	50	50	80	12	36	14	75	24.8	10	12	12.5	1.5	90	0.5	320	60	10	4007-054
VFS-5050G				100										100		300			4007-055
VFS-5060	600	50	60	80	12	36	14	75	24.8	10	12	12.5	1.5	100	0.5	400	60	11.5	4007-056
VFS-5060G			50	100															4007-057
VFS-5070	700	50	70	80	12	36	14	75	24.8	10	12	12.5	1.5	110	0.5	480	60	13	4007-058
VFS-5070G			50	100										100		500			4007-059
VFS-7240	400	72	50	100	16	48	18	110	39.7	14	16	21.3	2.0	100	0.7	200	82	19	4007-060
VFS-7250	500	72	50	100	16	48	18	110	39.7	14	16	21.3	2.0	100	0.7	300	82	25	4007-061
VFS-7260	600	72	50	100	16	48	18	110	39.7	14	16	21.3	2.0	100	0.7	400	82	27	4007-062
VFS-7270	700	72	50	100	16	48	18	110	39.7	14	16	21.3	2.0	100	0.7	500	82	30	4007-063

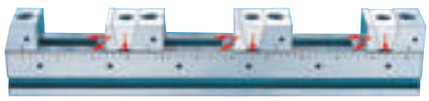
Material：tool steel
Hardness：over HRC55



Flexible Line UP Vice

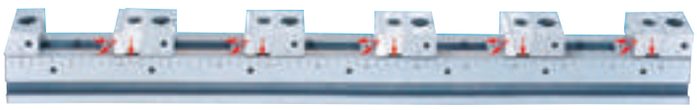
one workpieces

two workpieces



three workpieces

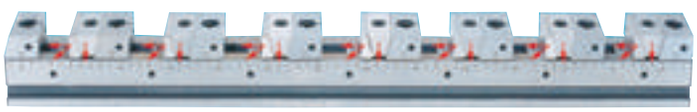
four workpieces



five workpieces

ONE WAY FIX JAW TYPE

six workpieces



seven workpieces

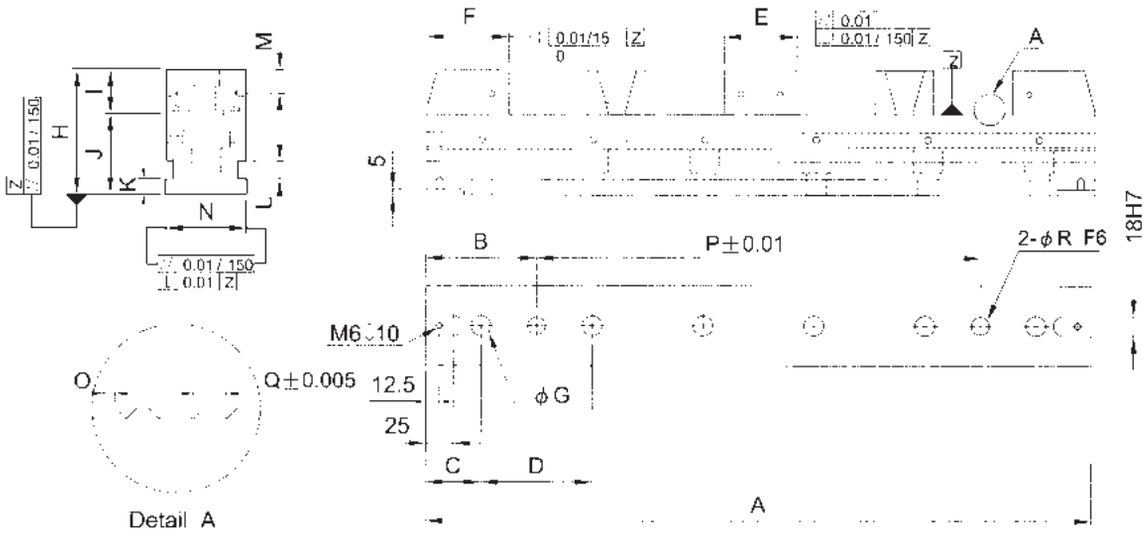
Maximum width of the workpieces can be clamped

ORDER NO.	One workpiece	Two workpieces	Three workpieces	Four workpieces
VFS-5030	203	71	27	--
VFS-5040	303	121	60	30
VFS-5050	403	171	94	55
VFS-5060	503	221	127	80
VFS-5070	603	271	160	105
VFS-7240	269	93	35	--
VFS-7250	369	143	68	30
VFS-7260	469	193	101	55
VFS-7270	569	243	135	80

ORDER NO.	Five workpiece	Six workpiece	Seven workpiece	Eight workpiece	Nine workpiece
VFS-5030	--	--	--	--	--
VFS-5040	--	--	--	--	--
VFS-5050	32	16	--	--	--
VFS-5060	52	33	20	--	--
VFS-5070	72	50	34	22	13
VFS-7240	--	--	--	--	--
VFS-7250	--	--	--	--	--
VFS-7260	28	--	--	--	--
VFS-7270	48	26	--	--	--

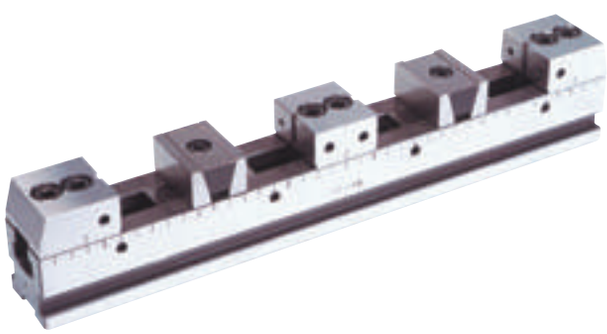
Flexible Line UP Vice

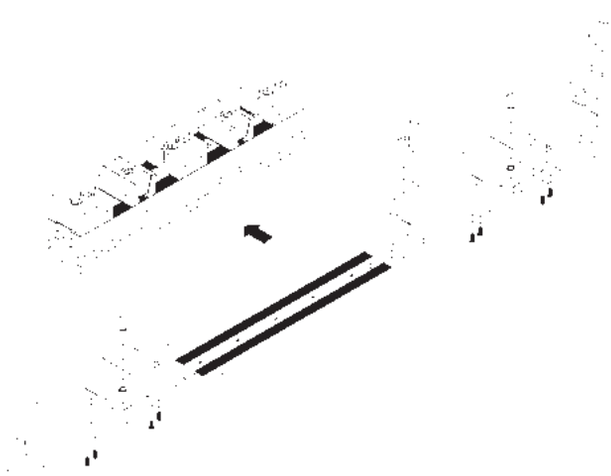
STANDARD STYLE
4 POSITION FOR EACH ITEM.



ORDER NO.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	KG	CODE NO.
VFL-5030	300	70	30	80	44	50	14	75	24.8	50	10	12	12.5	50	0.5	160	1.5	12	7	4007-080
VFL-5030G		100	50	100												100				4007-081
VFL-5040	400	80	40	80	44	50	14	75	24.8	50	10	12	12.5	50	0.5	240	1.5	12	7.6	4007-082
VFL-5040G		100	50	100												200				4007-083
VFL-5050	500	90	50	80	44	50	14	75	24.8	50	10	12	12.5	50	0.5	320	1.5	12	9	4007-084
VFL-5050G		100	50	100												300				4007-085
VFL-5060	600	100	60	80	44	50	14	75	24.8	55	10	12	12.5	50	0.5	400	1.5	12	11	4007-086
VFL-5060G			50	100																4007-087
VFL-5070	700	110	70	80	44	50	14	75	24.8	50	10	12	12.5	50	0.5	480	1.5	12	12	4007-088
VFL-5070G		100	50	100												500				4007-089
VFL-7240	400	100	50	100	65	75	18	110	39.7	72	14	16	21.3	72	0.7	200	2.0	16	19	4007-090
VFL-7250	500	100	50	100	65	75	18	110	39.7	72	14	16	21.3	72	0.7	300	2.0	16	27	4007-091
VFL-7260	600	100	50	100	65	75	18	110	39.7	72	14	16	21.3	72	0.7	400	2.0	16	25	4007-092
VFL-7270	700	100	50	100	65	75	18	110	39.7	72	14	16	21.3	72	0.7	500	2.0	16	27.5	4007-093

Material:tool steel
Hardness:over HRC55

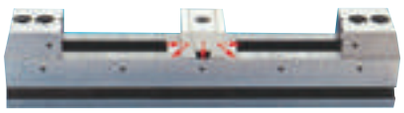




Flexible Line UP Vice

one workpieces

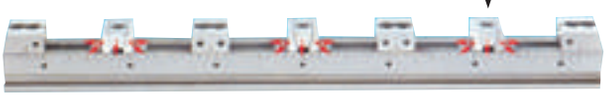
three workpieces


two workpieces

four workpieces

five workpieces

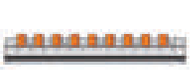
TOW WAY FIX JAW TYPE


six workpieces

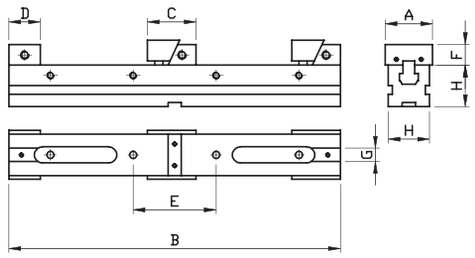
seven workpieces

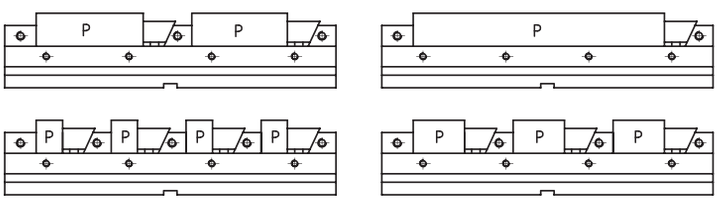
Maximum width of the workpieces can be clamped

ORDER NO.	One workpiece	Two workpieces	Three workpieces	Four workpieces	Five workpieces
VFL-5030	176	82	32	21	--
VFL-5040	276	132	65	46	23
VFL-5050	376	182	98	71	43
VFL-5060	476	232	132	96	63
VFL-7240	217	100	33	20	--
VFL-7250	317	150	65	45	16
VFL-7260	417	200	100	70	36
VFL-7270	517	250	133	95	56

ORDER NO.	Six workpiece	Seven workpieces	Eight workpieces	Nine workpieces	Ten workpieces	Eleven workpieces
						
VFL-5030	--	--	--	--	--	--
VFL-5040	17	--	--	--	--	--
VFL-5050	34	19	15	--	--	--
VFL-5060	50	33	28	17	14	--
VFL-7240	--	--	--	--	--	--
VFL-7250	--	--	--	--	--	--
VFL-7260	27	--	--	--	--	--
VFL-7270	44	23	18	--	--	--

Flexible Line UP Vice





ORDER NO.	B	H	A	C	D	E	F	G	1P	2P	3P	4P	KGS	SCREW	CODE NO.
VFN-6030	300	50	59	55~58	38	100	25	16	208	75	30	8	7	M8	4007-131
VFN-6040	400								305	125	64	33	9		4007-132
VFN-6050	500								408	175	96	58	10		4007-133
VFN-6060	600								508	225	129	83	12		4007-134
VFN-6070	700								608	275	162	108	14		4007-135
VFN-8540	400	75	84	70~75	50		40		275	100	41	12	22	M10	4007-136
VFN-8550	500								375	150	75	37	26		4007-137
VFN-8560	600								475	200	108	62	30		4007-138
VFN-8570	700								575	250	141	87	33		4007-139
VFN-8580	800								675	300	174	102	37		4007-140

Maximum width of the workpieces can be clamped

ORDER NO.	One workpiece 1P	Two workpieces 2P	Three workpieces 3P	Four workpieces 4P
VFN-6030	208	75	30	8
VFN-6040	305	125	64	33
VFN-6050	408	175	96	58
VFN-6060	508	225	129	83
VFN-6070	608	275	162	108
VFN-8540	275	100	41	12
VFN-8550	375	150	75	37
VFN-8560	475	200	108	62
VFN-8570	575	250	141	87
VFN-8580	675	300	174	102

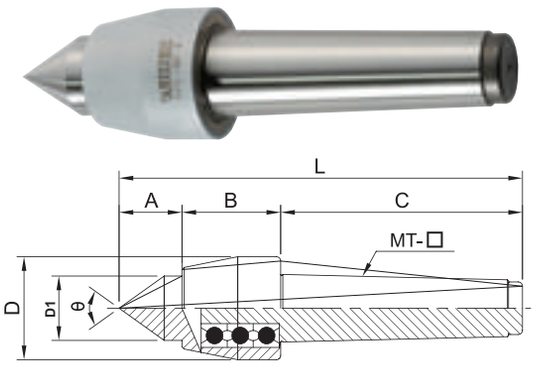
MEMO

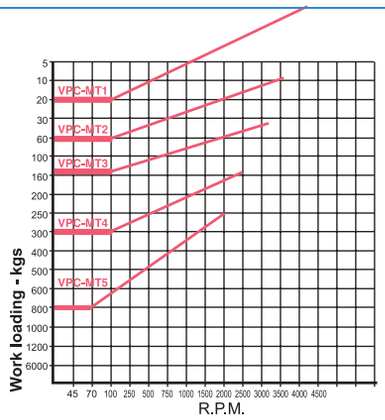
LATHE MACHINE

ACCESSORIES

E1~E8	LIVE CENTER
E9~E23	2/3/4 JAW CHUCKS / SOFT/HARD JAW SUPER HIGH SPEED THROUGH- HOLE ROTARY HYDRAULIC CYLINDER
E24~E26	LATHE COLLET
E27~E72	VDI TOOL HOLDERS SERIES
E73~E79	QUICK CHANGE TOOL POST & HOLDERS

Light Duty Live Center





FOR VPC-TYPE

- Center is made of SCM420 alloy steel by heat treatment to provide higher rigidity (HRC60º±2º) and satisfied wear-resistance.
- Center is constituted by ball bearings assembly.
- Applicable to middle-speed & high-speed lathe with light load.

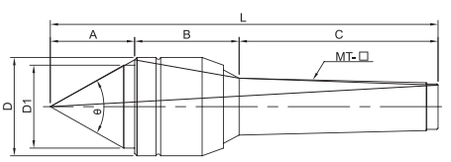
※Suggested tailstock pressure under 6 kg/cm^2

Unit:mm

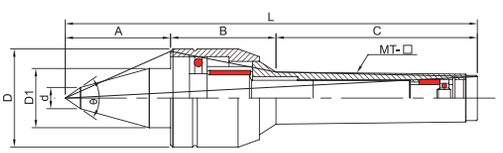
ORDER NO.	A	B	C	D	D1	L	Accuracy	Speed Max R.P.M.	θ	G.W. weight kgs	PACKING LxWxH	CODE NO.
VPC-MT1	21	31	56	32	16	108	0.005	3200	60º	0.3	115 x 136 x 38	5001-001
VPC-MT2	26	37	69	40	22	132	0.005	2800	60º	0.5	140 x 45 x 45	5001-002
VPC-MT3	32	46	86	45	26	164	0.005	2000	60º	0.9	170 x 50 x 52	5001-003
VPC-MT4	34	46	108	48	30	188	0.005	1800	60º	1.3	195 x 58 x 56	5001-004
VPC-MT5	50	62	136	68	45	248	0.005	1500	60º	3.2	268 x 86 x 77	5001-005

Live Lathe Center

A TYPE



B TYPE



- Center shaft & main body is made of SCM420 alloy steel by heat treatment to provide higher rigidity (HRC60º±2º) and satisfied wear- resistance.
- Center is constituted by thrust ball bearing, needle roller bearings & ball bearings assembly.
- Applicable to middle-speed & high- speed lathe with heavy load.

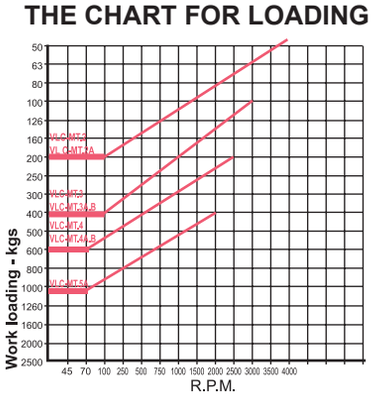
※ B TYPE SUITABLE FOR SMALL -WORKPIECE MACHINING.

※Suggested tailstock pressure under 6 kg/cm^2

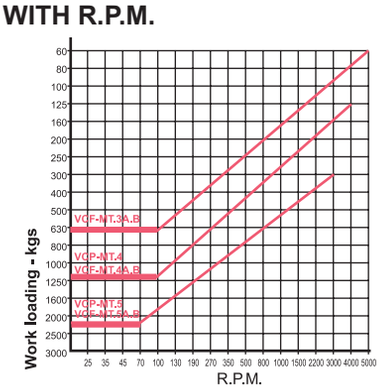
Unit:mm

ORDER NO.	TYPE	A	B	C	D	D1	d	L	Accuracy	Speed Max R.P.M.	θ	G.W. weight kgs	PACKING LxWxH	CODE NO.
VLC-212	MT2A	28	35	69	32	23	-	132	0.005	4000	60º	0.3	173 x 43 x 40	5001-010
VLC-213	MT3A	36	44	86	41	35	-	166	0.005	3000	60º	0.9	198 x 67 x 51	5001-011
VLC-214	MT4A	41	51	108	47	40	-	200	0.005	2500	60º	1.5	240 x 70 x 61	5001-012
VLC-215	MT5A	54	72	136	65	52	-	262	0.005	2000	60º	3.8	290 x 92 x 80	5001-013
VLC-213B	MT3B	46	44	86	41	25	10	176	0.005	3000	60º	0.9	198 x 67 x 51	5001-014
VLC-214B	MT4B	55	51	108	47	32	12	214	0.005	2500	60º	1.5	240 x 70 x 61	5001-015

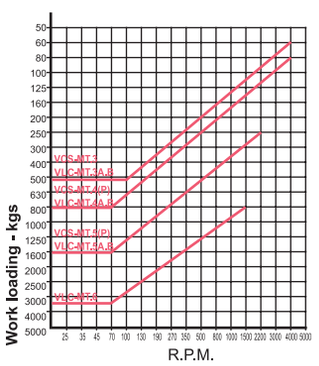
THE CHART FOR LOADING WEIGHT WITH R.P.M.



FOR VLC-TYPE



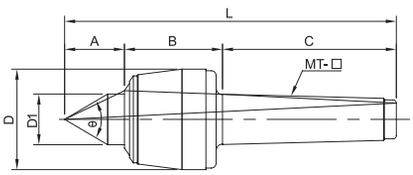
FOR VCF/VCP-TYPE



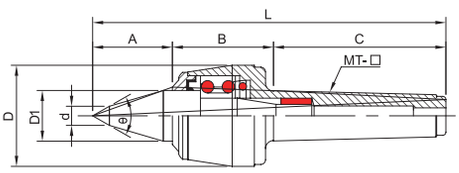
FOR VCS-TYPE

High-Speed NC Live Center

A TYPE



B TYPE



WATER-PROOF TYPE

- Center shaft is made of SUJ2 material under vacuum heat treatment to provide higher rigidity (HRC60º±2º) and satisfied wear-resistance.
- Center is constituted by dual ball bearing. Thrust bearing & needle roller bearing assembly.
- Applicable to high-speed lathe & NC lathe with heavy load
- water-proof.

※ B Type is applicable in the metal workings on small diameter workpieces.

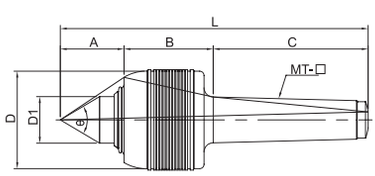
※Suggested tailstock pressure under 6 kg/cm^2

Unit:mm

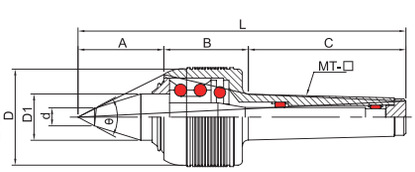
ORDER NO.	TYPE	A	B	C	D	D1	d	L	Accuracy	Speed Max R.P.M.	θ	G.W. weight kgs	PACKING LxWxH	CODE NO.
VLC-MT3A	MT3A	39	51	86	53	30	-	176	0.005	4000	60º	1.3	240 x 70 x 61	5001-020
VLC-MT4A	MT4A	42	62	108	63	32	-	212	0.005	3000	60º	2.2	253 x 92 x 80	5001-021
VLC-MT5A	MT5A	57	71	136	83	40	-	264	0.005	2500	60º	4.5	303 x 108 x 101	5001-022
VLC-MT6A	MT6A	80	111	189	128	70	-	380	0.008	1500	60º	15.6	410 x 177 x 168	5001-023
VLC-MT3B	MT3B	48	52	86	53	30	10	186	0.005	4000	60º	1.4	240 x 70 x 61	5001-024
VLC-MT4B	MT4B	52	62	108	63	32	12	218	0.005	3000	60º	2.2	253 x 92 x 80	5001-025
VLC-MT5B	MT5B	67	71	136	83	40	14	274	0.005	2500	60º	4.5	303 x 108 x 101	5001-026

High-Load NC Live Center

A TYPE



B TYPE



- Shaft uses material SUJ2: through vacuum heat treatment, it is even more durale, hardness is as high as (HRC60º± 2º) and satisfied wear-resistance.
- Front end is constituted by angular contact ball bearing & thrust ball bearing. middle & rear ends are comprised of needle roller bearing assembly.
- These centers are suitable for NC lathe at high-speed & heavy-load operation, water-proof.

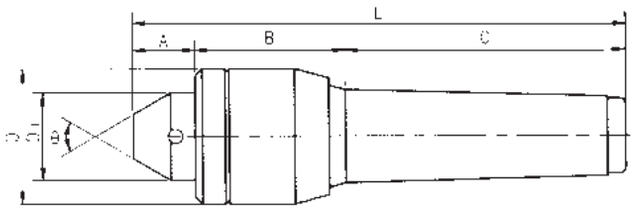
※ B Type is applicable in the metal workings on small workpieces.

※Suggested tailstock pressure under 6 kg/cm^2

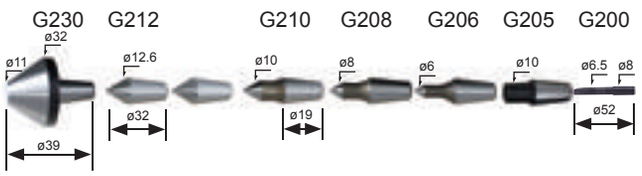
Unit:mm

ORDER NO.	A	B	C	D	D1	d	L	Accuracy	Speed Max R.P.M.	θ	G.W. weight kgs	PACKING LxWxH	CODE NO.
VCF-MT3A	38	50	86	53	30	-	174	0.003	5000	60º	1.3	240 x 70 x 61	5001-030
VCF-MT4A	45	60	108	68	32	-	213	0.003	4500	60º	2.4	253 x 92 x 80	5001-031
VCF-MT5A	52	70	136	87	40	-	258	0.003	3000	60º	5	303 x 108 x 101	5001-032
VCF-MT3B	52	50	86	53	25	10	188	0.003	5000	60º	1.3	240 x 70 x 61	5001-033
VCF-MT4B	55	60	108	68	32	12	223	0.003	4500	60º	2.4	253 x 92 x 80	5001-034
VCF-MT5B	67	70	136	87	40	14	273	0.003	3000	60º	5	303 x 108 x 101	5001-035

Inter-changeable Points Live Center



- Complete set with 7 Interchangeable Points for various processing.
- Packed in case.
- High accurancy and durability as well as complete rust-proof performance
- Center mabe of SCM420 special tool steel hardened and ground can be used for heavy duty work.

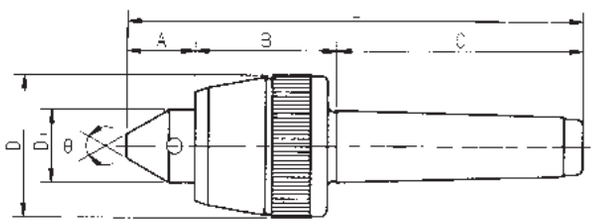


※Suggested tailstock pressure under 6 kg/cm^2

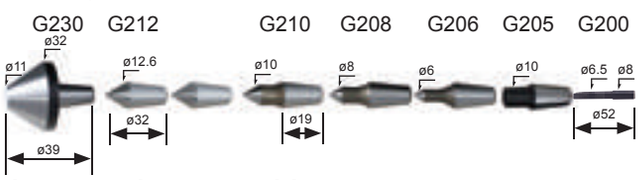
Unit:mm

ORDER NO.	TYPE	A	B	C	D	D1	L	Accuracy	Speed Max. R.P.M.	θ	G.W. weight kgs	PACKING LxWxH	CODE NO.
VLC-312	MT2	22	36	69	32	25	127	0.008	4000	60º	0.9	166 x 105 x 63	5001-040
VLC-313	MT3	23	44	86	41	30	153	0.008	3000	60º	1.4	255 x 138 x 100	5001-041
VLC-314	MT4	23	51	108	47	32	182	0.008	2500	60º	2	255 x 138 x 100	5001-042

High Speed NC Interchangeable Points Live Center



VCS-MT3, MT4



VCS-MT4P, MT5P

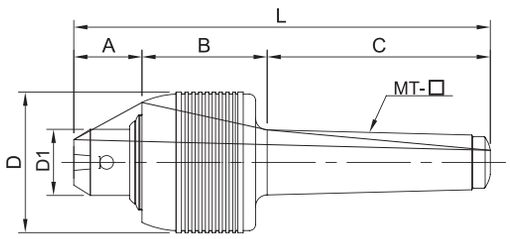
- Center shaft is made of SUJ2 material under vacuum heat treatment to provide higher rigidity (HRC60º±2º) and satisfied wear-resistance.
- Center is constituted by dual ball bearing. Thrust bearing & needle roller bearing assembly.
- Suit for to high-speed lathe & NC leathe with heavy load, water-proof.

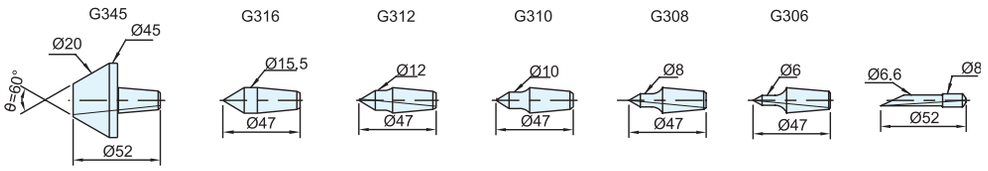
※Suggested tailstock pressure under 6 kg/cm^2

Unit:mm

ORDER NO.	A	B	C	D	D1	L	Accuracy	Speed Max. R.P.M.	θ	G.W. weight kgs	PACKING LxWxH	CODE NO.
VCS-MT3	28	51	86	53	30	165	0.008	4000	60º	1.8	255 x 138 x 100	5001-050
VCS-MT4	30	62	108	63	32	196	0.008	3500	60º	2.5	255 x 138 x 100	5001-051
VCS-MT4P	30	62	108	63	32	196	0.008	3500	60º	2.7	235 x 130 x 80	5001-052
VCS-MT5P	34	71	136	83	40	237	0.008	2500	60º	5.1	275 x 147 x 97	5001-053

High Load Interchangeable Points Live Center





- Shaft uses material SUJ2:through vacuum heat treatment, it is even more durable, hardness is as high as (HRC60º±2º) and satisfied wear-resistance.
- Front end is constituted by SKF angular contact ball bearing & thrust ball bearing. middle & rear ends are comprised of needle roller bearing assembly.
- These centers are suitable for NC lathe at high-speed & heavy-load operation, water-proof.

※Suggested tailstock pressure under 6 kg/cm^2

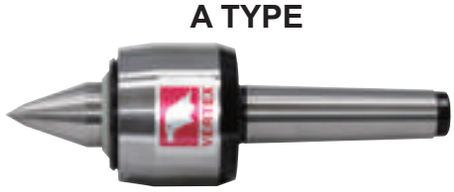
Unit:mm

ORDER NO.	A	B	C	D	D1	L	Accuracy	Speed Max. R.P.M.	θ	G.W. weight kgs	PACKING LxWxH	CODE NO.
VCP-MT4	30	64	108	68	32	202	0.005	4500	60º	3	253 x 130 x 80	5001-060
VCP-MT5	37	70	136	87	40	243	0.005	3000	60º	5.5	275 x 147 x 97	5001-061

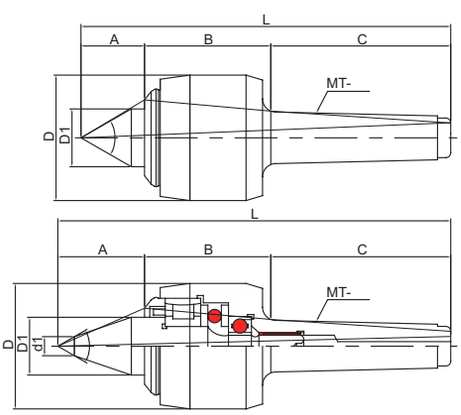
High Speed Live Center

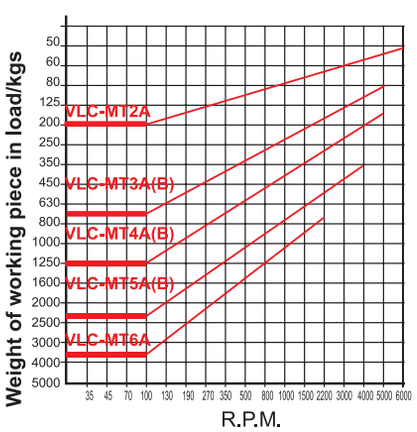
NEW **EURO STYLE**

A TYPE



B TYPE





- Suit for to CNC lathes, can be used at high speed turning and with waterproof design.
- The shaft is made of alloy steel and through vacuum heat treatment HRC 60˚±2˚. It has hig rigidity and high durability.
- The center uses the combination of roller bearing, thrust ball bearing and ball bearing.

※B Type is applicable in the metal workings on small workpieces.

※Suggested tailstock pressure under 6 kg/cm^2

Unit:mm

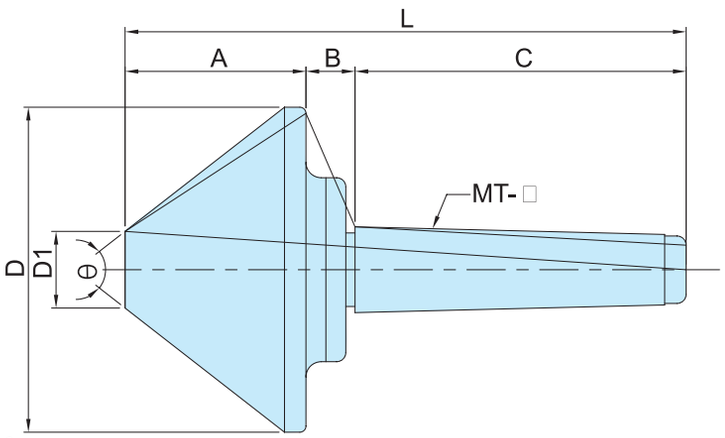
ORDER NO.	TYPE	A	B	C	D	D1	L	d1	Accuracy	Speed Max. R.P.M	θ	G.W. weight	PACKING L x W x H	CODE NO.
VLC-512	MT2A	20	46	69	32	13	135	-	0.003	6000	60˚	0.8	240x70x61	5001-062
VLC-513	MT3A	34	61	86	58	25	181	-	0.003	5200	60˚	1.8	253x92x80	5001-063
VLC-514	MT4A	44	67	114	76	35	225	-	0.003	5000	60˚	3.2	290x92x80	5001-064
VLC-515	MT5A	55	88	142	95	45	285	-	0.003	3500	60˚	5.6	303x108x101	5001-065
VLC-513B	MT3B	45	61	86	58	25	192	10	0.003	5200	60˚	1.8	290x92x80	5001-067
VLC-514B	MT4B	55	67	114	76	35	236	12	0.003	5000	60˚	3.2	253x92x80	5001-068
VLC-515B	MT5B	67	88	142	95	45	297	14	0.003	3500	60˚	6.0	303x108x101	5001-069

Bull Nose Pipe Center

VERTEX

Pipe Live Center

HARDEN PROCESS : HRC50º
CONCENTRICITY : 0.005mm
ROUNDNESS : 0.005mm
MATERIAL : STEEL



※Suggested tailstock pressure under 6 kg/cm^2

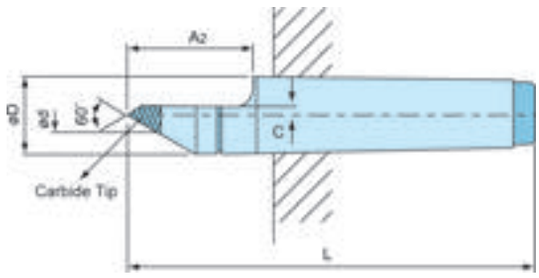
Unit:mm

ORDER NO.	SIZE MTxD	A	B	C	D	D1	L	Speed Max. R.P.M	θ	R.P.M 100 LOAD WEIGHT (KGS)	G.W. weight (KGS)	CODE NO.
VLC-422	MT2×2 1/2”	48	12	69	63.5	12	128	3000	60°	200	0.9	5001-070A
VLC-423	MT2×3”	56	12	69	78	19	138	2500	60°	400	1.3	5001-070B
VLC-424	MT2×4”	58	12	69	106	32	141	2000	70°	640	2.3	5001-070C
VLC-433	MT3×3”	52	18	86	78	19	156	3300	60°	400	1.6	5001-070
VLC-434	MT3×4”	59	16	86	106	32	161	3000	70°	500	2.8	5001-071
VLC-435	MT3×5”	71	12	89	128	35	173	1900	70°	960	4.2	5001-071A
VLC-436	MT3×6”	81	12	89	156	50	183	1900	70°	1200	7.3	5001-071B
VLC-443	MT4x3″	52	18	108	78	19	178	3300	60º	400	1.8	5001-072
VLC-444	MT4x4″	59	16	108	106	32	183	3000	70º	500	3.1	5001-073
VLC-445	MT4x5″	73	12	108	128	35	193	2000	70º	650	4.9	5001-074
VLC-446	MT4x6″	88	12	108	156	50	208	1900	70º	800	7.7	5001-075
VLC-448	MT4x8″	98	12	108	206	54	218	1500	75º	1300	15.4	5001-076
VLC-4410	MT4×10”	107	13	110	258	92	236	1000	80°	2000	24	5001-076A
VLC-454	MT5×4”	58	12	143	106	32	214	2000	70°	640	4	5001-077A
VLC-455	MT5×5”	73	12	136	128	35	221	2000	70°	650	5.8	5001-077
VLC-456	MT5×6”	88	12	136	156	50	236	1900	70°	800	8.6	5001-078
VLC-458	MT5×8”	98	12	136	206	54	246	1500	75°	1600	15.7	5001-079
VLC-4510	MT5×10”	107	13	143	258	92	264	1000	80°	2200	25.5	5001-079A
VLC-4512	MT5×12”	110	25	143	306	120	281	1000	90°	3000	37.5	5001-079B
VLC-466	MT6×6”	81	12	185	156	50	281	1900	70°	1200	12	5001-080A
VLC-468	MT6×8”	103	13	185	206	54	298	1500	75°	2000	15.8	5001-080
VLC-4610	MT6×10”	107	13	185	258	92	306	1000	80°	2500	28	5001-081
VLC-4612	MT6×12”	110	25	185	306	120	323	1000	90°	3000	40	5001-082

Lathe Center

- Half diameter
- High precision
- Carbide tip
- DIN 806

NEW

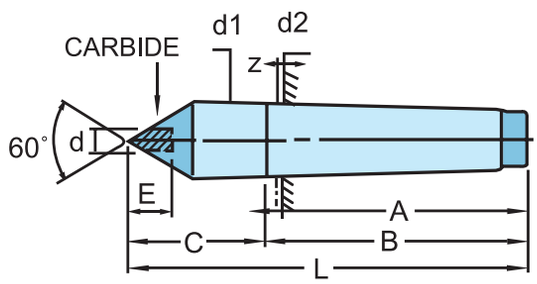


※Suggested tailstock pressure under 6 kg/cm^2

ORDER NO.	SIZE	A2	C	ØD	Ød	L	Weight (kgs)	CODE NO
VLC-117	MT3	41	3	24	9	124	0.33	5001-086
VLC-118	MT4	54	4	31.3	11.5	158	0.72	5001-087
VLC-119	MT5	69	4.5	44.5	13	198	1.73	5001-088

Lathe Center

- K20 Carbide tipped-HRC 70º
- Hardened & precision ground.
- Concentricity within.0002″(0.005mm)
- DIN806



※Suggested tailstock pressure under 6 kg/cm^2

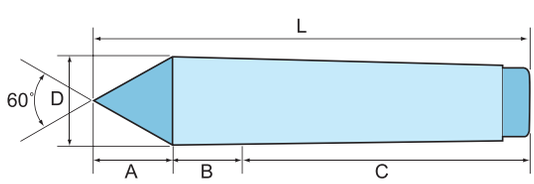
Unit:mm

ORDER NO.	SIZE	A	B	C	E	L	d2	d1	d	Weight (kgs)	CODE NO.
VLC-112	MT-2	69	67	31	8	100	17.780	18.0	6	0.2	5001-090
VLC-113	MT-3	89	81	39	10	125	23.825	24.1	8	0.4	5001-091
VLC-114	MT-4	109	102.5	46	14	155	31.267	31.6	10	0.8	5001-092
VLC-115	MT-5	136	129.5	64	18	200	44.399	44.7	14	2.1	5001-093
VLC-116	MT-6	190	182	80	30	270	63.648	63.8	18	5.7	5001-094

Dead Center

- Suit for lathe & grinding machine
- Hardened & precision ground
- DIN806

NEW



※Suggested tailstock pressure under 6 kg/cm^2

ORDER NO.	SIZE	A	B	C	D	L	Weight (kgs)	CODE NO
VLC-126	MT2	18	7	75	19	100	0.16	5001-111
VLC-127	MT3	24	10	91	25	125	0.34	5001-112
VLC-128	MT4	30	11	114	32	155	0.73	5001-113
VLC-129	MT5	39	16	145	46	200	1.9	5001-114
VLC-130	MT6	54	29	187	64	270	5.12	5001-115

Work-Driving Center

VDK-15

VDK-23

VDK-32

- This Clamp-free center is comprised of excellent mechanical structure, nearly free of breakdown. main body & center shaft are made of SLD material by heat treatment(HRC62º).
  Driving is required for traditional lathe machining to prevent workpiece from stop.
- This clamp-free center with 6 T & 8T design on end surface is able to securely support workpiece surface to fulfill easy and rapid machining.

※Suggested tailstock pressure under 6 kg/cm^2

Unit:mm

ORDER NO.	Center Shaft Size	Outer Dia	Working Range	Weight (KGS)	CODE NO.
VDK-15-MT4	6ø	16ø	16ø-25ø	0.6	5001-100
VDK-23-MT4	8ø	23ø	23ø-32ø	0.7	5001-101
VDK-32-MT4	8ø	32ø	32ø-45ø	0.7	5001-102

Work-Driving Center-Changable Tips

SET STYLE

TAPER SLEEVE

STOPPER

CENTER

※Suggested tailstock pressure under 6 kg/cm^2

Unit:mm

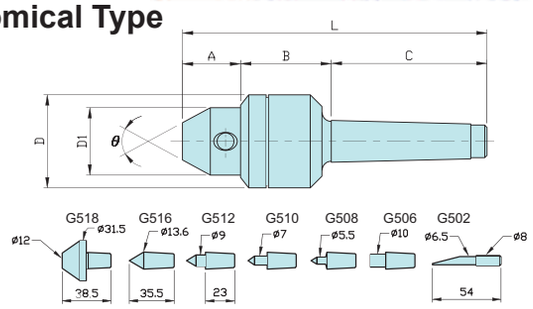
ORDER NO.	Center Shaft Size	Stopper Outer Dia	Working Range	Weight (KGS)	CODE NO.
VDC-30-MT4	6ø, 8ø, 10ø	16ø, 23ø, 30ø	15ø-45ø	2.63	5001-106

Inter-Changeable Point Rolling Center

VERTEX

NEW

Economical Type



- 7 points / set
- Concentricity : ±0.008mm
- With high grade bearing

※Suggested tailstock pressure under 6 kg/cm^2

Unit:mm

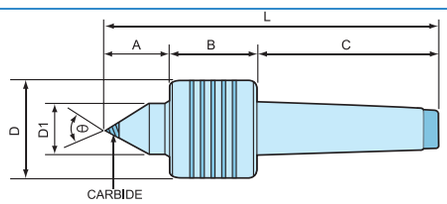
ORDER NO.	TYPE	A	B	C	D	D1	L	Accuracy	Speed Max R.P.M.	θ	G.W. Weight Kgs	CODE NO.
VLC-612	MT2	24	39	69	40	29	132	0.005	1800	60˚	0.85	5001-121
VLC-613	MT3	24	43	91	46	30	158	0.005	1600	60˚	1.1	5001-122
VLC-614	MT4	24	44	107	48	32	175	0.005	1600	60˚	1.4	5001-123
VLC-615	MT5	25	64	138	63.5	35	227	0.005	1000	60˚	3.8	5001-124

Live Lathe Center

NEW

LIGHT DUTY

CARBIDE



- K20 carbide tipped, HRC 70˚
- Hardened & pricision ground
- Concentricity : 0.0002” (±0.005mm)

※Suggested tailstock pressure under 6 kg/cm^2

ORDER NO.	TYPE	A	B	C	D	D1	L	SPEED MAX. R.P.M.	θ	WORK LOADING-KGS	G.W. weight kgs	CODE NO
VLC-172	MT2	32	40	72	41	25	144	2300	60˚	60	0.55	5001-131
VLC-173	MT3	34	45	88	45	30	167	2000	60˚	160	0.84	5001-132
VLC-174	MT4	34	45	109	45	30	188	1800	60˚	300	1.15	5001-133
VLC-175	MT5	50	61	134	68	45	245	1500	60˚	800	3.3	5001-134

Drill Chucks Arbor

SLEEVE

MT3.4.5
-JT-

ARBOR

SLEEVE

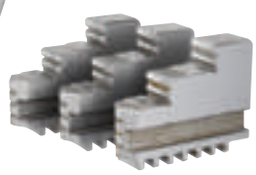
Please see page C43,C44,C56,C57

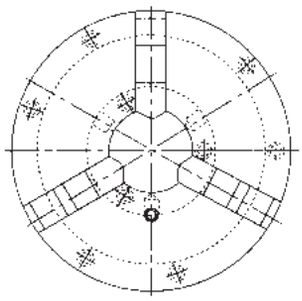
ORDER NO.	I.D.xO.D.	D	d	L	l1	l2	kg	CODE NO.
VQ-101	MT2xMT3	23.825	17.780	112	18	67	0.2	3210-001
VQ-102	MT2xMT4	31.267	17.780	124	6.5	67	0.5	3210-002
VQ-103	MT2xMT5	44.399	17.780	156	6.5	67	1.4	3210-003
VQ-104	MT2xMT6							3210-004
VQ-105	MT3xMT4	31.267	23.825	140	22.5	84	0.4	3210-005
VQ-106	MT3xMT5	44.399	23.825	156	6.5	84	1.3	3210-006
VQ-107	MT3xMT6	63.348	23.825	218	8	84	4	3210-007
VQ-108	MT4xMT5	44.399	31.267	171	21.5	107	1	3210-008
VQ-109	MT4xMT6	63.348	31.267	218	8	107	3.7	3210-009
VQ-110	MT5xMT6	63.348	44.399	218	8	133	2.9	3210-010
VQ-100	MT1xMT3	23.825	12.065	100	6	55	0.2	3210-011
VQ-100-1	MT1xMT2	17.780	12.065	89	14	55	0.22	3210-012
VQ-100-2	MT1xMT4	31.267	12.065	124	6.5	55	0.89	3210-013
VQ-100-3	MT1xMT5	44.399	12.065	156	7	55	1.33	3210-014

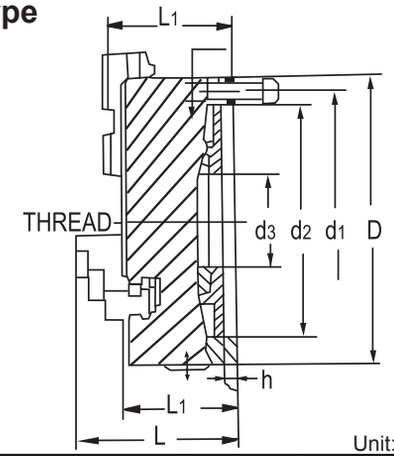
ORDER NO.	TAPER	JT NO.	C	H	kg	CODE NO.
VJ-126	MT2	JT3	20.6	34	0.24	3209-006
VJ-126-1	MT2	B16	15.733	29	0.2	3209-006A
VJ-126-3	MT2	B18	17.78	37	0.21	3209-006B
VJ-130	MT2	JT6	17.17	28	0.22	3209-029
VJ-130-2	MT2	JT5	35.89	50	0.5	3209-029A
VJ-130-4	MT2	JT4	28.55	45	0.4	3209-029B
VJ-137	MT2	JT2	14.2	25	0.2	3209-056
VJ-131	MT3	JT6	17.17	26	0.4	3209-030
VJ-131-2	MT3	JT5	35.89	50	0.7	3209-030A
VJ-131-4	MT3	JT33	15.85	28	0.3	3209-030B
VJ-134	MT3	B16	15.733	24	0.3	3209-033
VJ-134-2	MT3	B18	17.78	37	0.4	3209-033A
VJ-138-1	MT3	JT3	20.60	34	0.35	3209-034
VJ-131-2	MT3	JT5	35.89	50	0.7	3209-030A
VJ-138-2	MT3	JT4	28.55	45	0.5	3209-035
VJ-132	MT4	JT6	17.17	26	0.7	3209-031
VJ-132-1	MT4	JT3	20.60	34	0.7	3209-031A
VJ-132-7	MT4	JT4	28.55	45	0.85	3209-031B
VJ-132-4	MT4	JT5	35.89	50	1	3209-031C
VJ-132-5	MT4	JT2	14.2	25		3209-031D
VJ-132-6	MT4	JT33	15.85	28	0.65	3209-031E
VJ-132-8	MT4	B18	17.78	37	0.7	3209-031F
VJ-135	MT4	B16	15.733	29	0.7	3209-036
VJ-133	MT5	JT6	17.17	26	1.6	3209-032
VJ-133-1	MT5	JT3	20.60	35	1.6	3209-032A
VJ-133-2	MT5	JT4	28.55	46	1.8	3209-032B
VJ-133-3	MT5	JT5	35.89	51	2	3209-032C
VJ-133-4	MT5	JT2	14.2	26	1.6	3209-032D
VJ-133-5	MT5	JT33	15.85	29	1.6	3209-032E

3 Jaw Self Centering Chuck

2 Set of Solid Jaw. Plain Back — **Normal Type**







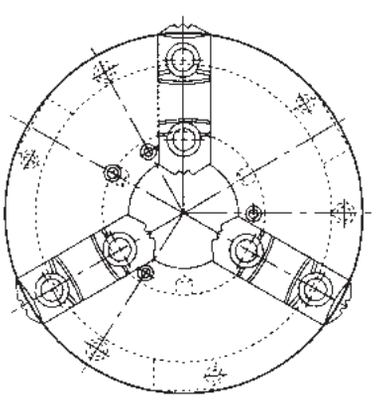
Unit:mm

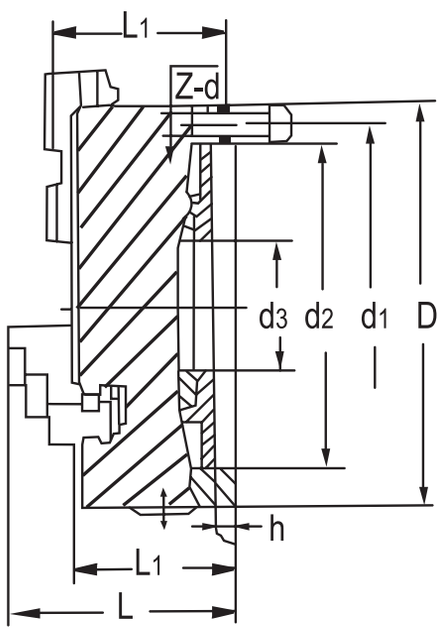
SPECIFICATIONS

ORDER NO.	D-Size	d1	d2	d3	L	L1	h	THREAD	GRIPPING RANGE		WEIGHT (kgs)	CODE NO.
									O.D. RANGE	I.D. RANGE		
VSC-3A	80mm(3″)	66	55	16	66	50	3.5	3-M6	Ø2-Ø70	Ø24-Ø64	2	5002-020A
VSC-4A	100mm(4″)	84	72	22	74.5	55	3.5	3-M8	Ø3-Ø90	Ø32-Ø84	3.3	5002-021A
VSC-5A	130mm(5″)	115	100	30	78	55	3.5	3-M8	Ø3-Ø110	Ø35-Ø100	5.8	5002-022A
VSC-6A	160mm(6″)	142	130	45	95	65	5	3-M8	Ø3-Ø160	Ø48-Ø150	9	5002-023A
VSC-7A	190mm(7 1/2″)	172	155	55	105	75	5	3-M10	Ø4-Ø180	Ø56-Ø170	15.1	5002-024A
VSC-8A	200mm(8″)	180	165	70	109	75	5	3-M10	Ø4-Ø180	Ø56-Ø170	15.6	5002-025A
VSC-9A	240mm(9 1/2″)	215	195	70	122.5	80	5	3-M12	Ø5-Ø220	Ø62-Ø210	26	5002-026A
VSC-10A	250mm(10″)	226	206	80	120	80	5	3-M12	Ø6-Ø220	Ø70-Ø250	26.5	5002-027A
VSC-12A	315mm(12″)	285	260	100	147.5	90	6	3-M16	Ø10-Ø300	Ø86-Ø290	47	5002-028A
VSC-16A	400mm(16″)	368	340	130	173.5	100	6	3-M16	Ø14-Ø400	Ø100-Ø380	73	5002-029A
VSC-20A	500mm(20″)	465	440	210	202	115	6	3-M16	Ø25-Ø500	Ø150-Ø500	131	5002-030A
VSC-25A	630mm(25″)	595	560	260	194	130	6	3-M16	Ø50-Ø630	Ø170-Ø630	200	5002-031A

3 Jaw Powerful Self Centering Chuck

Reversible Top Jaws. Plain Back — **Normal Type**





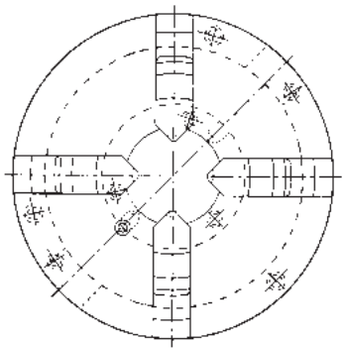
3 JAW SELF CENTERING CHUCK REVERSIBLE TOP JAWS. PLAIN BACK

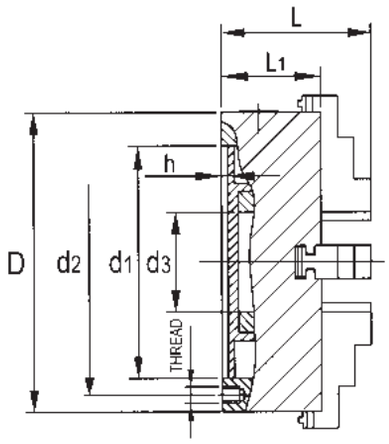
SPECIFICATIONS

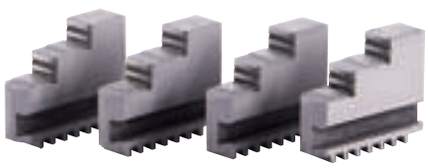
Unit:mm

ORDER NO.	D-Size	d1	d2	d3	L	L1	h	THREAD	GRIPPING RANGE		WEIGHT (kgs)	CODE NO.
									O.D. RANGE	I.D. RANGE		
VSK-6A	160mm(6″)	142	130	45	95	71	5	3-M8	Ø8-Ø160	Ø55-Ø150	8.3	5002-040A
VSK-8A	200mm(8″)	180	165	65	109	78	5	3-M12	Ø8-Ø180	Ø62-Ø170	16	5002-042A
VSK-10A	250mm(10″)	226	206	80	120	84	5	3-M12	Ø12-Ø260	Ø80-Ø250	21.7	5002-043A
VSK-12A	315mm(12″)	285	260	100	156.5	102.5	6	3-M16	Ø15-Ø300	Ø90-Ø290	41	5002-043B
VSK-13A	325mm(13″)	296	272	100	154.5	102.5	6	3-M16	Ø11.5-Ø350	Ø110-Ø340	45.8	5002-044A
VSK-15A	380mm(15″)	350	325	130	156.5	104.5	6	3-M16	Ø11.5-Ø400	Ø110-Ø400	64.7	5002-045A
VSK-16A	400mm(16″)	368	340	130	181.5	129.5	6	3-M16	Ø30-Ø470	Ø110-Ø380	75.5	5002-046A

4 Jaw Self Centering Chucks





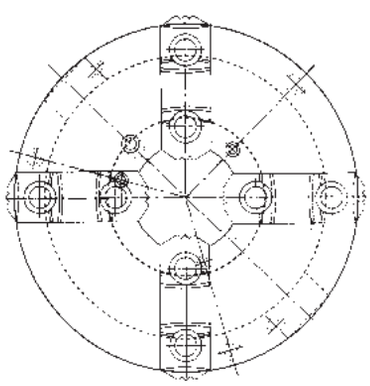


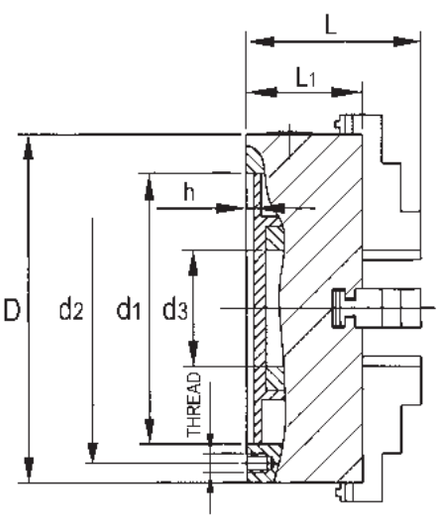
SPECIFICATIONS

Unit:mm

ORDER NO.	D	d1	d2	d3	L	L1	h	THREAD	GRIPPING RANGE		WEIGHT (kgs)	CODE NO.
									O.D. RANGE	I.D. RANGE		
VPS-6A	165	130	145	45	94	65	5	3-M8	Ø4-Ø165	Ø55-Ø150	9.3	5002-050
VPS-8A	200	165	180	65	109	75	5	3-M10	Ø4-Ø200	Ø65-Ø200	16.6	5002-052
VPS-10A	250	206	226	80	120	80	5	3-M12	Ø6-Ø250	Ø90-Ø250	28	5002-053
VPS-12A	315	260	285	100	147.5	90	6	3-M16	Ø10-Ø315	Ø100-Ø315	54	5002-054

4-Jaw Self Centering Chucks (2-Pieces Jaw)





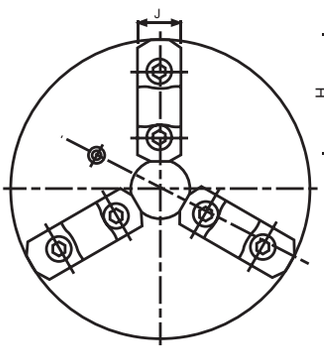
SPECIFICATIONS

Unit:mm

ORDER NO.	D	d1	d2	d3	L	L1	h	THREAD	GRIPPING RANGE		WEIGHT (kgs)	CODE NO.
									O.D. RANGE	I.D. RANGE		
VPS-6AK	165	130	145	45	109	65	5	3-M8	Ø4-Ø165	Ø55-Ø150	9.5	5002-055
VPS-8AK	200	165	180	65	122	75	5	3-M10	Ø4-Ø200	Ø65-Ø200	14.8	5002-057
VPS-10AK	250	206	226	80	136	80	5	3-M12	Ø6-Ø250	Ø90-Ø250	24.7	5002-058
VPS-12AK	315	260	285	100	156.5	90	6	3-M16	Ø10-Ø315	Ø100-Ø315	45.7	5002-059

3-Jaw Scroll Chucks D1 Camlock Direct Mounting

BACK SAMPLE



(ASA spindle nose D1-4, D1-5, D1-6, D1-8)
American standard camlock type with 2-piece reversible hard top jaws.

- Gripping accuracy of 0.03mm(0.002inch)T.I.R.
- Standard accessories A chuck wrench and hex. key One set of mounting bolts.(UNC-bolts)
- The body is made of MEEHANITE.
  It is suitably used for high speed revolution and 3 times more durable than regular chucks.

SPECIFICATIONS

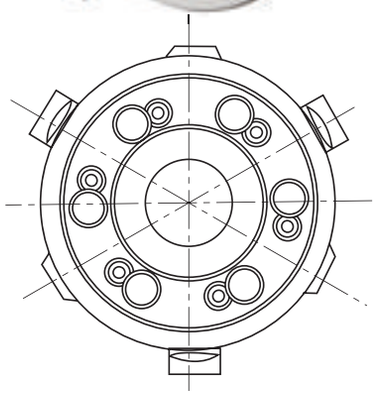
ORDER NO.	Spindle Size	Chuck Size	A	B	C	H	J	K	Mounting Dimensions				Gripping Range		Weight (kg)	Allowable Handle Torque (kgf.m)	Gripping Force (kgf)	I (kgf.M^2)	Max. Speed (r.p.m.)	CODE NO.
									F1	F2	F3	F4	O.D. Range	I.D. Range						
KD5-8"	D1-5	200	77	46	11	82	28	42	82.563	14.3	19	104.78	Ø8-Ø180	Ø62-Ø170	18	11.5	3600	0.07	3200	5002-061
KD6-8"	D1-6	200	77	58	11	82	28	42	106.375	16	22	133.35	Ø8-Ø180	Ø62-Ø170	17	17	3600	0.07	3200	5002-063

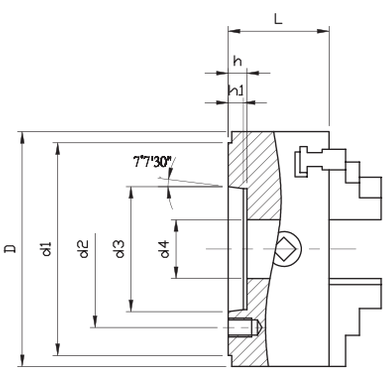
3-Jaw Powerful Camlock Type Self-Centering Chuck

NEW

SAMPLE

Ød4	
D1-5	82.563
D1-6	106.375
D1-8	106.375
D1-11	106.357



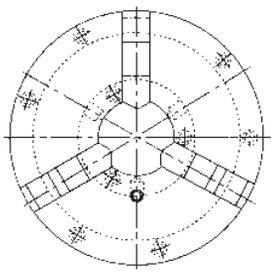


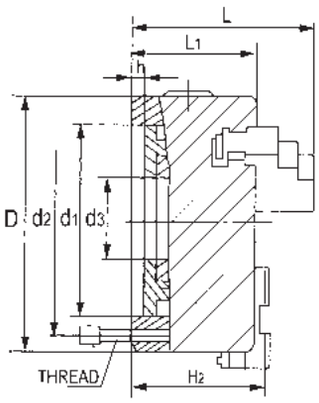
SPECIFICATIONS

ORDER NO.	D	MOUNTING TYPE	d1	d2	d3	d4	L	H1	h	THREAD	WEIGHT (kgs)	CODE NO.
VSKC-6A	160	D5	40	104.8	146	82.563	12	73	15	6-M12x1.0P	10	5002-111
VSKC-8A	200	D6	50	133.4	181	106.375	13	86	16	6-M16x1.5P	17	5002-112
VSKC-10A	250	D6	70	133.4	181	106.375	13	98	16	6-M16x1.5P	32	5002-113
VSKC-12A	315	D6	100	133.4	181	106.375	13	103.5	16	6-M16x1.5P	49	5002-114

DIN-Type 3-Jaw Self-Centering Chucks

SIMILAR DIN6350





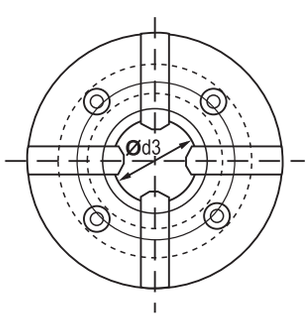
It have front mounting type as well.

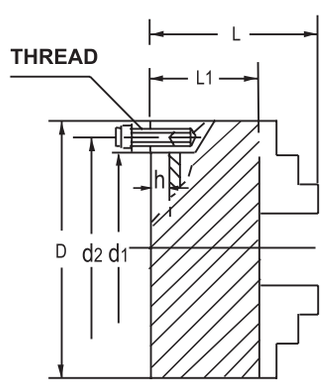
SPECIFICATIONS

Unit:mm

ORDER NO.	D	d1	d2	d3	L	L1	h	THREAD	R.P.M. MAX SPEED	GRIPPING RANGE		WEIGHT (kgs)	CODE NO.
										O.D. RANGE	I.D. RANGE		
VSC-3D	80	56	67	16	66.5	50	4	3-M6	4000	Ø2-Ø70	Ø22-Ø63	1.9	5002-215
VSC-4D	100	70	83	22	74.5	55	3	3-M8	3500	Ø2-Ø90	Ø30-Ø80	3.3	5002-216
VSC-5D	125	95	108	30	84.5	58	4	3-M8	3000	Ø2.5-Ø125	Ø38-Ø110	5.2	5002-217
VSC-6D	160	125	140	45	94	65	5	6-M10	2500	Ø3-Ø160	Ø55-Ø145	9.1	5002-218
VSC-8D	200	160	176	65	109	75	5	6-M10	2500	Ø4-Ø200	Ø65-Ø200	16	5002-219
VSC-10D	250	200	224	80	120	80	5	6-M12	1600	Ø6-Ø250	Ø90-Ø250	27.5	5002-219A

4-Jaw Independent Chuck Plain Back





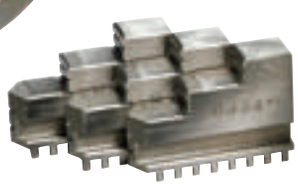
SPECIFICATIONS

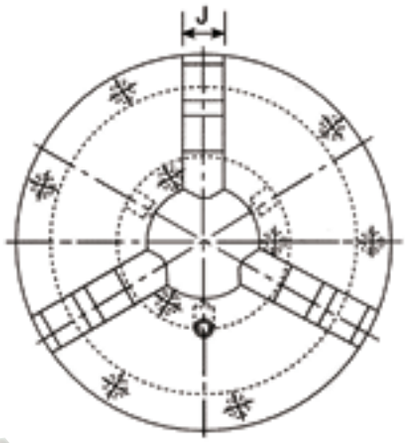
Unit:mm

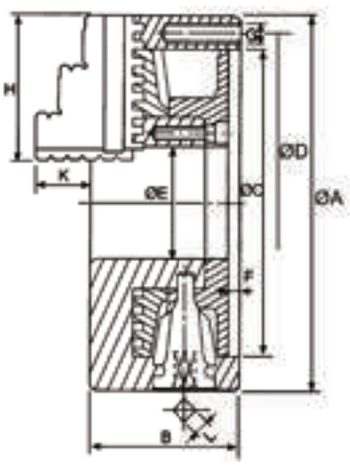
ORDER NO.	D-size	d1	d2	d3	L	L1	h	THREAD	R.P.M. MAX SPEED	GRIPPING RANGE		WEIGHT (kgs)	CODE NO.
										O.D. RANGE	I.D. RANGE		
VKC-4	100mm(4″)	72	84	25	74	54	3.5	4-M8	2300	Ø6-Ø45	Ø40-Ø100	3.5	5002-220
VKC-5	125mm(5″)	95	108	30	78	56	4.5		1900	Ø7-Ø57	Ø48-Ø125	5.1	5002-221
VKC-6	160mm(6″)	65	95	45	93	75	5	4-M10	1500	Ø8-Ø80	Ø50-Ø160	8.3	5002-222
VKC-8	200mm(8″)	80	112	56	107	80	6		1350	Ø10-Ø100	Ø63-Ø200	15.9	5002-223
VKC-10	250mm(10″)	110	130	75	120	90		4-M12	1100	Ø15-Ø130	Ø80-Ø250	21.8	5002-224
VKC-12B	320mm(12″)	140	165	95	134	90		4-M16	850	Ø20-Ø176	Ø100-Ø315	41	5002-226
VKC-14	350mm(14″)	130	168	110					550	Ø20-Ø206	Ø100-Ø350	53.6	5002-227
VKC-16	400mm(16″)	160	185	125	143	95	8		550	Ø25-Ø250	Ø118-Ø400	56	5002-228
VKC-20	500mm(21″)	200	236	160	161	106		4-M20	350	Ø35-Ø300	Ø125-Ø500	105	5002-229
VKC-25	630mm(25″)	220	258	180	175	118	10		280	Ø50-Ø400	Ø160-Ø630	162	5002-230
VKC-32	800mm(32″)	250	300	210	202	132	12	8-M20	200	Ø70-Ø540	Ø200-Ø800	265	5002-231
VKC-40	1000mm(40″)	320	370	260	241	150	15	8-M20	150	Ø100-680	Ø250-1000	536	5002-232
VKC-50	1250mm(50″)	400	500	305	256	165	15	8-M20	150	Ø170-900	Ø250-1250	905	5002-233

3-Jaw Scroll Chuck

JIS STANDARD Accuracy Type







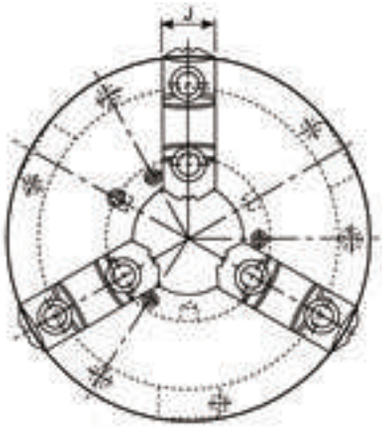
- Interchangable utilization of internal and external hard jaws.
- VSC types feature economical and durable,suitable for mass production.
- Gripping accuracy of 0.03mm (0.012inch)T.I.R..
- The body is made of MEEHANITE. It is suitably used for high speed revolution and 3 times more durable than regular chucks.

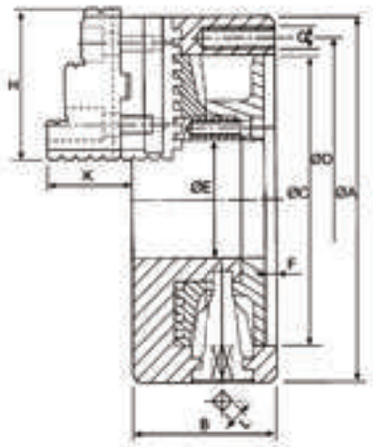
SPECIFICATIONS

Dim / ORDER NO.	A	B	C	D	E	F	G	H	J	K	L	Allowable Handle Torque (kgf.m)	Gripping Force (kgf)	I (kgf.m)	Weight (kgs)	Max. Speed (r.p.m.)	Gripping Range		CODE NO.
																	O.D. Range	I.D. Range	
VSC-3	85	46	60	73	16	4	3-M6	36	11	15	7	3.0	900	-	1.9	2500	Ø2-Ø70	Ø24-64Ø	5002-001
VSC-4	112	59	80	95	24	4.5	3-M8	42	14	17	8	4.5	1200	-	3.9	2500	Ø3-Ø90	Ø32-Ø84	5002-002
VSC-5	132	60	100	115	32	4.5	3-M8	50	16	20	8	6.5	1500	0.01	4.6	2500	Ø3-Ø110	Ø35-Ø100	5002-003
VSC-6	165	67	130	147	45	5	3-M10	63	19	23	10	9.0	3300	0.03	7.6	2000	Ø4-Ø160	Ø48-Ø150	5002-004
VSC-7	192	76.5	155	172	58	5	3-M10	77	21.5	28	11	11.0	3600	0.06	12	2000	Ø4-Ø180	Ø56-Ø170	5002-005
VSC-8	200	76.5	160	176	58	5	3-M10	77	21.5	28	11	11.0	3600	0.07	13.3	2000	Ø4-Ø180	Ø56-Ø170	5002-006
VSC-9	232	84	190	210	70	6	3-M12	87	24	34.5	12	15.0	3900	0.15	19.3	2000	Ø5-Ø220	Ø62-Ø210	5002-007
VSC-10	273	87	230	250	87	8.5	3-M12	98	28	39	12	19.5	4800	0.25	26.2	1800	Ø6-Ø260	Ø70-Ø250	5002-008
VSC-12	310	96	260	285	105	7	3-M12	110	30	45	14	21.0	5700	0.58	37.6	1800	Ø10-Ø300	Ø86-Ø290	5002-009
VSC-14	355	112	300	328	127	7	6-M12	132	35	50	15	23.0	4500	-	57.2	1500	Ø12-Ø350	Ø96-Ø230	5002-009A
VSC-16	405	122	345	375	160	8.5	3-M14	146	42	56	15	23.0	4500	1.75	80.7	1500	Ø14-Ø400	Ø100-Ø380	5002-010

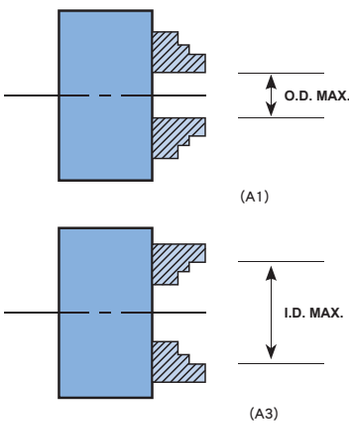
3-Jaw Powerful Scroll Chuck

JIS STANDARD Accuracy Type





- VSK types chucks have wider unilization range; hard jaws suitablefor heavy cutting; optional soft jaws suitable for light and precision cutting.
- Hard jaws could be used as internal jaws and external jaws.
- Gripping accuracy of 0.03mm(0.012inch) T.I.R.
- The body is made of MEEHANITE. It is suitably used for high speed revolution and 3 times more durable than regular chucks.



SPECIFICATIONS

Unit:mm

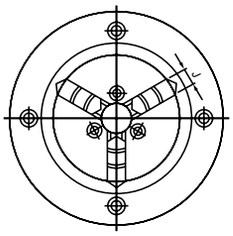
ORDER NO.	Gripping Range	
	External Gripping	Internal Gripping
	ØA1	ØA3
VSK-4	3-36	69-100
VSK-5	3-47	84-123
VSK-6	8-74	107-160
VSK-7	8-88	125-180
VSK-8	8-88	125-180
VSK-9	11-118	144-220
VSK-10	12-142	152-260
VSK-12	15-166	184-300
VSK-14	25-202	212-350
VSK-16	30-238	228-400
VSK-20	25-366	207-480

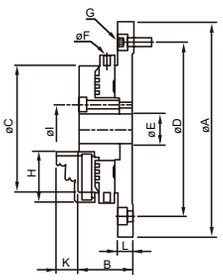
SPECIFICATIONS VSK reversible type

Dim / ORDER NO.	A	B	C	D	E	F	G	H	J	K	L	Allowable Handle Torque (kgf.m)	Gripping Force (kgf)	I (kgf.m)	Weight (kgs)	Max. Speed (r.p.m.)	Gripping Range		CODE NO.
																	O.D. Range	I.D. Range	
VSK-4	112	58	80	95	24	4.5	3-M8	47	19	31.5	8	4.5	1200	-	3.45	2500	Ø3-Ø100	Ø35-Ø93	5002-028
VSK-5	132	60	100	115	32	4.5	3-M8	57	24	36	8	6.5	1500	-	5	2500	Ø3-Ø123	Ø43-122	5002-029
VSK-6	165	67	130	147	45	5	3-M10	72	26	39	10	9.0	3300	0.03	9.5	2000	Ø8-Ø160	Ø55-Ø150	5002-030
VSK-7	192	76.5	155	172	58	5	3-M10	82	28	43	11	11.0	3600	0.06	12.8	2000	Ø8-Ø180	Ø62-Ø170	5002-031
VSK-8	200	76.5	160	176	58	5	3-M10	82	28	43	11	11.0	3600	0.07	14.7	2000	Ø8-Ø180	Ø62-Ø170	5002-032
VSK-9	232	84	190	210	70	5.5	3-M12	96	32	50	12	15.0	3900	0.16	20.4	2000	Ø11-Ø220	Ø70-Ø210	5002-033
VSK-10	273	87	230	250	87	5.5	3-M12	100	35	54.5	12	19.5	4800	0.26	26.7	1800	Ø12-Ø260	Ø80-Ø250	5002-034
VSK-12	310	96	260	285	105	7	3-M12	114	40	56	14	21.0	5700	0.58	39.3	1800	Ø15-Ø300	Ø90-Ø290	5002-035
VSK-14	355	112	300	328	127	7	6-M12	139	45	70.5	15	23.0	4500	-	60.7	1500	Ø25-Ø350	Ø110-Ø320	5002-035A
VSK-16	405	122	345	375	160	8	6-M14	150	50	75	15	23.0	4500	1.72	82.3	1500	Ø30-Ø400	Ø110-Ø380	5002-037
VSK-20	500	140	420	458	205	5.5	6M-14	140	55	84	19	-	-	-	145.5	1000	Ø25-Ø480	Ø125-Ø460	5002-038

Low Profile Chuck

NEW



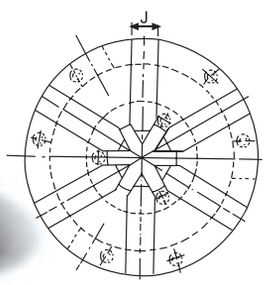


- Compact, Small And Light Weight
- No Wrench Required, Turn To Loose & Lock By Fixing Ring
- Steel Made Body
- Reversible Jaws
- VLBK-Series Is Latest Vertical Clamping Design For CNC, Milling Machine And Machining Center.

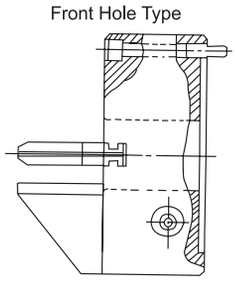
DIMENSIONS

ORDER NO.	A	B	C	D	E	F	G	H	I	J	K	L	Gripping Range		Weight (kgs)	CODE NO.
													O.D. Range	I.D. Range		
VLBK-2	118	28	63	100	16	4	4-M5X0.8P	27	26	8	13	8	ø0.8~ø63	ø23~ø58	1.2	5002-130
VLBK-3	143	37	85	116	20	4	4-M6X1.0P	35	32	11	15	10.5	ø1~ø81	ø31~ø70	2.9	5002-131
VLBK-4	168	39	110	140	26	5	4-M6X1.0P	42	40	14	19	10	ø1~ø100	ø36~ø90	4.6	5002-132
VLBK-5	202	45	130	168	32	6	4-M8X1.25P	50	49	16	21	11.5	ø1.5~ø116	ø43~ø106	6.2	5002-133
VLBK-6	248	52	160	208	50	8	4-M10X1.5P	65	70	19	26	15	ø1.5~ø160	ø52~ø148	11	5002-134

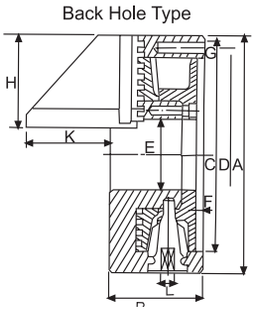
6-Jaw Awl Type Chucks



Front Hole Type



Back Hole Type



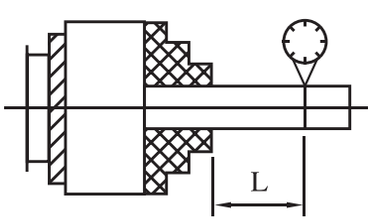
SPECIFICATIONS

Unit:mm

ORDER NO.	A	B	C	D	E	F	G	H	J	K	L	Gross Weight (kgs)	Max. Speed (r.p.m.)	Max. Gripping Diameter	CODE NO.
														O.D. Clamping	
VAS-4	112	58	80	95	32	4.5	3-M8	45	14	46	8	4.2	1200	Ø2-32	5005-011
VAS-6	167	65	130	147	60	5	3-M10	66	19	43	10	9.2	1200	Ø3-60	5005-012

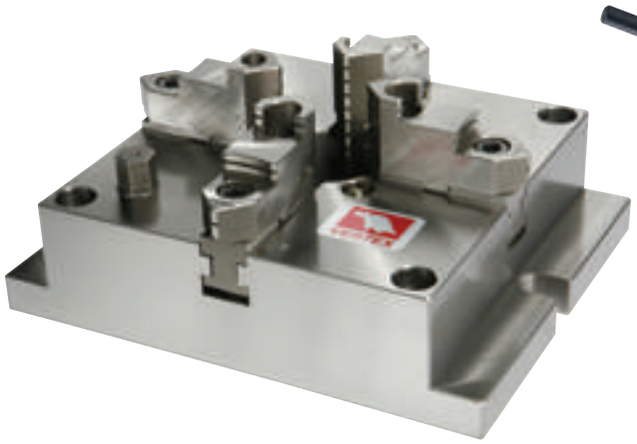
Quality standard For Lathe Chuck

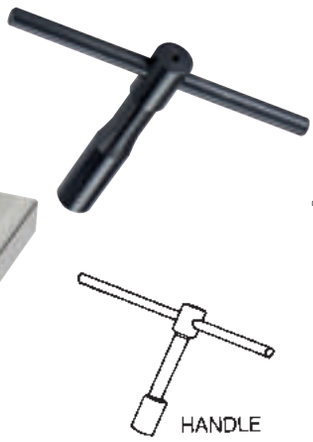
Accuracy

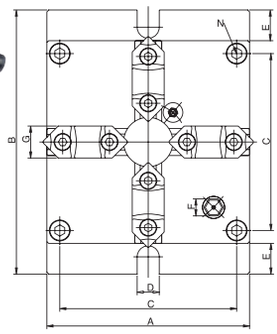


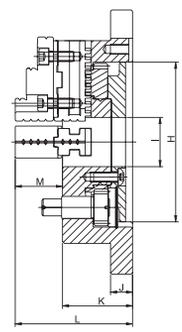
ORDER NO.	VSC-3,4,5,6,7,8,9,10,12,14,16 VSK-4,5,6,7,8,9,10,12,14,16 VMJ-6,8,10,12,150,200,250,300 VNBK-6,8,10,12	VSC-3A,4A,5A,6A,7A,8A,9A,10A VSC-12A,16A,20A,25A VSK-6A,8A,10A,12A,13A,16A VPS-6A,8A,10A,12A,6AK,8AK VPS-10AK,12AK VSKC-6A,8A,10A,12A VSC-3D,4D,5D,6D,8D,10D VKC-4,5,6,8,10,12B,14,16,20,25 VKC-32,40,50
TEST ITEM RADIAL RUNOUT	L 0.05 / 50 mm	L 0.10 / 50 mm

Machining Jaw Chuck









- Works are gripped firmly by the formed jaws. ensuring high precision. (Deviation: within 0.03mm)* Use forming rings (jaw locks) to form the soft-jaws.
- Large workpieces can be held tight with the low profile vise body.
- Able to grip square works by using this chuck as a two-way jaw unit * The fixed jaw(optional)is necessary. Longitudinal works can alse begripped by using the bore of this chuck.
- A dust cover is provided and this keeps the shavings from entering the machine.
- The handle is set on the face and does not interfere with the table. A number of chucks can be used together.

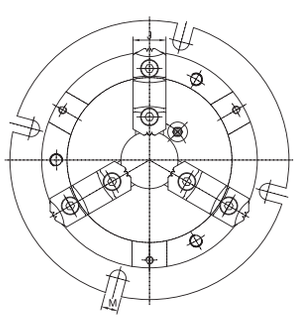
SPECIFICATIONS

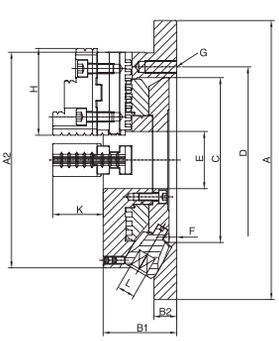
Unit:mm

ORDER NO.	A	B	C	D	E	G	H	I	J	K	L	M	N	MAX. GRIPPING DIAMETER		Gripping Force (kgf)	WEIGHT (kgs)	CODE NO.
														CLAMPING DIA	PROPING DIA			
VMJ-6	165	215	144	18	25	26	130	40	18	57	96	39	4-M10	Ø4-Ø128	Ø55-Ø128	900	13.5	5002-240
VMJ-8	200	250	174	18	25	28	160	55	20	65	108	43	4-M12	Ø5-Ø162	Ø62-Ø162	1620	21.5	5002-241
VMJ-10	250	310	218	18	30	32	200	70	22	72	122	50	4-M14	Ø6-Ø200	Ø72-Ø200	1800	36.1	5002-242
VMJ-12	310	380	274	22	35	40	260	100	25	85	141	56	4-M16	Ø10-Ø265	Ø90-Ø265	2250	62.8	5002-243

THIN CHUCK

Super Thin Chucks





- The angle between “HANDLE” AND “BASE OF CHUCK” is 30º degree, There Fore, it is much more convenient for “HANDLE” rotation.
- This “POWER SUPER THIN” design of chuck may increase the “allowable length” of machinig operation.
- The flanged type design make it easily for loading and unloading operation. Four locate position 90º.
- “POWERFUL TYPE” design.

SPECIFICATIONS

Unit:mm

Dim / ORDER NO.	A1	A2	B1	B2	C	D	E	F	G	H	J	K	L	M	Gripping Force (kgf)	Weight (kgs)	Gripping Range		CODE NO.
																	O.D. Range	I.D. Range	
VNBK-6	220	170	58	18	130	147	45	6	3-M10	68	26	40	10	13	1800	12.4	Ø8-160	Ø48-150	5002-070
VNBK-8	270	210	65	20	155	172	60	6	3-M10	82	28	43	11	13	2250	20.2	Ø11-200	Ø62-190	5002-071
VNBK-10	315	255	73	20	190	210	80	6	3-M12	93	32	52	12	16	3150	30.5	Ø12-250	Ø72-240	5002-072
VNBK-12	370	305	80	22	250	285	105	5	3-M12	118	40	59	14	18	3670	46.8	Ø15-300	Ø86-290	5002-073

Vertical Machining Chucks

VERTEX

NEW

VSK REVERSIBLE TYPE

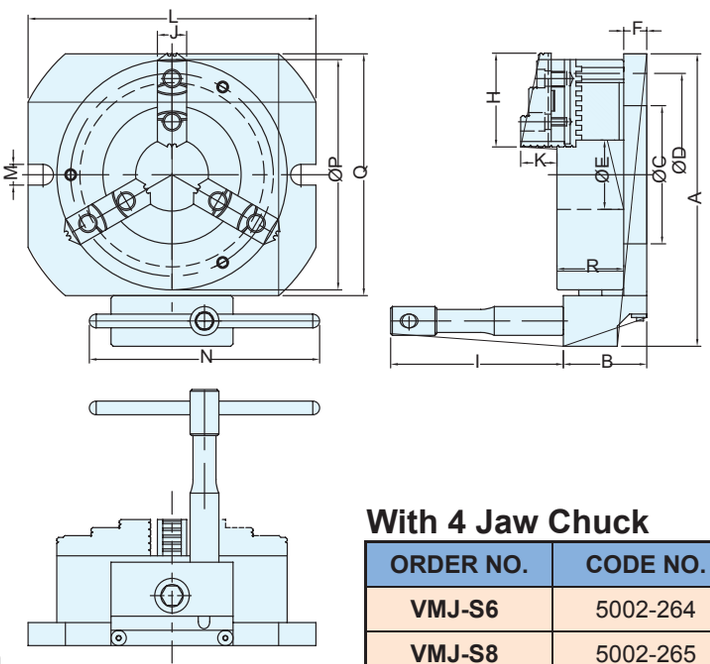
VMJ-150, 200, 250, 300

NEW TYPE 3 JAW CHUCK CHANGEABLE

NEW

VMJ-B150, B200, B250, B300

VSC REVERSIBLE TYPE



- Convert 3/4 Jaws chuck into clamping chuck.
- Vertical cutting / locking.
- Large workpieces can be held tight with the low profile vise body.
- 3 Jaws can for round workpiece.
- 4 Jaws can for square workpiece & round workpiece.
- The handle is set on the face and does not interfere with the table. A number of chucks can be used together.
- Suit for MC center, Milling & Boring machine.
- Easy to exchange 3/4 Jaws chuck.

