



# Vinculo

INDUSTRIAL TOOLS SUPPLY

## PRECISION MEASURING TOOLS



## CUTTING & CARBIDE TOOLS



## MACHINE TOOL ACCESSORIES



## SHOP SUPPLIES



CAT. No. 30N

Effective 2022

# DIGITAL MACHINE SCALES

## ELECTRONIC MACHINE SCALES

- Can be installed on almost any surface, offering the user precise linear measurement capability.
- LCD readout with push button control for in/mm conversion
- Absolute zero setting
- Scale body is hardened stainless steel.
- Two mounting brackets are included
- Standard SR 44, 1.55V battery included.
- With fitted case.

Limited Supply!



**INCH/METRIC  
.0005" RESOLUTION**

Size	Horizontal Item#	Vertical Item#
12"/300mm	4100-4012	4100-4042

## STANDARD DIGITAL READOUT SCALES

- Compatible with our LCD Digital Display Units with Mini USB plugs. Not for use with a PC.
- Two mounting brackets are included.
- On/Off button.
- In/mm conversion.
- Absolute zero setting.
- Standard CR2032, 3V battery included.

**.0005"/.01MM RESOLUTION**



### HORIZONTAL

Item#	Size	Accuracy
3129-0216	6"/150mm	±0.0012"/0.03mm
3129-0218	8"/200mm	±0.0012"/0.03mm

Limited Supply!

### VERTICAL

Item#	Size	Accuracy
3129-0234	4"/100mm	±0.001"/0.02mm
3129-0236	6"/150mm	±0.0012"/0.03mm
3129-0240	12"/300mm	±0.0012"/0.03mm



## LCD DIGITAL DISPLAY UNITS

- Remote Digital Display Units for connection to our compatible digital scales with Mini USB Socket.
- Large, easy to read backlit LCD displays, millimetres and Inches.
- Any axis can be set to read Positive or Negative in either direction.
- Fitted with 1.9m long data cables with Mini USB Plug.
- Powered by 2x AAA batteries or 6V DC Power Supply (Both are included).
- Switched Backlight.
- Zero in any position.
- Hold function.
- Magnetic Back.

**Display Dimensions:**  
1 Axis: 104x62x20mm  
3 Axis: 130x85x20mm

Item#	Discription
3129-0201	1-Axis Display Unit-USB
3129-0203	3-Axis Display Unit-USB



Limited Supply!

## 2 IN 1 DRAWBAR HAMMER/WRENCH

- Hammer head made from brass
- 2 in 1 drawbar tools



**3129-0010**  
3/4" Hex Shape, OAL: 11.4"

**3129-0011**  
13mm Hex Shape, OAL: 7-3/4"

## QUICK INDEXING QUILL FEED HANDLE

- Speeds up all operations and allows to move the handle into any position.
- For mill with 1" diameter hub.
- Quick flick of wrist retracts index plate pin of quill.
- Spring loaded pin activates quill speed.



**1" DIA. HUB**

**3900-0201**

## QUILL STOP

- Increase productivity-reduce cost.
- For Bridgeport, any other mill with 1/2"-20 stop rod.
- Rapid depth setting on quill.
- Fast on-off clip action.
- Rigid clamping.



3900-0200  
Shown

**3900-0199**

**3900-0200**

## DISPLAY CONSOLE FOR GLASS SCALE ENCODERS

**INCH/METRIC  
.0002"/.005MM RESOLUTION**

**General Functions:**

- Inch/mm Conversion.
- Zero Reset.
- Preset Dimension.
- 1/2 Distance Mode to aid Centre Finding.
- Absolute and Incremental coordinate display modes.
- Recall Memorized Position.
- Mechanical Zero & Workpiece Zero.
- Shrink Function: Shrinkage allowance can be set to compensate for casting or moulding shrinkage.
- Pitch Circle Diameter (PCD) Function: The console will output X and Y coordinates for each hole.

Limited Supply!

**3-Axis Display  
3129-0253**

**Lathe Functions:**

- Tool Compensation and Tool Number.
- Diameter or Radius Reading.

**Display Console Specifications:**

- Resolution: .0002"/0.005mm (5 Microns).
- Display: 8 Digit LED.
- Response Speed: 60m/min.
- Error:  $\pm 1$  Count.
- Power: 110-250VAC 50-60Hz.
- Operating Temperature Range: 0-40°C.
- Supplied with mounting arm.
- **Connector: 7 pin DIN (screw locking)**

**Calculator Functions:**

- Math Functions: Add, Subtract, Multiply, Divide.
- Trig Functions: SIN, COS, TAN, SIN-1, COS-1, TAN-1, X2, v, p (pi).
- Axis position can be transferred to calculator as an operator.
- Result can be transferred back to an axis.



## OPTICAL LINEAR SCALES

- Grating Pitch: 0.001"/0.02mm
- Accuracy:  $\pm 0.0005$ "/0.01mm (200C1000mm)
- Reference Marks: 1 ref. mark every 2"/50mm
- Max Traversing Speed: 60m/minute
- Output Signal: TTL
- **Connector: 7 pin DIN (screw locking)**
- Operating Temperature: 0-45°C.



Limited Supply!

IP 53

**.0002"/.005MM RESOLUTION**

Item#	Size	(mm)	
		L1	L2
3129-0256	6"/150mm	264	281
3129-0262	12"/300mm	414	431
3129-0264	14"/350mm	464	481
3129-0270	16"/400mm	514	531
3129-0268	20"/500mm	614	631
3129-0274	30"/800mm	914	931
3129-0278	35"/900mm	1014	1031

## Pro-Series HEAVY DUTY 150 LBS. POWER TABLE FEEDS

- Complete with all hardware.
- 110V/ 60Hz/ 1 PH power supply.
- Adjustable table speeds.
- 150 lbs torque guaranteed.
- Rapid speed switch.

