

VERTICAL 5-C COLLET VISE SERIES 344:



Specifications:
Base: 2-1/2" x 7-3/4"
Height: 4"



Small movement of lever opens or closes collet.

| | | |
|-------------------|-------|--|
| Order No. 2030000 | Price | |
|-------------------|-------|--|

VERTICAL 3-C COLLET VISE SERIES 344:



Specifications:
Base: 2-1/8" x 7-3/4"
Height: 3-1/2"



Small movement of lever opens or closes collet.

| | | |
|-------------------|-------|--|
| Order No. 2035000 | Price | |
|-------------------|-------|--|

CAM OPERATED 5-C HORIZONTAL/VERTICAL COLLET FIXTURE

SERIES 347: MEDA - SUPERIOR IMPORT
SERIES 348: EAGLE ROCK USA



Specifications:
In horizontal position:
Base: 5" x 4"
Height: 3-5/8"



In vertical position:
Base: 5" x 3-5/8"
Height: 4"

Cam operated spindle permits opening and closing of collet so that setups remain undisturbed.

| | | |
|------------------------|-------|--|
| MEDA - SUPERIOR IMPORT | | |
| Order No. 2045000 | Price | |
| EAGLE ROCK USA | | |
| Order No. 3481210 | Price | |

HORIZONTAL / VERTICAL 5-C COLLET FIXTURE SERIES 343:



Specifications:
Base: 5" x 3-5/8"
Height: 3-3/4"



Collet does not move up or down and retains positive relation to base.

| | | |
|-------------------|-------|--|
| Order No. 3430000 | Price | |
|-------------------|-------|--|

AIR OPERATED 5-C COLLET FIXTURE SERIES 348:



Specifications: Base: 5-1/2" Dia.,
Height: 3-1/4"

Air operated "double acting" piston provides "power" opening and closing of the collet. Collet is locked into position for positive depth location of the workpiece. Fixture is operated in conjunction with a 4-way valve and can be hooked up for hand operation, foot operation or connected to automatic equipment etc. Standard pipe thread connection for air hoses.



| | | |
|-------------------|-------|--|
| Order No. 2050000 | Price | |
|-------------------|-------|--|

5-C HEXAGON AND SQUARE COLLET BLOCKS SERIES 327:



For fast and easy setups. Made of hardened tool steel precision ground. Accuracy of parallelism, squareness and flatness within $\pm .0005"$. Includes drawbar type nut for tightening and releasing. 1/16" through 1-1/8" capacity. Cam operated quick acting closer also available.

| Description | Order No. | Price |
|-----------------------------------------------------------------------------|-----------|-------|
| Hexagon Collet Block | 1985005 | |
| Square Collet Blocks | 1985010 | |
| Quick Acting Closer | 1985015 | |
| Complete Set (Hexagon and Square Blocks with Nuts and Quick Acting Closer). | 1985020 | |

COLLET-MASTER INDEX FIXTURE SERIES 641:



FEATURES:

- 48 Index positions.
- Uses all std. 5-C Collets.
- Two sealed, preloaded ball bearings in spindle.
- Hardened and ground base is held square and parallel to spindle w/i 0.0002".
- Maximum spindle runout is 0.0001".
- Drawbar and fitted case included.
- Optional CM-5C-FVB faceplate & v-block available for eccentric forms.



| Model No. | Center Height | Overall Height | Indexing Accuracy | Wt. | Order No. | Price |
|-----------|---------------|----------------|-------------------|-----|-----------|-------|
| CM-5C | 3-5/8" | 6-1/2" | ± 45 Sec. | 9 | 6410047 | |

| Model No. | Faceplate Dia. | V-Block Capacity | Weight | Order No. | Price |
|-----------|----------------|------------------|--------|-----------|-------|
| CM-5C-FVB | 6-1/2" | 1-3/8" | 15 | 6410161 | |

5-C ROTATING INDEXING FIXTURE

SERIES 351:

**Specifications:**

Overall Length: 9"
Base: 4" x 4"

One degree indexing over 360° using 5-C Collets, makes this tool ideal for grinding, machining, layout, inspection, etc. Hardened and ground spindle is accurate within .0004".

Order No. 2065000

Price

HORIZONTAL / VERTICAL 5-C RAPID INDEX

SERIES 352:

Fast and accurate indexing using 5-C Collets.

Terminal "A" provides 8,4,2 positions (45°, 90°, 180° respectively).