With 4 Jaw Chuck

ORDER NO.	CODE NO.
VMJ-S6	5002-264
VMJ-S8	5002-265
VMJ-S10	5002-266
VMJ-S12	5002-267

SPECIFICATIONS VSK TYPE

Unit:mm

ORDER NO.	A	B	C	D	E	F	H	I	J	K	L	M	N	P	Q	R	Gnpping Range		Weight (kgs)	CODE NO.
																	O.D Range	I.D Range		
VMJ-150	219	83	90	147	45	20	72	150	26	39	215	18	200	165	175	67	Ø8-Ø160	Ø55-Ø150	17.7	5002-260
VMJ-200	254	83	120	176	58	20	82	150	28	43	250	18	200	200	200	76.5	Ø8-Ø180	Ø62-Ø170	24.4	5002-261
VMJ-250	327	83	190	250	87	24	100	150	35	50	324	18	200	273	283	87	Ø12-Ø260	Ø80-Ø250	48.7	5002-262
VMJ-300	364	83	220	285	105	24	114	150	40	56	360	18	200	310	320	96	Ø15-Ø300	Ø90-Ø290	63.7	5002-263

SPECIFICATIONS VSC TYPE

Unit:mm

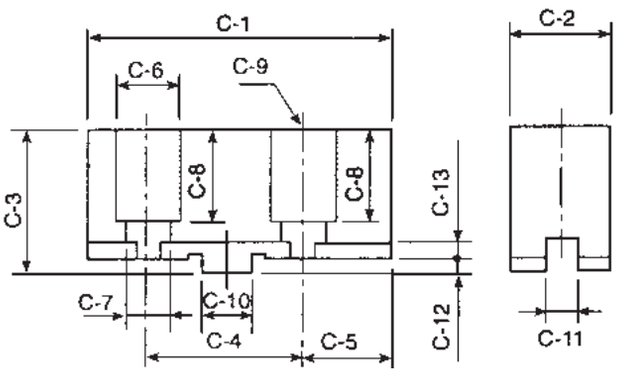
ORDER NO.	A	B	C	D	E	F	H	I	J	K	L	M	N	P	Q	R	Gnpping Range		Weight (kgs)	CODE NO.
																	O.D Range	I.D Range		
VMJ-B150	219	83	90	147	45	20	72	150	19	39	215	18	200	165	175	67	Ø3-Ø160	Ø48-Ø150	17.7	5002-275
VMJ-B200	254	83	120	176	58	20	82	150	21.5	43	250	18	200	200	200	76.5	Ø4-Ø180	Ø56-Ø170	24.9	5002-276
VMJ-B250	327	83	190	250	87	24	100	150	28	50	324	18	200	273	283	87	Ø6-Ø260	Ø70-Ø250	50	5002-277
VMJ-B300	364	83	220	285	105	24	114	150	30	56	360	18	200	310	320	96	Ø10-Ø300	Ø86-Ø290	66.5	5002-278

Soft Jaw For SK-Type Chuck

VERTEX

1.Soft jaw for SK-type chuck. 2.Manufactured in specilfication
Can for japanese brand 3 jaw chuck KITAGAWA, HOWA ,VICTOR

3 PCS/SET



Unit:mm

Dim / ORDER NO.	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10	C-11	C-12	C-13	Weight (kgs)	CODE NO.
VSJ-4	52	19	30	24	14	11	7	21	M6	9.53	7.94	2.5	3	0.45	5002-298
VSJ-5	62	24	35	32	15	14	9	24	M8	12.68	7.94	3	3.5	0.9	5002-299
VSJ-6	75	26	38	38.1	18	14	8.5	27	M8	12.68	7.94	3	3.5	1.3	5002-300
VSJ-7	95	31	48	44.45	25	17	11	35	M10	12.68	7.94	3	3.5	3.4	5002-301
VSJ-8	95	31	48	44.45	25	17	11	35	M10	12.68	7.94	3	3.5	2.7	5002-302
VSJ-9	110	37	48	53.98	28	19	13	36	M12	19.03	12.7	3	3.5	3.7	5002-303
VSJ-10	110	37	48	53.98	28	19	13	36	M12	19.03	12.7	3	3.5	3.7	5002-304
VSJ-12	125	40	54	63.5	32	19	13	40.5	M12	19.03	12.7	3	3.5	5.3	5002-305
VSJ-16	160	50	70	76.2	42	25	17	48	M16	19.03	12.7	6	5.5	10.6	5002-306

THE SPECIAL OF HEIGHT (C-3) FOR VSJ-TYPE IS AVAILABLE

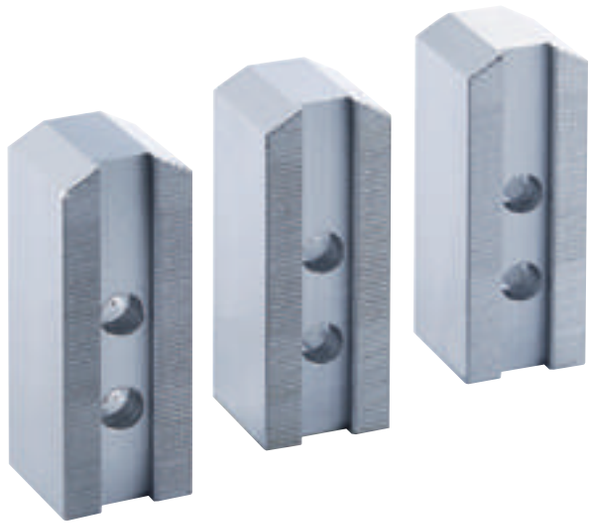
ORDER NO.	MODEL	HEIGHT	CODE NO.
VSJ-6-5	VSJ-6	50H	5002-3005
VSJ-6-6	VSJ-6	60H	5002-3006
VSJ-6-7	VSJ-6	70H	5002-3007
VSJ-6-8	VSJ-6	80H	5002-3008
VSJ-6-9	VSJ-6	90H	5002-3009
VSJ-8-5	VSJ-7 VSJ-8	50H	5002-3025
VSJ-8-6	VSJ-7 VSJ-8	60H	5002-3026
VSJ-8-7	VSJ-7 VSJ-8	70H	5002-3027
VSJ-8-8	VSJ-7 VSJ-8	80H	5002-3028
VSJ-8-9	VSJ-7 VSJ-8	90H	5002-3029
VSJ-9-5	VSJ-9	50H	5002-3035
VSJ-9-6	VSJ-9	60H	5002-3036
VSJ-9-7	VSJ-9	70H	5002-3037
VSJ-9-8	VSJ-9	80H	5002-3038
VSJ-9-9	VSJ-9	90H	5002-3039
VSJ-9-10	VSJ-9	100H	5002-30310
VSJ-9-12	VSJ-9	120H	5002-30312

ORDER NO.	MODEL	HEIGHT	CODE NO.
VSJ-10-5	VSJ-10	50H	5002-3045
VSJ-10-6	VSJ-10	60H	5002-3046
VSJ-10-7	VSJ-10	70H	5002-3047
VSJ-10-8	VSJ-10	80H	5002-3048
VSJ-10-9	VSJ-10	90H	5002-3049
VSJ-10-10	VSJ-10	100H	5002-30410
VSJ-10-12	VSJ-10	120H	5002-30412
VSJ-10-13	VSJ-10	130H	5002-30413
VSJ-12-6	VSJ-12	60H	5002-3056
VSJ-12-7	VSJ-12	70H	5002-3057
VSJ-12-8	VSJ-12	80H	5002-3058
VSJ-12-9	VSJ-12	90H	5002-3059
VSJ-12-10	VSJ-12	100H	5002-30510
VSJ-12-12	VSJ-12	120H	5002-30512
VSJ-12-13	VSJ-12	130H	5002-30513
VSJ-12-15	VSJ-12	150H	5002-30515
VSJ-16-10	VSJ-16	100H	5002-30610
VSJ-16-12	VSJ-16	120H	5002-30612

Soft Jaw For Hydraulic Power Chucks

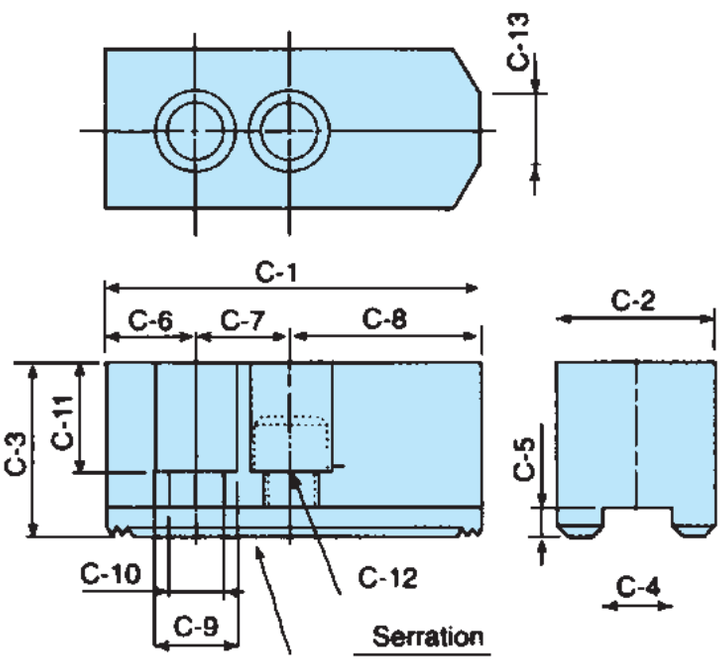
VERTEX

For Japanese brand JIS & KITAGAWA

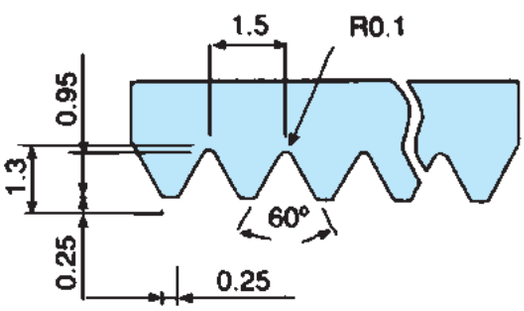


STANDARD
3 PCS/SET

ALUMINIUM



PITCH 1.5



MATERIAL: STEEL

Unit:mm

Dim	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10	C-11	C-12	C-13	Weight (kgs)	CODE NO.
VHC-05	62	25	30	10	5	9	14	39	13.5	9	21	M8	5	0.9	5002-330
VHC-06	73	31	36	12	5	15	20	38	17	11	23	M10	14	1.6	5002-331
VHC-08	95	35	37	14	5	24	25	46	19	13	22	M12	16	2.4	5002-332
VHC-10	110	40	42	16	5	30	30	50	19	13	27	M12	18	3.7	5002-333
VHC-12	130	50	50	21	5	39	30	61	25	17	30	M16	23	6.4	5002-334
VHC-15	165	62	62	22	8	37	43	85	32	21	38	M20	-	12.7	5002-335
VHC-12-1	130	50	50	18	5	39	30	61	23	15	30	M14	23	6.25	5002-336
VHC-15-1	165	62	62	25.5	5	37	43	85	32	21	38	M20	-	13	5002-337
VHC-24	180	64	70	25	9	40	60	80	32	21	45	M20	-	17	5002-338

MATERIAL : ALUMINIUM

Unit:mm

Dim	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10	C-11	C-12	C-13	Weight (kgs)	CODE NO.
VHC-8A	95	35	37	14	5	24	25	46	19	13	22	M12	16	0.84	5002-250A
VHC-10A	110	40	42	16	5	30	30	50	19	13	27	M12	18	1.31	5002-251A

Soft Jaw For Hydraulic Power Chucks

VERTEX

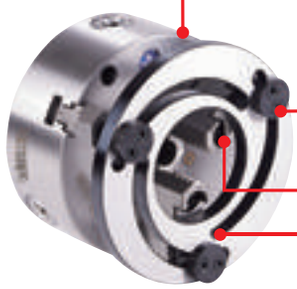
For Japanese brand JIS & KITAGAWA

THE SPECIAL OF HEIGHT (C-3) FOR VHC-TYPE IS AVAILABLE

ORDER NO.	MODEL	HEIGHT	CODE NO.
VHC-05-5	VHC-05	50H	5002-3305
VHC-05-6	VHC-05	60H	5002-3306
VHC-05-7	VHC-05	70H	5002-3307
VHC-05-8	VHC-05	80H	5002-3308
VHC-06-5	VHC-06	50H	5002-3315
VHC-06-6	VHC-06	60H	5002-3316
VHC-06-7	VHC-06	70H	5002-3317
VHC-06-8	VHC-06	80H	5002-3318
VHC-06-9	VHC-06	90H	5002-3319
VHC-06-10	VHC-06	100H	5002-3320
VHC-06-11	VHC-06	110H	5002-3321
VHC-06-12	VHC-06	120H	5002-3322
VHC-06-13	VHC-06	130H	5002-3323
VHC-06-15	VHC-06	150H	5002-3324
VHC-08-5	VHC-08	50H	5002-3325
VHC-08-6	VHC-08	60H	5002-3326
VHC-08-7	VHC-08	70H	5002-3327
VHC-08-8	VHC-08	80H	5002-3328
VHC-08-9	VHC-08	90H	5002-3329
VHC-08-10	VHC-08	100H	5002-3330
VHC-08-11	VHC-08	110H	5002-3331
VHC-08-12	VHC-08	120H	5002-3332
VHC-08-13	VHC-08	130H	5002-3333
VHC-08-14	VHC-08	140H	5002-3334
VHC-08-15	VHC-08	150H	5002-3334A
VHC-08-16	VHC-08	160H	5002-3334B
VHC-08-18	VHC-08	180H	5002-3334C
VHC-08-20	VHC-08	200H	5002-3334D
VHC-10-5	VHC-10	50H	5002-3335
VHC-10-6	VHC-10	60H	5002-3336
VHC-10-7	VHC-10	70H	5002-3337
VHC-10-8	VHC-10	80H	5002-3338
VHC-10-9	VHC-10	90H	5002-3339
VHC-10-10	VHC-10	100H	5002-33310
VHC-10-11	VHC-10	110H	5002-33311

ORDER NO.	MODEL	HEIGHT	CODE NO.
VHC-10-12	VHC-10	120H	5002-33312
VHC-10-13	VHC-10	130H	5002-33313
VHC-10-14	VHC-10	140H	5002-33314
VHC-10-15	VHC-10	150H	5002-33315
VHC-10-16	VHC-10	160H	5002-33316
VHC-10-18	VHC-10	180H	5002-33318
VHC-10-20	VHC-10	200H	5002-33320
VHC-10-22	VHC-10	220H	5002-33322
VHC-12-6A	VHC-12 18SLOT	60H	5002-3366
VHC-12-7A	VHC-12 18SLOT	70H	5002-3367
VHC-12-8A	VHC-12 18SLOT	80H	5002-3368
VHC-12-9A	VHC-12 18SLOT	90H	5002-3369
VHC-12-10A	VHC-12 18SLOT	100H	5002-33610
VHC-12-6	VHC-12 21SLOT	60H	5002-3346
VHC-12-8	VHC-12 21SLOT	80H	5002-3348
VHC-12-10	VHC-12 21SLOT	100H	5002-33410
VHC-12-11	VHC-12 21SLOT	110H	5002-33411
VHC-12-12	VHC-12 21SLOT	120H	5002-33412
VHC-12-13	VHC-12 21SLOT	130H	5002-33413
VHC-12-14	VHC-12 21SLOT	140H	5002-33414
VHC-12-15	VHC-12 21SLOT	150H	5002-33415
VHC-12-16	VHC-12 21SLOT	160H	5002-33416
VHC-12-17	VHC-12 21SLOT	170H	5002-33417
VHC-12-18	VHC-12 21SLOT	180H	5002-33418
VHC-12-19	VHC-12 21SLOT	190H	5002-33419
VHC-12-20	VHC-12 21SLOT	200H	5002-33420
VHC-15-7	VHC-15	70H	5002-3357
VHC-15-8	VHC-15	80H	5002-3358
VHC-15-9	VHC-15	90H	5002-3359
VHC-15-10	VHC-15	100H	5002-33510
VHC-15-12	VHC-15	120H	5002-33512
VHC-15-15	VHC-15	150H	5002-33515
VHC-15-18	VHC-15	180H	5002-33518
VHC-15-20	VHC-15	200H	5002-33520

Soft Jaw Forming Ring



The size can be adjusted against the helical slot.

Bias pin can be rotated 180 degree for different size to extend a clamping range.

Don't need to drill new hole. The hole on the soft jaws can be used directly for bias pin.

The material,is hardened and ground, can last for a long time.

FAETURES

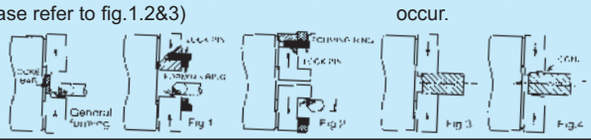
CHUCK NOT INCLUDED

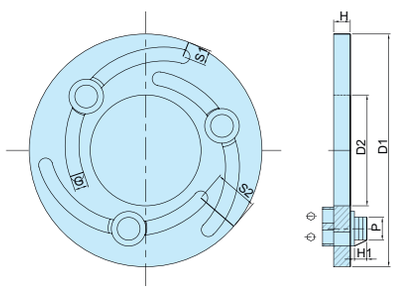
- Forming ring is available for 5″, 6″, 8″,10″& 12″ power chuck.
- The clamping force is increasing. the roundness and vibration caused by eccentricity can be improved. The cutting accuracy is much better because of no taper hole(as fig.3) and less vibration.
- Both Clamping(as fig.1) and extension (as fig. 2) are available. Meanwhile ,the size adjusting is at will, the operation is easy and endurable.
- More improvement for used chuck to have better accuracy & strong clamping force .
- For CNC Lathe.

INSTRUCTION

Because the forming ring is used for cutting soft jaws by clamping and with extending.
through-hole could increase the accuracy of clamping work piece. (please refer to fig.1.2&3)

As fig.4 the soft jaw is created without forming ring. Cause bad accuracy.
The clamping force is not stable & vibration will occur.



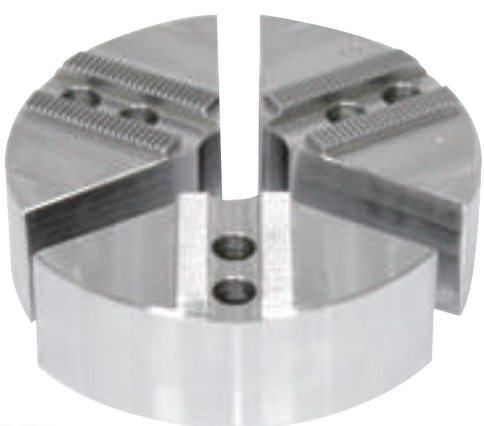


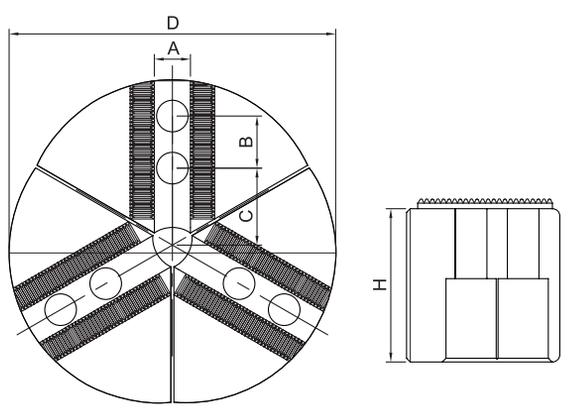
ORDER NO.	SUIT TO SK-CHUCK SIZE	H	D1	D2	S1	S2	G	H1	O	KGS	CODE NO.
VFR-05	5″	12	140	60	12	28	10	9	13.5	1	5002-360
VFR-06	6″	12	168	80	12	32	10	9	16.5	1.5	5002-361
VFR-08	8″	12	218	115	17	36	10	9	18.5	2.4	5002-362
VFR-10	10″	12	258	150	15	40	10	9	18.5	3	5002-363
VFR-12	12″	15	316	188	21	50	10	9	21.5	5	5002-364
VFR-15	15″	20	380	230	23	52	12	16	31	10.1	5002-365

Round Disc Soft Jaw

MATERIAL : STEEL S45C

NEW





FAETURES

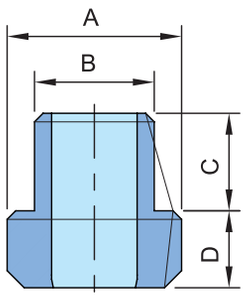
- This type of soft jaw can cover the outerdie of workpiece to decrease deformation and increase the accuracy.
- For example : VFRD-8 can hold parts with outer dia. of 200 mm.
- Pie Jaw are suitable for extra bigger outer dia. (thin wall)
- To suit kitagawa and other famous chucks.
- Pie shspe soft jaw

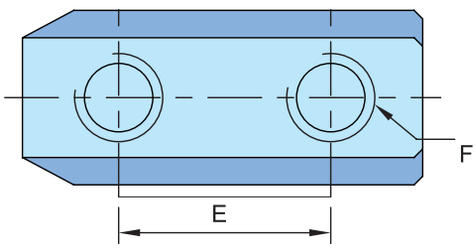
Unit:mm

ORDER NO.	D	A	B	C	H	THREAD	THRU HOLE	SERRATION PITCH	WEIGHT (kg)	CODE NO.
VFRD-6	169	12	20	49.5	36	M10	25	1.5x60°	6.12	5002-381
VFRD-8	200	14	25	51	40	M12			9.64	5002-382
VFRD-9	200	14	25	51	50	M12			13.2	5002-383
VFRD-10	250	16	30	65	50	M12			18.1	5002-384
VFRD-12	300	21	30	81	50	M16			25.8	5002-385

T Nut For Hydraulic Chuck

NEW





- For connect power chuck and soft jaws, suit for JAPANESE & TAIWANNES brands chuck.

For Kitagawa B-200 Series & Taiwannes Power Chuck

ORDER NO.	CHUCK SIZE	A	B	C	D	E	F	WEIGHT (kg)	CODE NO.
B-205T	5”	14	10	9.5	5	14	M8	0.1	5002-390
B-206T	6”	17.5	12	11	7.5	20	M10	0.1	5002-391
B-208T	8”	20.5	14	12	8.5	25	M12	0.2	5002-392
B-210T	10”	22.5	16	13	8.5	30	M12	0.3	5002-393
B-212T	12”	28	21	16.5	11.5	30	M16	0.6	5002-394

Hard Jaws For Hydraulic Power Chucks

Fig-1

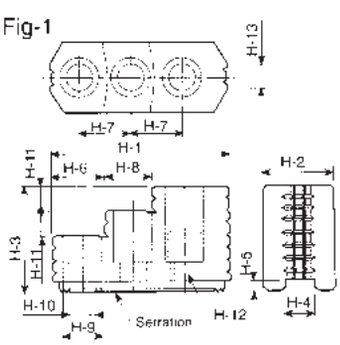
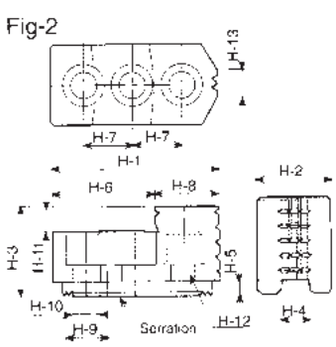


Fig-2

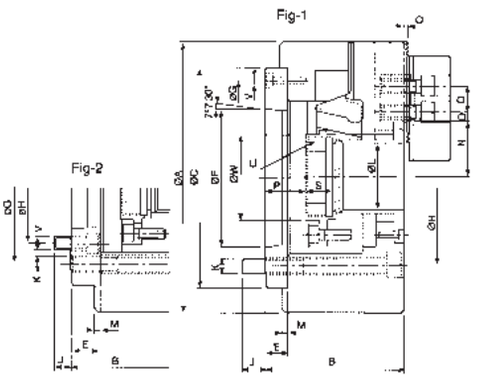


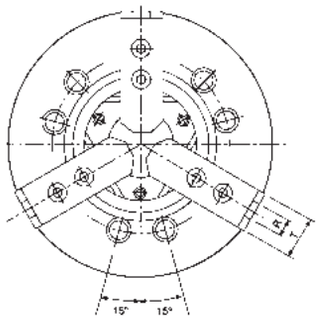
DIMENSIONS

Unit:mm

ORDER NO. \ Dim	H-1	H-2	H-3	H-4	H-5	H-6	H-7	H-8	H-9	H-10	H-11	H-12	H-13	Serration Pitch		Matching Chuck	3-Jaw Weight (kgs)	CODE NO.
HJ05	53	23	27.5	10	4	30.5	14	22.5	13.5	8.5	10	M8	6	1.5x60°	Fig-2	N-205	0.4	5002-401
HJ06	67.5	31	35	12	5	39.5	20	27.5	17	11	12	M10	16	1.5x60°	Fig-2	N-206.V-206	1.0	5002-402
HJ08	86	35	51	14	5	31	25	18	19	13	12	M12	12	1.5x60°	Fig-1	N-208.V-208	1.9	5002-403
HJ10	99.5	40	54	16	5	43	30	17	19	13	13	M12	15	1.5x60°	Fig-1	N-210.V-210	2.9	5002-404
HJ12	103	50	52	21	4	62.5	30	40.5	25	17	17	M16	30	1.5x60°	Fig-2	N-212	2.65	5002-405
HJ12-1	103	50	52	18	5	62.5	30	40.5	22	15	17	M14	30	1.5x60°	Fig-2	V-212	2.7	5002-406
HJ15	149	62	86	22	8	63	43	34	32	21	20	M20	40	1.5x60°	Fig-1	N-215	9.6	5002-407
HJ15-1	149	62	86	25.5	5	63	43	34	32	21	20	M20	40	1.5x60°	Fig-1	V-215	9.5	5002-408

3-Jaw Wedge Type Through-hole Power Chuck (Without Adaptor)





- More large bore:
  Having the largest bore in wede type power operated chucks.
- 20% large bore:
  Approximately 20% higher speed, higher gripping force and larger bore compared with usual chucks.
- Model N-200A chucks are assembled with adaptor for ASA B5.9 type A spindles.
- Model N-200A chucks are manufactured form high grabe alloy steel, All sliding surfaces are hardened and ground for accurate actual running and long service repeatability.

SPECIFICATIONS

Unit:mm

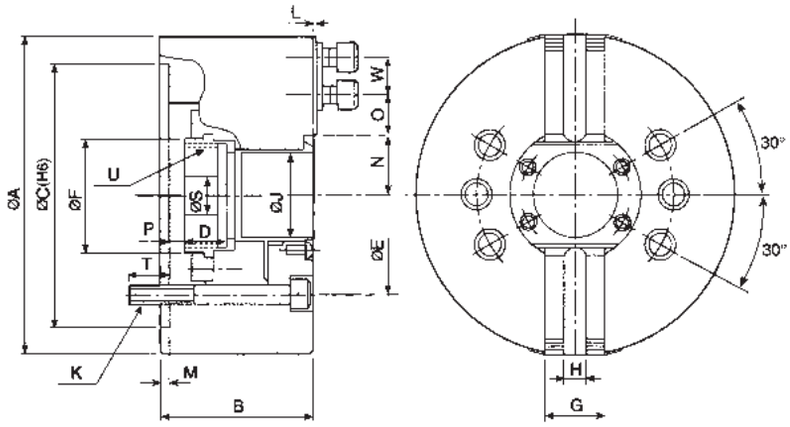
Dim / ORDER NO.	N-205A4	N-206A5	N-208A5	N-208A6	N-210A6	N-210A8	N-212A8	N-215A8	N-215A11
Through-Hole (mm)	ø33	ø45	ø52	ø52	ø75	ø75	ø91	ø117.5	ø117.5
Plunger Stroke (mm)	10	12	16	16	19	19	23	23	23
Jaw Stroke (mm)	5.4	5.5	7.4	7.4	8.8	8.8	10.6	10.6	10.6
Max. Draw Bar Pull Force (kgf)	1700	2200	3400	3400	4300	4300	5500	7240	7240
Max. Gripping Force (kgf)	3600	5700	8800	8800	11000	11000	14300	18355	18355
Gripping Range	Ø10~135	Ø13~169	Ø13~210	Ø13~210	Ø30~254	Ø30~254	Ø35~304	Ø35~381	Ø35~381
Max. Operating Pressure (kgt/cm^2)	29.6	28.5	26.5	26.5	27.5	27.5	27.5	23.5	23.5
Max. Speed (r.p.m.)	7000	6000	4900	4900	4200	4200	3300	2500	2500
Weight (kgs)	6.9	14.2	25.8	24.05	40.9	37.4	63.2	134	127
Matching Cylinder	M1036	M1246	M1552	M1552	M1875	M1875	M2091	M2511	M2511
Matching Soft Jaw	VHC05	VHC06	VHC08	VHC08	VHC10	VHC10	VHC12	VHC15	VHC15
Matching Hard Jaw	HJ05	HJ06	HJ08	HJ08	HJ10	HJ10	HJ12	HJ15	HJ15
CODE NO.	5002-080	5002-081	5002-082	5002-083	5002-084	5002-085	5002-086	5002-087	5002-088

DIMENSIONS

Unit:mm

Dim / ORDER NO.	N-205A4	N-206A5	N-208A5	N-208A6	N-210A6	N-210A8	N-212A8	N-215A8	N-215A11
A	135	169	210	210	254	254	304	381	381
B	71	91	109	103	120	113	122	160	149
G	96	116	133.35	150	171.45	190	190	235	260
D	14	20	25	25	30	30	30	43	43
E	15	15	23	17	25	18	18	33	22
F	65.513	82.563	82.563	106.375	106.375	139.719	139.719	139.719	196.869
C	110	140	170	170	220	220	220	300	300
H	82.55	104.78	104.78	133.35	133.35	171.45	171.45	171.45	235
J	15.5	16	13	18	18	24	25	24	28
K	3xM10	6xM10	6xM12	6xM12	6xM16	6xM16	6xM16	6xM20	6xM20
L	33	45	52	52	75	75	91	117.5	117.5
M	4	5	5	5	5	5	6	6	6
N max.	26.5	32	38.7	38.7	51	51	61.3	82	82
N min.	23.8	29.25	35	35	46.6	46.6	56	76.7	76.7
O max.	19.75	22.75	29.75	29.75	33.75	33.75	45.75	46.75	46.75
O min.	7.75	9.25	14.75	14.75	14.25	14.25	15.75	13.75	13.75
P max.	16	26	37.5	31.5	33.5	26.5	26	40	29
P min.	6	14	21.5	15.5	14.5	7.5	3	17	6
Q	2	2	2	2	2	2	2	5	5
R	10	12	14	14	16	16	21	24	24
S	20	19	20.5	20.5	25	25	28	43	43
T	23	32	37	37	42	42	52	62	62
U max.	M40x1.5	M55x2.0	M60x2.0	M60x2.0	M85x2.0	M85x2.0	M100x2.0	M130x2.0	M130x2.0
V	3xM6	3xM6	6xM10	3xM6	6xM12	6xM8	6xM8	6xM16	3xM10
W	45	60	66	66	94	94	108	139	139
REFER FIG.	Fig-1	Fig-1	Fig-2	Fig-1	Fig-2	Fig-1	Fig-1	Fig-2	Fig-1

2-Jaw Wedge Type Through-hole Power Chuck (Without Adaptor)



- All sliding surfaces are hardened and ground for accurate actual running and long service repeatability.
  Lubrication nipple in each base jaw.
- Base jaw:
  1.5mmx60º serrtion.
- Mounting:
  Adaptor mounting to fit with DIN,ISO,BS,ASA B5.9 type A spindles.

SPECIFICATIONS

Unit:mm

Dim / ORDER NO.	NT205	NT206	NT208	NT210	NT212	NT215
Through-Hole (mm)	Ø33	Ø45	Ø52	Ø75	Ø91	Ø117.5
Plunger Stroke (mm)	10	12	16	19	23	23
Jaw Stroke (mm)	5.4	5.5	7.4	8.8	10.6	10.6
Max. Draw Bar Pull Force (kgf)	1189	1479	2294	2906	3739	4793
Max. Gripping Force (kgf)	2447	3875	5710	7546	9789	12236
Max. Speed (r.p.m.)	7000	6000	4800	4200	3300	2500
Weight (kgs)	5.9	13	22.1	33.2	61.9	115
Matching Cylinder	M1036	M1246	M1552	M1875	M2091	M2511
Max. Operating Pressure (kgt/cm^2)	19.5	18.9	17.3	18.4	18.4	15.3
Matching Soft Jaw	VHC05	VHC06	VHC08	VHC10	VHC12	VHC15
Matching Hard Jaw	HJ05	HJ06	HJ08	HJ10	HJ12	HJ15
CODE NO.	5002-250	5002-251	5002-252	5002-253	5002-254	5002-255

DIMENSIONS

Unit:mm

Dim / ORDER NO.	NT205	NT206	NT208	NT210	NT212	NT215
A	135	169	210	254	304	381
B	60	81	91	100	110	133
C (H6)	110	140	170	220	220	300
D	20	19	20.5	25	28	43
E	82.55	104.78	133.35	171.45	171.45	235
M	4	5	5	5	6	6
G	23	32	37	42	52	62
H	10	12	14	16	21	24
J	33	45	52	75	91	117.5
K	3-M10	6-M10	6-M12	6-M16	6-M16	6-M20
L	2	2	2	2	2	5
F	45	60	66	94	108	139
N max.	26.5	32	38.7	51	61.3	82
N min.	23.8	29.25	35	46.6	56	76.7
O max.	19.75	22.75	29.75	33.75	45.75	46.75
O min.	7.75	9.25	14.75	14.25	15.75	13.75
P max.	1	11	14.5	8.5	8	7
P min.	-9	-1	-1.5	-10.5	-15	-16
S	12	20	30	45	50	60
T	15.5	16	20	22	23	30
U max.	M40x1.5	M55x2	M60x2	M85x2	M100x2	M130x2
W	14	20	25	30	30	43

3-Jaw Wedge Type Non Through-hole Power Chuck (Without Adaptor)

Fig1

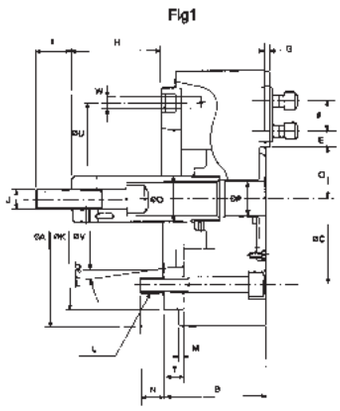
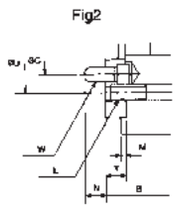
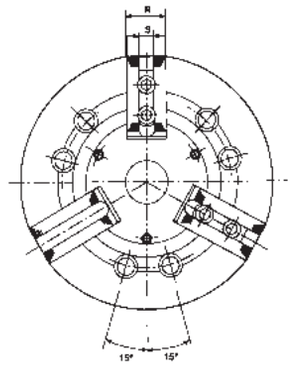


Fig2





- Direct mounting: Direct mount for VA series chucks onto short taper spindle of ASA and JIS standards.
- High performance: Similar high performance to V series.
- Chuck mounting screws: Metric or UNC socket head cap screws are supplied for bolting the chuck to the spindle.
- Alternative spindle adaptors: ASA or DIN adaptors can be supplied to fit machine spindle.

SPECIFICATIONS

Unit:mm

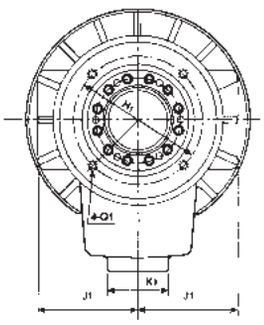
Dim / ORDER NO.	V-206A5	V-208A6	V-210A6	V-210A8	V-212A8	V-215A8	V-215A11
Jaw Stroke (mm)	9.2	9.7	8.8	8.8	10.5	16	16
Plunger Stroke (mm)	20	21	25	25	30	35	35
Max. Pull Force (kgf)	1835	2549	2957	2957	4181	8362	8362
Max. Gripping Force (kgf)	5253	7548	10013	10013	15807	25391	25391
Max. Operating Pressure (kgt/cm^2)	25.5	24.5	28.6	28.6	27.5	30.6	30.6
Max. Speed (r.p.m.)	5000	4000	3500	3500	3000	2800	2800
Weight (kgs)	12.5	24.4	40.65	37.15	61.75	105	103
Moment of Inertia I (kgf.m^2)	0.045	0.317	0.3	0.3	0.725	1.8	1.8
Matching Cylinder	MS105 MH100	MS125 MH125	MS125 MH125	MS125 MH125	MS150 MH150	MS150 MH150	MS200 MH200
Matching Soft Jaw	VHC06	VHC08	VHC10	VHC10	VHC12-1	VHC15-1	VHC15-1
Matching Hard Jaw	HJ06	HJ08	HJ10	HJ10	HJ12-1	HJ15-1	HJ15-1
CODE NO.	5002-090	5002-091	5002-092	5002-093	5002-094	5002-095	5002-096

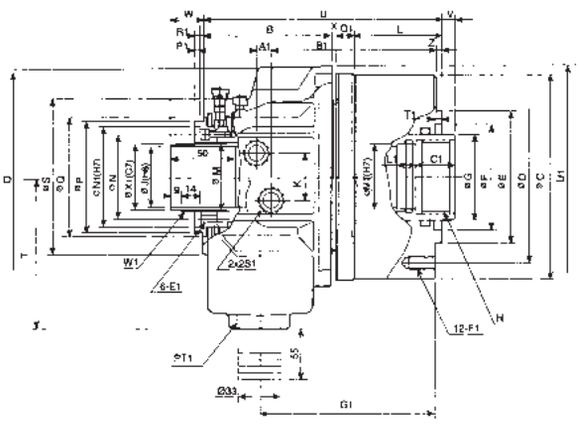
DIMENSIONS

Unit:mm

Dim / ORDER NO.	V-206A5	V-208A5	V-208A6	V-210A6	V-210A8	V-212A8	V-215A8	V-215A11
A	165	210	210	254	254	304	381	381
B	84	103	97	109	102	118	141	130
C	104.78	104.78	133.35	133.35	171.45	171.45	171.45	235
F	20	25	25	30	30	30	43	43
K	140	170	170	220	220	220	300	300
L	6-M10	6-M12	6-M12	6-M16	6-M16	6-M16	6-M16	6-M20
M	5	5	5	5	5	6	6	6
N	14	13	18	18	25	25	24	32
P	21	21	25	34	34	34	-	-
T	15	23	17	25	18	18	33	22
V	82.563	82.563	106.375	106.375	139.719	139.719	139.719	196.869
U	116	133.35	150	171.45	190	190	235	260
E max.	15.25	22.25	22.25	30.75	30.75	48.75	50.25	50.25
E min.	9.25	11.75	11.75	11.25	11.25	12.75	23.25	23.25
G	4	5	5	5	5	5	2	2
H max.	89.6	109	115	133	140	145	71	82
H min.	69.6	88	94	108	115	115	36	47
I	36	36	36	36	36	36	55	55
J	M16x2.0	M20x2.5	M20x2.5	M20x2.5	M20x2.5	M20x2.5	M30x3.5	M30x3.5
O	34	38	38	45	45	50	60	60
Q max.	38.7	46.75	46.3	51.1	51.1	61	77.5	77.5
Q min.	34.1	41.9	41.9	46.7	46.7	55.75	69.5	69.5
R	31	35	35	40	40	50	50	50
S	12	14	14	16	16	18	25.5	25.5
W	3-M6	6-M10	3-M6	6-M12	6-M8	6-M8	6-M16	3-M10
REFER FIG.	Fig-1	Fig-2	Fig-1	Fig-2	Fig-1	Fig-1	Fig-2	Fig-1

Super High Speed Through Hole Rotary Hydraulic Cylinder





- Small-sized light weight:
  Comparing with the traditional product, it is small-sized (reduced to MAX 95mm)and a light weight (weighted MAX 4.5kgs). Make its capacity more slable to reduce the burden of the machinery at high speed turning.
- The most largest bore:
  Comparing with the old product, it has about 20% more bore full diameter for utilizing the capacity of machinery.
- The safety mechanism:
  It can retain the gripping force with a check valve.

SPECIFICATIONS

Dim / ORDER NO.	Piston Dia. (mm)	Piston Area		Piston Stroke (mm)	Max. Draw Bar Pull Force		Max. Operating Pressure (kgf/cm²)	Max. Speed (r.p.m.)	Moment Inertia I (kgf.m²)	Weight (kgs)	Total Leakage (l/min)	CODE NO.
		Push Side (cm²)	Pull Side (cm²)		Push Side KN (kgs)	Pull Side KN (kgs)						
M1036	105	71	68.5	15	24.8(2529)	24(2447)	40.8	8000	0.011	8.6	3.0	5003-001
M1236	125	100	89	15	38(3875)	33(3365)	40.8	7000	0.019	13.0	3.0	5003-002
M1246	125	100	89	15	38(3875)	33(3365)	40.8	7000	0.019	12.0	3.0	5003-003
M1546	155	161	150	22	60(6118)	56(5710)	40.8	6200	0.052	18	3.9	5003-004
M1552	155	161	150	22	60(6118)	56(5710)	40.8	6200	0.052	16.8	3.9	5003-005
M1868	180	198	183	25	75(7546)	69(7036)	40.8	4700	0.095	28.0	4.2	5003-006
M1875	180	198	183	25	75(7546)	69(7036)	40.8	4700	0.095	26.0	4.2	5003-007
M2091	205	252	234	30	94(9585)	88(8973)	40.8	3800	0.15	37.0	4.5	5003-008
M2511	250	348	336	23	124(12644)	120(12236)	40.8	2800	0.45	57	7.0	5003-009

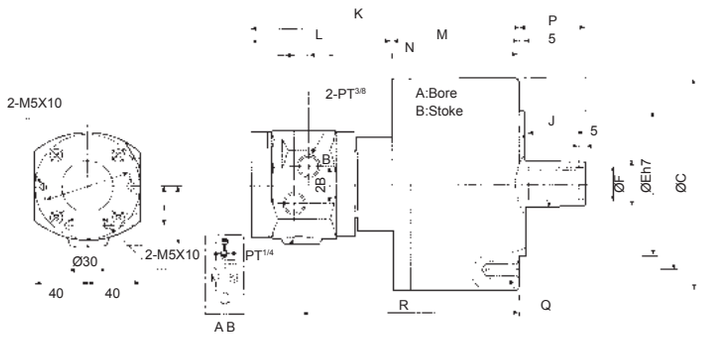
DIMENSIONS

Dim / ORDER NO.	C1	E1	F1	G1	H1	J1	K1	L1	M1	N1	O1	P1	Q1	R1	S1	T1	U1	W1	X1	B	C
M1036	25	M5x0.8	M10x1.5	126	88	68	53	15	38	64	14	4	M5x0.8	4	PT3/8″	6	136	M44x1.5	42	101	136
M1236	30	M6x1.0	M10x1.5	135	98	76	47	15	38	76	14	4	M5x0.8	6	PT1/2″	6	169	M52x1.5	50	99	154.5
M1246	30	M6x1.0	M10x1.5	135	98	76	47	15	50	76	14	4	M5x0.8	6	PT1/2″	6	169	M52x1.5	50	99	154.5
M1546	30	M6x1.0	M10x1.5	145	110	86	47	15	50	85	14	4	M6x1.0	7	PT1/2″	6	187.5	M58x1.5	56	103	190
M1552	30	M6x1.0	M10x1.5	145	110	86	47	15	55	85	14	4	M6x1.0	7	PT1/2″	6	187.5	M58x1.5	56	103	190
M1868	35	M6x1.0	M10x1.5	166.5	155	101	47	15	70	108	16	4	M6x1.0	7	PT1/2″	6	220	M84x2	81	126	215
M1875	35	M6x1.0	M10x1.5	166.5	155	101	47	15	80	108	16	4	M6x1.0	7	PT1/2″	6	220	M84x2	81	126	215
M2091	35	M6x1.0	M12x1.75	183	165	110	47	15	95	120	16	4	M6x1.0	7	PT1/2″	6	267	M99x2	96	141	240
M2511	45	M6x1.0	M16x2.0	197	206	129	55	20	123	160	18	4	M6x1.0	7	PT1/2″	6	294		134.6	186	310

Dim / ORDER NO.	D	E	F	G	H	J	K	L	M	N	O	P	Q	S	T	U	V max	V mix	W max	W mix	X	Z	A1	B1
M1036	115	100	65	48	M42x1.5	36	32	62	44.6	54	126	73	80	104	115	179.5	10	-5	39	24	2.5	5	11	120.5
M1236	130	100	80	65	M42x1.5	36	36	67	52.6	64	166	85	90	118	114	184	10	-5	40	25	4	5	11	126.5
M1246	130	100	80	65	M55x2	46	36	67	52.6	64	166	85	90	118	114	184	10	-5	40	25	4	5	11	126.5
M1546	170	130	85	70	M55x2	46	36	75	59.6	73	184	96	102	137	130	196	17	-5	47	25	4	5	11	136
M1552	170	130	85	70	M60x2	52	36	75	59.6	73	184	96	102	137	130	196	17	-5	47	25	4	5	11	136
M1868	190	160	120	95	M75x2	68	36	84	84.6	98	215	121	131	166	160	230	20	-5	50	25	4	5	17.5	153.5
M1875	190	160	120	95	M85x2	75	36	84	84.6	98	215	121	131	166	160	230	20	-5	50	25	4	5	17.5	153.5
M2091	215	180	140	110	M100x2	91	36	93	99.6	108	264	138	148	182	185	253	25	-5	55	25	3	5	21	168
M2511	275	230	166	140	M130x2	117.5	36	89	134.6	148	362	178		232	215	296	18	-5	38	15	3	6	27	184.5

Non Through Hole Rotary Hydraulic Cylinder (With Valves)

- Built-in safty check valves.



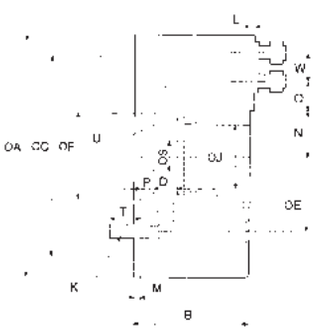
DIMENSIONS

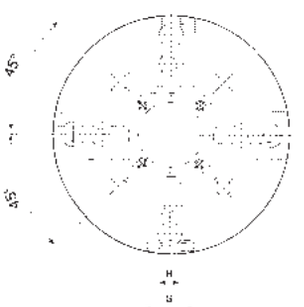
Dim / ORDER NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	P Max.	P Min.	Q	R	CODE NO.
MS105	105	20	135	100	80	30	21	M20x2.5	35	197	108	89	152	45	25	6-M10x20	158	5003-030
MS125	125	25	160	130	110	35	25	M24x3.0	44	205	108	97	160	51	26	6-M12x24	166	5003-031
MS150	150	30	190	130	110	45	31	M30x3.5	45	214	108	106	169	56	26	12-M12x24	175	5003-032
MS200	200	35	245	145	120	55	37	M36x4.0	60	228	108	122	183	69	34	12-M16x30	189	5003-033

SPECIFICATIONS

Dim / ORDER NO.	Piston Area		Max. Draw Bar Pull Pull Side KN (kgf)	Piston Stroke (mm)	Max.Speed (r.p.m.)	Max. Operating Pressure (kgf/cm²)	Total Leakage (l/min)	Moment Inertia I (kgf.m²)	Weight (kgs)
	Push Side (cm²)	Pull Side (cm²)							
MS105	86	79	29(2957)	20	6000	4.0(40.8)	0.8	0.0125	7.1
MS125	122	113	42(4283)	25	6000	4.0(40.8)	0.8	0.0225	10
MS150	176	160	60(6118)	30	5500	4.0(40.8)	0.8	0.0475	13.5
MS200	314	290	108(11013)	35	5500	4.0(40.8)	0.8	0.0975	22

4-Jaw Wedge Type Through Hole Power Chuck (Without Adaptor)





DIMENSIONS

ORDER NO.	A	B	C (H6)	D	E	M	G	H	J	K	L	F	N Max.	N Min.	O Max.	O Min.	P Max.	P Min.	S	T	U	W
VNIT-208	210	91	170	20.5	133.35	5	37	14	52	4-M12	2	66	38.7	35	29.75	14.75	14.5	1.5	30	20	M60x2	25
VNIT-210	254	100	220	25	171.45	5	42	16	75	4-M16	2	94	51	46.6	33.75	14.75	8.5	-10.5	45	22	M85x2	30
VNIT-212	304	110	220	28	171.45	6	52	21	91	4-M16	2	108	61.3	56	45.75	15.75	8	-15	50	23	M100x2	30
VNIT-215	381	133	300	43	235	6	62	24	117.5	4-M20	5	139	82	76.7	46.75	13.75	7	-16	60	30	M130x2	43

SPECIFICATIONS

ORDER NO.	Through-Hole (mm)	Plunger Stroke (mm)	Jaw Stroke (mm)	Max. Draw Bar Pull Force (kgf)	Max. Gripping Force (kgf)	Max. Speed (r.p.m.)	Weight (kgs)	Matching Cylinder	Max. Operating Pressure (kgf/cm²)	CODE NO.
VNIT-208	Ø52	16	7.4	2294	5716	4900	24	M1552	17.3	5003-050
VNIT-210	Ø75	19	8.8	2906	7546	4200	36	M1875	18.4	5003-051
VNIT-212	Ø91	23	10.6	3739	9789	3300	58.5	M2091	18.4	5003-052
VNIT-215	Ø117.5	23	10.6	6828	12236	2500	114	M2511	15.3	5003-053

Lathe Collet Chucks

NEW

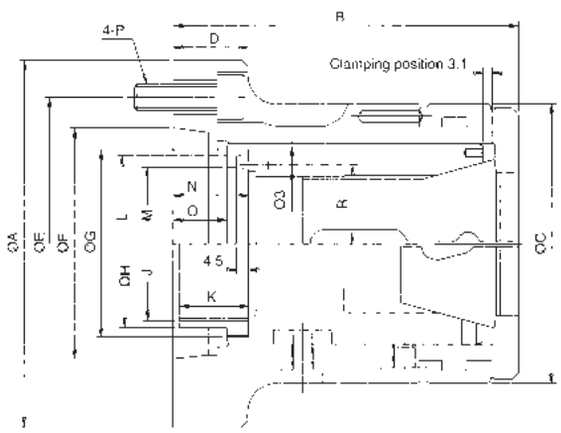
Lathe Collets
Please See E25

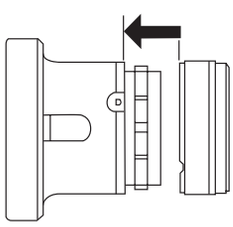
Please use
DIN6343 collets

collet illustration

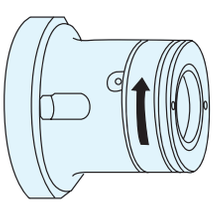
Spring Collet

Multi-Bore Collet

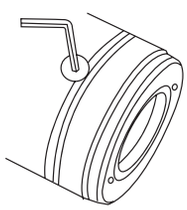




Push the cover



Turn the cover



Tighten the corer anti rotation screws

Holding Range

CHUCK NO.	MULTIBORE CAT NO.	◯	⬡	□	SPRING COLLET CAT NO.	◯	⬡	□
CR42	M-673	42	36	30	173E/4728	42	36	30
CR60	M-677	60	52	42	185E/4291	60	52	42

DIMENSIONS

ORDER NO.	A	B	C	D	E	F	G	H	J Max.	K	L	M	N	O	P	R
CR42A5	135	124	100	27	104.78	82.563	M66xP1.5	60	M55xP20	25	62.5	54	27.4	19.4	M10	28
CR42A6	170	124	100	32	133.35	106.375	M66xP1.5	66	M60xP20	25	62.5	54	27.4	19.4	M12	28
CR60A6	170	145	130	27	133.35	106.375	M90xP1.5	67.5	M60xP20	30	83	77	29.9	21.9	M12	39.5

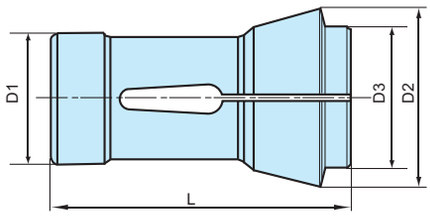
SPECIFICATIONS

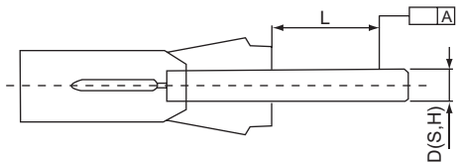
ORDER NO.	Diameter of Shanlt	Material Diameter (mm)	Collet Travel Distance (mm)	Weight (kgs)	Maximum Bearing KN (kgf)	Maximum Holding Power KN (kgf)	Maximum Speed (r.p.m.)	CODE NO.
CR42A5	A2-5	42	7	6.2	25(2549)	55(5608)	6,000	5003-040
CR42A6	A2-6	42	7	8.2	25(2549)	55(5608)	6,000	5003-041
CR60A6	A2-6	60	7	13	33(3365)	59(6016)	5,000	5003-042

Lathe Collet

VERTEX

DIN6343





Test Bar	D (S,H)	L (mm)	A Class 1	A Class 2
0.2~1.0		3	0.015	0.015
1.0~1.6		6		0.020
1.6~3.0		10		
3.0~6.0		16		
6.0~10.0		25		
10.0~18.0		40	0.020	0.030
18.0~24.0		50		
24.0~30.0		60		
30.0~50.0		80	0.030	0.040
50.0~60.0		100		

DIN6343

COLLET TYPE	STANDARD NO.	D1 (mm)	D2 (mm)	D3 (mm)	L (mm)	KONUSWNKEL SPINDLE CONE ANGLE	COLLET RANGE(mm) ◯	⬡	□
C-26	161E	32	45	34	75	15°	Ø3-Ø26	Ø6-Ø22	Ø5-Ø18
C-36	171E	42	55	42	94	15°	Ø36	Ø32	Ø26
C-42	173E	48	60	50	94	15°	Ø3-Ø42	Ø6-Ø36	Ø5-Ø30
C-52	177E	58	70	60	94	15°	Ø52	Ø45	Ø36
C-60	185E	66	84	73	110	15°	Ø3-Ø60	Ø6-Ø50	Ø5-Ø40
C-80	193E	90	107	92	130	15°	Ø3-Ø80	Ø6-Ø70	Ø5-Ø57

C80: Hex./Square shape order to make.

CONE SIZE

ROUND SHAPE / METRIC — METRIC SIZE

C26-DØ ◎		C42-DØ ◎		C60-DØ ◎		C80-DØ ◎	
ORDER NO.	CODE NO.	ORDER NO.	CODE NO.	ORDER NO.	CODE NO.	ORDER NO.	CODE NO.
C26-D6	5003-101	C42-D6	5003-131	C60-D8	5003-171	C80-D18	5003-211
C26-D8	5003-102	C42-D8	5003-132	C60-D9	5003-172	C80-D20	5003-212
C26-D9	5003-103	C42-D9	5003-133	C60-D10	5003-173	C80-D25	5003-213
C26-D10	5003-104	C42-D10	5003-134	C60-D11	5003-174	C80-D28	5003-214
C26-D11	5003-105	C42-D11	5003-135	C60-D12	5003-175	C80-D30	5003-215
C26-D12	5003-106	C42-D12	5003-136	C60-D13	5003-176	C80-D32	5003-216
C26-D13	5003-107	C42-D13	5003-137	C60-D14	5003-177	C80-D35	5003-217
C26-D14	5003-108	C42-D14	5003-138	C60-D15	5003-178	C80-D38	5003-218
C26-D15	5003-109	C42-D15	5003-139	C60-D16	5003-179	C80-D40	5003-219
C26-D16	5003-110	C42-D16	5003-140	C60-D17	5003-180	C80-D42	5003-220
C26-D17	5003-111	C42-D17	5003-141	C60-D18	5003-181	C80-D45	5003-221
C26-D18	5003-112	C42-D18	5003-142	C60-D19	5003-182	C80-D48	5003-222
C26-D19	5003-113	C42-D19	5003-143	C60-D20	5003-183	C80-D50	5003-223
C26-D20	5003-114	C42-D20	5003-144	C60-D21	5003-184	C80-D52	5003-224
C26-D21	5003-115	C42-D21	5003-145	C60-D22	5003-185		
C26-D22	5003-116	C42-D22	5003-146	C60-D23	5003-186		
C26-D23	5003-117	C42-D23	5003-147	C60-D24	5003-187		
C26-D24	5003-118	C42-D24	5003-148	C60-D25	5003-188		
C26-D25	5003-119	C42-D25	5003-149	C60-D27	5003-189		
		C42-D27	5003-150	C60-D28	5003-190		
		C42-D28	5003-151	C60-D30	5003-191		
		C42-D30	5003-152	C60-D32	5003-192		
		C42-D32	5003-153	C60-D34	5003-193		
		C42-D34	5003-154	C60-D36	5003-194		
		C42-D36	5003-155	C60-D38	5003-195		
		C42-D38	5003-156	C60-D40	5003-196		
		C42-D40	5003-157	C60-D42	5003-197		
		C42-D42	5003-158	C60-D45	5003-198		
				C60-D47	5003-199		
				C60-D48	5003-200		
				C60-D50	5003-201		

HEX. SHAPE / METRIC METRIC SIZE

C26-H ⬡		C42-H ⬡		C60-H ⬡	
ORDER NO.	CODE NO.	ORDER NO.	CODE NO.	ORDER NO.	CODE NO.
C26-H8	5003-241	C42-H8	5003-261	C60-H8	5003-281
C26-H10	5003-242	C42-H10	5003-262	C60-H10	5003-282
C26-H12	5003-243	C42-H12	5003-263	C60-H12	5003-283
C26-H13	5003-244	C42-H13	5003-264	C60-H13	5003-284
C26-H15	5003-245	C42-H15	5003-265	C60-H15	5003-285
C26-H16	5003-246	C42-H16	5003-266	C60-H16	5003-286
C26-H17	5003-247	C42-H17	5003-267	C60-H17	5003-287
C26-H19	5003-248	C42-H19	5003-268	C60-H19	5003-288
C26-H20	5003-249	C42-H20	5003-269	C60-H20	5003-289
C26-H21	5003-250	C42-H21	5003-270	C60-H21	5003-290
		C42-H22	5003-271	C60-H22	5003-291
		C42-H24	5003-272	C60-H24	5003-292
		C42-H25	5003-273	C60-H25	5003-293
		C42-H27	5003-274	C60-H27	5003-294
		C42-H30	5003-275	C60-H30	5003-295

DIN6343

COLLET TYPE	STANDARD NO.
C-26	161E
C-42	173E
C-60	185E
C-80	193E

ROUND SHAPE / INCH INCH SIZE

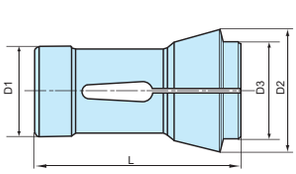
C26-DØ ◎		C42-DØ ◎		C60-DØ ◎		C80-Ø ◎	
ORDER NO.	CODE NO.	ORDER NO.	CODE NO.	ORDER NO.	CODE NO.	ORDER NO.	CODE NO.
C26-D1/4″	5003-301	C42-D1/4″	5003-321	C60-D3/8″	5003-351	C80-D3/4″	5003-381
C26-D3/8″	5003-302	C42-D3/8″	5003-322	C60-D1/2″	5003-352	C80-D7/8″	5003-382
C26-D1/2″	5003-303	C42-D1/2″	5003-323	C60-D5/8″	5003-353	C80-D1″	5003-383
C26-D5/8″	5003-304	C42-D5/8″	5003-324	C60-D3/4″	5003-354	C80-D1 1/8″	5003-384
C26-D3/4″	5003-305	C42-D3/4″	5003-325	C60-D7/8″	5003-355	C80-D1 1/4″	5003-385
C26-D7/8″	5003-306	C42-D7/8″	5003-326	C60-D1″	5003-356	C80-D1 3/8″	5003-386
C26-D1″	5003-307	C42-D1″	5003-327	C60-D1 1/8″	5003-357	C80-D1 1/2″	5003-387
		C42-D1 1/8″	5003-328	C60-D1 1/4″	5003-358	C80-D1 5/8″	5003-388
		C42-D1 1/4″	5003-329	C60-D1 3/8″	5003-359	C80-D1 3/4″	5003-389
		C42-D1 3/8″	5003-330	C60-D1 1/2″	5003-360	C80-D1 7/8″	5003-390
		C42-D1 1/2″	5003-331	C60-D1 5/8″	5003-361	C80-D2″	5003-391
		C42-D1 5/8″	5003-332	C60-D1 3/4″	5003-362	C80-D2 1/8″	5003-392
				C60-D1 7/8″	5003-363	C80-D2 1/4″	5003-393
				C60-D2″	5003-364	C80-D2 3/8″	5003-394
						C80-D2 1/2″	5003-395
						C80-D2 5/8″	5003-396
						C80-D2 7/8″	5003-397
						C80-D3″	5003-398

HEX. SHAPE / INCH INCH SIZE

C26-H ⬡		C42-H ⬡		C60-H ⬡	
ORDER NO.	CODE NO.	ORDER NO.	CODE NO.	ORDER NO.	CODE NO.
C26-H1/4″	5003-411	C42-H3/8″	5003-431	C60-H3/8″	5003-451
C26-H3/8″	5003-412	C42-H1/2″	5003-432	C60-H1/2″	5003-452
C26-H1/2″	5003-413	C42-H5/8″	5003-433	C60-H5/8″	5003-453
C26-H5/8″	5003-414	C42-H3/4″	5003-434	C60-H3/4″	5003-454
C26-H3/4″	5003-415	C42-H7/8″	5003-435	C60-H7/8″	5003-455
C26-H7/8″	5003-416	C42-H1″	5003-436	C60-H1″	5003-456
		C42-H1 1/8″	5003-437	C60-H1 1/8″	5003-457
		C42-H1 1/4″	5003-438	C60-H1 1/4″	5003-458
				C60-H1 3/8″	5003-459

SQUARE SHAPE / INCH INCH SIZE

C26-S □		C42-S □		C60-S □	
ORDER NO.	CODE NO.	ORDER NO.	CODE NO.	ORDER NO.	CODE NO.
C26-S1/4″	5003-471	C42-S3/8″	5003-491	C60-S3/8″	5003-501
C26-S3/8″	5003-472	C42-S1/2″	5003-492	C60-S1/2″	5003-502
C26-S1/2″	5003-473	C42-S5/8″	5003-493	C60-S5/8″	5003-503
C26-S5/8″	5003-474	C42-S3/4″	5003-494	C60-S3/4″	5003-504
		C42-S7/8″	5003-495	C60-S7/8″	5003-505
				C60-S1″	5003-506
				C60-S1 1/8″	5003-507

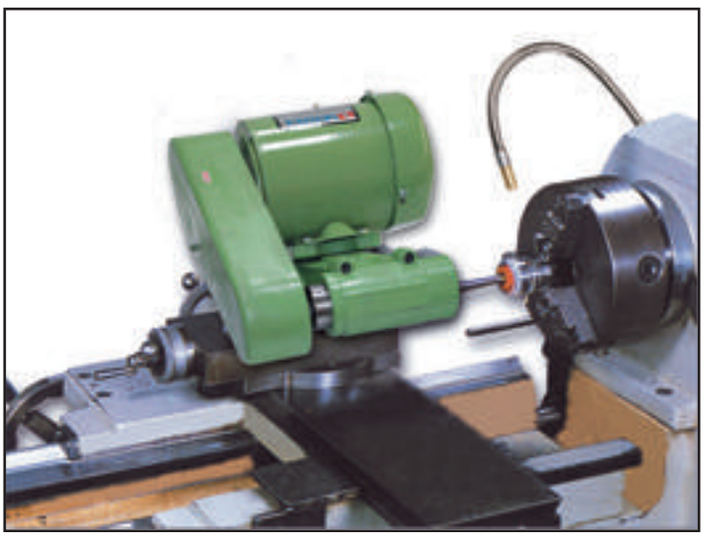


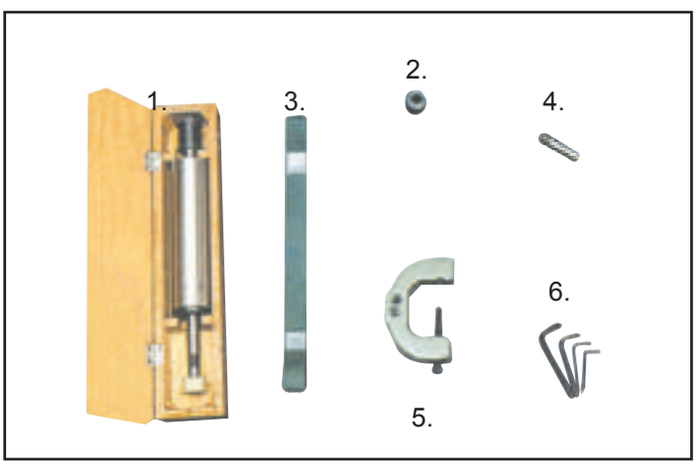
Tool Post Grinder ON Lathe

W/O CE Light Duty

ORDER NO. VGR-150

For Internal Grinding





Standard Accessories

1.Internal Spindle 1
2.Pulley for Internal Grinding 2
3.Flat Belt 1
4.Diamond tool 1
5.Holder for Diamond Tool 1
6.key Folds (8, 5, 3, 2mm) 4

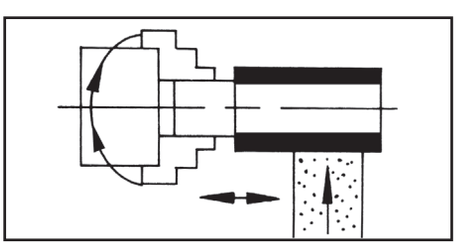
※VGR-175,VGR-185 WITHOUT INTERNAL SPINDLE
※ECOMICAL TYPE FOR LIGHT DUTY ONLY
※220V/3 PH, 380V/3PH
※COLOR & SHAPE MAY VARY..

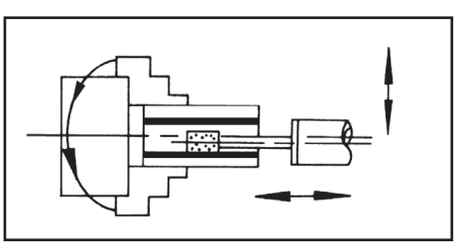
※Guaranteed for 3 months

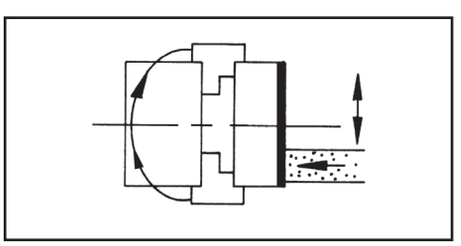
Characteristic Features

- Both the main shafts have been specially designed, and the world-wide precision bearing is used to fit the main shafts which are made of alloy steel heat-treated for high wear resistance, precision, as well as maintaining to the lowest temperature for durability and stability.
- The motor base and the spindle bushing are adjustable.
- The motor is well designed with a special and nice appearance, The R.P.M. of this motor varied depending on the size of the workpiece.
- This grinder is capable of grinding the work piece to a minimum of 3 mm in outer diameter and from 2mm up in inner diameter (bore) with the accuracy within 0.003mm and a well finished surface. (supplied with special attachments).
- The spindle bushing is made of cast iron, and supported by three surfaces. Therefore, it is durable and elastic.
- Materials such as steel, iron, copper (brass), aluminum, cast iron, plastics, procelain, marble, regardless of being heat treated or not, can be ground on this machine which functions lie a cylindrical grinder. So it may lower the cost of the production.
  We assure you of high quality products.

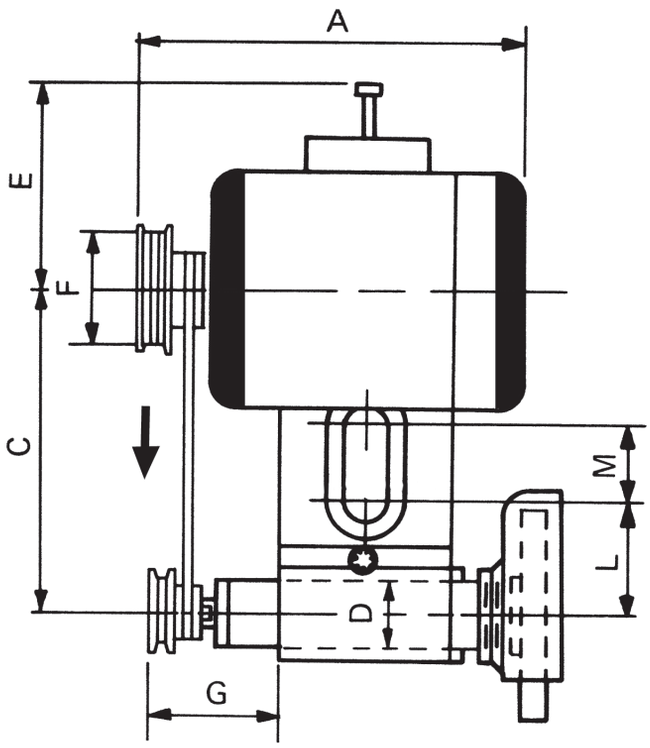
※ Types of Grinding For Work Pieces

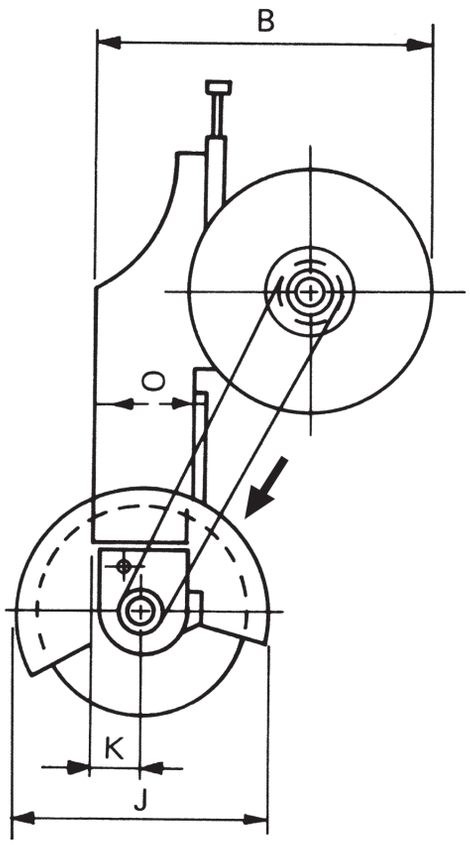






Tool Post Grinder ON Lathe





※ CLOCR MAY VARY
※ NOT FOR HIGH PRECISION GRINDING

ORDER NO.	Main Dimension. (mm)												Net Weight (kgs)	Packing Size (mm)
	A	B	C	D	E	F	G	J	K	L	M	O		
VGR-165	280	275	260-310	50	160	110	65	230	40-65	105	40	85	48	520x430x350
VGR-150	280	275	250-300	48	160	110	65	150	40-65	105	40	85	38	520x430x350
VGR-125	270	230	230-280	48	-	110	65	150	34-58	90	15	75	35	520x430x350
VGR-100	235	200	170	40	-	110	50	150	28	45	10	64	24	450x320x340

ORDER NO.	HP	External Spindle			Internal Spindle				Grinder on Lathe (Length of Bed of Lathe) Ft.	For Swing m/m	CODE NO.
		Size of Wheel dia x width-hole	(R.P.M.) Non-load Speed		Diameter to be ground	Size of Wheel dia x width x hole	(R.P.M.) Non-load Speed		Grinding Depth (mm)		
VGR-165	1	8″x3/4″x3/4″	3000 3700	2490 3070	25-50	1″x3/8″x1/4″	20000 13500	16800 11500	70	8-10	650-1600	5004-003
VGR-150	1	5″x5/8″x5/8″	4500 6000	3750 5000	19-40	1″x3/8″x1/4″	20000 13500	16800 11500	70	6-8	550-900	5004-004
VGR-125	1/2	5″x5/8″x5/8″	4500 6000	3750 5000	19-40	1″x3/8″x1/4″	20000 13500	16800 11500	70	4-6	430-850	5004-005
VGR-100	1/4	5″x5/8″x5/8″	4500 6000	3750 5000	19-40	1″x3/8″x1/4″	20000 13500	16800 11500	50	under 4	320-400	5004-006

VDI Tool Holders

Coupling Type System

DIN69880

A DIN 1809 (For DUPLOMATIC)

Coupling to DIN 1809

B DIN 5480 (For SAUTER/DUPLOMATIC)

Coupling to DIN 5480

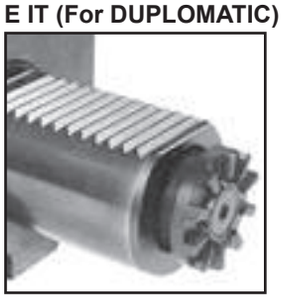
C DIN 5482 (For SAUTER/DUPLOMATIC)

Coupling to DIN 5482

D MT (For BARUFFALDI)

Spur Coupling

E IT (For DUPLOMATIC)



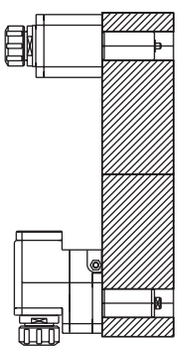
Spur Coupling

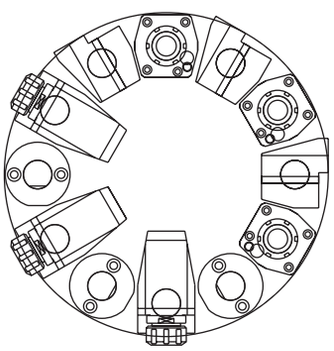
VDI Tool Holders

Tool Holders Direction System

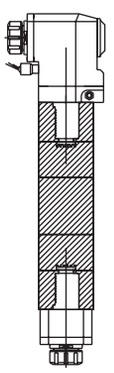
DIN69880

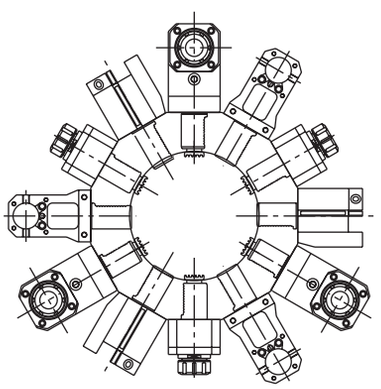
A: Axial Direction

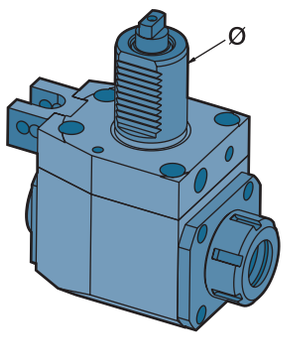




B: Radial Direction (Star Turret)

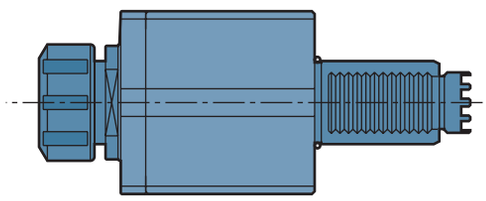






DA

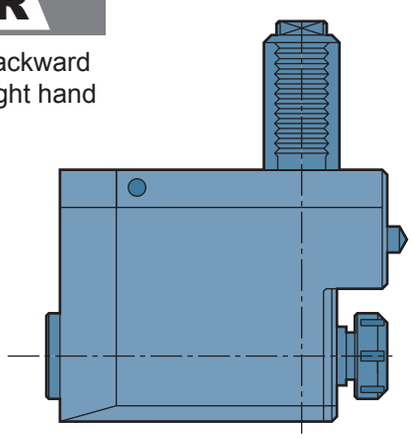
Stright Direct Drive



	VDI 20	VDI 30	VDI 40	VDI 50
SHAFT DIA.	20	30	40	50

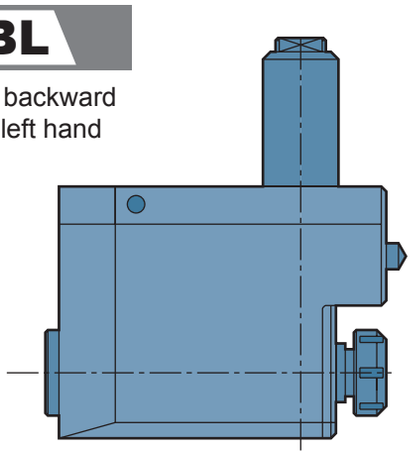
BR

B: backward
R: right hand



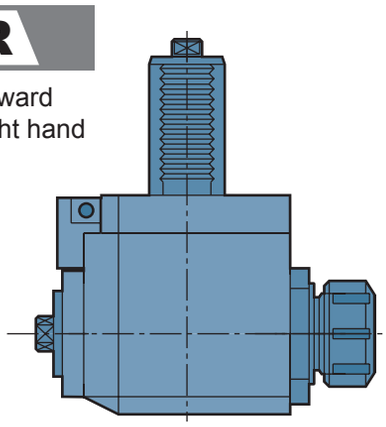
BL

B: backward
L: left hand



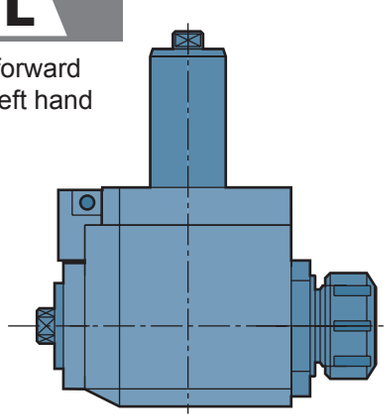
FR

F: forward
R: right hand



FL

F: forward
L: left hand



TXX

T: Tapping

EX:

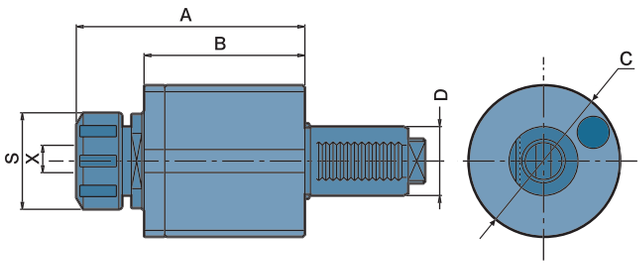
- BR4018093290 it's VDI 40, right hand, coupling type 1809, backward come with ER 32 nut. P.C.D. is 90mm
- FL3054822555 it's VDI 30 left hand coupling type 5482 (B15x12) forward, come with ER 25 nut. P.C.D. is 55mm

※ ORDER MADE, NOT REFUNDABLE.

Axial Drilling And Milling Heads

※ ORDER MADE, NOT REFUNDABLE.

DIN 1809



Power Transmission According To DIN 1809

- External coolant supply
- Collet is not included
- To be used for collet DIN 6499

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	CODE NO.
DA20180916	20	1-10 ER16	32	6000	1 : 1	77	49	58	5006-001
DA30180925	30	1-16 ER25	42	6000	1 : 1	101	70	68	5006-002
DA40180932	40	2-20 ER32	50	6000	1 : 1	111	73.5	86	5006-003
DA50180940	50	3-26 ER40	63	6000	1 : 1	120	81.5	96	5006-004
DA60180950	60	10-34 ER50	78	6000	1 : 1	140	88.5	116	5006-005

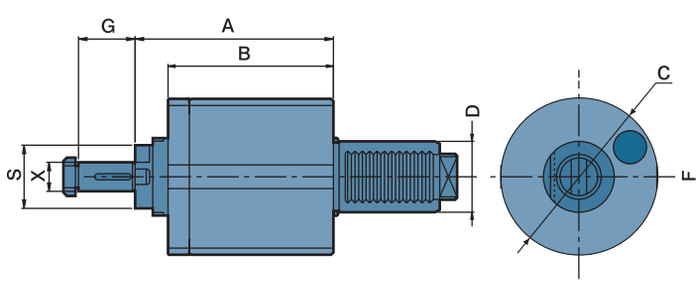
Axial Tapping Heads

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	CODE NO.
TDA30180916	30	1-10 ER16	30	3000	1 : 1	108	71.5	68	5006-006
TDA40180920	40	1-13 ER20	35	3000	1 : 1	95.5	55	86	5006-007
TDA50180925	50	1-16 ER25	42	3000	1 : 1	123	81.5	96	5006-008
TDA60180932	60	2-20 ER32	50	3000	1 : 1	158.5	88.5	116	5006-009

Axial Milling Heads

DIN 1809



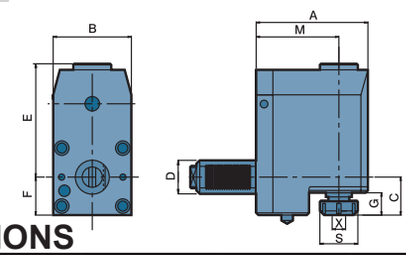
- External coolant and intermediate rings supply
- To be used for cutter arbor according to DIN 6358

DIMENSIONS

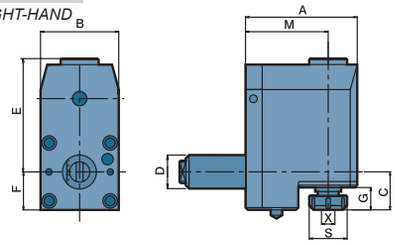
ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	G	CODE NO.
DA30180916C	30	16	32	3000	1 : 1	91.5	70	68	27	5006-010
DA40180922C	40	22	40	3000	1 : 1	86.5	73.5	86	31	5006-012
DA50180922C	50	22	40	3000	1 : 1	117	81.5	96	31	5006-013
DA50180927C	50	27	40	3000	1 : 1	117	81.5	96	33	5006-014

Radial Drilling And Milling Heads-Back Ward Type

MODE: BL
LEFT-HAND



MODE: BR
RIGHT-HAND



DIN 1809

- External coolant supply
- Collet is not included
- To be used for collet DIN 6499

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	CODE NO.
BR2018091660 BL2018091660	20	1-10 ER16	30	5000	1 : 1	83	50	35	70	27	27	60	5006-015A
BR3018092572 BL3018092572	30	1-16 ER25	42	5000	1 : 1	95	60	41.5	75.5	31.5	29	72	5006-016A
BR4018093290 BL4018093290	40	2-20 ER32	50	5000	1 : 1	124	80	44	110	42	34	90	5006-017
BR5018094090 BL5018094090	50	3-26 ER40	63	5000	1 : 1	129	86	49	112	45	39	90	5006-018
BR60180950106 BL60180950106	60	10-34 ER50	78	5000	1 : 1	154	104	74.5	123	54	52	106	5006-019A

Radial Tapping Heads-Back Ward Type

DIMENSIONS

DIN 1809

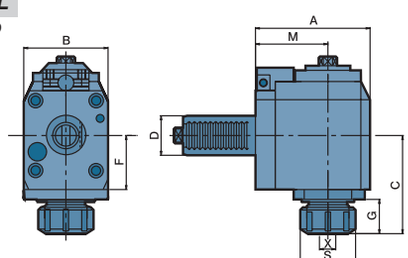
ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	CODE NO.
TBR3018091672 TBL3018091672	30	1-10 ER16	30	3000	1 : 1	95	60	44	75.5	31.5	32	72	5006-020A
TBR4018092090 TBL4018092090	40	1-13 ER20	35	3000	1 : 1	124	80	59.5	110	42	49.5	90	5006-021
TBR5018092590 TBL5018092590	50	1-16 ER25	42	3000	1 : 1	129	86	54	112	45	36	90	5006-022
TBR60180932106 TBL60180932106	60	2-20 ER32	50	3000	1 : 1	154	104	105	123	54	82.5	106	5006-023A

Radial Drilling And Milling Heads

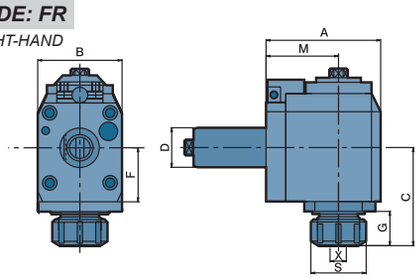
※ ORDER MADE, NOT REFUNDABLE.

DIN 1809

MODE: FL
LEFT-HAND



MODE: FR
RIGHT-HAND



- To be used for collet DIN 6499
- Collet is not included
- External coolant supply

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	F	G	M	CODE NO.
FR3018092555 FL3018092555	30	1-16 ER25	42	5000	1 : 1	87	64	74.5	34	26	55	5006-024
FR4018093265 FL4018093265	40	2-20 ER32	50	5000	1 : 1	99	80	71	40	23	65	5006-025
FR5018094075 FL5018094075	50	3-26 ER40	63	5000	1 : 1	115	88	101	56	34	75	5006-026

Radial Tapping Heads

DIN 1809

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	F	G	M	CODE NO.
TFR3018091655 TFL3018091655	30	1-10 ER16	30	3000	1 : 1	87	64	75	41	30	55	5006-027
TFR4018092065 TFL4018092065	40	1-13 ER20	35	3000	1 : 1	99	80	93.5	40	46	65	5006-028
TFR5018092575 TFL5018092575	50	1-16 ER25	42	3000	1 : 1	115	88	103	56	42	75	5006-029

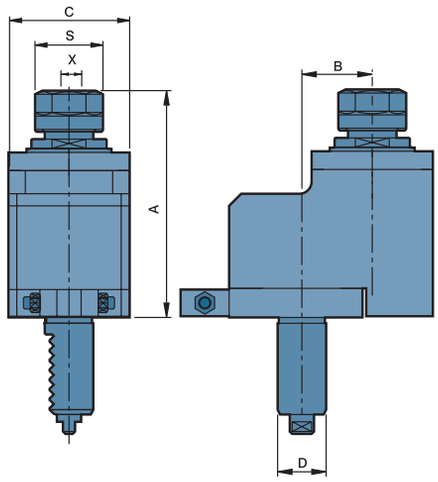
VDI

Axial Drilling And Milling Heads

VERTEX

OFFSET

DIN 1809



- Collet is not included
- To be used for collet DIN 6499
- External coolant supply

DIMENSIONS

i is speed ratio example:1:2. It's 2 times of speed

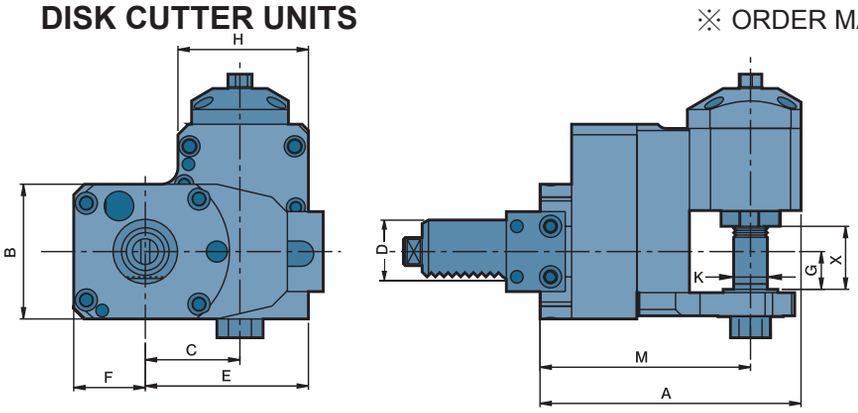
ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	CODE NO.
DA2018091629	20	1-10 ER16	30	4000	1 : 1	93.5	29	50	5006-030
DA3018092529	30	1-16 ER25	42	4000	1 : 1	100	29	60	5006-031
DA3018092529/1	※30	1-16 ER25	42	8000	1 : 2	100	29	60	5006-032
DA4018093250	40	2-20 ER32	50	4000	1 : 1	125.5	50	75	5006-033
DA5018094065	50	3-26 ER40	63	3000	1 : 1	124	65	86	5006-034

Radial Milling Heads

DISK CUTTER UNITS

※ ORDER MADE, NOT REFUNDABLE.

DIN 1809



- External coolant supply

DIMENSIONS

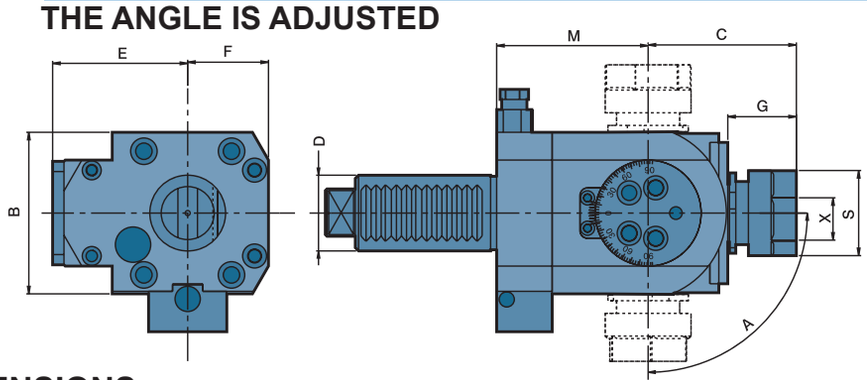
i;(3:1),It's 3 times of speed decrease

ORDER NO.	D DIN 69880	X Capacity	Maximum R.P.M.	i	A	B	C	E	F	G	H	K	M	CODE NO.
BR30180916C/3 BL30180916C/3	30	16	3000	3 : 1	133	64	45	77.5	49	5	65	16	107.5	5006-035

Angular Heads

THE ANGLE IS ADJUSTED

DIN 1809



- To be used for collet DIN 6499
- External coolant supply
- Collet is not included

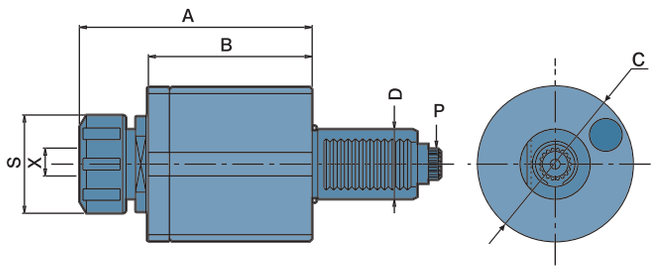
DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	CODE NO.
DA30180920B	30	1-13 ER20	35	4000	1 : 1	±90°	64	59	54	32	27	60	5006-036A

Axial Drilling And Milling Heads

※ ORDER MADE, NOT REFUNDABLE.