**HHP  
PRO-SERIES**

for Bridgeport® type mills

**Bridgeport BRAND  
REQUIRES MODIFICATION**



MADE IN  
TAIWAN

**X-Axis  
(Longitudinal Feed)  
3129-0150**

**Y-Axis  
(Cross Feed)  
3129-0156**

**Z-Axis  
(Knee Feed)  
3129-0157**

Replacement Plastic Gear (Item #3129-0001)

## QUICK QUILL FEED (Z-Axis) ADAPTER -Driven by Power Drill

- Works with 1/2" power drill speeds up quill (knee) operation function as a power feed
- Fits most mills with 5/8" diameter hub
- Heavy duty made, hardened steel
- Flats cut on shaft for stronger power drill grip



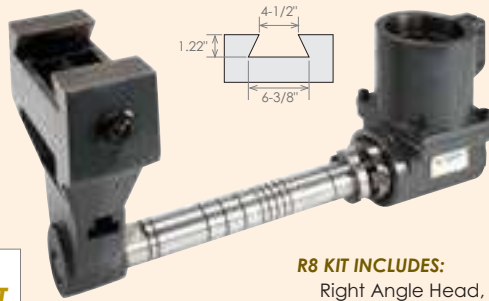
**3129-0015**



# MACHINE TOOL ACCESSORIES

## Pro-Series R8 RIGHT ANGLE ATTACHMENT KIT

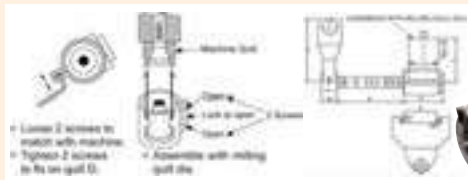
- Suitable for most mills
- Your vertical mill to a horizontal mill
- Designed to simplify right angle work by reducing the need for special tooling and complex fixtures
- For use on your R8 spindle with 3-3/8" overall diameter
- Max. speed: 2000 RPM



**MADE IN TAIWAN**

**R8 KIT WITH HORIZONTAL SUPPORT 3012-1018**

**R8 KIT INCLUDES:**  
Right Angle Head, R8 Stub Arbor & Drawbar Extension Socket



**R8 ANGLE HEAD KIT 3012-1008**

## MILLING MACHINE DRAW BARS

for **Bridgeport®** mills

**7/16"~20 THREADER**



**Double Life Model**

Item#	Description	OAL
3900-0205	For Step Pulley	21-1/8"
3900-0207	For Variable Speed	24-3/16"

## NEOPRENE MACHINERY LEVELING MOUNTS

- The simplicity of up 5/8" leveling with a single bolt per location while providing shock and vibration isolation solves many problems.
- Friction is developed by the neoprene element.
- Eliminating the need for bolting to the floor.
- Typical applications are punch presses, brakes, shears, lathers, milling machines and injection molding machines.

**Limited Supply!**

Item#	Capacity (Lbs.)	Steel Cap Dia.(mm)	Height (mm)	Leveling Bolt(mm)
3129-0300	880	50	23	M10x40
3129-0304	1100	80	24	M10x100
3129-0308	1320	100	26	M10x120
3129-0310	2200	120	32	M12x100
3129-0314	4400	160	37	M16x120



## SPINDLE SQUARE

**A SIMPLE SOLUTION T SQUARING YOUR MACHINE**

Just zero indicators on flat surface, install in milling machine spindle, bring the spindle down to the table and adjust the head until both indicators read the same. It's that simple!

- 1/2" shank.
- Fully assembled with indicators mounted and ready for use.
- Can also be used with a sine bar or protractor to set angle.
- No more tramming or split reading, compensating for loose worn gears or mirrors.
- Supplied with fitted case

**4401-0060**



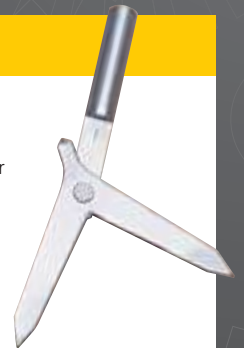
## DRILL PRESS CENTER FINDER

- Accurately and quickly locates center on round workpieces
- Satin chrome finish.
- Place tool in drill chuck or collet and line up pointer with line scribed on shaft.

**4406-0027**



**4401-0027**



## CENTER GAGES

- Graduated in 14ths and 20ths on one side and 24ths and 32nds on the other
- Micro-fine graduations
- Accuracy meets Federal Specifications.



**Whitworth or English Standard 55° 4901-0061**



**Standard 60° 4901-0060**



**HIP PRO-SERIES Standard 60° 4901-0059**



## EDGE FINDERS, CENTER FINDERS & SET



- Accurately locates the starting point for all types of machine work and jig boring
- Hardened and ground all over
- Accuracy .0002"

**4PC SET**  
**4401-0048**

4401-0029, 4401-0030, 4401-0032, 4401-0041

### INCH

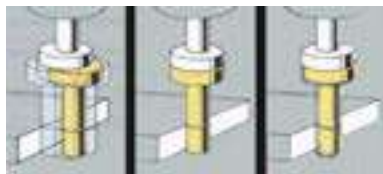
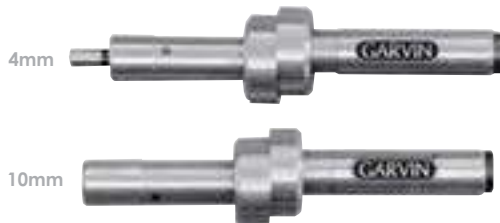
Item#	Style	End	Shank Dia	Tip Dia
4401-0029	Edge & Edge	Double	1/2"	.20/.50"
4401-0030	Edge	Single	3/8"	0.200"
4401-0031	Edge	Single	1/2"	0.200"
4401-0032	Edge	Single	1/2"	0.500"
4401-0040	Edge & Center	Double	3/8"	0.200"
4401-0041	Edge & Center	Double	1/2"	0.200"

### METRIC

Item#	Style	End	Shank Dia	Tip Dia
4406-0032	Edge & Center	Double	10mm	4mm
4406-0042	Edge	Single	12mm	4mm
4406-0044	Edge	Single	10mm	10mm

## Z TYPE EDGE FINDERS -Metric Shank

- The edge finder is a processing tool used to help accurate positioning. It can locate edges of work pieces with reference to the centerline of the spindle to which it is attached and also height offsets.