Terminal "B" provides 12, 6, 3 positions (30°, 60°, 120° respectively).

Terminal "C" provides 24 positions (15° each respectively).

Specifications:

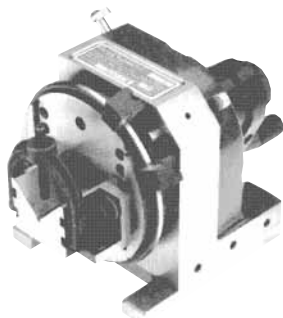
Parallelism ±.00078"
Squareness ±.00078"

Order No. 2070500

Price

**INDEXING FIXTURES****VERTEX****MEJA**
Superior Import**Suburban****The Choice Is Yours!!!****MASTER-GRIND WITH "TWIN-DEX"**

SERIES 641:

**5-C COLLET INDEX FIXTURE**
SERIES 351:**MEJA**
Superior Import

Features: 3-1/4" center height. Top ground parallel with bottom, back edge parallel with spindle nose. Spindle can be locked in any position without engaging index pin. The internal 5-C taper is hardened and ground. Can be used in vertical position with an angle plate. Supplied with a 24 hole index plate for 2, 3, 4, 6, 8, 12 and 24 divisions or 15° spacing.

Order No. 2065500

Price

**HORIZONTAL / VERTICAL 5-C COLLET INDEXING FIXTURE**
SERIES 352:**MEJA**
Superior Import**Specifications:**

Horizontal Base 4" x 8"
Vertical Base 4" x 6"
Vertical Height 8"
Swing 8"
Center Height 4"



For rapid indexing in both vertical and horizontal positions using 5-C collets. 2-1/4" - 8 threaded spindle nose for use with lathe chucks. Instant opening and closing of collets is accomplished by a lever having a leverage ratio of 100 to 1. Rapid rotation of spindle nose is accomplished through a ratchet device on the front of the spindle. Supplied with a 24 hole index plate for 2, 3, 4, 6, 8, 12 and 24 divisions or 15° spacing. Index plate is supplied with screws for masking holes not in use.

Order No. 2070000

Price

Screw fed tailstock available.

Order No. 2070001

Price

**Suburban****FEATURES:**

- "TWIN-DEX"™ Combination 5-C COLLET and V-BLOCK in one fixture
- Horizontal or Vertical V-Block mounting
- 72 position index plate for hard index every five degrees
- Two heavy duty 4" dia. tapered roller bearings in spindle
- Extra large 1-5/8" V-Block capacity
- Built in sine bar for setting angles between hard index locations
- Square and parallel within .0002"
- Spindle runout .00005"
- Sine Set ® compatible
- Fitted wooden case included

Accessories available: Motor Drive Kit, Baseplate and Tailstock; please inquire.

| Model No. | V-Block Capacity | Collet Capacity | Through Hole | Center Height | Height | Lgth | Width | Weight lbs. | Order No. | Price |
|-----------|------------------|-----------------|--------------|---------------|--------|------|-------|-------------|-----------|-------|
| MG5CVS1 | 1-5/8 | ALL 5-C | 1-1/4" | 3" | 6" | 4" | 5" | 22 | 6410046 | |

HORIZONTAL / VERTICAL "SUPER" INDEXING FIXTURES

SERIES 353:



These indexes combine the advantages of the other Series 353 indexes with those of a worm-gear index. They carry out single-purpose indexing and indirect indexing using the worm-drive mechanism as well as "simple" indexing.

- For milling, drilling, jig boring, and many common shop applications.
- 24 Position hardened and ground index plate (15° increments), satin chrome dial, 360° graduated ring and adjustable 10 second vernier.
- Fast and simple indexing of 2, 3, 4, 6, 8, 12 and 24 divisions.

| Specifications | Maximum Variation |
|-------------------------------------------------|-------------------|
| Parallelism of table surface to base per 12" | .0006" |
| True running of axial movement of table surface | .0006 |
| True running of center boss | .0004 |
| Squareness of base to angle face per 12" | .0008 |
| True running of chuck center | .0012 |
| Dividing accuracy individual spacing error | 0° 45' |

| Model No. | Size of Chuck | Description | Weight | Thru* Hole Dia. | Order No. | Price |
|-----------|---------------|--------------------------------------------------------------------------|----------|-----------------|-----------|-------|
| CS6 | 6" | Indexing Unit Complete with 3-Jaw chuck, 6 masking plates, & faceplate** | 106 lbs. | 1-23/32 | 2075106 | |
| CS8 | 8 | | 167 lbs. | 2-15/32 | 2075108 | |