DIN 5480



Power Transmission According To DIN 5480

- External coolant supply
- To be used for collet DIN 6499
- Collet is not included

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	P DIN 5480	CODE NO.
DA30548025	30	1-16 ER25	42	6000	1 : 1	101	70	68	W16X0.8	5006-037
DA40548032	40	2-20 ER32	50	6000	1 : 1	111	75	86	W20X0.8	5006-038
DA50548040	50	3-26 ER40	63	6000	1 : 1	122	82	96	W24X1.25	5006-038A

Axial Tapping Heads

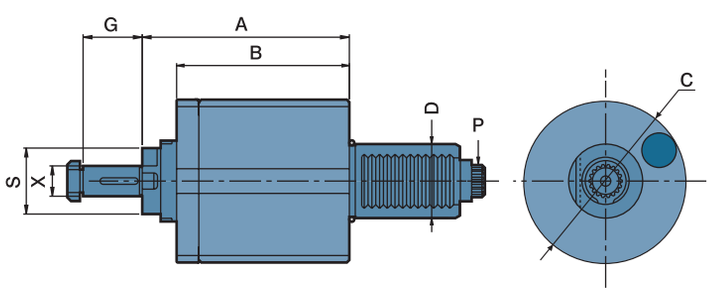
DIN 5480

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	P DIN 5480	CODE NO.
TDA30548016	30	1-10 ER16	30	3000	1 : 1	108	71.5	68	W16X0.8	5006-039A
TDA40548020	40	1-13 ER20	35	3000	1 : 1	95.5	55	86	W20X0.8	5006-040A

Axial Milling Heads

DIN 5480



- To be used for cutter arbor according to DIN 6358
- External coolant and intermediate rings supply

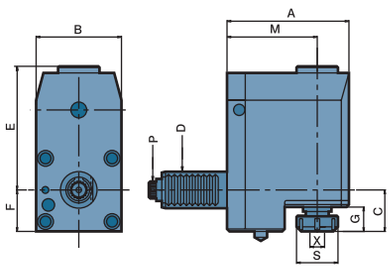
DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	G	P DIN 5480	CODE NO.
DA30548016C	30	16	32	3000	1 : 1	91.5	70	68	27	W16X0.8	5006-041
DA40548016C	40	16	32	3000	1 : 1	68.5	55	86	27	W20X0.8	5006-042
DA40548022C	40	22	32	3000	1 : 1	68.5	55	86	31	W20X0.8	5006-043

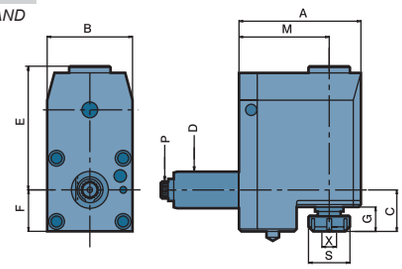
Radial Drilling And Milling Heads-Backward Type

※ ORDER MADE, NOT REFUNDABLE.

MODE: BL
LEFT-HAND



MODE: BR
RIGHT-HAND



- To be used for collet DIN 6499
- Collet is not included
- External coolant supply

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	P DIN 5480	CODE NO.
BR3054802572 BL3054802572	30	1-16 ER25	42	5000	1 : 1	95	60	41.5	75.5	31.5	28.5	72	W16X0.8	5006-044A
BR4054803290 BL4054803290	40	2-20 ER32	50	5000	1 : 1	124	80	44	110	42	34	90	W20X0.8	5006-045
BR5054804090 BL5054804090	50	3-26 ER40	63	5000	1 : 1	129	86	49	112	42	39	90	W24X1.25	5006-045A

Radial Tapping Heads-Set Back

DIN 5480

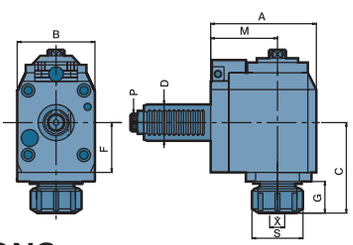
DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	P DIN 5480	CODE NO.
TBR3054801672 TBL3054801672	30	1-10 ER16	30	3000	1 : 1	95	60	44	75.5	31.5	32	72	W16X0.8	5006-046A
TBR4054802090 TBL4054802090	40	1-13 ER20	35	3000	1 : 1	124	80	59.5	110	42	49.5	90	W20X0.8	5006-047

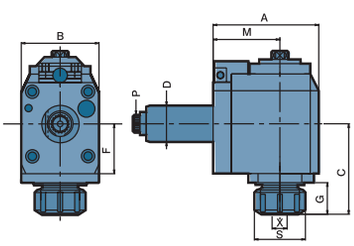
Radial Drilling And Milling Heads

DIN 5480

MODE: FL
LEFT-HAND



MODE: FR
RIGHT-HAND



- To be used for collet DIN 6499
- Collet is not included
- External coolant supply

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	F	G	M	P DIN 5480	CODE NO.
FR3054802555 FL3054802555	30	1-16 ER25	42	5000	1 : 1	97	64	74.5	41	26	55	W16X0.8	5006-048
FR3054802585 FL3054802585	30	1-16 ER25	42	5000	1 : 1	117	64	74.5	41	26	85	W16X0.8	5006-049
FR4054803265 FL4054803265	40	2-20 ER32	50	5000	1 : 1	99	80	71	40	23	65	W20X0.8	5006-050
FR4054803285 FL4054803285	40	2-20 ER32	50	5000	1 : 1	119	80	71	40	23	85	W20X0.8	5006-051
FR40548032100 FL40548032100	40	2-20 ER32	50	5000	1 : 1	134	80	71	40	23	100	W20X0.8	5006-052

Radial Tapping Heads

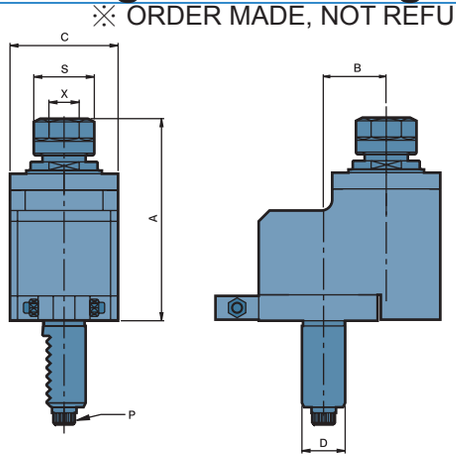
DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	F	G	M	P DIN 5480	CODE NO.
TFR3054801655 TFL3054801655	30	1-10 ER16	30	3000	1 : 1	97	64	75	41	30	55	W16X0.8	5006-053A
TFR3054801685 TFL3054801685	30	1-10 ER16	30	3000	1 : 1	117	64	75	41	30	85	W16X0.8	5006-054
TFR4054802065 TFL4054802065	40	1-13 ER20	35	3000	1 : 1	99	80	70	40	25	65	W20X0.8	5006-055
TFR4054802085 TFL4054802085	40	1-13 ER20	35	3000	1 : 1	119	80	70	40	25	85	W20X0.8	5006-056

Axial Drilling And Milling Heads-Offset

VERTEX

OFFSET ※ ORDER MADE, NOT REFUNDABLE. **DIN 5480**



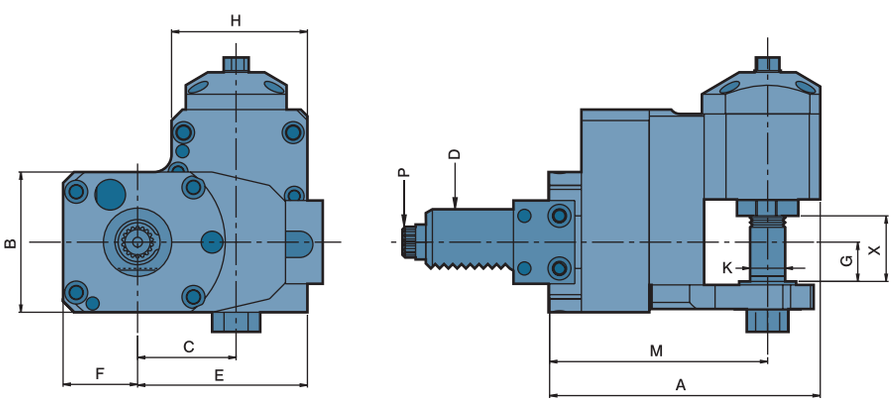
- Collet is not included
- To be used for collet DIN 6499
- External coolant supply

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	P DIN 5480	CODE NO.
DA3054802529	30	1-16 ER25	42	4000	1 : 1	100	29	60	W16X0.8	5006-057
DA3054802529/1	※ 30	1-16 ER25	42	8000	1 : 2	100	29	60	W16X0.8	5006-058
DA4054803250	40	2-20 ER32	50	4000	1 : 1	125	65	86	W20X0.8	5006-059

Radial Drilling And Milling Heads

DISK CUTTER UNITS **DIN 5480**



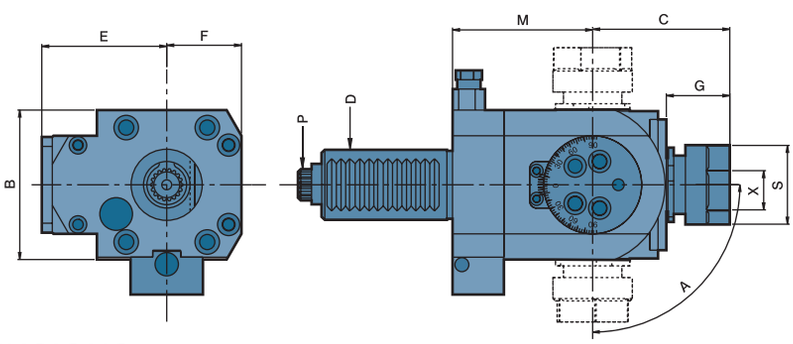
- External coolant supply

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	Maximum R.P.M.	i	A	B	C	E	F	G	H	K	M	P DIN 5480	CODE NO.
BR30548016C/3 BL30548016C/3	30	16	3000	3 : 1	133	64	45	77.5	49	5	65	16	108.5	W16X0.8	5006-060

Angular Heads

ANGLE IS ADJUSTED **DIN 5480**



- Collet is not included
- To be used for collet DIN 6499
- External coolant supply

DIMENSIONS

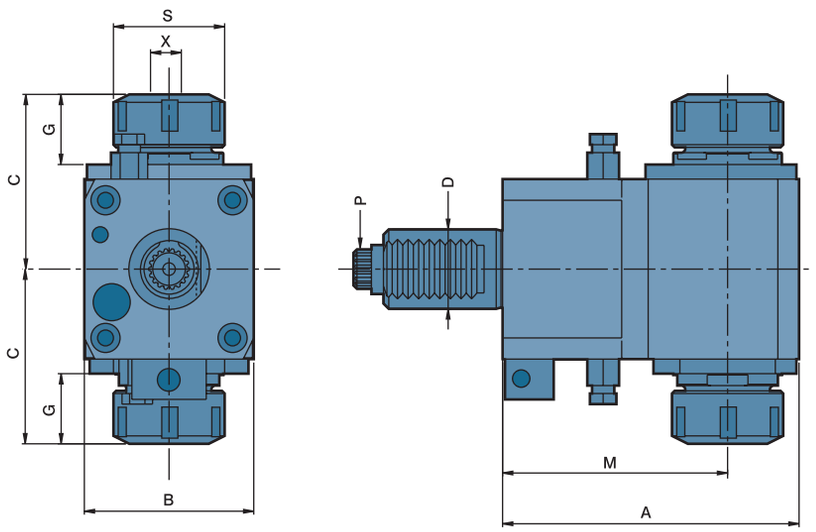
ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	P DIN 5480	CODE NO.
DA30548020B	30	1-13 ER20	35	4000	1 : 1	±90°	64	59	54	32	27	67	W16X0.8	5006-061A

VDI

Radial Double Drilling And Milling Heads

※ ORDER MADE, NOT REFUNDABLE.

DIN 5480



- Collet is not included
- External coolant supply
- To be used for collet DIN 6499

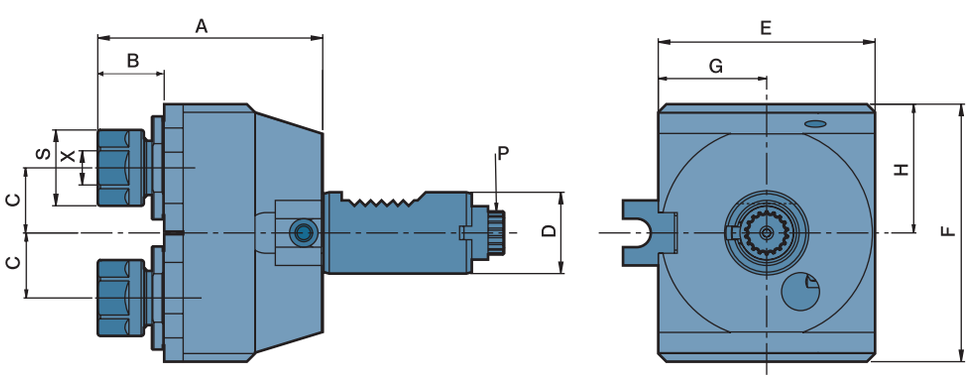
DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	G	M	P DIN 5480	CODE NO.
DF3054802585D	30	1-16 ER25	42	4000	1 : 1	112	64	66	26.5	85	W16X0.8	5006-062
DF4054803285D	40	2-20 ER32	50	4000	1 : 1	119	80	82	28	85	W20X0.8	5006-063
DF40548032100D	40	2-20 ER32	50	4000	1 : 1	134	80	82	28	100	W20X0.8	5006-064

Axial Double Drilling And Milling Heads

DOUBLE COLLETS, Y OFFSET

DIN 5480



- Collet is not included
- External coolant supply
- To be used for collet DIN 6499

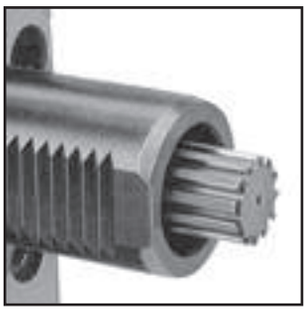
DIMENSIONS

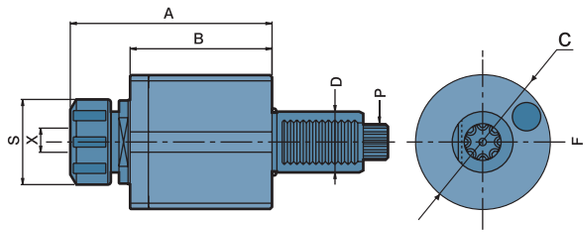
ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	H	P DIN 5480	CODE NO.
DA30548016DY	30	1-10 ER16	30	4000	1 : 1	83	24.5	24	80	95	40	48	W16X0.8	5006-065

Axial Drilling And Milling Heads

VERTEX

FOR DIN 5482 MACHINE USING **DIN 5482**





Power Transmission According To DIN 5482

- External coolant supply
- To be used for collet DIN 6499
- Collet is not included

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	P DIN 5482	CODE NO.
DA30548225	30	1-16 ER25	42	6000	1 : 1	101	70	68	B15X12	5006-066
DA40548232	40	2-20 ER32	50	6000	1 : 1	110	73.5	86	B17X14	5006-067
DA50548240	50	3-26 ER40	63	6000	1 : 1	120	81.5	96	B20X17	5006-068
DA60548250	60	10-34 ER50	78	6000	1 : 1	140	88.5	116	B25X22	5006-069

Axial Tapping Heads

DIN 5482

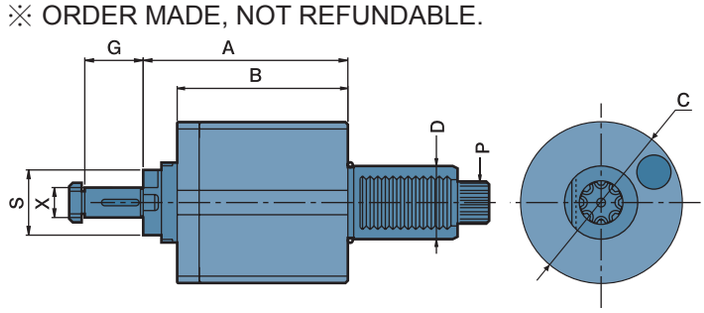
DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	P DIN 5482	CODE NO.
TDA30548216	30	1-10 ER16	30	3000	1 : 1	108	71.5	68	B15X12	5006-070
TDA40548220	40	1-13 ER20	35	3000	1 : 1	95.5	55	86	B17X14	5006-071
TDA50548225	50	1-16 ER25	42	3000	1 : 1	123	81.5	96	B20X17	5006-072
TDA60548232	60	2-20 ER32	50	3000	1 : 1	158.5	88.5	116	B25X22	5006-073

Axial Milling Heads

※ ORDER MADE, NOT REFUNDABLE.

DIN 5480



- External coolant and intermediate rings supply
- To be used for cutter arbor according to DIN 6358

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	G	P DIN 5482	CODE NO.
DA30548216C	30	16	32	3000	1 : 1	91.5	70	68	27	B15X12	5006-074
DA40548216C	40	16	32	3000	1 : 1	68.5	55	86	27	B17X14	5006-075
DA40548222C	40	22	32	3000	1 : 1	68.5	55	86	31	B17X14	5006-076
DA50548222C	50	22	40	3000	1 : 1	117	81.5	96	31	B20X17	5006-077
DA50548227C	50	27	40	3000	1 : 1	117	88.5	96	33	B20X17	5006-078

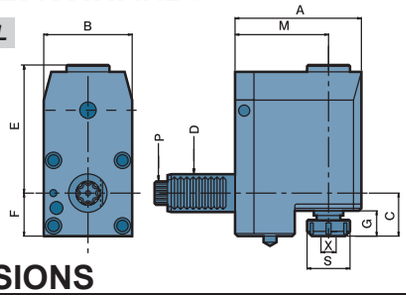
Radial Drilling And Milling Heads

VERTEX

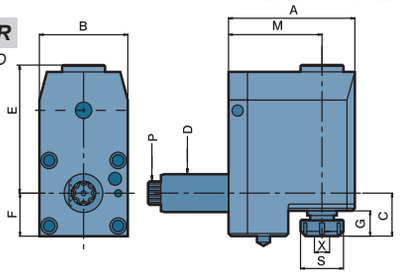
BACKWARDS

DIN 5482

MODE: BL
LEFT-HAND



MODE: BR
RIGHT-HAND



- To be used for collet DIN 6499
- Collet is not included
- External coolant supply

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	P DIN 5482	CODE NO.
BR3054822572 BL3054822572	30	1-16 ER25	42	5000	1 : 1	95	60	42	75.5	31.5	28.5	72	B15X12	5006-079A
BR4054823290 BL4054823290	40	2-20 ER32	50	5000	1 : 1	124	80	44	110	42	34	90	B17X14	5006-080
BR5054824090 BL5054824090	50	3-26 ER40	63	5000	1 : 1	129	86	49	112	45	39	90	B20X17	5006-081
BR60548250106 BL60548250106	60	10-34 ER50	78	5000	1 : 1	147	104	83	118	54	42	106	B25X22	5006-082A

Radial Tapping Heads-Backwards

DIMENSIONS

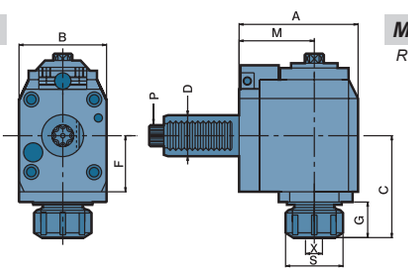
ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	P DIN 5482	CODE NO.
TBR3054821672 TBL3054821672	30	1-10 ER16	30	3000	1 : 1	95	60	44	75.5	31.5	32	69	B15X12	5006-083A
TBR4054822090 TBL4054822090	40	1-13 ER20	35	3000	1 : 1	24	80	50	110	42	34	90	B17X14	5006-084
TBR5054822590 TBL5054822590	50	2-16 ER25	42	3000	1 : 1	129	86	54	112	45	36	90	B20X17	5006-085
TBR60548232106 TBL60548232106	60	2-20 ER32	50	3000	1 : 1	147	104	87	118	54	40	106	B25X22	5006-086A

Radial Drilling And Milling Heads

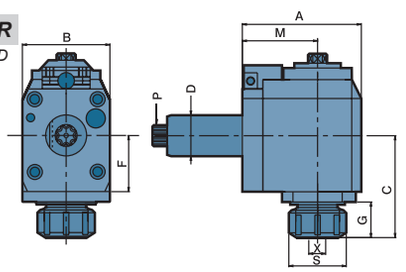
※ ORDER MADE, NOT REFUNDABLE.

DIN 5482

MODE: FL
LEFT-HAND



MODE: FR
RIGHT-HAND



- To be used for collet DIN 6499
- Collet is not included
- External coolant supply

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	F	G	M	P DIN 5482	CODE NO.
FR3054822565 FL3054822565	30	1-16 ER25	42	5000	1 : 1	97	64	74.5	41	26	65	B15X12	5006-087
FR3054822585 FL3054822585	30	1-16 ER25	42	5000	1 : 1	117	64	74.5	41	26	85	B15X12	5006-088
FR4054823265 FL4054823265	40	2-20 ER32	50	5000	1 : 1	99	80	71	40	23	65	B17X14	5006-089
FR4054823285 FL4054823285	40	2-20 ER32	50	5000	1 : 1	119	80	71	40	23	85	B17X14	5006-090

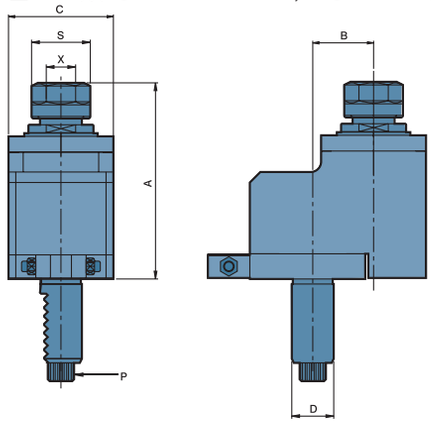
Radial Tapping Heads

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	F	G	M	P DIN 5482	CODE NO.
TFR3054821665 TFL3054821665	30	1-10 ER16	30	3000	1 : 1	97	64	75	41	30	65	B15X12	5006-092
TFR3054821685 TFL3054821685	30	1-10 ER16	30	3000	1 : 1	117	64	75	41	30	85	B15X12	5006-093
TFR4054822065 TFL4054822065	40	1-13 ER20	35	3000	1 : 1	99	80	70	40	25	65	B17X14	5006-094
TFR4054822085 TFL4054822085	40	1-13 ER20	35	3000	1 : 1	119	80	70	40	25	85	B17X14	5006-095

Axial Drilling And Milling Heads

OFFSET TYPE ※ ORDER MADE, NOT REFUNDABLE. **DIN 5482**



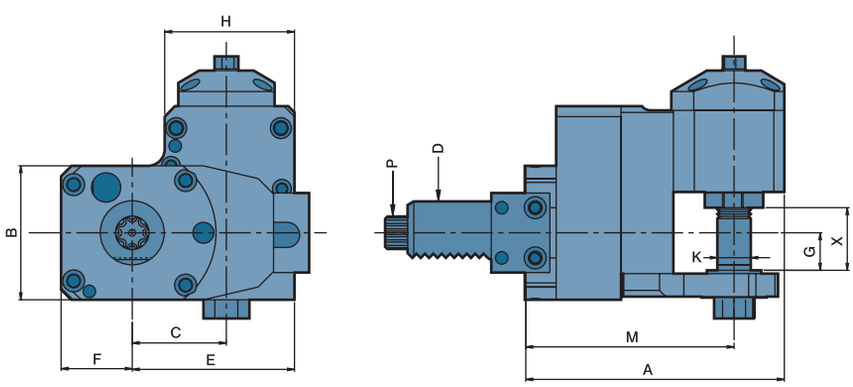
- To be used for collet DIN 6499
- Collet is not included
- External coolant supply

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	P DIN 5482	CODE NO.
DA3054822529	30	1-16 ER25	42	4000	1 : 1	100	29	60	B15X12	5006-097
DA3054822529/1	※ 30	1-16 ER25	42	8000	1 : 2	100	29	60	B15X12	5006-098
DA4054823250	40	2-20 ER32	50	4000	1 : 1	125	50	75	B17X14	5006-099
DA5054824065	50	3-26 ER40	63	3000	1 : 1	124	65	86	B20X17	5006-100

Radial Milling Heads

DISK CUTTER UNITS **DIN 5482**



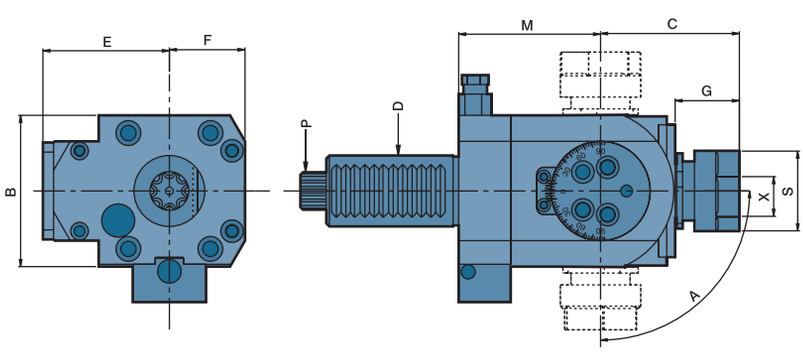
- External coolant supply

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	Maximum R.P.M.	i	A	B	C	E	F	G	H	K	M	P DIN 5482	CODE NO.
BR30548216C/3 BL30548216C/3	30	16	3000	3 : 1	133	64	45	77.5	49	5	65	16	107.5	B15X12	5006-101

Angular Heads

DIN 5482



- To be used for collet DIN 6499
- Collet is not included
- External coolant supply

DIMENSIONS

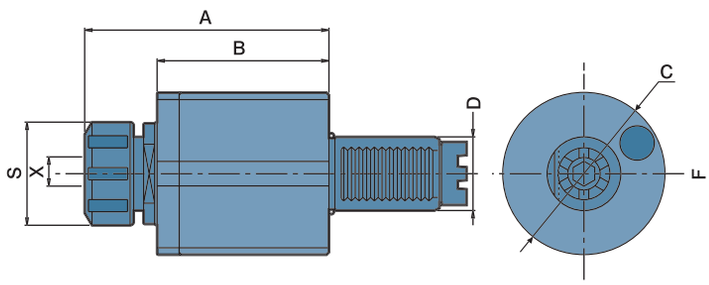
ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	P DIN 5482	CODE NO.
DA30548220B	30	1-13 ER20	35	4000	1 : 1	±90°	64	59	54	32	27	67	B15X12	5006-102A

Axial Drilling And Milling Heads- For "Baruffaldi" Type

VERTEX

SPUR COUPLING-MT TYPE

※ ORDER MADE, NOT REFUNDABLE.



- **Power Transmission According To "BARUFFALDI"**
- **MT: Frontal Transmission Coupling Gear is Fixed Version**
- To be used for collet DIN 6499
- External coolant supply
- Collet is not included

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	CODE NO.
DA20MT16	20	1-10 ER16	30	6000	1 : 1	76	48	58	5006-103
DA30MT25	30	1-16 ER25	42	6000	1 : 1	86	55	68	5006-104
DA40MT32	40	2-20 ER32	50	6000	1 : 1	112	55	86	5006-105
DA50MT40	50	3-26 ER40	63	6000	1 : 1	118	81.5	96	5006-106

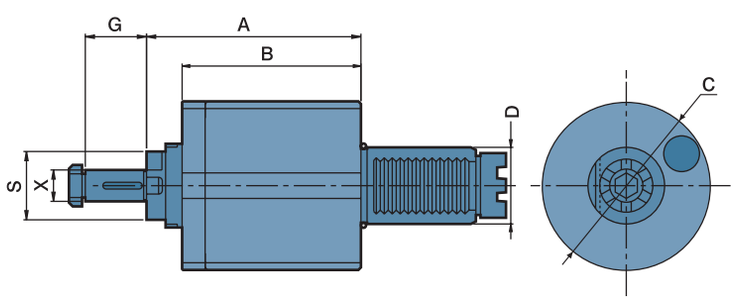
Axial Tapping Heads

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	CODE NO.
TDA30MT16	30	1-10 ER16	30	3000	1 : 1	108	71.5	68	5006-107
TDA40MT20	40	1-13 ER20	35	3000	1 : 1	95.5	55	86	5006-108
TDA50MT25	50	1-16 ER25	42	3000	1 : 1	123	81.5	96	5006-109

Axial Milling Heads

SPUR COUPLING-MT TYPE



- External coolant and intermediate rings supply
- To be used for cutter arbor according to DIN 6358

DIMENSIONS

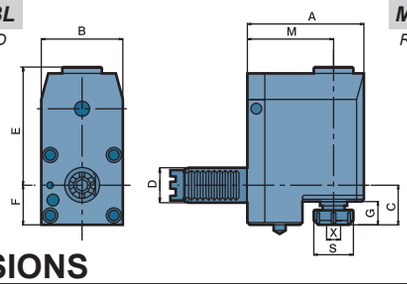
ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	G	CODE NO.
DA30MT16C	30	16	32	3000	1 : 1	91.5	55	68	27	5006-110
DA40MT16C	40	16	32	3000	1 : 1	68.5	55	86	27	5006-111
DA40MT22C	40	22	32	3000	1 : 1	68.5	55	86	31	5006-112
DA50MT22C	50	22	40	3000	1 : 1	117	81.5	96	31	5006-113
DA50MT27C	50	27	40	3000	1 : 1	117	81.5	96	33	5006-114

Radial Drilling And Milling Heads-Backwards

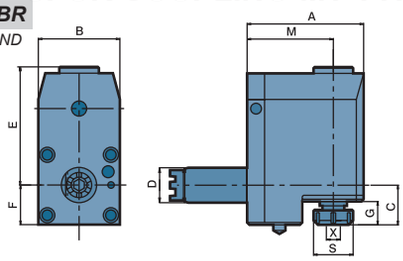
※ ORDER MADE, NOT REFUNDABLE.

SPUR COUPLING-MT TYPE

MODE: BL
LEFT-HAND



MODE: BR
RIGHT-HAND



- External coolant supply
- To be used for collet DIN 6499
- Collet is not included

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	CODE NO.
BR20MT1660 BL20MT1660	20	1-10 ER16	30	5000	1 : 1	83	50	35	70	27	27	60	5006-115A
BR30MT2572 BL30MT2572	30	1-16 ER25	42	5000	1 : 1	95	60	42	76	32	29	72	5006-116A
BR40MT3290 BL40MT3290	40	2-20 ER32	50	5000	1 : 1	124	80	44	110	42	34	90	5006-117
BR50MT4090 BL50MT4090	50	3-26 ER40	63	5000	1 : 1	129	86	49	112	45	39	90	5006-118

Radial Tapping Heads-Backwards

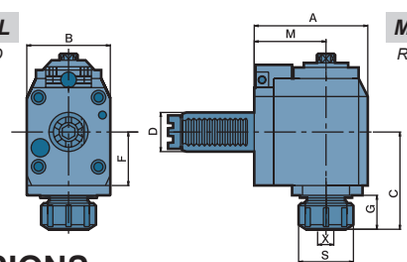
DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	CODE NO.
TBR30MT1672 TBL30MT1672	30	1-10 ER16	30	3000	1 : 1	95	60	44	76	32	32	72	5006-119A
TBR40MT2090 TBL40MT2090	40	1-13 ER20	35	3000	1 : 1	124	80	50	110	42	34	90	5006-120
TBR50MT2590 TBL50MT2590	50	1-16 ER25	42	3000	1 : 1	129	86	54	112	45	36	90	5006-121

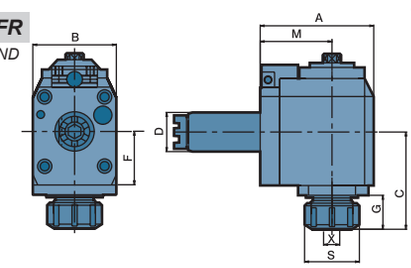
Radial Drilling And Milling Heads

SPUR COUPLING-MT TYPE

MODE: FL
LEFT-HAND



MODE: FR
RIGHT-HAND



- External coolant supply
- To be used for collet DIN 6499
- Collet is not included

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	F	G	M	CODE NO.
FR30MT2565 FL30MT2565	30	1-16 ER25	42	5000	1 : 1	97	64	74.5	41	26	65	5006-122
FR30MT2585 FL30MT2585	30	1-16 ER25	42	5000	1 : 1	117	64	74.5	41	26	85	5006-123
FR40MT3265 FL40MT3265	40	2-20 ER32	50	5000	1 : 1	99	80	71	40	23	65	5006-124
FR40MT3285 FL40MT3285	40	2-20 ER32	50	5000	1 : 1	119	80	71	40	23	85	5006-125
FR40MT32100 FL40MT32100	40	2-20 ER32	50	5000	1 : 1	134	80	71	40	23	100	5006-126

Radial Tapping Heads

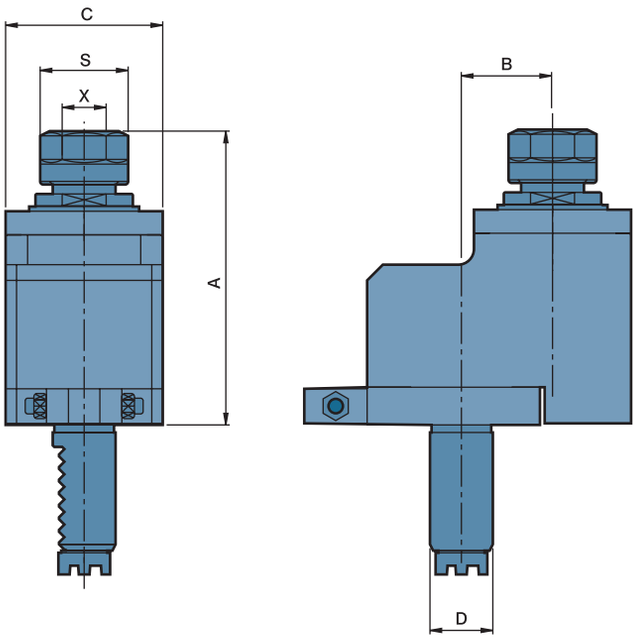
DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	F	G	M	CODE NO.
TFR30MT1665 TFL30MT1665	30	1-10 ER16	30	3000	1 : 1	97	64	75	41	30	65	5006-128
TFR30MT1685 TFL30MT1685	30	1-10 ER16	30	3000	1 : 1	117	64	75	41	30	85	5006-129
TFR40MT2065 TFL40MT2065	40	1-13 ER20	35	3000	1 : 1	99	80	70	40	25	65	5006-130
TFR40MT2085 TFL40MT2085	40	1-13 ER20	35	3000	1 : 1	119	80	70	40	25	85	5006-131
TFR50MT2575 TFL50MT2575	50	1-16 ER25	42	3000	1 : 1	115	88	103	56	42	75	5006-132

Axial Drilling And Milling Heads

OFFSET TYPE

SPUR COUPLING-MT TYPE



- Collet is not included
- External coolant supply
- To be used for collet DIN 6499

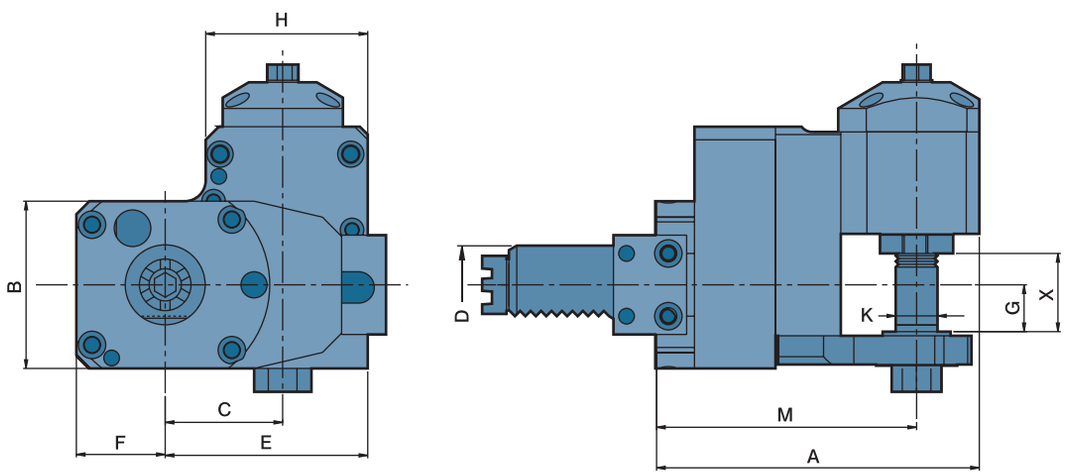
DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	CODE NO.
DA20MT1629	20	1-10 ER16	30	4000	1 : 1	93.5	29	50	5006-133
DA30MT2529	30	1-16 ER25	42	4000	1 : 1	100	29	60	5006-134
DA30MT2529/1	※ 30	2-20 ER32	42	8000	1 : 2	100	29	60	5006-135
DA40MT3250	40	2-20 ER32	50	4000	1 : 1	125	50	75	5006-136
DA50MT4065	50	3-26 ER40	63	3000	1 : 1	124	65	86	5006-137

Radial Milling Heads

※ ORDER MADE, NOT REFUNDABLE

SPUR COUPLING-MT TYPE



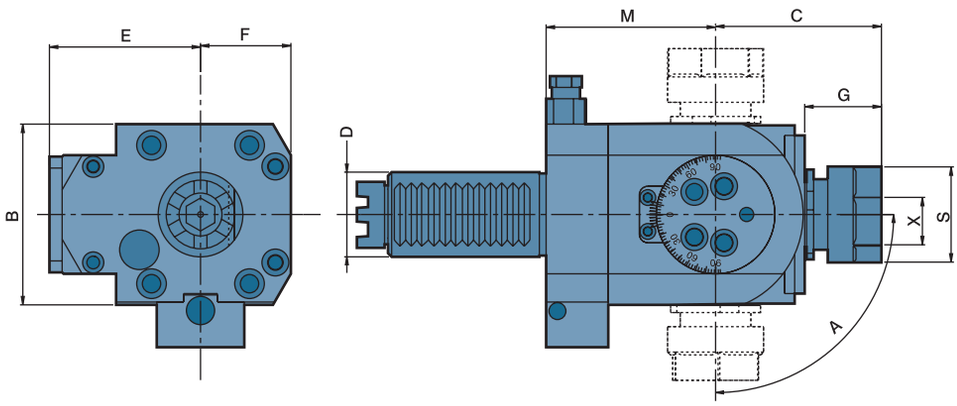
- External coolant supply

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	Maximum R.P.M.	i	A	B	C	E	F	G	H	K	M	CODE NO.
BR30MT16C/3 BL30MT16C/3	30	16	3000	3 : 1	133	64	45	77.5	49	5	65	16	107.5	5006-138

Angular Heads

※ ORDER MADE, NOT REFUNDABLE **SPUR COUPLING-MT TYPE**



- To be used for collet DIN 6499
- External coolant supply
- Collet is not included

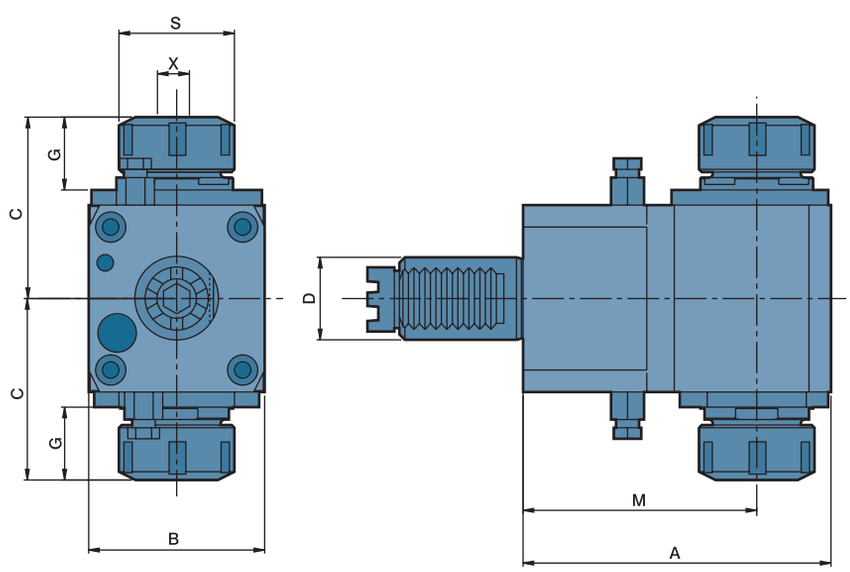
DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	CODE NO.
DA30MT20B	30	1-13 ER20	35	4000	1 : 1	±90°	64	59	54	32	27	67	5006-139A

VDI

Radial Drilling And Milling Heads

DOUBLE HEAD TYPE **SPUR COUPLING-MT TYPE**



- To be used for collet DIN 6499
- External coolant supply
- Collet is not included

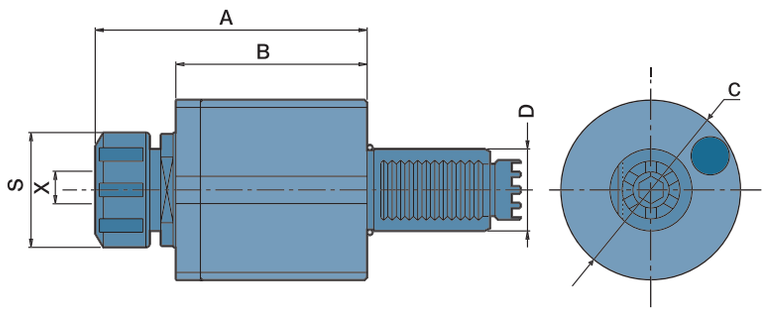
DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	G	M	CODE NO.
DF30MT2585D	30	1-16 ER25	42	4000	1 : 1	112	64	66	27	85	5006-140
DF40MT3285D	40	2-20 ER32	50	4000	1 : 1	119	80	82	28	85	5006-141
DF40MT32100D	40	2-20 ER32	50	4000	1 : 1	134	80	82	28	100	5006-142

Axial Drilling And Milling Heads- For "Duplomatic" Type

SPUR COUPLING-IT TYPE

※ ORDER MADE, NOT REFUNDABLE.



- **Power Transmission According To "DUPLOMATIC"**
- **IT: Fron-side Coupling is Elastic Stroke**

- External coolant supply
- To be used for collet DIN 6499
- Collet is not included

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	CODE NO.
DA30IT25	30	1-16 ER25	42	6000	1 : 1	86	55	68	5006-143

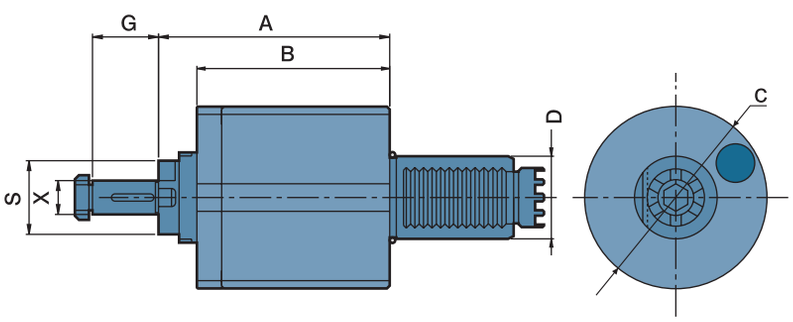
Axial Tapping Heads

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	CODE NO.
TDA30IT16	30	1-10 ER16	30	3000	1 : 1	85	55	68	5006-146
TDA40IT20	40	1-13 ER20	35	3000	1 : 1	102	55	86	5006-147

Axial Milling Heads

SPUR COUPLING-IT TYPE



- To be used for cutter arbor according to DIN 6358
- External coolant and intermediate rings supply

DIMENSIONS

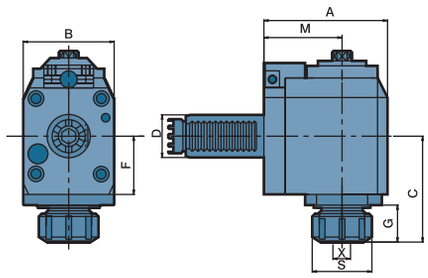
ORDER NO.	D DIN 69880	X DIN 6358	S	Maximum R.P.M.	i	A	B	C	G	CODE NO.
DA30IT16C	30	16	32	3000	1 : 1	91.5	55	68	27	5006-149
DA40IT16C	40	16	32	3000	1 : 1	68.5	55	86	27	5006-150
DA40IT22C	40	22	32	3000	1 : 1	68.5	55	86	31	5006-151

Radial Drilling And Milling Heads

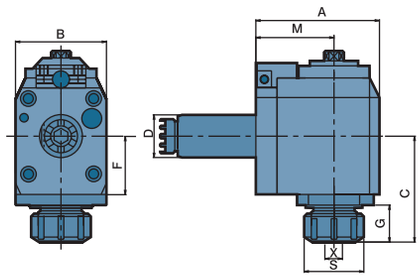
※ ORDER MADE, NOT REFUNDABLE.

SPUR COUPLING-IT TYPE

MODE: FL
LEFT-HAND



MODE: FR
RIGHT-HAND



- External coolant supply
- To be used for collet DIN 6499
- Collet is not included

DIMENSIONS

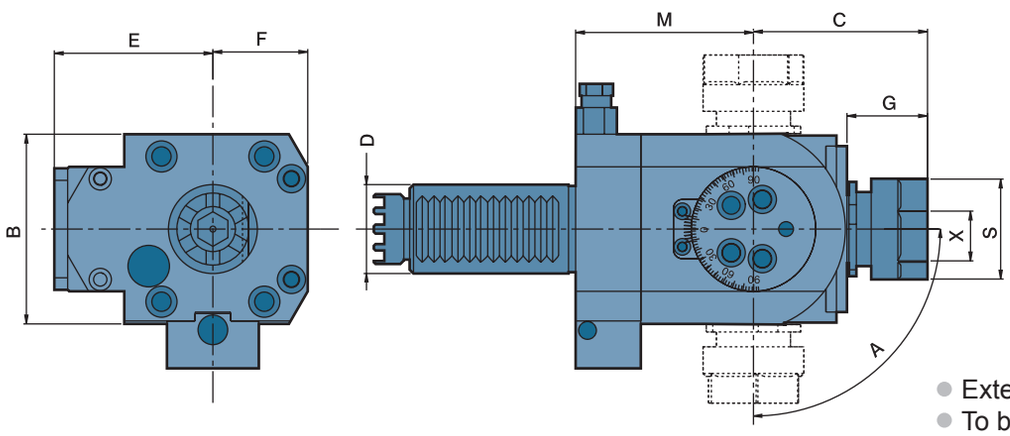
ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	F	G	M	CODE NO.
FL30IT2565	30	1-16 ER25	42	5000	1 : 1	97	64	74.5	41	26	65	5006-154
FR30IT2585 FL30IT2585	30	1-16 ER25	42	5000	1 : 1	117	64	74.5	41	26	85	5006-155
FL40IT3265	40	2-20 ER32	50	5000	1 : 1	99	80	71	40	23	65	5006-156
FL40IT32100	40	2-20 ER32	50	5000	1 : 1	134	80	71	40	23	100	5006-158

Radial Tapping Heads

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	F	G	M	CODE NO.
TFR30IT1665 TFL30IT1665	30	1-10 ER16	32	3000	1 : 1	97	64	75	41	30	65	5006-160
TFR30IT1685 TFL30IT1685	30	1-10 ER16	32	3000	1 : 1	117	64	75	41	30	85	5006-161
TFR40IT2065	40	1-13 ER20	35	3000	1 : 1	99	80	70	40	25	65	5006-162
TFR40IT2085 TFL40IT2085	40	1-13 ER20	35	3000	1 : 1	119	80	70	40	25	85	5006-163

Angular Heads



- External coolant supply
- To be used for collet DIN 6499
- Collet is not included

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	E	F	G	M	CODE NO.
DA30IT20B	30	1-13 ER20	35	4000	1 : 1	±90°	64	59	54	32	27	67	5006-165A

Other shank dimensions under development

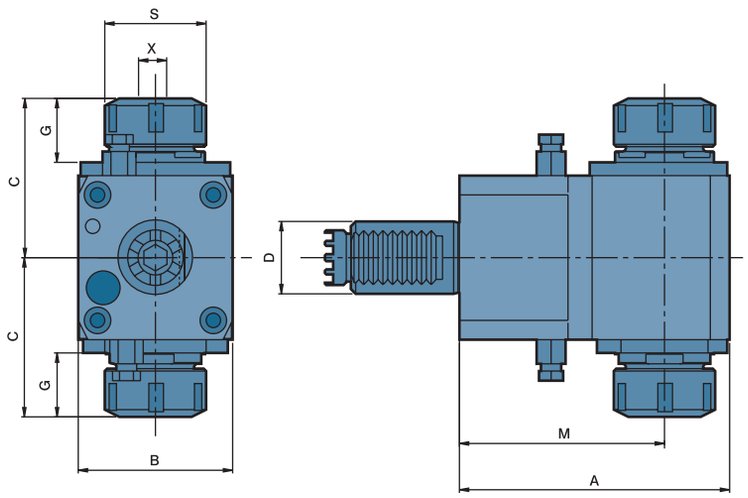
VDI

Radial Drilling And Milling Heads

DOUBLE COLLETS

SPUR COUPLING-IT TYPE

※ ORDER MADE, NOT REFUNDABLE.



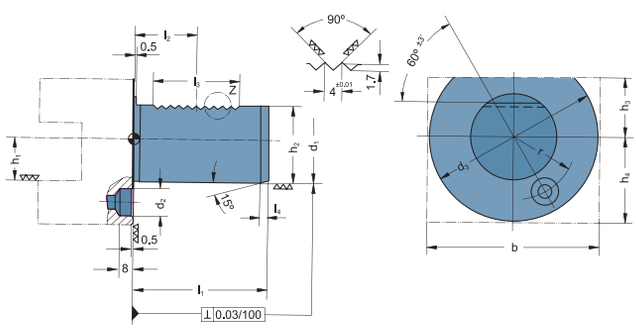
- Collet is not included
- External coolant supply
- To be used for collet DIN 6499

DIMENSIONS

ORDER NO.	D DIN 69880	X Capacity	S	Maximum R.P.M.	i	A	B	C	G	M	CODE NO.
DF30IT2585D	30	1-16 ER25	42	4000	1 : 1	112	64	66	26.5	85	5006-166
DF40IT3285D	40	2-20 ER32	50	4000	1 : 1	119	80	82	28	85	5006-167
DF40IT32100D	40	2-20 ER32	50	4000	1 : 1	134	80	82	28	100	5006-168

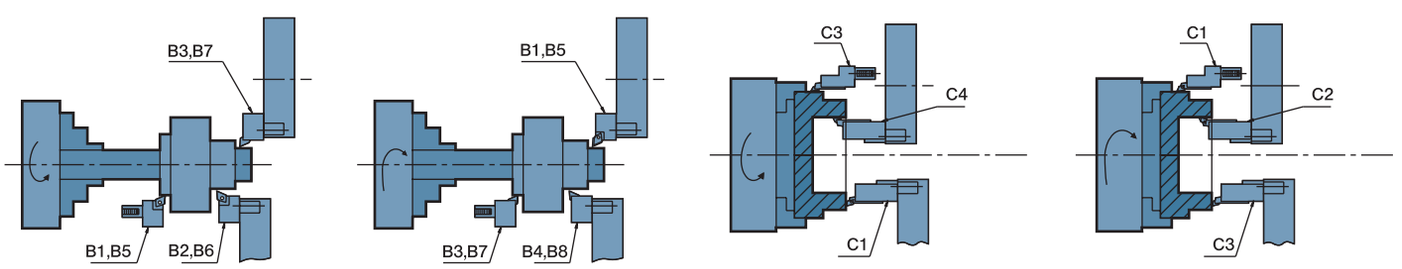
Other shank dimensions under development

VDI Dimensional Specification of Shank DIN 69880



DIMENSIONS

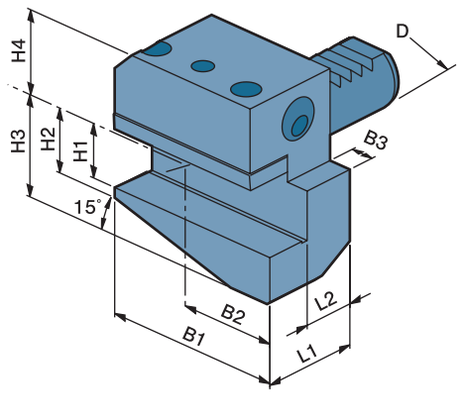
d1 h6	l1 ±0.3	d2		d3	h1 max	h2 ±0.1	l2 ±0.05	l3 min	l4 +1	r4 ±0.02
20	40	10	H6	50	16	18	21.7	24	2	18
30	55	14	H9	68	20	27	29.7	40	2	25
40	63	14	H9	83	25	36	29.7	40	3	32
50	78	16	H9	98	32	45	35.7	48	3	37
60	94	16	H9	123	32	55	43.7	56	4	48



Radial Static Holders

B1 B2 TYPE ※ ORDER MADE, NOT REFUNDABLE. **DIN 69880**

B1

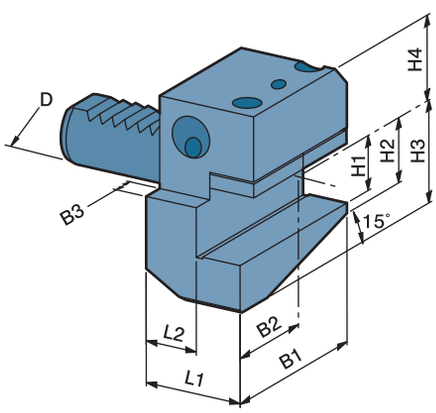


- Short
- External Coolant Supply
- Right-hand

DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	CODE NO.
B1-20x16	20	55	30	7	16	19	30	25	30	16	5006-180
B1-30x20	30	70	35	10	20	26	38	28	40	22	5006-181
B1-40x25	40	85	42.5	12.5	25	35	48	32.5	44	22	5006-182
B1-50x32	50	100	50	16	32	42	60	35	55	30	5006-183
B1-60x32	60	125	62.5	16	32	46	62.5	42.5	60	30	5006-184

B2



- Left-hand
- External Coolant Supply
- Short

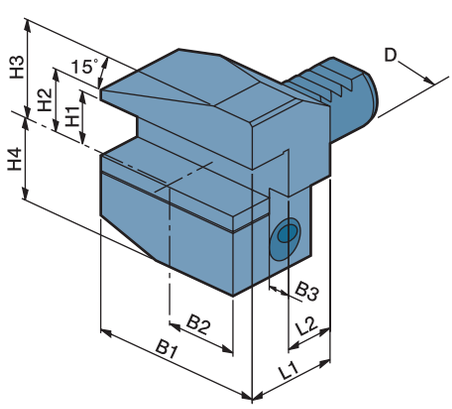
DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	CODE NO.
B2-20x16	20	55	30	7	16	19	30	25	30	16	5006-185
B2-30x20	30	70	35	10	20	26	38	28	40	22	5006-186
B2-40x25	40	85	42.5	12.5	25	35	48	32.5	44	22	5006-187
B2-50x32	50	100	50	16	32	42	60	35	55	30	5006-188
B2-60x32	60	125	62.5	16	32	46	62.5	42.5	60	30	5006-189

Radial Static Holders

B3 B4 TYPE **DIN 69880**

B3

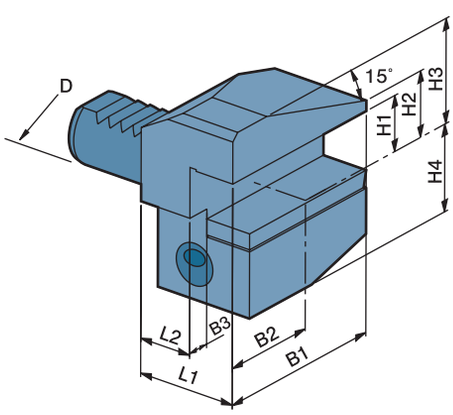


- Short
- External Coolant Supply
- Right-hand

DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	CODE NO.
B3-20x16	20	55	30	7	16	19	30	25	30	16	5006-190
B3-30x20	30	70	35	10	20	22	38	35	40	22	5006-191
B3-40x25	40	85	42.5	12.5	25	30	48	42.5	44	22	5006-192
B3-50x32	50	100	50	16	32	35	60	50	55	30	5006-193
B3-60x32	60	125	62.5	16	32	42.5	62.5	42.5	60	30	5006-194

B4



- Left-hand
- External Coolant Supply
- Short

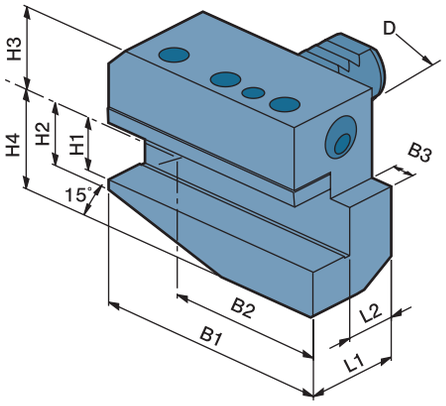
DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	CODE NO.
B4-20x16	20	55	30	7	16	19	30	25	30	16	5006-195
B4-30x20	30	70	35	10	20	22	38	35	40	22	5006-196
B4-40x25	40	85	42.5	12.5	25	30	48	42.5	44	22	5006-197
B4-50x32	50	100	50	16	32	35	60	50	55	30	5006-198
B4-60x32	60	125	62.5	16	32	42.5	62.5	42.5	60	30	5006-199

VDI

Radial Static Holders

B5 B6 TYPE ※ ORDER MADE, NOT REFUNDABLE. **DIN 69880**

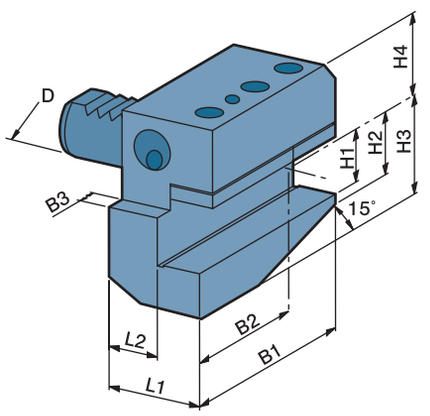


B5

- External Coolant Supply
- Right-hand
- Long

DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	CODE NO.
B5-20x16	20	75	50	7	16	19	30	25	30	16	5006-200
B5-30x20	30	100	65	10	20	26	38	28	40	22	5006-201
B5-40x25	40	118	76	12.5	25	35	48	32.5	44	22	5006-202
B5-50x32	50	130	80	16	32	42	60	35	55	30	5006-203
B5-60x32	60	145	83	16	32	46	62.5	42.5	60	30	5006-204



B6

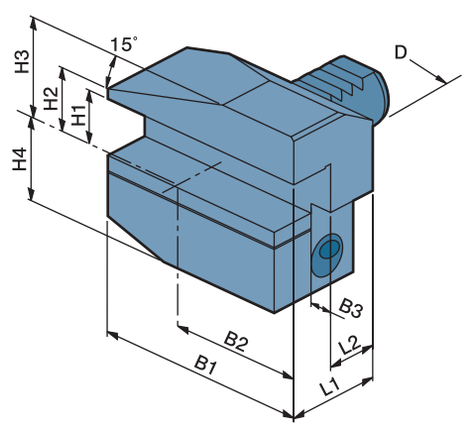
- Left-hand
- External Coolant Supply
- Long

DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	CODE NO.
B6-20x16	20	75	50	7	16	19	30	25	30	16	5006-205
B6-30x20	30	100	65	10	20	26	38	28	40	22	5006-206
B6-40x25	40	118	76	12.5	25	35	48	32.5	44	22	5006-207
B6-50x32	50	130	80	16	32	42	60	35	55	30	5006-208
B6-60x32	60	145	83	16	32	46	62.5	42.5	60	30	5006-209

Radial Static Holders

B7 B8 TYPE **DIN 69880**

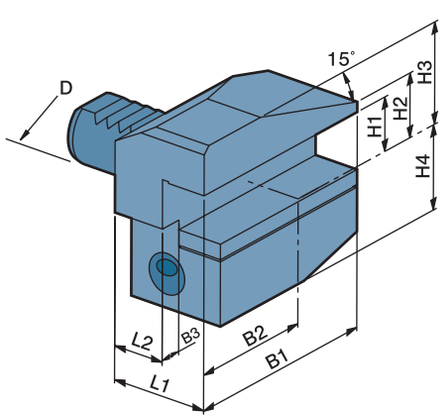


B7

- External Coolant Supply
- Right-hand
- Long

DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	CODE NO.
B7-20x16	20	75	50	7	16	19	30	25	30	16	5006-210
B7-30x20	30	100	65	10	20	22	38	35	40	22	5006-211
B7-40x25	40	118	75.5	12.5	25	30	48	42.5	44	22	5006-212
B7-50x32	50	130	80	16	32	35	60	50	55	30	5006-213
B7-60x32	60	145	82.5	16	32	42.5	62.5	42.5	60	30	5006-214



B8

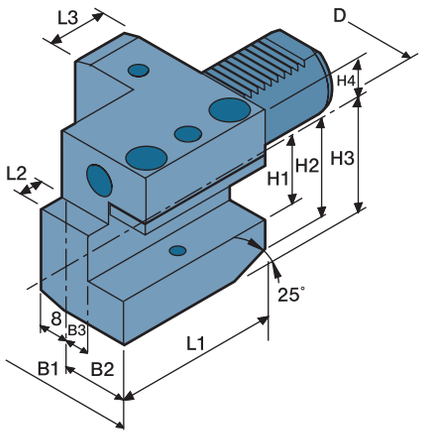
- Left-hand
- External Coolant Supply
- Long

DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	CODE NO.
B8-20x16	20	75	50	7	16	19	30	25	30	16	5006-215
B8-30x20	30	100	65	10	20	22	38	35	40	22	5006-216
B8-40x25	40	118	75.5	12.5	25	30	48	42.5	44	22	5006-217
B8-50x32	50	130	80	16	32	35	60	50	55	30	5006-218
B8-60x32	60	145	82.5	16	32	42.5	62.5	42.5	60	30	5006-219

Axial Static Holders

C1 C2 TYPE ※ ORDER MADE, NOT REFUNDABLE. **DIN 69880**

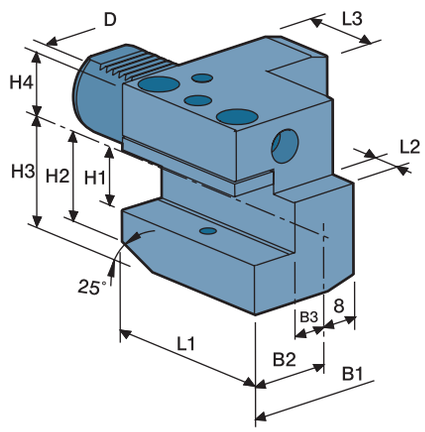


C1

- Right-hand
- External Coolant Supply

DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	L3	CODE NO.
C1-20x16	20	65	40	26	16	23	30	25	50	7	30	5006-220
C1-30x20	30	70	35	17	20	28	38	28	70	10	30	5006-221
C1-40x25	40	85	42.5	21	25	-	48	32.5	85	12.5	30	5006-222
C1-50x32	50	100	50	26	32	-	60	35	100	16	40	5006-223
C1-60x32	60	125	62.5	33	32	-	62.5	42.5	125	16	40	5006-224



C2

- External Coolant Supply
- Left-hand

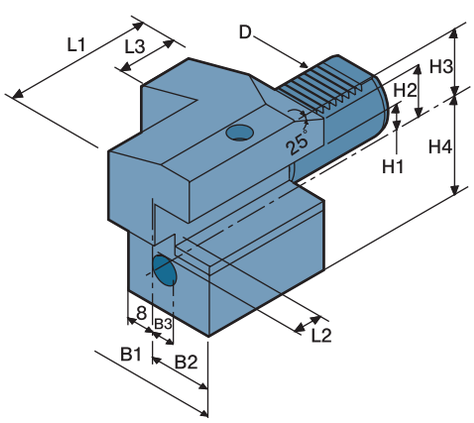
DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	L 3	CODE NO.
C2-20x16	20	65	40	26	16	23	30	25	50	7	30	5006-225
C2-30x20	30	76	41	23	20	28	38	28	70	10	30	5006-226
C2-40x25	40	90	47.5	25.5	25	-	48	32.5	85	12.5	30	5006-227
C2-50x32	50	105	55	30.5	32	-	60	35	100	16	40	5006-228
C2-60x32	60	125	62.5	33	32	-	62.5	42.5	125	16	40	5006-229

VDI

Axial Static Holders

C3 C4 TYPE **DIN 69880**

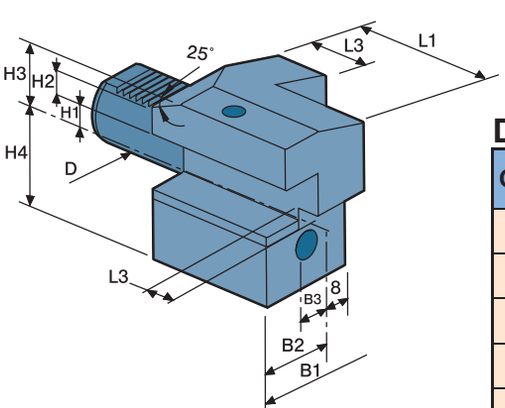


C3

- Right-hand
- External Coolant Supply

DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	L3	CODE NO.
C3-20x16	20	65	40	26	16	23	30	25	50	7	30	5006-230
C3-30x20	30	70	35	17	20	28	38	35	70	10	30	5006-231
C3-40x25	40	85	42.5	21	25	-	48	42.5	85	12.5	30	5006-232
C3-50x32	50	100	50	26	32	-	60	50	100	16	40	5006-233
C3-60x32	60	125	62.5	33	32	-	62.5	62.5	125	16	40	5006-234



C4

- External Coolant Supply
- Left-hand

DIMENSIONS

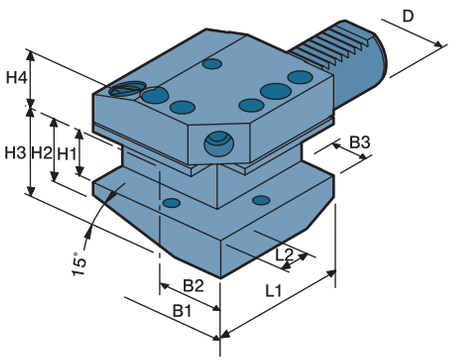
ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	L3	CODE NO.
C4-20x16	20	65	40	26	16	23	30	25	50	7	30	5006-235
C4-30x20	30	76	41	23	20	28	38	35	70	10	30	5006-236
C4-40x25	40	90	47.5	25.5	25	-	48	42.5	85	12.5	30	5006-237
C4-50x32	50	105	55	30.5	32	-	60	50	100	16	40	5006-238
C4-60x32	60	125	62.5	33	32	-	62.5	62.5	125	16	40	5006-239

Combined Static Holders

CB1 CB2 TYPE ※ ORDER MADE, NOT REFUNDABLE. **DIN 69880**

CB1

- External Coolant Supply
- Right-hand

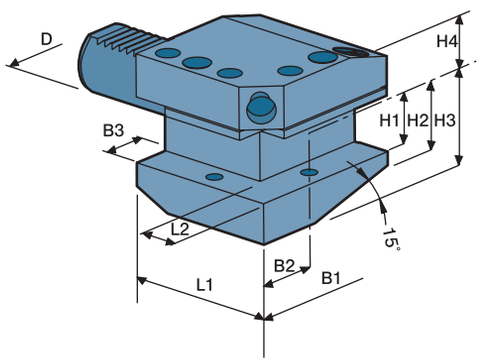


DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	CODE NO.
CB1-20x16	20	65	40	14	16	19	30	25	50	14	5006-240
CB1-30x20	30	74	40	18	20	26	38	28	70	18	5006-241
CB1-40x25	40	85	45	22	25	35	48	32.5	100	22	5006-242
CB1-50x32	50	105	55	25	32	42	60	35	120	25	5006-243
CB1-60x32	60	125	62.5	30	32	46	62.5	42.5	135	30	5006-244

CB2

- Left-hand
- External Coolant Supply



DIMENSIONS

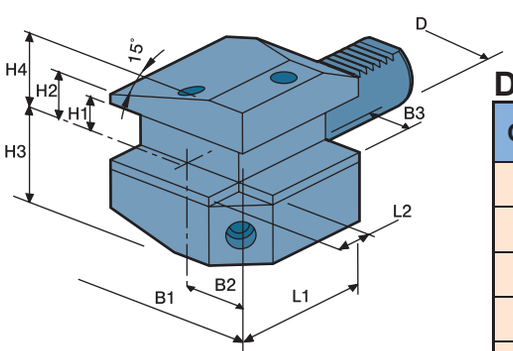
ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	CODE NO.
CB2-20x16	20	65	40	14	16	19	30	25	50	14	5006-245
CB2-30x20	30	74	40	18	20	26	38	28	70	18	5006-246
CB2-40x25	40	85	47	22	25	35	48	32.5	100	22	5006-247
CB2-50x32	50	105	55	25	32	42	60	35	120	25	5006-248
CB2-60x32	60	125	62.5	30	32	46	62.5	42.5	135	30	5006-249

Combined Static Holders

CB3 CB4 TYPE **DIN 69880**

CB3

- External Coolant Supply
- Right-hand

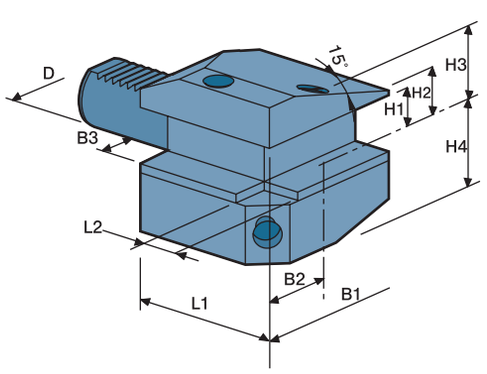


DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	CODE NO.
CB3-20x16	20	65	40	14	16	19	25	30	50	14	5006-250
CB3-30x20	30	74	40	18	20	22	38	28	70	18	5006-251
CB3-40x25	40	85	45	22	25	30	48	32.5	100	22	5006-252
CB3-50x32	50	105	55	25	32	35	50	60	120	25	5006-253
CB3-60x32	60	125	62.5	30	32	42.5	62.5	62.5	135	30	5006-254

CB4

- Left-hand
- External Coolant Supply

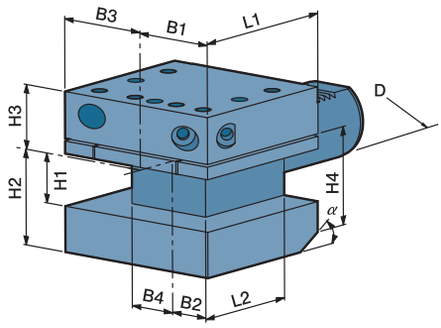


DIMENSIONS

ORDER NO.	D	B1	B2	B3	H1	H2	H3	H4	L1	L2	CODE NO.
CB4-20x16	20	65	40	14	16	19	30	25	50	14	5006-255
CB4-30x20	30	74	40	18	20	22	28	38	70	18	5006-256
CB4-40x25	40	85	47	22	25	30	32.5	48	100	22	5006-257
CB4-50x32	50	105	55	25	32	35	60	50	120	25	5006-258
CB4-60x32	60	125	62.5	30	32	42.5	62.5	62.5	135	30	5006-259

Combined Static Holders

D1 D2 TYPE ※ ORDER MADE, NOT REFUNDABLE. **DIN 69880**

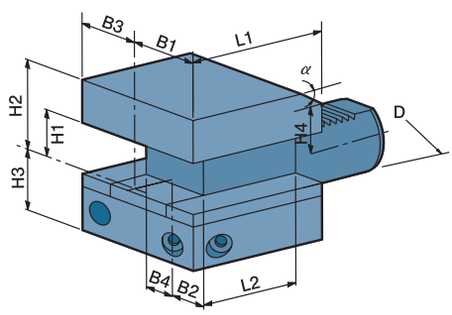


D1

- Right-hand
- External Coolant Supply

DIMENSIONS

ORDER NO.	D	B1	B2	B3	B4	H1	H2	H3	H4	L1	L2	α	CODE NO.
D1-30x20	30	35	17	41	23	20	38	35	30	60	42	25°	5006-260
D1-40x25	40	42.5	21	47.5	25.5	25	48	42.5	40	72	50	25°	5006-261
D1-50x32	50	50	26	55	30.5	32	60	50	-	85	60	-	5006-262
D1-60x32	60	57.5	33	57.5	33	32	62.5	62.5	-	110	85	-	5006-263



D2

- Left-hand
- External Coolant Supply

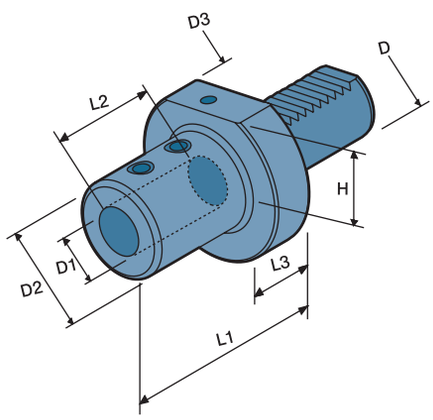
DIMENSIONS

ORDER NO.	D	B1	B2	B3	B4	H1	H2	H3	H4	L1	L2	α	CODE NO.
D2-30x20	30	35	17	41	23	20	38	35	30	60	42	25°	5006-264
D2-40x25	40	42.5	21	47.5	25.5	25	48	42.5	40	72	50	25°	5006-265
D2-50x32	50	50	26	55	30.5	32	60	50	-	85	60	-	5006-266
D2-60x32	60	57.5	33	57.5	33	32	62.5	62.5	-	110	85	-	5006-267

VDI

Static Holders

E1 TYPE **DIN 69880**



E1

- Internal Coolant Supply
- U Drills

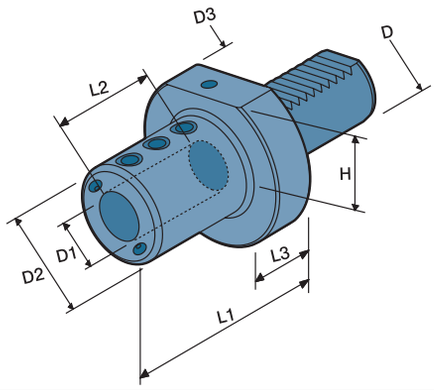
DIMENSIONS

ORDER NO.	D	D1	D2	D3	H	L1	L2	L3	CODE NO.
E1-20x20	20	20	40	50	-	67	57	18	5006-268
E1-20x25	20	25	45	50	-	71	59	18	5006-269
E1-30x20	30	20	40	68	28	67	54	22	5006-270
E1-30x25	30	25	45	68	28	71	59	22	5006-271
E1-30x32	30	32	52	68	28	75	63	22	5006-272
E1-40x20	40	20	40	83	32.5	67	54	22	5006-273
E1-40x25	40	25	45	83	32.5	75	59	22	5006-274
E1-40x32	40	32	52	83	32.5	75	63	22	5006-275
E1-40x40	40	40	60	83	32.5	90	73	22	5006-276
E1-50x20	50	20	40	98	35	67	54	30	5006-277
E1-50x25	50	25	45	98	35	80	59	30	5006-278
E1-50x32	50	32	52	98	35	80	63	30	5006-279
E1-50x40	50	40	60	98	35	90	73	30	5006-280
E1-50x50	50	50	70	98	35	100	83	30	5006-281

Static Holders

E2 TYPE

※ ORDER MADE, NOT REFUNDABLE. **DIN 69880**



E2

- Boring Bar Holder
- External Coolant Supply

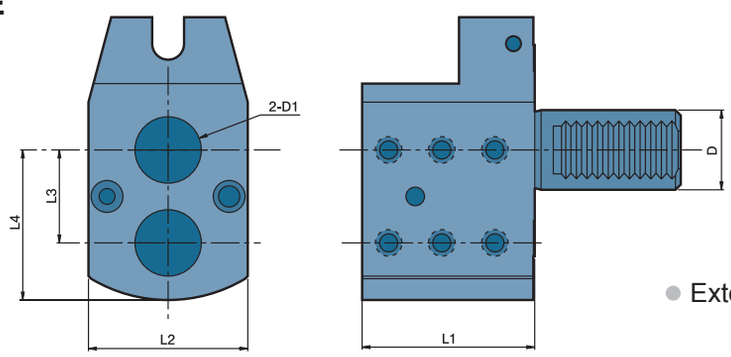
DIMENSIONS

ORDER NO.	D	D1	D2	D3	H	L1	L2	L3	CODE NO.
E2-20x8	20	8	40	50	-	50	41	18	5006-282
E2-20x10	20	10	40	50	-	50	41	18	5006-283
E2-20x12	20	12	40	50	-	50	41	18	5006-284
E2-20x16	20	16	40	50	-	50	41	18	5006-285
E2-20x20	20	20	50	50	-	50	41	-	5006-286
E2-20x25	20	25	50	50	-	60	41	-	5006-287
E2-30x8	30	8	50	68	28	60	51	22	5006-288
E2-30x10	30	10	50	68	28	60	51	22	5006-289
E2-30x12	30	12	50	68	28	60	51	22	5006-290
E2-30x16	30	16	55	68	28	60	51	22	5006-291
E2-30x20	30	20	58	68	28	60	51	22	5006-292
E2-30x25	30	25	62	68	28	60	51	22	5006-293
E2-30x32	30	32	68	68	28	75	61	-	5006-294
E2-40x10	40	10	50	83	32.5	75	61	22	5006-295
E2-40x12	40	12	50	83	32.5	75	61	22	5006-296
E2-40x16	40	16	56	83	32.5	75	61	22	5006-297
E2-40x20	40	20	56	83	32.5	75	61	22	5006-298
E2-40x25	40	25	62	83	32.5	75	61	22	5006-299
E2-40x32	40	32	72	83	32.5	75	61	22	5006-300
E2-40x40	40	40	83	83	32.5	85	76	-	5006-301
E2-50x10	50	10	50	98	35	90	76	30	5006-302
E2-50x12	50	12	56	98	35	90	76	30	5006-303
E2-50x16	50	16	56	98	35	90	76	30	5006-304
E2-50x20	50	20	62	98	35	90	76	30	5006-305
E2-50x25	50	25	72	98	35	90	76	30	5006-306
E2-50x32	50	32	72	98	35	90	76	30	5006-307
E2-50x40	50	40	80	98	35	90	76	30	5006-308
E2-50x50	50	50	90	98	35	95	86	30	5006-309
E2-60x10	60	10	68	123	42.5	90	76	35	5006-310
E2-60x12	60	12	68	123	42.5	90	76	35	5006-311
E2-60x16	60	16	68	123	42.5	90	76	35	5006-312
E2-60x20	60	20	68	123	42.5	90	76	35	5006-313
E2-60x25	60	25	68	123	42.5	90	76	35	5006-314
E2-60x32	60	32	68	123	42.5	90	76	35	5006-315
E2-60x40	60	40	98	123	42.5	90	76	35	5006-316
E2-60x50	60	50	98	123	42.5	95	86	35	5006-317

Static Holders

E2-X2 TYPE

DIN 69880



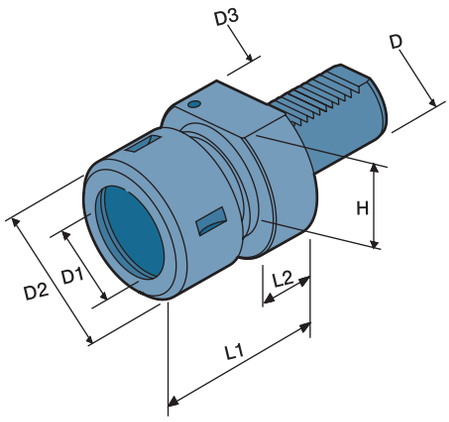
- External, internal coolant supply

DIMENSIONS

ORDER NO.	D DIN 69880	D1	L1	L2	L3	L4	CODE NO.
E2-30-2X25-35	30	25	65	60	35	56.5	5006-318
E2-40-2X40-65	40	40	85	80	65	91.5	5006-319

Static Holders

E3 E4 TYPE ※ ORDER MADE, NOT REFUNDABLE. **DIN 69880**

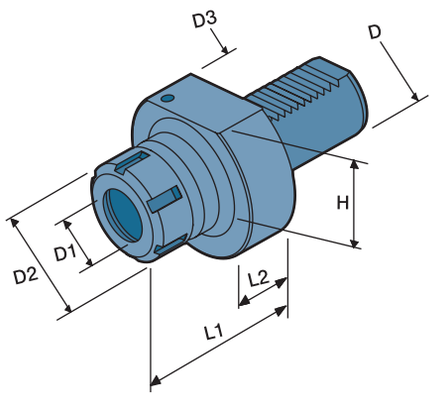


E3

- For Collet DIN 6388
- External Coolant Supply

DIMENSIONS

ORDER NO.	D	D1	D2	D3	H	L1	L2	CODE NO.
E3-30-OZ25	30	2-25	60	68	28	75	22	5006-320
E3-40-OZ25	40	2-25	60	83	32.5	75	22	5006-321
E3-40-OZ32	40	4-32	78	83	32.5	90	22	5006-322
E3-50-OZ25	50	2-25	60	98	35	75	30	5006-323
E3-50-OZ32	50	4-32	78	98	35	90	30	5006-324



E4

- External Coolant Supply
- For Collet DIN 6499

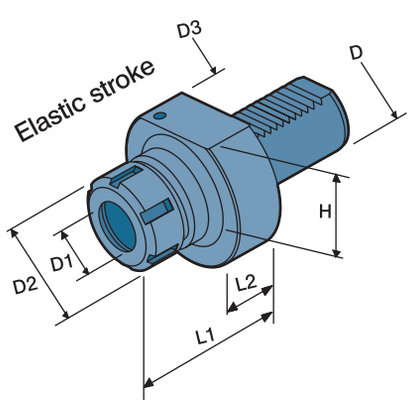
DIMENSIONS

ORDER NO.	D	D1	D2	D3	H	L1	L2	CODE NO.
E4-20-ER25	20	1-16	42	50	-	50	18	5006-325
E4-30-ER25	30	1-16	42	68	28	53	22	5006-326
E4-30-ER32	30	2-20	50	68	28	57	22	5006-327
E4-40-ER32	40	2-20	50	83	32.5	62	22	5006-328
E4-40-ER40	40	3-26	63	83	32.5	75	22	5006-329
E4-50-ER40	50	3-26	63	98	35	75	30	5006-330
E4-60-ER40	60	3-26	63	123	42.5	75	30	5006-331
E4-60-ER50	60	10-34	78	123	42.5	75	30	5006-332

VDI

Static Holders

TAPPER, CHUCK TYPE **DIN 69880**

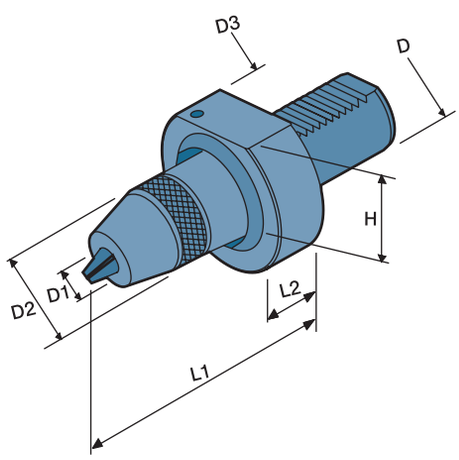


TAPPER

- External Coolant Supply
- For Collet DIN 6499

DIMENSIONS

ORDER NO.	D	D1	D2	D3	H	L1	L2	CODE NO.
TAP-20-ER20	20	1-13	34	50	-	60	18	5006-333
TAP-30-ER25	30	1-16	42	68	28	68	22	5006-334
TAP-40-ER25	40	1-16	42	83	32.5	73	22	5006-335
TAP-50-ER32	50	2-20	50	98	35	83	30	5006-336
TAP-60-ER32	60	2-20	50	123	42.5	85	30	5006-337



KEYLESS DRILL CHUCK

- External Coolant Supply

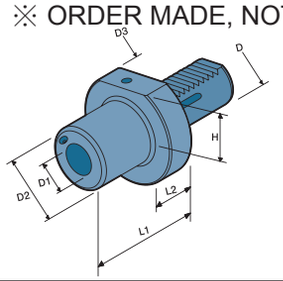
DIMENSIONS

ORDER NO.	D	D1	D2	D3	H	L1	L2	CODE NO.
CHUCK-30-13	30	1-13	51	68	28	85	22	5006-338
CHUCK-40-13	40	1-13	51	83	32.5	85	22	5006-339
CHUCK-40-16	40	3-16	58	83	32.5	90	22	5006-340
CHUCK-50-13	50	1-13	51	98	35	85	30	5006-341
CHUCK-50-16	50	3-16	58	98	35	90	30	5006-342

Static Holders

F TYPE

※ ORDER MADE, NOT REFUNDABLE. **DIN 69880**



- Tool holders with morse taper according DIN 228
- External Coolant Supply

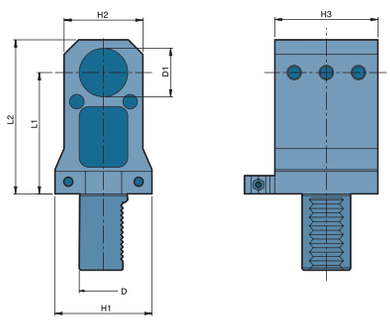
DIMENSIONS

ORDER NO.	D	D1	D2	D3	H	L1	L2	CODE NO.
F20-MT1	20	MT1	-	50	-	23	-	5006-343
F30-MT1	30	MT1	52	68	28	27	22	5006-344
F30-MT2	30	MT2	58	68	28	43	22	5006-345
F30-MT3	30	MT3	64	68	28	66	22	5006-346
F40-MT2	40	MT2	66	83	32.5	43	22	5006-347
F40-MT3	40	MT3	72	83	32.5	58	22	5006-348
F40-MT4	40	MT4	72	83	32.5	78	22	5006-349
F50-MT2	50	MT2	55	98	35	36	30	5006-350
F50-MT3	50	MT3	60	98	35	44	30	5006-351
F50-MT4	50	MT4	70	98	35	71	30	5006-352
F60-MT3	60	MT3	58	123	42.5	36	30	5006-353
F60-MT4	60	MT4	68	123	42.5	50	30	5006-354

Axial Static Holders

T1 TYPE

DIN 69880



- External, internal coolant supply

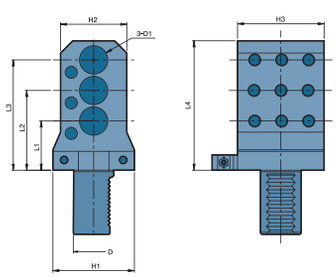
DIMENSIONS

ORDER NO.	D	D1	H1	H2	H3	L1	L2	CODE NO.
T1-30-32-65	30	32	65	52	62	65	90	5006-355
T1-30-32-85	30	32	65	52	62	85	108	5006-356
T1-30-32-100	30	32	65	52	62	100	123	5006-357
T1-30-32-120	30	32	65	52	62	120	143	5006-358
T1-40-32-85	40	32	80	65	85	85	112	5006-359
T1-40-40-85	40	40	80	65	85	85	112	5006-360
T1-40-40-100	40	40	80	65	85	100	127	5006-361

Axial Static Holders

T1-X3 TYPE

DIN 69880



- External coolant supply

DIMENSIONS

ORDER NO.	D	D1	H1	H2	H3	L1	L2	L3	L4	CODE NO.
T1-30-3X25	30	25	65	65	62	42	85	128	148	5006-362

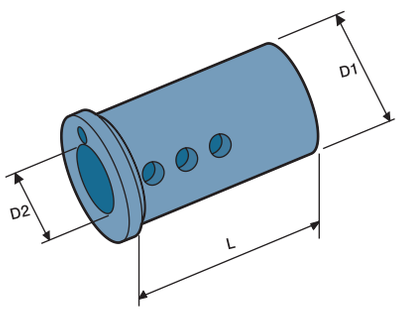
Reducing Sleeves

RS-W, RS TYPE

※ ORDER MADE, NOT REFUNDABLE.