Item#	Shank Dia	Tip Dia
4406-0046	10mm	4mm
4406-0047	10mm	10mm

## WIGGLER OR CENTER FINDER SET

- The original snap-in ball and socket wiggler
- For accurately locating working points on drill press, milling and other machines

### SET INCLUDE:

- Snap-in holder, needle point, disc point & ball shaft



**5 PC SET**  
**4401-0045**

## ELECTRONIC EDGE FINDERS

- Will locate work surfaces quickly and easily at almost any angle.
- B40 "beeps" when stylus meets conductive metal surface. Great for blind and deep applications.
- All models have 5 LED lights -last for years without replacement.
- 12 V batteries included
- Repeatability +/- .0002"
- Precision ground on all surfaces



Item#	Style	Shank	Stylus Break-Away	Beep
4401-0034	B20	1/2"	.200"	No
4401-0035	B40	1/2"	.400"	Yes

## ELECTRONIC SHORT SHANK EDGE FINDER

- Quickly locates work edges
- Save time positioning
- One piece construction for strength and accuracy within 0.005mm/ 0.0002"
- Highly visible LED lights
- Precision ground on all surfaces



**4401-0038**

### SPECIFICATIONS

Ball diameter.....0.394"  
Shank diameter.....0.750"  
Overall length.....3.875"

REPLACEMENT BATTERY SR 44 (ITEM #4102-0030)

## Pro-Series ELECTRONIC EDGE FINDERS

- Will locate work surfaces quickly and easily at almost any angle.
- Red pilot will be lighted when the ball touch the working edge.
- High sensitive positional sensor.
- Supplied with wooden case.
- Battery: 2 x LR1, 1.5V.



MADE IN TAIWAN

\* Limited Supply

Item#	Shank	Ball Dia.	OAL
4401-0036	20mm	10mm	6.20"
4401-0037*	32mm	10mm	6.20"

## Pro-Series ELECTRONIC AUDIBLE EDGE FINDER

- Unit will sound at the same time when the red lamp lights up.
- Accuracy within +/- .005mm/ .0002"
- LED light
- Battery: 1 x UM #5 (12V)



MADE IN TAIWAN

Item#	Shank	Ball Dia.	OAL
4401-0047	3/4"	.394"	6.2"
4401-0049	20mm	.394"	6.2"

# R8 COLLETS & ACCESSORIES

## Pro-Series R8 ROUND COLLET SET

- Guaranteed T.I.R. : < 0.0005" .
- Made of high grade tool steel.
- Hardened and precision ground.
- Internally Threaded: 7/16" -20



**13 PC SET**  
**3900-0701**

1/8 ~ 7/8 by 16ths

## R8 ROUND COLLETS & SETS - Inch

- Made of high grade tool steel.
- Hardened.
- Precision ground to close tolerance.
- Internally threaded: 7/16" -20



**11 PC SET**  
**3900-0007**

1/8 ~ 3/4 by 16ths

**6 PC SET**  
**3900-0006**

1/8 ~ 3/4 by 8ths

**7 PC SET**  
**3900-0010**

1/8 ~ 3/4 by 8ths Plus 3/16

**23 PC SET**  
**3900-0009**

1/16 ~ 3/4 by 32nds

d	L(mm)	Run out
1/32-1/16	6.35	0.0007"
1/16-1/8	12.70	0.0007"
1/8-3/8	25.40	0.0007"
3/8-5/8	38.10	0.0007"
5/8-7/8	50.80	0.0007"



Item#	Size (Inch)	Item#	Size (Inch)
3900-0008	1/16	3900-0814	1/2
3900-0801	3/32	3900-0815	17/32
3900-0802	1/8	3900-0816	9/16
3900-0803	5/32	3900-0817	19/32
3900-0804	3/16	3900-0818	5/8
3900-0805	7/32	3900-0819	21/32
3900-0806	1/4	3900-0820	11/16
3900-0807	9/32	3900-0821	23/32
3900-0808	5/16	3900-0822	3/4
3900-0809	11/32	3900-0823	25/32
3900-0810	3/8	3900-0824	13/16
3900-0811	13/32	3900-0825	27/32
3900-0812	7/16	3900-0826	7/8
3900-0813	15/32	3900-0827	1

## 11PC R8 COLLET SET & 12PC R8 COLLET RACK COMBO

**NEW**

### 11 Piece R8 Collet Set - 1/8-3/4" x 16ths (3900-0007)

- Hardened and precision ground to close tolerance.
- Made of high grade tool steel.
- Run out is 0.0007".
- Internally threaded: 7/16"-20.

### R8 12 Piece Collet Rack (3900-0016)

- Open and close cover protects collets from debris.
- Mounting bolts are included.
- Easy side mount with two screws.



**4951-0008**

## 12PC R8 COLLET RACK



**HOLDS 12PC R8 COLLETS**



**3900-0016**

- Easy side mount with two screws.
- Open, close cover protects collets from debris.

COLLET NOT INCLUDED

## R8 ROUND COLLETS & SET - Metric

- Made of high grade tool steel.
- Hardened.
- Precision ground to close tolerance.
- Internally threaded: 7/16" -20



**10 PC SET**  
**3903-0006**

3, 4, 5, 6, 8, 10, 12, 14, 16, 20mm

Item#	Size (mm)	Item#	Size (mm)
3903-0102	2	3903-0122	12
3903-0104	3	3903-0124	13
3903-0106	4	3903-0126	14
3903-0108	5	3903-0128	15
3903-0110	6	3903-0130	16
3903-0112	7	3903-0132	17
3903-0114	8	3903-0134	18
3903-0116	9	3903-0136	19
3903-0118	10	3903-0138	20
3903-0120	11		

## R8 ROTATING COLLET HOLDER

- Easily mounts anywhere for quick accessibility.
- Hold 11 R8 collets.
- Made of durable ABS material.



3900-1608

## R8 COLLET & TOOL TRAY

- This convenient tray will cut down set up and tool changing time.
- Operator works more organized.
- Easy to install, drill and tap two holes in the base casting 1" below the degree ring.