* Chuck

** CS6 comes with 8" Faceplate, CS8 comes with 10" Faceplate

HORIZONTAL / VERTICAL INDEXING FIXTURES

SERIES 353:



- Designed for milling, drilling, jig boring, and many other shop applications.
- Hardened and ground 24 Position index plate (15° increments).
- 360° satin chrome graduated ring with 5 minute adjustable vernier plate insures accurate readings.
- Fast and simple indexing of 2, 3, 4, 6, 8, 12 and 24 divisions.

| Specifications | Maximum Variation |
|-------------------------------------------------|-------------------|
| Parallelism of table surface to base per 12" | .0006" |
| True running of axial movement of table surface | .0006 |
| True running of center boss | .0004 |
| Squareness of base to angle face per 12" | .0008 |
| True running of chuck center | .0012 |
| Dividing accuracy individual spacing error | 0° 45' |

| Model No. | Size of Chuck | Description | Wt. | Thru* Hole Dia. | Order No. | Price |
|-----------|---------------|-------------------------------------------------------------|----------|-----------------|-----------|-------|
| CC6 | 6" | Indexing Unit complete with 3-Jaw chuck & 6 masking plates. | 72 lbs. | 1-23/32 | 2075206 | |
| CC8 | 8 | | 110 lbs. | 2-15/32 | 2075208 | |

*Chuck

OPTIONAL ACCESSORIES FOR H/V INDEXING FIXTURES AND H/V ROTARY TABLES (Page 526)

SERIES 353, 350:



| Dividing Plates Model No. | For Use With | Order No. | Price |
|---------------------------|------------------------|-----------|-------|
| DP1 | HVRT6 | 3500001 | |
| DP2 | HVRT8 | 3500002 | |
| DP3 | HVRT10, HVRT12, HVRT14 | 3500003 | |
| DP4 | CS6, CS8 | 3500004 | |



| Tailstock Model No. | For Use With | Center Height (Low/High) | Order No. | Price |
|---------------------|-------------------------------------------|--------------------------|-----------|-------|
| TS1 | HVRT4, HVRT6 | 3.81 / 4.76" | 3530001 | |
| TS23 | CC6, CC8, CS6, CS8, HVRT8, HVRT10, HVRT12 | 5.23 / 8.26" | 3530003 | |
| TS4 | HVRT14, HVRT16 | 8.26 / 11.81" | 3530004 | |

SUPER SPACERS

SERIES 353:

HORIZONTAL - VERTICAL

H/V Super Spacers are designed for milling, drilling, jig boring and related machining operations. Fixtures are also used to index parts which are being inspected. High accuracy, versatility, a wide range of accessories and long life make this fixture invaluable in the work shop and indispensable in the tool room. They significantly increase productivity by reducing the time required to position the workpiece on the machine. Bison H/V Super Spacers are provided with different lathe chucks.

Type 5842 is furnished with 3-jaw, self-centering, precision lathe chuck with forged steel body, Type 3575.

a) **Angular indexing:** can be performed through the graduated ring from 0° to 360° in increments of 1°.

b) **Direct indexing:** is done by means of a special dividing mechanism. This permits divisions in **2, 3, 4, 6, 8, 12 & 24** without any disassembly operations.

c) **Special Indexing:** To obtain divisions not listed above, the manufacturer offers an additional blank dividing plate which can be machined according to user demand.

All Super Spacers are furnished with a special sleeve with MT & 5C sockets which allows use of additional accessories with MT & 5C shanks like 5C Collets, lathe chucks or face drivers.

Accuracy:

- Maximum total spacing error..... 0° 2'
- Squareness (base to chuck)0008" max.
- Parallelism over face0008" max.
- Chuck concentricity: 58420015" TIR
5846 and 58490009" TIR
- Center hole concentricity0008" TIR
- Mounting flange concentricity0008" TIR

| Chuck Dia. | Thru Hole Dia. d | Wt. lbs. | Type 5842 | |
|------------|------------------|----------|-----------|-------|
| | | | Order No. | Price |
| 6-1/4" | 1.653 | 72 | 7609006 | |
| 8" | 2.165 | 127 | 7609008 | |
| 12-1/2" | 4.055 | 317 | 7609012 | |

**Standard Accessories:**

2 mounting bolts with T-nuts, 2 hex wrenches, 1 chuck wrench, 2 eye bolts and 2 locating keys, sleeve with MT and 5C sockets.