RS-W

- External Coolant Supply
- For Boring Bar Holder

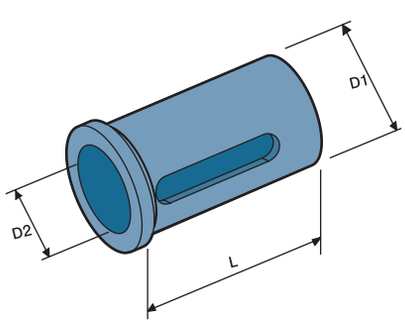


DIMENSIONS

D1	L	ORDER NO. D2	CODE NO.
20	45	**E20-6**	5006-369
		E20-8	5006-370
		E20-10	5006-371
25	55	**E25-6**	5006-372
		E25-8	5006-373
		E25-10	5006-374
		E25-12	5006-375
32	60	**E32-6**	5006-376
		E32-8	5006-377
		E32-10	5006-378
		E32-12	5006-379
40	75	**E40-6**	5006-381
		E40-8	5006-382
		E40-10	5006-383
		E40-12	5006-384
50	85	**E50-8**	5006-388
		E50-10	5006-389
		E50-12	5006-390
		E50-16	5006-391
		E50-20	5006-392
		E50-25	5006-393

RS

- For Boring Bar Holder

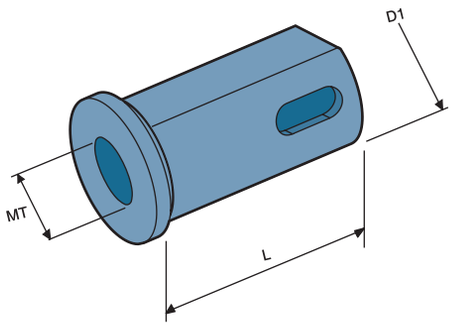


DIMENSIONS

D1	L	ORDER NO. D2	CODE NO.
20	50	**E20-12-K**	5006-399
		E20-16-K	5006-400
25	50	**E25-16-K**	5006-401A
		E25-20-K	5006-401
32	60	**E32-16-K**	5006-402A
		E32-20-K	5006-402B
		E32-25-K	5006-402
40	75	**E40-16-K**	5006-403A
		E40-20-K	5006-403B
		E40-25-K	5006-403C
		E40-32-K	5006-403
50	85	**E50-32-K**	5006-404A
		E50-40-K	5006-404

Reducing Sleeves

RS-MT, TE TYPE ※ ORDER MADE, NOT REFUNDABLE.

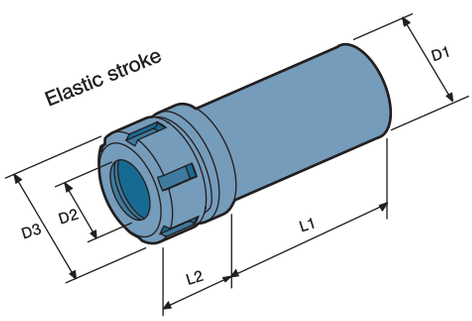


RS-MT

- Tool holders with morse taper according to DIN 228

DIMENSIONS

D1	L	MT				
		1	2	3	4	
32	60	E32-MT1	E32-MT2	E32-MT3		ORDER NO.
		5006-410	5006-411	5006-412		CODE NO.
40	70	E40-MT1	E40-MT2	E40-MT3	E40-MT4	ORDER NO.
		5006-414	5006-415	5006-416	5006-417	CODE NO.
50	85	E50-MT1	E50-MT2	E50-MT3	E50-MT4	ORDER NO.
		5006-418	5006-419	5006-420	5006-421	CODE NO.



TE

- Auto taper with cylindric shaft
- To be used for collet DIN 6499

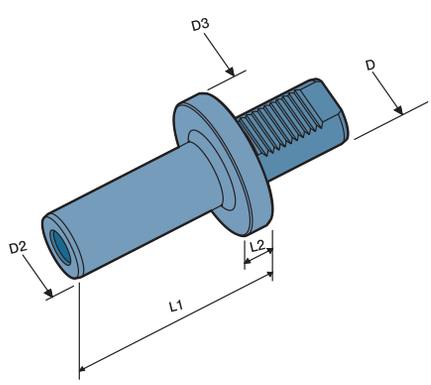
DIMENSIONS

ORDER NO.	D1	D2		D3	L1	L2	CODE NO.
TE25-ER16	25	1-10	M3-M12	ER16 32	70.5	30	5006-430
TE32-ER20	32	2-13	M3-M16	ER20 35	65	40	5006-431
TE40-ER25	40	2-16	M4-M20	ER25 42	75	43	5006-432
TE50-ER32	50	3-20	M6-M24	ER32 50	85	48	5006-433

Test Mandrel

TB1 TYPE

DIN 69880



DIMENSIONS

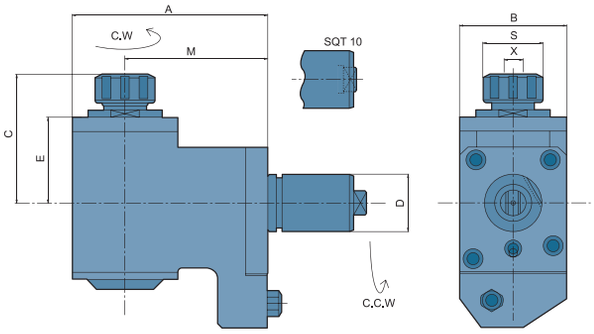
ORDER NO.	D DIN 69880	D2	D3	L1	L2	CODE NO.
TB1-30	30	30	68	115	15	5006-434
TB1-40	40	40	83	115	15	5006-435
TB1-50	50	50	98	115	15	5006-436

H Type Milling & Drilling Head

VERTEX

MAZAK SUPER QUICK TURN TYPE FOR 1ST SPINDLE

NEW



- External coolant supply
- Collet is not included
- To be used for collet DIN 6499

DIMENSIONS

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	E	M	CODE NO.
SQT 10-HMD25	SQT10M-12D 15M-16D SQT200M-16D 250M-16D	40	1-16 ER25	42	5000	135	75	90	60	100	5006-440
SQT 15/18-HMD25	SQT15M-12D 18M-12D SQT200M-12D 250M-12D	40	1-16 ER25	42	5000	165	80	92	60	130	5006-441
SQT 15/18-HMD32			2-20 ER32	50	5000	165	80	96	60	130	5006-442

H Type Tapping Head

DIMENSIONS

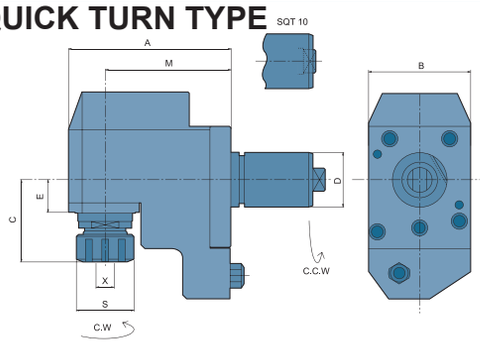
※ ORDER MADE, NOT REFUNDABLE.

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	E	M	CODE NO.
SQT 10-HT16	SQT10M-12D 15M-16D SQT200M-16D 250M-16D	40	1-10 ER16	30	3000	135	75	98	60	100	5006-443
SQT 15/18-HT20	SQT15M-12D 18M-12D SQT200M-12D 250M-12D	40	1-13 ER20	35	3000	165	80	108	60	130	5006-444

H Type Back Milling & Drilling Head

MAZAK SUPER QUICK TURN TYPE FOR 2ND SPINDLE

NEW



- External coolant supply
- Collet is not included
- To be used for collet DIN 6499

DIMENSIONS

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	E	M	CODE NO.
SQT 10-HBMD25	SQT10M-12D 15M-16D SQT200M-16D 250M-16D	40	1-16 ER25	42	5000	135	76	43	14	100	5006-450
SQT 15/18-HBMD25	SQT15M-12D 18M-12D SQT200M-12D 250M-12D	40	1-16 ER25	42	5000	165	76	46	13	130	5006-451
SQT 15/18-HBMD32			2-20 ER32	50	5000	165	76	48	13	130	5006-452

H Type Tapping Head

DIMENSIONS

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	E	M	CODE NO.
SQT 10-HBT16	SQT10M-12D 15M-16D SQT200M-16D 250M-16D	40	1-10 ER16	30	3000	135	76	51	13	100	5006-454
SQT 15/18-HBT20	SQT15M-12D 18M-12D SQT200M-12D 250M-12D	40	1-13 ER20	30	3000	165	76	79	13	130	5006-455

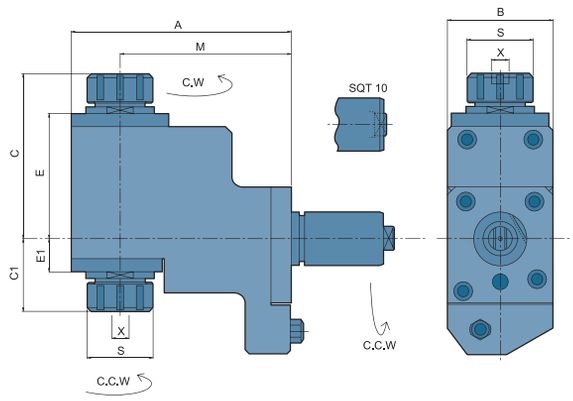
VDI

H Type Milling & Drilling Head

VERTEX

MAZAK SUPER QUICK TURN TYPE FOR 1ST AND 2ND SPINDLE

NEW



- External coolant supply
- Collet is not included
- To be used for collet DIN 6499

DIMENSIONS

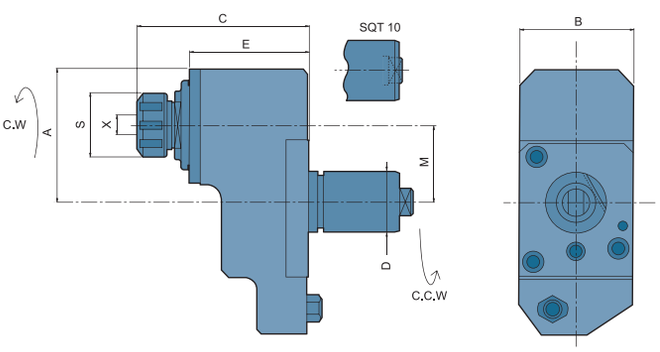
ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	C1	E	E1	M	CODE NO.
SQT 10-HMD2025	SQT10M-12D 15M-16D SQT200M-16D 250M-16D	40	1st-ER25 2nd-ER20	42 35	4000	135	75	96	77.5	59	50	100	5006-456
SQT 15/18-HMD232	SQT15M-12D 18M-12D SQT200M-12D 250M-12D	40	2-20 ER32	42	4000	167	80	128	58	89	19	130	5006-457

V Type Milling & Drilling Head

MAZAK SUPER QUICK TURN TYPE

※ ORDER MADE, NOT REFUNDABLE. **OFFSET**

NEW



- External coolant supply
- Collet is not included
- To be used for collet DIN 6499

DIMENSIONS

※ 1:2 Speed boost

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	E	M	CODE NO.
SQT 10-VMD25	SQT10M-12D 15M-16D SQT200M-16D 250M-16D	40	1-16 ER25	42	5000	88	75	120	82	50	5006-460
SQT 15/18-VMD25F	SQT15M-12D 18M-12D SQT200M-12D 250M-12D	40	1-16 ER25	42	5000	89	80	122	84	50	5006-461
SQT 15/18-VMD25F-1			1-16 ER25	42	(1:2) 7000	89	75	118	84	50	※ 5006-462
SQT 15/18-VMD32			2-20 ER32	50	5000	89	80	125.5	84	50	5006-463

V Type Tapping Head

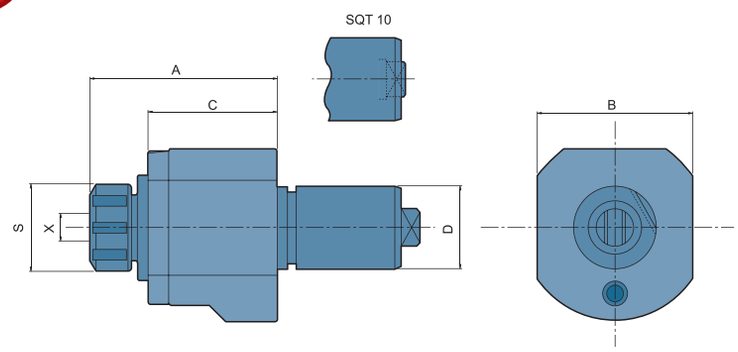
DIMENSIONS

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	E	M	CODE NO.
SQT 10-VT16F	SQT10M-12D 15M-16D SQT200M-16D 250M-16D	40	1-10 ER16	30	4000	88	75	119	81.5	50	5006-464
SQT 15/18-VT20F	SQT15M-12D 18M-12D SQT200M-12D 250M-12D	40	1-13 ER20	30	4000	89	80	123	84	50	5006-465

V Type Milling & Drilling Head

MAZAK SUPER QUICK TURN TYPE DA-SERIES

NEW



- External coolant supply
- Collet is not included
- To be used for collet DIN 6499

DIMENSIONS

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	CODE NO.
SQT 10-VMD25DA	SQT10M-12D 15M-16D SQT200M-16D 250M-16D	40	1-16 ER25	42	6000	93	75	62.5	5006-466
SQT 15/18-VMD32DA	SQT15M-12D 18M-12D SQT200M-12D 250M-12D	40	2-20 ER32	50	6000	119.5	80	82.5	5006-467

V Type Tapping Head

※ ORDER MADE, NOT REFUNDABLE.

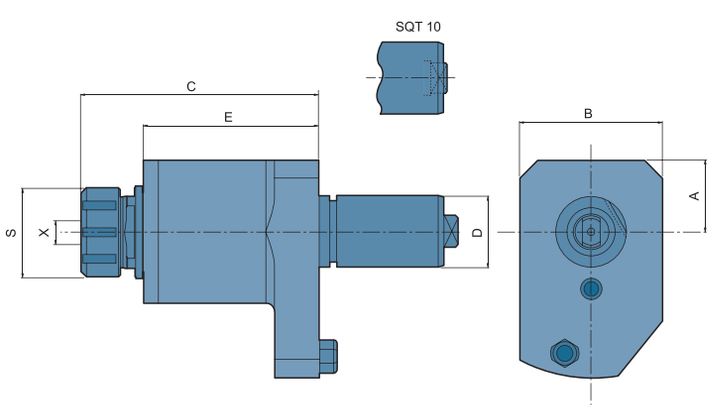
DIMENSIONS

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	CODE NO.
SQT 10-VT16DA	SQT10M-12D 15M-16D SQT200M-16D 250M-16D	40	1-10 ER16	30	4000	100	75	62.5	5006-468
SQT 15/18-VT20DA	SQT15M-12D 18M-12D SQT200M-12D 250M-12D	40	1-13 ER20	35	4000	127	80	82.5	5006-469

V Type Milling & Drilling Head

MAZAK SUPER QUICK TURN TYPE DA-SERIES, LONG

NEW



- External coolant supply
- Collet is not included
- To be used for collet DIN 6499

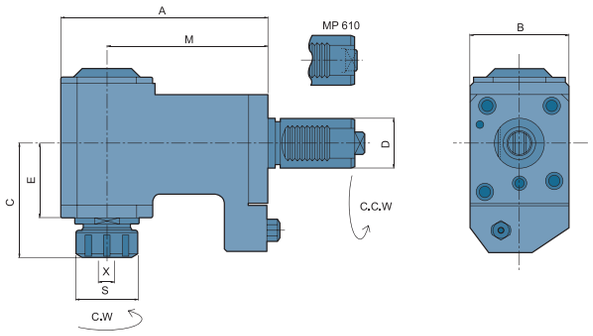
DIMENSIONS

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	E	CODE NO.
SQT 15/18-VMD32L	SQT15M-12D 18M-12D SQT200M-12D 250M-12D	40	2-20 ER32	50	6000	40	80	119.5	82.5	5006-470
						40	80	133.5	98.5	5006-471

V Type Milling & Drilling Head

MAZAK MULTIPLEX TYPE ※ORDER MADE, NOT REFUNDABLE.

NEW



- External coolant supply
- Collet is not included
- To be used for collet DIN 6499

DIMENSIONS

※ 1:2 Speed boost

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	E	M	CODE NO.
MP 610-HMD25	MP410N-12D 415N-12D MP610-12D 6200-16D	40	1-16 ER25	42	5000	150	75	80.5	50	115	5006-475
MP 620-HMD25	MP420N-12D 620N-12D MP620-12D 6200-16D	40	1-16 ER25	42	5000	165	80	80.5	50	130	5006-476
MP 620-HMD32			2-20 ER32	50	5000	165	80	82.5	50	130	5006-477
MP 620-HMD32-2			2-20 ER32	50	(1:2) 7000	169	88	103	68	130	※ 5006-478

H Type Tapping Head

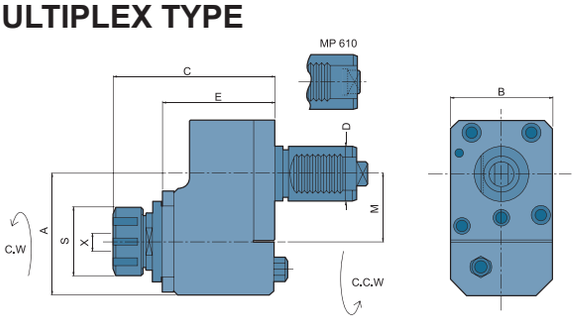
DIMENSIONS

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	E	M	CODE NO.
MP 610-HT16	MP410N-12D 415N-12D MP610-12D 6200-16D	40	1-10 ER16	30	3000	150	75	87.5	50	115	5006-479
MP 620-HT20	MP420N-12D 620N-12D MP620-12D 6200-16D	40	1-13 ER20	30	3000	165	80	115.5	56	130	5006-480

V Type Milling & Drilling Head

MAZAK MULTIPLEX TYPE **OFFSET**

NEW



- External coolant supply
- Collet is not included
- To be used for collet DIN 6499

DIMENSIONS

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	E	M	CODE NO.
MP 610-VMD25F	MP410N-12D 415N-12D MP610-12D 6200-16D	40	1-16 ER25	42	5000	89	75	122	84	50	5006-481
MP 620-VMD16F	MP420N-12D 620N-12D MP620-12D 6200-16D	40	1-16 ER25	42	5000	89	80	122	84	50	5006-482
MP 620-VMD32F			2-20 ER32	50	5000	89	80	125.5	84	50	5006-483

V Type Tapping Head

DIMENSIONS

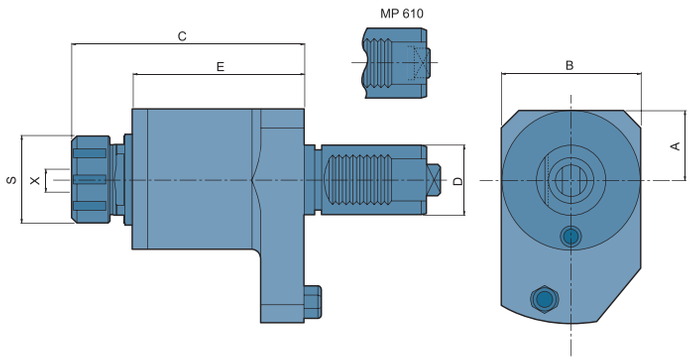
ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	E	M	CODE NO.
MP 610-VT16F	MP410N-12D 415N-12D MP610-12D 6200-16D	40	1-10 ER16	30	4000	89	75	122	82.5	50	5006-484
MP 620-VT20F	MP420N-12D 620N-12D MP620-12D 6200-16D	40	1-13 ER20	35	4000	89	80	123.5	84	50	5006-485

V Type Milling & Drilling Head

VERTEX

MAZAK MULTIPLEX TYPE DA-SERIES

NEW



- External coolant supply
- Collet is not included
- To be used for collet DIN 6499

DIMENSIONS

ORDER NO.	Machine Type	D	X Capacity	S	Maximum R.P.M.	A	B	C	E	CODE NO.
MP 610-VMD25DA	MP410N-12D 415N-12D MP610-12D 6200-16D	40	1-16 ER25	42	6000	39	75	108	74	5006-486
MP 620-VMD25DA	MP420N-12D 620N-12D MP620-12D 6200-16D	40	1-16 ER25	42	6000	40	80	119	82.6	5006-487
MP 620-VMD32DA			2-20 ER32	50	6000	40	80	120	82.6	5006-488

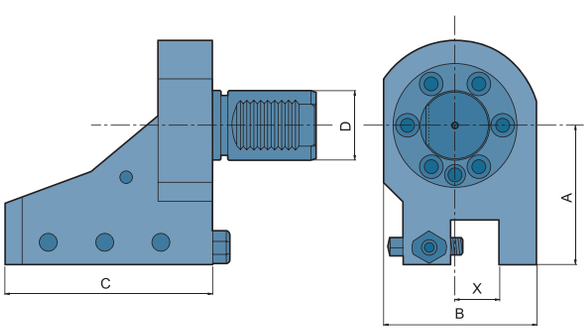
VDI

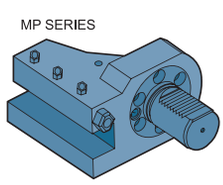
Forward Turning Holder - RH

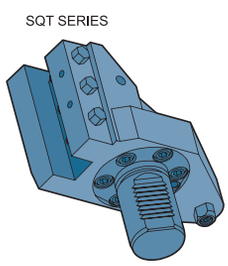
MAZAK SUPER QUICK TURN & MULTIPLEX TYPE

※ORDER MADE, NOT REFUNDABLE.

NEW







DIMENSIONS

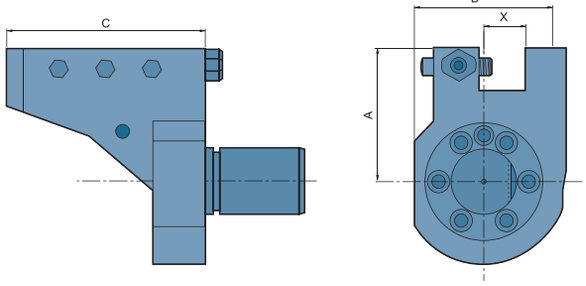
ORDER NO.	Machine Type	D		X	A	B	C	CODE NO.
SQT 10M/15AM-FTRH-M	SQT-10M/15AM	40	mm	20	66	79	100	5006-490
SQT 10M/15AM-FTRH-I			inch	0.75″	2.6″	3.1″	3.937″	5006-491
SQT 15M/18M-FTRH-M	SQT-15M/18M	40	mm	25	78	92	120	5006-492
SQT 15M/18M-FTRH-I			inch	1″	3.071″	3.622″	4.724″	5006-493
MP 610N/615N-FTRH-M	MP-610N/615N	40	mm	20	85	76	100	5006-496
MP 410N/415N-FTRH-I	MP-410N/415N		inch	0.75″	3.347″	3″	3.937″	5006-497
MP 620N/625N-FTRH-M	MP-620N/625N	40	mm	25	83	92	120	5006-498
MP 420N-FTRH-I	MP-420N		inch	1″	3.268″	3.622″	4.724″	5006-499

Reverse Turning Holder - LH

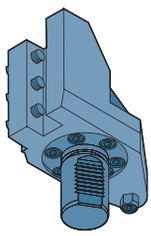
MAZAK SUPER QUICK TURN & MULTIPLEX TYPE

※ORDER MADE, NOT REFUNDABLE.

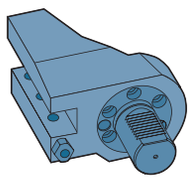
NEW



SQT SERIES



MP SERIES



DIMENSIONS

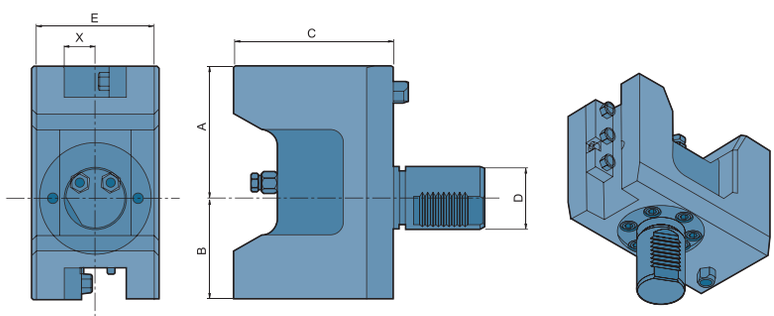
ORDER NO.	Machine Type	D		X	A	B	C	CODE NO.
SQT 10M/15AM-RTLH-M	SQT-10M/15AM	40	mm	20	66	76	100	5006-502
SQT 10M/15AM-RTLH-I			inch	0.75″	2.6″	3″	3.937″	5006-503
SQT 15M/18M-RTLH-M	SQT-15M/18M	40	mm	25	78	92	120	5006-504
SQT 15M/18M-RTLH-I			inch	1″	3.071″	3.622″	4.724″	5006-505
SQT 28M/30M-RTLH-M	SQT-28M/30M	50	mm	25	80	94	160	5006-506
SQT 28M/30M-RTLH-I			inch	1″	3.15″	3.7″	6.3″	5006-507
MP 610N/615N-RTLH-M	MP-610N/615N	40	mm	20	85	76	100	5006-508
MP 410N/415N-RTLH-I	MP-410N/415N		inch	0.75″	3.347″	3″	3.937″	5006-509
MP 620N/625N-RTLH-M	MP-620N/625N	40	mm	25	83	92	120	5006-510
MP 420N-RTLH-I	MP-420N		inch	1″	3.268″	3.622″	4.724″	5006-511

※ ON REQUEST

Double Turning Holder

MAZAK SUPER QUICK TURN TYPE

NEW



DIMENSIONS

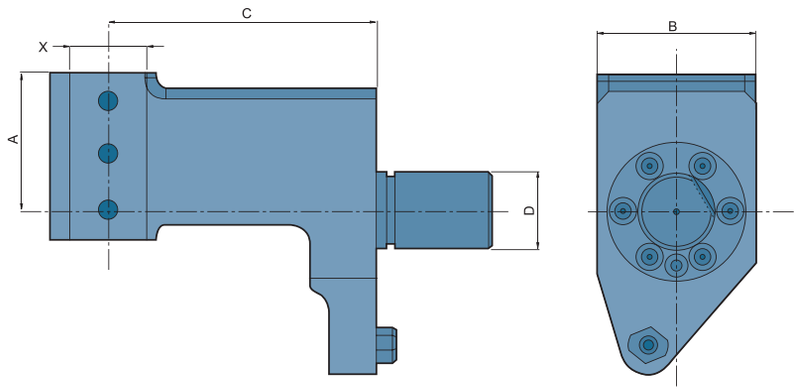
ORDER NO.	Machine Type	D		X	A	B	C	E	CODE NO.
SQT 10M/15AM-DT-M	SQT-10M/15AM	40	mm	20	85	65	103	81	5006-514
SQT 10M/15AM-DT-I			inch	0.75″	3.347″	2.559″	4.055″	3.189″	5006-515
SQT 15M/18M-DT-M	SQT-15M/18M	40	mm	25	88	78	136	100	5006-516
SQT 15M/18M-DT-I			inch	1″	3.465″	3.071″	5.354″	3.937″	5006-517

Boring Bar Holder

MAZAK SUPER QUICK TURN TYPE

※ORDER MADE, NOT REFUNDABLE.

NEW



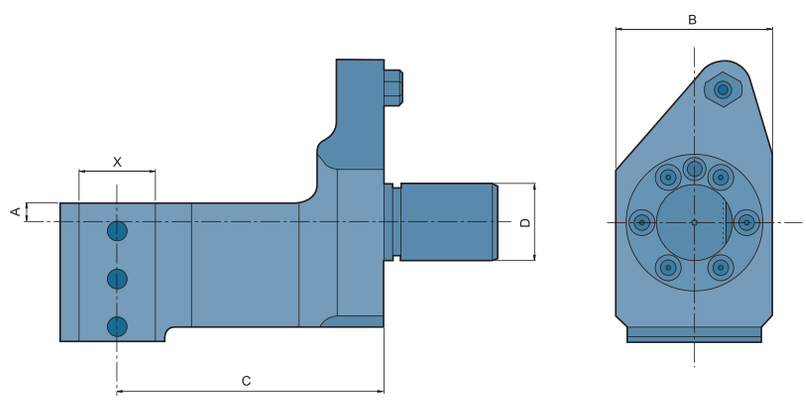
DIMENSIONS

ORDER NO.	Machine Type	D		X	A	B	C	CODE NO.
SQT 10M/15AM-B-M	SQT-10M/15AM	40	mm	32	55.5	76	110	5006-520
SQT 10M/15AM-B-I			inch	1.25″	2.185″	2.992″	4.331″	5006-521
SQT 15M/18M-B-M	SQT-15M/18M	40	mm	40	71	82	140	5006-522
SQT 15M/18M-B-I			inch	1.5″	2.795″	3.228″	5.512″	5006-523
SQT 28M/30M-B-M	SQT-28M/30M	50	mm	50	65	94	175	5006-524
SQT 28M/30AM-B-I			inch	2″	2.559″	3.7″	6.890″	5006-525

Boring Bar Holder

MAZAK MULTIPLEX TYPE

NEW



DIMENSIONS

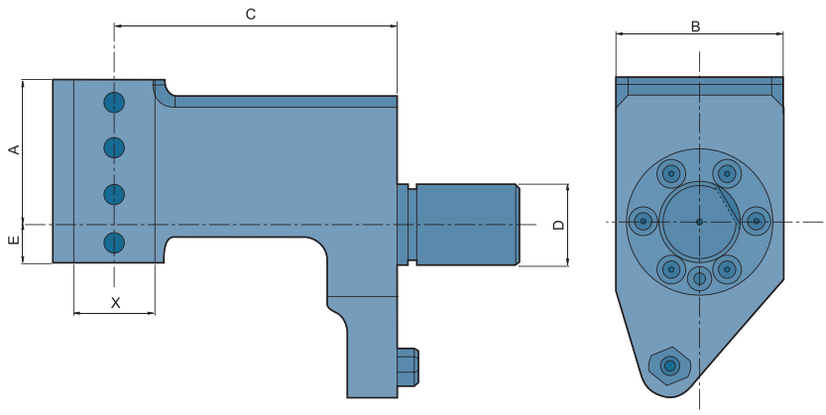
ORDER NO.	Machine Type	D		X	A	B	C	CODE NO.
MP-610N-B-A	MP-610N	40	mm	25	55.5	76	120	5006-526
MP-610N-B-B			inch	1″	0.197″	2.997″	4.724″	5006-527
MP-610N-B-C			mm	32	10	76	120	5006-528
MP-610N-B-D			inch	1.25″	0.394″	2.997″	4.724″	5006-529
MP-615N-B-A	MP-615N	40	mm	25	10	76	130	5006-530
MP-615N-B-B			inch	1″	0.394″	2.997″	5.118″	5006-531
MP-615N-B-C			mm	32	10	76	130	5006-532
MP-615N-B-D			inch	1.25″	0.394″	2.997″	5.118″	5006-533
MP-620N-B-A	MP-620N	40	mm	25	5	62	140	5006-534
MP-620N-B-B			inch	1″	0.197″	3.228″	5.512″	5006-535
MP-620N-B-C			mm	40	10	82	140	5006-536
MP-620N-B-D			inch	1.5″	0.394″	3.228″	5.512″	5006-537

Double Boring Bar Holder

MAZAK SUPER QUICK TURN TYPE

※ORDER MADE, NOT REFUNDABLE.

NEW



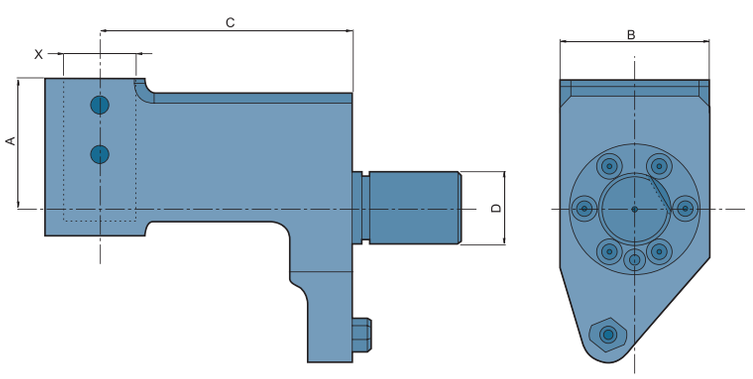
DIMENSIONS

ORDER NO.	Machine Type	D		X	A	B	C	E	CODE NO.
SQT 10M/15AM-DB-M	SQT-10M/15AM	40	mm	20	55.5	76	110	14.5	5006-540
SQT 10M/15AM-DB-I			inch	0.75″	2.185″	3″	4.331″	0.57″	5006-541
SQT 15M/18M-DB-M	SQT-15M/18M	40	mm	25	85	82	140	16	5006-542
SQT 15M/18M-DB-I			inch	1″	3.346″	3.228″	5.512″	0.629″	5006-543
SQT 28M/30M-DB-M	SQT-28M/30M	50	mm	32	75	94	175	35	5006-544
SQT 28M/30M-DB-I			inch	1.25″	2.953″	3.543″	7.087″	1.378″	5006-545

U Drill Holder

MAZAK SUPER QUICK TURN TYPE

NEW



● External, internal coolant supply

DIMENSIONS

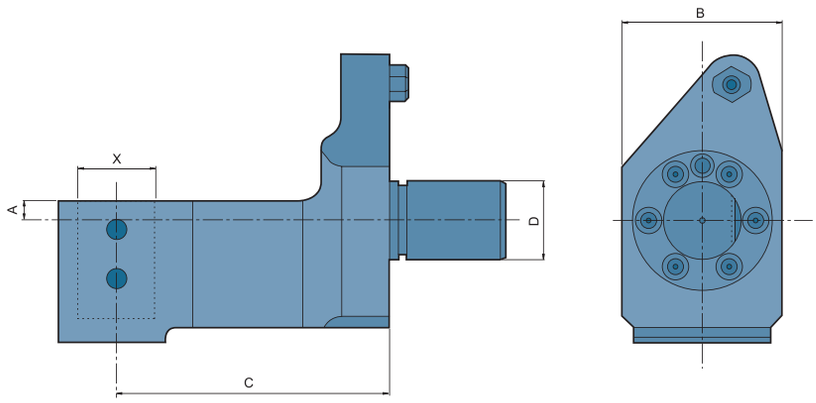
ORDER NO.	Machine Type	D		X	A	B	C	CODE NO.
SQT 10M/15AM-UD-M	SQT-10M/15AM	40	mm	32	48	76	110	5006-550
SQT 10M/15AM-UD-I			inch	1.25″	1.890″	2.992″	4.331″	5006-551
SQT 15M/18M-UD-M	SQT-15M/18M	40	mm	40	63	82	140	5006-552
SQT 15M/18M-UD-I			inch	1.5″	2.480″	3.228″	5.512″	5006-553

U Drill Holder

MAZAK MULTIPLEX TYPE

※ORDER MADE, NOT REFUNDABLE.

NEW



- External, internal coolant supply

DIMENSIONS

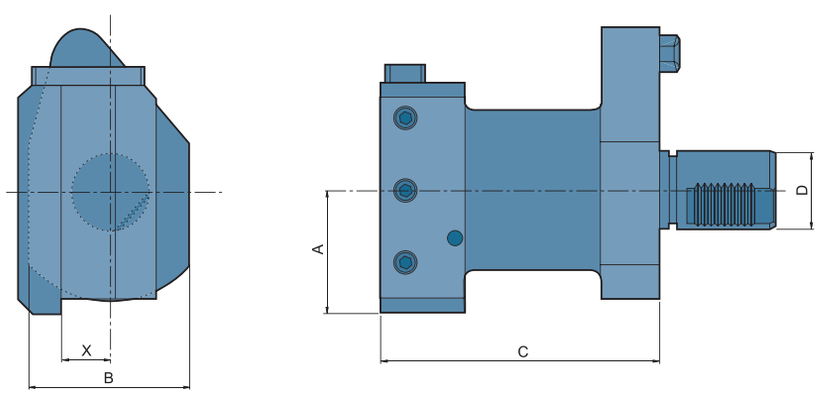
ORDER NO.	Machine Type	D		X	A	B	C	CODE NO.
MP-610-UD-M	MP-610	40	mm	25	10	76	120	5006-560
MP-610-UD-I			inch	-	0.394″	2.992″	4.724″	5006-561
MP-620-UD-M	MP-620	40	mm	40	10	82	140	5006-562
MP-620-UD-I			inch	-	0.394″	3.228″	5.512″	5006-563

VDI

Facing Holder - RH

MAZAK SUPER QUICK TURN & MULTIPLEX TYPE

NEW



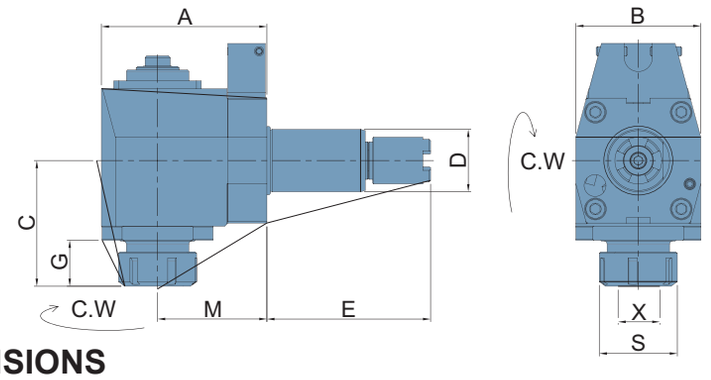
DIMENSIONS

ORDER NO.	Machine Type	D		X	A	B	C	CODE NO.
SQT 10M/15AM-FRH-M	SQT-10M/15AM	40	mm	20	65	76	110	5006-570
SQT 10M/15AM-FRH-I			inch	0.75″	2.559″	2.992″	4.331″	5006-571
SQT 15M/18M-FRH-M	SQT-15M/18M	40	mm	25	60	82	143	5006-572
SQT 15M/18M-FRH-I			inch	1″	2.362″	3.228″	5.630″	5006-573
SQT 28M/30M-FRH-M	SQT-28M/30M	50	mm	25	57	90	163	5006-574
SQT 28M/30M-FRH-I			inch	1″	2.244″	3.543″	6.417″	5006-575
MP 610N/615N-FRH-M	MP-610N/615N	40	mm	20	65	76	110	5006-576
MP 410N/415N-FRH-I	MP-410N/415N		inch	0.75″	2.559″	2.992″	4.331″	5006-577
MP 620N/625N-FRH-M	MP-620N/625N	40	mm	25	55	82	143	5006-578
MP 420N-FRH-I	MP-420N		inch	1″	2.165″	3.228″	5.630″	5006-579

Radial Drilling And Milling Heads

VERTEX

TYPE HAAS

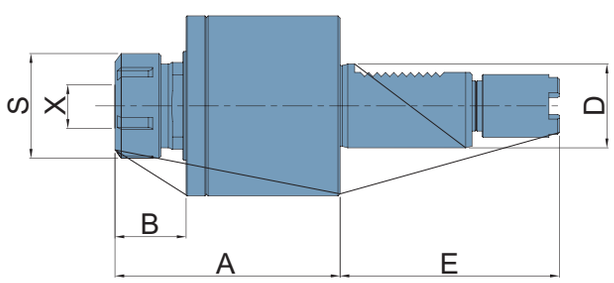


1.External coolant supply
2.To be used for collet DIN 6499
3.Collet is not included

DIMENSIONS

ORDER NO.	D	X capacity	S	Maxi-mum R.P.M.	A	B	C	G	M	E	MODELS	CODE NO.
VDI-40-FL40-32-104	40	2-20 ER32	50	4000	106	80	85	34	70	104.85	SL-20/TL-15	5006-600
VDI-40-FL40-32-117										117.55	SL-30/TL-25 SL-40	5006-601
VDI-40-FL40-32-130										130.35	SL-40	5006-602

Axial Milling And Drilling Heads



※ORDER MADE, NOT REFUNDABLE.

1.External coolant supply
2.To be used for collet DIN 6499
3.Collet is not included

DIMENSIONS

ORDER NO.	D	X capacity	S	Maximum R.P.M.	A	B	C	E	MODELS	CODE NO.
VDI-40-DA40-32104	40	2-20 ER32	50	6000	109	34	86	104.85	SL-20/TL-15 SL-30/TL-25	5006-610
VDI-40-DA40-32117								117.55		5006-611
VDI-40-DA40-32130								130.25	SL-40	5006-612

Reducing Sleeves

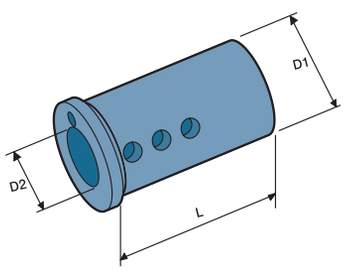
RS-W, RS TYPE

DIMENSIONS

D1	L	ORDER NO. D2	CODE NO.
20	45	E20-6	5006-369
		E20-8	5006-370
		E20-10	5006-371
25	55	E25-6	5006-372
		E25-8	5006-373
		E25-10	5006-374
		E25-12	5006-375
32	60	E32-6	5006-376
		E32-8	5006-377
		E32-10	5006-378
		E32-12	5006-379
40	75	E40-6	5006-381
		E40-8	5006-382
		E40-10	5006-383
		E40-12	5006-384
50	85	E50-8	5006-388
		E50-10	5006-389
		E50-12	5006-390
		E50-16	5006-391
		E50-20	5006-392
		E50-25	5006-393

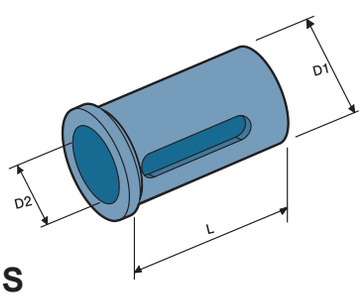
RS-W

- External Coolant Supply
- For Boring Bar Holder



RS

- For Boring Bar Holder



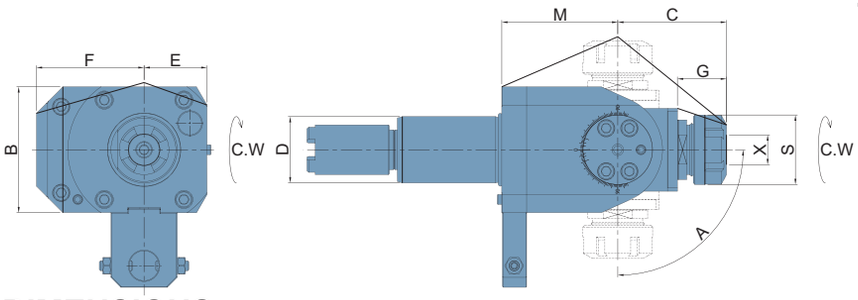
DIMENSIONS

D1	L	ORDER NO. D2	CODE NO.
20	50	E20-12-K	5006-399
		E20-16-K	5006-400
25	50	E25-16-K	5006-401A
		E25-20-K	5006-401
32	60	E32-16-K	5006-402A
		E32-20-K	5006-402B
		E32-25-K	5006-402
40	75	E40-16-K	5006-403A
		E40-20-K	5006-403B
		E40-25-K	5006-403C
		E40-32-K	5006-403
50	85	E50-32-K	5006-404A
		E50-40-K	5006-404

Angular Heads

VERTEX

TYPE HAAS



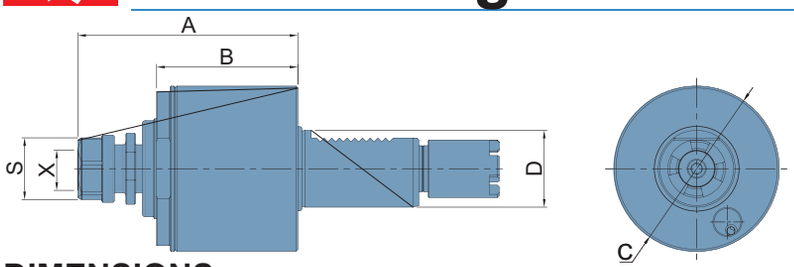
1.External coolant supply
2.To be used for collet DIN 6499
3.Collet is not included

DIMENSIONS

ORDER NO.	D DIN 69880	X capacity	Maxi-mum R.P.M.	S	A	B	C	E	F	G	M	CODE NO.
VDI-40-DA40-25B-117	40	2-16 ER25	4000	42	±90°	76	65.5	38	65	29.5	70	5006-621
VDI-40-DA40-32B-117		2-20 ER32		50			88.5			52.5		5006-622

Axial Drilling And Milling Heads

※ORDER MADE, NOT REFUNDABLE.



1.External coolant and intermediate rings supply
2.To be used for cutter arbor according to DIN 6358

DIMENSIONS

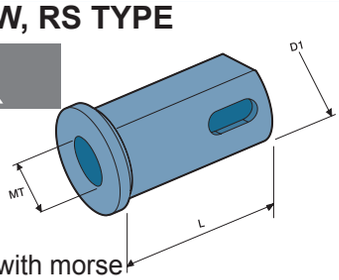
ORDER NO.	D DIN 69880	X capacity	Maximum R.P.M.	S	i	A	B	C	CODE NO.
VDI-40-TDA40-20-104.85	40	1-13 ER20	3000	35	1:1	114.5	74.5	86	5006-631

VDI

Reducing Sleeves

RS-W, RS TYPE

RS-MT

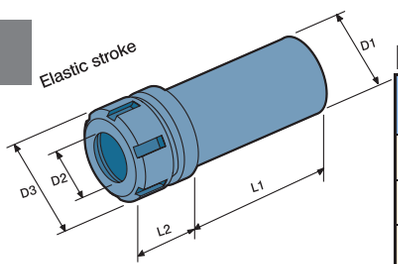


- Tool holders with morse taper according to DIN 228

DIMENSIONS

D1	L	MT				
		1	2	3	4	
32	60	E32-MT1	E32-MT2	E32-MT3		ORDER NO.
		5006-410	5006-411	5006-412		CODE NO.
40	70	E40-MT1	E40-MT2	E40-MT3	E40-MT4	ORDER NO.
		5006-414	5006-415	5006-416	5006-417	CODE NO.
50	85	E50-MT1	E50-MT2	E50-MT3	E50-MT4	ORDER NO.
		5006-418	5006-419	5006-420	5006-421	CODE NO.

TE



- Auto taper with cylindric shaft
- To be used for collet DIN 6499

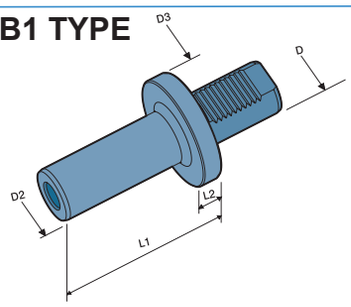
DIMENSIONS

ORDER NO.	D1	D2		D3	L1	L2	CODE NO.
TE25-ER16	25	1-10	M3-M12	ER16 32	70.5	30	5006-430
TE32-ER20	32	2-13	M3-M16	ER20 35	65	40	5006-431
TE40-ER25	40	2-16	M4-M20	ER25 42	75	43	5006-432
TE50-ER32	50	3-20	M6-M24	ER32 50	85	48	5006-433

Test Mandrel

TB1 TYPE

DIN 69880



DIMENSIONS

ORDER NO.	D DIN 69880	D2	D3	L1	L2	CODE NO.
TB1-30	30	30	68	115	15	5006-434
TB1-40	40	40	83	115	15	5006-435
TB1-50	50	50	98	115	15	5006-436

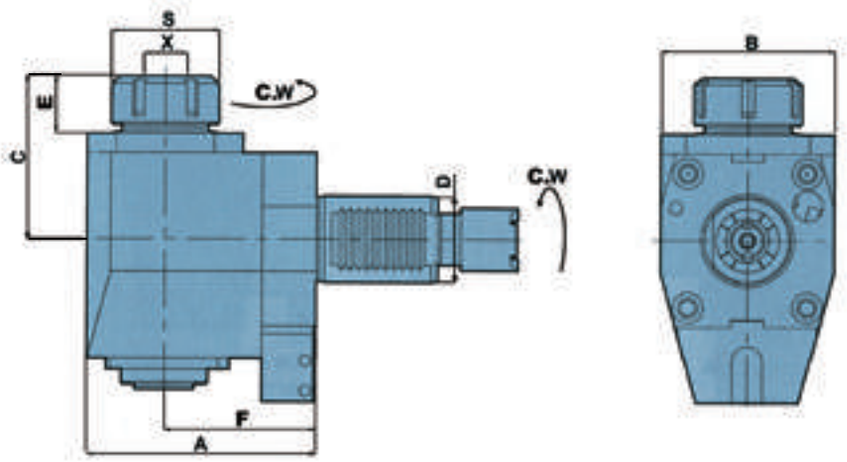
Radial Milling And Drilling Head

VERTEX

OKUMA TYPE **90°**

NEW

- External Coolant Supply
- Collet is not included
- To be used for collet DIN 6499



DIMENSIONS

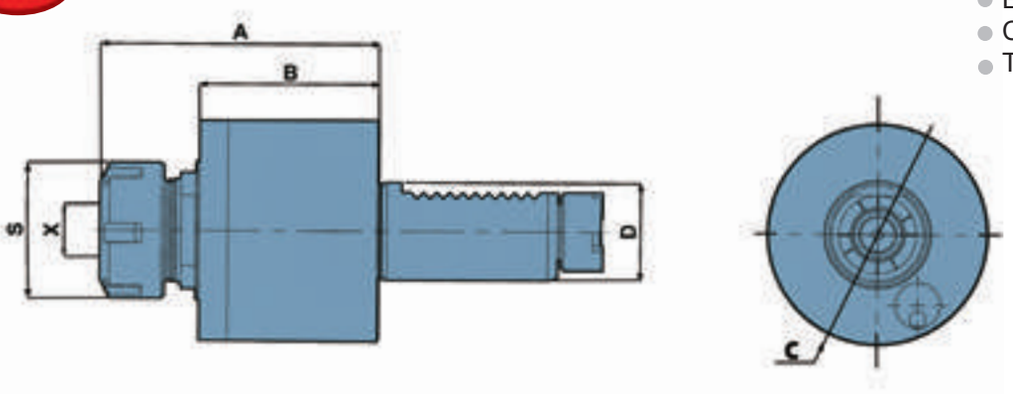
ORDER NO.	OKUMA TYPE	D	X capacity	S	Maximum R.P.M.	A	B	C	E	F	CODE NO.
OKM-FL40-32-70	L300M	40	2-20 ER32	50	5000	106	80	75	26	70	5006-650

Axial Milling And Drilling Head

0°

NEW

- External Coolant Supply
- Collet is not included
- To be used for collet DIN 6499



DIMENSIONS

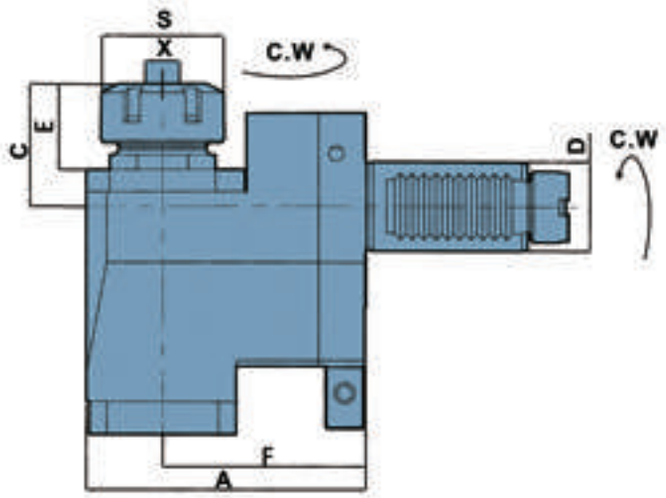
ORDER NO.	OKUMA TYPE	D	X capacity	S	Maximum R.P.M.	A	B	C	CODE NO.
OKM-DA30-ER20	L200M	30	1-13 ER20	35	6000	84.5	57	68	5006-656
OKM-DA30-ER25	L200M	30	1-16 ER25	42	6000	86	55	68	5006-657
OKM-DA40-ER32	L300M	40	2-20 ER32	50	6000	106	74	86	5006-658

Radial Milling And Drilling Head

VERTEX

OKUMA TYPE **90°**

NEW



- External Coolant Supply
- Collet is not included
- To be used for collet DIN 6499

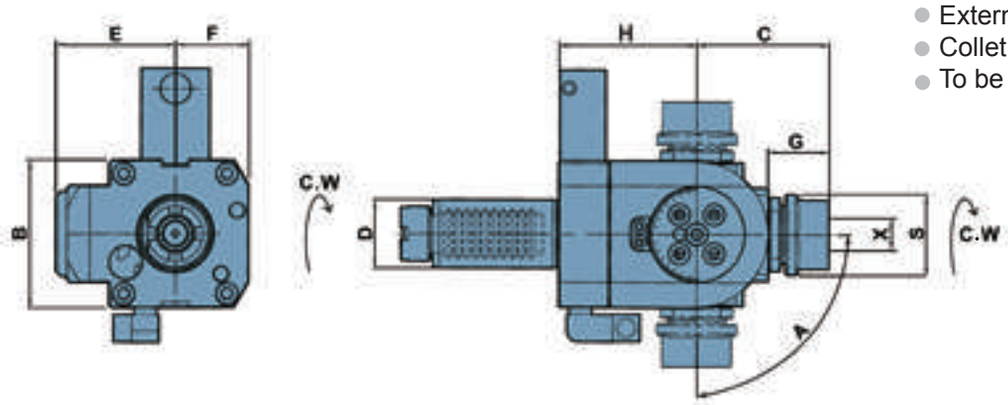
DIMENSIONS

ORDER NO.	OKUMA TYPE	D	X capacity	S	Maximum R.P.M.	A	B	C	E	F	CODE NO.
OKM-BL30-20-69-N	L200M	30	1-13 ER20	35	5000	95	64	43	30	69	5006-665
OKM-BL30-25-69-N	L200M	30	1-16 ER25	42	5000	95	64	42.5	30	69	5006-666
OKM-BL40-32-90	L300M	40	2-20 ER32	50	5000	124	80	42.5	29	90	5006-667

VDI

Angular Heads

NEW



- External Coolant Supply
- Collet is not included
- To be used for collet DIN 6499

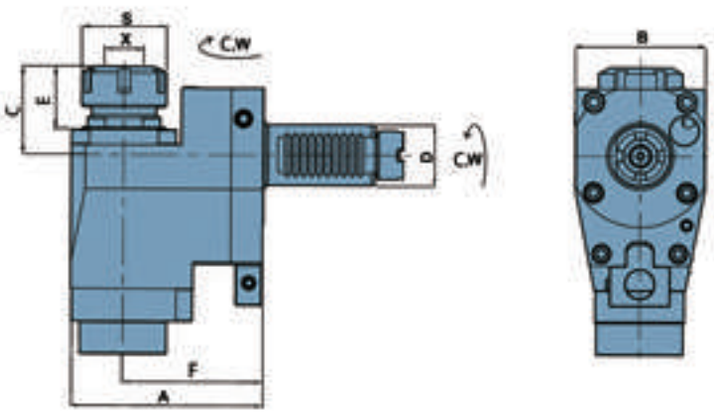
DIMENSIONS

ORDER NO.	OKUMA TYPE	D	X capacity	S	Maximum R.P.M.	A	B	C	E	F	G	H	CODE NO.
OKM-DA30-20B	L200M	30	1-13 ER20	35	4000	±90°	64	59	54	32	27	67	5006-671
OKM-DA40-25B	L300M	40	1-16 ER25	42	4000	±90°	76	65	65	38	29	70	5006-672

Radial Milling And Drilling Head

OKUMA TYPE **90°**

NEW



- Internal collant supply
- Collet is not included
- To be used for collet DIN 6499

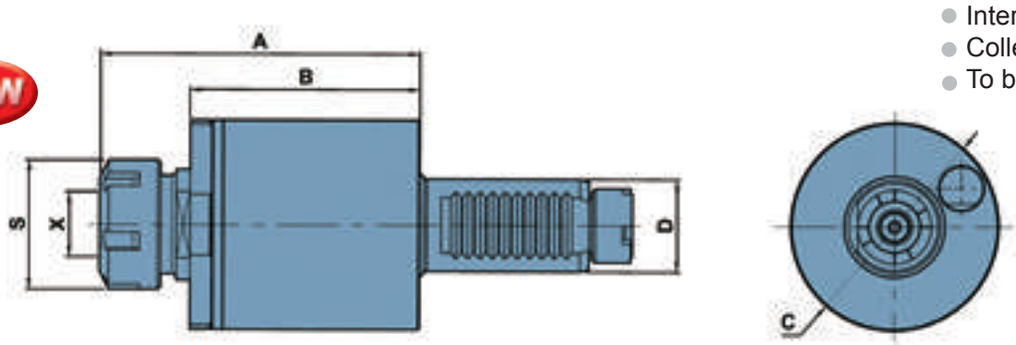
DIMENSIONS

ORDER NO.	OKUMA TYPE	D	X capacity	S	Maximum R.P.M.	A	B	C	E	F	CODE NO.
OKM-CW-BL30-25-69	L200M	30	1-16 ER25	42	5000	95	64	43.5	31	69	5006-675

Axial Milling And Drilling Head

0°

NEW



- Internal collant supply
- Collet is not included
- To be used for collet DIN 6499

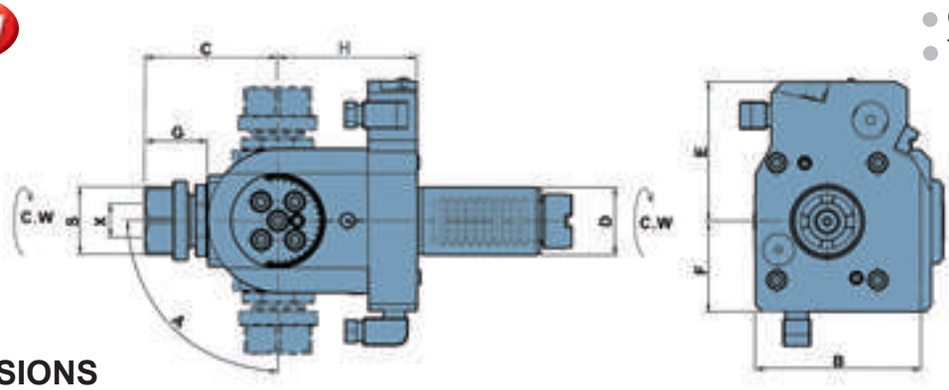
DIMENSIONS

ORDER NO.	OKUMA TYPE	D	X capacity	S	Maximum R.P.M.	A	B	C	CODE NO.
OKM-CW-DA30-ER25	L200M	30	1-16 ER25	42	6000	104	74.5	68	5006-678

Angular Heads

OKUMA TYPE

NEW



- External Coolant Supply
- Collet is not included
- To be used for collet DIN 6499

DIMENSIONS

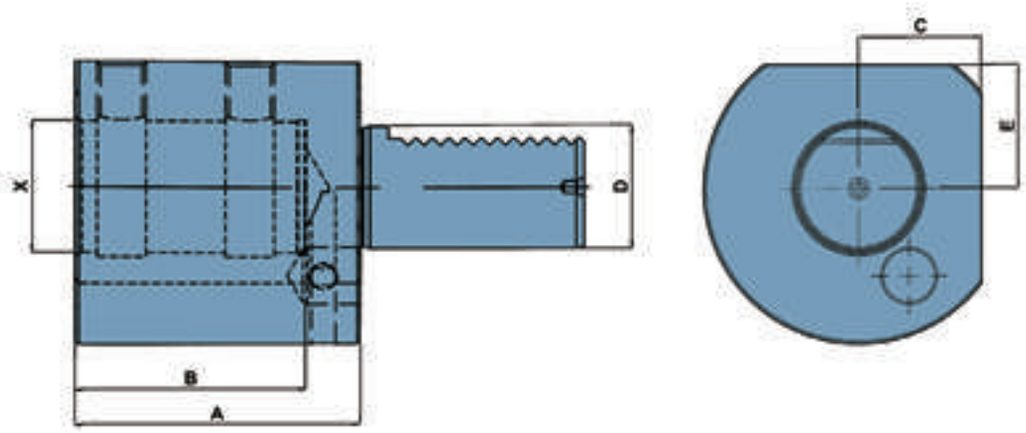
ORDER NO.	OKUMA TYPE	D	X capacity	S	Maximum R.P.M.	A	B	C	G	E	F	H	CODE NO.
OKM-LT-DA30-20B	LT200-MY	30	1-13 ER20	35	4000	±90°	74	59	27	62	40	67	5006-682

Boring Bar Holder

OKUMA TYPE

NEW

- Internal Coolant supply



DIMENSIONS

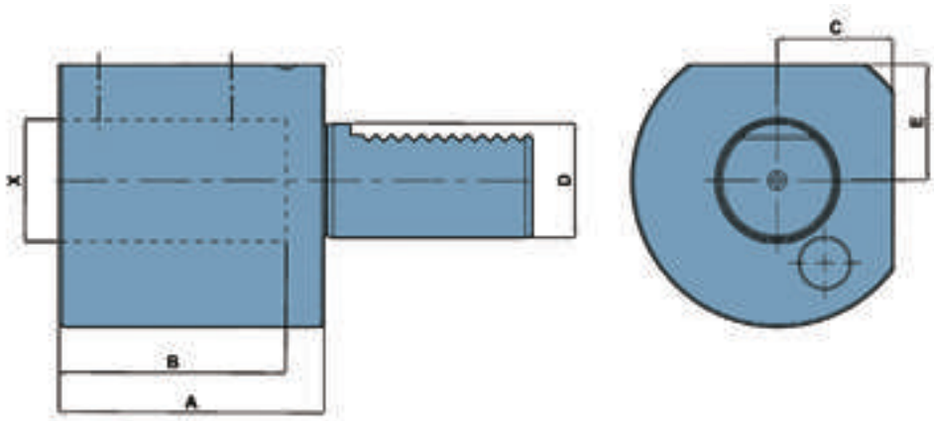
ORDER NO.	OKUMA TYPE	D	X	A	B	C	E	CODE NO.
OKM-4162-2707-10	L200M	30	32(MM)	70	56.5	30.5	30.5	5006-686
OKM-4163-2785-10	L300M	40	1.5″(INCH)	75	65	34.5	34.5	5006-687
OKM-4163-2723-10		40	40(MM)	75	60	34.5	34.5	5006-688

VDI

Boring Bar Holder

- External Coolant Supply

NEW



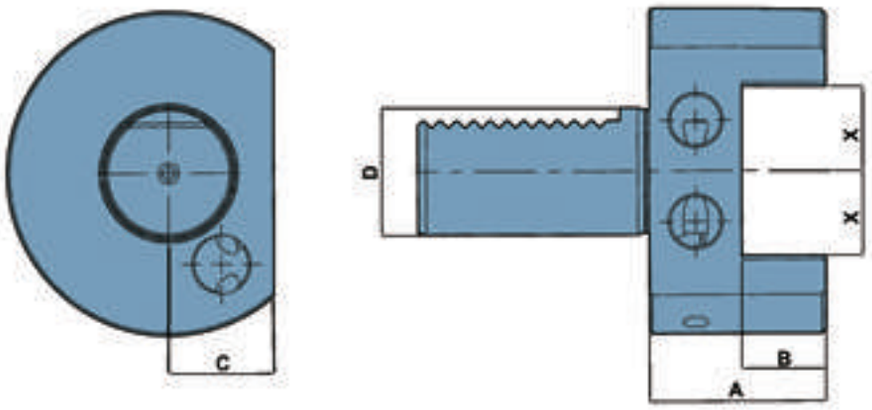
DIMENSIONS

ORDER NO.	OKUMA TYPE	D	X	A	B	C	E	CODE NO.
OKM-4167-2610-10	L200M	30	1.25″(INCH)	70	60	30.5	30.5	5006-692
OKM-4167-2604-10		30	32(MM)	70	60	30.5	30.5	5006-693
OKM-4163-2769-11	L300M	40	1.5″(INCH)	75	65	34.5	34.5	5006-694
OKM-4163-2704-12		40	40(MM)	75	60	34.5	34.5	5006-695

Turning Holder

OKUMA TYPE

NEW

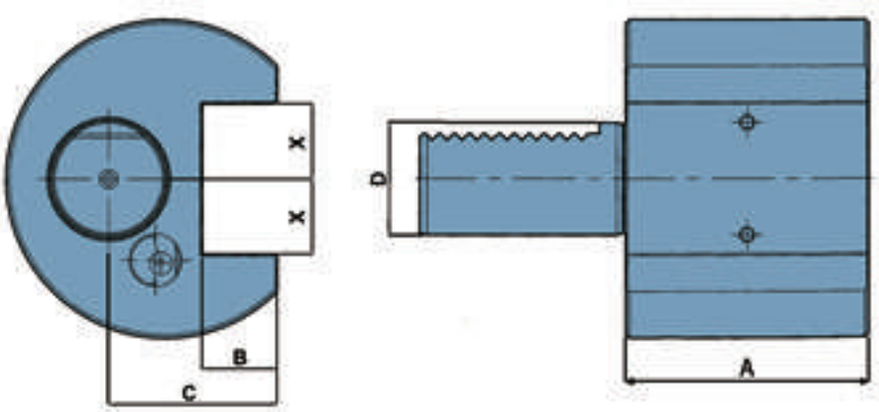


DIMENSIONS

ORDER NO.	OKUMA TYPE	D	X	A	B	C	CODE NO.
OKM-A4167-2607-10	L200M	30	0.75″ (INCH)	42	0.75″ (INCH)	25	5006-700
OKM-A4167-2601-10		30	20 (MM)	42	20 (MM)	25	5006-701
OKM-B4167-2608-10	L200M	30	0.75″ (INCH)	42	0.75″ (INCH)	55	5006-702
OKM-B4167-2602-10		30	20 (MM)	42	20 (MM)	55	5006-703
OKM-A4163-2766-11	L300M	40	1″ (INCH)	47	1″ (INCH)	30	5006-704
OKM-A4163-2701-11		40	25 (MM)	47	25 (MM)	30	5006-705
OKM-B4163-2676-11	L300M	40	1″ (INCH)	47	1″ (INCH)	65	5006-706
OKM-B4163-2702-11		40	25 (MM)	47	25 (MM)	65	5006-707

Facing Holder

NEW



DIMENSIONS

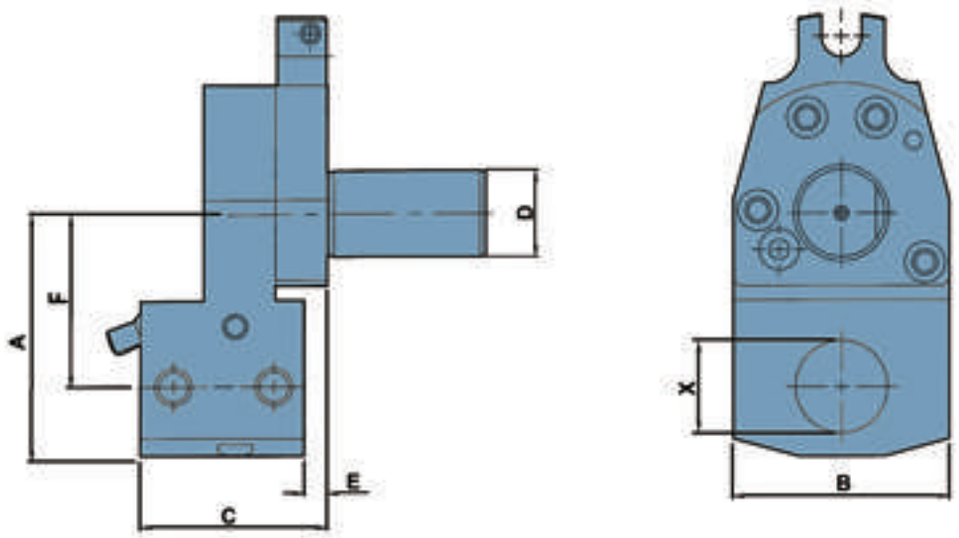
ORDER NO.	OKUMA TYPE	D	X	A	B	C	CODE NO.
OKM-C4167-2609-10	L200M	30	0.75″ (INCH)	65	0.75″ (INCH)	45	5006-711
OKM-C4167-2603-10		30	20 (MM)	65	20 (MM)	45	5006-712
OKM-C4163-2768-11	L300M	40	1″ (INCH)	72	1″ (INCH)	50	5006-713
OKM-C4163-2703-11		40	25 (MM)	72	25 (MM)	50	5006-714

Boring Bar Holder

OKUMA TYPE

NEW

● External Coolant Supply



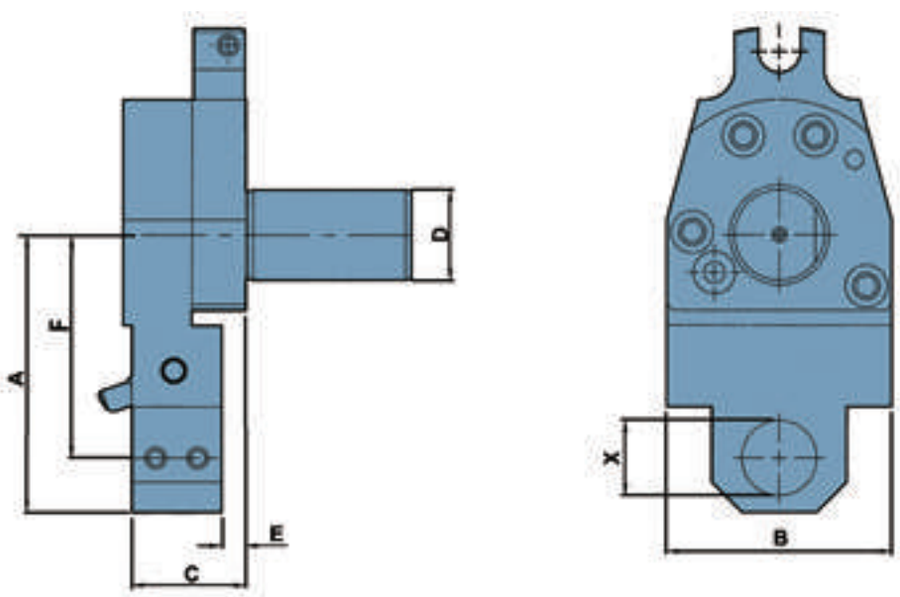
DIMENSIONS

ORDER NO.	OKUMA TYPE	D	X	A	B	C	E	F	CODE NO.
OKM-4167-2611-10	L200M	30	32 (MM)	84	75	65	8	60	5006-720
OKM-4176-2566-10	L300M	40	1.5" (INCH)	135	94	65	-10	110	5006-721
OKM-4163-2707-10		40	40 (MM)	135	94	65	-10	110	5006-722

Boring Bar Holder

● External Coolant Supply

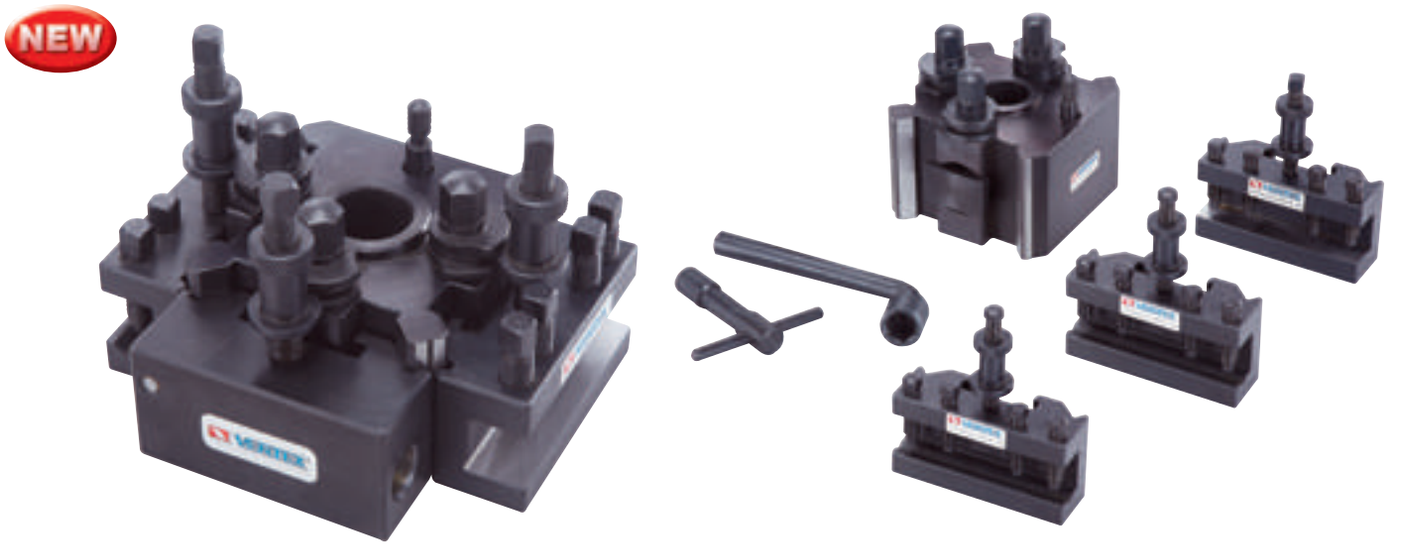
NEW

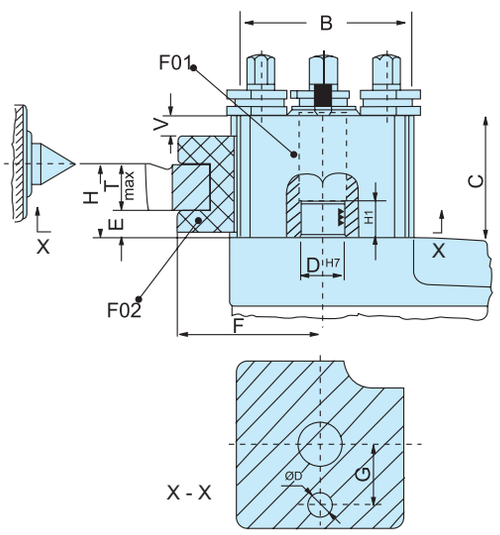


DIMENSIONS

ORDER NO.	OKUMA TYPE	D	X	A	B	C	E	F	CODE NO.
OKM-4167-2612-10	L200M	30	25	92	75	38	8	74	5006-726

Quick Change Tool Post & Holders-Italian Style





Italian Style

- The main block is assembled with cast-hardened steel, secured rigidly by the latch carriage machine steel bolt.
- The main block has 4 slide openings for inserting the proper tool-holder; these can be securely fastened by a simple and safe eccentric device, which also adjusts the height for each tool holder.
- The tool shank is securely held by 4 hardened screws. The simplicity and fast tool changing increase the production of lathe turning.
- No chatter or vibrations.
- This style is interchangeable with Rapidue and STM.

Complete set includes:

- 1 pieces Tool post
- 3 pieces of turning holders
- 1 piece of Round shanks
- Standard spanners

MAIN BODY DIMENSIONS

ORDER NO.	Lathe swing	B	D^{H7}	H		C	E	T_{max}	F	Vmax	Ømax	Morse NO.	ØD	G	H1	
				Min	Max											
VTP-M	180-250	57.7	18	24	34	45	8	16	56	10	14	1	7	27	18	70
VTP-AR-AP	250-300	64.5	18	25	41	56	9	16	63	16	16	1	8	30	16	80
VTP-A	250-350	82.0	24	32	42	60	12	20	75	10	18	2	10	35	20	100
VTP-BR-BP	300-380	91.6	28	38	53	75	13	25	90	17	20	3	10	40	20	115
VTP-B	350-500	100.0	30	47	65	85	15	32	100	15	24	3	12	48.2	25	127
VTP-C	500-650	115.3	38	51	72	94	19	32	108	24	26	4	14	58.2	26	145

SET TYPE

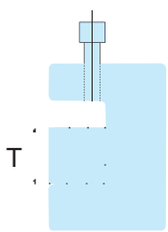
ORDER NO.	5-PIECE SETS EACH SET INCLUDES	G.W. kgs	CODE NO.
VTP-M	1 x F01-M, 3 x F02-M AND 1 x F03-M	3.1	5006-890
VTP-AR-AP	1 x F01-AR-AP, 3 x F02-AR-AP AND 1 x F03-AR-AP	4.5	5006-891
VTP-A	1 x F01-A, 3 x F02-A AND 1 x F03-A	9.3	5006-892
VTP-BR-BP	1 x F01-BR-BP, 3 x F02-BR-BP AND 1 x F03-BR-BP	13.2	5006-893
VTP-B	1 x F01-B, 3 x F02-B AND 1 x F03-B	17.5	5006-894
VTP-C	1 x F01-C, 3 x F02-C AND 1 x F03-C	23.0	5006-895

Individually Piece Italian Style

Tool Post

ORDER NO.	Centre Height (mm)	Lathe Swing (mm)	CODE NO.
VTP-F01-M	120	240	5006-900
VTP-F01-AR-AP	140	280	5006-901
VTP-F01-A	170	340	5006-902
VTP-F01-BR-BP	200	400	5006-903
VTP-F01-B	230	460	5006-904
VTP-F01-C	280	560	5006-905

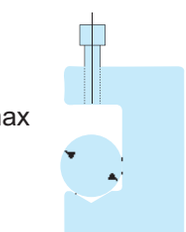
Turning Holder



● Turning Holders

ORDER NO.	Centre Height (mm)	Max. Square & Rectangular Tool (mm)	CODE NO.
VTP-F02-M	120	16	5006-906
VTP-F02-AR-AP	140	16	5006-907
VTP-F02-A	170	20	5006-908
VTP-F02-BR-BP	200	25	5006-909
VTP-F02-B	230	32	5006-910
VTP-F02-C	280	32	5006-911

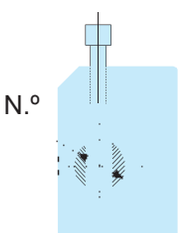
Round Shanks



● Round Shanks

ORDER NO.	Centre Height (mm)	Max. Holding Dia (mm)	CODE NO.
VTP-F03-M	120	14	5006-912
VTP-F03-AR-AP	140	16	5006-913
VTP-F03-A	170	18	5006-914
VTP-F03-BR-BP	200	20	5006-915
VTP-F03-B	230	24	5006-916
VTP-F03-C	280	26	5006-917

Morse Holder



● Morse Holder

ORDER NO.	Centre Height (mm)	Morse Taper Hole	CODE NO.
VTP-F04-M	120	MT No. 1	5006-918
VTP-F04-AR-AP	140	MT No. 2	5006-919
VTP-F04-A	170	MT No. 2	5006-920
VTP-F04-BR-BP	200	MT No. 3	5006-921
VTP-F04-B	230	MT No. 3	5006-922
VTP-F04-C	280	MT No. 4	5006-923

Quick Change Tool Post & Holders-40 Positioning European Style

NEW

European Style

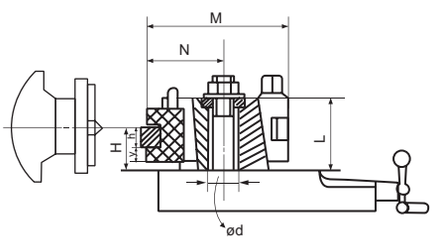
Tool post and tool holders are precisely grounded with 40 tool-bit positions. Easy to operate and can be fitted with many different tool-holders. Locking and loosening of any tool-holders are performed by a simple eccentric clamping. The simplicity and fast tool changing increases the lathe turning production. A height adjustment for tool bits is controlled by a knurled head-screw, without the need for packing plates or shims. This style is interchangeable with Hasse.

Complete set includes:

- 1 Pieces Tool post
- 3 pieces Turning & Facing Holder-"D"
- 1 piece Boring Bar Holder-"B"

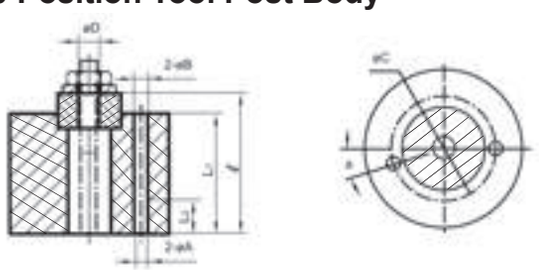
ORDER NO.	5-PIECE SETS EACH SET INCLUDES (5 pcs/set)	G.W. kgs	CODE NO.
VTP-V-A0	1 x tool post F40-0(A0), 2 x F40-010(A0D12x50) and 1 x F40-020(A0B12x50) and 1 x F40-040(A0A2.7x10x50)	1.5	5006-955A
VTP-V-A1	1 x tool post F40-1(A1), 2 x F40-111(A1D16x75) and 1 x F40-140(A1A2.7x10x75) and 1 x F40-121(A1B16x80)	4.0	5006-956A
VTP-V-E5	1 x tool post F40-2(B5), 2 x F40-211(E5D20x100) and 1 x F40-220(E5B30x100) and 1 x F40-240(E5A2.7x10x100)	8.0	5006-957A
VTP-B2	1 x tool post F40-3(B2), 3 x F40-311(B2D25x120) and 1 x F40-320(B2B32x130)	12.3	5006-958
VTP-C3	1 x tool post F40-4(C3), 3 x F40-411(C3D32x150) and 1 x F40-422(C3B40x160)	24.3	5006-959

Set Style For Lathe



ORDER NO. / PARAMETER	VTP-F40-0	VTP-F40-1	VTP-F40-2	VTP-F40-3	VTP-F40-4
	D12	D16 D20	D20 D25	D25 D32	D32 D40 D45
Driving Power (kw)	1.2	2	4.5	7	13
Lathe Swing (mm)	120-220	150-300	200-400	300-500	400-700
H min. (mm)	18.5	25.5 29.5	32 37	38 46	47.5 55.5 61
H max. (mm)	26.5	36.5 40.5	49 52	58 57	87.5 91.5 91
y (mm)	6.5	9.5	12	13 14	15.5 15.5 16
h (mm)	12	16 20	20 25	25 32	32 40 45
M (mm)	6.8	104	132	150	192 201 202
L (mm)	37	55	68	76	107
N (mm)	34	52	66	73	93 102 103
ød (mm)	13	20	20	32	40

40 Position Tool Post Body



ORDER NO.	ØD	L2	L1	ℓ	ØA	ØB	ØC	α
VTP-F40-0	6	-	30	37	-	-	-	-
VTP-F40-1	10	12	45	55.3	5.6	6.8	42	18°
VTP-F40-2	10	14	57	67.3	5.6	6.8	49	15°
VTP-F40-3	14	20	65	75	6.9	9	64	30°
VTP-F40-4	24.5	10	95	107	9.5	11	88	18°

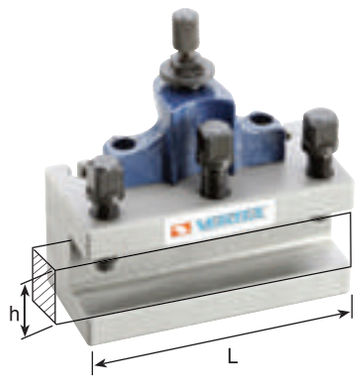
40 Position Tool Post

ORDER NO.	Lathe swing (mm)	For Style NO.	Height of cutting edge range (mm)	CODE NO.
VTP-F40-0	120-220	VTP-A0	D12/18.5~26.5	5006-930
VTP-F40-1	150-300	VTP-A1	D16/25.5~36.5 or D20/29.5~40.5	5006-931
VTP-F40-2	200-400	VTP-E5	D20/32~49 or D25/37~52	5006-932
VTP-F40-3	300-500	VTP-B2	D25/38~58 or D32/46~57	5006-933
VTP-F40-4	400-700	VTP-C3	D32/47.5~87.5 or D40/55.5~91.5 or D45/61~91	5006-934

Quick Change Tool Post & Holders-40 Positioning European Style

NEW

Turning & Facing Holder

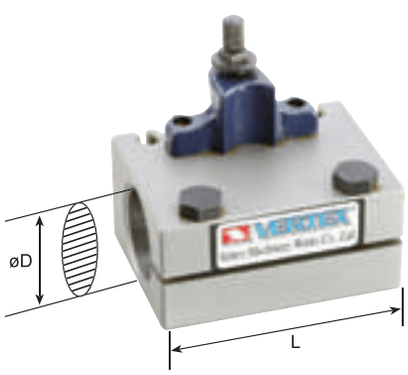


ORDER NO.	Series NO.	Max. Height (mm)	Max. Length (mm)	CODE NO.
VTP-F40-010	A0D	12	50	5006-935
VTP-F40-111	A1D	16	75	5006-936
VTP-F40-112	A1D	16	80	5006-937
VTP-F40-113	A1D	16	90	5006-938
VTP-F40-114	A1D	20	75	5006-939
VTP-F40-110	A1D	20	80	5006-940
VTP-F40-115	A1D	20	90	5006-941
VTP-F40-211	E5D	20	100	5006-942
VTP-F40-212	E5D	25	100	5006-943
VTP-F40-311	B2D	25	120	5006-944
VTP-F40-312	B2D	25	140	5006-945
VTP-F40-313	B2D	32	120	5006-946
VTP-F40-314	B2D	32	140	5006-947
VTP-F40-411	C3D	32	150	5006-948
VTP-F40-412	C3D	32	170	5006-949
VTP-F40-413	C3D	40	150	5006-950
VTP-F40-414	C3D	40	170	5006-951
VTP-F40-415	C3D	45	170	5006-952

Boring Bar Holder

ORDER NO.	Series NO.	Max. Dia (mm)	Length (mm)	CODE NO.
VTP-F40-020	A0B	12	50	5006-960
VTP-F40-121	A1B	16	80	5006-961
VTP-F40-120	A1B	18	80	5006-962
VTP-F40-122	A1B	20	90	5006-963
VTP-F40-220	E5B	30	100	5006-964
VTP-F40-320	B2B	32	130	5006-965
VTP-F40-421	C3B	32	160	5006-966
VTP-F40-422	C3B	40	160	5006-967

Drilling & Boring Bar Holder

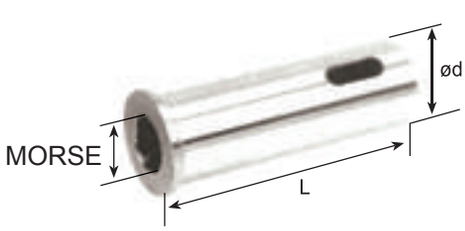


ORDER NO.	Series NO.	Max. Dia (mm)	Length (mm)	CODE NO.
VTP-F40-030	A0S	15	50	5006-968
VTP-F40-130	A1S	30	80	5006-969
VTP-F40-131	A1S	20	90	5006-970
VTP-F40-231	E5S	30	100	5006-971
VTP-F40-232	E5S	40	100	5006-972
VTP-F40-330	B2S	40	120	5006-973
VTP-F40-431	C3S	40	150	5006-974
VTP-F40-432	C3S	50	150	5006-975

Cut-Off Tool Holder

ORDER NO.	Series NO.	Blade- TxW	Length (mm)	CODE NO.
VTP-F40-040	A0A	2.7 x 10	50	5006-976
VTP-F40-140	A1A	2.7 x 10	75	5006-977
VTP-F40-240	E5A	2.7 x 10	100	5006-978
VTP-F40-340	B2A	4 x 16	120	5006-979
VTP-F40-440	C3A	5 x 18.5	150	5006-980

Morse Taper Bushing

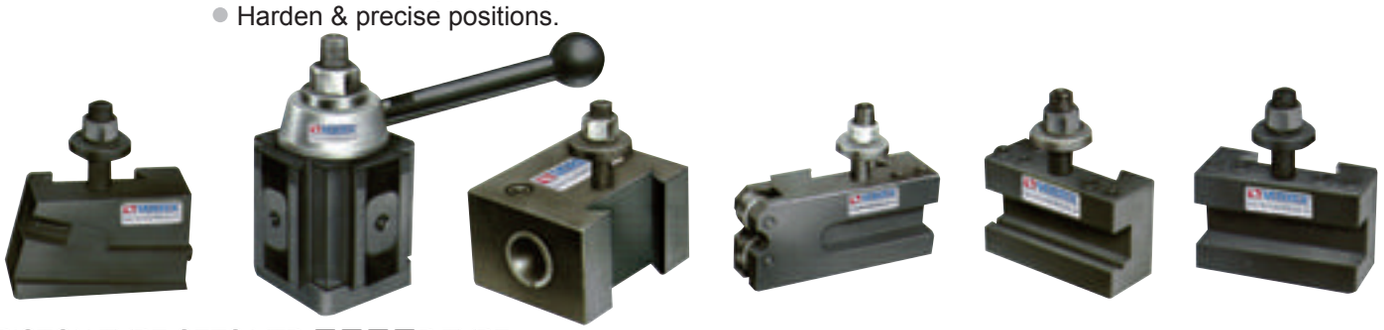


ORDER NO.	Series NO.	Diameter (mm)	Length (mm)	Morse Taper	CODE NO.
VTP-F40-151	A1L	30	80	NO.1	5006-981
VTP-F40-152	A1L	30	90	NO.2	5006-982
VTP-F40-251	E5L	30	96	NO.2	5006-983
VTP-F40-252	E5L	40	114	NO.3	5006-984
VTP-F40-350	E5L	40	120	NO.2	5006-985
VTP-F40-351	E5L	40	120	NO.3	5006-986
VTP-F40-451	C3L	40	140	NO.3	5006-987
VTP-F40-452	C3L	40	150	NO.4	5006-988
VTP-F40-453	C3L	50	150	NO.4	5006-989

Quick Change Tool Post American Type

NEW

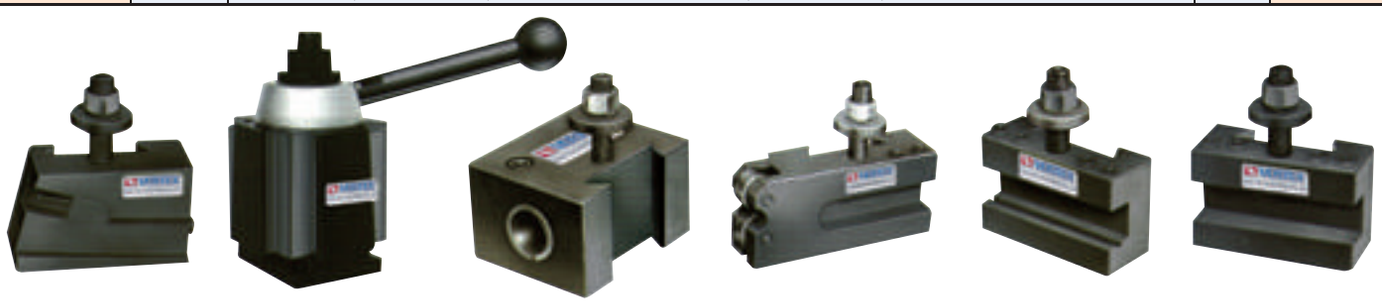
- For conventional lathe.
- The height of the post unit can be adjusted to desire position & center line.
- Can choose set type or separated holders.
- Harden & precise positions.