3900-1601

## Pro-Series R8 END MILL HOLDERS

- Made of 20CrMnTi alloy steel
- Electrolysis nickel coating
- Thread of Drawbar End: R8- 7/16" -20
- Premium hardened & all ground body for extended tool life.



Limited Supply!

MAX. RPM: 8,000  
T.I.R. ≤ .0002"  
SUPERIOR FINISH

Item#	Size
3901-0100	1/8"
3901-0101	3/16"
3901-0102	1/4"
3901-0103	5/16"
3901-0105	7/16"

Item#	Size
3901-0106	1/2"
3901-0110	7/8"
3901-0113	1-1/4"
3901-0114	1-1/2"

## 48PC R8 COLLET RACK

- Baked enamel paint finish.
- Hangs on wall or machine, or sets on a shelf or work bench.



3900-1605

COLLETS NOT INCLUDED  
HOLDS 48PC R8 COLLETS

## R8 END MILL HOLDERS & SETS

- Hardened and ground.
- For Bridgeport type milling machines.
- For double and single end mill (single end mill only for sizes over 5/8" ).

DRAWBAR END THREAD: 7/16" -20



5 PC SET  
3900-1005

3/16, 3/8, 1/2, 5/8, 3/4"

8 PC SET  
3900-1008

3/16, 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1-1/4"

Item#	Size d
3900-0100	1/8"
3900-0101	3/16"
3900-0112	1/4"
3900-1211	5/16"
3900-0102	3/8"
3900-0121	7/16"
3900-0103	1/2"
3900-0104	5/8"
3900-0105	3/4"
3900-0106	7/8"
3900-0107	1"
3900-0108	1-1/4"
3900-0109	1-1/2"

## 3PC BORING TOOL COMBO SETS

**KIT INCLUDES:**  
BORING HEAD, SHANK,  
C6 CARBIDE TIPPED BORING  
BAR SET

- **BORING HEAD:** Bar holder moves freely and smoothly. Design assures superior rigidity for chatter-free boring and precise hole size accuracy. Hardened and ground adjusting screw designed for long lasting and trouble free use.



Item#	Head Size	Shank Taper	Shank To Head	Boring Bar	Tool Capacity
1001-0105	2"	3MT	7/8"~20	1/2"-9pc	Up to 1/2"
1001-0106	2"	R8	7/8"~20	1/2"-9pc	Up to 1/2"
1001-0107	3"	R8	1-1/2"~18	3/4"-12pc	Up to 3/4"

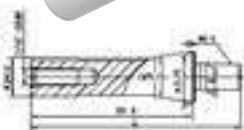
See page 245 for more heads & sets.

## R8 TO JACOBS DRILL CHUCK ARBORS

- Hardened and ground.

for Bridgeport® type mills

DRAWBAR END THREAD: 7/16" -20



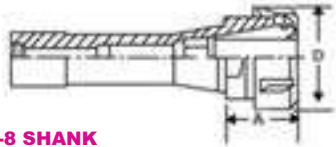
Item#	Arbor Taper to Chuck	D (mm)	L (mm)
3700-0131	R8 to JT33	15.85	132
3700-0135	R8 to JT2	14.199	128
3700-0138	R8 to JT3	20.599	137
3700-0139	R8 to JT4	28.55	148
3700-0140	R8 to JT6	17.17	132



# R8 SHANK ER COLLET CHUCKS & TOOLING

## R8 SHANK ER COLLET CHUCKS

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.
- **Thread of Drawbar End: 7/16" -20**



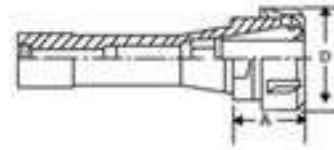
### R-8 SHANK

Item#	Type	Nut Style	(Inch) A	D
3900-5061	ER-16	Hex	1.50	1.10
3900-5066	ER-32	Spanner	1.57	1.97
3900-5069	ER-40	Spanner	2.76	2.48



## Pro-Series R8 Shank ER Collet Chucks

- Premium hardened & all ground body for extended tool life.
- **Thread of Drawbar End: R8- 7/16" -20**



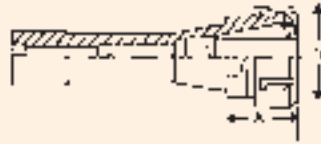
**T.I.R. ≤ .0002"  
SUPERIOR FINISH**

Item#	No.	Nut Style	(Inch) A	D
3901-5061	ER-16	Hex	1.50	1.10
3901-5063	ER-20	Hex	1.50	1.38
3901-5064	ER-25	Spanner	1.57	1.66
3901-5066	ER-32	Spanner	1.57	1.97
3901-5069	ER-40	Spanner	2.76	2.48



## R8 SHANK ER SPRING COLLET CHUCK SETS

- High precision collet chuck system suitable for all milling and drilling applications.
- Unique self-releasing system.
- Wide holding range.
- With fitted case.
- Accuracy to .0005".



### R-8 SHANK

ER-16	ER-32	ER-40
<ul style="list-style-type: none"> <li>• <b>11PC SET INCLUDES</b></li> <li>9-Collet</li> <li>1/16, 3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32 &amp; 3/8"</li> <li>1-Collet Chuck</li> <li>1-Wrench</li> <li>1-Wrench</li> </ul>	<ul style="list-style-type: none"> <li>• <b>8PC SET INCLUDES</b></li> <li>6-Collet</li> <li>1/4, 5/16, 3/8, 1/2, 5/8 &amp; 3/4"</li> <li>1-Collet Chuck</li> <li>1-Wrench</li> <li>• <b>14PC SET INCLUDES</b></li> <li>12-Collet</li> <li>1/16, 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 &amp; 13/16"</li> <li>1-Collet Chuck</li> <li>1-Wrench</li> </ul>	<ul style="list-style-type: none"> <li>• <b>10PC SET INCLUDES</b></li> <li>8-Collet</li> <li>1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8 &amp; 1"</li> <li>1-Collet Chuck</li> <li>1-Wrench</li> <li>• <b>17PC SET INCLUDES</b></li> <li>15-Collet</li> <li>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 &amp; 1"</li> <li>1-Collet Chuck</li> <li>1-Wrench</li> </ul>