**Optional Accessories:**

**76101
Tailstock**



**Super Spacer with
mounted faceplate**



**76105
Faceplate**

| For use with Chuck Dia. | Tailstocks | | Faceplates | |
|-------------------------|------------|-------|------------|-------|
| | Order No. | Price | Order No. | Price |
| 6-1/4" | 7610106 | | 7610506 | |
| 8" | 7610108 | | 7610508 | |
| 12-1/2" | 7610112 | | 7610512 | |

**MILLING AND DRILLING
(COMPOUND SLIDING) TABLES**
 SERIES 426:

MEIDA
Superior Import



Suitable for all kinds of precision machining operations. Easy to read dials are graduated in .001". Dovetail slides have adjustable steel gibs to compensate for wear. T-slots are 5/8" wide x 7/16" deep.

| Order No. | 2425077 | 2425612 |
|--------------------|------------------------------------------------------|-------------------------------------------------------------|
| Price | | |
| Size Height Travel | 7 x 7" (Rotatable 360°) 4-1/8" 4" on each axis | 5-1/2 x 12" 4-1/2" 8" Longitudinal / 5" Transverse |
| Base Size Mounting | 4-5/8" diameter 1-1/8" Long Base Bolt | 8 x 9" oval U Slots for up to 5/8" Bolts |

DIVIDING HEADS
 SERIES 425:

VERTEX



Precision made units for producing accurate indexing and dividing quickly and easily. Headstock swivels from 10° below horizontal to 90° vertical. 24 hole direct indexing plates for numbers 2, 3, 4, 6, 8, 12, and 24. 3 additional dividing plate for indexing all numbers from 2 to 50 and most numbers up to 380. 1 : 40 gear ratio. Hardened and ground spindles are threaded for use with chucks. **Model No. DH2 is a Universal Type Head and is supplied with a full set of gears enabling differential dividing and spiral work.** The following accessories are included with every Dividing Head : Headstock, Adjustable Tailstock, Centers, Dog, Threaded Backplate for mounting lathe chucks, 3 Dividing Plates.

| Model No. | Hgt. of Head | Hgt. of Ctr. | Head-stock Taper | Spindle Thread | Weight | Order No. | Price |
|-----------|--------------|--------------|------------------|----------------|----------|-----------|-------|
| DH0 | 6-7/8 | 4 | B&S 7 | 1-1/2-8 | 49 lbs. | 2420000 | |
| DH1 | 8-3/4 | 5-1/8 | B&S 9 | 1-1/2-8 | 80 lbs. | 2420001 | |
| DH2 | 9-3/8 | 5-1/4 | B&S 10 | 2-1/4-8 | 117 lbs. | 2420002 | |

HORIZONTAL/VERTICAL ROTARY TABLES

SERIES 350:

Suitable for use with dividing plates. Precision ground top plate and general careful construction ensure highest accuracy. Table graduated 360°. Worm gear reduction ratio is 1 : 90 and the gear can be quickly disengaged for rapid indexing. One turn of the handle moves the table through 4°. Micro collar is graduated in steps of 1 minute. Vernier scale makes settings down to 10 seconds possible.



| Model No. | Dia. | Center Hole | Weight | Order No. | Price |
|-----------|------|-------------|----------|-----------|-------|
| HVRT4 | 4 | MT1 | 20 lbs. | 2061004 | |
| HVRT6 | 6 | MT2 | 28 lbs. | 2061006 | |
| HVRT8 | 8 | MT3 | 69 lbs. | 2061008 | |
| HVRT10 | 10 | MT3 | 107 lbs. | 2061010 | |
| HVRT12 | 12 | MT4 | 170 lbs. | 2061012 | |
| HVRT14 | 14 | MT4 | 211 lbs. | 2061014 | |
| HVRT16 | 16 | MT4 | 297 lbs. | 2061016 | |

For optional tailstocks & dividing plates see page 528.

VERTICAL/HORIZONTAL ROTARY INDEXING TABLES

SERIES 444:



- 360° index rotation.
- Tables are for use in either the horizontal or vertical position.
- Table top and vertical and horizontal bases ground for overall squareness.
- Keyway and bolt lugs are provided on both mounting surfaces.
- Heavy handles permit smooth movement and do not extend below the base.
- Table top center bore is 1-5/8".
- Graduated dials with thumbscrews for easy "0" setting.