PISTON TYPE SETS VTP-□□□□P TYPE
BODY WITH 6 PCS HOLDER

PISTON STYLE TOOL POST SETS

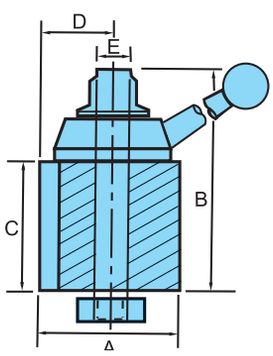
ORDER NO.	LATHE SWING	6-PIECE SETS EACH SET INCLUDES (6PCS/SET)	N. W. KGS	CODE NO.
VTP-0012P	12″	1 xF50-100, 1 xF50-101, 1 xF50-102 1 xF50-104, 1 xF50-107, 1 xF50-110 EACH 1PCS	5.5	5006-1101
VTP-1015P	10″-15″	1 xF50-200, 1 xF50-201, 1 xF50-202 1 xF50-204, 1 xF50-207, 1 xF50-210 EACH 1PCS	8	5006-1102
VTP-1318P	13″-18″	1 xF50-300, 1 xF50-301, 1 xF50-302 1 xF50-304, 1 xF50-307, 1 xF50-310 EACH 1PCS	11.5	5006-1103
VTP-1420P	14″-20″	1 xF50-400, 1 xF50-401, 1 xF50-402 1 xF50-404, 1 xF50-407, 1 xF50-410 EACH 1PCS	21	5006-1104



WEDGE TYPE SETS VTP-□□□□W TYPE
BODY WITH 6 PCS HOLDER

WEDGE STYLE TOOL POST SETS

ORDER NO.	LATHE SWING	6-PIECE SETS EACH SET INCLUDES (6PCS/SET)	N. W. KGS	CODE NO.
VTP-0012W	12″	1 xF50-111, 1 xF50-101, 1 xF50-102 1 xF50-104, 1 xF50-107, 1 xF50-110 EACH 1PCS	5.5	5006-1121
VTP-1015W	10″-15″	1 xF50-222, 1 xF50-201, 1 xF50-202 1 xF50-204, 1 xF50-207, 1 xF50-210 EACH 1PCS	8.0	5006-1122
VTP-1318W	13″-18″	1 xF50-333, 1 xF50-301, 1 xF50-302 1 xF50-304, 1 xF50-307, 1 xF50-310 EACH 1PCS	12.8	5006-1123
VTP-1420W	14″-20″	1 xF50-444, 1 xF50-401, 1 xF50-402 1 xF50-404, 1 xF50-407, 1 xF50-410 EACH 1PCS	21.0	5006-1124
VTP-1748W	17″-48″	1 xF50-555, 1 xF50-501, 1 xF50-502 1 xF50-504, 1 xF50-507, 1 xF50-510 EACH 1PCS	40.0	5006-1125

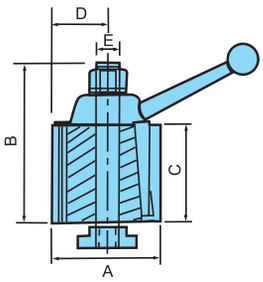


QUICK CHANGE TOOL POST PISTON STYLE-ACCESSORIES

ORDER NO.	SWING FOR LATHE		A		B		C		D		E	CODE NO.
	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC		
VTP-F50-1	12	304	2 1/2	63.5	3 3/4	95.25	2 1/4	57.15	1 7/16	36.512	M14X1.5	5006-1131
VTP-F50-2	10-15	255-380	3	76.2	4 3/8	111.125	2 3/4	69.85	1 5/8	41.275	M16X1.5	5006-1132
VTP-F50-3	13-18	330-455	3 3/8	85.725	4 7/8	123.825	3	76.2	1 7/8	47.625	M20X2	5006-1133
VTP-F50-4	14-20	355-505	4	101.6	6	152.4	3 5/8	92.075	2 1/8	53.975	M20X2	5006-1134

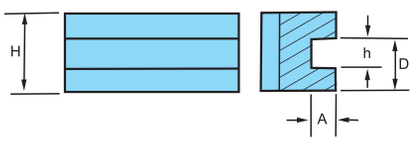
Quick Change Tool Post
American Type

NEW



QUICK CHANGE TOOL POST WEDGE STYLE

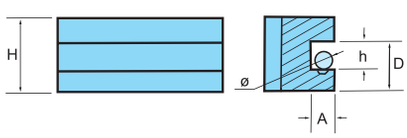
ORDER NO.	SWING FOR LATHE		A		B		C		D		E	CODE NO.
	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC		
VTP-F50-11	12	304	2 1/2	63.5	3 3/4	95.25	2 1/4	57.15	1 3/8	34.925	M14X1.5	5006-1141
VTP-F50-22	10-15	255-380	3	76.2	4 3/8	111.125	2 3/4	69.85	1 9/16	39.68	M16X1.5	5006-1142
VTP-F50-33	13-18	330-455	3 1/2	88.9	4 7/8	123.83	3	76.2	1 29/32	48.42	M20X2	5006-1143
VTP-F50-44	14-20	355-505	4	101.6	6	152.4	3 5/8	92.075	2 1/8	53.975	M22X2	5006-1144
VTP-F50-55	17-48	435-1215	5	127	7 3/8	187.32	4 5/8	117.47	2 11/16	68.26	M24X2	5006-1145



TURNING AND FACING HOLDER

ORDER NO.	A		D		H		h		CODE NO.
	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	
VTP-F50-101	7/16	11.11	15/16	23.81	1 1/2	38.1	1/2	12.7	5006-1151
VTP-F50-201	1/2	12.7	1 1/8	28.57	1 3/4	44.45	5/8	15.87	5006-1152
VTP-F50-301	5/8	15.87	1 7/16	36.51	2 1/8	53.97	3/4	19.05	5006-1153
VTP-F50-401	3/4	19.05	1 11/16	42.86	2 1/2	63.5	1	25.4	5006-1154
VTP-F50-501	1	25.4	3 3/16	55.56	3 1/8	79.37	1 1/4	31.75	5006-1155

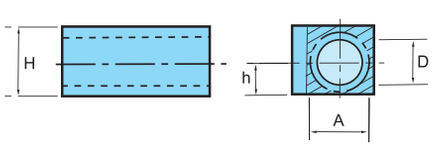
Suitable for any size smaller than max. Height h.



BORING, TURNING AND FACING HOLDER

ORDER NO.	A		D		H		h		Ø		CODE NO.
	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	
VTP-F50-102	7/16	11.11	15/16	23.81	1 1/2	38.1	1/2	12.7	7/16	11.11	5006-1161
VTP-F50-202	1/2	12.7	1 1/8	28.57	1 3/4	44.45	5/8	15.87	1/2	12.7	5006-1162
VTP-F50-302	5/8	15.87	1 7/16	36.51	2 1/8	53.97	3/4	19.05	5/8	15.87	5006-1163
VTP-F50-402	3/4	19.05	1 11/16	42.86	2 1/2	63.5	1	25.4	3/4	19.05	5006-1164
VTP-F50-502	1	25.4	3 3/16	55.56	3 1/8	79.37	1 1/4	31.75	1 1/8	28.57	5006-1165

Suitable for square and round shank & boring bars.

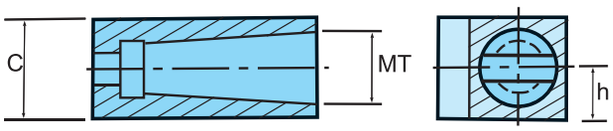


- Split bushing suitable for small boring bars & drill.

HEAVY DUTY BORING BAR HOLDER

ORDER NO.	A		D		H		h		CODE NO.
	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	
VTP-F50-104	3/4	19.05	5/8	15.87	1 1/2	38.1	3/4	19.05	5006-1171
VTP-F50-204	1	25.4	3/4	19.05	1 3/4	44.45	7/8	22.22	5006-1172
VTP-F50-304	1	25.4	3/4	19.05	2	50.8	1	25.4	5006-1173
VTP-F50-404	1 1/4	31.75	1	25.4	2 1/2	63.5	1 1/4	31.75	5006-1174
VTP-F50-504	1 1/2	38.1	1 1/4	31.75	3 1/8	79.37	1 9/16	39.68	5006-1175
VTP-F50-141	1	25.4	3/4	19.05	1 3/4	44.45	7/8	22.22	5006-1176
VTP-F50-241	1 1/4	31.75	1	25.4	2	50.8	1	25.4	5006-1177
VTP-F50-341	1 1/4	31.75	1	25.4	2 1/4	57.15	1 1/8	28.57	5006-1178
VTP-F50-441	1 1/2	31.75	1 1/4	25.4	2 3/4	57.15	1 3/8	28.75	5006-1179

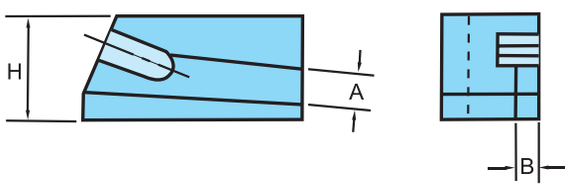
Quick Change Tool Post American Type



MORSE TAPER HOLDER FOR DRILLING

ORDER NO.	C		h		M.T	CODE NO.
	INCH	MERTIC	INCH	MERTIC		
VTP-F50-105	1 1/2	38.1	3/4	19.5	2	5006-1191
VTP-F50-205	1 3/4	44.45	7/8	22.225	2	5006-1192
VTP-F50-305	2	50.8	1	25.4	3	5006-1193
VTP-F50-405	2 1/2	63.5	1 1/4	31.75	3	5006-1194
VTP-F50-153	1 1/2	38.1	3/4	19.05	3	5006-1195
VTP-F50-253	1 3/4	44.45	7/8	22.22	3	5006-1196
VTP-F50-353	2 1/8	53.97	1 1/16	26.98	4	5006-1197
VTP-F50-453	2 3/8	60.32	1 3/16	30.16	4	5006-1198

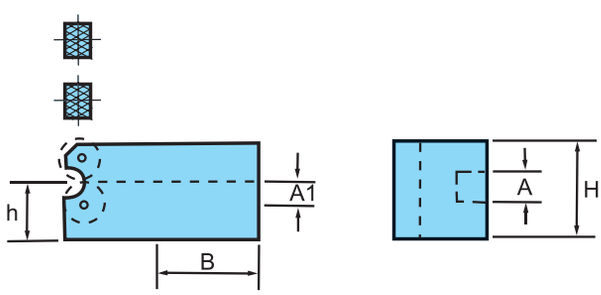
Allows to install a dead center serve as a tail stock.
Suitable for drilling & boring & reaming.



UNIVERSAL PARTING BLADE TOOL HOLDER

ORDER NO.	A		B		H		CODE NO.
	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	
VTP-F50-107	1/2	12.7	3/16	4.76	1 1/2	38.1	5006-1211
VTP-F50-207	11/16	17.46	3/16	4.76	1 3/4	44.45	5006-1212
VTP-F50-307	3/4	19.05	3/16	4.76	2	50.8	5006-1213
VTP-F50-407	7/8	22.23	1/4	6.35	2 1/2	63.5	5006-1214
VTP-F50-507	1 3/16	30.16	1/4	6.35	2 3/4	69.85	5006-1215

Suitable for cutting tool.



KNURLING, TURNING & FACING HOLDER

ORDER NO.	A		A1		B		H		h		CODE NO.
	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	INCH	MERTIC	
VTP-F50-110	1/2	12.7	3/8	9.53	2 1/2	63.5	1 9/16	39.68	7/8	22.22	5006-1221
VTP-F50-210	5/8	15.87	1/2	12.7	2 5/8	66.67	1 3/4	44.45	1	25.4	5006-1222
VTP-F50-310	3/4	19.05	1/2	12.7	3 1/8	79.37	2	50.8	1 3/16	30.16	5006-1223
VTP-F50-410	1	25.4	3/4	19.05	3 3/4	95.25	2 1/2	63.5	1 7/16	36.51	5006-1224
VTP-F50-510	1 1/4	31.75	1	25.4	4 1/2	114.3	3 1/8	79.37	1 7/8	47.62	5006-1225

Suitable for knurling, facing & boring.

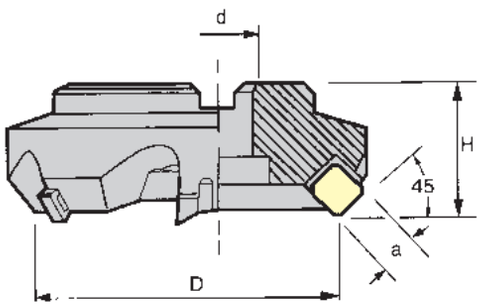
MEMO

CUTTING TOOL

F1~F14	FACE MILLING CUTTER / END MILLS CUTTING HOLDER / CUTTING BLOCKS / CHAMFER TOOL / POWER SUPER DRILL / BORING BAR
F15~F18	TOOL HOLDER FOR LATHE
F19~F20	BORING BAR
F21	TECHNICAL DATA
F22	INSERT FOR FACE MILL CUTTER
F23~F24	UNIVERSAL END MILLS
F25	FINISHING END MILLS
F26	BALL NOSE END MILLS / END MILLS FOR ALUMINIUM
F27~F28	SOLID CARBIDE END MILLS
F29	FINISHING END MILLS
F30	SOLID CARBIDE END MILLS / CARBIDE END MILL SET / CARBIDE BALL NOSE END MILL SET
F31	FINISHING END MILLS
F32	ROUGHING END MILLS / H.S.S END MILLS
F33	SOLID CARBIDE END MILLS
F34	BALL NOSE END MILLS
F35	SOLID CARBIDE NC / CNC SPOT DRILLS
F36~F37	TWIST DRILLS
F38~F40	HIGH PERFORMANCE DRILLS
F41	COMBINED DRILL AND COUNTERSINK
F42-F43	MACHINE REAMERS
F44	MACHINE REAMERS LONG LENGTH / HAND REAMERS-HSS
F45	ADJUSTABLE REAMERS / OUTSIDE RADIUS SHAPR END MILLS
F46	COUNTERBORE END MILLS / METAL SLITTING SAWS
F47	H.S.S. DRILL
F48~F49	TAP SERIES
F50	TAP WRENCHES WITH RATCHET /MAGNITIC TAPPER

Face Milling Cutter 45º

45º



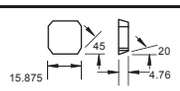
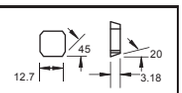
※All inserts are floating price.
Contact us before ordering from F1~F49

ORDER NO.	D	dØ INCH / METRIC	H	BLADE	WEIGHT(kg)	CODE NO.
SE545-3	80	25.4 / 27	50	5	2.1	6001-001I / 6001-001M
SE545-4	100	31.75 / 32	55	5	3.5	6001-002I / 6001-002M
SE545-5	125	38.1 / 40	60	6	5.1	6001-003I / 6001-003M
SE545-6	160	50.8 / 40	60	8	7.1	6001-004I / 6001-004M
SE545-8	200	47.625 / 60	60	10	10.4	6001-005I / 6001-005M
SE545-10	250	47.625 / 60	60	12	16.8	6001-006I / 6001-006M
SE545-12	300	47.625 / 60	60	14	27	6001-007I / 6001-007M
SE445-3	80	25.4 / 27	50	5	2.1	6001-020I / 6001-020M
SE445-4	100	31.75 / 32	55	5	3.2	6001-021I / 6001-021M
SE445-5	125	38.1 / 40	60	6	4.7	6001-022I / 6001-022M
SE445-6	160	50.8 / 40	60	8	7.3	6001-023I / 6001-023M
SE445-8	200	47.625 / 60	60	10	9.6	6001-024I / 6001-024M
SE445-10	250	47.625 / 60	60	12	16.7	6001-025I / 6001-025M
SE445-12	300	47.625 / 60	60	14	25.8	6001-026I / 6001-026M

PARTS

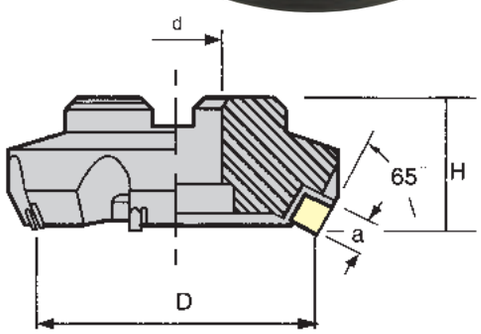
SCR-CL5/16	CL-S	SCR-ST-S4	ST-S	WRN-M4T

INSERT

545 HEAVY DUTY	445 LIGHT DUTY
	
SEKN-1504	SEKN-1203

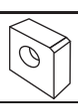
Face Milling Cutter 65º

65º

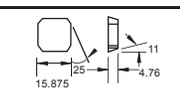
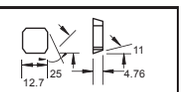


ORDER NO.	D	dØ INCH / METRIC	H	BLADE	WEIGHT(kg)	CODE NO.
SP535-3	80	25.4 / 27	50	5	2.1	6001-040I / 6001-040M
SP535-4	100	31.75 / 32	55	5	3.3	6001-041I / 6001-041M
SP535-5	125	38.1 / 40	60	6	5.6	6001-042I / 6001-042M
SP535-6	160	50.8 / 40	60	8	7.4	6001-043I / 6001-043M
SP535-8	200	47.625 / 60	60	10	10.2	6001-044I / 6001-044M
SP535-10	250	47.625 / 60	60	12	17.5	6001-045I / 6001-045M
SP535-12	300	47.625 / 60	60	14		6001-046I / 6001-046M
SP435-3	80	25.4 / 27	50	5	2.1	6001-070I / 6001-070M
SP435-4	100	31.75 / 32	55	5	3.3	6001-071I / 6001-071M
SP435-5	125	38.1 / 40	60	6	5.5	6001-072I / 6001-072M
SP435-6	160	50.8 / 40	60	8	7.8	6001-073I / 6001-073M
SP435-8	200	47.625 / 60	60	10	10.1	6001-074I / 6001-074M
SP435-10	250	47.625 / 60	60	12	17.5	6001-075I / 6001-075M
SP435-12	300	47.625 / 60	60	14	26.8	6001-076I / 6001-076M

PARTS

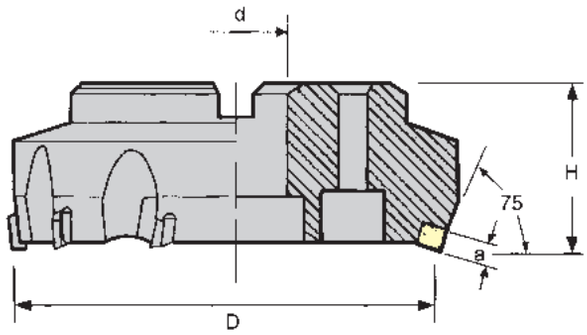
				
SCR-CL5/16	CL-S	SCR-ST-S4	ST-S	WRN-M4T

INSERT

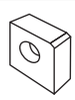
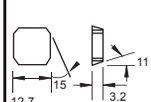
535 HEAVY DUTY	435 LIGHT DUTY
	
SPKN-1504	SPKN-1204

Face Milling Cutter 75º

75º

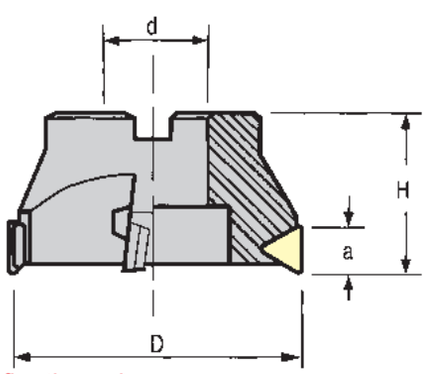


ORDER NO.	D	dØ INCH / METRIC	H	BLADE	WEIGHT(kg)	CODE NO.
FP-3	80	25.4 / 27	50	5	2	6001-090I / 6001-090M
FP-4	100	31.75 / 32	55	6	3.1	6001-091I / 6001-091M
FP-5	125	38.1 / 40	60	8	5.3	6001-092I / 6001-092M
FP-6	160	50.8 / 40	60	10	6.5	6001-093I / 6001-093M
FP-8	200	47.625 / 60	60	12	9.6	6001-094I / 6001-094M
FP-10	250	47.625 / 60	60	16	17.1	6001-095I / 6001-095M
FP-12	300	47.625 / 60	60	20	29.3	6001-096I / 6001-096M

INSERT	PARTS				
SPUN-120308 SPKN-120 3 1203EDR					
	SCR-CL5/16	CL-S	SCR-ST-S4	ST-S	WRN-M4T

Face Milling Cutter 90º

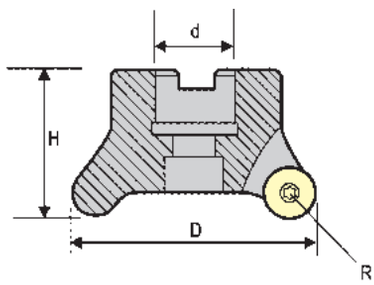
90º



※All inserts are floating price.
Contact us before ordering from F1~F49

ORDER NO.	D	dØ INCH / METRIC	H	a	BLADE	WEIGHT(kg)	INSERT					CODE NO.
TP-63	63	25.4 / 27	50	22	3	0.7	TPMN 2204 TPKN 2204PPR	ST-T	SCR-W5/16	WRN-M5T	SCR-ST-T4	6001-110I / 6001-110M
TP-80	80	25.4 / 27	50	22	4	1.1		ST-T	SCR-W5/16	WRN-M5T	SCR-ST-T4	6001-111I / 6001-111M
TP-100	100	31.75 / 32	55	22	5	1.9		ST-T	SCR-W5/16	WRN-M5T	SCR-ST-T4	6001-112I / 6001-112M
TP-125	125	38.1 / 40	60	22	6	3		ST-T	SCR-W5/16	WRN-M5T	SCR-ST-T4	6001-113I / 6001-113M
TP-160	160	50.8 / 40	60	22	7	4.9		ST-T	SCR-W5/16	WRN-M5T	SCR-ST-T4	6001-114I / 6001-114M
TP-200	200	47.625 / 60	60	22	8	8.1		ST-T	SCR-W5/16	WRN-M5T	SCR-ST-T4	6001-115I / 6001-115M
TP-250	250	47.625 / 60	60	22	9	15.9		ST-T	SCR-W5/16	WRN-M5T	SCR-ST-T4	6001-116I / 6001-116M
TP-300	300	47.625 / 60	60	22	10	28		ST-T	SCR-W5/16	WRN-M5T	SCR-ST-T4	6001-117I / 6001-117M

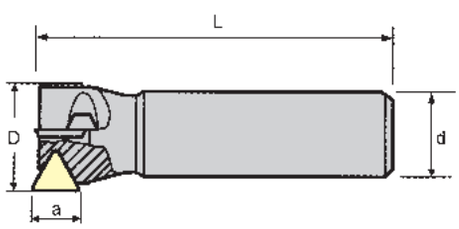
Round Insert Milling Cutter



※All inserts are floating price.
Contact us before ordering from F1~F49

ORDER NO.	D	dØ inch / metrics	H	BLADE	R	HITACHI INSERT	SCREW FOR INSERT	FIXING UNIT FOR CLAMP	CLAMP		CODE NO.
RM-5R50	50	- / 22	45	4	5	RDMT10T3	SCR-CRS4	SCR-DM3.5	CL-5R	T15	6001-130M
RM-5R63	63	25.4 / 22	50	5	5	RDMT10T3	SCR-CRS4		CL-5R	T15	6001-131I 6001-131M
RM-8R50	50	- / 22	45	3	8	RDMT1604	SCR-CRS5	SCR-W 1/4S		T20	6001-133M
RM-8R63	63	25.4 / 22	50	3,4	8	RDMT1604	SCR-CRS5			T20	6001-134I 6001-134M

Shoulder End Mills

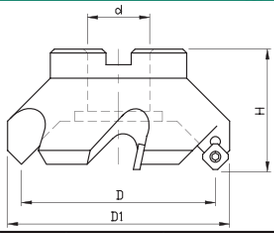


ORDER NO.	D	d	L	BLADE	INSERT			WEIGHT (kg)	CODE NO.
SAE-20	20	20	110	2	TPMN110308	SCR-W3/16	WRN-M3L	0.4	6001-150
SAE-25	25	20	110	2	TPMN110308	SCR-W3/16	WRN-M3L	0.3	6001-151
SAE-30	30	20	130	2	TPMN160308	SCR-W1/4	WRN-M4L	0.5	6001-152
SAE-35	35	20	130	2	TPMN160308	SCR-W1/4	WRN-M4L	0.4	6001-153
SAE-40	40	20	130	3	TPMN160308	SCR-W1/4	WRN-M4L	0.5	6001-154
SAE-45	45	20	130	3	TPMN160308	SCR-W1/4	WRN-M4L	0.6	6001-155
SAE-50	50	20	130	3	TPMN160308	SCR-W1/4	WRN-M4L	0.7	6001-156
SAE-63	63	32	150	4	TPMN160308	SCR-W1/4	WRN-M4L	1.5	6001-157

High-Speed Face Milling Cutter 45°

45°

NEW



※All inserts are floating price.
Contact us before ordering from F1~F49

- Material : SNCM439
- Hardness : HRC42
- Accuracy : 0.03 mm

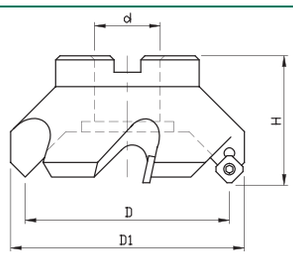
ORDER NO.	D	D1	dØ INCH / METRIC	H	BLADE	WEIGHT(kg)	INSERT	FIXING UNIT	WRENCH	CODE NO.
HCB-50	50	60	- / 22	45	4	0.53	SEKT1204	SCR-SE5	T20	6001-170M
HCB-63	63	75	25.4 / 27	50	5	0.83	SEKT1204	SCR-SE5	T20	6001-171I 6001-171M
HCB-80	80	96	25.4 / 27	55	6	1.24	SEKT1204	SCR-SE5	T20	6001-172I 6001-172M
HCB-100	100	116	31.75 / 32	55	6	1.83	SEKT1204	SCR-SE5	T20	6001-173I 6001-173M
HCB-125	125	141	38.1 / 40	60	8	3.09	SEKT1204	SCR-SE5	T20	6001-174I 6001-174M
HCB-150	150	158	50.8 / 40	60	10	4.06	SEKT1204	SCR-SE5	T20	6001-175I 6001-175M
HCB-200	200	212	47.625 / 60	60	12	7.68	SEKT1204	SCR-SE5	T20	6001-176I 6001-176M

High-Speed Face Milling Cutter 45°

ZINC COATED

45°

NEW

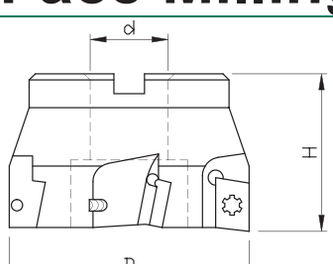


- Material : SNCM439
- Hardness : HRC42
- Accuracy : 0.03 mm

ORDER NO.	D	D1	dØ INCH / METRIC	H	BLADE	WEIGHT(kg) INCH / METRIC	INSERT	FIXING UNIT	WRENCH	CODE NO.
HCN-63	63	175	25.4 / 22	50	5	0.87	SEMT13T3	SCR-SE4	T15	6001-190I 6001-190M
HCN-80	80	96	25.4 / 27	55	6	1.24	SEMT13T3	SCR-SE4	T15	6001-191I 6001-191M
HCN-100	100	116	31.75 / 32	55	6	1.83	SEMT13T3	SCR-SE4	T15	6001-192I 6001-192M
HCN-125	125	141	38.1 / 40	60	8		SEMT13T3	SCR-SE4	T15	6001-193I 6001-193M
HCN-150	160	158	50.8 / 40	60	10	3.82	SEMT13T3	SCR-SE4	T15	6001-194I 6001-194M
HCN-200	200	212	47.625 / 60	60	12	7.88	SEMT13T3	SCR-SE4	T15	6001-195I 6001-195M

High-Speed Face Milling Cutter

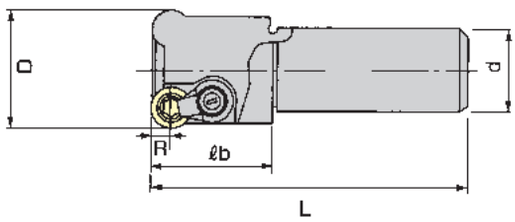
NEW



- Material : SNCM439
- Hardness : HRC42
- Accuracy : 0.03 mm

ORDER NO.	D	dØ INCH / METRIC	H	BLADE	WEIGHT(kg)	INSERT	FIXING UNIT	WRENCH	CODE NO.
FMC-50	50	25.4 / 22	40	4	0.34	APMT1604	SCR-CAP4	T15	6001-200I 6001-200M
FMC-63	63	25.4 / 22	40	5	0.57	APMT1604	SCR-CAP4	T15	6001-201I 6001-201M
FMC-80	80	25.4 / 27	50	6	1.15	APMT1604	SCR-CAP4	T15	6001-202I 6001-202M
FMC-100	100	31.75 / 32	50	7	1.83	APMT1604	SCR-CAP4	T15	6001-203I 6001-203M
FMC-125	125	38.1 / 40	50	8	2.99	APMT1604	SCR-CAP4	T15	6001-204I 6001-204M
FMC-160	160	38.1 / 40	50	10	5.07	APMT1604	SCR-CAP4	T15	6001-205I 6001-205M

Round Insert End Mills



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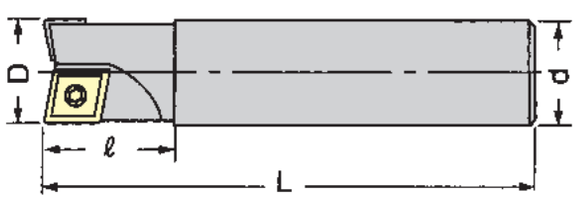
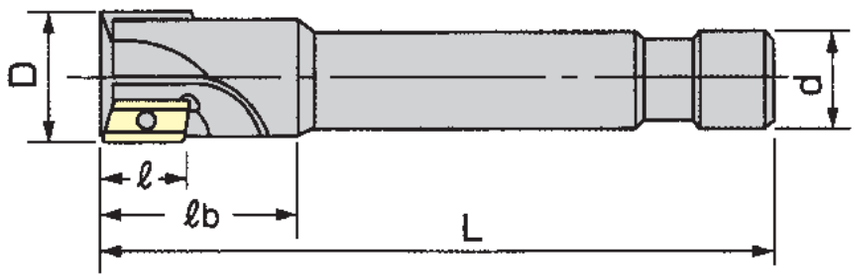
ORDER NO.	BLADE	D	L	d	ℓb	R	HITACHI INSERT	CLAMP	FIXING UNIT FOR CLAMP	FIXING UNIT FOR INSERT		CODE NO.
C20-4R20-150	2	20	150	20	50	4	RDMT0802	-	SCR-DM3.5	SCR-CRS3	T8	6002-001
C25-5R25-150	2	25	150	25	60	5	RDMT10T3	CL-5R		SCR-CRS4	T15	6002-002
C25-5R25-200	2	25	200	25	120	5	RDMT10T3	CL-5R		SCR-CRS4	T15	6002-003
C25-5R30-150	2	30	150	25	50	5	RDMT10T3	CL-5R		SCR-CRS4	T15	6002-004
C25-5R30-200	2	30	200	25	50	5	RDMT10T3	CL-5R		SCR-CRS4	T15	6002-005
C32-5R32-150	3	32	150	32	70	5	RDMT10T3	CL-5R		SCR-CRS4	T15	6002-006
C32-5R32-200	3	32	200	32	120	5	RDMT10T3	CL-5R		SCR-CRS4	T15	6002-007
C32-5R35X150	3	35	150	32	50	5	RDMT10T3	CL-5R		SCR-CRS4	T15	6002-008
C32-5R35X200	3	35	200	32	50	5	RDMT10T3	CL-5R		SCR-CRS4	T15	6002-009
C32-5R40X150	3	40	150	32	50	5	RDMT10T3	CL-5R		SCR-CRS4	T15	6002-010
C32-5R40X200	3	40	200	32	50	5	RDMT10T3	CL-5R		SCR-CRS4	T15	6002-011

Drilling & Milling Cutter

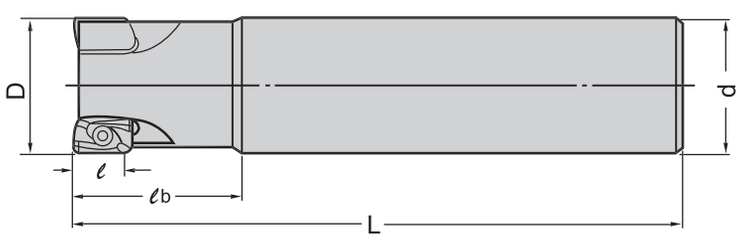


ORDER NO.	BLADE	D	L	d	l						CODE NO.
C16-DM16-120	2	16	120	16	30	CCMT060204	CPMT080204Z	SCR-CJU2.5	-	T8	6002-030
C16-DM16-175	2	16	175	16	40	CCMT060204	CPMT080204Z	SCR-CJU2.5	-	T8	6002-031
C20-DM20-130	2	20	130	20	30	CCMT060204	CPMT090204Z	SCR-CJU2.5	SCR-CJU3.5	T8.T15	6002-032
C20-DM20-185	2	20	185	20	50	CCMT060204	CPMT090204Z	SCR-CJU2.5	SCR-CJU3.5	T8.T15	6002-033
C25-DM25-130	2	25	130	25	40	CPMT090308	CPMT120308Z	SCR-CJU4	-	T15	6002-034
C25-DM25-220	2	25	220	25	70	CPMT090308	CPMT120308Z	SCR-CJU4	-	T15	6002-035
C32-DM32-170	2	32	170	32	50	CPMT120408	CPMT160408Z	SCR-CJU5	-	T20	6002-036
C32-DM32-250	2	32	250	32	80	CPMT120408	CPMT160408Z	SCR-CJU5	-	T20	6002-037

C16-SS16-120H



C25-SS25-150M



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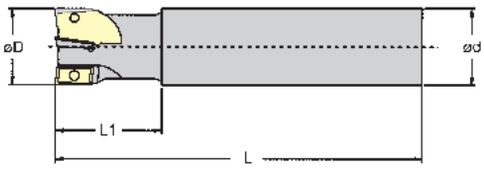
ORDER NO.	BLADE	D	L	d	l	ℓb	HITACHI / MITSUBISHI			CODE NO.
C16-SS16-120H	1	16	120	16	12	30	APET120204 HITACHI	SCR-CEX3.5	T15	6002-060
C20-SS20-120H	2	20	120	20	12	30	APET120204 HITACHI	SCR-CEX3.5	T15	6002-062
C20-SS20-200H	2	20	200	20	15	30	APET120204 HITACHI	SCR-CEX4	T15	6002-063
C25-SS25-130H	2	25	130	25	15	35	ADET160304 HITACHI	SCR-CEX4	T15	6002-064
C25-SS25-200H	2	25	200	25	15	35	ADET160304 HITACHI	SCR-CEX4	T15	6002-065
C32-SS32-150H	3	32	150	32	15	45	ADET160304 HITACHI	SCR-CEX4	T15	6002-066
C32-SS32-200H	3	32	200	32	15	45	ADET160304 HITACHI	SCR-CEX4	T15	6002-067
C25-SS25-150M	2	25	150	25	14	35	APMT1604PDER MITSUBISHI	SCR-CAP4	T15	6002-069
C25-SS30-150M	2	30	150	25	14	45	APMT1604PDER MITSUBISHI	SCR-CAP4	T15	6002-070
C32-SS32-150M	3	32	150	32	14	45	APMT1604PDER MITSUBISHI	SCR-CAP4	T15	6002-080
C32-SS32-250M	3	32	250	32	-	60	APMT1604PDER MITSUBISHI	SCR-CAP4	T15	6002-081
C32-SS35-150M	3	35	150	32	14	45	APMT1604PDER MITSUBISHI	SCR-CAP4	T15	6002-082
C32-SS40-150M	4	40	150	32	14	45	APMT1604PDER MITSUBISHI	SCR-CAP4	T15	6002-083

High-Speed Rough End Mills

Mitsubishi inserts recommended



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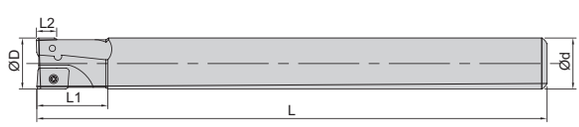
ORDER NO.	BLADE	D	d	L	L1	INSERT	FIXING UNIT	WRENCH	CODE NO.
VAPX-1616	2	16	16	120	24	MITSUBISHI AOMT 123608	SCR-APX2.5	T8	6002-150
VAPX-1716	2	17	16	150	24				6002-151
VAPX-2020	3	20	20	150	29				6002-152
VAPX-2120	3	21	20	150	29				6002-153
VAPX-2525	4	25	25	150	34				6002-154
VAPX-2625	4	26	25	200	34				6002-155

High-Speed Rough End Mills

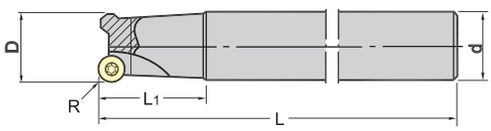
NEW



ORDER NO.	BLADE	D	d	L	L1	L2	⊙	⊛	WRENCH	WEIGHT (KG)	CODE NO.
VHRE-21010	2	10	10	100	28	5	XOMX-0602	SCR-AXO1.8	T6	0.07	6002-171
VHRE-21110	2	11	10	100	28	5				0.07	6002-172
VHRE-21212	2	12	12	120	28	5				0.11	6002-173
VHRE-21312	2	13	12	120	33	5				0.11	6002-174
VHRE-31412	3	14	12	120	25	5				0.11	6002-175
VHRE-22085	2	20	20	85	26	11	XOMX-1204	SCR-AXO3.5	T10	0.34	6002-181
VHRE-22015	2	20	20	150	26	11				0.36	6002-182
VHRE-22020	2	20	20	200	26	11				0.49	6002-183
VHRE-22215	2	22	20	150	26	11				0.37	6002-184
VHRE-32595	3	25	25	95	32	11				0.34	6002-185
VHRE-32515	3	25	25	150	32	11				0.54	6002-186
VHRE-32520	3	25	25	200	32	11				0.75	6002-187

CRT Round Insert End Mills

Mitsubishi inserts recommended



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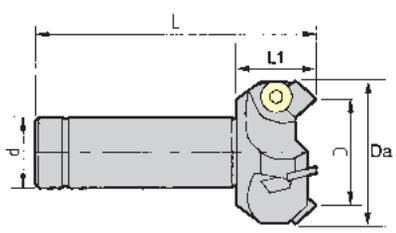
Contact us before ordering from F1~F49

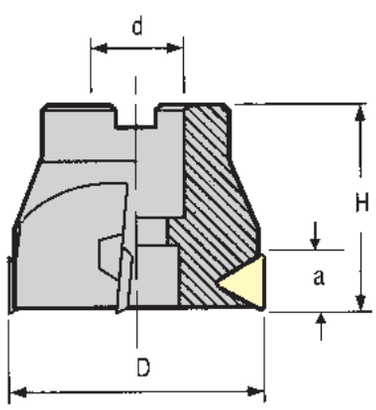
ORDER NO.	*D*	*d*	*R*	*L*	BLADE	INSERT			CLAMP	WEIGHT (kg)	CODE NO.
CRT-6R32X150	32	32	6	150	3	RPMT1204MO	SCR-M3.5	SCR-CRT4	CL-CRT	0.9	6003-051
CRT-6R32X200	32	32	6	200	3	RPMT1204MO	SCR-M3.5	SCR-CRT4	CL-CRT	1.3	6003-052
CRT-6R35X150	35	32	6	150	3	RPMT1204MO	SCR-M3.5	SCR-CRT4	CL-CRT	1.1	6003-053
CRT-6R35X200	35	32	6	200	3	RPMT1204MO	SCR-M3.5	SCR-CRT4	CL-CRT	1.3	6003-054

Face End Mills



ORDER NO.	*D*	*Da*	*d*	*L*	L_1	BLADE	INSERT			WEIGHT (kg)	CODE NO.
C-32-SE445-50	50	62	32	150	45	3	SEKN1203	SCR-W1/4L	WRN-M4T	1.25	6003-060
C-32-SE445-63	63	74	32	150	45	4	SEKN1203	SCR-W1/4L	WRN-M4T	1.3	6003-061

Shoulder Face Milling Cutter



ORDER NO.	*D*	*d* METRIC	*H*	*a*	BLADE	INSERT			CODE NO.
TPS-50	50	22	50	16	3	TPMN1603	SCR-W1/4	WRN-M4L	6003-065
TPS-63	63	22	50	16	4	TPMN1603	SCR-W1/4	WRN-M4L	6003-066

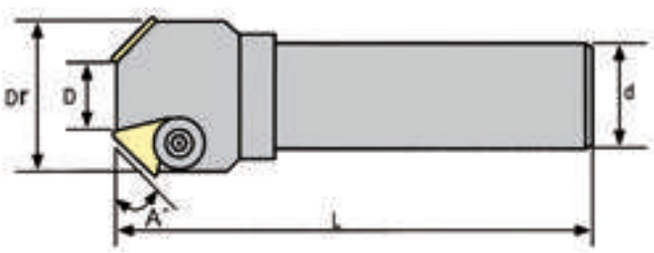
45º Chamfering End Mills

※All inserts are floating price.
Contact us before ordering from F1~F49

ORDER NO.	Cutter Dia.	Shank Dia.	Length	Capacity	FIXING UNIT	Wrench	INSERT	WEIGHT (kg)	CODE NO.
TC12	25ø	12ø	110	8ø~25ø	M4	T15	TCMT16T304	0.2	6004-002
TC40	40ø	12ø	100	20ø~36ø	M4	T15	TCMT16T304	0.34	6004-003

45º Chamfering End Mills

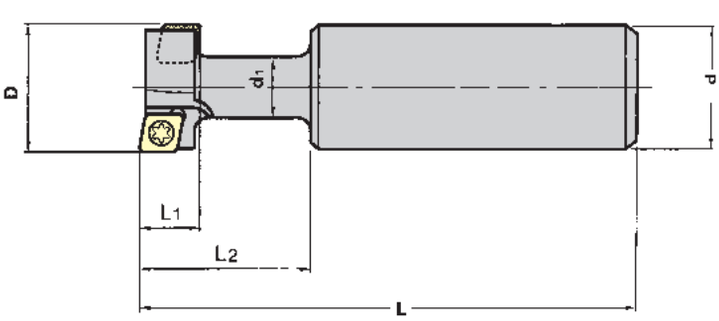
ISO CODE



ORDER NO.	A°	D	Dr	d	L	BLADE	INSERT	FIXING UNIT	WRENCH	CODE NO.
VCE-4521	45	5	21	16	120	1	TPUN1603	SCR-W1/4	WRN-M4L	6004-005
VCE-4531	45	10	31	20	120	2				6004-006
VCE-4550	45	20	50	25	130	3	TPUN2204	SCR-W5/16	WRN-M5L	6004-007
VCE-4532	45	6	32	32	150	1				6004-008
VCE-4563	45	35	63	25	150	3				6004-009

T-Slot End Mills

ISO CODE



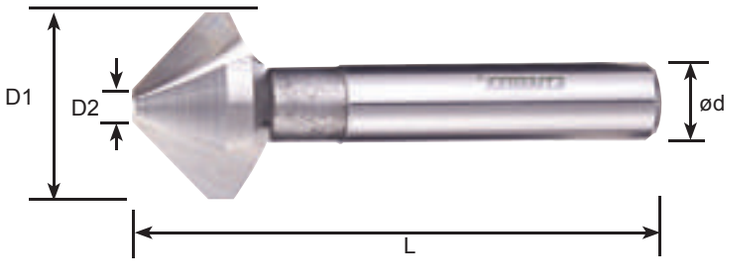
ORDER NO.	D	L1	d	d1	L2	L	BLADE	INSERT	FIXING UNIT	WRENCH	WEIGHT	CODE NO.
VTE-2411	24	11	20	12	29	90	4	CCMT-060204	SCR-TS2.5	T8	0.19	6004-015
VTE-3114	31	14	25	15	42	110	4	CPMT-080204Z			0.36	6004-016
VTE-3918	39	18	32	19	49	120	4	CPMT-090308	SCR-TS4	T15	0.61	6004-017
VTE-4922	49	22	32	25	60	140	4	CPMT-120408	SCR-TS5	T20	0.82	6004-018

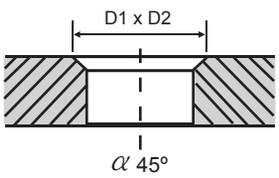
Chamfer Tool

High Speed steel θ90º
H.S.S.

NEW

※All inserts are floating price.
Contact us before ordering from F1~F49





- Counter sink hole
- Uncoated
- Flutes
- Cutting Angle:90º
- Round SHANK
- Material:H.S.S.

Unit : mm

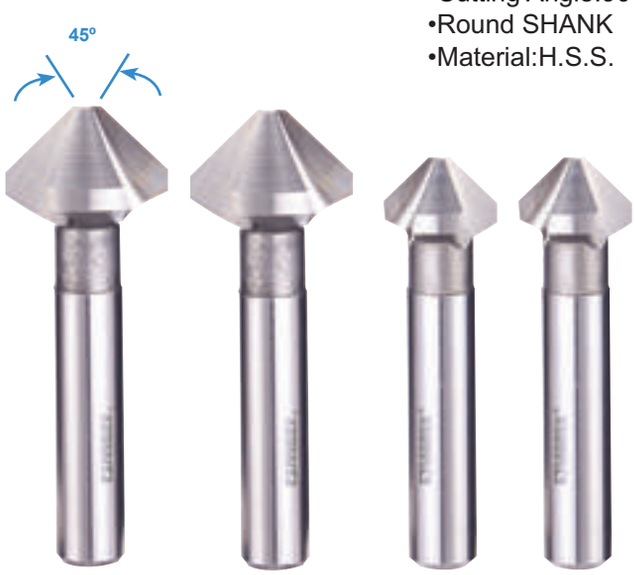
ORDER NO.	D1	D2	L mm	SHANK Ød	CODE NO.
CTH-51	5.0	1.5	40	4	6004-041
CTH-61	6.3	1.5	45	5	6004-042
CTH-82	8.3	2	50	6	6004-043
CTH-102	10.4	2.5	50	6	6004-044
CTH-122	12.4	2.8	56	8	6004-045
CTH-132	13.4	2.9	56	8	6004-046
CTH-163	16.5	3.2	60	10	6004-047
CTH-203	20.5	3.5	63	10	6004-048
CTH-253	25.0	3.8	67	10	6004-049
CTH-314	31.0	4.2	71	12	6004-050

Chamfer Tool 6 Pcs Kits

High speed steel 90º
H.S.S.

NEW

- Counter sink hole
- Uncoated
- Flutes
- Cutting Angle:90º
- Round SHANK
- Material:H.S.S.



CTH - A INCLUDING Ø 6.3, 8.3, 10.4, 12.4, 16.5, 20.5 MM 6 PCS/SET

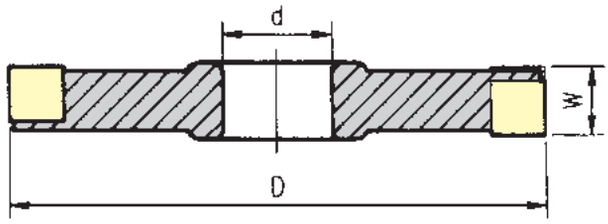
ORDER NO.	PCS/SET	WEIGHT(KG)	CODE NO.
CTH-A	6 PCS	0.5	6004-055

Side Milling Cutter

VERTEX

ISO CODE

※All inserts are floating price.
Contact us before ordering from F1~F49

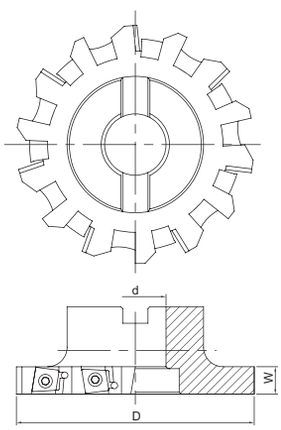


ORDER NO.	D	d	W	BLADE	INSERT	CLAMP	FIXING UNIT	WRENCH	CODE NO.
VSM-1016	100	1″	16	10	SPUN 120304	CL-S CL-SL	SCR-CL5/16	WRN-M4T	6004-020
VSM-1216	125	1″	16	14					6004-021
VSM-1516	150	1″	16	16					6004-022
VSM-2016	200	1″	16	20					6004-023

T-Side Milling Cutter

NEW

● Inserts : ISO Code



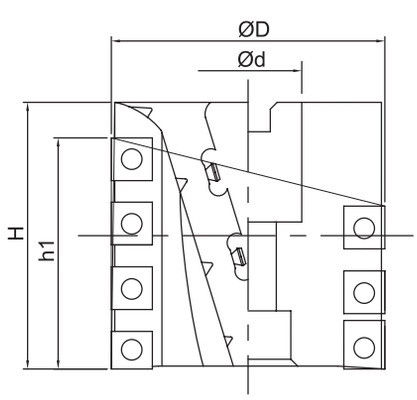
mm

ORDER NO.	BLADE	D	d	W			CLAMP	WRENCH	WEIGHT (kgs)	CODE NO.
VTSC-416	10	100	25.4	16	SPUN-1203	SCR-CL5/16	CL-S CL-SL	WRN-M4T	0.84	6004-161
VTSC-516	14	125	31.75	16					1.64	6004-162
VTSC-520	14	125	31.75	20	SPUN-1504				1.73	6004-163
VTSC-616	16	150	31.75	16	SPUN-1203				2.20	6004-164
VTSC-620	16	150	31.75	20	SPUN-1504				2.48	6004-165
VTSC-820	20	200	31.75	20					4.38	6004-166
VTSC-825	20	200	31.75	25					5.23	6004-167

Shell-Type Rough Milling Cutter

NEW

● Inserts : Walter / Hitachi



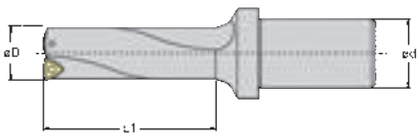
mm

ORDER NO.	FLUTE	D	dø	INCH / METRIC	H	h1	INSERT		INSERT			WRENCH	WEIGHT (kgs)	CODE NO.
VSRC-3	6	80	31.75		80	67	LPMT 1504	3	SPMT 1204	18	SCR-RGH5	T20	1.85	6004-171I
VSRC-80			32										1.85	6004-171M

Power Super Drill 2L

※All inserts are floating price.
Contact us before ordering from F1~F49

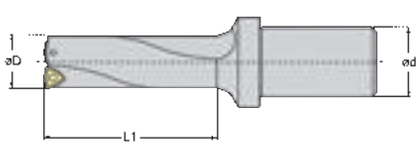
ISO CODE



ORDER NO.	D	d	L1	INSERT	FIXING UNIT	WRENCH	CODE NO.
VSD-15X2	15	25	30	WCMX030208	SCR-EXD2.5	T8	6004-100
VSD-16X2	16	25	32				6004-101
VSD-17X2	17	25	34				6004-102
VSD-18X2	18	25	36				6004-103
VSD-19X2	19	25	38				6004-104
VSD-20X2	20	25	40				6004-105
VSD-21X2	21	32	42	WCMX040208	SCR-EXD2.5	T8	6004-106
VSD-22X2	22	32	44				6004-107
VSD-23X2	23	32	46				6004-108
VSD-24X2	24	32	48				6004-109
VSD-25X2	25	32	50	WCMX050308	SCR-EXD3	T10	6004-110
VSD-26X2	26	32	52				6004-111
VSD-27X2	27	32	54				6004-112
VSD-28X2	28	32	56				6004-113
VSD-29X2	29	32	58				6004-114
VSD-30X2	30	32	60				6004-115
VSD-31X2	31	32	62	WCMX06T308	SCR-EXD3.5	T15	6004-116
VSD-32X2	32	32	64				6004-117
VSD-33X2	33	32	66				6004-118
VSD-34X2	34	32	68				6004-119
VSD-35X2	35	32	70				6004-120

Power Super Drill 3L

ISO CODE



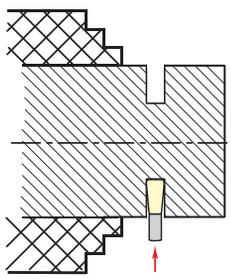
ORDER NO.	D	d	L1	INSERT	FIXING UNIT	WRENCH	CODE NO.
VSD-14X3	14	25	42	WCMX030208	SCR-EXD2.5	T8	6004-131
VSD-15X3	15	25	45				6004-132
VSD-16X3	16	25	48				6004-133
VSD-17X3	17	25	51				6004-134
VSD-18X3	18	25	54				6004-135
VSD-19X3	19	25	57				6004-136
VSD-20X3	20	25	60				6004-137
VSD-21X3	21	32	63	WCMX040208	SCR-EXD2.5	T8	6004-138
VSD-22X3	22	32	66				6004-139
VSD-23X3	23	32	69				6004-140
VSD-24X3	24	32	72				6004-141
VSD-25X3	25	32	75	WCMX050308	SCR-EXD3	T10	6004-142
VSD-26X3	26	32	78				6004-143
VSD-27X3	27	32	81				6004-144
VSD-28X3	28	32	84				6004-145
VSD-29X3	29	32	87				6004-146
VSD-30X3	30	32	90				6004-147
VSD-31X3	31	32	93	WCMX06T308	SCR-EXD3.5	T15	6004-148
VSD-32X3	32	32	96				6004-149
VSD-33X3	33	32	99				6004-150
VSD-34X3	34	32	102				6004-151
VSD-35X3	35	32	105				6004-152
VSD-36X3	36	32	108				6004-153
VSD-37X3	37	32	111				6004-154

Cutting Holder

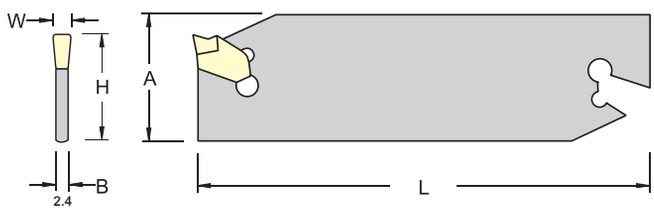
※All inserts are floating price.
Contact us before ordering from F1~F49

ISO CODE

EXAMPLE



NGTN3

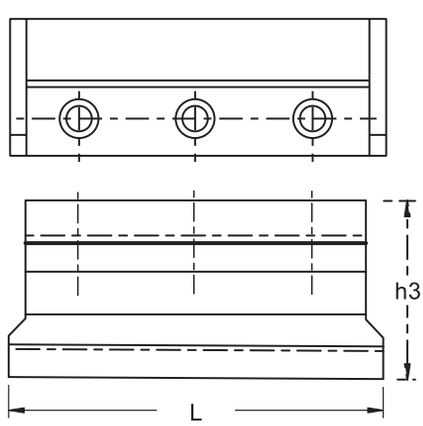


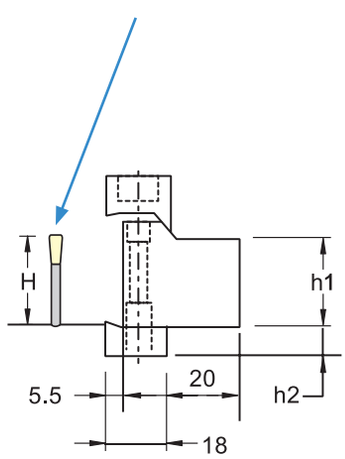
ORDER NO.	H	WORKING MAX. DIA.	W	B	L	A	INSERT	WEIGHT(kg)	CODE NO.
CGIH26-3	20	75	3	2.4	100	25.4	NGTN3	0.1	6004-030
CGIH32-3	25	100	3	2.4	150	31.3		0.2	6004-031

Cutting Blocks

h1: FOR LATHE TOOL POST SIZE

H: IS CUTTING HOLDER HEIGHT
FOR CGIH26-3 OR CGIH32-3





EXAMPLE

ORDER NO.	H	h_1	h_2	h_3	L	Clamp	FIXING UNIT	Wrench	Cutting Holders	WEIGHT(kg)	CODE NO.
SBU20-26	20	20	10	45	80	BCS15	BX0622	LH050	CGIH26-3	0.8	6004-060
SBU20-32	20	20	13.5	50	100	BCS20			CGIH32-3	1.1	6004-061
SBU25-32	25	25	8.5	50	110	BCS25				1.2	6004-062

Insert Type Boring Bar

Order NO. BBAR-D16 **CODE NO.6004-071**

※All inserts are floating price.
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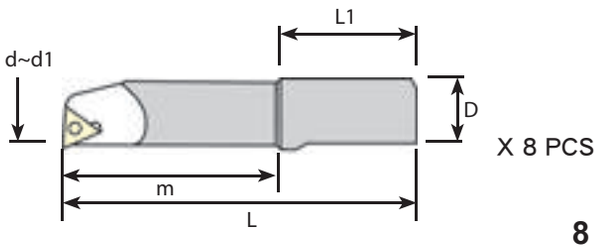


X 8 PCS

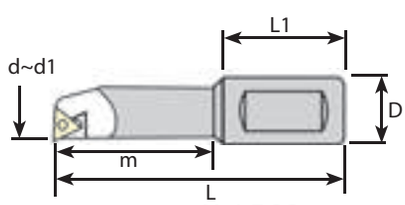
8 PCS/SET

BORING BAR FOR BORING HEAD

BORING BAR	SHANK D.	RANGE d~d1	DEPTH m	L1	SHANK L. L	INSERT	FIXING UNIT	WRENCH	WEIGHT (kg)
BRB1608-32	16	8-11	32	32	80	TBGT060102L	TS2001	T6	2
BRB1610-40	16	10-13	40	32	80				
BRB1612-53	16	12-15	53	32	85	TPGH090204L	TS2504	T8	
BRB1616-68	16	16-21	68	32	100				
BRB1620-83	16	20-26	83	32	115	TPGH110304L	TS3005	T10	
BRB1625-90	16	25-31	90	32	122				
BRB1630-90	16	30-36	90	32	122				
BRB1640-90	16	40-46	90	32	122				

Insert Type Boring Bar

Order NO. BBAR-D18A **CODE NO.6004-072A**



X 4 PCS

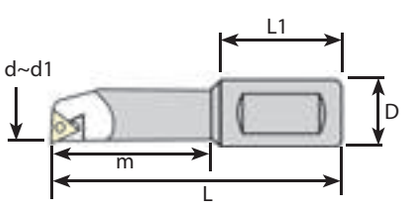
BORING BAR FOR BORING HEAD

4 PCS/SET

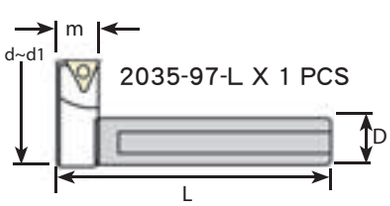
BORING BAR	SHANK D.	RANGE d~d1	DEPTH m	L1	SHANK L. L	INSERT	FIXING UNIT	WRENCH	WEIGHT (kg)
BRB1810-40	18	10-13	40	32	80	TBGT060102L	TS2001	T6	1.0
BRB1812-53	18	12-17	53	32	88	TPGH090204L	TS2504	T8	
BRB1816-68	18	16-21	68	32	104				
BRB1820-83	18	20-130	83	32	118	TPGH110304L	TS3005	T10	

Insert Type Boring Bar

Order NO. BBAR-D20 **CODE NO.6004-073**



X 7 PCS



BORING BAR FOR BORING HEAD

8 PCS/SET

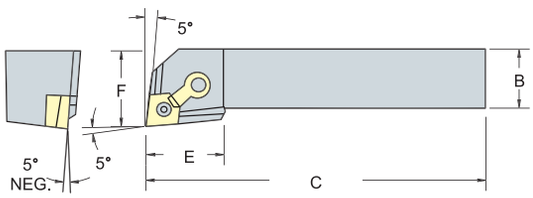
BORING BAR	SHANK D.	RANGE d~d1	DEPTH m	L1	SHANK L. L	INSERT	FIXING UNIT	WRENCH	WEIGHT (kg)
BRB2008-32	20	8-11	23	32	80	TBGT060102L	TS2001	T6	2.65
BRB2010-40	20	10-13	40	32	80				
BRB2012-53	20	12-17	53	32	85	TPGH090204L	TS2504	T8	
BRB2016-68	20	16-21	68	32	100				
BRB2020-83	20	20-130	83	32	115	TPGH110304L	TS3005	T10	
BRB2025-96	20	25-135	96	32	135				
BRB2030-115	20	30-140	115	32	154				
BRB2035-97-L	20	120-280	14		99				

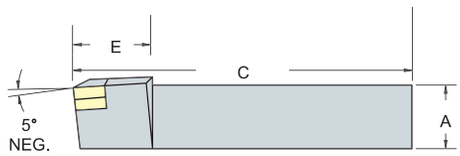
Tool Holders

※All inserts are floating price.
Contact us before ordering from F1~F49

ISO CODE

MCLN 95º

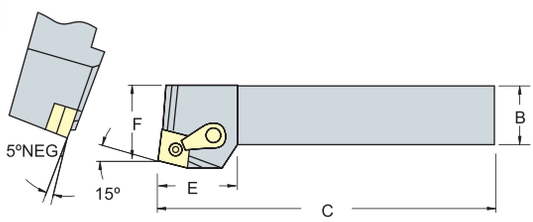


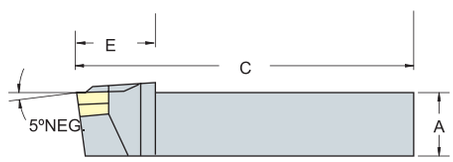


RIGHT HAND SHOWN LEFT HAND OPPOSITE

ORDER NO.		INSERT	DIMENSIONS					PARTS				WEIGHT (kg)		CODE NO.	
Righthand	Lefthand		A	B	C	E	F					Right	Left	Right	Left
MCLNR-1616H12	MCLNL-1616H12	CNMG 12 04 08	16	16	100	30	20	SMC-432	LCS-617	CP50-22	CS7-6024	0.25	0.25	6005-001	6005-101
MCLNR-2020K12	MCLNL-2020K12	CNMG 12 04 08	20	20	125	34	25	SMC-432	LCS-617	CP50-22	CS7-6030	0.45	0.45	6005-002	6005-102
MCLNR-2525M12	MCLNL-2525M12	CNMG 12 04 08	25	25	150	34	32	SMC-432	LCS-617	CP50-22	CS7-6030	0.80	0.80	6005-003	6005-103
MCLNR-3225P12	MCLNL-3225P12	CNMG 12 04 08	32	25	170	34	32	SMC-432	LCS-617	CP50-22	CS7-6030	1.20	1.20	6005-004	6005-104

MCRN 75º

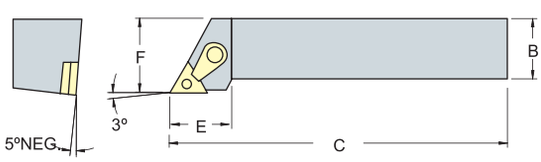


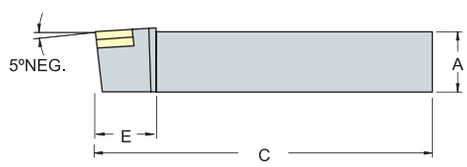


RIGHT HAND SHOWN LEFT HAND OPPOSITE

ORDER NO.		INSERT	DIMENSIONS					PARTS				WEIGHT (kg)		CODE NO.	
Righthand	Lefthand		A	B	C	E	F					Right	Left	Right	Left
MCRNR-2020K12	MCRNL-2020K12	CNMG 12 04 08	20	20	125	37	25	SMC-432	LCS-617	CP50-22	CS7-6030	0.45	0.45	6005-030	6005-130
MCRNR-2525M12	MCRNL-2525M12	CNMG 12 04 08	25	25	150	34	32	SMC-432	LCS-617	CP50-22	CS7-6030	0.80	0.80	6005-031	6005-131
MCRNR-3225P12	-	CNMG 12 04 08	32	25	170	34	32	SMC-432	LCS-617	CP50-22	CS7-6030	1.20	-	6005-032	-

MTJN 93º

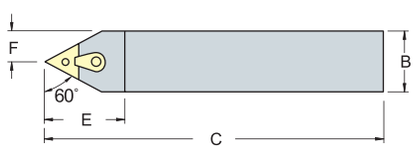


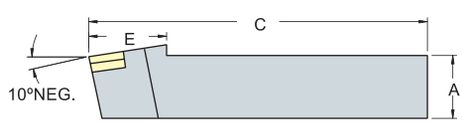


RIGHT HAND SHOWN LEFT HAND OPPOSITE

ORDER NO.		INSERT	DIMENSIONS					PARTS				WEIGHT (kg)		CODE NO.	
Righthand	Lefthand		A	B	C	E	F					Right	Left	Right	Left
MTJNR-2020K16	MTJNL-2020K16	TNMG 16 04 08	20	20	125	33	25	SMT-322	LCS-513	CP50-22	CS7-6024	0.45	0.45	6005-060	6005-160
MTJNR-2525M16	MTJNL-2525M16	TNMG 16 04 08	25	25	150	35	32	SMT-322	LCS-513	CP50-22	CS7-6030	0.80	0.80	6005-061	6005-161

MTEN 60º





NEUTRAL HAND

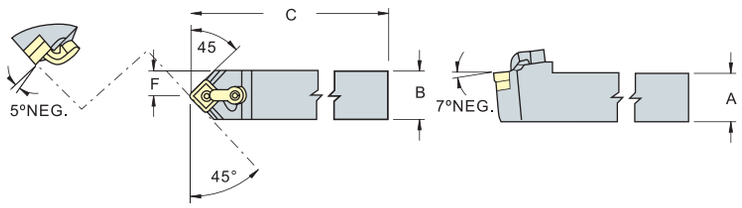
ORDER NO.	INSERT	DIMENSIONS					PARTS				WEIGHT (kg)	CODE NO.
Righthand		A	B	C	E	F						Right
MTENN-2020K16	TNMG 16 04 08	20	20	125	38	10	SMT-322	LCS-513	CP50-22	CS7-6030	0.45	6005-090
MTENN-2525M16	TNMG 16 04 08	25	25	150	40	12.5	SMT-322	LCS-513	CP50-22	CS7-6030	0.80	6005-091

※All inserts are floating price.
Contact us before ordering from F1~F49

ISO CODE

MSD

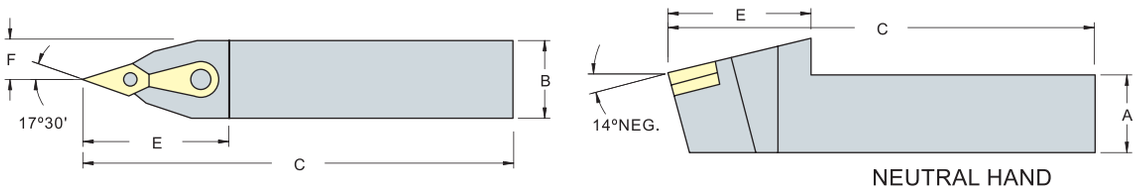
45º



ORDER NO.	INSERT	DIMENSIONS				PARTS				WEIGHT (kg)	CODE NO.
Righthand		A	B	C	F						Right
MSDNN-2020K12	SN□□1204□□	20	20	125	10	SMS-432	LCS-617	CP50-22	CS7-6030	0.45	6005-120
MSDNN-2525M12	SN□□1204□□	25	25	150	12.5	SMS-432	LCS-617	CP50-22	CS7-6030	0.80	6005-121
MSDNN-3225P12	SN□□1204□□	32	25	170	12.5	SMS-432	LCS-617	CP50-22	CS7-6030	1.20	6005-122

MVVN

72º32’

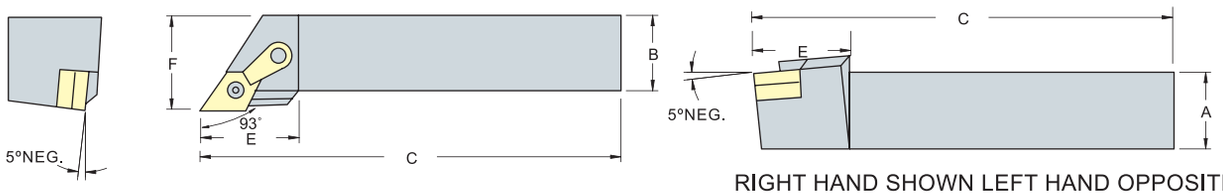


NEUTRAL HAND

ORDER NO.	INSERT	DIMENSIONS					PARTS				WEIGHT (kg)	CODE NO.
Righthand		A	B	C	E	F						Right
MVVNN-2020K 16K	VNMG 16 04 08	20	20	125	45	10	SMV-322	LCS-513	CP50-25	CS7-6030	0.45	6005-150
MVVNN-2525M 16K	VNMG 16 04 08	25	25	150	45	12.5	SMV-322	LCS-513	CP50-25	CS7-6030	0.80	6005-151
MVVNN-3225P 16K	VNMG 16 04 08	32	25	170	45	12.5	SMV-322	LCS-513	CP50-25	CS7-6030	1.20	6005-152

MDJN

93º

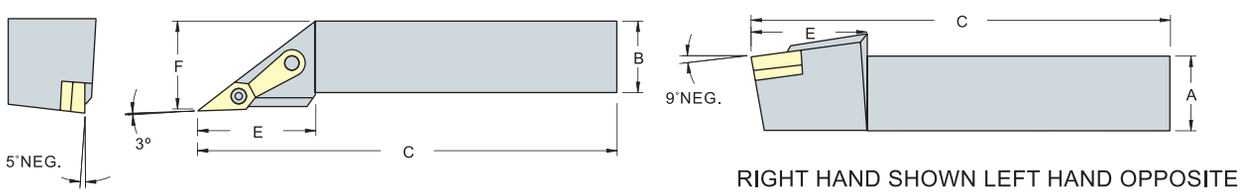


RIGHT HAND SHOWN LEFT HAND OPPOSITE

ORDER NO.		INSERT	DIMENSIONS					PARTS				WEIGHT (kg)		CODE NO.	
Righthand	Lefthand		A	B	C	E	F					Right	Left	Right	Left
MDJNR-2020K15	MDJNL-2020K15	DNMG 15 04 08	20	20	125	37	25	SMD-463	LCS-619	CP50-24	CS7-6030	0.45	0.45	6005-180	6005-280
MDJNR-2525M15	MDJNL-2525M15	DNMG 15 04 08	25	25	150	37	32	SMD-463	LCS-619	CP50-24	CS7-6030	0.80	0.80	6005-181	6005-281
MDJNR-3225P15	MDJNL-3225P15	DNMG 15 04 08	32	25	170	42	32	SMD-463	LCS-619	CP50-24	CS7-6030	1.20	1.20	6005-182	6005-282

MVJN

93º



RIGHT HAND SHOWN LEFT HAND OPPOSITE

ORDER NO.		INSERT	DIMENSIONS					PARTS				WEIGHT (kg)		CODE NO.	
Righthand	Lefthand		A	B	C	E	F					Right	Left	Right	Left
MVJNR-2020K16	MVJNL-2020K16	VNMG 16 04 08	20	20	125	39	25	SMV-322	LCS-513	CP50-25	CS7-6030	0.45	0.45	6005-210	6005-310
MVJNR-2525M16	MVJNL-2525M16	VNMG 16 04 08	25	25	150	44	32	SMV-322	LCS-513	CP50-25	CS7-6030	0.80	0.80	6005-211	6005-311
MVJNR-3225P16	MVJNL-3225P16	VNMG 16 04 08	32	25	170	44	32	SMV-322	LCS-513	CP50-25	CS7-6030	1.20	1.20	6005-212	6005-312

WTJN
93º

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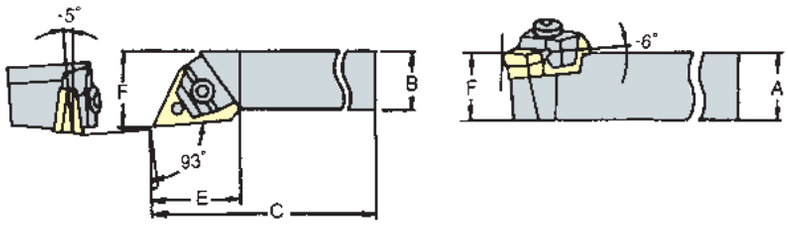
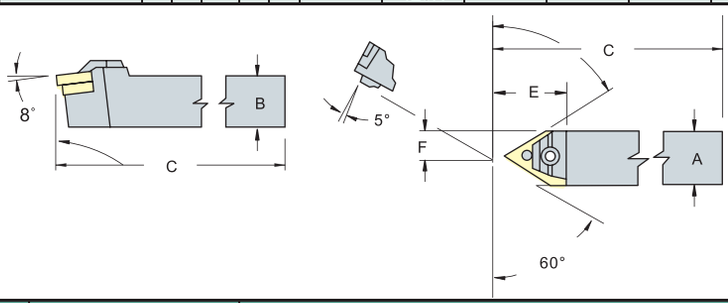


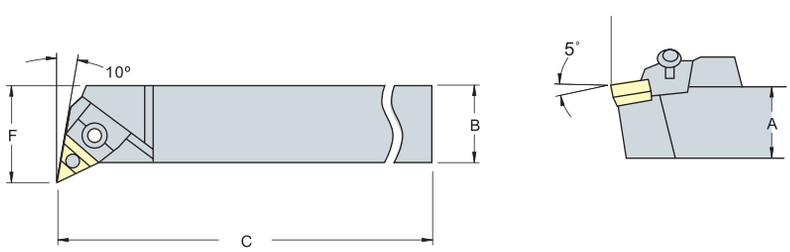
ORDER NO.		INSERT	DIMENSIONS					PARTS						WEIGHT(kg)		CODE NO.	
Righthand	Lefthand		A	B	C	E	F							Right	Left	Right	Left
WTJNR-2020K16	WTJNL-2020K16	TNMG 16 04 08	20	20	125	32	25	SMT-322	LCS-420N	LCS-4B	MWW-30	CS70-24	LW030	0.45	0.45	6005-240	6005-340
WTJNR-2525M16	WTJNL-2525M16	TNMG 16 04 08	25	25	150	32	32	SMT-322	LCS-420N	LCS-4B	MWW-30	CS70-24	LW030	0.80	0.80	6005-241	6005-341

WTEN
60º



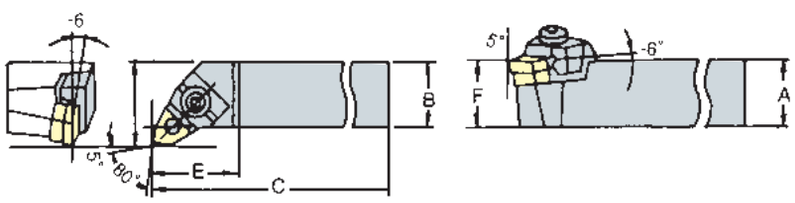
ORDER NO.	INSERT	DIMENSIONS					PARTS						WEIGHT (kg)	CODE NO.
Righthand		A	B	C	E	F								Right
WTENN-2020K16	TNMG 16 04 08	20	20	125	32	10	SMT-322	LCS-420N	LCS-4B	MWW-30	CS70-24	LW030	0.45	6005-270
WTENN-2525M16	TNMG 16 04 08	25	25	150	38	12.5	SMT-322	LCS-420N	LCS-4B	MWW-30	CS70-24	LW030	0.80	6005-271

WTXN



ORDER NO.		INSERT	DIMENSIONS					PARTS						WEIGHT(kg)		CODE NO.	
Righthand	Lefthand		A	B	C	E	F							Right	Left	Right	Left
WTXNR-2020K16	WTXNL-2020K16	TNMG 16 04 08	20	20	125	32	25	SMT-322	LCS-420N	LCS-4B	MWW-30	CS70-24	LW030	0.45	0.45	6005-300	6005-400
WTXNR-2525M16	WTXNL-2525M16	TNMG 16 04 08	25	25	150	32	32	SMT-322	LCS-420N	LCS-4B	MWW-30	CS70-24	LW030	0.80	0.80	6005-301	6005-401

WWLN
95º



ORDER NO.		INSERT	DIMENSIONS					PARTS						WEIGHT(kg)		CODE NO.	
Righthand	Lefthand		A	B	C	E	F							Right	Left	Right	Left
WWLNR-2020K08	WWLNL-2020K08	WNMG 08 04 08	20	20	125	32	25	SMW-433	LCS-520N	LCS-5B	MMW-40	CS70-25	LW040 & LW025	0.45	0.45	6005-330	6005-430
WWLNR-2525M08	WWLNL-2525M08	WNMG 08 04 08	25	25	150	32	32	SMW-433	LCS-520N	LCS-5B	MMW-40	CS70-25	LW040 & LW025	0.80	0.80	6005-331	6005-431
WWLNR-3225P08	WWLNL-3225P08	WNMG 08 04 08	32	25	170	32	32	SMW-433	LCS-520N	LCS-5B	MMW-40	CS70-25	LW040 & LW025	1.20	1.20	6005-332	6005-432

SCLC

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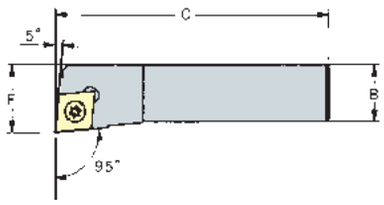
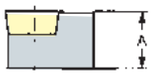
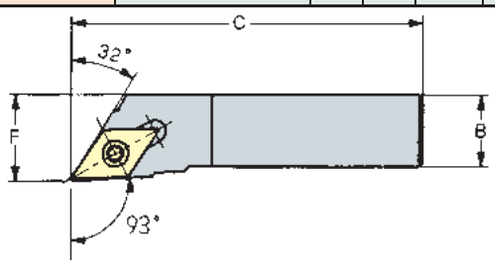
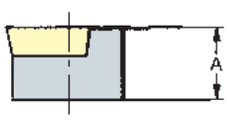




ORDER NO.		INSERT	DIMENSIONS				PARTS		WEIGHT (kg)		CODE NO.	
Righthand	Lefthand		A	B	C	F			Right	Left	Right	Left
SCLCR-0808H06	SCLCL-0808H06	CC□□0602□□	8	8	100	10	CS2560	FT-7	0.06	0.06	6005-360	6005-460
SCLCR-1010H06	SCLCL-1010H06	CC□□0602□□	10	10	100	12	CS2560	FT-7	0.08	0.08	6005-361	6005-461
SCLCR-1212H09	SCLCL-1212H09	CC□□09T3□□	12	12	100	16	CS3590	FT-15	0.12	0.12	6005-362	6005-462
SCLCR-1616H09	SCLCL-1616H09	CC□□09T3□□	16	16	100	20	CS3590	FT-15	0.21	0.21	6005-363	6005-463

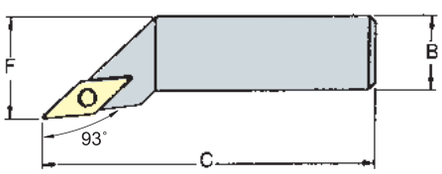
SDJC





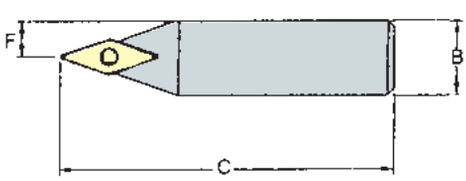
ORDER NO.		INSERT	DIMENSIONS				PARTS		WEIGHT (kg)		CODE NO.	
Righthand	Lefthand		A	B	C	F			Right	Left	Right	Left
SDJCR-0808H07	SDJCL-0808H07	DC□□0702□□	8	8	100	10	CS2560	FT-7	0.06	0.06	6005-390	6005-490
SDJCR-1010H07	SDJCL-1010H07	DC□□0702□□	10	10	100	12	CS2560	FT-7	0.08	0.08	6005-391	6005-491
SDJCR-1212H11	SDJCL-1212H11	DC□□11T3□□	12	12	100	16	CS35095	FT-15	0.12	0.12	6005-392	6005-492
SDJCR-1616H11	SDJCL-1616H11	DC□□11T3□□	16	16	100	20	CS35095	FT-15	0.21	0.21	6005-393	6005-493

SVJC



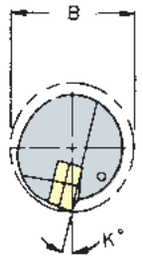
ORDER NO.		INSERT	DIMENSIONS				PARTS				WEIGHT (kg)		CODE NO.	
Righthand	Lefthand		A	B	C	F					Right	Left	Right	Left
SVJCR-1010H11	SVJCL-1010H11	VC□□1103□□	10	10	100	10.5	-	-	CS2560	FT-7	0.08	0.08	6005-420	6005-520
SVJCR-1212H11	SVJCL-1212H11	VC□□1103□□	12	12	100	12.5	-	-	CS2560	FT-7	0.12	0.12	6005-421	6005-521
SVJCR-1616H11	SVJCL-1616H11	VC□□1103□□	16	16	100	16.5	-	-	CS2560	FT-7	0.21	0.21	6005-422	6005-522
SVJCR-2020K16	SVJCL-2020K16	VC□□1604□□	20	20	125	25	SMV-321	SN535	CS35115	FT-15	0.40	0.40	6005-423	6005-523
SVJCR-2525M16	SVJCL-2525M16	VC□□1604□□	25	25	150	32	SMV-321	SN535	CS35115	FT-15	0.72	0.72	6005-424	6005-524

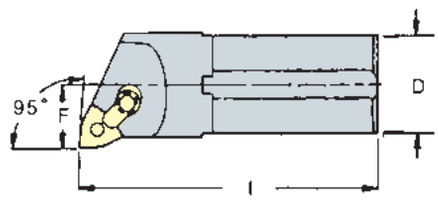
SVVC



ORDER NO.	INSERT	DIMENSIONS				PARTS				WEIGHT (kg)		CODE NO.
		A	B	C	F					Right	Left	
SVVCN-1010H11	VC□□1103□□	10	10	100	5	-	-	CS2560	FT-7	0.08	0.08	6005-450
SVVCN-1212H11	VC□□1103□□	12	12	100	6	-	-	CS2560	FT-7	0.12	0.12	6005-451
SVVCN-1616H11	VC□□1103□□	16	16	100	8	-	-	CS2560	FT-7	0.21	0.21	6005-452
SVVCN-2020K16	VC□□1604□□	20	20	125	10	SMV-321	SN535	CS35115	FT-15	0.40	0.40	6005-453
SVVCN-2525M16	VC□□1604□□	25	25	150	12.5	SMV-321	SN535	CS35115	FT-15	0.72	0.72	6005-454

MWLN
95°





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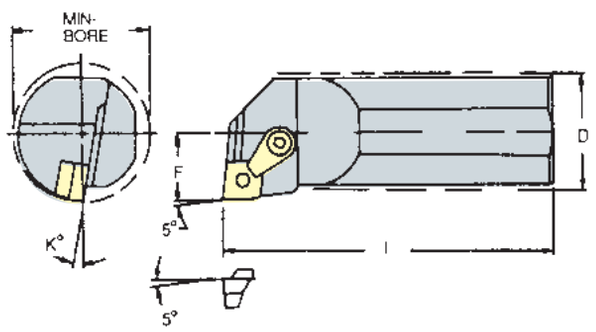
Contact us before ordering from F1~F49