Item#	No.	Nut Style	Collet Set	(Inch) A	D	Drawbar Thread
3900-0501	ER-16	Hex	11	1.50	1.10	7/16-20
3900-0507	ER-32	Spanner	8	1.57	1.97	7/16-20
3900-0508	ER-32	Spanner	14	1.57	1.97	7/16-20
3900-0004	ER-40	Spanner	10	2.76	2.48	7/16-20
3900-0005	ER-40	Spanner	17	2.76	2.48	7/16-20

## R8 INTEGRAL SHANK PRECISION KEYLESS DRILL CHUCKS

- Integrated design maximizes rigidity & accuracy.
- Integral R8 shank is more compact than a combined drill chuck and arbor and eliminates the chuck slipping on its arbor.
- Keyless, self tightening design.

### R-8 SHANK



**T.I.R. ≤ .0025"**

Item#	Clamping Capacity	Brand	Origin	T.I.R.
3701-1501	0~1/2"	HHIP	China	.0025"
3701-1626	1/64~5/8"	HHIP	China	.0025"



**Max. T.I.R. ≤ .002"**



Item#	Clamping Capacity	Brand	Origin	T.I.R.
3701-1500	0~1/2"	VERTEX	Taiwan	.0020"
3701-1625	1/8~5/8"	VERTEX	Taiwan	.0020"

\* Tightening Wrench Included.

## R8 SHELL END MILL HOLDERS

- Hardened and ground.
- DRAWBAR END THREAD: 7/16" -20**

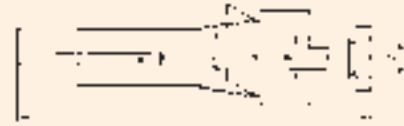
for **Bridgeport®** type mills



**5 PC SET**  
**3900-1710**

1/2, 3/4, 1, 1-1/4, 1-1/2"

Shell end mill holder screws shown on pages 222.

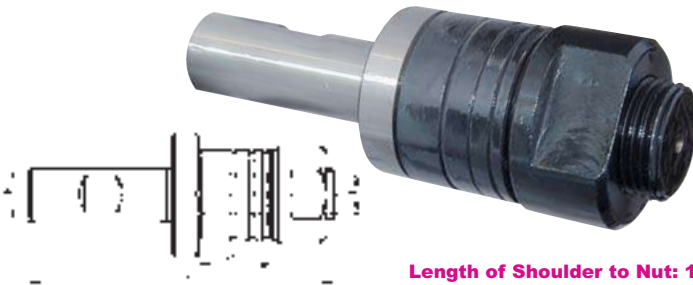


### INDIVIDUALS

Item#	d	W (mm)	L (mm)	Dia. Range of Std. End Mill
3900-1711	1/2"	6.35	150	1-1/4 to 1-1/2"
3900-1712	3/4"	7.94	154	1-1/4 to 2-1/2"
3900-1713	1"	9.53	155	2-1/4 to 2-3/4"
3900-1714	1-1/4"	12.70	156	3 to 3-1/2"
3900-1715	1-1/2"	15.88	163	4 to 5"

## STRAIGHT SHANK STUB MILLING MACHINE ARBORS

- Fit into standard end mill adapters
- Furnished with standard keyways and left hand arbor nut



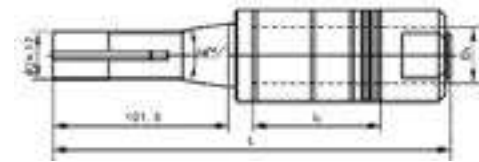
Length of Shoulder to Nut: 1"

Item#	Shank d1 (Inch)	Dia. of Arbor d (Inch)	L (Inch)
3900-0156	1/2	1/2	4.0
3900-0157	1/2	5/8	4.0
3900-0158	1/2	3/4	4.2
3900-0159	3/4	1/2	4.3
3900-0161	3/4	3/4	4.4
3900-0162	3/4	7/8	4.4
3900-0163	3/4	1	4.7
3900-0164	3/4	1-1/4	4.7
3900-0115	1	3/4	4.7
3900-0116	1	1	5.6

## STUB MILLING MACHINE ARBORS

for **Bridgeport®** type milling machines

- Hardened and precision ground.



Item#	Shank	Dia. of Arbor	Length Shoulder to Nut
3900-0110	R8	1"	2"
3900-0111	R8	1-1/4"	2"

## SLOTING SAW ARBORS

- For saw blades upto 3/16" thick



3900-0144 Shown

3900-0145 Shown

Item#	Shank	OAL	For Saw Hole Size
3900-0144	R8	5-3/32"	1/2, 5/8, 3/4, 7/8 & 1"
3900-0145	1/2"	2-9/16"	1/2, 5/8, 3/4, 7/8 & 1"

## CIRCULAR SAW ARBORS

- 1/2" SHANK
- Up to 3/16" thickness
- Steel, heat treated shank



**3 PC SET**  
**3900-0150**

1/4, 3/8, 1/2" Hole Sized

### INDIVIDUALS

Item#	OD Flange	For Saw Hole Size
3900-0147	1/2"	1/4"
3900-0148	5/8"	3/8"
3900-0149	3/4"	1/2"

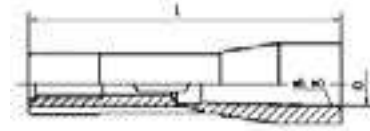
# MORSE TAPER TOOLING

## R8 TO MORSE TAPER SLEEVES

- Made of high grade tool steel.
- Hardened and precision ground.



Thread of Drawbar End:  
R8- 7/16" -20



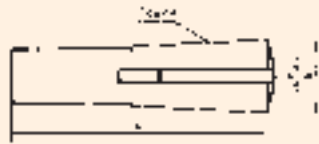
Item#	Description	D (mm)	L (mm)
3900-1812	R8 to MT2	17.78	127
3900-1813	R8 to MT3	23.825	153
3900-1814	R8 to MT4	31.267	240

## MORSE TAPER COLLETS & SETS

- Morse taper: external.
- Made of high grade tool steel.
- Hardened and precision ground to close tolerance.