Model 1062

LIFETIME GUARANTEE

| Model | Table Dia. | Height at 0° | Base | Gear Ratio | Weight | Order No. | Price |
|-------|------------|--------------|------------|------------|---------|-----------|-------|
| 862 | 8" | 3-15/16" | 12"x9-1/2" | 40:1 | 44 lbs. | 32806 | |
| 1062 | 10" | 3-7/8" | 12"x9-1/2" | 40:1 | 52 lbs. | 34105 | |

PRECISION TILTING ROTARY TABLES

SERIES 350:



| Description | Order No. | Price |
|----------------------------|-----------|-------|
| 10" Tilting Rotary Table | 3500010 | |
| 12" Tilting Rotary Table | 3500012 | |
| Dividing Plates (10", 12") | 3500013 | |
| Adjustable Tailstock 10" | 3500110 | |
| Adjustable Tailstock 12" | 3500112 | |

| Specifications | Maximum Variation (inches/second) |
|---------------------------------------|-----------------------------------|
| Clamping surface flatness (concave) | .0006" |
| Cylindrical center bore concentricity | .0008" |
| Taper center bore concentricity | .0008" |
| Surface to base parallelism | .0008" |
| Surface to angle face parallelism | .0004" |
| Surface to center slot squareness | .0008" |

- Accuracy: 45 seconds
- 10 second vernier reading
- Gear ratio 90:1
- Extra deep coolant channel.
- Dual positive action locks
- Low table profile
- Satin chrome dials
- Gear drive immersed in oil
- Optional dividing plates and tailstock

| Table Outer Dia. | Table Height | Center Height | Base | Taper Hole | Weight | Order No. |
|------------------|--------------|---------------|---------|------------|--------|-----------|
| 9.81 | 8.07 | 5.51 | 10 x 12 | MT-3 | 172 | 3500010 |
| 12.6 | 10.04 | 6.89 | 13 x 15 | MT-4 | 293 | 3500012 |

CROSS SLIDE ROTARY TABLES

SERIES 444:

- Accurately index work on the X and Y axis as well as 360° of rotation.
- Slides have adjustable gibs to maintain accuracy.
- Tops ground to 0.001" total indicator reading.
- Heavy handles permit smooth movement and do not extend below the base.
- 83, 183, 1583 have 5/8" x 1" T-slots.
- 8" and 10" diameter tables have four 1/2" bolt lugs and 5/8" keyways.
- 15" tables have 5/8" bolt lugs and 11/16" keyways.
- Graduated dials with thumbscrews for easy "0" setting.



Model 83

TILTING CROSS SLIDE ROTARY TABLES

SERIES 444:

- Accurately index work on the X and Y axis as well as 360° of rotation.
- Tilt is from 0° to 90°; Angle is held by four screws in two sturdy side plates.
- Heavy handles permit smooth movement and do not extend below the base.
- T-slots are 5/8" x 1".
- Table tops are precision ground flat to within 0.001".
- Center bore is 1-5/8" diameter.
- Bolt lugs are 1/2" and base keyways are 5/8".
- Slides have adjustable gibs to maintain accuracy.
- Gear Ratio 40:1



Model 84

LIFETIME GUARANTEE

| Model | Table Dia. | Ht. | Table Trvl. (X x Y) | Base (L x W) | Gear Ratio | Net Wt. | Order No. | Price |
|-------|------------|--------|---------------------|---------------|------------|---------|-----------|-------|
| 83 | 8" | 5-1/2" | 4"x4" | 6-5/8"x7-5/8" | 40:1 | 40 lbs. | 32803 | |
| 183 | 10" | 5-5/8" | 4"x4" | 6-3/8"x7-5/8" | 40:1 | 52 lbs. | 34102 | |

| Model | Table Dia. | Height at 0° | Table Trvl. (X x Y) | Base (L x W) | Net Weight | Order No. | Price |
|-------|------------|--------------|---------------------|--------------|------------|-----------|-------|
| 84 | 8" | 5" | 4"x4" | 5"x9" | 45 lbs. | 32804 | |
| 184 | 10" | 5-3/4" | 4"x4" | 5"x9" | 54 lbs. | 34103 | |