ORDER NO.		INSERT	DIMENSIONS					PARTS				WEIGHT (kg)		CODE NO.	
Righthand	Lefthand		D	F	l	B	K°					Right	Left	Right	Left
S20R-MWLNR08	S20R-MWLNL08	WNMG 08 04 □□	20	13	200	25	17°	-	LCS-511	CP50-26	CS7-5018	0.50	0.50	6005-480	6005-580
S25R-MWLNR08	S25R-MWLNL08	WNMG 08 04 □□	25	17	200	32	14°	-	LCS-511	CP50-22	CS7-6024	0.95	0.95	6005-481	6005-581
S32S-MWLNR08	S32S-MWLNL08	WNMG 08 04 □□	32	22	250	40	14°	SMW-432	LCS-617	CP50-22	CS7-6030	1.60	1.60	6005-482	6005-582
S40T-MWLNR08	S40T-MWLNL08	WNMG 08 04 □□	40	27	300	50	12°	SMW-432	LCS-617	CP50-22	CS7-6030	2.90	2.90	6005-483	6005-583
S50U-MWLNR08	S50U-MWLNL08	WNMG 08 04 □□	50	35	350	63	12°	SMW-432	LCS-617	CP50-22	CS7-6030	5.90	5.90	6005-484	6005-584

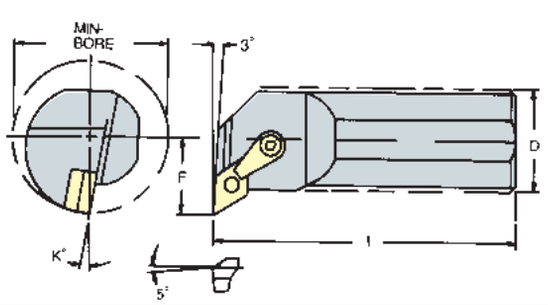
MCLN
95°



RIGHT HAND SHOWN LEFT HAND OPPOSITE

ORDER NO.		INSERT	DIMENSIONS					PARTS				WEIGHT (kg)		CODE NO.	
Righthand	Lefthand		D	F	l	B	K°					Right	Left	Right	Left
S20R-MCLNR12	S20R-MCLNL12	CNMG 12 04 08	20	13	200	25	17°	-	LCS-511	CP50-26	CS7-5018	0.50	0.50	6005-510	6005-610
S25R-MCLNR12	S25R-MCLNL12	CNMG 12 04 08	25	17	200	32	14°	-	LCS-511	CP50-22	CS7-6024	0.95	0.95	6005-511	6005-611
S32S-MCLNR12	S32S-MCLNL12	CNMG 12 04 08	32	22	250	40	14°	SMC-432	LCS-617	CP50-22	CS7-6030	1.60	1.60	6005-512	6005-612
S40T-MCLNR12	S40T-MCLNL12	CNMG 12 04 08	40	27	300	50	12°	SMC-432	LCS-617	CP50-22	CS7-6030	2.90	2.90	6005-513	6005-613
S50U-MCLNR12	S50U-MCLNL12	CNMG 12 04 08	50	35	350	63	12°	SMC-432	LCS-617	CP50-22	CS7-6030	5.90	5.90	6005-514	6005-614

MDUN
93°

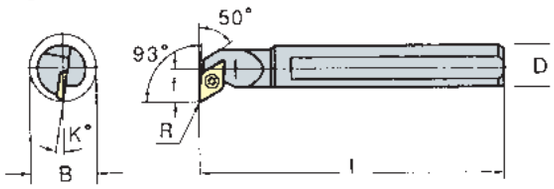


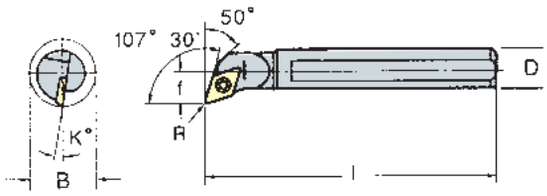
RIGHT HAND SHOWN LEFT HAND OPPOSITE

ORDER NO.		INSERT	DIMENSIONS					PARTS				WEIGHT (kg)		CODE NO.	
Righthand	Lefthand		D	F	l	B	K°					Right	Left	Right	Left
S25R-MDUNR15	S25R-MDUNL15	DNMG 15 04 08	25	17	200	32	12°	SMD-443	LCS-617	CS50-24	CS7-6024	0.95	0.95	6005-540	6005-640
S32S-MDUNR15	S32S-MDUNL15	DNMG 15 04 08	32	22	250	40	10°	SMD-443	LCS-617	CS50-24	CS7-6024	1.60	1.60	6005-541	6005-641
S40T-MDUNR15	S40T-MDUNL15	DNMG 15 04 08	40	27	300	50	10°	SMD-443	LCS-617	CS50-24	CS7-6030	2.90	2.90	6005-542	6005-642
S50U-MDUNR15	S50U-MDUNL15	DNMG 15 04 08	50	35	350	63	10°	SMD-443	LCS-617	CS50-24	CS7-6030	5.90	5.90	6005-543	6005-643

Boring Bars

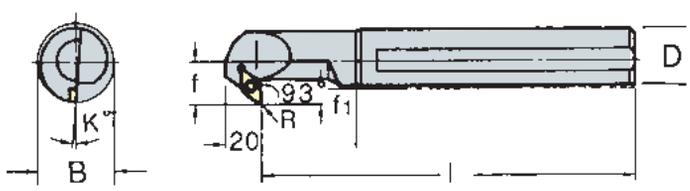
SMALL SIZE



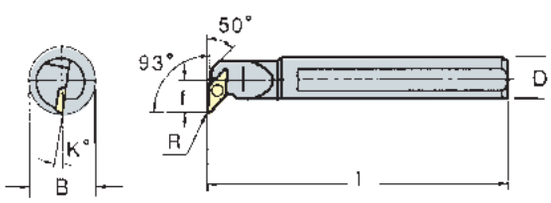


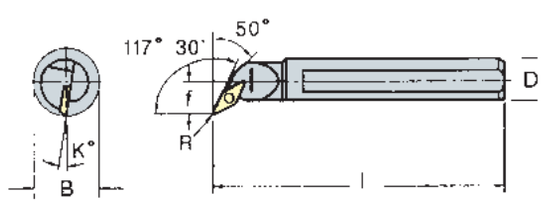
※All inserts are floating price.
Contact us before ordering from F1~F49

ORDER NO.		DIMENSIONS					INSERT	PARTS		WEIGHT (kg)		CODE NO.	
Righthand	Lefthand	D	F	l	B	Kº				Right	Left	Right	Left
S10M-SDUCR07	S10M-SDUCL07	10	7	150	13	10º	DCMT 0702□□	CS2560	FT-7	0.15	0.15	6005-570	6005-670
S12M-SDUCR07	S12M-SDUCL07	12	9	150	16	8º				0.18	0.18	6005-571	6005-671
S16Q-SDUCR07	S16Q-SDUCL07	16	11	180	20	6º				0.28	0.28	6005-572	6005-672
S20R-SDUCR11	S20R-SDUCL11	20	13	200	25	8º	DCMT 11T3□□	CS35095	FT-15	0.45	0.45	6005-573	6005-673
S25R-SDUCR11	S25R-SDUCL11	25	17	200	32	4º				0.60	0.60	6005-574	6005-674
S10M-SDQCR07	S10M-SDQCL07	10	7	150	13	10º	DCMT 0702□□	CS2560	FT-7	0.15	0.15	6005-600	6005-700
S12M-SDQCR07	S12M-SDQCL07	12	9	150	16	8º				0.18	0.18	6005-601	6005-701
S16Q-SDQCR07	S16Q-SDQCL07	16	11	180	20	6º				0.28	0.28	6005-602	6005-702
S20R-SDQCR11	S20R-SDQCL11	20	13	200	25	8º	DCMT 11T3□□	CS35095	FT-15	0.45	0.45	6005-603	6005-703
S25R-SDQCR11	S25R-SDQCL11	25	17	200	32	4º				0.60	0.60	6005-604	6005-704



ORDER NO.		DIMENSIONS					INSERT	PARTS		WEIGHT (kg)		CODE NO.	
Righthand	Lefthand	D	F	l	B	K°				Right	Left	Right	Left
S12M-SDZCR07	S12M-SDZCL07	12	10.5	150	17	10º	DCMT 0702□□	CS2560	FT-7	0.18	0.18	6005-630	6005-730
S16Q-SDZCR07	S16Q-SDZCL07	16	12.5	180	21	9º				0.28	0.28	6005-631	6005-731
S20R-SDZCR11	S20R-SDZCL11	20	15.5	200	26	8º	DCMT 11T3□□	CS35095	FT-15	0.45	0.45	6005-632	6005-732
S25R-SDZCR11	S25R-SDZCL11	25	18	200	33	6º				0.60	0.60	6005-633	6005-733

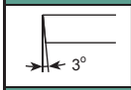
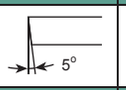
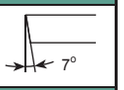
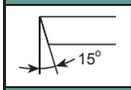
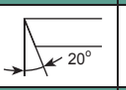
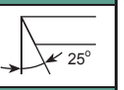
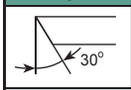
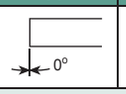
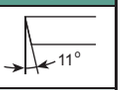




ORDER NO.		DIMENSIONS					INSERT	PARTS		WEIGHT (kg)		CODE NO.	
Righthand	Lefthand	D	F	l	B	Kº				Right	Left	Right	Left
S16Q-SVUCR11	S16Q-SVUCL11	16	13	180	22	7º	VCMT 1103□□	CS2560	FT-7	0.28	0.28	6005-660	6005-760
S20R-SVUCR11	S20R-SVUCL11	20	15	200	27	6º				0.45	0.45	6005-661	6005-761
S25R-SVUCR16	S25R-SVUCL16	25	20.5	200	33	4º	VCMT 1604	CS3590	FT-15	0.60	0.60	6005-662	6005-762
S16Q-SVQCR11	S16Q-SVQCL11	16	13	180	22	7º	VCMT 1103□□	CS2560	FT-7	0.28	0.28	6005-690	6005-790
S20R-SVQCR11	S20R-SVQCL11	20	15	200	27	6º				0.45	0.45	6005-691	6005-791
S25R-SVQCR16	S25R-SVQCL16	25	20.5	200	33	4º	VCMT 1604	CS3590	FT-15	0.60	0.60	6005-692	6005-792

Technical Data

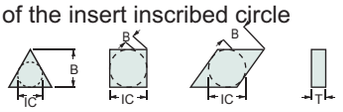
Milling & Turning Insert Identification

A	B	C
		
3°	5°	7°
D	**E**	**F**
		
15°	20°	25°
G	**H**	**I**
		
30°	0°	11°

2 Relief angle

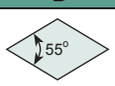
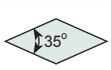
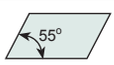
tolerances

IC: theoretical diameter of the insert inscribed circle
T: thickness
B: see figure below



tolerance class	tolerance on "IC"		tolerance on "B"		tolerance on "T"	
	in	mm	in	mm	in	mm
C	±0.010	±0.025	±0.0005	±0.013	±0.001	±0.025
H	±0.005	±0.013	±0.0005	±0.013	±0.001	±0.025
E	±0.010	±0.025	±0.0010	±0.025	±0.001	±0.025
G	±0.010	±0.025	±0.0010	±0.025	±0.005	±0.13
M	see tables at right		see tables at right		±0.005	±0.13
U	see tables at right		see tables at right		±0.005	±0.13

3 tolerance

H	O	P	R	S
T	**C**	**D**	**E**	**M**
				
80°	55°	75°	86°	
V	**L**	**A**	**B**	**K**
				
35°		85°	82°	55°

1 Shape

N		T	
R		Q	
F		U	
A		B	
M		H	
G		C	
W		J	

4 Insert type

inch	**C**	**N**	**M**	**G**	**-**	**4**	**3**	**2**	□	□	□
(metric)	**C**	**N**	**M**	**G**		**12**	**04**	**08**	□	□	□
position	1	2	3	4		5	6	7	8	9	10

5 Size

inch	IC		metric cutting edge length						
	in	mm	C	D	R	S	T	V	W
1.2 (5)	5/22	3.97	-	04	03	03	06	-	-
1.5 (6)	3/16	4.76	04	05	04	04	08	08	-
1.8 (7)	7/22	5.56	05	06	05	05	09	09	03
-	0.236	6.00	-	-	06	-	-	-	-
2	1/4	6.35	06	07	06	06	11	11	04
2.5	5/16	7.94	08	09	07	07	13	13	05
-	0.315	8.00	-	-	08	-	-	-	-
3	3/8	9.52	09	11	09	09	16	16	06
-	0.394	10.00	-	-	10	-	-	-	-
3.5	1/16	11.11	11	13	11	11	19	19	07
-	0.472	12.00	-	-	12	-	-	-	-
4	1/2	12.70	12	15	12	12	22	22	08
4.5	9/16	14.29	14	17	14	14	24	24	09
5	5/8	15.88	16	19	15	15	27	27	10
-	0.630	16.00	-	-	16	-	-	-	-
5.5	11/16	17.46	17	21	17	17	30	30	11
6	3/4	19.05	19	23	19	19	33	33	13
-	0.787	20.00	-	-	20	-	-	-	-
7	7/8	22.22	22	27	22	22	38	38	15
-	0.984	25.00	-	-	25	-	3	-	-
8	1	25.40	25	31	25	25	44	44	17
10	1-1/4	31.75	32	38	31	31	54	54	21
-	1.260	32.00	-	-	32	-	-	-	-

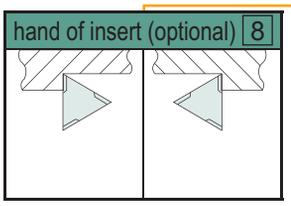
NOTE: Inch sizes in parenthesis for "alternate sizes" D or E (under 1/4 inch IC.)

6 thickness

thickness		symbol	
in	mm	inch	metric
1/32	0.79	0.5(1)	-
1/16	1.59	1(2)	01
5/64	1.98	1.2	T1
3/32	2.38	1.5(3)	02
1/8	3.18	2	03
5/22	3.97	2.5	T3
3/16	4.76	3	04
7/32	5.56	3.5	05
1/4	6.35	4	06
5/16	7.94	5	07
3/8	9.52	6	09
7/16	11.11	7	11
1/2	12.70	8	12

NOTE: Inch sizes in parenthesis for "Alternate sizes" D or E (under 1/4 inch IC.)

hand of insert (optional) 8



7 corner radius

corner radius		symbol	
in	mm	inch	metric
.004	0.1	0	01
.008	0.2	0.5	02
1/64	0.4	1	04
1/32	0.8	2	08
3/64	1.2	3	12
1/16	1.6	4	16
5/64	2.0	5	20
3/32	2.4	6	24
7/64	2.8	7	28
1/8	3.2	8	32
round insert (inch)		-	00
round insert (metric)		-	M0

9 & 10 cutting edge condltion or chip control featrures (optional)

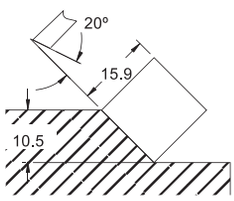
T - negative land
K - light feed chip control.
double sided Kenioc insert
M - heavy feed chip control.
deep floor Kenioc
N - narrow land control insert with chip control on one side
W - heavy-duty chip control.
wide land Kenioc insert one side
J - polished to 4-microinch A4 (rake face only)
UF - ultra-fine finsishing
See Technical Section for additional conditions and chip control features

Insert For Face Mill Cutter

EXAMPLE **ISO CODE**

Positive
Axial Rake
Radial Rake

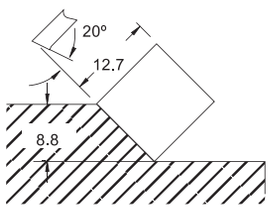
45°



$^{5}/_{8}$ x $^{3}/_{16}$ Insert
SEC 53
SECN 1504
SEKN 1504
FOR SE-545

Positive
Axial Rake
Radial Rake

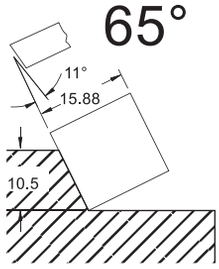
45°



$^{1}/_{2}$ x $^{1}/_{8}$ Insert
SEC 42
SECN 1203
SEKN 1203
FOR SE-445

Positive
Axial Rake
Positive
Radial Rake

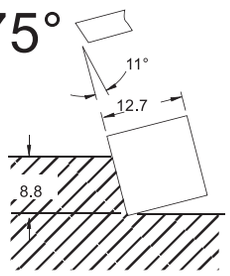
65°



$^{5}/_{8}$ x $^{3}/_{16}$ Insert
SPU-53, SPCN 1504
SPG-53, SPKN 1504
FOR SP-TYPE

Positive
Axial Rake
Radial Rake

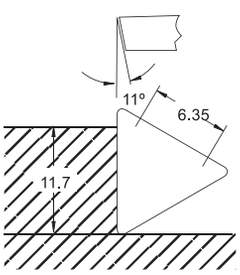
75°



$^{1}/_{2}$ x $^{1}/_{8}$ Insert
SPU-42, SPKN 1203
SPG-42, SPMN 1203
FOR FP-TYPE

Positive
Axial Rake

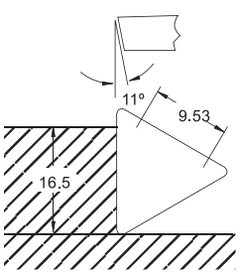
90°



$^{1}/_{4}$ x $^{3}/_{32}$ Insert
TPG-21
TPMN 1102
FOR SAE-TYPE

Positive
Axial Rake

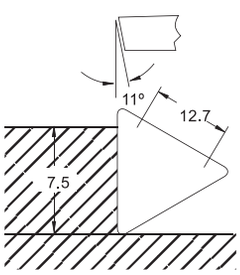
90°



$^{3}/_{8}$ x $^{1}/_{8}$ Insert
TPU-32
TPG-32
TPMN 1603
TPCN 1603
FOR SAE-TYPE

Positive
Axial Rake
Radial Rake

90°



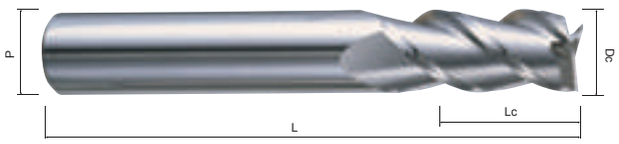
$^{1}/_{2}$ x $^{3}/_{16}$ Insert
TPK-43
TPKN 2204
TPMN 2204
FOR TP-TYPE

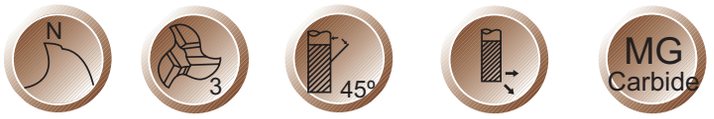
※All cutting tools are floating price.
contact us before ordering.

Universal End Mills

Professional For Aluminium, Copper, Steels

CARBIDE





Work Material / Velocity m/min

ORDER NO.	GR.1 Non alloyed steels Alloyed Steels	GR.3 Hardened steels < 48 HRC	GR.9 Copper	GR.10 Aluminium	GR.11 Plastics
VE133	40-120	30-50	100-200	100-450	150-200
VE135	25-70	20-30	60-120	60-300	80-120

Standard Length(Order No. VE133-Dia)

Unit:mm

ORDER NO.	Dc e8	Lc mm	L mm	d h6	CODE NO.
VE133-1.0	1.0	3	38	3	6007-460
VE133-1.5	1.5	5	38	3	6007-461
VE133-2.0	2.0	6	38	3	6007-462
VE133-2.5	2.5	7	38	3	6007-463
VE133-3.0	3.0	9	38	3	6007-464
VE133-4.0	4.0	14	50	4	6007-465
VE133-5.0	5.0	16	50	5	6007-466
VE133-6.0	6.0	20	63	6	6007-467
VE133-7.0	7.0	20	63	8	6007-468
VE133-8.0	8.0	20	63	8	6007-469
VE133-9.0	9.0	22	72	10	6007-470
VE133-10.0	10.0	22	72	10	6007-471
VE133-12.0	12.0	26	75	12	6007-472
VE133-14.0	14.0	30	89	14	6007-473
VE133-16.0	16.0	32	89	16	6007-474
VE133-18.0	18.0	38	100	18	6007-475
VE133-20.0	20.0	38	100	20	6007-476

Long Length(Order No. VE135-Dia)

Unit:mm

ORDER NO.	Dc e8	Lc mm	L mm	d h6	CODE NO.
VE135-3	3	20	57	3	6007-480
VE135-4	4	20	57	4	6007-481
VE135-5	5	25	63	5	6007-482
VE135-6	6	28	75	6	6007-483
VE135-7	7	30	75	8	6007-484
VE135-8	8	30	75	8	6007-485
VE135-9	9	32	75	10	6007-486
VE135-10	10	32	75	10	6007-487
VE135-12	12	50	100	12	6007-488
VE135-14	14	57	127	14	6007-489
VE135-16	16	57	127	16	6007-490
VE135-20	20	57	127	20	6007-491

IT'S A VERTEX EXCELENT CARBIDE END MILL

GOOD MATERIAL + GOOD PROCESS MACHINE + GOOD COATING EQUIPMENT

EXTRAMENT SWISSLAND

WALTER GERMANY

balzers BALINIT® coatings SWISSLAND

Universal End Mills

VERTEX

CARBIDE

MG Carbide | Uncoated Blank | 30° | 2 | 90° | Steels | Iron | Copper | Aluminium | Plastics

Work Material / Velocity m/min

ORDER NO.	GR.1 Non alloyed steels Alloyed Steels	GR.3 Hardened steels < 48 HRC	GR.6 Iron	GR.9 Copper	GR.10 Aluminium	GR.11 Plastics
VEA72	40-120	30-50	40-80	100-200	100-450	150-180
VEA82	25-70	20-50	25-60	60-120	60-300	80-120

Standard Length(Order No. VEA72-Dia)

Unit:mm

ORDER NO.	Dc h10	Lc mm	L mm	d h6	CODE NO.
VEA72-0.3	0.3	0.8	38	3	6008-001
VEA72-0.5	0.5	1.2	38	3	6008-003
VEA72-0.6	0.6	1.5	38	3	6008-004
VEA72-1.0	1.0	3.0	38	3	6008-008
VEA72-1.5	1.5	5.0	38	3	6008-009
VEA72-2.0	2.0	6.0	38	3	6008-010
VEA72-2.5	2.5	7.0	38	3	6008-011
VEA72-3.0	3.0	9.0	38	3	6008-012
VEA72-4.0	4.0	14.0	50	4	6008-014
VEA72-5.0	5.0	16.0	50	5	6008-016
VEA72-5.5	5.5	16.0	50	6	6008-017
VEA72-6.0	6.0	20.0	63	6	6008-018
VEA72-7.0	7.0	20.0	63	8	6008-019
VEA72-8.0	8.0	20.0	63	8	6008-020
VEA72-9.0	9.0	22.0	72	10	6008-021
VEA72-10.0	10.0	22.0	72	10	6008-022
VEA72-12.0	12.0	26.0	75	12	6008-024
VEA72-16.0	16.0	32.0	89	16	6008-026
VEA72-20.0	20.0	38.0	100	20	6008-028

Long Length(Order No. VEA82-Dia)

Unit:mm

ORDER NO.	Dc h10	Lc mm	L mm	d h6	CODE NO.
VEA82-3	3	20	57	3	6008-040
VEA82-4	4	20	57	4	6008-041
VEA82-5	5	25	63	5	6008-042
VEA82-6	6	28	75	6	6008-043
VEA82-8	8	30	75	8	6008-044
VEA82-10	10	32	75	10	6008-045
VEA82-12	12	50	100	12	6008-046

Finishing End Mills

VERTEX

CARBIDE

MG Carbide | Uncoated Blank | 30° | 4 | 90° | Steels | Iron | Copper | Aluminium | Plastics

Work Material / Velocity m/min

ORDER NO.	GR.1 Non alloyed steels Alloyed Steels	GR.3 Hardened steels < 48 HRC	GR.6 Iron	GR.7 Titanium	GR.8 Nickel	GR.9 Copper	GR.10 Aluminium
VEA74	40-120	30-50	40-80	25-80	20-60	100-200	100-450
VEA84	25-70	20-30	25-60	15-50	15-35	60-120	60-300

Standard Length(Order No. VEA74-Dia)

Unit:mm

ORDER NO.	Dc h10	Lc mm	L mm	d h6	CODE NO.
VEA74-1.0	1.0	3	38	3	6008-060
VEA74-1.5	1.5	5	38	3	6008-061
VEA74-2.0	2.0	6	38	3	6008-062
VEA74-2.5	2.5	7	38	3	6008-063
VEA74-3.0	3.0	9	38	3	6008-064
VEA74-3.5	3.5	12	50	4	6008-065
VEA74-4.0	4.0	14	50	4	6008-066
VEA74-4.5	4.5	14	50	5	6008-067
VEA74-5.0	5.0	16	50	5	6008-068
VEA74-5.5	5.5	16	50	6	6008-069
VEA74-6.0	6.0	20	63	6	6008-070
VEA74-7.0	7.0	20	63	8	6008-071
VEA74-8.0	8.0	20	63	8	6008-072
VEA74-9.0	9.0	22	72	10	6008-073
VEA74-10.0	10.0	22	72	10	6008-074
VEA74-11.0	11.0	26	75	12	6008-075
VEA74-12.0	12.0	26	75	12	6008-076
VEA74-14.0	14.0	32	89	14	6008-077
VEA74-16.0	16.0	32	89	16	6008-078
VEA74-18.0	18.0	38	100	18	6008-079
VEA74-20.0	20.0	38	100	20	6008-080

Long Length(Order No. VEA84-Dia)

Unit:mm

ORDER NO.	Dc h10	Lc mm	L mm	d h6	CODE NO.
VEA84-3	3	20	57	3	6008-090
VEA84-4	4	20	57	4	6008-091
VEA84-5	5	25	63	5	6008-092
VEA84-6	6	28	75	6	6008-093
VEA84-8	8	30	75	8	6008-094
VEA84-10	10	32	75	10	6008-095
VEA84-12	12	50	100	12	6008-096
VEA84-16	16	57	127	16	6008-098
VEA84-20	20	57	127	20	6008-099

Ball Nose End Mills

CARBIDE

VERTEX

MG Carbide | Uncoated Blank | 30° | 2 | Steels | Iron | Copper | Aluminium | Plastics

Work Material / Velocity m/min

ORDER NO.	GR.1 Non alloyed steels Alloyed Steels	GR.3 Hardened steels < 48 HRC	GR.6 Iron	GR.9 Copper	GR.10 Aluminium	GR.11 Plastics
VBB12	40-120	30-50	40-80	60-120	60-300	80-120
VBB80	25-70	20-30	25-60	60-120	60-300	80-120

Standard Length(Order No. VBB12-Dia)

Unit:mm

ORDER NO.	Dc h10	R ±0.01	Lc mm	L mm	d h6	CODE NO.
VBB12-0.3	0.3	0.15R	0.6	38	3	6008-100
VBB12-0.5	0.5	0.25R	1.0	38	3	6008-102
VBB12-0.7	0.7	0.35R	1.4	38	3	6008-104
VBB12-1.0	1.0	0.50R	3.0	38	3	6008-107
VBB12-1.5	1.5	0.75R	5.0	38	3	6008-108
VBB12-2.0	2.0	1.00R	6.0	38	3	6008-109
VBB12-2.5	2.5	1.25R	7.0	38	3	6008-110
VBB12-3.0	3.0	1.50R	9.0	38	3	6008-111
VBB12-3.5	3.5	1.75R	12.0	50	4	6008-112
VBB12-4.0	4.0	2.00R	14.0	50	4	6008-113
VBB12-4.5	4.5	2.25R	16.0	50	5	6008-114
VBB12-5.0	5.0	2.50R	16.0	50	5	6008-115
VBB12-5.5	5.5	2.75R	16.0	50	6	6008-116
VBB12-6.0	6.0	3.00R	20.0	63	6	6008-117
VBB12-7.0	7.0	3.50R	20.0	63	8	6008-118
VBB12-8.0	8.0	4.00R	20.0	63	8	6008-119
VBB12-9.0	9.0	4.50R	22.0	72	10	6008-120

Standard Length(Order No. VBB12-Dia)

Unit:mm

ORDER NO.	Dc h10	R ±0.01	Lc mm	L mm	d h6	CODE NO.
VBB12-10.0	10.0	5.00R	22.0	72	10	6008-121
VBB12-12.0	12.0	6.00R	26.0	75	12	6008-123
VBB12-14.0	14.0	7.00R	32.0	89	14	6008-124
VBB12-16.0	16.0	8.00R	32.0	89	16	6008-125

Long Length(Order No. VBB80-Dia)

Unit:mm

ORDER NO.	Dc h10	R ±0.01	Lc mm	L mm	d h6	CODE NO.
VBB80-3	3	1.5R	20	57	3	6008-140
VBB80-4	4	2.0R	20	57	4	6008-141
VBB80-6	6	3.0R	28	75	6	6008-143
VBB80-8	8	4.0R	30	75	8	6008-144
VBB80-12	12	6.0R	50	100	12	6008-146

END MILLS

End Mills For Aluminium

CARBIDE

MG Carbide | Uncoated Blank | 55° | 2 | 90° | Aluminium

Work Material / Velocity m/min

GR.10 Aluminium
100-1200

Standard Length(Order No. VEA92-Dia)

Unit:mm

ORDER NO.	Dc h6	Lc mm	L mm	d h6	CODE NO.
VEA92-3	3	9	38	3	6008-160
VEA92-4	4	14	50	4	6008-161
VEA92-5	5	16	50	5	6008-162
VEA92-6	6	20	63	6	6008-163
VEA92-8	8	22	63	8	6008-164
VEA92-10	10	30	72	10	6008-165
VEA92-12	12	30	75	12	6008-166
VEA92-16	16	40	100	16	6008-167
VEA92-20	20	45	100	20	6008-168

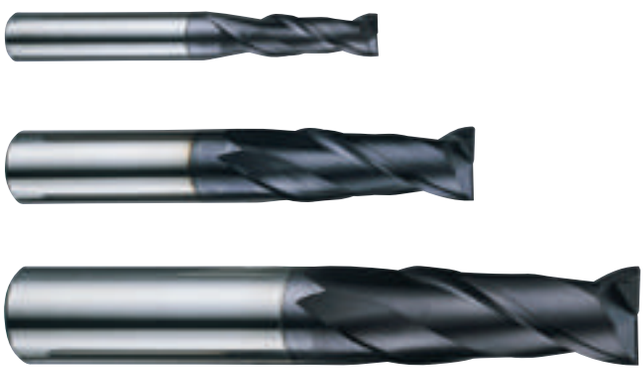
Solid Carbide End Mills For <48HRC

VERTEX

Micro Grain 10% Co Grade
2 Flute

CARBIDE

ISO CODE



Work Material / Velocity m/min

ORDER NO.	GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.6 Iron	GR.7 Titanium	GR.8 Nickel	GR.9 Copper
VE112F	60-250	30-100	60-80	30-150	30-180	40-120	100-450
VE122F							
VE125F	60-180	20-80	40-80	30-130	30-120	40-100	100-300
VE127F							

Stub Length(Order No. VE112F-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VE112-1.0	1.0	3	3.0	38	6007-001
VE112-1.5	1.5	3	5.0	38	6007-002
VE112-2.0	2.0	3	6.0	38	6007-003
VE112-2.5	2.5	3	8.0	38	6007-004
VE112-3.0	3.0	3	8.0	38	6007-005
VE112-3.5	3.5	4	10.0	50	6007-006
VE112-4.0	4.0	4	11.0	50	6007-007
VE112-4.5	4.5	5	11.0	50	6007-008
VE112-5.0	5.0	5	13.0	50	6007-009
VE112-5.5	5.5	6	13.0	50	6007-010
VE112-6.0	6.0	6	16.0	50	6007-011

Long Length(Order No. VE125F-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VE125-3	3	6	12	70	6007-050
VE125-4	4	6	15	70	6007-051
VE125-5	5	6	20	80	6007-052
VE125-6	6	6	20	80	6007-053
VE125-8	8	8	25	100	6007-055
VE125-10	10	10	30	100	6007-057
VE125-12	12	12	35	110	6007-059
VE125-14	14	16	40	120	6007-060
VE125-16	16	16	50	140	6007-061
VE125-20	20	20	55	160	6007-062

Standard Length(Order No. VE122F-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VE122-1.0	1.0	4	3	50	6007-020
VE122-1.5	1.5	4	5	50	6007-021
VE122-2.0	2.0	4	6	50	6007-022
VE122-2.5	2.5	4	8	50	6007-023
VE122-3.0	3.0	6	8	50	6007-024
VE122-3.5	3.5	6	10	50	6007-025
VE122-4.0	4.0	6	11	50	6007-026
VE122-4.5	4.5	6	11	50	6007-027
VE122-5.0	5.0	6	13	50	6007-028
VE122-5.5	5.5	6	13	50	6007-029
VE122-6.0	6.0	6	16	50	6007-030
VE122-7.0	7.0	8	20	60	6007-031
VE122-8.0	8.0	8	20	60	6007-032
VE122-9.0	9.0	10	22	72	6007-033
VE122-10.0	10.0	10	25	72	6007-034
VE122-11.0	11.0	12	26	75	6007-035
VE122-12.0	12.0	12	30	75	6007-036
VE122-14.0	14.0	16	32	90	6007-037
VE122-16.0	16.0	16	40	100	6007-038
VE122-18.0	18.0	20	40	100	6007-039
VE122-20.0	20.0	20	40	100	6007-040

Extra Long Length(Order No. VE127F-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VE127-3	3	4	12	80	6007-070
VE127-4	4	4	15	80	6007-071
VE127-5	5	6	20	100	6007-072
VE127-6	6	6	20	100	6007-073
VE127-8	8	8	25	130	6007-074
VE127-10	10	10	30	160	6007-075
VE127-12	12	12	35	180	6007-076
VE127-16	16	16	50	210	6007-077
VE127-20	20	20	55	210	6007-078

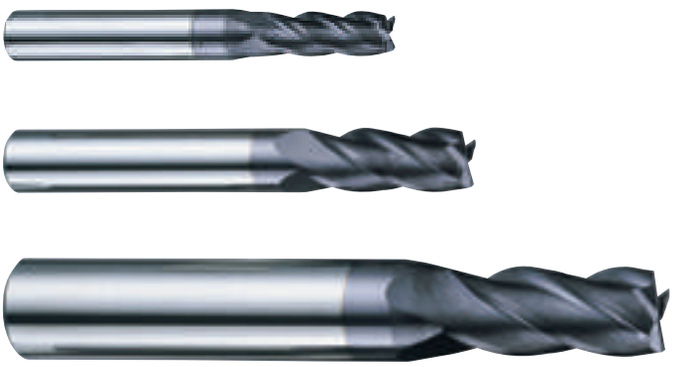
Solid Carbide End Mills For <48HRC

VERTEX

Micro Grain 10% Co Grade
4 Flute

CARBIDE

ISO CODE



Work Material / Velocity m/min

ORDER NO.	GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.6 Iron	GR.7 Titanium	GR.8 Nickel	GR.9 Copper
VE114F	60-250	30-100	60-80	30-150	30-180	40-120	100-450
VE124F							
VE126F	60-180	20-80	40-80	30-130	30-120	40-100	100-300

Standard Length(Order No. VE124F-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VE124-1.0	1.0	4	3	50	6007-100
VE124-1.5	1.5	4	5	50	6007-101
VE124-2.0	2.0	4	6	50	6007-102
VE124-2.5	2.5	4	8	50	6007-103
VE124-3.0	3.0	6	8	50	6007-104
VE124-3.5	3.5	6	10	50	6007-105
VE124-4.0	4.0	6	11	50	6007-106
VE124-4.5	4.5	6	11	50	6007-107
VE124-5.0	5.0	6	13	50	6007-108
VE124-5.5	5.5	6	13	50	6007-109
VE124-6.0	6.0	6	16	50	6007-110
VE124-7.0	7.0	8	20	60	6007-111
VE124-8.0	8.0	8	20	60	6007-112
VE124-9.0	9.0	10	22	72	6007-113
VE124-10.0	10.0	10	25	72	6007-114
VE124-11.0	11.0	12	26	75	6007-115
VE124-12.0	12.0	12	30	75	6007-116
VE124-14.0	14.0	16	32	90	6007-117
VE124-16.0	16.0	16	38	100	6007-118
VE124-18.0	18.0	20	38	100	6007-119
VE124-20.0	20.0	20	38	100	6007-120

Stub Length(Order No. VE114F-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VE114-1.0	1.0	3	3.0	38	6007-080
VE114-1.5	1.5	3	5.0	38	6007-081
VE114-2.0	2.0	3	6.0	38	6007-082
VE114-2.5	2.5	3	7.0	38	6007-083
VE114-3.0	3.0	3	9.0	38	6007-084
VE114-3.5	3.5	4	10.0	50	6007-085
VE114-4.0	4.0	4	11.0	50	6007-086
VE114-4.5	4.5	5	11.0	50	6007-087
VE114-5.0	5.0	5	13.0	50	6007-088
VE114-5.5	5.5	6	13.0	50	6007-089
VE114-6.0	6.0	6	16.0	50	6007-090

Long Length(Order No. VE126F-Dia)

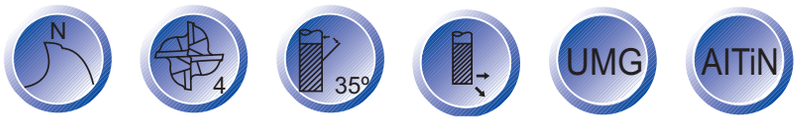
Unit:mm

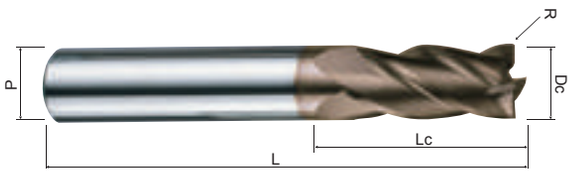
ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VE126-3	3	6	12	70	6007-130
VE126-4	4	6	15	70	6007-131
VE126-5	5	6	20	80	6007-132
VE126-6	6	6	20	80	6007-133
VE126-8	8	8	25	100	6007-135
VE126-10	10	10	30	100	6007-137
VE126-12	12	12	35	110	6007-139
VE126-14	14	16	40	120	6007-140
VE126-16	16	16	50	140	6007-141
VE126-20	20	20	55	160	6007-142

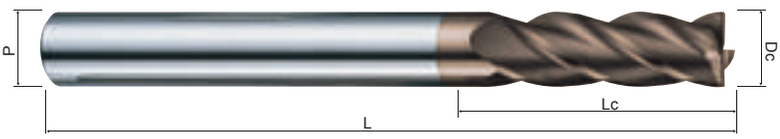
Finishing End Mills <56HRC

VERTEX

CARBIDE







Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron	GR.7 Titanium	GR.8 Nickel
60-300	30-120	60-120	40-100	40-180	40-120	40-120

Standard Length(Order No. VE164X-Dc)

Unit:mm

ORDER NO.	Dc e8	Lc mm	L mm	d h6	CODE NO.
VE164-1.0	1.0	3	50	4	6007-300
VE164-1.5	1.5	5	50	4	6007-301
VE164-2.0	2.0	6	50	4	6007-302
VE164-2.5	2.5	8	50	4	6007-303
VE164-3.0	3.0	8	50	6	6007-304
VE164-4.0	4.0	11	50	6	6007-306
VE164-5.0	5.0	13	50	6	6007-308
VE164-6.0	6.0	16	50	6	6007-310
VE164-8.0	8.0	20	60	8	6007-312
VE164-10.0	10.0	25	72	10	6007-314
VE164-12.0	12.0	30	75	12	6007-316
VE164-14.0	14.0	32	90	16	6007-317
VE164-16.0	16.0	40	100	16	6007-318
VE164-18.0	18.0	40	100	20	6007-319
VE164-20.0	20.0	40	100	20	6007-320

Long Length(Order No. VE165X-Dc)

Unit:mm

ORDER NO.	Dc e8	Lc mm	L mm	d h6	CODE NO.
VE165-3	3	12	70	6	6007-330
VE165-4	4	15	70	6	6007-331
VE165-5	5	20	80	6	6007-332
VE165-6	6	20	80	6	6007-333
VE165-8	8	25	100	8	6007-335
VE165-10	10	30	100	10	6007-337
VE165-12	12	35	110	12	6007-339
VE165-14	14	40	120	16	6007-340
VE165-16	16	50	140	16	6007-341
VE165-20	20	55	160	20	6007-342

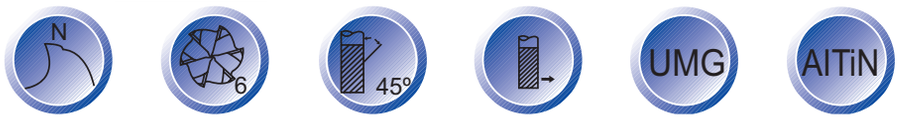
Solid Carbide End Mills For <68HRC

VERTEX

Ultra Micro Grain 12% Co Grade
6 Flute

CARBIDE

ISO CODE



Work Material / Velocity m/min

GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.5 Hardened steels 56-68 HRC	GR.6 Iron
100-200	60-150	20-50	120-300

Standard Length(Order No. VE166X-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VE166-3	3	6	8	50	6007-240
VE166-4	4	6	11	50	6007-241
VE166-5	5	6	13	50	6007-242
VE166-6	6	6	16	50	6007-243
VE166-8	8	8	20	60	6007-244
VE166-10	10	10	22	72	6007-245
VE166-12	12	12	26	75	6007-246
VE166-16	16	16	38	100	6007-247
VE166-20	20	20	38	100	6007-248

Long Length(Order No. VE167X-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VE167-6	6	6	26	80	6007-250
VE167-8	8	8	36	100	6007-251
VE167-10	10	10	46	100	6007-252
VE167-12	12	12	56	110	6007-253
VE167-16	16	16	66	140	6007-254
VE167-20	20	20	76	160	6007-255

4 Flute Carbide End Mill Set VE124-B 12PCS/SET In Wooden Box

ORDER NO.VE124-B CODE NO.6007-256

NEW

CARBIDE

SET INCLUDING
VE124-3.0X2PCS
VE124-4.0X2PCS
VE124-6.0X2PCS
VE124-8.0X2PCS
VE124-10.0X2PCS
VE124-12.0X2PCS

4 Flute Carbide End Mill Set VE124-A 18PCS/SET In Wooden Box

ORDER NO.VE124-A CODE NO.6007-257

NEW

CARBIDE

SET INCLUDING
VE124-3.0X3PCS
VE124-4.0X3PCS
VE124-6.0X3PCS
VE124-8.0X3PCS
VE124-10.0X3PCS
VE124-12.0X3PCS

2 Flute Carbide Ball Nose End Mill Set VB222-A 9PCS/SET In Wooden Box

ORDER NO.VB222-A CODE NO.6007-258

NEW

CARBIDE

SET INCLUDING
VB222-4X3PCS
VB222-6X3PCS
VB222-8X3PCS

Finishing End Mills

Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron	GR.7 Titanium	GR.8 Nickel
60-250	35-150	60-120	40-100	60-160	50-180	40-350

CARBIDE

Standard Length(Order No. VEC40-Dia)

Unit:mm

ORDER NO.	Dc h10	Lc mm	L mm	d h6	CODE NO.
VEC40-1.0	1.0	3	50	4	6008-180
VEC40-1.5	1.5	5	50	4	6008-181
VEC40-2.0	2.0	6	50	4	6008-182
VEC40-4.0A	4.0A	11	50	4	6008-185
VEC40-3.0	3.0	8	50	6	6008-186
VEC40-4.0	4.0	11	50	6	6008-187
VEC40-5.0	5.0	13	50	6	6008-188
VEC40-6.0	6.0	16	50	6	6008-189
VEC40-8.0	8.0	20	60	8	6008-191
VEC40-10.0	10.0	25	72	10	6008-193
VEC40-12.0	12.0	30	75	12	6008-194
VEC40-14.0	14.0	40	100	16	6008-195
VEC40-16.0	16.0	45	100	16	6008-196
VEC40-20.0	20.0	50	110	20	6008-197

Long Length(Order No. VED40-Dia)

Unit:mm

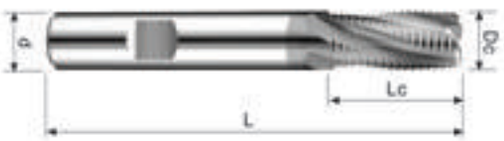
ORDER NO.	Dc h10	Lc mm	L mm	d h6	CODE NO.
VED40-4	4	20	80	4	6008-201
VED40-5	5	25	100	6	6008-202
VED40-6	6	30	100	6	6008-203
VED40-8	8	35	100	8	6008-204
VED40-10	10	40	100	10	6008-205
VED40-12	12	45	110	12	6008-206
VED40-16	16	60	150	16	6008-208

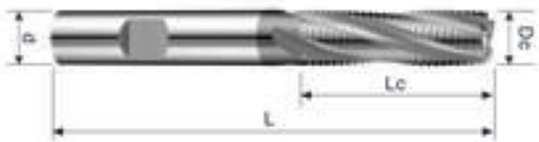
Roughing End Mills

VERTEX

Carbide

UMG Carbide | AlTiN TX | 20° | 4 | 0.05-0.10 45° | HPC | Steels | <48 HRC | 45-56 HRC | Stainless | Iron | Titanium





Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron	GR.7 Titanium	GR.8 Nickel
100-180	40-80	80-140	60-100	100-180	20-50	30-50

※ 3 FLUTE ORDER NO.
VFF08-6, VFF08-8
VFF09-6, VFF09-8

Standard Length(Order No. VFF08-Dia)

Unit:mm

ORDER NO.	Dc h10	Lc mm	L mm	d h5	CODE NO.
VFF08-6	6	13	57	6	6008-240
VFF08-8	8	19	63	8	6008-241
VFF08-10	10	22	72	10	6008-242
VFF08-12	12	26	83	12	6008-243
VFF08-14	14	26	83	14	6008-244
VFF08-16	16	32	92	16	6008-245
VFF08-18	18	32	92	18	6008-246
VFF08-20	20	38	104	20	6008-247

Long Length(Order No. VFF09-Dia)

Unit:mm

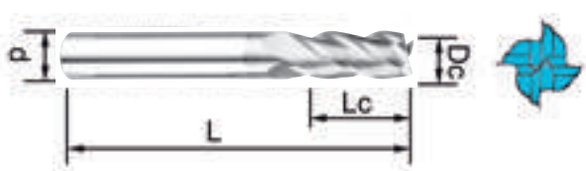
ORDER NO.	Dc h10	Lc mm	L mm	d h5	CODE NO.
VFF09-6	6	19	63	6	6008-260
VFF09-8	8	28	72	8	6008-261
VFF09-10	10	34	84	10	6008-262
VFF09-12	12	40	97	12	6008-263
VFF09-20	20	56	122	20	6008-265

END MILLS

H.S.S. END MILLS

NEW

MATERIAL H.S.S. + CO



H.S.S. 2FLUTE END MILL

ORDER NO.	Dc	Lc mm	L mm	d	CODE NO.
VES2-3.0	3.0	10	55	6	6009-301
VES2-4.0	4.0	12	55	6	6009-303
VES2-5.0	5.0	15	60	6	6009-305
VES2-6.0	6.0	15	60	6	6009-307
VES2-7.0	7.0	20	70	8	6009-309
VES2-8.0	8.0	20	70	8	6009-311
VES2-9.0	9.0	25	80	10	6009-313
VES2-10.0	10.0	25	80	10	6009-315
VES2-12.0	12.0	30	90	12	6009-318
VES2-14.0	14.0	35	95	12	6009-320
VES2-16.0	16.0	40	105	16	6009-322
VES2-18.0	18.0	40	105	16	6009-324
VES2-20.0	20.0	45	115	20	6009-326

H.S.S. 4FLUTE END MILL

ORDER NO.	Dc	Lc mm	L mm	d	CODE NO.
VES4-3.0	3.0	10	55	6	6009-401
VES4-3.5	3.5	12	60	8	6009-402
VES4-4.0	4.0	12	60	8	6009-403
VES4-4.5	4.5	15	60	8	6009-404
VES4-5.0	5.0	15	60	8	6009-405
VES4-6.0	6.0	15	60	8	6009-407
VES4-7.0	7.0	20	70	8	6009-409
VES4-8.0	8.0	20	70	8	6009-411
VES4-9.0	9.0	25	80	10	6009-413
VES4-10.0	10.0	25	80	10	6009-415
VES4-12.0	12.0	30	90	12	6009-418
VES4-13.0	13.0	35	95	12	6009-419
VES4-14.0	14.0	35	95	12	6009-420
VES4-15.0	15.0	40	105	16	6009-421
VES4-16.0	16.0	40	105	16	6009-422
VES4-17.0	17.0	40	105	16	6009-423
VES4-18.0	18.0	40	105	16	6009-424
VES4-19.0	19.0	45	115	20	6009-425
VES4-20.0	20.0	45	115	20	6009-426

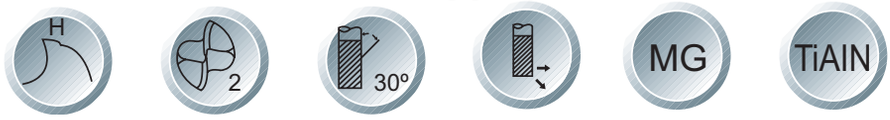
Solid Carbide End Mills For <48HRC

VERTEX

Micro Grain 10% Co Grade
2 Flute

CARBIDE

ISO CODE



VB242F

Work Material / Velocity m/min

ORDER NO.	GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.6 Iron	GR.7 Titanium	GR.8 Nickel	GR.9 Copper
VB221F	60-250	30-100	60-80	30-150	30-180	40-120	100-450
VB222F							
VB232F	60-180	20-80	40-80	30-130	30-120	40-100	100-300

Stub Length(Order No. VB221F-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VB221-1	1.0x0.50R	3	2.5	38	6007-160
VB221-1.5	1.5x0.75R	3	4.0	38	6007-161
VB221-2	2.0x1.00R	3	5.0	38	6007-162
VB221-2.5	2.5x1.25R	3	6.0	38	6007-163
VB221-3	3.0x1.50R	3	6.0	38	6007-164
VB221-3.5	3.5x1.75R	4	8.0	50	6007-165
VB221-4	4.0x2.00R	4	8.0	50	6007-166
VB221-4.5	4.5x2.25R	5	10.0	50	6007-167
VB221-5	5.0x2.50R	5	10.0	50	6007-168
VB221-5.5	5.5x2.75R	6	12.0	50	6007-169
VB221-6	6.0x3.00R	6	12.0	50	6007-170

Long Length(Order No. VB232F-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VB232-3	3.0x1.50R	6	6	70	6007-210
VB232-4	4.0x2.00R	6	8	70	6007-211
VB232-5	5.0x2.50R	6	10	80	6007-212
VB232-6	6.0x3.00R	6	12	80	6007-213
VB232-8	8.0x4.00R	8	14	100	6007-215
VB232-10	10.0x5.00R	10	18	100	6007-217
VB232-12	12.0x6.00R	12	22	110	6007-219
VB232-14	14.0x7.00R	16	26	120	6007-220
VB232-16	16.0x8.00R	16	30	140	6007-221
VB232-20	20.0x10.0R	20	38	160	6007-222

Standard Length(Order No. VB222F-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VB222-1	1.00x0.50R	4	2.5	50	6007-180
VB222-1.5	1.50x0.75R	4	4	50	6007-181
VB222-2	2.00x1.00R	4	5	50	6007-182
VB222-2.5	2.50x1.25R	4	6	50	6007-183
VB222-3	3.00x1.50R	6	6	50	6007-184
VB222-4	4.00x2.00R	6	8	50	6007-186
VB222-5	5.00x2.50R	6	10	50	6007-188
VB222-6	6.00x3.00R	6	12	50	6007-190
VB222-7	7.00x3.50R	8	14	60	6007-191
VB222-8	8.00x4.00R	8	14	60	6007-192
VB222-9	9.00x4.50R	10	18	72	6007-193
VB222-10	10.00x5.00R	10	18	72	6007-194
VB222-12	12.00x6.00R	12	22	75	6007-196
VB222-14	14.00x7.00R	16	26	100	6007-197
VB222-16	16.00x8.00R	16	30	100	6007-198
VB222-20	20.00x10.0R	20	38	100	6007-200

Extra Long Length(Order No. VB242F-Dia)

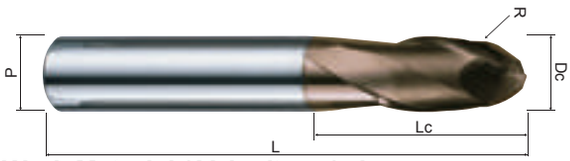
Unit:mm

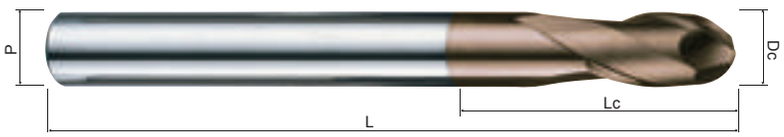
ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VB242-3	3.0x1.50R	6	9	75	6007-230
VB242-4	4.0x2.00R	6	12	75	6007-231
VB242-5	5.0x2.50R	6	16	100	6007-232
VB242-6	6.0x3.00R	6	20	100	6007-233
VB242-8	8.0x4.00R	8	25	150	6007-234
VB242-10	10.0x5.00R	10	30	150	6007-235
VB242-12	12.0x6.00R	12	35	180	6007-236
VB242-16	16.0x8.00R	16	40	210	6007-237
VB242-20	20.0x10.0R	20	50	210	6007-238

Ball Nose End Mills <56HRC

VERTEX

CARBIDE





Work Material / Velocity m/min

ORDER NO.	GR.1 Non alloyed steels Alloyed Steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron	GR.7 Titanium	GR.8 Nickel
VB262X	80-350	60-200	40-150	50-250	30-180	40-120
VB263X	80-250	60-160	40-120	50-200	30-150	40-100

Standard Length(Order No. VB262X-Dc)

Unit:mm

ORDER NO.	Dc e8	R ±0.01	LC mm	L mm	d h6	CODE NO.
VB262-1.0	1.0	0.5R	2	50	4	6007-350
VB262-1.5	1.5	0.75R	3	50	4	6007-351
VB262-2.0	2.0	1.0R	4	50	4	6007-352
VB262-2.5	2.5	1.25R	5	50	4	6007-353
VB262-3.0	3.0	1.5R	6	50	6	6007-354
VB262-4.0	4.0	2.0R	8	50	6	6007-355
VB262-5.0	5.0	2.5R	10	50	6	6007-356
VB262-6.0	6.0	3.0R	12	50	6	6007-357
VB262-8.0	8.0	4.0R	14	60	8	6007-359
VB262-10.0	10.0	5.0R	18	72	10	6007-361
VB262-12.0	12.0	6.0R	22	75	12	6007-362
VB262-14.0	14.0	7.0R	26	100	16	6007-363
VB262-16.0	16.0	8.0R	30	100	16	6007-364
VB262-20.0	20.0	10.0R	38	100	20	6007-365

Long Length(Order No. VB263X-Dc)

Unit:mm

ORDER NO.	Dc e8	R ±0.01	LC mm	L mm	d h6	CODE NO.
VB263-3	3	1.5R	8	70	6	6007-374
VB263-4	4	2.0R	8	70	6	6007-375
VB263-5	5	2.5R	10	80	6	6007-376
VB263-6	6	3.0R	12	80	6	6007-377
VB263-8	8	4.0R	14	100	8	6007-379
VB263-10	10	5.0R	18	100	10	6007-381
VB263-12	12	6.0R	22	110	12	6007-382
VB263-14	14	7.0R	26	120	16	6007-383
VB263-16	16	8.0R	30	140	16	6007-384
VB263-20	20	10.0R	38	160	20	6007-385

END MILLS

Ball Nose End Mills Carbide

Work Material / Velocity m/min

GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.5 Hardened steels 56-68 HRC	GR.6 Iron
120-350	100-210	30-120	80-350

Long Length(Order No. VBB61-Dia)

Unit:mm

ORDER NO.	Dc h10	R ±0.01	Lc mm	L mm	d h6	L1 mm	CODE NO.
VBB61-1.0	1.0	0.50R	1.0	50	4	2	6008-220
VBB61-1.5	1.5	0.75R	1.5	50	4	3	6008-221
VBB61-2.0	2.0	1.00R	2.0	60	6	4	6008-222
VBB61-3.0	3.0	1.50R	3.0	70	6	6	6008-223
VBB61-4.0	4.0	2.00R	4.0	70	6	8	6008-224
VBB61-5.0	5.0	2.50R	5.0	80	6	10	6008-225
VBB61-6.0	6.0	3.00R	6.0	80	6	12	6008-226
VBB61-8.0	8.0	4.00R	8.0	100	8	16	6008-227
VBB61-10.0	10.0	5.00R	10.0	100	10	20	6008-228
VBB61-12.0	12.0	6.00R	12.0	110	12	24	6008-229

Solid Carbide NC/CNC Spot Drills

VERTEX

Micro Grain 10% Co Grade

CARBIDE

CUTTING TIP WELD TYPE
FOR VD903,VD904:
FROM Ø3~Ø5 STAY THE SAME.
FROM Ø6~Ø20 SUPPLY IN TIP WELD TYPE.

Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron
30-80	20-60	15-25	10-20	40-100

GR.7 Titanium	GR.8 Nickel	GR.9 Copper	GR.10 Aluminium
20-40	15-40	60-300	80-400

Standard Length 90º Angle(Order No. VD903-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VD903-3	3	3	10	38	6007-260
VD903-4	4	4	12	50	6007-261
VD903-5	5	5	15	50	6007-262
VD903-6	6	6	20	60	6007-263
VD903-8	8	8	25	60	6007-264
VD903-10	10	10	25	72	6007-265
VD903-12	12	12	30	75	6007-266
VD903-16	16	16	35	100	6007-267
VD903-20	20	20	40	100	6007-268

Standard Length 120º Angle(Order No. VD913-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VD913-3	3	3	10	38	6007-270
VD913-4	4	4	12	50	6007-271
VD913-5	5	5	15	50	6007-272
VD913-6	6	6	20	60	6007-273
VD913-8	8	8	25	60	6007-274
VD913-10	10	10	25	72	6007-275
VD913-12	12	12	30	75	6007-276
VD913-16	16	16	35	100	6007-277
VD913-20	20	20	40	100	6007-278

Long Length 90º Angle(Order No. VD904-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VD904-6	6	6	20	100	6007-280
VD904-8	8	8	25	125	6007-281
VD904-10	10	10	25	150	6007-282
VD904-12	12	12	30	150	6007-283
VD904-16	16	16	35	150	6007-284
VD904-20	20	20	40	150	6007-285

Long Length 120º Angle(Order No. VD914-Dia)

Unit:mm

ORDER NO.	Dia of Mill Tol e8	Shank Dia mm	Flute Length mm	Overall Length mm	CODE NO.
VD914-6	6	6	20	100	6007-290
VD914-8	8	8	25	125	6007-291
VD914-10	10	10	25	150	6007-292
VD914-12	12	12	30	150	6007-293
VD914-16	16	16	35	150	6007-294
VD914-20	20	20	40	150	6007-295

Twist Drills

Carbide

VERTEX

MG Carbide | 30° | 118° | DIN 6539 | Steels | Stainless | Iron | Copper | Aluminium

Straight Shank(Order No. VDD12-Dia)

Unit:mm

ORDER NO.	Dc h7	Lc mm	L mm	d mm	CODE NO.
VDD12-1.0	1.0	6	26	1.0	6008-280
VDD12-1.1	1.1	7	28	1.1	6008-281
VDD12-1.2	1.2	8	30	1.2	6008-282
VDD12-1.3	1.3	8	30	1.3	6008-283
VDD12-1.4	1.4	9	32	1.4	6008-284
VDD12-1.5	1.5	9	32	1.5	6008-285
VDD12-1.6	1.6	10	34	1.6	6008-286
VDD12-1.7	1.7	10	34	1.7	6008-287
VDD12-1.8	1.8	11	36	1.8	6008-288
VDD12-1.9	1.9	11	36	1.9	6008-289
VDD12-2.0	2.0	12	38	2.0	6008-290
VDD12-2.1	2.1	12	38	2.1	6008-291
VDD12-2.2	2.2	13	40	2.2	6008-292
VDD12-2.3	2.3	13	40	2.3	6008-293
VDD12-2.4	2.4	14	43	2.4	6008-294
VDD12-2.5	2.5	14	43	2.5	6008-295
VDD12-2.6	2.6	14	43	2.6	6008-296
VDD12-2.7	2.7	16	46	2.7	6008-297
VDD12-2.8	2.8	16	46	2.8	6008-298
VDD12-2.9	2.9	16	46	2.9	6008-299
VDD12-3.0	3.0	16	46	3.0	6008-300
VDD12-3.1	3.1	18	49	3.1	6008-301
VDD12-3.2	3.2	18	49	3.2	6008-302
VDD12-3.3	3.3	18	49	3.3	6008-303
VDD12-3.4	3.4	20	52	3.4	6008-304
VDD12-3.5	3.5	20	52	3.5	6008-305
VDD12-3.6	3.6	20	52	3.6	6008-306
VDD12-3.7	3.7	20	52	3.7	6008-307
VDD12-3.8	3.8	22	55	3.8	6008-308
VDD12-3.9	3.9	22	55	3.9	6008-309
VDD12-4.0	4.0	22	55	4.0	6008-310
VDD12-4.1	4.1	22	55	4.1	6008-311
VDD12-4.2	4.2	22	55	4.2	6008-312
VDD12-4.3	4.3	24	58	4.3	6008-313
VDD12-4.4	4.4	24	58	4.4	6008-314
VDD12-4.5	4.5	24	58	4.5	6008-315
VDD12-4.6	4.6	24	58	4.6	6008-316
VDD12-4.7	4.7	24	58	4.7	6008-317
VDD12-4.8	4.8	26	62	4.8	6008-318
VDD12-4.9	4.9	26	62	4.9	6008-319
VDD12-5.0	5.0	26	62	5.0	6008-320
VDD12-5.1	5.1	26	62	5.1	6008-321
VDD12-5.2	5.2	26	62	5.2	6008-322
VDD12-5.3	5.3	26	62	5.3	6008-323
VDD12-5.4	5.4	28	66	5.4	6008-324
VDD12-5.5	5.5	28	66	5.5	6008-325
VDD12-5.6	5.6	28	66	5.6	6008-326
VDD12-5.7	5.7	28	66	5.7	6008-327
VDD12-5.8	5.8	28	66	5.8	6008-328
VDD12-5.9	5.9	28	66	5.9	6008-329

Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.6 Iron	GR.9 Copper	GR.10 Aluminium	GR.11 Plastics
50-80	70-100	100-180	100-250	80-200

ORDER NO.	Dc h7	Lc mm	L mm	d mm	CODE NO.
VDD12-6.0	6.0	28	66	6.0	6008-330
VDD12-6.1	6.1	31	70	6.1	6008-331
VDD12-6.2	6.2	31	70	6.2	6008-332
VDD12-6.3	6.3	31	70	6.3	6008-333
VDD12-6.4	6.4	31	70	6.4	6008-334
VDD12-6.5	6.5	31	70	6.5	6008-335
VDD12-6.6	6.6	31	70	6.6	6008-336
VDD12-6.7	6.7	31	70	6.7	6008-337
VDD12-6.8	6.8	34	74	6.8	6008-338
VDD12-6.9	6.9	34	74	6.9	6008-339
VDD12-7.0	7.0	34	74	7.0	6008-340
VDD12-7.1	7.1	34	74	7.1	6008-341
VDD12-7.2	7.2	34	74	7.2	6008-342
VDD12-7.3	7.3	34	74	7.3	6008-343
VDD12-7.4	7.4	34	74	7.4	6008-344
VDD12-7.5	7.5	34	74	7.5	6008-345
VDD12-7.6	7.6	37	79	7.6	6008-346
VDD12-7.7	7.7	37	79	7.7	6008-347
VDD12-7.8	7.8	37	79	7.8	6008-348
VDD12-7.9	7.9	37	79	7.9	6008-349
VDD12-8.0	8.0	37	79	8.0	6008-350
VDD12-8.1	8.1	37	79	8.1	6008-351
VDD12-8.2	8.2	37	79	8.2	6008-352
VDD12-8.3	8.3	37	79	8.3	6008-353
VDD12-8.4	8.4	37	79	8.4	6008-354
VDD12-8.5	8.5	37	79	8.5	6008-355
VDD12-8.6	8.6	40	84	8.6	6008-356
VDD12-8.7	8.7	40	84	8.7	6008-357
VDD12-8.8	8.8	40	84	8.8	6008-358
VDD12-8.9	8.9	40	84	8.9	6008-359
VDD12-9.0	9.0	40	84	9.0	6008-360
VDD12-9.1	9.1	40	84	9.1	6008-361
VDD12-9.2	9.2	40	84	9.2	6008-362
VDD12-9.3	9.3	40	84	9.3	6008-363
VDD12-9.4	9.4	40	84	9.4	6008-364
VDD12-9.5	9.5	40	84	9.5	6008-365
VDD12-9.6	9.6	43	89	9.6	6008-366
VDD12-9.7	9.7	43	89	9.7	6008-367
VDD12-9.8	9.8	43	89	9.8	6008-368
VDD12-9.9	9.9	43	89	9.9	6008-369
VDD12-10.0	10.0	43	89	10.0	6008-370
VDD12-10.2	10.2	43	89	10.2	6008-371
VDD12-10.5	10.5	43	89	10.5	6008-372
VDD12-11.0	11.0	47	95	11.0	6008-373
VDD12-11.5	11.5	47	95	11.5	6008-374
VDD12-12.0	12.0	51	102	12.0	6008-375
VDD12-13.0	13.0	51	102	13.0	6008-376

Twist Drills

Carbide

VERTEX

MG Carbide | 30° | 118° | DIN 6539 | Steels | Stainless | Iron | Copper | Aluminium

Straight Shank(Order No. VDD13-Dia)

Unit:mm

ORDER NO.	Dc h7	Lc mm	L mm	d mm	CODE NO.
VDD13-1.0	1.0	12	34	1.0	6008-390
VDD13-1.1	1.1	14	36	1.1	6008-391
VDD13-1.2	1.2	16	38	1.2	6008-392
VDD13-1.3	1.3	16	38	1.3	6008-393
VDD13-1.4	1.4	18	40	1.4	6008-394
VDD13-1.5	1.5	18	40	1.5	6008-395
VDD13-1.6	1.6	20	43	1.6	6008-396
VDD13-1.7	1.7	20	43	1.7	6008-397
VDD13-1.8	1.8	22	46	1.8	6008-398
VDD13-1.9	1.9	22	46	1.9	6008-399
VDD13-2.0	2.0	24	49	2.0	6008-400
VDD13-2.1	2.1	24	49	2.1	6008-401
VDD13-2.2	2.2	27	53	2.2	6008-402
VDD13-2.3	2.3	27	53	2.3	6008-403
VDD13-2.4	2.4	30	57	2.4	6008-404
VDD13-2.5	2.5	30	57	2.5	6008-405
VDD13-2.6	2.6	30	57	2.6	6008-406
VDD13-2.7	2.7	33	61	2.7	6008-407
VDD13-2.8	2.8	33	61	2.8	6008-408
VDD13-2.9	2.9	33	61	2.9	6008-409
VDD13-3.0	3.0	33	61	3.0	6008-410
VDD13-3.1	3.1	36	65	3.1	6008-411
VDD13-3.2	3.2	36	65	3.2	6008-412
VDD13-3.3	3.3	36	65	3.3	6008-413
VDD13-3.4	3.4	39	70	3.4	6008-414
VDD13-3.5	3.5	39	70	3.5	6008-415
VDD13-3.6	3.6	39	70	3.6	6008-416
VDD13-3.7	3.7	39	70	3.7	6008-417
VDD13-3.8	3.8	43	75	3.8	6008-418
VDD13-3.9	3.9	43	75	3.9	6008-419
VDD13-4.0	4.0	43	75	4.0	6008-420
VDD13-4.1	4.1	43	75	4.1	6008-421
VDD13-4.2	4.2	43	75	4.2	6008-422
VDD13-4.3	4.3	47	80	4.3	6008-423
VDD13-4.4	4.4	47	80	4.4	6008-424
VDD13-4.5	4.5	47	80	4.5	6008-425
VDD13-4.6	4.6	47	80	4.6	6008-426
VDD13-4.7	4.7	47	80	4.7	6008-427
VDD13-4.8	4.8	52	86	4.8	6008-428
VDD13-4.9	4.9	52	86	4.9	6008-429
VDD13-5.0	5.0	52	86	5.0	6008-430
VDD13-5.1	5.1	52	86	5.1	6008-431
VDD13-5.2	5.2	52	86	5.2	6008-432
VDD13-5.3	5.3	52	86	5.3	6008-433
VDD13-5.4	5.4	57	93	5.4	6008-434
VDD13-5.5	5.5	57	93	5.5	6008-435
VDD13-5.6	5.6	57	93	5.6	6008-436
VDD13-5.7	5.7	57	93	5.7	6008-437
VDD13-5.8	5.8	57	93	5.8	6008-438
VDD13-5.9	5.9	57	93	5.9	6008-439

Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.6 Iron	GR.9 Copper	GR.10 Aluminium	GR.11 Plastics
50-80	70-100	100-180	100-250	80-200

ORDER NO.	Dc h7	Lc mm	L mm	d mm	CODE NO.
VDD13-6.0	6.0	57	93	6.0	6008-440
VDD13-6.1	6.1	63	101	6.1	6008-441
VDD13-6.2	6.2	63	101	6.2	6008-442
VDD13-6.3	6.3	63	101	6.3	6008-443
VDD13-6.4	6.4	63	101	6.4	6008-444
VDD13-6.5	6.5	63	101	6.5	6008-445
VDD13-6.6	6.6	63	101	6.6	6008-446
VDD13-6.7	6.7	63	101	6.7	6008-447
VDD13-6.8	6.8	69	109	6.8	6008-448
VDD13-6.9	6.9	69	109	6.9	6008-449
VDD13-7.0	7.0	69	109	7.0	6008-450
VDD13-7.1	7.1	69	109	7.1	6008-451
VDD13-7.2	7.2	69	109	7.2	6008-452
VDD13-7.3	7.3	69	109	7.3	6008-453
VDD13-7.4	7.4	69	109	7.4	6008-454
VDD13-7.5	7.5	69	109	7.5	6008-455
VDD13-7.6	7.6	75	117	7.6	6008-456
VDD13-7.7	7.7	75	117	7.7	6008-457
VDD13-7.8	7.8	75	117	7.8	6008-458
VDD13-7.9	7.9	75	117	7.9	6008-459
VDD13-8.0	8.0	75	117	8.0	6008-460
VDD13-8.1	8.1	75	117	8.1	6008-461
VDD13-8.2	8.2	75	117	8.2	6008-462
VDD13-8.3	8.3	75	117	8.3	6008-463
VDD13-8.4	8.4	75	117	8.4	6008-464
VDD13-8.5	8.5	75	117	8.5	6008-465
VDD13-8.6	8.6	81	125	8.6	6008-466
VDD13-8.7	8.7	81	125	8.7	6008-467
VDD13-8.8	8.8	81	125	8.8	6008-468
VDD13-8.9	8.9	81	125	8.9	6008-469
VDD13-9.0	9.0	81	125	9.0	6008-470
VDD13-9.1	9.1	81	125	9.1	6008-471
VDD13-9.2	9.2	81	125	9.2	6008-472
VDD13-9.3	9.3	81	125	9.3	6008-473
VDD13-9.4	9.4	81	125	9.4	6008-474
VDD13-9.5	9.5	81	125	9.5	6008-475
VDD13-9.6	9.6	87	133	9.6	6008-476
VDD13-9.7	9.7	87	133	9.7	6008-477
VDD13-9.8	9.8	87	133	9.8	6008-478
VDD13-9.9	9.9	87	133	9.9	6008-479
VDD13-10.0	10.0	87	133	10.0	6008-480
VDD13-10.2	10.2	87	133	10.2	6008-481
VDD13-10.5	10.5	87	133	10.5	6008-482
VDD13-11.0	11.0	94	142	11.0	6008-483
VDD13-11.5	11.5	94	142	11.5	6008-484
VDD13-12.0	12.0	101	151	12.0	6008-485
VDD13-13.0	13.0	101	151	13.0	6008-486

High Performance Drills Carbide

VERTEX

MG Carbide | TiAlN F-NaNo | 3XD | 2 | 140° | DIN 6539 | Steels | Stainless | <48 HRC | 45-56 HRC | Iron | Titanium | Nickel

Straight Shank(Order No. VDD30-Dia)

Unit:mm

ORDER NO.	Dc h7	Lc mm	L mm	d mm	CODE NO.
VDD30-2.0	2.0	12	38	2.0	6008-500
VDD30-2.1	2.1	12	38	2.1	6008-501
VDD30-2.2	2.2	13	40	2.2	6008-502
VDD30-2.3	2.3	13	40	2.3	6008-503
VDD30-2.4	2.4	14	43	2.4	6008-504
VDD30-2.5	2.5	14	43	2.5	6008-505
VDD30-2.6	2.6	14	43	2.6	6008-506
VDD30-2.7	2.7	16	46	2.7	6008-507
VDD30-2.8	2.8	16	46	2.8	6008-508
VDD30-2.9	2.9	16	46	2.9	6008-509
VDD30-3.0	3.0	16	46	3.0	6008-510
VDD30-3.1	3.1	18	49	3.1	6008-511
VDD30-3.2	3.2	18	49	3.2	6008-512
VDD30-3.3	3.3	18	49	3.3	6008-513
VDD30-3.4	3.4	20	52	3.4	6008-514
VDD30-3.5	3.5	20	52	3.5	6008-515
VDD30-3.6	3.6	20	52	3.6	6008-516
VDD30-3.7	3.7	20	52	3.7	6008-517
VDD30-3.8	3.8	22	55	3.8	6008-518
VDD30-3.9	3.9	22	55	3.9	6008-519
VDD30-4.0	4.0	22	55	4.0	6008-520
VDD30-4.1	4.1	22	55	4.1	6008-521
VDD30-4.2	4.2	22	55	4.2	6008-522
VDD30-4.3	4.3	24	58	4.3	6008-523
VDD30-4.4	4.4	24	58	4.4	6008-524
VDD30-4.5	4.5	24	58	4.5	6008-525
VDD30-4.6	4.6	24	58	4.6	6008-526
VDD30-4.7	4.7	24	58	4.7	6008-527
VDD30-4.8	4.8	26	62	4.8	6008-528
VDD30-4.9	4.9	26	62	4.9	6008-529
VDD30-5.0	5.0	26	62	5.0	6008-530
VDD30-5.1	5.1	26	62	5.1	6008-531
VDD30-5.2	5.2	26	62	5.2	6008-532
VDD30-5.3	5.3	26	62	5.3	6008-533
VDD30-5.4	5.4	28	66	5.4	6008-534
VDD30-5.5	5.5	28	66	5.5	6008-535
VDD30-5.6	5.6	28	66	5.6	6008-536
VDD30-5.7	5.7	28	66	5.7	6008-537
VDD30-5.8	5.8	28	66	5.8	6008-538
VDD30-5.9	5.9	28	66	5.9	6008-539
VDD30-6.0	6.0	28	66	6.0	6008-540
VDD30-6.1	6.1	31	70	6.1	6008-541
VDD30-6.2	6.2	31	70	6.2	6008-542
VDD30-6.3	6.3	31	70	6.3	6008-543
VDD30-6.4	6.4	31	70	6.4	6008-544
VDD30-6.5	6.5	31	70	6.5	6008-545
VDD30-6.6	6.6	31	70	6.6	6008-546
VDD30-6.7	6.7	31	70	6.7	6008-547
VDD30-6.8	6.8	34	74	6.8	6008-548
VDD30-6.9	6.9	34	74	6.9	6008-549

Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron
70-100	30-50	20-30	10-20	90-130

GR.7 Titanium	GR.8 Nickel	GR.9 Copper	GR.10 Aluminium
25-45	20-45	130-230	130-300

ORDER NO.	Dc h7	Lc mm	L mm	d mm	CODE NO.
VDD30-7.0	7.0	34	74	7.0	6008-550
VDD30-7.1	7.1	34	74	7.1	6008-551
VDD30-7.2	7.2	34	74	7.2	6008-552
VDD30-7.3	7.3	34	74	7.3	6008-553
VDD30-7.4	7.4	34	74	7.4	6008-554
VDD30-7.5	7.5	34	74	7.5	6008-555
VDD30-7.6	7.6	37	79	7.6	6008-556
VDD30-7.7	7.7	37	79	7.7	6008-557
VDD30-7.8	7.8	37	79	7.8	6008-558
VDD30-7.9	7.9	37	79	7.9	6008-559
VDD30-8.0	8.0	37	79	8.0	6008-560
VDD30-8.1	8.1	37	79	8.1	6008-561
VDD30-8.2	8.2	37	79	8.2	6008-562
VDD30-8.3	8.3	37	79	8.3	6008-563
VDD30-8.4	8.4	37	79	8.4	6008-564
VDD30-8.5	8.5	37	79	8.5	6008-565
VDD30-8.6	8.6	40	84	8.6	6008-566
VDD30-8.7	8.7	40	84	8.7	6008-567
VDD30-8.8	8.8	40	84	8.8	6008-568
VDD30-8.9	8.9	40	84	8.9	6008-569
VDD30-9.0	9.0	40	84	9.0	6008-570
VDD30-9.1	9.1	40	84	9.1	6008-571
VDD30-9.2	9.2	40	84	9.2	6008-572
VDD30-9.3	9.3	40	84	9.3	6008-573
VDD30-9.4	9.4	40	84	9.4	6008-574
VDD30-9.5	9.5	40	84	9.5	6008-575
VDD30-9.6	9.6	43	89	9.6	6008-576
VDD30-9.7	9.7	43	89	9.7	6008-577
VDD30-9.8	9.8	43	89	9.8	6008-578
VDD30-9.9	9.9	43	89	9.9	6008-579
VDD30-10.0	10.0	43	89	10.0	6008-580
VDD30-10.2	10.2	43	89	10.2	6008-581
VDD30-10.5	10.5	43	89	10.5	6008-582
VDD30-10.8	10.8	47	95	10.8	6008-583
VDD30-11.0	11.0	47	95	11.0	6008-584
VDD30-11.5	11.5	47	95	11.5	6008-585
VDD30-12.0	12.0	51	102	12.0	6008-586
VDD30-12.5	12.5	51	102	12.5	6008-587
VDD30-13.0	13.0	51	102	13.0	6008-588

High Performance Drills Carbide

VERTEX

UMG Carbide | TiAlN F-TOP | 3XD | 2 | 140° | DIN 6537K | Steels | Stainless | <48 HRC | 45-56 HRC | Iron | Titanium | Nickel

Stud Length(Order No. VDD31-Dia)

Unit:mm

ORDER NO.	Dc h7	Lc mm	L mm	d h6	Ld mm	d mm	CODE NO.
VDD31-3.0	3.0	20	62	6	36	3.0	6008-600
VDD31-3.1	3.1	20	62	6	36	3.1	6008-601
VDD31-3.2	3.2	20	62	6	36	3.2	6008-602
VDD31-3.3	3.3	20	62	6	36	3.3	6008-603
VDD31-3.4	3.4	20	62	6	36	3.4	6008-604
VDD31-3.5	3.5	20	62	6	36	3.5	6008-605
VDD31-3.6	3.6	20	62	6	36	3.6	6008-606
VDD31-3.7	3.7	20	62	6	36	3.7	6008-607
VDD31-3.8	3.8	24	66	6	36	3.8	6008-608
VDD31-3.9	3.9	24	66	6	36	3.9	6008-609
VDD31-4.0	4.0	24	66	6	36	4.0	6008-610
VDD31-4.1	4.1	24	66	6	36	4.1	6008-611
VDD31-4.2	4.2	24	66	6	36	4.2	6008-612
VDD31-4.3	4.3	24	66	6	36	4.3	6008-613
VDD31-4.4	4.4	24	66	6	36	4.4	6008-614
VDD31-4.5	4.5	24	66	6	36	4.5	6008-615
VDD31-4.6	4.6	24	66	6	36	4.6	6008-616
VDD31-4.7	4.7	24	66	6	36	4.7	6008-617
VDD31-4.8	4.8	28	66	6	36	4.8	6008-618
VDD31-4.9	4.9	28	66	6	36	4.9	6008-619
VDD31-5.0	5.0	28	66	6	36	5.0	6008-620
VDD31-5.1	5.1	28	66	6	36	5.1	6008-621
VDD31-5.2	5.2	28	66	6	36	5.2	6008-622
VDD31-5.3	5.3	28	66	6	36	5.3	6008-623
VDD31-5.4	5.4	28	66	6	36	5.4	6008-624
VDD31-5.5	5.5	28	66	6	36	5.5	6008-625
VDD31-5.6	5.6	28	66	6	36	5.6	6008-626
VDD31-5.7	5.7	28	66	6	36	5.7	6008-627
VDD31-5.8	5.8	28	66	6	36	5.8	6008-628
VDD31-5.9	5.9	28	66	6	36	5.9	6008-629
VDD31-6.0	6.0	28	66	6	36	6.0	6008-630
VDD31-6.1	6.1	34	79	8	36	6.1	6008-631
VDD31-6.2	6.2	34	79	8	36	6.2	6008-632
VDD31-6.3	6.3	34	79	8	36	6.3	6008-633
VDD31-6.4	6.4	34	79	8	36	6.4	6008-634
VDD31-6.5	6.5	34	79	8	36	6.5	6008-635
VDD31-6.6	6.6	34	79	8	36	6.6	6008-636
VDD31-6.7	6.7	34	79	8	36	6.7	6008-637
VDD31-6.8	6.8	34	79	8	36	6.8	6008-638
VDD31-6.9	6.9	34	79	8	36	6.9	6008-639
VDD31-7.0	7.0	34	79	8	36	7.0	6008-640
VDD31-7.1	7.1	41	79	8	36	7.1	6008-641
VDD31-7.2	7.2	41	79	8	36	7.2	6008-642
VDD31-7.3	7.3	41	79	8	36	7.3	6008-643
VDD31-7.4	7.4	41	79	8	36	7.4	6008-644
VDD31-7.5	7.5	41	79	8	36	7.5	6008-645
VDD31-7.6	7.6	41	79	8	36	7.6	6008-646
VDD31-7.7	7.7	41	79	8	36	7.7	6008-647
VDD31-7.8	7.8	41	79	8	36	7.8	6008-648
VDD31-7.9	7.9	41	79	8	36	7.9	6008-649

Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron
80-180	45-60	40-60	15-35	90-130

GR.7 Titanium	GR.8 Nickel	GR.9 Copper	GR.10 Aluminium
35-45	30-45	130-230	130-300

ORDER NO.	Dc h7	Lc mm	L mm	d h6	Ld mm	d mm	CODE NO.
VDD31-8.0	8.0	41	79	8	36	8.0	6008-650
VDD31-8.1	8.1	47	89	10	40	8.1	6008-651
VDD31-8.2	8.2	47	89	10	40	8.2	6008-652
VDD31-8.3	8.3	47	89	10	40	8.3	6008-653
VDD31-8.4	8.4	47	89	10	40	8.4	6008-654
VDD31-8.5	8.5	47	89	10	40	8.5	6008-655
VDD31-8.6	8.6	47	89	10	40	8.6	6008-656
VDD31-8.7	8.7	47	89	10	40	8.7	6008-657
VDD31-8.8	8.8	47	89	10	40	8.8	6008-658
VDD31-8.9	8.9	47	89	10	40	8.9	6008-659
VDD31-9.0	9.0	47	89	10	40	9.0	6008-660
VDD31-9.1	9.1	47	89	10	40	9.1	6008-661
VDD31-9.2	9.2	47	89	10	40	9.2	6008-662
VDD31-9.3	9.3	47	89	10	40	9.3	6008-663
VDD31-9.4	9.4	47	89	10	40	9.4	6008-664
VDD31-9.5	9.5	47	89	10	40	9.5	6008-665
VDD31-9.6	9.6	47	89	10	40	9.6	6008-666
VDD31-9.7	9.7	47	89	10	40	9.7	6008-667
VDD31-9.8	9.8	47	89	10	40	9.8	6008-668
VDD31-9.9	9.9	47	89	10	40	9.9	6008-669
VDD31-10.0	10.0	47	89	10	40	10.0	6008-670
VDD31-10.2	10.2	55	102	12	45	10.2	6008-671
VDD31-10.5	10.5	55	102	12	45	10.5	6008-672
VDD31-10.8	10.8	55	102	12	45	10.8	6008-673
VDD31-11.0	11.0	55	102	12	45	11.0	6008-674
VDD31-11.5	11.5	55	102	12	45	11.5	6008-675
VDD31-12.0	12.0	55	102	12	45	12.0	6008-676
VDD31-12.5	12.5	60	107	14	45	12.5	6008-677
VDD31-13.0	13.0	60	107	14	45	13.0	6008-678
VDD31-13.5	13.5	60	107	14	45	13.5	6008-679
VDD31-14.0	14.0	60	107	14	45	14.0	6008-680
VDD31-14.5	14.5	65	115	16	48	14.5	6008-681
VDD31-15.0	15.0	65	115	16	48	15.0	6008-682
VDD31-15.5	15.5	65	115	16	48	15.5	6008-683
VDD31-16.0	16.0	65	115	16	48	16.0	6008-684
VDD31-16.5	16.5	73	123	18	48	16.5	6008-685
VDD31-17.0	17.0	73	123	18	48	17.0	6008-686
VDD31-17.5	17.5	73	123	18	48	17.5	6008-687
VDD31-18.0	18.0	73	123	18	48	18.0	6008-688
VDD31-18.5	18.5	79	131	20	50	18.5	6008-689
VDD31-19.0	19.0	79	131	20	50	19.0	6008-690
VDD31-19.5	19.5	79	131	20	50	19.5	6008-691
VDD31-20.0	20.0	79	131	20	50	20.0	6008-692

High Performance Drills Carbide

VERTEX

UMG Carbide | TiAlN F-TOP | 5XD | 2 | 140° | DIN 6537L | Steels | Stainless | <48 HRC | 45-56 HRC | Iron | Titanium | Nickel

Standard Length(Order No. VDD32-Dia)