Drawbar End Threads:  
MT2: 3/8" ~ 16  
MT3: 3/8" ~ 16



**MT3, 7PC SET**  
**3900-0893**

1/8-3/4" x 8THS & 3/16"

**MT2, 7PC SET**  
**3900-0850**

1/8-1/2" x 16THS

### MT3 SHANK

Item#	Hole Dia.	D (mm)	L
3900-0855	1/8"	24.1	86
3900-0859	3/16"	24.1	86
3900-0863	1/4"	24.1	86
3900-0865	5/16"	24.1	86
3900-0867	3/8"	24.1	86
3900-0875	7/16"	24.1	86
3900-0883	1/2"	24.1	86
3900-0887	5/8"	24.1	86
3900-0889	11/16"	24.1	86
3900-0891	3/4"	24.1	86

### MT2 SHANK

Item#	Hole Dia.	D (mm)	L
3900-0837	1/8"	18	68
3900-0839	3/16"	18	68
3900-0841	1/4"	18	68
3900-0843	5/16"	18	68
3900-0845	3/8"	18	68
3900-0847	7/16"	18	68
3900-0849	1/2"	18	68

## MORSE TAPER (MT) SLEEVES

- Used to convert spindles to larger or smaller tapers and extend the spindles of drill presses, radial drills, boring mills and turret lathes.



### INDIVIDUALS

Item#	Inside Taper	Outside Taper
3900-1843	MT1	MT2
3900-1841	MT1	MT3
3900-1842	MT2	MT3
3900-1844	MT2	MT4
3900-1848	MT3	MT4
3900-1849	MT3	MT5
3900-1853	MT4	MT5
3900-1856	MT5	MT6

**4 PC SET**  
**3900-1850**

MT1-MT2, MT2-MT3, MT3-MT4, MT4-MT5

## MORSE TAPER DRILL CHUCK ARBORS



**HARDENED & GROUND**

### MT TO JT

Item#	Arbor Taper to Chuck	Item#	Arbor Taper to Chuck
3700-0111	MT1 to JT0	3700-0155	MT3 to JT3
3700-0112	MT1 to JT1	3700-0159	MT3 to JT4
3700-0113	MT1 to JT33	3700-0156	MT3 to JT6
3700-0115	MT2 to JT1	3700-0160	MT4 to JT3
3700-0151	MT2 to JT2	3700-0161	MT4 to JT4
3700-0149	MT2 to JT3	3700-0157	MT4 to JT33
3700-0117	MT2 to JT4	3700-0120	MT4 to JT5
3700-0150	MT2 to JT6	3700-0158	MT4 to JT6
3700-0152	MT2 to JT33	3700-0123	MT5 to JT3
3700-0153	MT3 to JT33	3700-0124	MT5 to JT4
3700-0154	MT3 to JT2		

## Pro-Series DAYTON STYLE HAND DRIFT TOOL

- Forged and hardened, high rigid tools.
- Used to remove taper shank tools from machinery spindles, sleeves, and extension sockets.
- Morse Taper Drift Range: MT2 ~ MT5

**15" LONG**



**Range MT2-MT5**  
**3900-0267**

**MADE IN TAIWAN**

## MORSE TAPER EXTENSION SOCKETS

- For adapting tools with morse taper shanks to machines having smaller, same or larger morse taper spindle.



Item#	Inside Taper	Outside Taper
3900-1845	MT3	MT2
3900-1852	MT4	MT3
3900-1872	MT5	MT4



## MORSE TAPER END MILL HOLDERS

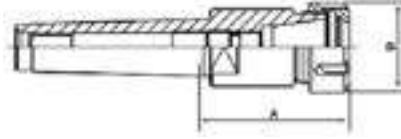
- For single end mills.
- **Drawbar End Thread**  
MT2- 3/8" - 16  
MT3- 3/8" - 16  
MT4- 1/2" - 13



Item#	Shank Taper	Hole Dia.	Item#	Shank Taper	Hole Dia.
3900-1217	MT2	3/16"	3900-0130	MT3	5/8"
3900-1212	MT2	1/4"	3900-0131	MT3	3/4"
3900-1215	MT2	3/8"	3900-0132	MT3	7/8"
3900-1214	MT2	1/2"	3900-0133	MT3	1"
3900-0127	MT3	3/16"	3900-0140	MT4	1"
3900-0128	MT3	3/8"	3900-0141	MT4	1-1/4"
3900-0129	MT3	1/2"	3900-0142	MT4	1-1/2"

## MT SHANK ER COLLET CHUCKS

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.



Item#	Shank	Type	Nut Style	Drawbar End	A (mm)	D (mm)
3900-5072	MT2	ER-20	Hex	3/8"~16	43	34
3900-5073	MT2	ER-25	Spanner	3/8"~16	47	42
3900-5077	MT3	ER-32	Spanner	3/8"~16	70	50
3900-5078	MT3	ER-40	Spanner	3/8"~16	80	63
3900-5079	MT4	ER-40	Spanner	5/8"~11	82	63



## MORSE TAPER ER SPRING COLLET CHUCK SETS

- High precision collet chuck system suitable for all milling and drilling applications.
- Unique self-releasing system.
- Wide holding range.
- With fitted case.
- Accuracy to .0005".

ER-25	ER-32	ER-40
<b>12PC SET INCLUDES</b> 10-Collet 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16 & 5/8" 1-Collet Chuck 1-Wrench	<b>14PC SET INCLUDES</b> 12-Collet 1/16, 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 & 13/16" 1-Collet Chuck 1-Wrench	<b>17PC SET INCLUDES</b> 15-Collet 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" 1-Collet Chuck 1-Wrench

Item#	No.	Chuck Shank	Nut Style	Set
3900-0502	ER-25	MT2	Spanner	12
3900-0503	ER-32	MT3	Spanner	14
3900-0531	ER-40	MT3	Spanner	17
3900-0504	ER-40	MT4	Spanner	17

- **Drawbar End Thread**  
MT2- 3/8"~16  
MT3- 3/8"~16  
MT4- 1/2"~13



## Pro-Series ER MORSE TAPER COLLET CHUCKS & SETS

- Made of high grade tool steel Morse Tapper shank high precision collet chuck system.
- Hardened & ground body for extended tool life.
- With fitted case.
- Chuck T.I.R. to .0002".