Unit:mm

ORDER NO.	Dc h7	Lc mm	L mm	d h6	Ld mm	d mm	CODE NO.
VDD32-3.0	3.0	28	66	6	36	3.0	6008-700
VDD32-3.1	3.1	28	66	6	36	3.1	6008-701
VDD32-3.2	3.2	28	66	6	36	3.2	6008-702
VDD32-3.3	3.3	28	66	6	36	3.3	6008-703
VDD32-3.4	3.4	28	66	6	36	3.4	6008-704
VDD32-3.5	3.5	28	66	6	36	3.5	6008-705
VDD32-3.6	3.6	28	66	6	36	3.6	6008-706
VDD32-3.7	3.7	28	66	6	36	3.7	6008-707
VDD32-3.8	3.8	36	74	6	36	3.8	6008-708
VDD32-3.9	3.9	36	74	6	36	3.9	6008-709
VDD32-4.0	4.0	36	74	6	36	4.0	6008-710
VDD32-4.1	4.1	36	74	6	36	4.1	6008-711
VDD32-4.2	4.2	36	74	6	36	4.2	6008-712
VDD32-4.3	4.3	36	74	6	36	4.3	6008-713
VDD32-4.4	4.4	36	74	6	36	4.4	6008-714
VDD32-4.5	4.5	36	74	6	36	4.5	6008-715
VDD32-4.6	4.6	36	74	6	36	4.6	6008-716
VDD32-4.7	4.7	36	74	6	36	4.7	6008-717
VDD32-4.8	4.8	44	82	6	36	4.8	6008-718
VDD32-4.9	4.9	44	82	6	36	4.9	6008-719
VDD32-5.0	5.0	44	82	6	36	5.0	6008-720
VDD32-5.1	5.1	44	82	6	36	5.1	6008-721
VDD32-5.2	5.2	44	82	6	36	5.2	6008-722
VDD32-5.3	5.3	44	82	6	36	5.3	6008-723
VDD32-5.4	5.4	44	82	6	36	5.4	6008-724
VDD32-5.5	5.5	44	82	6	36	5.5	6008-725
VDD32-5.6	5.6	44	82	6	36	5.6	6008-726
VDD32-5.7	5.7	44	82	6	36	5.7	6008-727
VDD32-5.8	5.8	44	82	6	36	5.8	6008-728
VDD32-5.9	5.9	44	82	6	36	5.9	6008-729
VDD32-6.0	6.0	44	82	6	36	6.0	6008-730
VDD32-6.1	6.1	53	91	8	36	6.1	6008-731
VDD32-6.2	6.2	53	91	8	36	6.2	6008-732
VDD32-6.3	6.3	53	91	8	36	6.3	6008-733
VDD31-6.4	6.4	53	91	8	36	6.4	6008-734
VDD32-6.5	6.5	53	91	8	36	6.5	6008-735
VDD32-6.6	6.6	53	91	8	36	6.6	6008-736
VDD32-6.7	6.7	53	91	8	36	6.7	6008-737
VDD32-6.8	6.8	53	91	8	36	6.8	6008-738
VDD32-6.9	6.9	53	91	8	36	6.9	6008-739
VDD32-7.0	7.0	53	91	8	36	7.0	6008-740
VDD32-7.1	7.1	53	91	8	36	7.1	6008-741
VDD32-7.2	7.2	53	91	8	36	7.2	6008-742
VDD32-7.3	7.3	53	91	8	36	7.3	6008-743
VDD32-7.4	7.4	53	91	8	36	7.4	6008-744
VDD32-7.5	7.5	53	91	8	36	7.5	6008-745
VDD32-7.6	7.6	53	91	8	36	7.6	6008-746
VDD32-7.7	7.7	53	91	8	36	7.7	6008-747
VDD32-7.8	7.8	53	91	8	36	7.8	6008-748
VDD32-7.9	7.9	53	91	8	36	7.9	6008-749

Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron
80-180	45-60	40-60	15-35	90-130

GR.7 Titanium	GR.8 Nickel	GR.9 Copper	GR.10 Aluminium
35-45	30-45	130-230	130-300

ORDER NO.	Dc h7	Lc mm	L mm	d h6	Ld mm	d mm	CODE NO.
VDD32-8.0	8.0	53	91	8	36	8.0	6008-750
VDD32-8.1	8.1	61	103	10	40	8.1	6008-751
VDD32-8.2	8.2	61	103	10	40	8.2	6008-752
VDD32-8.3	8.3	61	103	10	40	8.3	6008-753
VDD32-8.4	8.4	61	103	10	40	8.4	6008-754
VDD32-8.5	8.5	61	103	10	40	8.5	6008-755
VDD32-8.6	8.6	61	103	10	40	8.6	6008-756
VDD32-8.7	8.7	61	103	10	40	8.7	6008-757
VDD32-8.8	8.8	61	103	10	40	8.8	6008-758
VDD32-8.9	8.9	61	103	10	40	8.9	6008-759
VDD32-9.0	9.0	61	103	10	40	9.0	6008-760
VDD32-9.1	9.1	61	103	10	40	9.1	6008-761
VDD32-9.2	9.2	61	103	10	40	9.2	6008-762
VDD32-9.3	9.3	61	103	10	40	9.3	6008-763
VDD32-9.4	9.4	61	103	10	40	9.4	6008-764
VDD32-9.5	9.5	61	103	10	40	9.5	6008-765
VDD32-9.6	9.6	61	103	10	40	9.6	6008-766
VDD32-9.7	9.7	61	103	10	40	9.7	6008-767
VDD32-9.8	9.8	61	103	10	40	9.8	6008-768
VDD32-9.9	9.9	61	103	10	40	9.9	6008-769
VDD32-10.0	10.0	61	103	10	40	10.0	6008-770
VDD32-10.2	10.2	71	118	12	45	10.2	6008-771
VDD32-10.5	10.5	71	118	12	45	10.5	6008-772
VDD32-10.8	10.8	71	118	12	45	10.8	6008-773
VDD32-11.0	11.0	71	118	12	45	11.0	6008-774
VDD32-11.5	11.5	71	118	12	45	11.5	6008-775
VDD32-12.0	12.0	71	118	12	45	12.0	6008-776
VDD32-12.5	12.5	77	124	14	45	12.5	6008-777
VDD32-13.0	13.0	77	124	14	45	13.0	6008-778
VDD32-13.5	13.5	77	124	14	45	13.5	6008-779
VDD32-14.0	14.0	77	124	14	45	14.0	6008-780
VDD32-14.5	14.5	83	133	16	48	14.5	6008-781
VDD32-15.0	15.0	83	133	16	48	15.0	6008-782
VDD32-15.5	15.5	83	133	16	48	15.5	6008-783
VDD32-16.0	16.0	83	133	16	48	16.0	6008-784
VDD32-16.5	16.5	93	143	18	48	16.5	6008-785
VDD32-17.0	17.0	93	143	18	48	17.0	6008-786
VDD32-17.5	17.5	93	143	18	48	17.5	6008-787
VDD32-18.0	18.0	93	143	18	48	18.0	6008-788
VDD32-18.5	18.5	101	153	20	50	18.5	6008-789
VDD32-19.0	19.0	101	153	20	50	19.0	6008-790
VDD32-19.5	19.5	101	153	20	50	19.5	6008-791
VDD32-20.0	20.0	101	153	20	50	20.0	6008-792

Combined Drill And Countersink

VERTEX

Carbide

Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron
30-80	20-60	15-25	10-20	40-100

GR.7 Titanium	GR.8 Nickel	GR.9 Copper	GR.10 Aluminium
20-40	15-40	60-300	80-400

Standard Length(Order No. VDT08-Dia) Unit:mm

ORDER NO.	Dc h7	Lc mm	L mm	d h6	CODE NO.
VDT08-0.50	0.50	0.8	38	3	6008-800
VDT08-0.80	0.80	1.1	38	3	6008-801
VDT08-1.00	1.00	1.3	38	3	6008-802
VDT08-1.25	1.25	1.6	38	3	6008-803
VDT08-1.60	1.60	2.0	38	4	6008-804
VDT08-2.00	2.00	2.5	50	5	6008-805
VDT08-2.50	2.50	3.1	50	6	6008-806
VDT08-3.15	3.15	3.9	63	8	6008-807
VDT08-4.00	4.00	5.0	66	10	6008-808
VDT08-5.00	5.00	6.3	73	12	6008-809

Combined Drill And Countersink

Material: 6542A **HSS**

Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron
30-80	20-60	15-25	10-20	40-100

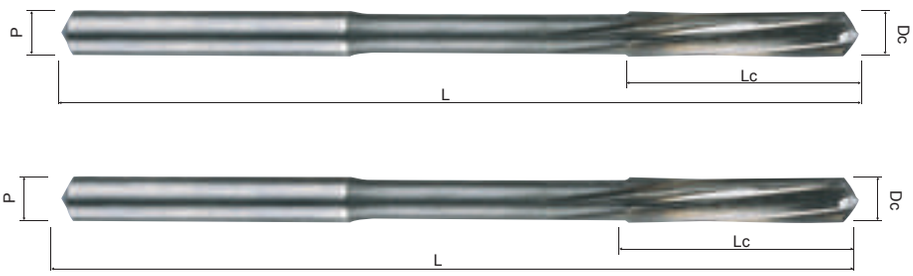
GR.7 Titanium	GR.8 Nickel	GR.9 Copper	GR.10 Aluminium
20-40	15-40	60-300	80-400

ORDER NO.	Dc	d	L	CODE NO.
VDTHS-1.6	1.6	5	40	6008-850
VDTHS-2.0	2	5	40	6008-851
VDTHS-2.5	2.5	6	45	6008-852
VDTHS-3.15	3.15	8	50	6008-853
VDTHS-4.0	4	10	56	6008-854
VDTHS-5.0	5	12	63	6008-855
VDTHS-6.0	6	14	71	6008-856

Machine Reamers

In Steps of 0.5mm

Carbide



Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron	GR.7 Titanium	GR.8 Nickel	GR.9 Copper	GR.10 Aluminium
7-25	7-15	5-10	5-10	10-22	10-25	5-20	30-45	20-50

※ 2.0-9.0 VHM Solid Carbide
※ 10.0-20.0 HM Carbide Tipped

Straight Shank(Order No. VR301-Dc)

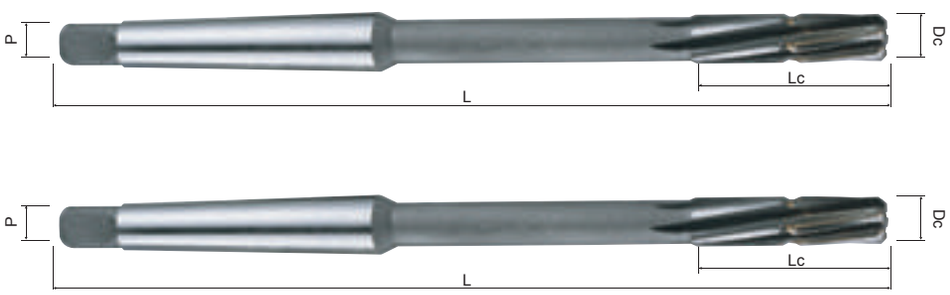
Unit:mm

ORDER NO.	Dc H7	Lc mm	L mm	d mm	Z teeth	CODE NO.
VR301-2.0	2.0	11	49	2.0	4	6007-390
VR301-2.5	2.5	14	57	2.5	4	6007-391
VR301-3.0	3.0	15	61	3.0	4	6007-392
VR301-3.5	3.5	18	70	3.5	4	6007-393
VR301-4.0	4.0	19	75	4.0	4	6007-394
VR301-4.5	4.5	21	80	4.5	4	6007-395
VR301-5.0	5.0	23	86	5.0	6	6007-396
VR301-5.5	5.5	26	93	5.5	6	6007-397
VR301-6.0	6.0	26	93	6.0	6	6007-398
VR301-7.0	7.0	31	109	7.0	6	6007-400
VR301-8.0	8.0	33	117	8.0	6	6007-402
VR301-9.0	9.0	36	125	9.0	6	6007-404
VR301-10.0	10.0	38	133	10.0	6	6007-406

※ 2.0-9.0 VHM Solid Carbide ※ 10.0-20.0 HM Carbide Tipped

ORDER NO.	Dc H7	Lc mm	L mm	d mm	Z teeth	CODE NO.
VR301-11.0	11.0	41	142	10.0	6	6007-408
VR301-12.0	12.0	44	151	10.0	6	6007-410
VR301-13.0	13.0	44	151	10.0	6	6007-412
VR301-14.0	14.0	47	160	12.5	6	6007-414
VR301-15.0	15.0	50	162	12.5	6	6007-416
VR301-16.0	16.0	52	170	12.5	6	6007-418
VR301-17.0	17.0	54	175	14.0	6	6007-419
VR301-18.0	18.0	56	182	14.0	6	6007-420
VR301-19.0	19.0	58	189	16.0	6	6007-421
VR301-20.0	20.0	60	195	16.0	6	6007-422

Machine Reamers Carbide Tipped



Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron	GR.7 Titanium	GR.8 Nickel	GR.9 Copper	GR.10 Aluminium
7-25	7-15	5-10	5-10	10-22	10-25	5-20	30-45	20-50

Taper Shank(Order No. VR303-Dc)

Unit:mm

ORDER NO.	Dc H7	Lc mm	L mm	d MT-#	Z teeth	CODE NO.
VR303-10.0	10.0	38	168	MT-1	6	6007-430
VR303-11.0	11.0	41	175	MT-1	6	6007-431
VR303-12.0	12.0	44	182	MT-1	6	6007-432
VR303-13.0	13.0	44	182	MT-1	6	6007-433
VR303-14.0	14.0	47	189	MT-1	6	6007-434
VR303-15.0	15.0	50	204	MT-2	6	6007-435
VR303-16.0	16.0	52	210	MT-2	6	6007-436
VR303-17.0	17.0	54	214	MT-2	6	6007-437
VR303-18.0	18.0	56	219	MT-2	6	6007-438
VR303-19.0	19.0	58	223	MT-2	6	6007-439
VR303-20.0	20.0	60	228	MT-2	6	6007-440
VR303-22.0	22.0	64	237	MT-2	6	6007-441
VR303-24.0	24.0	68	268	MT-3	8	6007-442

ORDER NO.	Dc H7	Lc mm	L mm	d mt	Z teeth	CODE NO.
VR303-25.0	25.0	68	268	3	8	6007-443
VR303-26.0	26.0	70	273	3	8	6007-444
VR303-28.0	28.0	71	277	3	8	6007-445
VR303-30.0	30.0	73	281	3	8	6007-446
VR303-32.0	32.0	77	317	4	8	6007-447
VR303-35.0	35.0	78	321	4	8	6007-448
VR303-36.0	36.0	79	325	4	8	6007-449
VR303-38.0	38.0	81	329	4	8	6007-450
VR303-40.0	40.0	81	329	4	8	6007-451

Machine Reamers Long Length

VERTEX

Carbide

Work Material / Velocity m/min

GR.1 Non alloyed steels Alloyed Steels	GR.2 Heat resistant steels Stainless steels	GR.3 Hardened steels < 48 HRC	GR.4 Hardened steels 48-56 HRC	GR.6 Iron	GR.7 Titanium	GR.8 Nickel	GR.9 Copper	GR.10 Aluminium
7-25	7-15	5-10	5-10	10-22	10-25	5-20	30-45	20-50

Straight Shank(Order No. VRC02-Dia)

Unit:mm

ORDER NO.	Dc h7	Lc mm	L mm	d h6	Z teeth	CODE NO.
VRC02-3.0	3.0	15	100	3.0	4	6008-820
VRC02-3.5	3.5	18	112	3.5	4	6008-821
VRC02-4.0	4.0	19	119	4.0	4	6008-822
VRC02-4.5	4.5	21	126	4.5	4	6008-823
VRC02-5.0	5.0	23	132	5.0	6	6008-824
VRC02-6.0	6.0	26	139	6.0	6	6008-825
VRC02-7.0	7.0	31	156	7.0	6	6008-826
VRC02-8.0	8.0	33	165	8.0	6	6008-827

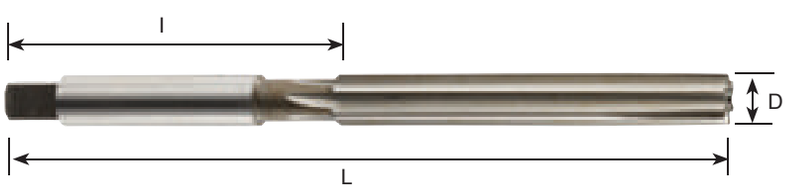
Straight Shank(Order No. VRC02-Dia)

Unit:mm

ORDER NO.	Dc h7	Lc mm	L mm	d h6	Z teeth	CODE NO.
VRC02-9.0	9.0	36	175	9.0	6	6008-828
VRC02-10.0	10.0	38	184	10.0	6	6008-829
VRC02-12.0	12.0	44	205	10.0	6	6008-830
VRC02-14.0	14.0	47	214	12.5	6	6008-831
VRC02-16.0	16.0	52	227	12.5	6	6008-832
VRC02-18.0	18.0	56	241	14.0	6	6008-833
VRC02-20.0	20.0	60	254	16.0	6	6008-834

Hand Reamers - HSS

H.S.S.



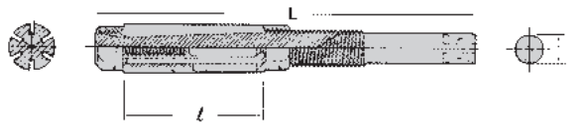
H.S.S.

ORDER NO.	BLADE D	Total Length L	BLADE l	BLADE N	CODE NO.
VHM-03	3	72	40	6	6009-001
VHM-04	4	80	40	6	6009-002
VHM-05	5	90	45	6	6009-003
VHM-06	6	100	50	6	6009-004
VHM-07	7	105	55	6	6009-005
VHM-08	8	115	60	6	6009-006
VHM-09	9	125	65	6	6009-007
VHM-10	10	130	70	6	6009-008
VHM-11	11	140	75	6	6009-009
VHM-12	12	150	75	6	6009-010

Adjustable Reamers

VERTEX

Unique Quality, World Standard



Features Adjustable Reamers

- Because of you can get diameter adjust, one Adjustable reamers function possible as dozens of solid reamers.
- The spare blades save you a lot of economization

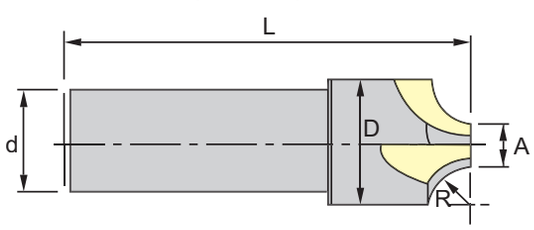
ORDER NO.	Range of Adjustment (mm)	Overall Length (mm)	Blade Length (mm)	Weight (kgs)	CODE NO.
VAR-635	6.35~7.15	83	35	0.013	6009-021
VAR-715	7.15~7.95	91	35	0.017	6009-022
VAR-795	7.95~8.70	107	38	0.026	6009-023
VAR-870	8.70~9.50	112	38	0.030	6009-024
VAR-950	9.50~10.25	121	38	0.037	6009-025
VAR-1025	10.25~11	127	38	0.045	6009-026
VAR-1100	11~12	134	42	0.059	6009-027
VAR-1200	12~13.5	141	42	0.071	6009-028
VAR-1350	13.5~15	146	45	0.090	6009-029
VAR-1500	15~16.75	166	53	0.129	6009-030
VAR-1675	16.75~18.25	172	56	0.172	6009-031
VAR-1825	18.25~19.75	178	64	0.227	6009-032
VAR-1975	19.75~21.50	188	67	0.292	6009-033
VAR-2150	21.50~23.75	204	76	0.393	6009-034
VAR-2375	23.75~27	230	83	0.525	6009-035
VAR-2700	27~30.25	254	86	0.785	6009-036
VAR-3025	30.25~34.25	280	98	0.945	6009-037
VAR-3425	34.25~38	305	109	1.36	6009-038
VAR-3800	38~46	356	113	2.11	6009-039
VAR-4600	46~56	407	128	3.60	6009-040
VAR-5600	56~70	457	124	6.14	6009-041
VAR-7000	70~85	509	135	9.87	6009-042

Outside Radius Shape End Mills

MATERIAL: H.S.S.

Suit For:

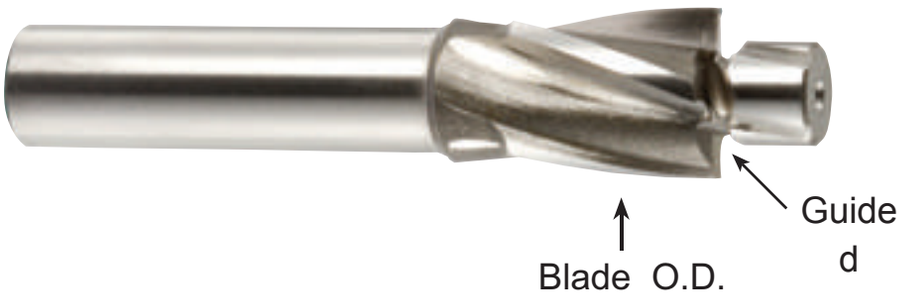
Plastic molds and cutting radius shape work piece.



ORDER NO.	R	End D. A	O.D.	Total L	Shank d	Blade No. N	CODE NO.
VCR-010	1	6	8	55	10	3	6009-061
VCR-020	2	6	10	60	12	3	6009-062
VCR-030	3	6	12	60	12	3	6009-063
VCR-040	4	6	14	65	12	3	6009-064
VCR-050	5	7	17	70	16	4	6009-065
VCR-060	6	8	20	75	16	4	6009-066
VCR-070	7	8	22	75	16	4	6009-067
VCR-080	8	9	25	85	20	4	6009-068
VCR-090	9	9	27	85	20	4	6009-069
VCR-100	10	10	30	95	25	4	6009-070

Counterbore End Mills

MATERIAL: H.S.S.



ORDER NO.	Dimension mm	Guide d	Blade O.D.	Shank D	Weight (g)	CODE NO.
VCB-03	3	3.2	5.9	6	18	6009-081
VCB-04	4	4.2	7.4	6	21.5	6009-082
VCB-05	5	5.2	8.9	6	22.5	6009-083
VCB-06	6	6.2	10.4	8	33.5	6009-084
VCB-08	8	8.2	13.4	10	61	6009-085
VCB-10	10	10.3	16.8	12	88	6009-086
VCB-12	12	12.3	18.8	12	120	6009-087
VCB-14	14	14.3	24	12	165	6009-088
VCB-16	16	16.3	26	12	186	6009-089
VCB-18	18	18.3	28	12	195	6009-090

Metal Slitting Saws

MATERAL: SKH-9

INSIDE DIA. 1″ (25.4mm)

ORDER NO.	Thickness	ØO.D.	CODE NO.
VSS-7505	0.5 m/m	75	6009-131
VSS-7508	0.8 m/m	75	6009-132
VSS-7510	1.0 m/m	75	6009-133
VSS-7512	1.2 m/m	75	6009-134
VSS-7515	1.5 m/m	75	6009-135
VSS-7518	1.8 m/m	75	6009-136
VSS-7520	2.0 m/m	75	6009-137

ORDER NO.	Thickness	ØO.D.	CODE NO.
VSS-1005	0.5 m/m	100	6009-151
VSS-1008	0.8 m/m	100	6009-152
VSS-1010	1.0 m/m	100	6009-153
VSS-1012	1.2 m/m	100	6009-154
VSS-1015	1.5 m/m	100	6009-155
VSS-1018	1.8 m/m	100	6009-156
VSS-1020	2.0 m/m	100	6009-157

H.S.S. DRILL

With Coating

NEW

Ø1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10 mm

※HSD-10 Ø1~Ø10MM 19PCS / SET
EACH ONE STEP 0.5MM

Ø1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13 mm

※HSD-13 Ø1~Ø13MM 25PCS / SET
EACH ONE STEP 0.5MM

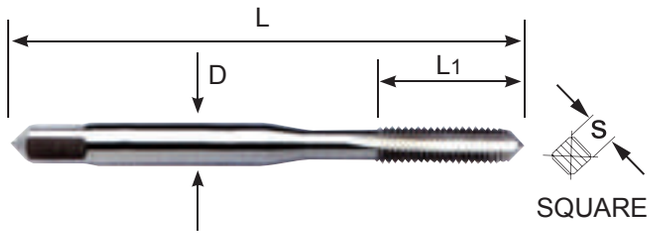
ORDER NO.	PCS / SET	WEIGHT (kgs)	CODE NO.
HSD-10	19 PCS	0.7	6010-001
HSD-13	25 PCS	1.3	6010-002

Hand Taps

JIS STANDARD

Tis Standard

NEW

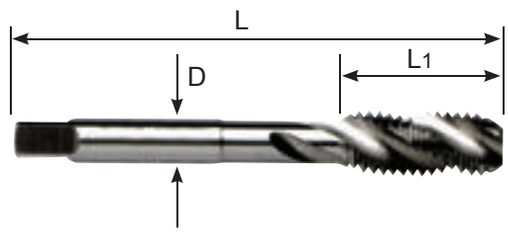


JIS HSS 60° 6H

ORDER NO.	SIZE x PITCH	ØD	S	L	L1	WEIGHT (kgs)	CODE NO.
VHT-H3	M3 x 0.5P	4	3.2	46	18		6011-001
VHT-H4	M4 x 0.7P	5	4	52	20	0.01	6011-002
VHT-H5	M5 x 0.8P	5.5	4.5	60	22		6011-003
VHT-H6	M6 x 1.0P	6	4.5	62	24		6011-004
VHT-H8	M8 x 1.25P	6.2	5	70	30	0.03	6011-005
VHT-H10	M10 x 1.5P	7	5.5	75	32	0.05	6011-006
VHT-H12	M12 x 1.75P	8.5	6.5	82	38		6011-007
VHT-H14	M14 x 2.0P	10.5	8	88	42		6011-008
VHT-H16	M16 x 2.0P	12.5	10	95	45		6011-009
VHT-H20	M20 x 2.5P	15	12	105	50		6011-010

Spiral Fluted Machine Taps

NEW

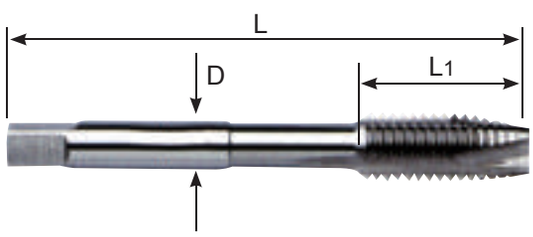


Spiral Fluted JIS HSS-EV 60° 6H

ORDER NO.	SIZE x PITCH	ØD	S	L	L1	WEIGHT (kgs)	CODE NO.
VMT-S3	M3 x 0.5P	4	3.2	46	11	0.01	6011-021
VMT-S4	M4 x 0.7P	5	4	52	13	0.01	6011-022
VMT-S5	M5 x 0.8P	5.5	4.5	60	16	0.02	6011-023
VMT-S6	M6 x 1.0P	6	4.5	62	19	0.02	6011-024
VMT-S8	M8 x 1.25P	6.2	5	70	22	0.03	6011-025
VMT-S10	M10 x 1.5P	7	5.5	75	24	0.05	6011-026
VMT-S12	M12 x 1.75P	8.5	6.5	82	29	0.07	6011-027
VMT-S14	M14 x 2.0P	10.5	8	88	30		6011-028
VMT-S16	M16 x 2.0P	12.5	10	95	32	0.08	6011-029
VMT-S20	M20 x 2.5P	15	12	105	37		6011-030

Spiral Fluted Machine Taps

NEW



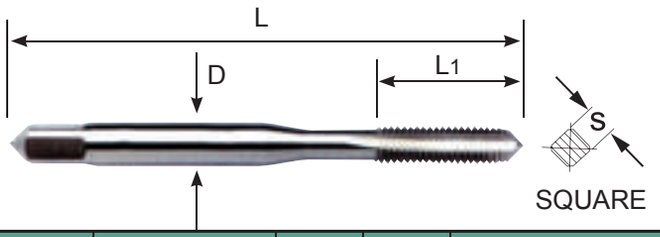
JIS HSS-EV 60° 6H

ORDER NO.	SIZE x PITCH	ØD	S	L	L1	WEIGHT (kgs)	CODE NO.
VMT-M3	M3 x 0.5P	4	3.2	46	11		6011-041
VMT-M4	M4 x 0.7P	5	4	52	13	0.01	6011-042
VMT-M5	M5 x 0.8P	5.5	4.5	60	16	0.02	6011-043
VMT-M6	M6 x 1.0P	6	4.5	62	19		6011-044
VMT-M8	M8 x 1.25P	6.2	5	70	22		6011-045
VMT-M10	M10 x 1.5P	7	5.5	75	24		6011-046
VMT-M12	M12 x 1.75P	8.5	6.5	82	29		6011-047
VMT-M14	M14 x 2.0P	10.5	8	88	30		6011-048
VMT-M16	M16 x 2.0P	12.5	10	95	32		6011-049
VMT-M20	M20 x 2.5P	15	12	105	37		6011-050

Hand Taps

ISO STANDARD VERTEX

NEW

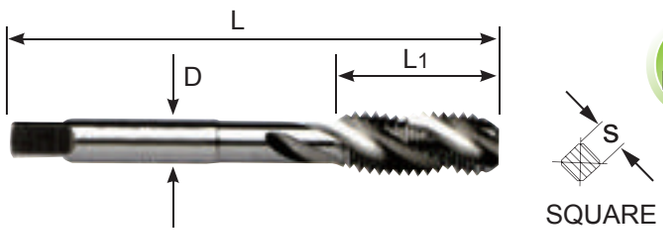


ISO 2 6H | HSS | 60° | ISO 529/2283

ORDER NO.	SIZE x PITCH	ØD	S	STANDARD		L	L1	WEIGHT (kgs)	CODE NO.
VHT-H3-ISO	M3 x 0.5P	3.15	2.15	ISO529 M3	ISO529 2283 M4	46	18		6011-061
VHT-H4-ISO	M4 x 0.7P	4.0	3.15	ISO529 M4	ISO529 2283 M5	52	20	0.01	6011-062
VHT-H5-ISO	M5 x 0.8P	5.0	4.0	ISO529 M5		60	22		6011-063
VHT-H6-ISO	M6 x 1.0P	6.3	5.0	ISO529 M6	ISO529 2283 M8	62	24		6011-064
VHT-H8-ISO	M8 x 1.25P	8.0	6.3	ISO529 M8	ISO529 2283 M10	70	30	0.03	6011-065
VHT-H10-ISO	M10 x 1.5P	10.0	8.0	ISO529 M10		75	32	0.05	6011-066
VHT-H12-ISO	M12 x 1.75P	9.0	7.1		ISO529 2283 M12	82	38		6011-067
VHT-H14-ISO	M14 x 2.0P	11.2	9.0		ISO529 2283 M14	88	42		6011-068
VHT-H16-ISO	M16 x 2.0P	12.5	10.0		ISO529 2283 M16	95	45		6011-069
VHT-H20-ISO	M20 x 2.5P	14.0	11.2		ISO529 2283 M20	105	50		6011-070

Spiral Fluted Machine Taps

NEW

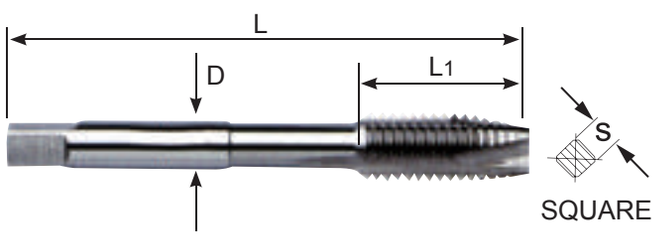


Spiral Fluted | ISO 2 6H | HSS-EV | 60° | ISO 529/2283

ORDER NO.	SIZE x PITCH	ØD	S	STANDARD		L	L1	WEIGHT (kgs)	CODE NO.
VMT-S3-ISO	M3 x 0.5P	3.15	2.15	ISO529 M3	ISO529 2283 M4	46	11	0.01	6011-081
VMT-S4-ISO	M4 x 0.7P	4.0	3.15	ISO529 M4	ISO529 2283 M5	52	13	0.01	6011-082
VMT-S5-ISO	M5 x 0.8P	5.0	4.0	ISO529 M5		60	16	0.02	6011-083
VMT-S6-ISO	M6 x 1.0P	6.3	5.0	ISO529 M6	ISO529 2283 M8	62	19	0.02	6011-084
VMT-S8-ISO	M8 x 1.25P	8.0	6.3	ISO529 M8	ISO529 2283 M10	70	22	0.03	6011-085
VMT-S10-ISO	M10 x 1.5P	10.0	8.0	ISO529 M10		75	24	0.05	6011-086
VMT-S12-ISO	M12 x 1.75P	9.0	7.1		ISO529 2283 M12	82	29	0.07	6011-087
VMT-S14-ISO	M14 x 2.0P	11.2	9.0		ISO529 2283 M14	88	30		6011-088
VMT-S16-ISO	M16 x 2.0P	12.5	10.0		ISO529 2283 M16	95	32	0.08	6011-089
VMT-S20-ISO	M20 x 2.5P	14.0	11.2		ISO529 2283 M20	105	37		6011-090

Spiral Fluted Machine Taps

NEW



ISO 2 6H | HSS-EV | 60° | ISO 529/2283

ORDER NO.	SIZE x PITCH	ØD	S	STANDARD		L	L1	WEIGHT (kgs)	CODE NO.
VMT-M3-ISO	M3 x 0.5P	3.15	2.15	ISO529 M3	ISO529 2283 M4	46	11		6011-101
VMT-M4-ISO	M4 x 0.7P	4.0	3.15	ISO529 M4	ISO529 2283 M5	52	13	0.01	6011-102
VMT-M5-ISO	M5 x 0.8P	5.0	4.0	ISO529 M5		60	16	0.02	6011-103
VMT-M6-ISO	M6 x 1.0P	6.3	5.0	ISO529 M6	ISO529 2283 M8	62	19		6011-104
VMT-M8-ISO	M8 x 1.25P	8.0	6.3	ISO529 M8	ISO529 2283 M10	70	22		6011-105
VMT-M10-ISO	M10 x 1.5P	10.0	8.0	ISO529 M10		75	24		6011-106
VMT-M12-ISO	M12 x 1.75P	9.0	7.1		ISO529 2283 M12	82	29		6011-107
VMT-M14-ISO	M14 x 2.0P	11.2	9.0		ISO529 2283 M14	88	30		6011-108
VMT-M16-ISO	M16 x 2.0P	12.5	10.0		ISO529 2283 M16	95	32		6011-109
VMT-M20-ISO	M20 x 2.5P	14.0	11.2		ISO529 2283 M20	105	37		6011-110

Tap Wrenches With Ratchet

NEW

CLAMPING RANGE

Unit : mm

ORDER NO.	SIZE	METRIC	L	MAX. ▨	MIN. ▨	WEIGHT (kgs)	CODE NO.
VPW-310	1	M3~M10	85	5.5	3.0	0.18	6011-801
VPW-512	2	M5~M12	100	7.0	4.5	0.31	6011-802

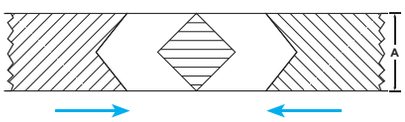
Tap Wrenches With Ratchet

NEW

TAP SIZE

A = x 1.414

CLAMPING RANGE



Unit : mm

ORDER NO.	SIZE	FOR METRIC	A ◇	MAX.B □	MIN.B □	PIPE PT/ PF-	L	WEIGHT (kgs)	CODE NO.
VPW-118	0	M1~M8	7.3	5.0	2.5	PT-1/16	125	0.06	6011-811
VPW-110	1	M1~M10	8.2	5.5	2.2	PT-1/16	180	0.12	6011-812
VPW-112	1-1/2	M1~M12	8.3	6.5	2.2	PT-1/8	200	0.11	6011-813
VPW-412	2	M4~M15	11.5	8.0	3.3	PT-1/8	280	0.26	6011-814
VPW-520	3	M5~M20	17.5	12.0	4.1	PT-3/8	375	0.58	6011-815
VPW-927	4	M9~M27	18.4	15.0	6.1	PF-5/8	500	0.86	6011-816
VPW-1332	5	M13~M27	22.2	15.0	5.7	PF-5/8	750	1.36	6011-817

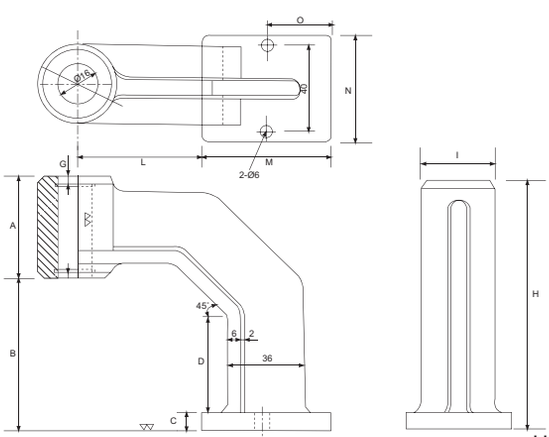
Magnetic Tapper

NEW

COST HIGHER

EXAMPLE

- Suit for large workpiece
- TAP thread capacity M3-M12
- MAX. stroke 60 mm
- Magnetic force 80 kgf
- Horizontal / Vertical
- Portable
- Great for machine case & thin plate tapping job.



- Tap & work piece not included

Unit : mm

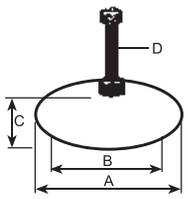
ORDER NO.	A	B	C	D	H	I	L	M	N	O	WEIGHT (kgs)	CODE NO.
VTM-13	50	72	10	45	122	36	60	60	50	30	3.10	2015-731

G
SPECIAL USAGE
MACHINE

G1-G2	SHOCK ABSORBER
G3	ARBOR PRESS
G4	ONE WAY ACME THREAD SLIDE TABLE / VERTICAL DOVETAIL SLIDE TABLE
G5	PRECISION BORING / MILLING SPINDLE HEAD
G6	FLAT END MOVABLE HANDLE / ELLIPSE MOVABLE HANDLE / BALL KNOBS / HAND KNOBS
G7~G8	ADJUSTABLE HAND LEVERS / REVOLVING HANDLES / 360° SWIVELLING LOCK HANDLE / LIFTING EYE RING / SHOULDER LOCATING UNIT / RING PLATE / CRANK HANDLE
G9	BALL PLUGER SCREW-SOCKET & SLOTTED
G10	PU-HAMMER SERIES / HAMMER
G11	UNIVERSAL DRILL & CUTTER GRINDER / HORIZONTAL BAND SAW
G12	HORIZONTAL BAND SAW / SAW BLADE
G13-G18	AIR DIE TOOL
G19-G20	CARBIDE ROTARY BURRS

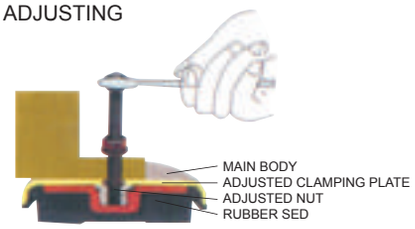
Shock Absorber

STANDARD TYPE



DELUXE TYPE

ADJUSTING



Special Features

Preventing shock & reducing noise. low bed design.
Easy installation. Simple adjustment. High durability.

Application

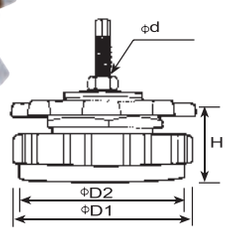
Various general working machines, metal work piece processing machine, production machine, special machine, measuring equipment, testing machine.
Electrical generator, air compressor, etc.
ADJUSTABLE RANGE 6-12 mm

Unit:mm

ORDER NO.	A	B	C	Ø DxL	LOAD KGS	Adjustable HEIGH	WEIGHT KGS	CODE NO.
TK-90	90	50	32	12M-100	500kg	5 mm	0.8	7001-000
TK-120	120	90	35	12M-100	1000kg	5 mm	1.4	7001-001
TK-160	160	130	38	16M-110	1500kg	6 mm	2.8	7001-002
TK-200	200	170	45	20M-120	3500kg	6 mm	4.4	7001-003

Features : Easy to operate. shock-absorbent, reduces machine noise includes adjustment, and assures prodution accuracy.

DELUXE TYPE



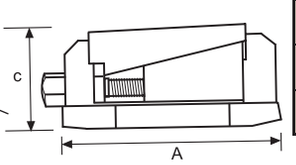
Unit:mm

ORDER NO.	D1	D2	H	Ø dxL	LOAD KGS	Adjustable HEIGH	N.W. KGS	CODE NO.
SB-4	100	90	60	12x50	500	25	2	7001-031
SB-6	150	135	95	16x110	1000	40	5	7001-032
SB-8	200	180	100	20x120	2500	40	8	7001-033
SB-10	250	230	125	24x180	4000	40	12	7001-034

SUITABLE FOR : machine tools, molding machine, printing machine, CNC lathe, grinding machines, drilling machines, milling machines.

- FCD45

HEAVY DUTY TYPE



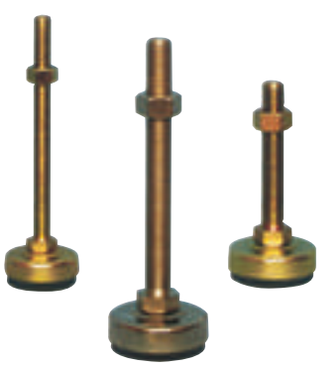
Unit:mm

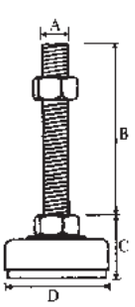
ORDER NO.	A	B	C	LOAD KGS	Adjustable HEIGH	N.W. KGS	CODE NO.
SC-1	130	96	66	700	4MM	4	7001-060
SC-2	174	143	80	1500	5MM	8.8	7001-061
SC-3	217	165	101	2500	6MM	16	7001-062

SUITABLE FOR : CNC lathe, milling machines, cutting machines, grinding machines.

- FCD45

LIGHT DUTY TYPE





Unit:mm

ORDER NO.	A	B	C	D	LOAD KGS	N.W. KGS	CODE NO.
SY-8	M8X1.25P	50	20	40	100	0.1	7001-080
SY-12	M12X1.25P	75	30	50	200	0.28	7001-081
SY-16	M16X2.0P	100	35	60	300	0.48	7001-082

- SS41

Shock Absorber

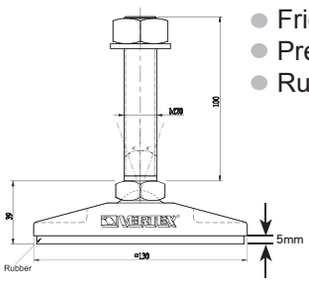
NEW FRON 20 KN TO 225 KN

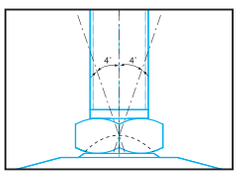
Machine Stand

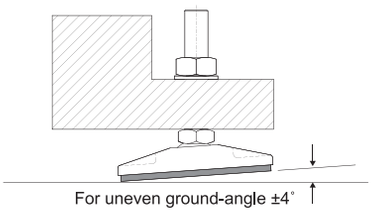
- Leveling
- Reduce Vibration
- Increase Stability
- Frictionless
- Precision & Accurate
- Rubber : 80˚,5mm Thickenss

STEP

- Place shock absorbers under machine.
- When shock absorbers have full contact with machine base, you can start to adjust the leveling.



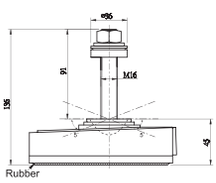


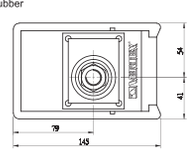


ORDER NO.	L x W x H	THREAD	LOAD KGS	UNEVEN GROUND-ANGLE	WEIGHT KGS	CODE NO.
VSA-25K	130 x 39 x 139	M20 x 100L	2200	± 4˚	1.76	7001-140

NEW

VSA-35K-6RU





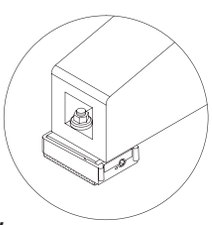
- Leveling
- Reduce Vibration
- Increase Stability
- Frictionless
- Precision & Accurate

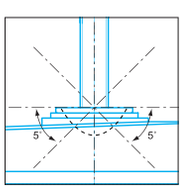
STEP

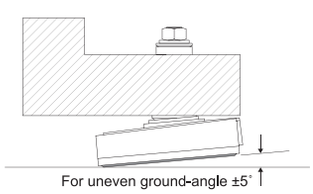
- Place shock absorbers under machine.
- When shock absorbers have full contact with machine base, you can start to adjust the leveling.

VSA-35K

Adjustable screw







ORDER NO.	L x W x H	THREAD	LOAD KGS	UNEVEN GROUND ANGLE	RUBBER	ADJUSTMENT HEIGHT / FROM ADJUSTABLE SCREW	WEIGHT KGS	CODE NO.
VSA-35K	145 x 95 x 136	M16 x 91L	6300	±5˚	2 m/m x 80˚ shore	7 mm	1.61	7001-160
VSA-35K-6RU	145 x 95 x 140	M16 x 91L	6300	±5˚	6 m/m x 90˚ shore	7 mm	1.61	7001-161

NEW

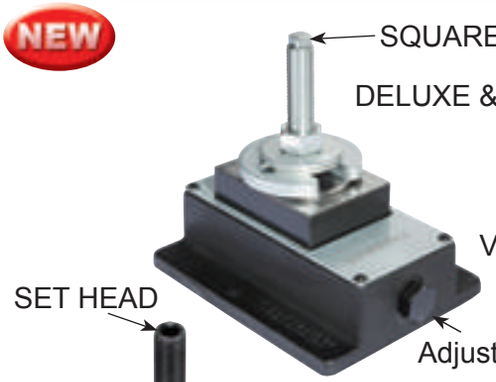
VSA-35K-PS-BL

VSA-35K-PS

ORDER NO.	L x W x H	ADJ. THREAD LENGTH	LOAD KGS	UNEVEN GROUND ANGLE	RUBBER	ADJUSTMENT HEIGHT / FROM ADJUSTABLE SCREW	WEIGHT KGS	CODE NO.
VSA-35K-PS	145 x 95 x 134	M16 x 91L	6300	±5˚		7 mm	1.4	7001-162
VSA-35K-PS-BL	145 x 95 x 144	M16 x 81L	6300	±5˚		7 mm	1.4	7001-163

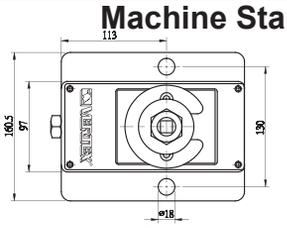
Shock Absorber Heavy Duty

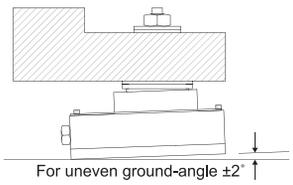
NEW

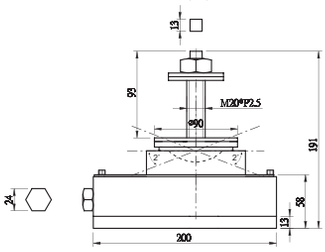


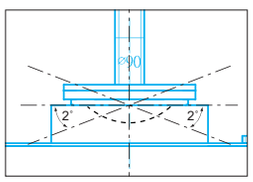
VSA-150H

Machine Stand









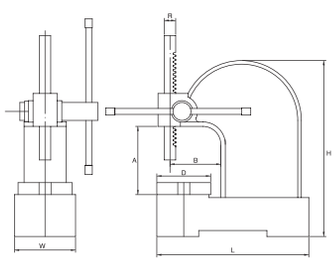
- Leveling
- Reduce Vibration
- Increase Stability
- Frictionless
- Precision & Accurate

STEP

- Place shock absorbers under machine.
- When shock absorbers have full contact with machine base, you can start to adjust the leveling.

ORDER NO.	L x W x H	THREAD	LOAD KGS	UNEVEN GROUND-ANGLE	ADJUSTMENT HEIGHT / FROM ADJUSTABLE SCREW	WEIGHT KGS	CODE NO.
VSA-150K	200 x 160.5 x 91	M20 x 93L	22500	± 2°	7 mm	9.32	7001-180
VSA-150H	200 x 160.5 x 182	M20 x 84L	22500	± 2°	7 mm	9.32	7001-190

Arbor Press



STANDARD TYPE

- All main parts made of ductile cast iron. Adjustable handle gives convenient handle postioning.
- Ram finite control by smooth gears.
- 4-90 degree equally divided slotted round table.
- Color may vary. (Green)

ORDER NO.	Base LxW(mm)	Height H(mm)	MAX Work Height A(mm) Stroke	Swing B	Table Diameter D	Ram Dimension RxR	Weight (kgs)	CODE NO.
VAR-0	235x102mm	254	114	85	90	19x19	8.5	7002-100
VAR-1	270x127mm	320	140	105	110	25.4x25.4	12	7002-101
VAR-2	400x170mm	445	215	135	170	31.7x31.7	29	7002-102
VAR-3	470x200mm	570	317	135	170	38.1x38.1	47	7002-103
VAR-5	680x250mm	800	470	245	250	50.8x50.8	140	7002-104

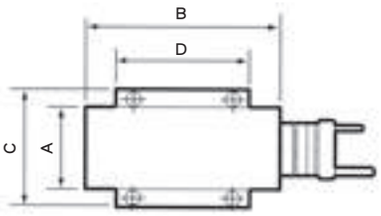
RATCHET LEVERS TYPE

This arbor press with all standard's feature. But operated with a ratchet device that will allow you to use the lever in the most convenient position, the lever has a counterweight for quick return after which the down stroke handwheel will return the ram to the work quickly.

- Ratchet Type Arbor Press available-No. 3/5 only. The size is same as VAR-3, 5 Color may be varied. (Green)

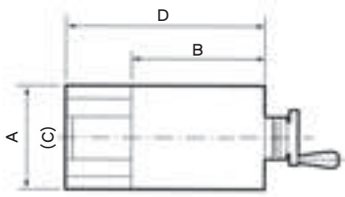
ORDER NO.	VARR-3	VARR-5
G.W. KGS	65 kgs	162 kgs
CODE NO.	7002-131	7002-132

One Way Acme Thread Slide Table



ST-75 ST-100 ST-125

- Material : FC-30
- Precision : ± 0.01 / 100mm



STA-160 STA-165 STA-200
STA-205 STA-300 STA-305

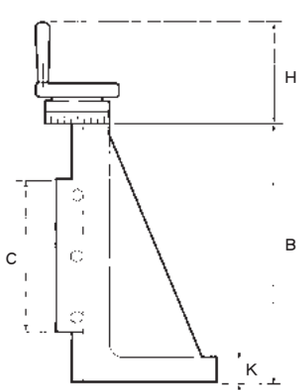
- Material : FC-30
- Precision : ± 0.01 / 100mm
- FEATURE : The sliding surfaces are treated by heat-treatment & precision ground.

Specifications

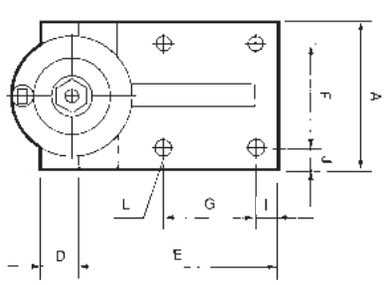
Unit: mm

ORDER NO.	A x B Table surface	C x D Base area	Stroke	Toral height	Dial graduation	WEIGHT kgs	CODE NO.
ST-75	75 x 180	105 x 157	75	60	2.5 x 0.02	6.5	7002-540
ST-100	100 x 235	140 x 160	100	70	2.5 x 0.02	9.5	7002-541
ST-125	125 x 300	165 x 255	125	80	4.0 x 0.02	18.5	7002-542
STA-160	160 x 200	160 x 300	100	90	4.0 x 0.02	20	7002-543
STA-165	160 x 200	160 x 400	200	90	4.0 x 0.02	23.0	7002-544
STA-200	200 x 300	200 x 400	100	120	4.0 x 0.02	38.0	7002-545
STA-205	200 x 300	200 x 600	300	120	4.0 x 0.02	50.5	7002-546
STA-300	300 x 350	300 x 500	150	188	4.0 x 0.02	98.0	7002-547

Vertical Dovetail Slide Table



- Material : FC-30
- Precision : ± 0.01 / 100mm
- FEATURE : The sliding surfaces are treated by heat-treatment & precision ground
  Dial graduation 4.0 x 0.02mm

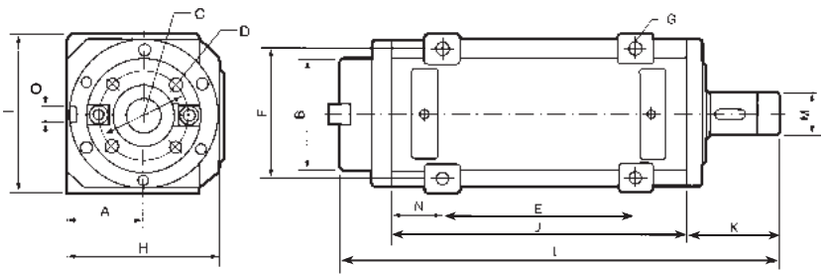


Specifications

Unit: mm

ORDER NO.	A	B	C	D	E	F	G	H	I	J	K	L	Weight kgs	CODE NO.
SE-100	100	255	150	35	130	70	60	120	30	15	26	Ø10 x 4	15	7002-560
SE-150	150	385	200	40	185	110	90	120	20	20	35	Ø13 x 4	35	7002-561
SE-200	200	510	250	60	240	160	140	135	20	20	40	Ø17 x 4	67	7002-562
SE-250	250	600	300	60	280	200	160	140	25	25	40	Ø17 x 4	115	7002-563

Precision Boring/Milling Spindle Head

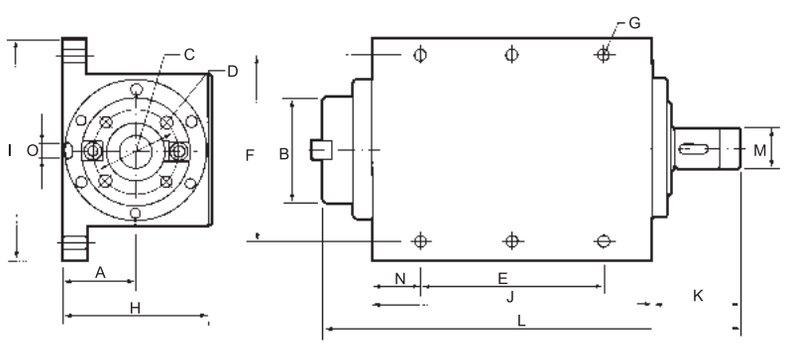


Specifications

Unit: mm

ORDER NO.	Taper	MAX. R.P.M.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Weight kgs	Bearing O.D.	CODE NO.
SH03	MT3	7000	45	Ø42			80	70	Ø9-4	90	90	160	75	270	Ø25	35	16x5	8	Ø62 Ø55	7002-600
SH04	MT4	2500	70	Ø88.882			190	90	Ø15-4	145	150	280	94	427	Ø35	45	16x5	36	Ø90	7002-601
SH30	NT30	3000	55	Ø69.832	Ø54	M10xP1.5-4	120	90	Ø11-4	114	114	200	72	317	Ø30	40	16x5	18	Ø75	7002-603
SH40	NT40	2500	70	Ø88.882	Ø66.7	M12xP1.75-4	190	150	Ø15-4	170	184	280	106	427	Ø35	45	16x5	39	Ø90	7002-605
SH50	NT50	2000	85	Ø128.57	Ø101.6	M16XP2.0-4	220	150	Ø15-4	170	184	340	106	500	Ø50	60		75	Ø115	7002-607

Precision Boring/Milling Spindle Head



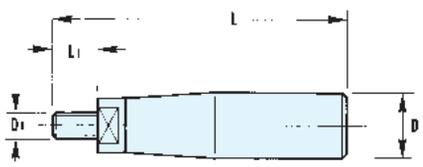
Specifications

Unit: mm

ORDER NO.	Taper	MAX. R.P.M.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Weight kgs	Bearing O.D.	CODE NO.
SH30A	NT30	3000	77	Ø69.832	Ø54	M10xP1.5-4	160	140	Ø11-6	133	176	200	72	317	Ø30	10	16x5	22	Ø75	7002-620
SH30B	NT30	9000	77	Ø69.832	Ø54	M10xP1.5-4	160	140	Ø11-6	133	176	200	72	317	Ø30	10	16x5	22	Ø75	7002-621
SH40A	NT40	2500	77	Ø88.882	Ø66.7	M12xP1.75-4	180	170	Ø11-6	147	200	220	94	367	Ø35	20	16x5	45	Ø90	7002-622
SH40B	NT40	8000	77	Ø88.882	Ø66.7	M12xP1.75-4	180	170	Ø11-6	147	200	220	94	367	Ø35	20	16x5	45	Ø90	7002-623

Flat End Movable Handle

NEW



THREAD

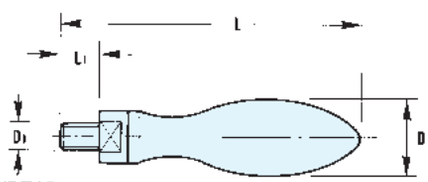
Flat End Movable Handle

- Handle is foggy plating treated.
- Detachable nut is blackened.
- Fit to common movable handwheel.
- Ready to use.
- Good handing.

ORDER NO.	D_1	D	L_1	L	CODE NO.
VFE-10	M10x1.5P	23	16	100	7003-001
VFE-83	3/8″x16	22	16	99	7003-002
VFE-8	M8x1.25P	19	16	93	7003-003
VFE-165	5/16″x18	19	10	78	7003-004

Ellipse Movable Handle

NEW



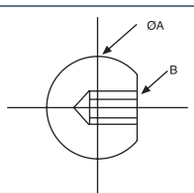
THREAD

Ellipse Movable Handle

- Brilliant or foggy plating surface.
- Fit to common movable handwheel.
- Easy to install
- Shine and good looking.

ORDER NO.	D_1	D	L_1	L	CODE NO.
VEM-10	M10x1.5P	26	13	110	7003-007
VEM-83	3/8″x16	25	13	99	7003-008
VEM-8	M8x1.25P	20	9	80	7003-009
VEM-6	M6x1.0P	16	7	60	7003-010

Ball Knobs



Name	Material	Surfaced process
Knob	Bakelite (KU)	Black

mm

ORDER NO. (KU)	A	B	CODE NO.
VKB-6AA	25	M6 x 1.0P	7003-120A
VKB-8A	25	M8 x 1.25P	7003-121A
VKB-8BA	38	M8 x 1.25P	7003-123A
VKB-10A	38	M10 x 1.5P	7003-124A
VKB-12AA	38	M12 x 1.75P	7003-127A
VKB-12BA	42	M12 x 1.75P	7003-128A

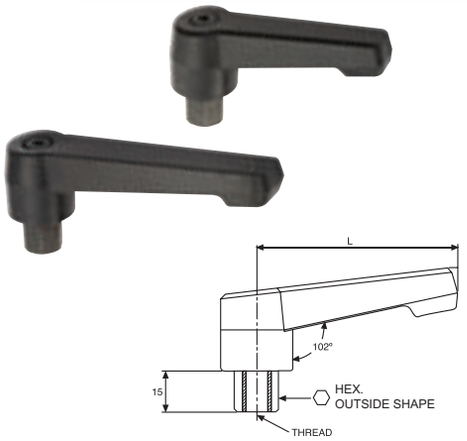
Hand Knobs

THREAD

Name	Material	Surfaced process
Knob	(KT)	Black
Spindle	Steel (ST)	Zincing (ZI)

ORDER NO. (KT)	THREAD	KNOB	CODE NO.
VKB-8K	M8x1.25Px21L	Ø40x65L	7003-133
VKB-8KL	M8x1.25Px63L	Ø40x65L	7003-134A

Adjustable Hand Levers

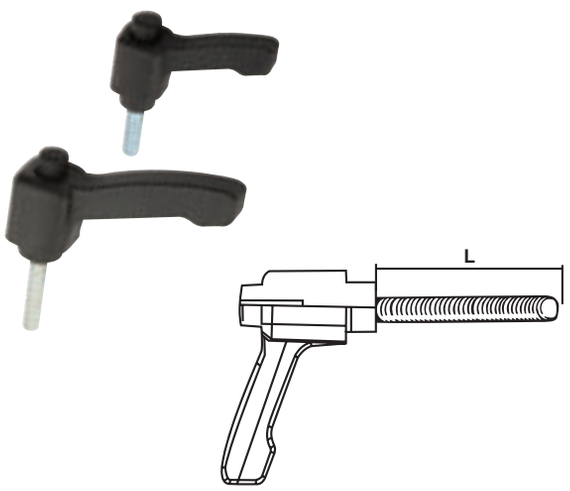


Name	Material	Surfaced process
Handle	Plastic (KT)	Black (BK) and black handle (OB)
Spindle	Steel (ST)	

mm

ORDER NO. (KT)	HANDLE L	THREAD	⬡	CODE NO.
VAH-6	42	M6	14	7003-214A
VAH-8	72	M8	14	7003-216A
VAH-10	92	M10	16	7003-217A
VAH-12	112	M12	16	7003-218A

Adjustable Hand Levers

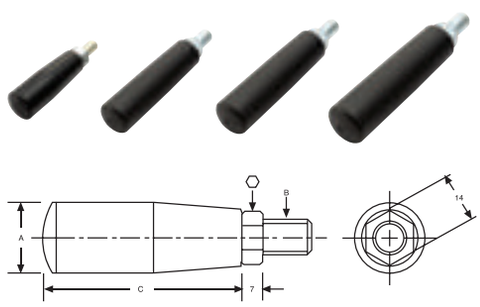


Name	Material	Surfaced process
Handle	(KT)	Black Knob
Spindle	Steel (ST)	

mm

ORDER NO. (KT)	THREAD L	HANDLE L	CODE NO.
VAH-620	M6x1.0Px20L	43	7003-220A
VAH-630	M6x1.0Px30L	43	7003-220B
VAH-640	M6x1.0Px45L	43	7003-220C
VAH-650	M6x1.0Px20L	63	7003-220D
VAH-6XL	M6x1.0Px30L	63	7003-220E
VAH-8D	M8x1.25Px30L	63	7003-222A
VAH-815	M8x1.25Px15L	83	7003-222B
VAH-840	M8x1.25Px40L	83	7003-222D
VAH-1020	M10x1.5Px20L	83	7003-223A

Revolving Handles

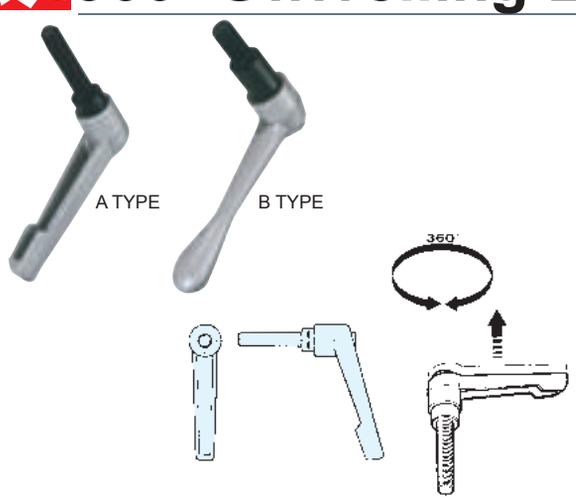


Name	Material	Surfaced process
Handle	Bakelite (KU)	Black
Spindle	Steel (ST)	Zincing (ZI)

mm

ORDER NO.	A	B	C	THREAD L	⬡	CODE NO.
VRL-8H	20	M8x1.25P	56	13	14	7003-283A
VRL-8HA	22	M8x1.25P	76	13	14	7003-284A
VRL-10H	20	M10x1.5P	56	13	14	7003-285A
VRL-10HA	22	M10x1.5P	76	13	14	7003-287A
VRL-10HB	25	M10x1.5P	83	13	14	7003-288A

360º Swivelling Lock Handle



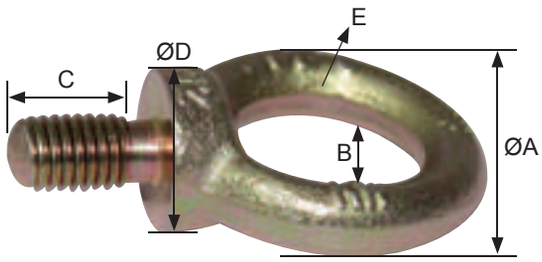
360º Swivel Handle

- When pull out, this handle can swivel 360º free.
- Aluminium handle, all water resistance.
- The handle shape features: curve, ball, square 3 types.

ORDER NO.	SIZE	CODE NO.
VSA-1	M6 x 1.0P x 30L	7003-300A
VSA-2	M8 x 1.25P x 30L	7003-301A
VSA-3	M10 x 1.5P x 30L	7003-302A
VSA-4	M12 x 1.75P x 30L	7003-302B
VSB-1	M6 x 1.0P x 30L	7003-303A
VSB-2	M8 x 1.25P x 30L	7003-304A
VSB-3	M10 x 1.5P x 30L	7003-305A
VSB-4	M12 x 1.75P x 30L	7003-305B

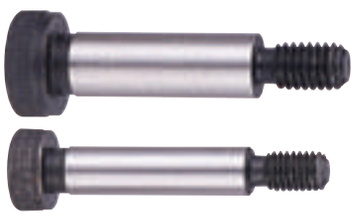
Lifting Eye Ring

SS400 IRON

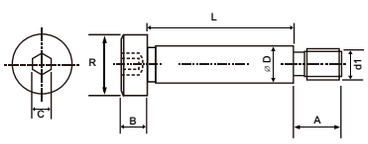


ORDER NO.	SIZE	ALLOWED LOAD (kg)	A	B	C	D	CODE NO.
VLE-6A	M6 x 1.0P	60	33	20	15	17	7003-321A
VLE-8A	M8 x 1.25P	80	34	20	15	17	7003-322A
VLE-10A	M10 x 1.5P	128	41	25	18	20	7003-323A
VLE-12A	M12 x 1.75P	187	50	30	20	25	7003-324A
VLE-14A	M14 x 2.0P	255	60	34	27	29	7003-325A
VLE-16A	M16 x 2.0P	383	60	35	28	30	7003-326A
VLE-18A	M18 x 2.5P	535	71	40	31	34	7003-327A
VLE-20A	M20 x 2.5P	535	71	40	31	35	7003-328A
VLE-22A	M22 x 2.5P	808	90	48	38	47	7003-329A
VLE-24A	M24 x 3.0P	808	92	50	38	47	7003-330A

Shoulder Locating Unit



For lathe chuck



MOQ:1 BOX = 12 PCS

Unit : mm

ORDER NO.	A±0.05	B±0.05	C	øD	R	L	d1	WEIGHT KGS	CODE NO.
VLS-1320	11	5.5	4	MAX. 7.951 MIN. 7.987	13	20	M6 X 1.0P		7003-335
VLS-1325						25			7003-336
VLS-1330						30			7003-337
VLS-1335						35			7003-338
VLS-1340						40			7003-339
VLS-1620	13	7.0	5	MAX. 9.951 MIN. 9.987	16	20	M8 X 1.25P		7003-340
VLS-1625						25			7003-341
VLS-1630						30			7003-342
VLS-1635						35			7003-343
VLS-1640						40			7003-344
VLS-1820	16	8.0	6	MAX. 11.941 MIN. 11.984	18	20	M10 X 1.5P		7003-345
VLS-1825						25			7003-346
VLS-1830						30			7003-347
VLS-1835						35			7003-348
VLS-1840						40			7003-349

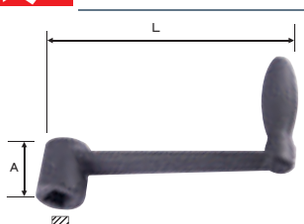
Ring Plate

MOQ:1 BOX = 50 PCS

Unit : mm

ORDER NO.	SIZE D x d x T	BOX	WEIGHT KGS	CODE NO.
VLE-W226	Ø22 X Ø6.5 X 4T	50 PCS		7003-353
VLE-W2210	Ø22 X Ø10.7 X 4T	50 PCS		7003-354
VLE-W2511	Ø25 X Ø11.5 X 4T	50 PCS		7003-355
VLE-W2512	Ø25 X Ø12.8 X 4T	50 PCS		7003-356
VLE-W3212	Ø32 X Ø12.8 X 4T	50 PCS		7003-357
VLE-W3215	Ø32 X Ø15.9 X 4T	50 PCS		7003-358
VLE-W3515	Ø35 X Ø15.9 X 4T	50 PCS		7003-359

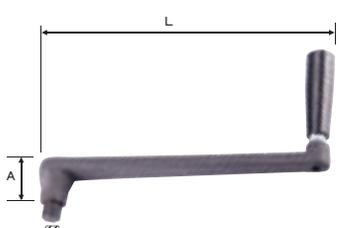
Crank Handle



for VAH-21, 22, 23

mm

ORDER NO.	A	L	⌀	Weight kgs	CODE NO.
VAH-21	31	147	15	0.49	7003-460
VAH-22	41	183	16.5	0.64	7003-461
VAH-23	54	231	21	1.08	7003-462



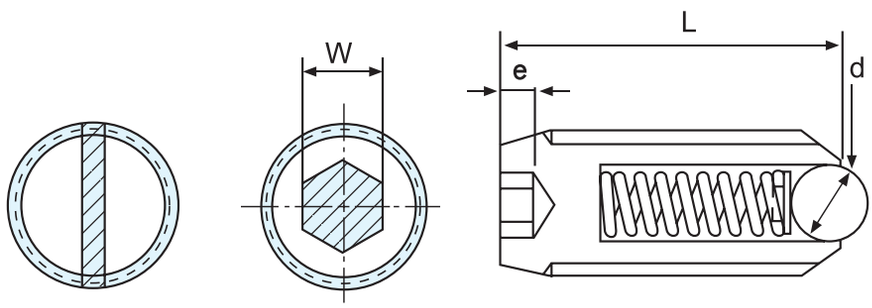
for VAH-31,32

mm

ORDER NO.	A	L	⌀	Weight kgs	CODE NO.
VAH-31	37	180	14	0.48	7003-470
VAH-32	37	250	14	0.62	7003-471

Ball Pluger Screw-Socket & Slotted

Material : SCM435 / 302HQ
Hardness : HRC40°±3



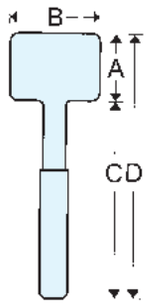
I TYPE
SCREW DRIVER SL

H TYPE
HEX. SET TYPE

ORDER NO.	D	pitch	d	L	e	W	Light		Heavy		CODE NO.
							min	Max	min	Max	
VBP-03I	M3	0.5	1.5	7	1.0	1.5	1.0	2.0	1.5	2.9	7003-400A
VBP-04I	M4	0.7	2.5	9	1.5	2.0	2.0	4.9	3.9	9.8	7003-401A
VBP-05I	M5	0.8	3.0	12	2.0	2.5	2.9	9.8	4.9	19.6	7003-402A
VBP-06I	M6	1.0	3.5	13	2.5	3.0	4.9	14.7	9.8	29.4	7003-403A
VBP-08I	M8	1.25	5.0	15	2.5	4.0	6.9	19.6	12.7	39.2	7003-404A
VBP-10I	M10	1.5	6.0	16	3.0	5.0	8.8	24.5	18.6	49.0	7003-405A
VBP-12I	M12	1.75	8.0	22	3.0	6.0	9.8	29.4	19.6	58.8	7003-406A
VBP-16I	M16	2.0	10	25	3.0	8.0	15.7	49.0	29.4	98.0	7003-407A

VBP-03H	M3	0.5	1.5	7	1.0	1.5	1.0	2.0	1.5	2.9	7003-400B
VBP-04H	M4	0.7	2.5	9	1.5	2.0	2.0	4.9	3.9	9.8	7003-401B
VBP-05H	M5	0.8	3.0	12	2.0	2.5	2.9	9.8	4.9	19.6	7003-402B
VBP-06H	M6	1.0	3.5	13	2.5	3.0	4.9	14.7	9.8	29.4	7003-403B
VBP-08H	M8	1.25	5.0	15	2.5	4.0	6.9	19.6	12.7	39.2	7003-404B
VBP-10H	M10	1.5	6.0	16	3.0	5.0	8.8	24.5	18.6	49.0	7003-405B
VBP-12H	M12	1.75	8.0	22	3.0	6.0	9.8	29.4	19.6	58.8	7003-406B
VBP-16H	M16	2.0	10	25	3.0	8.0	15.7	49.0	29.4	98.0	7003-407B

PU-Hammer Series

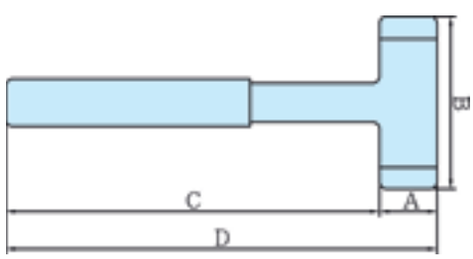


BASIC: Steel structure and include steel shot.
MATERIALS: Main of the anti-pollution PU-liquid.
The holder use soft quality TPR.
FEATURE:PU not make with heavy-metal and dioxin when burning.
HARDNESS: Hardness of hammer (90A~95A)
Color may be varied.

mm

ORDER NO.	A	B	C	D	Weight (g)	OZ	CODE NO.
VHM-38	38	100	249	287	490	18oz	7003-367
VHM-46	46	100	260	306	690	24oz	7003-368
VHM-50	50	110	290	340	930	33oz	7003-369
VHM-56	56	120	297	353	1160	41oz	7003-370
VHM-60	60	130	308	368	1370	49oz	7003-371

Hammer

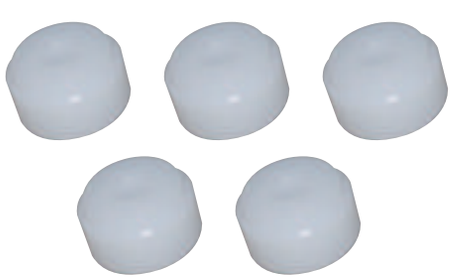


- Strike face uses UPE materials.
- Recyclable TPV holder.
- Strike face is inter-changable

mm

ORDER NO.	A	B	C	D	Weight (g)	OZ	CODE NO.
VHM-25PE	25	110	250	275	450	15oz	7003-380
VHM-30PE	30	110	250	280	480	16oz	7003-381
VHM-35PE	35	110	245	280	590	20oz	7003-382
VHM-40PE	40	120	260	300	850	29oz	7003-383
VHM-45PE	45	120	260	305	990	38oz	7003-384
VHM-50PE	50	125	265	315	1110	42oz	7003-385
VHM-55PE	55	135	265	320	1316	46oz	7003-386
VHM--60PE	60	140	265	320	1650	55oz	7003-387

Hammer Head



PARTS:

unit : mm

ORDER NO.	PIPE	CODE NO.
VHM-25H	25	7003-390
VHM-30H	30	7003-391
VHM-35H	35	7003-392
VHM-40H	40	7003-393
VHM-45H	45	7003-394
VHM-50H	50	7003-395
VHM-55H	55	7003-396
VHM--60H	60	7003-397

Universal Drill & Cutter Grinder

ORDER NO.VDG-32N CODE NO.8001-010

Double cams: The cam of grinding drills & The cam of grinding taps.

FEATURES

- Grinding capacity: Ø1.5~Ø32mm (Straight shank & taper shank) double wheels. It only need to rotate the motor when want to grind the tool of different material. It can increase the safety & save the time for changing & repairing the grinding wheel.
- The kinds of grinding tool include: drills, step drills, taps, lips of end mills, round bars, etc.
- Adopts precision 4″ 6 jaws self-centering chuck, clipping one time. It can grind the blade of drills and do the paring of drills abdomen. The angle of drills both sides and the length of the blade are the same after grinding. It can keep the accuracy of the center of drills without off center.

OPTIONAL:

VDG-32N-WHEEL-SDC
145D #200

Longitudinal travel of table	120mm
Cross travel of saddle	135mm
Rotary angle of wheel head	360º
Point angle	90º-180º
Size of wheel	125x50x31.75mm
Speed of wheel	3600 RPM
Motor	3/4HP, 110V/220V/380V
N.W. / G.W.	90kgs/120kgs
Size of packing (LxWxH)	800x550x670mm

※Guaranteed for 3 months
※Color may vary

Horizontal Band Saw

ORDER NO.HBS-7 CODE NO.8001-030

※Please notify the voltage & phase when you ordering.
※Color may vary

SPECIFICATION

Capacity	●180mm (7″) ▬180x300mm (7″x12″)
Blade size	19x0.9x2360mm (3/4″x0.32x7′9″)
Motor	1HP 4pole 50HZ/1430rpm; 60HZ/1720rpm
Blade speed	22, 33, 45, 65mpm (86-132-178-260fpm)
Machine dim	L1470xW430mm (L58″xW17″) H990mm (39″) horizontal position.
N.W.	130kgs (286LBS)
G.W.	150kgs (341LBS)
Voltage	220V/3PH ,380V/3PH

Horizontal Band Saw

ORDER NO.HBS-7CE CODE NO.8001-030CE

CE STANDARD

※Please notify the voltage & phase when you ordering.

※Color may vary

SPECIFICATION

Capacity	90° ●180mm ▬180x280mm ▬65x300mm 45° ●110mm ▮180x110mm
Blade size	19x0.9x2360mm
Motor	1HP 4pole 50HZ/1430rpm; 60HZ/1720rpm
Blade speed	Step pulley 22, 33, 45, 65mpm
Packing Measurement	1295x457x1028mm
N.W. / G.W.	130kgs/150kgs
Type	"CE" Standard
Voltage	380V/3PH

Saw Blade

NEW

※FOR VERTICAL G14 & HBS-7 BAND SAW

mm

ORDER NO.	MATERIAL	THICKNESS	W	L (mm)	T	MACHINE TYPE	CODE NO.
HBS-106	CARBON STEEL	0.65	6	30000	14	Y-310 Y-360 Y-400 Y-500 .....ETC.	8001-700
HBS-108	CARBON STEEL	0.65	8	30000	14		8001-701
HBS-110	CARBON STEEL	0.65	10	30000	14		8001-702

mm

ORDER NO.	MATERIAL	THICKNESS	W	L (mm)	T	MACHINE TYPE	CODE NO.
HBS-126	HSS	0.65	6	15000	10 / 14	Y-310 Y-360 Y-400 Y-500 .....ETC.	8001-710
HBS-128	HSS	0.65	10	15000	10 / 14		8001-711

mm

ORDER NO.	MATERIAL	THICKNESS	W	L (mm)	T	MACHINE TYPE	CODE NO.
HBS-131	HSS	0.65	13	1470	10/14	UE-100S	8001-720
HBS-132	HSS	0.9	27	3035	4/6	HBS-9	8001-721

mm

ORDER NO.	MATERIAL	THICKNESS	W	L (mm)	T	MACHINE TYPE	CODE NO.
HBS-7-BLADE-HSS	HSS	0.9	19	2365	5/8P	HBS-7	8001-730
HBS-7-BLADE-CARBIDE	CARBIDE	0.9	19	2365	8P	HBS-7	8001-731

Air Die Tool

AIR INLET 1/4″ **AIR PRESSURE 90 PSI**

DIY type **ORDER NO. VAG-500**
Economic type **ORDER NO. VAG-601A**

VAG-500

VAG-601A

turbine oil #60

※Guaranteed for 3 months

- Clean & Dry Air Needed.
- Fixed Type Collet Chuck: Ø3.0mm Is Standard. 3/32″ & 1/8″ Collet Are Available Upon Your Request. Put Oil 10 C.C. Into The Air Inlet Hole Twice Daily.
- It's Warm When It's Working.
- Reliable Quality And Economic Price.

※**OPTIONAL**

ORDER NO.	COLLET	CODE NO.
VAG-500-3MM	3mm	8001-099A
VAG-500-3/32″	3/32″	8001-099B
VAG-500-1/8″	1/8″	8001-099C
VAG-601A-COLLET 3MM	3mm	8001-100A
VAG-601A-COLLET 3/32″	3/32″	8001-100B
VAG-601A-COLLET 1/8″	1/8″	8001-100C

ORDER NO.	COLLET SIZE	SPEED	WEIGHT (g)	LENGTH	CODE NO.
VAG-500	3mm, 3/32″, 1/8″	54,000 R.P.M.	130	150mm	8001-099
VAG-601A	3mm, 3/32″, 1/8″	54,000 R.P.M.	130	150mm	8001-100

Strong & silent type

turbine oil #60

※Guaranteed for 3 months

- Replaceable collet chuck: ø3.0mm is standard. 3/32″ and 1/8″ collet are available upon your request.
- High-torque, quiet-running and well balance.
- Ideal for finishing works.

※**OPTIONAL**

ORDER NO.	COLLET	CODE NO.
VAG-701-3MM	3mm	8001-101A
VAG-701-3/32″	3/32″	8001-101B
VAG-701-1/8″	1/8″	8001-101C

ORDER NO.	COLLET SIZE	SPEED	WEIGHT (g)	LENGTH	CODE NO.
VAG-701	3mm, 3/32″, 1/8″	70,000 R.P.M.	620	150mm	8001-101

Dual-collet type

turbine oil #60

※Guaranteed for 3 months

- Dual collet chuck: ø3.0mm and ø6.0mm are standard. 1/8″ and 1/4″ collet are available upon your request.
- High torque, heavy-duty, general-purpose applicable on deburring, chamfering, milling and finishing the welded surface etc.

※**OPTIONAL**

ORDER NO.	COLLET	CODE NO.
VAG-609-3MM	3mm	8001-115A
VAG-609-6MM	6mm	8001-115B
VAG-609-1/4″	1/4″	8001-115C
VAG-609-1/8″	1/8″	8001-115D

ORDER NO.	COLLET SIZE	SPEED	WEIGHT (g)	LENGTH	CODE NO.
VAG-609	3mm, 6mm	35,000 R.P.M.	530	175mm	8001-115

Angle 45º type

- Angle 45º, suitable for angle deburring and finishing.

turbine oil #60

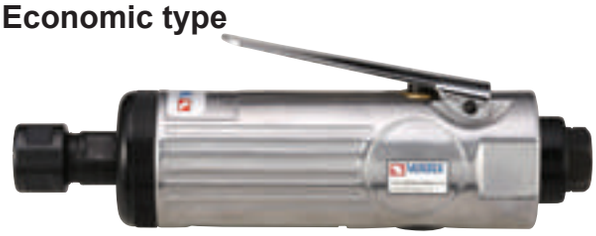
※Guaranteed for 3 months

※**OPTIONAL**

ORDER NO.	MATERIAL	CODE NO.
VAG-8241-WF-30P-PAD	PAD	8001-116A
VAG-8241-WF-30S-SAND-40	GRADE #40, pcs/100/BOX	8001-116B
VAG-8241-WF-30S-SAND-60	GRADE #60, pcs/150/BOX	8001-116C
VAG-8241-WF-30C-WHEEL	GRADE #60	8001-116D

ORDER NO.	WHEEL SIZE	SPEED	WEIGHT (g)	LENGTH	CODE NO.
VAG-8241	ø30mm	23,000 R.P.M.	300	160mm	8001-116

Economic type



turbine oil #60

※Guaranteed for 3 months

※All air tool need to add air tool oil & maintaince every 3 months.

- Fixed type collet chuck: ø6.0mm is standard. 1/4″ collet is available upon your request.
- Reliable quality and economic price.

※**OPTIONAL**

ORDER NO.	COLLET	CODE NO.
VAG-604-6MM	6mm	8001-117A
VAG-604-1/4″	1/4″	8001-117B

ORDER NO.	COLLET SIZE	SPEED	WEIGHT (g)	LENGTH	CODE NO.
VAG-604	6mm, 1/4″	22,000 R.P.M.	600	175mm	8001-117

Strong & silent type

turbine oil #60

※Guaranteed for 3 months

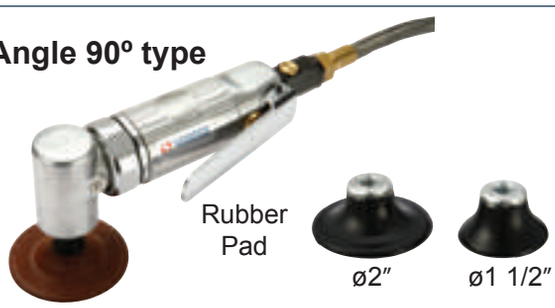
- Replaceable collet chuck: ø3mm ø6mm are standard. 1/4″ collet is available upon your request.
- High-torque, quite-running and well balance.
- Ideal for finishing works.

※**OPTIONAL**

ORDER NO.	COLLET	CODE NO.
VAG-605-3MM	3mm	8001-118A
VAG-605-6MM	6mm	8001-118B
VAG-605-1/4″	1/4″	8001-118C

ORDER NO.	COLLET SIZE	SPEED	WEIGHT (g)	LENGTH	CODE NO.
VAG-605	6mm, 3mm	25,000 R.P.M.	520	150mm	8001-118

Angle 90º type



turbine oil #60

※Guaranteed for 3 months

- ø1 1/2″ or ø2″ rubber pad with quick change abrasive are additional options. (extra charge)
- High torque, heavy-duty, general-purpose applicable on deburring, chamfering, milling and finishing the welded surface.
- 2″ wheel is standard.

※**OPTIONAL**

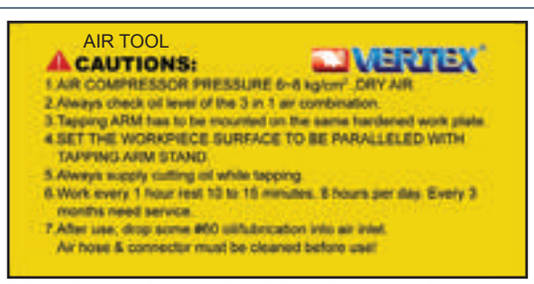
ORDER NO.	COLLET	CODE NO.
VAG-8242-PAD-1-1/2	1 1/2″	8001-119A
VAG-8242-PAD-2	2″	8001-119B

ORDER NO.	PAD SIZE	SPEED	WEIGHT (g)	LENGTH	CODE NO.
VAG-8242	50mm	16,000 R.P.M.	520	175mm	8001-119

4″ Angle tool

turbine oil #60

※Guaranteed for 3 months



- Angle 90º, suitable for angle deburring and finishing.

※**OPTIONAL**

ORDER NO.	SIZE	CODE NO.
VAG-932-WHEEL	4″	8001-120A

ORDER NO.	WHEEL SIZE	SPEED	WEIGHT (g)	LENGTH	CODE NO.
VAG-932	100mm, (4″)	11,000 R.P.M.	1350	175mm	8001-120

Air file

turbine oil #60

※Guaranteed for 3 months

※All air tool need to add air tool oil & maintaince every 3 months.

- Also suitable for shoes, molds, and wooden processes.
- Can grind metals. Especial suitable for narrow parts or groove bases & sides.

※OPTIONAL

ORDER NO.	QUANTITY	CODE NO.
VAG-318-FILE SET	4 pcs/SET	8001-121A

ORDER NO.	COLLET SIZE	SPEED	Stroke	WEIGHT (g)	LENGTH	CODE NO.
VAG-318	6mm	3,700 cycle/min	9mm	1,250	175mm	8001-121

Finger sander

turbine oil #60

※Guaranteed for 3 months

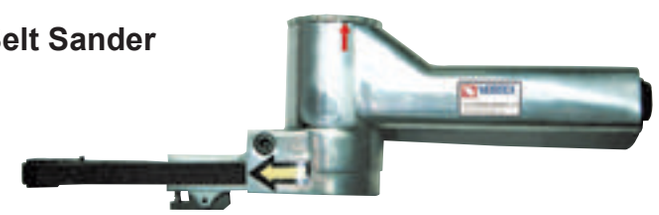
- It is the speed and has beautiful finishing.Suit for the corners and complicated curves.
- Can provide the smooth and high-speed eccentric rotation movement and easy replacement without file any special tools.

※OPTIONAL

ORDER NO.	MATERIAL	CODE NO.
VAG-F30-PAD-THIN	THIN	8001-122A
VAG-F30-VISCID-THICK	THICK	8001-122B
VAG-F30-VISCID-THIN	THIN	8001-122C
VAG-F30-STEEL-PLATE	PLATE	8001-122D

ORDER NO.	SIZE	SPEED	WEIGHT (g)	LENGTH	CODE NO.
VAG-F30	Abrasive: W20mm	13,000 R.P.M.	830	200mm	8001-122

Belt Sander



turbine oil #60

※Guaranteed for 3 months

- For sanding curved surfaces, flat surfaces.
- For removing spot welding, semi & automatic welds, adhesive, paint, and other coating in concave places.

※OPTIONAL

ORDER NO.	GRADE	CODE NO.
VAG-310-BELT	#100	8001-123A

ORDER NO.	SIZE	SPEED	WEIGHT (g)	LENGTH	CODE NO.
VAG-310	10x330mm	16,000 R.P.M.	800	290mm	8001-123

Belt Sander

turbine oil #60

※Guaranteed for 3 months

- For sanding curved surfaces, flat surfaces.
- For removing spot welding, semi & automatic welds, adhesive, paint, and other coating in concave places.

※OPTIONAL

ORDER NO.	GRADE	CODE NO.
VAG-320-BELT	#100	8001-124A

ORDER NO.	BELT SIZE	SPEED	WEIGHT (g)	LENGTH	CODE NO.
VAG-320	20x520mm	16,000 R.P.M.	1100	360mm	8001-124

Air Die Tool

VERTEX

AIR LAPPERS

NEW

- For Ø3.0mm shank.
- Suits for detail area's lapping.
- Low noise, low vibration and durable tool life.
- Dry air only.
- Light duty.
- Turbo type.
- Driven by turbine air motor.

※Guaranteed for 3 months

ORDER NO.	STROKE	SPEED	DIMENSIONS	WEIGH(g)	CODE NO.
VAG-030	0.3mm	28,000 r.p.m.	Ø28 x 200 mm	220	8001-126

※All case box are not under warranty.

Air Die Tool

AIR LAPPERS

NEW

- For Ø3.0mm shank.
- Features in efficiency polishing and deburring & chamfering work.
- Extra high speed.
- Light duty.
- Ultra type.
- Dry air only.

※Guaranteed for 3 months

ORDER NO.	STROKE	SPEED	DIMENSIONS	WEIGH(g)	CODE NO.
VAG-050	0.5mm	45,000 r.p.m.	Ø23 x 185 mm	220	8001-127

※All case box are not under warranty.

Air Die Tool

AIR LAPPERS

NEW

- For Ø3.0mm shank.
- Side to side stroke.
- Special design enable the easiest way to change parts.
- Suit for filing, lapping and polishing shallow surfaces, deep and parting lines.
- Light duty.
- Swing type.
- Dry air only.

※Guaranteed for 3 months

ORDER NO.	STROKE	SPEED	DIMENSIONS	WEIGH(g)	CODE NO.
VAG-070	0.7mm	15,000 r.p.m.	Ø28 x 205 mm	305	8001-128

※All case box are not under warranty.

Air Die Tool

AIR LAPPERS

NEW

- For Ø3.0mm shank.
- Suits for general purpose polishing and finishing process of mold and die.
- Low noise, low vibration and durable life.
- Driven by turbine air motor.
- Turbo type.
- Light duty.
- Dry air only.

※Guaranteed for 3 months

ORDER NO.	STROKE	SPEED	DIMENSIONS	WEIGH(g)	CODE NO.
VAG-070H	0.7mm	28,000 r.p.m.	Ø28 x 200 mm	220	8001-129

※All case box are not under warranty.

Abrasive Mounted Point & Wheel For Air Tool

VERTEX

Emery Wheel

- The shank size is ø3.0
- The wheel size is øD
- The minimum quantity is 100 pcs / each

ABRASIVE MOUNTED POINTS

WA PIN WITH ELASTICITY
CERAMIC WHEEL
APPLICATIONS:FOR METAL
SURFACE POLISHING

ORDER NO.	WA-303A	WA-304A	WA-305A
ØD	3mm	4mm	5mm
CODE NO.	8001-131	8001-132	8001-133

ORDER NO.	WA-306A	WA-308A	WA-310A
ØD	6mm	8mm	10mm
CODE NO.	8001-134	8001-135	8001-136

FELT BOBS

WF PIN WITH FELT WHEEL
APPLICATIONS:FOR METAL
SURFACE POLISHING

ORDER NO.	WF-304	WF-305	WF-306
ØD	4mm	5mm	6mm
CODE NO.	8001-137	8001-138	8001-139

ORDER NO.	WF-308	WF-310	WF-312
ØD	8mm	10mm	12mm
CODE NO.	8001-140	8001-141	8001-142

RUBBERIZE POINTS

120GRIT

WR PIN WITH ELASTICITY
SPONGE WHEEL
APPLICATIONS:FOR METAL
SURFACE POLISHING

ORDER NO.	WR-304	WR-305
ØD	4mm	5mm
CODE NO.	8001-144	8001-145

ORDER NO.	WR-306	WR-308	WR-310
ØD	6mm	8mm	10mm
CODE NO.	8001-146	8001-147	8001-148

RESINOID POINTS

120GRIT

WE PIN WITH ELASTICITY R
POLISHING WHEEL
APPLICATIONS:FOR METAL
SURFACE POLISHING

ORDER NO.	WE-303	WE-304	WE-305
ØD	3mm	4mm	5mm
CODE NO.	8001-149	8001-150	8001-151

ORDER NO.	WE-306	WE-308	WE-310
ØD	6mm	8mm	10mm
CODE NO.	8001-152	8001-153	8001-154

RUBBERI PAD

Ø30mm

ORDER NO. WF-30P
CODE NO. 8001-155

PAPER DISC

Ø30mm
GRIT100
150 PCS/BOX
Packed

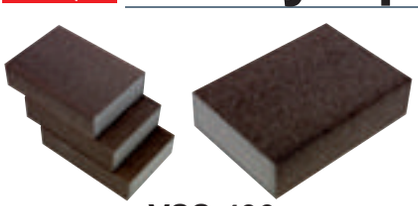
ORDER NO. WF-30S
CODE NO. 8001-156

CUP WHEEL

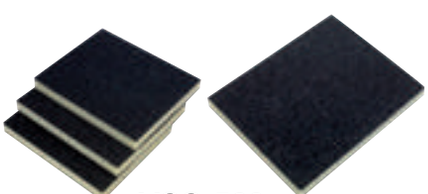
Ø30mm
GRIT60
40 PCS/BOX
Packed

ORDER NO. WF-30C
CODE NO. 8001-157

Handy Sponge Sander



VSS-436



VSS-560

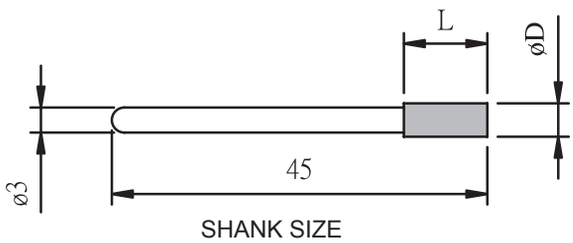
Features:

- Convenient
- All purpose
- Square shape : easy to handle
- Remove iron rust or scratches & unevenness
- Good for round edges and corners
- Final sanding of a flat surface
- Good for fine sanding or paint removal
- Great for sanding narrow spaces & uneven surface
- MOQ : 1BOX=24 PCS

ORDER NO.	DIMENSIONS (mm)	Availiable Grit			WEIGHT kgs	CODE NO.
		36 coarse	60 medim	100 fine		
VSS-436	100 x 70 x 25 36#	35				8001-220
VSS-460	100 x 70 x 25 60#		35			8001-221
VSS-4100	100 x 70 x 25 100#			35		8001-222
VSS-560	125 x 98 x 13 60#		35			8001-223
VSS-5100	125 x 98 x 13 36#			35		8001-224

Diamond Tools For Air Tool

ORDER NO.WG-30D CODE NO.8001-160 **Diamond mounted points(3.0 shank)**

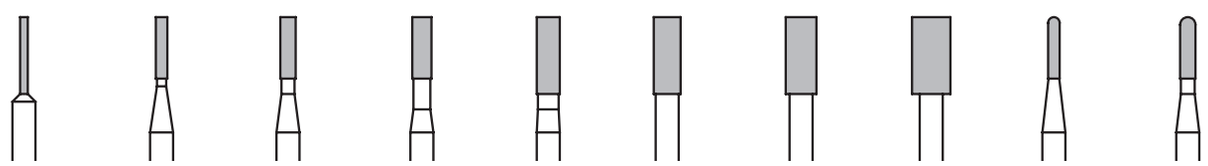


SHANK SIZE

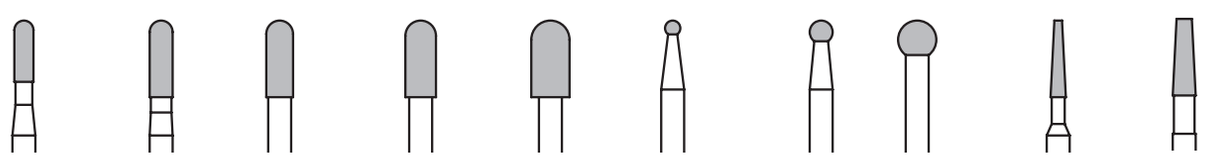
WG-30D: 30 PCS / set
(set in ø3.0 mm shank)
WG-30D-I: 30 PCS / set
(set in ø1/8″ shank)
Weight: 0.1 kgs

Grit size:
ø2.0~ø5.0 is 120#
ø1.0~ø1.5 is 150#,
one set including all
point each one,
total is 30 pcs/set

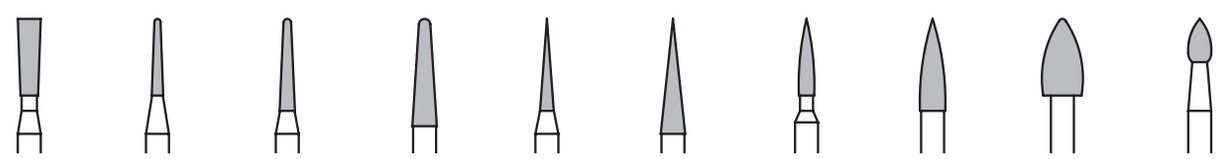
30 PCS ASSORTMENT SET: CONTAINS ONE EACH OF ABOVE POINTS. Unit:mm



ORDER NO.	10A	15A	20A	25A	30A	35A	40A	50A	15C	20C
ØD	Ø1	Ø1.5	Ø2	Ø2.5	Ø3	Ø3.5	Ø4	Ø5	Ø1.5	Ø2
L	8	8	8	8	10	10	10	10	8	8
CODE NO.	8001-161	8001-162	8001-163	8001-164	8001-165	8001-166	8001-167	8001-168	8001-169	8001-170



ORDER NO.	25C	30C	35C	40C	50C	20B	30B	50B	20T	30T
ØD	Ø2.5	Ø3	Ø3.5	Ø4	Ø5	Ø2	Ø3	Ø5	Ø2	Ø3
L	8	10	10	10	10	-	-	-	10	10
CODE NO.	8001-171	8001-172	8001-173	8001-174	8001-175	8001-176	8001-177	8001-178	8001-179	8001-180

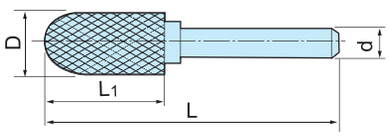


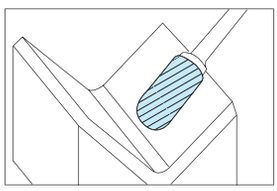
ORDER NO.	30V	15R	20R	30R	20P	30P	20F	30F	50F	30S
ØD	Ø3	Ø1.5	Ø2	Ø3	Ø2	Ø3	Ø2	Ø3	Ø5	Ø3
L	10	10	12	14	12	15	10	10	10	6
CODE NO.	8001-181	8001-182	8001-183	8001-184	8001-185	8001-186	8001-187	8001-188	8001-189	8001-190

Carbide Rotary Burrs

CYLINDER ROUND NOSE

NEW





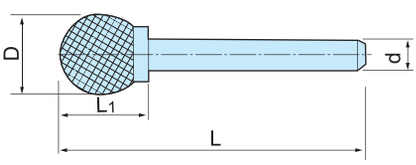
Unit : mm

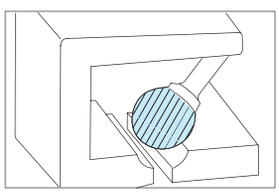
ORDER NO.	D	R	L	L1	d	WEIGHT(g)	CODE NO.
VRB-C6	6	3.0R	65	16	6	0.02	8001-301
VRB-C8	8	4.0R	65	20	6	0.03	8001-302
VRB-C10	10	5.0R	65	20	6	0.03	8001-303
VRB-C12	12	6.0R	65	25	6	0.04	8001-304

Carbide Rotary Burrs

SPHERE

NEW





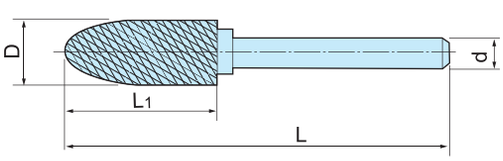
Unit : mm

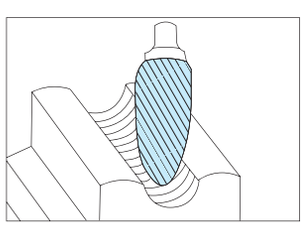
ORDER NO.	D	L	L1	d	WEIGHT(g)	CODE NO.
VRB-S6	6	55	5	6	0.02	8001-311
VRB-S8	8	65	7	6	0.03	8001-312
VRB-S10	10	65	9	6	0.03	8001-313
VRB-S12	12	65	10	6	0.04	8001-314

Carbide Rotary Burrs

ARCH ROUND NOSE

NEW





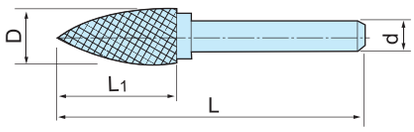
Unit : mm

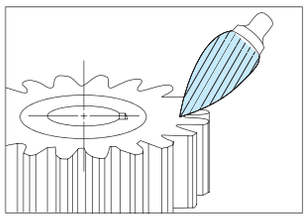
ORDER NO.	D	R	L	L1	d	WEIGHT(g)	CODE NO.
VRB-A6	6	1.5R	65	18	6	0.02	8001-321
VRB-A8	8	2R	65	20	6	0.03	8001-322
VRB-A10	10	2.5R	65	20	6	0.03	8001-323
VRB-A12	12	3R	65	25	6	0.04	8001-324

Carbide Rotary Burrs

ARCH POINT NOSE

NEW





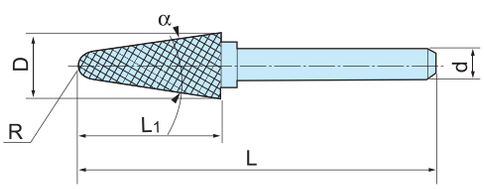
Unit : mm

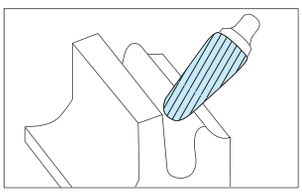
ORDER NO.	D	R	L	L1	d	WEIGHT(g)	CODE NO.
VRB-P6	6	26R	65	18	6	0.02	8001-331
VRB-P8	8	27R	65	20	6	0.03	8001-332
VRB-P10	10	28R	65	20	6	0.03	8001-333
VRB-P12	12	30R	65	25	6	0.04	8001-334

Carbide Rotary Burrs

CONE WITH ROUND NOSE

NEW





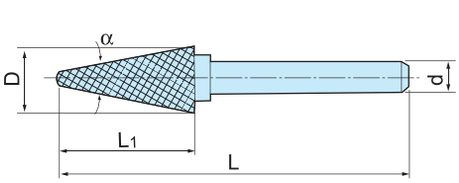
Unit : mm

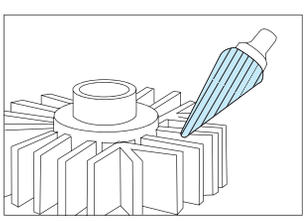
ORDER NO.	D	R	L	L1	d	α	WEIGHT(g)	CODE NO.
VRB-CR6	6	1.2R	65	16	6	14˚	0.02	8001-341
VRB-CR8	8	1.4R	65	22	6	14˚	0.03	8001-342
VRB-CR10	10	2.2R	65	25	6	14˚	0.03	8001-343
VRB-CR12	12	3.0R	80	28	6	14˚	0.04	8001-344

Carbide Rotary Burrs

CONE WITH ROUND NOSE

NEW

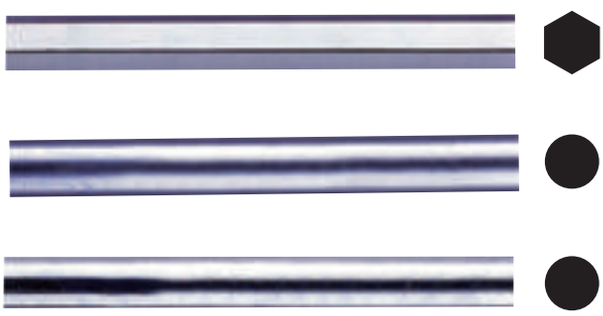




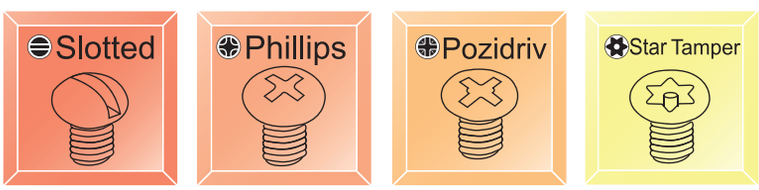
Unit : mm

ORDER NO.	D	L	L1	d	α	WEIGHT(g)	CODE NO.
VRB-PC6	6	65	18	6	14˚	0.02	8001-351
VRB-PC8	8	65	20	6	20˚	0.03	8001-352
VRB-PC10	10	65	20	6	25˚	0.03	8001-353
VRB-PC12	12	65	25	6	25˚	0.04	8001-354

Screwdriver Blades & Tips



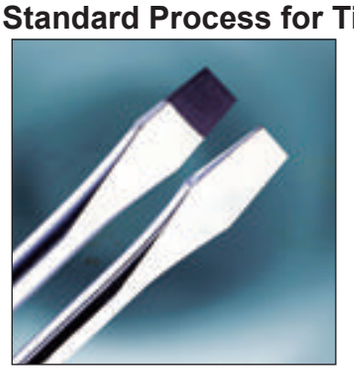
- Chrome-Vanadium Steel (Cr-V Steel)
  Hardness : HRC 50-52
  Torque : meet DIN standard
- S2 Steel
  Hardness : HRC 58-60
  Torque : Up 10% from Cr-Mo
- Chrome-Molybdenum Steel (Cr-Mo Steel)
  VERTEX standard
  Hardness : HRC 54-56 (Slotted HRC 52-54)
  Torque : Up 30% from Cr-V



Handle size List (mm)

Model / Blade Ø	VERTEX
3.0 mm	22 x 74
4.0 mm	27 x 92
5.0 mm	27 x 92
6.0 mm	32 x 110
8.0 mm	35 x 118
10.0 mm	38 x 125
Stubby	32 x 55

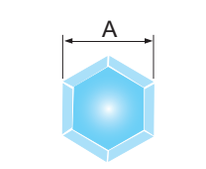
Standard Process for Tip :

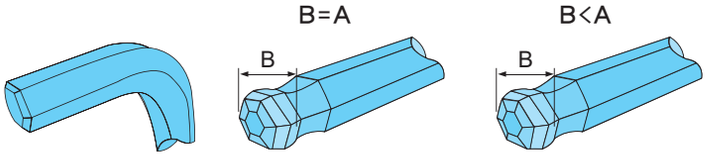


- Without or with black finish guarantees high precision with resistant erosion.

- Magnetized Tip

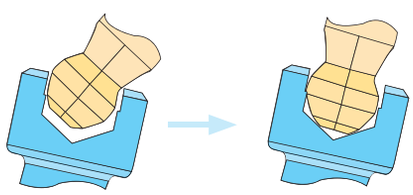
Diamond Head (for S2 only) VS. Ball Point



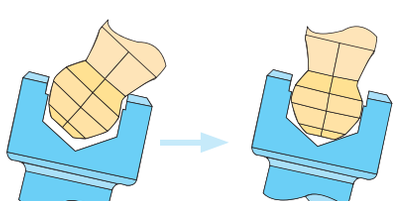


- Hex
- Diamond Head
- Ball Point

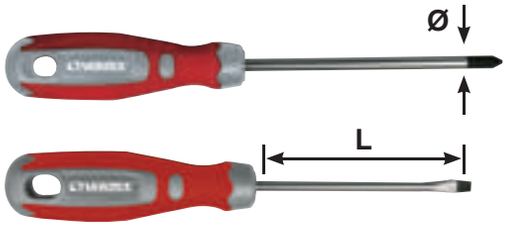
Diamond Head



Ball Point



Screwdriver



- Material : blade : Cr-Mo,(4mm up stamped material),
- Chrome satin finish, black and magnetic tip.
- Handle : PP-Red, TPR-Gray marking printing
- Packing : in bulk / inner box & outer carton
- MOQ : 1 Box = 12 PCS

SLOTTED

mm

ORDER NO.	BLADE SIZE (ømm x W x L)	Box	G. W. kgs	CODE NO.
TSD-S3	3.0 x 0.5 x 75	12 PCS	0.29	9001-001
TSD-S4	4.0 x 0.8 x 80	12 PCS	0.53	9001-002
TSD-S5	5.5 x 1.0 x 125	12 PCS	0.7	9001-003
TSD-S6	6.5 x 1.2 x 38	12 PCS	0.48	9001-004
TSD-S6L	6.5 x 1.2 x 150	12 PCS	1.2	9001-005
TSD-S8	8.0 x 1.2 x 150	12 PCS	1.7	9001-006

PHILLIPS

mm

ORDER NO.	BLADE SIZE (ømm x W x L)	Box	G. W. kgs	CODE NO.
TSD-P3	# 0(3mm) x 75	12 PCS	0.32	9001-021
TSD-P5	# 1(5mm) x 100	12 PCS	0.65	9001-022
TSD-P6	# 2(6mm) x 38	12 PCS	0.49	9001-023
TSD-P6L	# 2(6mm) x 150	12 PCS	1.14	9001-024
TSD-P8	# 3(8mm) x 150	12 PCS	1.72	9001-025

STAR TAMPER RESISTANT

mm

ORDER NO.	Trox Type	BLADE SIZE (ømm x W x L)	Box	G. W. kgs	CODE NO.
TSP-T9	T9	4.0 X 60	12 PCS	0.515	9001-061
TSP-T10	T10	4.0 X 80	12 PCS	0.53	9001-062
TSP-T15	T15	4.0 X 80	12 PCS	0.53	9001-063

Insulated Screwdriver

NEW

- Material : blade : Cr-Mo, black and magnetic tip
- Handle : PP-yellow, TPR-red, markings printing
- Blade coating : PP red
- Packing : in bulk / inner box & outer carton
- Insulated
- MOQ : 1 Box = 12 PCS

SLOTTED

mm

ORDER NO.	BLADE SIZE (ømm x W x L)	Box	G. W. kgs	CODE NO.
TIS-S3	3.0 x 0.5 x 100	12 PCS	0.34	9001-081
TIS-S4	4.0 x 0.8 x 100	12 PCS	0.58	9001-082
TIS-S5	5.5 x 1.0 x 125	12 PCS	0.78	9001-083
TIS-S6	6.5 x 1.2 x 150	12 PCS	1.25	9001-084
TIS-S8	8.0 x 1.2 x 175	12 PCS	1.82	9001-085

PHILLIPS

mm

ORDER NO.	BLADE SIZE (ømm x W x L)	Box	G. W. kgs	CODE NO.
TIS-P3	# 0(3mm) x 75	12 PCS	0.32	9001-101
TIS-P5	# 1(5mm) x 100	12 PCS	0.64	9001-102
TIS-P6	# 2(6mm) x 100	12 PCS	0.975	9001-103
TIS-P8	# 3(8mm) x 150	12 PCS	1.67	9001-104

L Type Key Set

9 PCS / SET

- Material : S2 Steel
- Finish : Chrome Plated Satin Finish
- Injected Coating : PP
- Standard Packing : Blaster Carded
- Easy For Handing
- Management by Color and Size Identify.
- MOQ : 1 Box = 12 SETS

ORDER NO.	SIZE	Lengeth	Box	G. W. kgs	CODE NO.
THB-1	Diamond - Head / Hex : 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0 mm	Extra Long	12 SETS	5.88	9003-001

L Type Key Set

NEW

9 PCS / SET

- Material: S2 Steel
- Standard Finish: Chrome Plated Satin Finish
- Standard Packing: Blister Carded
- MOQ : 1 Box = 12 SETS

ORDER NO.	SIZE	Lengeth	Box	G. W. kgs	CODE NO.
THB-11	Diamond-Head (S2) : 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0 mm	Extra Long	12 SETS	5.9	9003-021

Pliers / Insulated Pliers

- Material: Chrome-Vanadium Steel
- Handle Material: TPR
- Packing Blister Carded
- MOQ : 5 PCS / 1 BOX

DIAGONAL CUTTING PLIERS

mm

ORDER NO.	LENGTH	G. W. kgs	CODE NO.
TPL-D1	160	1.15 / BOX	9004-001

LONG NOSE PLIERS

mm

ORDER NO.	LENGTH	G. W. kgs	CODE NO.
TPL-L1	200	1.23 / BOX	9004-010

COMBINATION CUTTING PLIERS

mm

ORDER NO.	LENGTH	G. W. kgs	CODE NO.
TPL-C1	180	1.54 / BOX	9004-005

COMBINATION CUTTING PLIERS

mm

ORDER NO.	LENGTH	G. W. kgs	CODE NO.
TPI-IC	180	1.54 / BOX	9004-040

T-Bar Set

T Bar L Key Set - Packed With Metal Stand

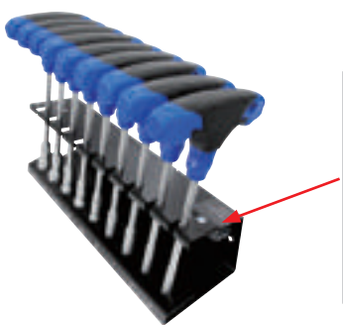
- T Handle Material : PP / TPR
- Stand Color: Black
- Blade: S2 Steel
- MOQ : 1 Box = 12 SETS

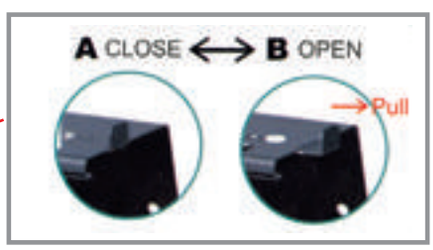
9 pcs / set

ORDER NO.	SIZE	Handle Colors	Box	G.W. kgs	CODE NO.
THB-51	Diamond-Head : 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0 mm 9 pcs / set	Red / Gray	12 SETS	16.68	9003-201
THB-52	Star Tamper Resistant : T9, T10, T15, T20, T25, T27, T30, T40, T50, 9 pcs / set			18.84	9003-202

T-Bar Nutdrwer Set

T - Bar Nutdriver Set - Packed With Metal Stand

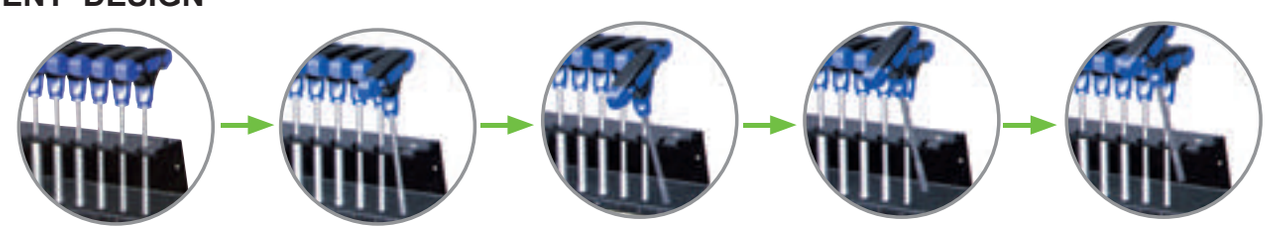




- T Handle Material : PP / TPR
- Nutdriver Material : CR-V steel
- MOQ : 1 Box = 10 SETS

ORDER NO.	SIZE	Box	G. W. kgs	CODE NO.
THB-53	Short Socket: 5, 6, 7 mm Long Socket: 8, 10, 11, 12, 13, 14 mm 9 pcs / set	10 SETS	20.8	9003-211

PATENT DESIGN



Hex-T Key

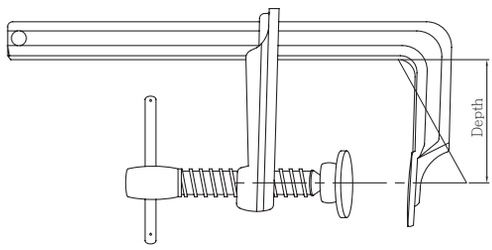
- Handle: PP / TPR
- Blade: S2 Steel
- Standard Finish: Chrome Plated Satin Finish
- Packing: Standard Bulk Packing
- MOQ : 1 Box = 12 PCS

ORDER NO.	TIP SIZE (mm)	HANDLE SIZE (mm)	A (MM) LENGTH	L (MM) LENGTH	BOX	G.W. KGS	CODE NO.
THB-1.5	1.5	81 × 49.5	12	75	12 PCS	0.69	9003-221
THB-2.0	2.0	81 × 49.5	12	75		0.71	9003-222
THB-2.5	2.5	81 × 49.5	12	75		0.74	9003-223
THB-3	3.0	81 × 49.5	12	75		0.78	9003-224
THB-4	4.0	81 × 49.5	15	80		0.9	9003-225
THB-5	5.0	112 × 68	15	100		1.76	9003-226
THB-6	6.0	112 × 68	15	100		1.98	9003-227
THB-8	8.0	112 × 68	20	150		2.82	9003-228
THB-10	10.0	112 × 68	20	150		3.7	9003-229

Jaw Clamp

VERTEX
STANDARD

NEW

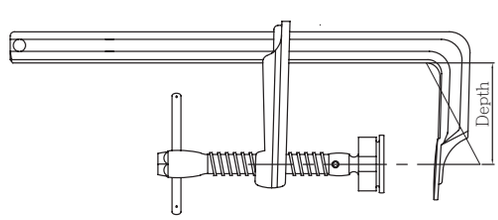


- Easy to use, multi purpose clamp
- Fast light movement - T handle
- Alloy steel : T handle
- Forge steel : L body

ORDER NO.	Span x Depth Size (mm)	Spreading	Weight (kgs)	Clamping Force (kgs)	CODE NO.
HJC-VS30	300 x 120	25.0 x 12.0	1.76	750	9101-001
HJC-VS40	400 x 120		1.97		9101-002
HJC-VS50	500 x 120		2.18		9101-003
HJC-VS60	600 x 120		2.39		9101-004
HJC-VS80	800 x 120	27.0 x 13.0	3.27	1000	9101-005
HJC-VS100	1000 x 120		3.75		9101-006
HJC-VS125	1250 x 120		4.38		9101-007
HJC-VS150	1500 x 120		4.90		9101-008

Jaw Clamp

HEAVY



- Easy to use, multi purpose clamp
- Fast light movement - T handle
- Alloy steel : T handle
- Forge steel : L body

ORDER NO.	Span x Depth Size (mm)	Spreading	Weight (kgs)	Clamping Force (kgs)	CODE NO.
HJC-H25	250 x 120	30.0 x 15.0	2.76	1200	9101-121
HJC-H30	300 x 140		2.96		9101-122
HJC-H40	400 x 120		3.20		9101-123
HJC-H50	500 x 140		3.66		9101-124
HJC-H60	600 x 120		3.87		9101-125
HJC-H80	800 x 140		4.62		9101-126
HJC-H100	1000 x 120		5.15		9101-127
HJC-H125	1250 x 120		5.94		9101-128
HJC-H150	1500 x 120		6.65		9101-129

Carbon Steel Punches

NEW

NUMBER PUNCHES

7	8	0
4	5	6
1	2	3

- Sand blasting surface treatment.
- Plastic box set contains 9pcs, number punches from 0-9.
- Material : carbon steel.

ORDER NO.	PUNCHES SIZE	N.W. (kg)	CODE NO.
VNP-30	3.0mm(1/8")	0.17	7005-101
VNP-40	4.0mm(5/32")	0.17	7005-102
VNP-50	5.0mm(3/16")	0.28	7005-103
VNP-60	6.0mm(1/4")	0.28	7005-104
VNP-80	8.0mm(5/16")	0.6	7005-105
VNP-100	10mm(3/8")	0.9	7005-106

LETTER PUNCHES

S	T	U	V	W	X	Y	Z	&
J	K	L	M	N	O	P	Q	R
A	B	C	D	E	F	G	H	I

- Sand blasting surface treatment.
- Plastic box set contains 27pcs, letter punches from A-Z.
- Material : carbon steel.

ORDER NO.	PUNCHES SIZE	N.W. (kg)	CODE NO.
VLP-30	3.0mm(1/8")	0.5	7005-121
VLP-40	4.0mm(5/32")	0.5	7005-122
VLP-50	5.0mm(3/16")	0.85	7005-123
VLP-60	6.0mm(1/4")	0.85	7005-124
VLP-80	8.0mm(5/16")	1.8	7005-125
VLP-100	10mm(3/8")	2.55	7005-126

Welding Light Goggles

ORDER NO.SWLG-040 CODE NO. 10000-040 LIGHT BLOCKING

NEW

- CE EN175 approval
- Comfortable frame offers all round protection
- Stream line shape & indirect ventilation.
- Protection aroung eyes.
- Anti-glare (strong light) when upper goggles is closed.
- Weights : 2.39kgs
- MOQ : 1 Box = 12 PCS

Welding Light Goggles

ORDER NO.SWLG-041 CODE NO. 10000-041 LIGHT BLOCKING

- CE EN175 approval
- Green soft PVC frame, ABS lens holder
- Four indirect holes in the frame for welding workplace.
- 4 Breathable air vents (indirect)
- Comfortable
- Protection around eyes
- Anti- glare (strong light) when upper goggle is closed.
- Weights : 2.02kgs
- MOQ : 1 Box = 12 PCS

Safety Goggles

ORDER NO. SDG-01 CODE NO. 10000-050 DUST PROTECTION

NEW

- CE EN166 B approval
- Soft PVC frame & lens high impact clear polycarbonate.
- Direct vents in the frame, anti-dust and anti-impact.
- Weights : 1.84kgs
- MOQ : 1 Box = 20 PCS

Safety Goggles

ORDER NO. SDG-05 CODE NO. 10000-055 DUST PROTECTION

- A wide, soft PVC frame enhances wearer comfortable while work.
- Modern streamlined ultra wide-angle vision design lens enhance work efficiency and security.
- Wide, elasticity adjustable headband to enhance reliability and easy to adjustable.
- Weights : 1.85kgs
- MOQ : 1 Box = 12 PCS

Safety Goggles

ORDER NO.SDG-10 CODE NO. 10000-060 DUST PROTECTION

- CE EN166 approval
- 100% polycarbonate
- light weight
- Weights : 0.87kgs
- MOQ : 1 Box = 12 PCS

Welding Light Helmets

ORDER NO. WLH-01 CODE NO. 10000-080 FACE PROTECTION

NEW

- Anti-glare (strong light)
- Features include a polypropylene impact resistant shell with a high strength nylon ratchet head gear.
- Weights : 5.12kgs
- MOQ : 1 Box = 10 PCS

Face & Forehead Shield

ORDER NO.FHS-01 CODE NO. 10000-045 DUST PROTECTION

- Fore head protection
- CE EN166 approval
- Nylon adjustable and insertion slot ratchet head gear, fit for 8”x13-1/2” impact polycarbonate visor.
- Weights : 3.46kgs
- MOQ : 1 Box = 10 PCS

Safety Helmets

ORDER NO.SHC-01 CODE NO. 10000-110 BUMP CAP

- CE EN397 approval
- New design shell offering optimum protection.
- Soft comfortable 4 or 6-point polyethylene (or webbing) harness with either slip or ratchet adjustment.
- Color : yellow
- Chin suspension for option.
- Weights : 5.3kgs
- MOQ : 1 Box = 10 PCS

Safety Helmets

ORDER NO.SHC-02 CODE NO. 10000-111 BUMP CAP

- CE EN397 approval
- Safety helmet with a high density polypropylene shell.
- Soft comfortable 4-point polyethylene harness with either slip or ratchet adjustment.
- Color : blue
- Chin suspension for option.
- Weights : 4.61kgs
- MOQ : 1 Box = 10 PCS

Ear Hearing Protection

VERTEX

EAR SHIELD

NEW

- CE EN352-1 approval
- SNR value : 25.7 dB
- POM headband, ABS cup and soft PVC leather.
- Adjustable slot on each side to adjusts for a snug, comfortable fit 3 position adjustable headband - head, neck or chin.
- Weights : 2.07kgs
- MOQ : 1 Box = 10 PCS

ORDER NO.	COLOR	CODE NO.
EHP-1	Orange Red	10000-001

- CE EN352-1 approval
- SNR Value : 25.5 dB
- Optional HC02 leather headband cover available.
- Weights : 2.19kgs
- MOQ : 1 Box = 10 PCS

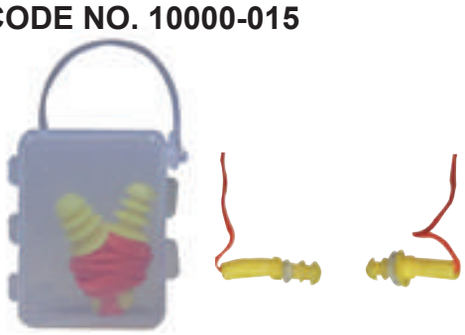
ORDER NO.	COLOR	CODE NO.
EHP-5	Yellow	10000-005

- CE EN352-1 approval
- SNR Value : 26 dB
- Attractive cup slim line design & light weight pocket size easy for carry.
- Color may be varied.
- Weights : 2.42kgs
- MOQ : 1 Box = 10 PCS

ORDER NO.	COLOR	CODE NO.
EHP-11	Orange / Red / Yellow	10000-011

Ear Hearing Protection

ORDER NO. SEHP-15 **EAR PLUG**
CODE NO. 10000-015



Ear Plug
Meets ANSI S3.19 NRR value : 27 dB
CE EN352-2 approval SNR value : (test result pending)

- Unique 4 layer cut off design enhances the sound-insulated effect
- Front end spatial design fits ear canal to reduces ear internal pressure for wear comfort
- Moulded-in non-slip shape use for easy insertion into ear canal.
- MOQ : 1 Box = 100 PCS
- Weights : 1.68kgs

Ear Hearing Protection

ORDER NO. SEHP-19 **EAR PLUG**
CODE NO. 10000-019

- CE EN352-2 approval
- SNR value : 19 dB
- Streamline artistic ear band design.
- Active, adjustable ear plug in compliance with individual demand makes comfortable and sound-insulated effect adjustment.
- Replaceable by various material or design plug is available.
- MOQ : 1 Box = 100 PCS
- Weights : 2.39kgs

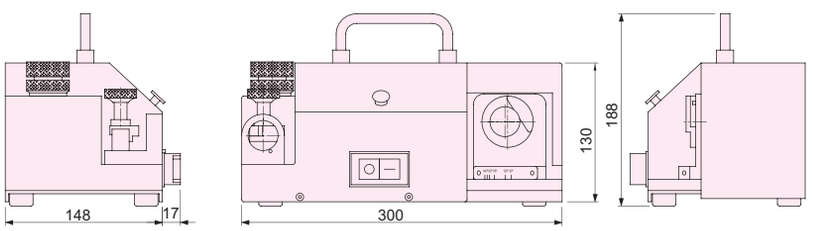
Precision Drill Grinder

PATENT

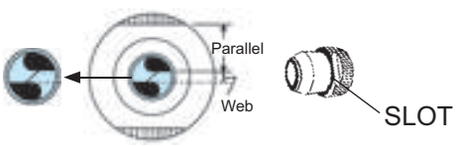
NEW

TROUBLE FREE &
SAFTY SET UP

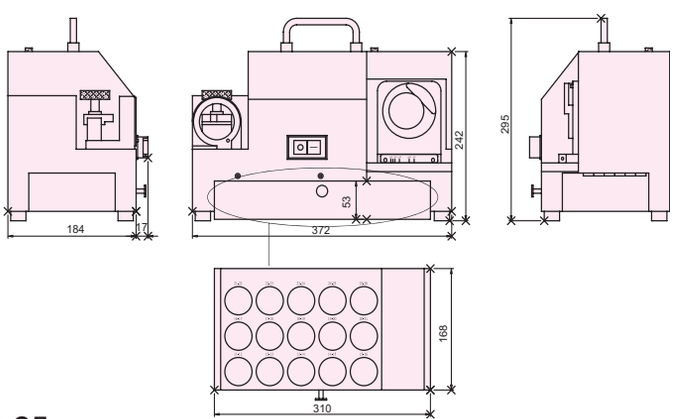
VDG-13A



VDG-13A



VDG-25



VDG-25
VDG-30

For Drill Re-sharpening
Precision, Efficient, , Fast & Easy Operation,
Short Processing Time, Wide Grinding Range,
Reasonable Price

1. High Efficiency, High Quality Grinding Lip, Good Grinding Results
2. Quality Assurance: ±0.05mm
3. Considerable Design, Invisible Tool Box, Delicate & Friendly Use
4. Peerless, Super Function, Durable, Strong Motor Can Work For 2 Hours.
5. Normal Drill, Center Drill, Carbide Nc Spot Drill Could Be Re-sharpen. Suit For The Drill Processs On Steel, Casting Iron, Brass And Aluminum.
6. Grind Wheel Can Be Used For 1500 Times.

STRIGHT SHANK & TAPER SHANK

Precision Drill Grinder

PATENT

90˚~140˚
WIDE RANGE

VDG-13A

VDG-25

Stand Example

VTC-20
3405-221
PAGE C136

Extension Holder

For Short Drill

Holding Example

※Suit for factory & home application.

ORDER NO.	VDG-13A	VDG-25	VDG-30
DRILL DIAMETER	Ø2.0~Ø13.0	Ø12~Ø25 (Ø8~Ø30)	Ø8~Ø30
CENTER POINT ANGLE	90º~140º	90º~140º	90º~140º
POWER SUPPLY	AC-110 or 220 1PH	AC-110 or 220 1PH	AC-110 or 220 1PH
R.P.M. OF MOTOR	4500 R.P.M.	4500 R.P.M.	4500 P.R.M.
GRIND WHEEL	CBN #200	CBN #200	CBN #200
NET WEIGHT	AC-110: 9.8kgs AC-220: 9.8kgs	AC-110: 23.8kgs AC-220: 23.8kgs	AC-110 : 26.5 kgs AC-220 : 26.5 kgs
OVERALL DIMENSIONS	W282xD185xH110 mm	W380xD240xH200 mm	W380xD240xH200 mm
STANDARD ACCESSORIES	ALLOY STEEL COLLET ER-20 COLLETx11PCS Ø3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, EACH ONE COLLET HOLDER X 1 UNIT 4mm HEXAGON WRENCH X 1 PCS FOR CHANGE WHEEL Ø3mm EXTENSION HOLDER X 1 PCS	ALLOY STEEL COLLET ER-40 COLLETx14PCS Ø12, 13, 14, 15, 16, 17, 18, 19, 20, 2 1, 22, 23, 24, 25, EACH ONE COLLET HOLDER X 1 UNIT 5mm HEXAGON WRENCH X 1 PCS FOR CHANGE WHEEL	ALLOY STEEL COLLET ER-40 COLLETx23PCS Ø8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30,EACH ONE COLLET HOLDER X 1 UNIT 5mm HEXAGON WRENCH X 1 PCS FOR CHANGE WHEEL
OPTIONAL COLLET SPECIAL SIZE	Ø2,2.5,3.5, 4.5, 5.5, 6.5, 7.5, 8.5, 9.5, 10.5, 11.5, 12.5	Ø8, 9, 10, 11,26, 27, 28, 29, 30 Ø11.5,12.5,13.5,14.5,15.5,16.5,17.5,18.5, 19.5,20.5,21.5,22.5,23.5,24.5,25.5,26.5	Ø11.5,12.5,13.5,14.5,15.5,16.5, 17.5,18.5,19.5,20.5,21.5,22.5, 23.5,24.5,25.5,26.5
CODE NO.	8001-012	8001-014	8001-015

GRIND WHEEL

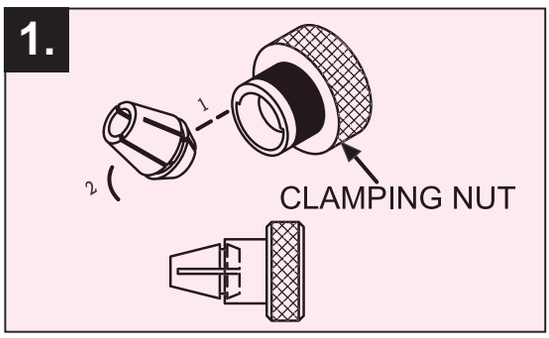
ORDER NO.	FOR DRILL MATERIAL	WHEEL	CODE NO.
VDG-13B	HSS	CBN200	8001-500
VDG-13D	CARBIDE	SDC200	8001-501
VDG-25B	HSS	CBN200	8001-504
VDG-25D	CARBIDE	SDC200	8001-505

- VDG-25 allows up to size Ø8~Ø30mm, please choose optional collet Ø8, 9, 10, 11, 26, 27, 28, 29, 30mm.
- VDG-30 grinder wheel is same as VDG-25B & VDG-25D. by back champing type
- VDG-13A, ER-20 collet ø2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6 mm
- VDG-25, ER-40 collet ø8, 9 mm

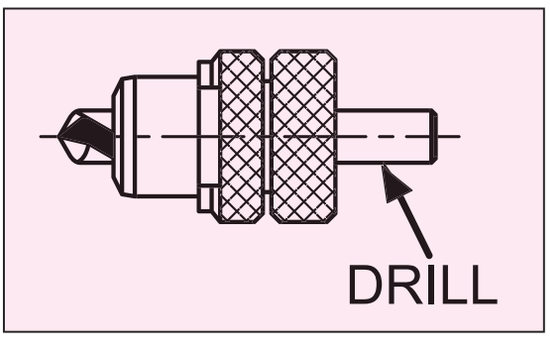
STRIGHT SHANK & TAPER SHANK

SPECIAL USAGE MACHINE

A. HOW TO USE HOLDER UNIT FOR COLLET & DRILL

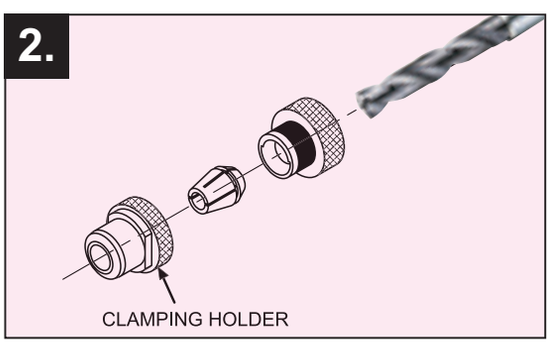


Please confirm the drill size and pick up proper collet. Assemble collet into clamping nut by 45 degree.(Before insert the drill into the clamping holder.)



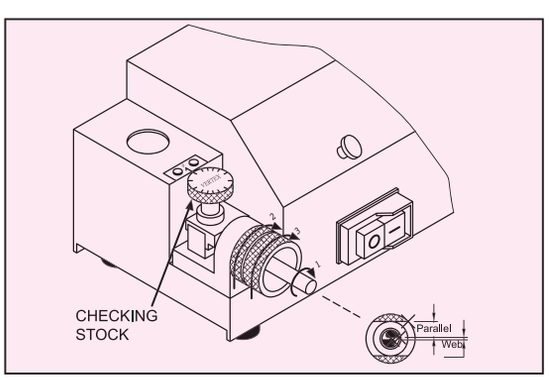
HOLDER UNIT

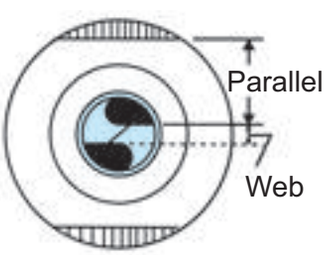
When drill length is less than 10mm, you need to add 1 scale on indicator.
Ex. when D=9mm, turn indicator to 10mm



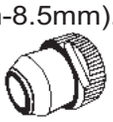
Insert the drill, lock the clamping holder but not tightened, allow the drill can still move.

B. HOW TO SET THE HOLDER UNIT AT THE CHECKING STOCK





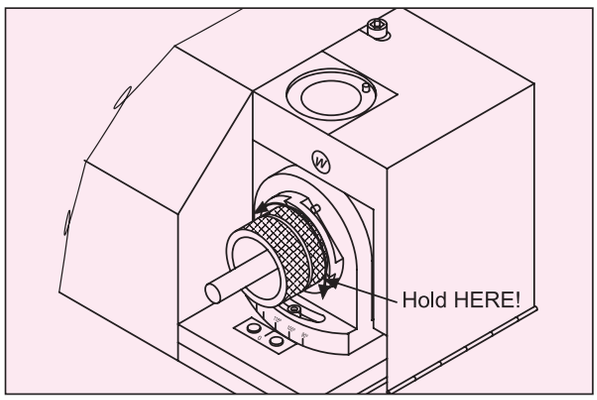
1. Find the drill diameter.(If the drill D. is 8.2mm) Set the indicator of scale No. as same as drill's diameter.(Please turn the indicator plate and set it between 8mm-8.5mm).

2. Insert the holder unit into the checking stock, The slot of clamping unit  will match into the PIN of checking stock.(Make sure the drill is touching the checking stock.)

3. Turn the holder unit and drill to clockwise (Make sure the drill is touching the checking stock). And tighten the holder unit by turning the clamping nut

CAUTION (1.) Make sure the web blade of drill is parallel to the slot of clamping holder.
(2.) If a drill's length is less than 1/2 , please add 1-2 scale onto the indicator plate.
(3.) If a drill's web blade is vary from normal drill, please check the parallel to slot of the clamping holder first, and then set the indicator.

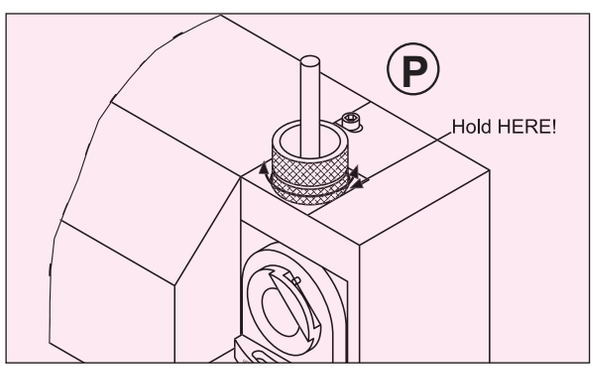
C. HOW TO GRIND THE WEB OF DRILL



1. Turn on the power.
2. Insert the holder unit into the Ⓦ grind stock. The slot will match with the PIN. Let the drill reach diamond wheel smoothly.(Hold the clamping holder when turning.)
3. Grinding the drill by moving right and left. Until the grinding noise is gone.
4. Take out the holder unit. And turn 180º, Insert again like step 3. complete the web sharpning process.

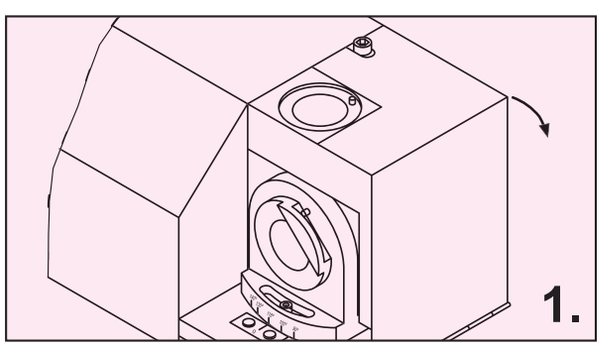
CAUTION (1.) Hold and turn the clamping holder to avoid mis-grinding. Hold drill or clamping nut when turning may result in un-even surface.
(2.) To grind different angle shall adjust angle indicator before insert.

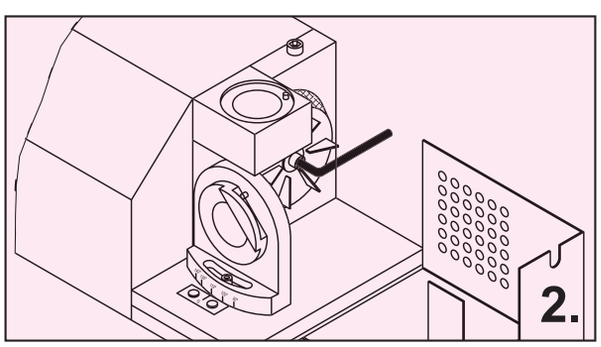
D. HOW TO GRIND CENTER POINT OF DRILL



1. Insert the holder unit into Ⓟ grind stock slot and match with the PIN.
2. Turn the holder unit right and left slowly until the grind noise is off.
3. Take out the holder unit and turn oppsite 180º and repeat step 2.

E. HOW TO CHANGE THE DIAMOND WHEEL





1. Loosen the screw on the wheel cover.
2. Open the cover and loosen the screw which use to lock the grind wheel.
3. Change the wheel , make sure two screws are in place and fixed.

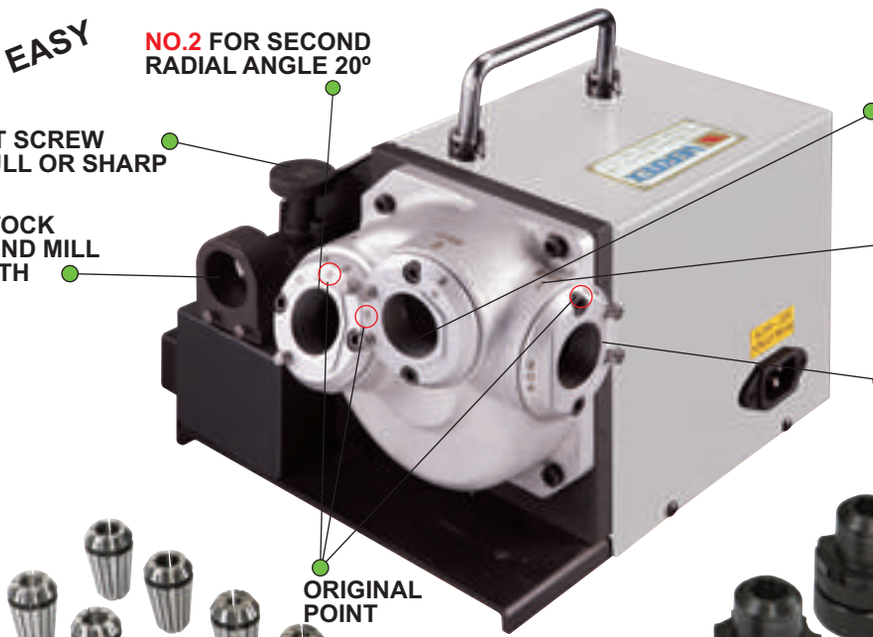
CAUTION Do not plug in the power before the wheel cover is closed.

Precision End Mill Grinder

PATENT

NEW

FAST EASY



VEG-13A

VEG-25A

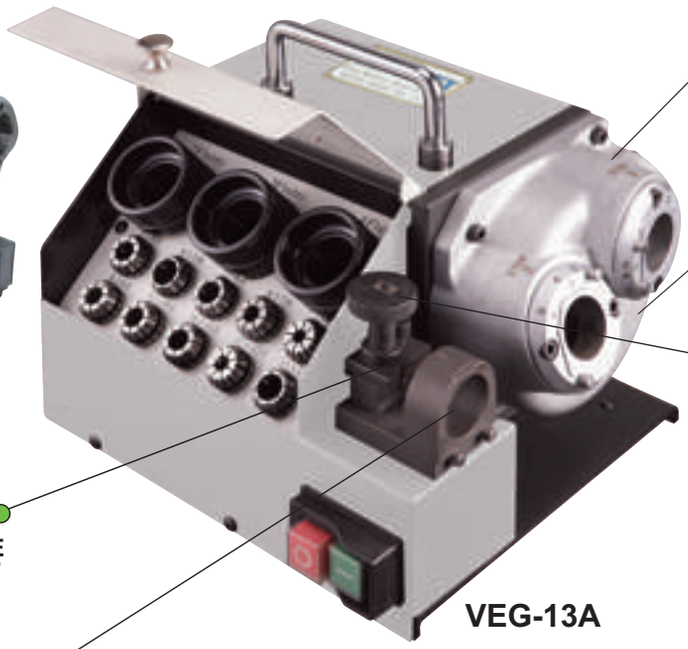
For End Mill Re-sharpening, 2, 3, 4 Number Flute
Precision Efficient, Easy operation,
Short processing time, Grinding Diameter from 4-13 mm.
Reasonable Price, Fast, Rigid, Simplified Step

1. High Efficiency, High Quality Grinding Slip, Good Grinding Results
2. Quality Assurance: ±0.02mm, Strong, Reliable, Grinding Stock Wont't Bend.
3. Easy Operation, For Urgent Need, Low cost, Save Money

ORDER NO.	VEG-13A	VEG-25A
CAPACITY END MILL DIA.	ø4~ø13mm	ø12~ø25mm
MOTOR	300W	500W
SPEED	4300rpm	4300rpm
POWER	AC-110 or 220 1PH 50/60HZ	AC-110 or 220 1PH 50/60HZ
AXIAL-ANGLE	NO.1 END MILL FLAT SLOT ANGLE 30º NO.2 SECOND RADIAL ANGLE 20º NO.3 CUTTING ANGLE 6º	NO.1 END MILL FLAT SLOT ANGLE 30º NO.2 SECOND RADIAL ANGLE 20º NO.3 CUTTING ANGLE 6º
STANDARD ACCSSORIES	ALLOY STEEL COLLET ER-20 COLLET: Ø4, 5, 6, 7, 8, 9, 10, 11, 12, 13mm 10 pcs/set WRENCH:1PC SDC 300 x1 For ø4~ø6mm SDC 270 x1 For ø7~ø13mm Square Type For 4 Flutes End Mill x 1 Set Hex. Type For 3 Flutes End Mill x 1 Set Parallel Type For 2 Flutes End Mill x 1 Set Ø4-Ø5,Ø6-Ø8,Ø10-Ø12mm EXTENSION HOLDER FOR EACH ONE.	ALLOY STEEL COLLET ER-40 COLLET: Ø12, 16, 18, 20, 22, 25mm 6 pcs/set WRENCH:1PC SDC 150 x1 For ø12~ø25mm Square Type For 4 Flutes End Mill x 1 Set Hex. Type For 3 Flutes End Mill x 1 Set Parallel Type For 2 Flutes End Mill x 1 Set
PACKING SIZE	320x260x300mm	365x293x345mm
WEIGHT (kg)	17	31
CODE NO.	8001-510A	8001-520A

Precision End Mill Grinder

VEG-25A



VEG-13A

Stand Example

VTC-20
3405-221
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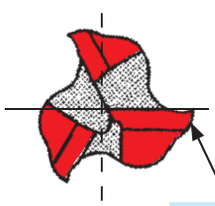
For Short End Mill

Extension Holder

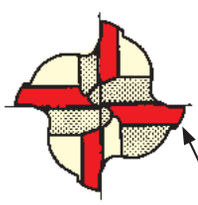
Holding Example

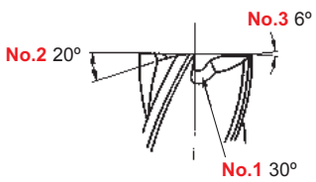
2 Flutes

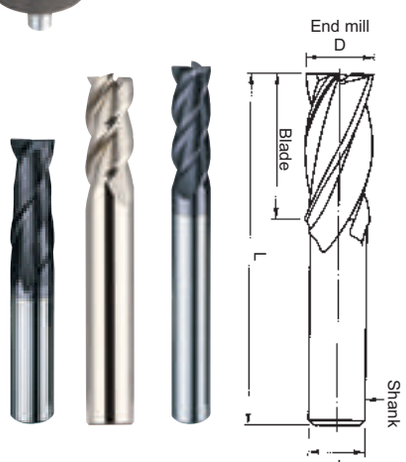
3 Flutes



4 Flutes







Optional Accessories

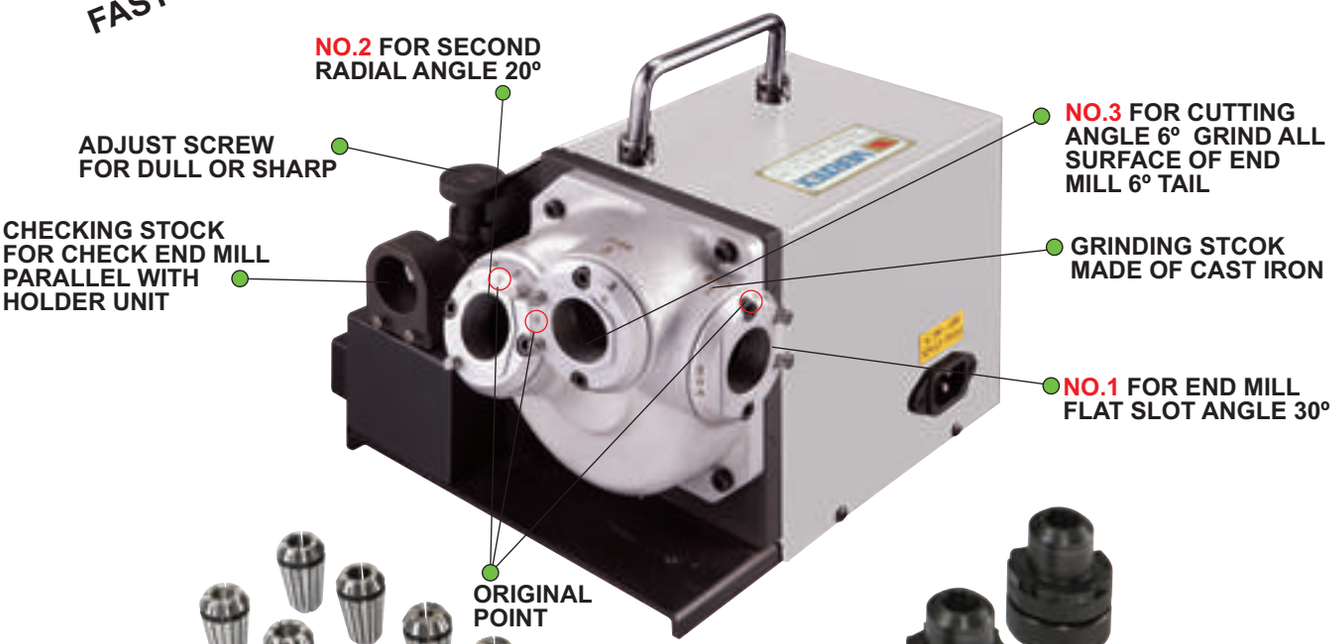
※ **Each holder unit has mark 2, 3 and 4 on it.**

ORDER NO.	Grind Wheel	FOR END MILL MATERIAL	Weight (kg)	CODE NO.
VEG-13BS	CBN 300 x1 For ø4~ø6mm	H.S.S.	0.35	8001-511A
VEG-13BL	CBN 270 x1 For ø7~ø13mm	H.S.S.	0.35	8001-512A
VEG-13DS	SDC 300 x1 For ø4~ø6mm	CARBIDE	0.35	8001-514
VEG-13DL	SDC 270 x1 For ø7~ø13mm	CARBIDE	0.35	8001-515
VEG-25BSV	CBN 150 x1 For ø12~ø25mm	H.S.S.		8001-516V
VEG-25DSV	SDC 150 x1 For ø12~ø25mm	CARBIDE		8001-517V

Precision End Mill Grinder Operation Manual

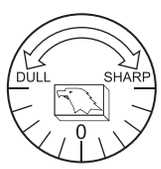
NEW

FAST EASY



VEG-13A

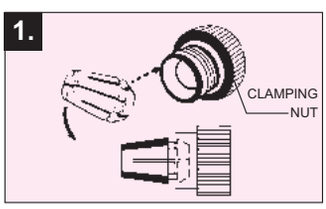
VEG-25A



You can adjust the sharpeness on the round plate, move toward dull and sharp mark.

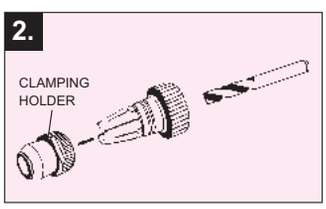
A. HOW TO INSTALL HOLDER UNIT FOR END MILL

1.

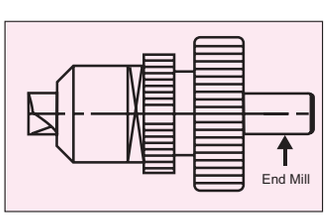


Please confirm the end mill size and pick up proper collet.
Assemble collet into clamping nut by 45 degree. (Before insert the end mill into the clamping holder.)

2.

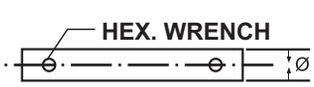


Insert the end mill, lock the clamping holder but not tightened, allow the end mill can still move.
Insert the end mill, let the end mill blade length 35mm out, (don't tightened the clamping Holder)



HOLDER UNIT

Extension: To attach on the end mill allow you to rotate it when it's length is too short for setting.



Stopper for flute end point (blade)

PLEASE CHOOSE CORRECT WHEEL FOR GRINDING.
SDC300 MARK 4-6 mm
SDC270 MARK 7-13mm

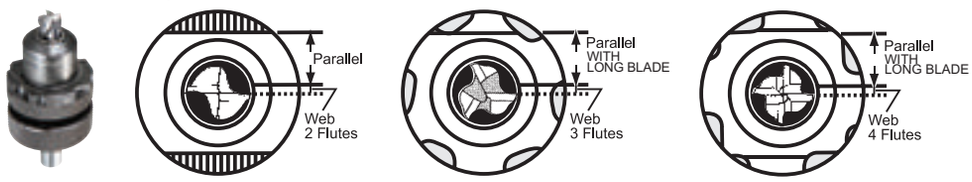
B. HOW TO SET THE HOLDER UNIT AT THE CHECKING STOCK

(For length and angle setting)

Original Point

1) Please make sure the blade of the end mill set in the position like we show below. Hold the end mill but not tight up. Always use 0 to check!
※You can adjust the sharpeness on the round plate, move toward dull and sharp mark.
2) Aim at 0 mark and insert holder unit into checking stock. Turn clockwise a little bit, make sure the blade is touching the stcok, lock the holder now.
※When take out the holder unit, please turn the round plate counter clockwise so you can take out smoothly.

CAUTION: 1 Make sure the web blade of drill is parallel to the slot of clamping holder.
2 When the end mill blade is broken, the first grind job please turn to the dull side. And grind 2 times in order to get perfect result.
3.While setting, please align the end mill long blade to be parallelized with holder unit slot.



C. HOW TO GRIND NO1. END MILL FLUTE SLOT ANGLE 30º

1) Aim the original point at hole on No1. to grind end mill Flute Slot Angle 30º
2) Insert the holder and touch against the No1. surface, until the grind noise is off.
※Always begin with 0.
※While grinding, please turn holder unit right and left a little, against pins.
3) (2 Flutes) Please insert and take out turn 180º and repeat step 1~2;
(3 Flutes) Please insert and take out turn 120º and repeat step 1~2, two times;
(4 Flutes) Please insert and take out turn 90º and repeat step 1~2, three times.
※While grinding, holder unit shall touch / match most of the grinding stock and move smoothly.
※Each holder will match each hole's pin, smart design.

D. HOW TO GRIND END MILL'S NO2. SECOND RIDIAL ANGLE 20º BACK ANGLE

1) Insert the Holder unit and aim the original point, touch the No2's surface until the grinding noise is off.
※Always begin with 0.
※While grinding, please turn holder unit right and left a little, against pins.
2) (2 Flutes) Please insert and take out turn 180º and repeat step 1~2;
(3 Flutes) Please insert and take out turn 120º and repeat step 1~2, two times;
(4 Flutes) Please insert and take out turn 90º and repeat step 1~2, three times.

E. HOW TO GRIND END MILL NO3. CUTTING ANGLE 6º

1) Place holder unit and aim at hole NO.3, touch the NO.3's surface until the grinding noise is off.
※Always begin with 0.
※While grinding, please turn holder unit right and left a little, against pins.
2) (2 Flutes) Please insert and take out turn 180º and repeat step 1~2;
(3 Flutes) Please insert and take out turn 120º and repeat step 1~2, two times;
(4 Flutes) Please insert and take out turn 90º and repeat step 1~2, three times

F. HOW TO CHANGE GRIND WHEEL

1 Use 4mm Hex. Wrench, take out 4 screws of grinding stock, remove the grinding stock.
2 Take out the locking screw of the grind wheel and remove the grind wheel.
3 Replace the old one with a new grind wheel.
4 Lock back the screw, install the grinding stock and lock 3 screws.
※When grind Ø4~6mm / Ø7~13mm please use correct diamond wheel.

CAUTION: When open, please **un-plug** the power core.

Rods Cutting-Off Unit

MACHINE FOR END MILL AND DRILL CUTTING

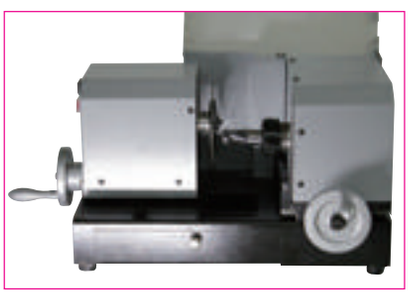
NEW

Simple !
Fast !
Efficinent!

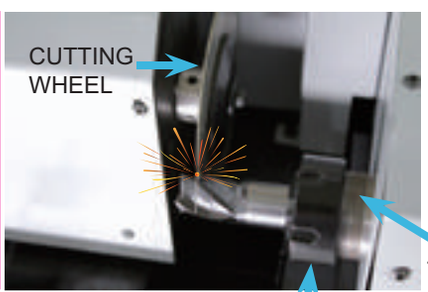
Safely & Efficiently Cutting
Speed Reference: For
Carbide End Mill
10ø → 58 sec
16ø → 103 sec
For H.S.S. End Mill
10ø → 63 sec
16ø → 113 sec

ADJUSTABLE Y-AXIS FOR
CUTTING OFF DIAMETER

ADJUSTABLE X-AXIS
FOR CUTTING LENGTH



FOR END MILL OR RODS CUT



TURNING
SPINDLE

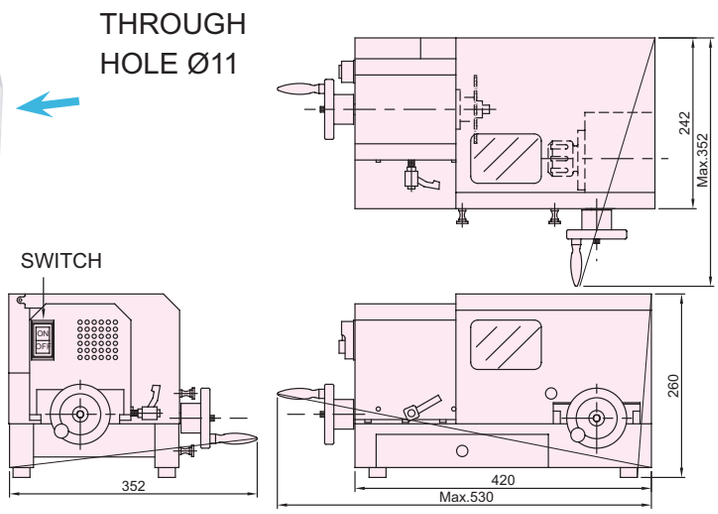
ER-32
CLAMPING HOLDER
11 PCS/SET COLLET
CUTTING CAPACITY Ø2~Ø20
THROUGH HOLE Ø11

1. Turning cutting wheel.
2. Turning workholding spindle.
3. After power is ON cutting wheel & workholding spindle are both turning.
4. Save time & reduce the 50% of the process, wheel & workpiece are turning at the same time while power is on.
5. Reduce the heating while cutting prevent material deformation.
6. Suit for Pin & Rod cutting.
7. Cutting Capacity: Ø2 to Ø20 diameter inside Ø11 mm trough hole. Max. cutting off length : 45 mm.
8. For end mill, drill, enjector pin, rods, round bar, etc.
9. Suit for material: CARBIDE, H.S.S., STEEL, BRASS, ALUMINIUM, IROM, etc. Please choose suitable wheel.
10. Turn off power to take out cuted-off workpiece after work is finished.

Standard accessories: 1. ER-32 collet × 11 pcs (Ø4, 5, 6, 8, 10, 12, 13, 15, 16, 18, 20 mm)
2. ER-32 wrench × 1 pc
3. SDC # 100 diamond wheel Ø110 × Ød16 × 1.36t × 1 pcs
4. Cutting-Off wheel E60WA Ø105 × Ød16 × 1t × 5 pcs
5. 4 mm HEX. Wrench × 1 pcs
6. ER-32 Collet Ø2, 3, 7, 9, 11, 14, 17, 19 mm are optional.

ORDER NO.	VOLTAGE	PACKING CARTON L × W × H	WEIGHT (KGS)	CODE NO.
VEC-20	AC110V, 220V / 50 HZ / 60HZ	530 x 352 x 260 mm	45.5	8001-540

Rods Cutting-Off Unit



Accessories for VEC-20

Flange x2/set

For H.S.S.
Cutting Wheel x 5 Pcs

For Carbide
Diamond cutting wheel x1 Pc

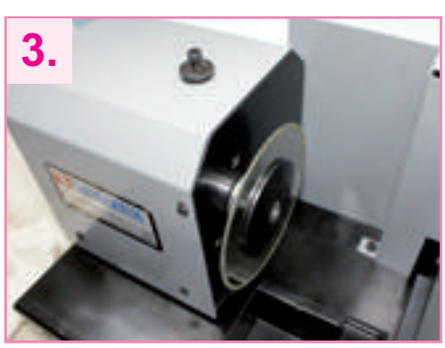
STANDARD ACCESSORIES:

ORDER NO.	SIZE	FOR END MILL MATERIAL	WEIGHT (KG)	CODE NO.
VEC-20-C	E60WA Ø105xØd16x1t 4" x 1 mm x 5 pcs/set	H.S.S.	0.10	8001-550
VEC-20-D	SDC Ø110 x Ød16 x 1.36t x 1 pcs	CARBIDE	0.08	8001-551
VEC-20-FLANGE	Ø76 x 5 2 pcs/set		0.24	8001-552

HOW TO CHANGE CUTTING WHEEL.

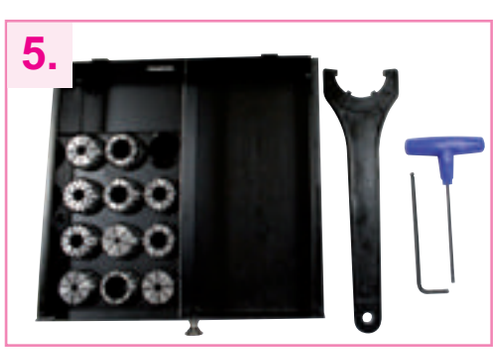
1. Open the case cover, USE the HEX.WRENCH to loose the flange's screw (Wear glove when operating)

2. Take out the 2nd flange clean the area with wind blow.



3. Take out the 1st screw.
   - Take out the 1st flange.
   - Remove the cutting wheel.

4. Put 2nd flange back.The Side ← go in first.
   - Put on new cutting wheel.
   - Put 1st flange back.The side ← go in first
   - Lock back the screw, close the case cover.
   - Turn on the power to test.
   - Ready to USE.



5. Drawer for storage.
   - Accessories for VEC-20

※LOCK THE CUTTING WHEEL GENTLY TO PREVENT BREAKAGE

Precision End Mill Grinder

VERTEX

ORDER NO.VEG-13 CODE NO.8001-510

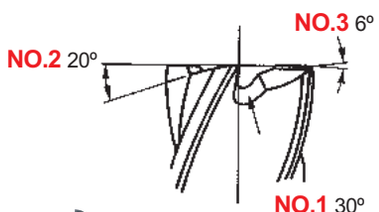
FAST EASY

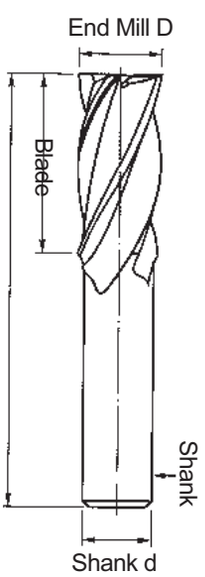
For End Mill Re-sharping , 2 , 3 , 4 Number Flute
Precision, Efficient, Easy operation, Reasonable price,
Short processing time, Grinding Diameter from 4-13 mm.
Reasonable Price, Fast

1. High Efficiency, High Quality Grinding Slip, Good Grinding Results
2. Quality Assurance: ±0.02mm
3. Easy Operation, For Urgent Need, Low cost, Save Money

ORDER NO.	CAPACITY END Mill DIA.	MOTOR	SPEED	POWER	AXIAL-ANGLE	CODE NO.
VEG-13	Ø4~Ø13mm	450W	6000rpm	AC-110Oor220 1PH 50/60HZ	NO.1 END MILL FLAT SLOT ANGLE 30° NO.2 SECOND RADIAL ANGLE 20° NO.3 CUTTING ANGLE 6°	8001-510

WEIGHT 17kgs **PACKING SIZE** 320x260x300mm



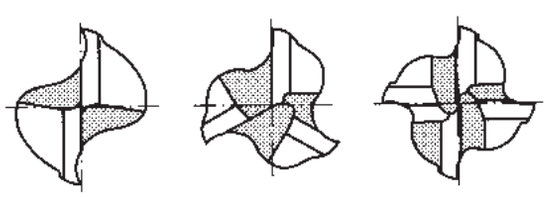


Accessories

Diamond Grinding Wheel: SDC 300 x1 For Ø4~Ø6mm
SDC 300 x1 For Ø8~Ø13mm
Grind Holder Unit: Square Type For 2 & 4 Flutes End Mill x1 Set
Hex. Type For 3 Flutes End Mill x1 Set
ER-20 Collet: Ø4,Ø5,Ø6,Ø7,Ø8,Ø9,Ø10,Ø11,Ø12,Ø13 mm, 10pcs/set
Wrench: 1pc

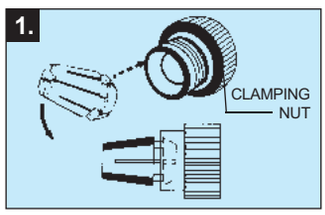
Optional Accessories

ORDER NO.	Grind Wheel	CODE NO.
VEG-13D	CBN 300 x 1 For Ø4~Ø6mm	8001-511
VEG-13E	CBN 300 x 1 For Ø8~Ø13mm	8001-512
VEG-13T	SBC 200 x For 2 Flute Ø4~Ø13mm	8001-513

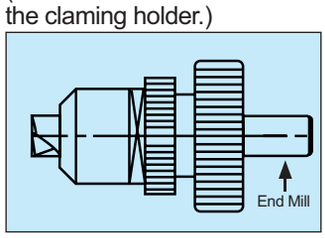


Precision End Mill Grind Operation Manual

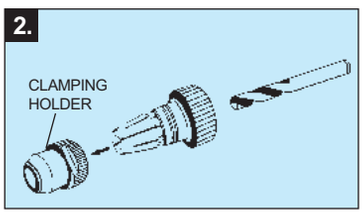
A.HOW TO INSTALL HOLDER UNIT FOR END MILL



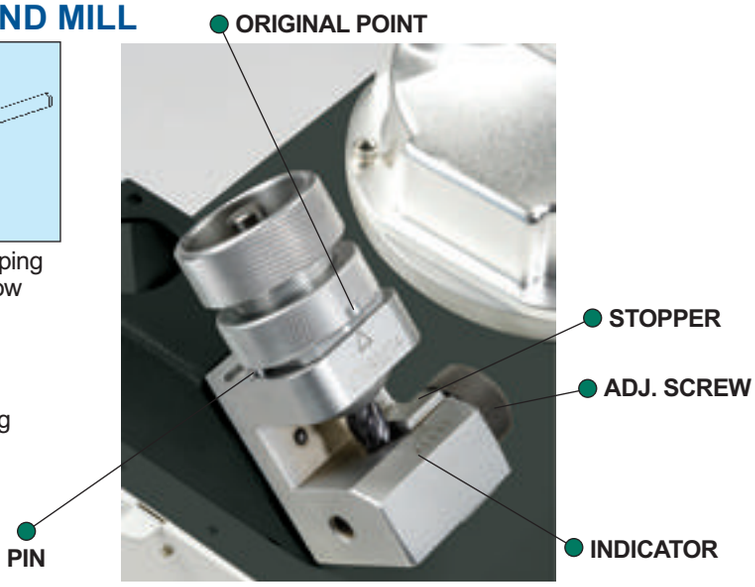
Please confirm the drill size and pick up proper collet. Assemble collet into clamping nut by 45 degree. (Befor insert the drill into the claming holder.)



HOLDER UNIT

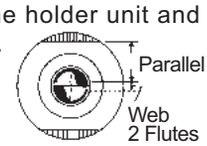


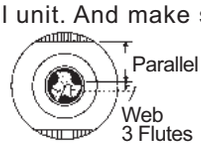
Insert the drill, lock the clamping holder but not tightened, allow the drill can still move. Insert the end mill, lock the clamping Holder, let the end mill blade length 35mm out, (don't tightened the clamping Holder)

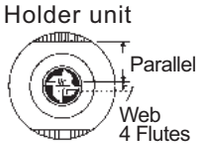


B.HOW TO SET THE HOLDER UNIT AT THE CHECKING STOCK
(For length and Angle Setting)

1 Turn the Adjust screw to the Indicator for the end mill size.
2 Place Clamping unit and aim the original point at the checking stock and insert stopper until the end mill is touching the bottom.
3 Turn the Holder unit clockwise, and touch against PIN, turn the end mill clock wise touch against stopper.
4 Tighten the holder unit and take out all unit. And make sure the Holder unit tightened.







C.HOW TO GRIND NO1. END MILL FLUTE SLOT ANGLE 30º

1 Aim the original point at hole on No.1 to grind end mill Flute Slot Angle 30º
2 Insert the holder and touch against the No.1 surface, until the grind noise is off.
3 Take out trun 180º and continue to grind next Flute, repeat these step by turning 90º and insert.

D.HOW TO GRIND END MILL'S NO2. SECOND RIDIAL ANGLE 20º BACK ANGLE

1 Insert the Holder unit and aim the original point at screw, touch the No2's surface until the grinding noise is off.
2 Take out and insert, repeat these steps if you want to grind 4 Flutes, you must complete 4 times grind process.
3 Movable Stock, 2T is for 2 Flute,3T is for 3 Flute, 4T is for 4 Flute, please looseen 2 screws when grind different Flutes (choice from 2,3,4 Flutes). When grinding, please note:
2 Flutes, turn all the way down to the end of the screw track until the 2T mark is match with screw.
3 Flutes, turn until the 3T mark is match with screw

E.HOW TO GRIND END MILL NO3. CUTTING ANGLE 6º

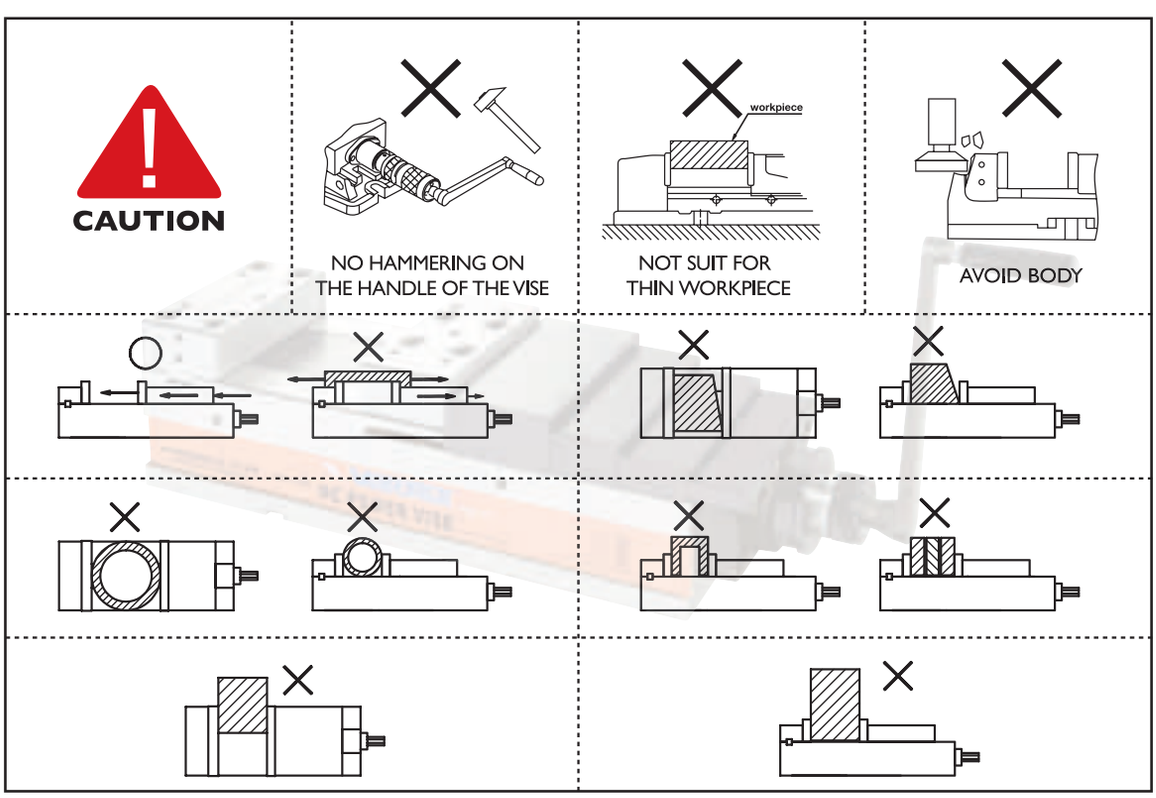
1 Place the Holder unit aim the original point at screw and insert into No3.
2 Touch against the No3. surface until the grinding noise is off
3 Now move the Holder unit right and left.
4 Repeat these steps to complete 4 Flutes grind process.

F.HOW TO CHANGE GRIND WHEEL

1 Use 4mm Hex. Wrench, take out 3 screws of grinding stock, remove the grinding stock.
2 Take out the locking grind wheel and remove the grind wheel.
3 Replace the old one with a new grind wheel.
4 Lock back the screw, install the grinding stock and lock 3 screws.

HOW TO CHOOSE VISE FOR YOUR MACHINE

MACHINE HORSE POWER	SUITABLE VISE MODEL NO.
1HP	VK-4, VK-5, VQS-3, VQS-4, VA-4, VW-3 VW-4, VMP-4, VMC-4
2HP	VK-5, VK-6, VQS-5, VMC-4, VA-4, VA-5 VW-4, VMP-5, VWT-5, VNC-100H, VQC-100, VQC-100H
3HP	VK-6, VMP-5, VHT-4, VA-5, VA-6, VJ-400, VJ-500, VH-4, VH-5, VWT-4B, VNC-100H, VNC-125H, VQC-100, VQC-125, VQC-100H, VQC-125H
5HP	VK-8, VA-6, VA-8, VJ-500, VJ-600, VMC-5P VMC-6P, VW-5, VH-5, VH-6, VHO-6, VHT-6, VWT-6B, VD-675, VQC-125, VQC-160, VNC-125H, VNC-160H, VMP-7A
7HP	VH-8, VH-8L, VHO-8, VMC-7P, VMC-8P, VMC-8PL, VNC-160LH, VMP-8A, VMP-12, VQC-160LH, VQC-160, VQC-160L, VQC-200L, VQC-200LH
10HP	VQC-160, VQC-160L, VQC-200L, VQC-160LH, VQC-200LH, VMC-8P, VMC-8PL, VSM-20, VH-12, VQCV-160H



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