3900-4050 Shown

3900-4052 Shown



Limited Supply!

3900-4050	3900-4052
<b>12PC SET INCLUDES</b> 10-ER-25 Collet 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16 & 5/8" 1-MT2 Collet Chuck 1-Spanner Wrench	<b>14PC SET INCLUDES</b> 12-ER-32 Collet 1/16, 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 & 13/16" 1-MT3 Collet Chuck 1-Spanner Wrench

3900-4054	3900-4056
<b>17PC SET INCLUDES</b> 15-ER-40 Collet 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" 1-MT3 Collet Chuck 1-Spanner Wrench	<b>17PC SET INCLUDES</b> 15-ER-40 Collet 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" 1-MT4 Collet Chuck 1-Spanner Wrench

Item#	Type	Chuck Shank	No. of Pieces	Nut Style	Nut Dia. D	Gage Length A	Drawbar End
3900-4050	ER-25	MT2	12	Spanner	1.7"	2.50"	3/8"-16
3900-4052	ER-32	MT3	14	Spanner	2.0"	2.75"	3/8"-16
3900-4054	ER-40	MT3	17	Spanner	2.5"	3.20"	3/8"-16
3900-4056	ER-40	MT4	17	Spanner	2.5"	3.20"	5/8"-11

# MORSE TAPER TOOLING

## FLY CUTTERS-Morse Taper Shank

- A fly cutter usually has two cutting heads and it is able to cut with a constant depth to face any surface to obtain a uniform surface.
- Utilizes standard tool bits.
- Counter balanced.
- Made of durable hardened steel.



Item#	Shank	Diameter of Head (in)	Fit Tool Bit (in)	Drawbar Thread
4006-0022	MT2	1.5	3/16	3/8~16
4006-0023	MT3	1.5	1/4	1/2~13

Tool bits shown on page 120

## MORSE TAPER TAILSTOCK DIE HOLDER SETS

- The set includes tapered Shank, Pin Punch & 4 sizes of Die Holders.
- Completely interchangeable to fit tapered shank with the help of a pin which allows about 1-1/2" travel.
- Easy knock out pin with a pin punch.
- Tang end.



Item#	Taper	Die Holder Size
3906-4910	MT 2	13/16, 1, 1-5/16 & 1-1/2"
3906-4911	MT 3	13/16, 1, 1-5/16 & 1-1/2"

## MT TO JT REVOLVING TAILSTOCK ARBORS/ADAPTERS

- Use to support small diameter work where a live center is not practical.
- This is a "live" adapter with smooth, sealed bearings for the tailstock.
- Use it to mate with any Jacob Taper (JT) drill chuck.
- The shank is Morse taper (MT).



\* Drill Chuck Not Included

Item#	Taper	Drawbar Thread
3906-4922	MT 2 x JT2	M10
3906-4925	MT2 x JT3	M10
3901-4910	MT2 x JT33	M10
3906-4928	MT3 x JT2	M12
3906-4932	MT3 x JT3	M12

## INTEGRAL SHANK PRECISION KEYLESS DRILL CHUCKS

- Integrated design maximizes rigidity & accuracy.
- Integral shank is more compact than a combined drill chuck and arbor and eliminates the chuck slipping on its arbor.
- Keyless, self tightening design.

Item#	Brand	Morse Taper	Clamping Capacity	T.I.R.	Origin
3701-2490	HHIP	2	1/64~5/16"	.0025"	CHINA
3701-2499	HHIP	3	1/64~1/2"	.0025"	CHINA
3701-2502	HHIP	4	1/64~1/2"	.0025"	CHINA
3701-2624	HHIP	3	1/64~5/8"	.0025"	CHINA
3701-2627	HHIP	4	1/64~5/8"	.0025"	CHINA



HHIP PRO-SERIES

T.I.R. ≤ .0025"



VERTEX  
T.I.R. ≤ .0020"

Item#	Brand	Morse Taper	Clamping Capacity	T.I.R.	Origin
3701-2500	VERTEX	3	0~1/2"	.0020"	Taiwan
3701-2501	VERTEX	4	0~1/2"	.0020"	Taiwan
3701-2625	VERTEX	3	1/8~5/8"	.0020"	Taiwan
3701-2626	VERTEX	4	1/8~5/8"	.0020"	Taiwan

\* Vertex Hook Tightening Wrench Included

## SCHAUBLIN STYLE LATHE COLLETS

- Made of high quality tool steel
- Hardened and precision ground to highest concentricity.
- These collets are closed by being drawn back into the collet seating by means of a draw bar.
- The W10 collets differ from the other pull-type collets because of their external thread, which has a nominal diameter almost identical to the collet shank diameter.
- The collets only open a minimal amount.



- The pull-type collets generally only clamp the nominal diameter.
- To obtain optimal concentricity, it is recommended not to clamp less than 0.1 mm below the nominal diameter.



### W10 STYLE

Item#	Size D
3900-4965	3/32"
3900-4966	7/64"
3900-4967	1/8"
3900-4968	9/64"
3900-4969	5/32"
3900-4970	11/64"

Item#	Size D
3900-4971	3/16"
3900-4972	13/64"
3900-4973	7/32"
3900-4974	15/64"
3900-4975	1/4"

### DIMENSIONS

Style	Type	D	d	Thread M	α	L
W10	Inch	14mm	9mm	M8.74X0.833	15°	50mm
W20	Inch	1.036"	.7874	M19.7x1.666	15°	2.874"
W20	Metric	26.3mm	20mm	M19.7x1.666	15°	73mm

### W20 STYLE

Item#	Size
3903-0804	4mm
3903-0805	5mm
3903-0806	5.5mm
3903-0808	6mm
3903-0809	6.5mm
3903-0812	7mm
3903-0815	8mm
3903-0816	10mm
3903-0818	12mm
3903-0822	14mm

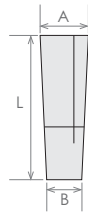
Item#	Size
3903-0904	1/8"
3903-0906	3/16"
3903-0908	1/4"
3903-0910	5/16"
3903-0912	3/8"
3903-0914	7/16"
3903-0916	1/2"
3903-0918	9/16"

## Brown & Sharpe TAPER ROUND COLLETS

- Made of high grade tool steel.
- Precision ground and hardened.

### DIMENSIONS

Taper	A	B	L	Drawbar End
#7	0.725"	0.600"	3.00"	3/8"~16
#9	1.067"	0.900"	4.00"	1/2"~13



≤ .0008" TIR

### #7 TAPER COLLETS

Item#	Size
3900-0970	1/8"
3900-0972	3/16"
3900-0973	1/4"
3900-0974	5/16"
3900-0975	3/8"
3900-0976	7/16"
3900-0977	1/2"

**#7, 7 PC SET**  
**3900-0979**

1/8 ~ 1/2 by 16ths

**#9, 11 PC SET**  
**3900-0985**

1/8 ~ 3/4 by 16ths

### #9 TAPER COLLETS

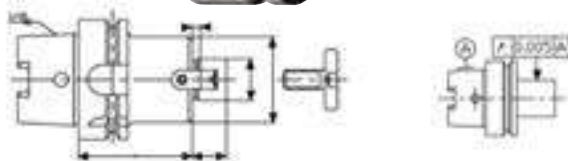
Item#	Size
3900-0989	1/8"
3900-0990	3/16"
3900-0991	1/4"
3900-0992	5/16"
3900-0993	3/8"
3900-0994	7/16"
3900-0995	1/2"
3900-0996	9/16"
3900-0997	5/8"
3900-0998	11/16"
3900-0999	3/4"

## Pro-Series HSK FACE MILL HOLDERS

- Blanced to G2.5, 25,000 RPM.
- Made from high grade alloy steel.

Limited Supply!

MADE IN TAIWAN



Item#	Taper	Bore Dia.	Projection Gage Line to Nose End
3901-6040	HSK63A	1"	60mm
3901-6044	HSK63A	1-1/4"	60mm
3901-6048	HSK63A	1-1/2"	60mm

## Pro-Series HSK ER COLLET CHUCKS

- Blanced to G2.5, 25,000 RPM.
- Made from high grade alloy steel.

MADE IN TAIWAN



Limited Supply!

Item#	Taper	Collet Series	Projection Gage Line to Nose End	OAL
3901-6010	HSK63A	ER-32	80mm	112mm
3901-6030	HSK100A	ER-32	100mm	150mm



# NMTB TOOLING

## NMTB 30 & 40 TAPER TO JACOBS ARBORS

- Hardened and precision ground.

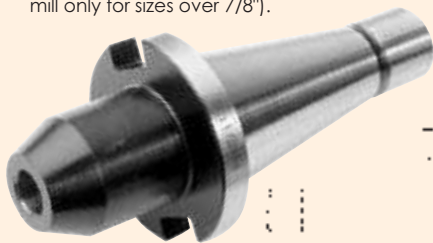
Jacob Taper	Taper 30 Item#	Taper 40 Item#
JT2	3900-1762	3900-1772
JT3	3900-1763	3900-1773
JT33	3900-1764	3900-1774
JT6	3900-1766	3900-1776

Drawbar End:  
#30- 1/2" -13  
#40- 5/8" -11



## NMTB 30 & 40 TAPER END MILL HOLDERS

- For milling machines having 30-40 standard taper spindles.
- Hardened and precision ground.
- Accepts single and double end mills. (single end mill only for sizes over 7/8").



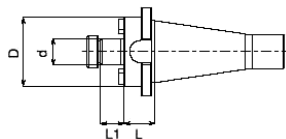
Drawbar End:  
#30- 1/2" -13  
#40- 5/8" -11

Bore A	Taper 30 Item#	B	C	Taper 40 Item#	B	C
3/16	3900-1690	1.75"	0.75"	3900-1700	2.31"	0.75"
1/4	3900-1683	1.75"	0.79"	3900-1718	2.31"	0.79"
5/16	3900-1691	1.75"	0.87"	3900-1701	2.31"	0.87"
3/8	3900-1692	1.75"	1.00"	3900-1702	2-5/16	1
1/2	3900-1693	1.75"	1.38"	3900-1703	2-5/16	1-3/8
5/8	3900-1694	1.75"	1.43"	3900-1704	2-5/16	1-5/8
3/4	3900-1695	2.25"	1.89"	3900-1705	2-5/16	1-7/8
7/8	3900-1696	2.50"	2.01"	3900-1706	3.19"	1.93"
1	3900-1697	2.69"	2.36"	3900-1707	2-11/16	2
1-1/4	3900-1698	3.62"	2.48"	3900-1708	2-29/32	2-3/8
1-1/2				3900-1709	3.95"	2.99"
2				3900-2711	3.95"	4.95"

## NMTB 30 & 40 TAPER SHELL END MILL HOLDERS

- For shell end mills and indexable face mills.
- Heat treated and precision ground.
- Perfectly concentric to prevent runoff of your cutting tools.

Drawbar End: #30- 1/2" -13  
#40- 5/8" -11

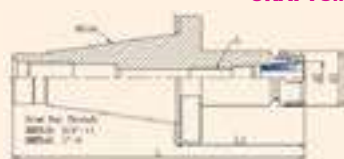


Bore d	Taper 30 Item#	L	(Inch) D	L1	Taper 40 Item#	L	(Inch) D	L1
3/4"	3900-0742	1.31	1.93	0.67	3900-1742	0.87	1.93	0.67
1"	3900-0743	1.31	2.38	0.67	3900-1743	1.31	2.38	0.67
1-1/4"	3900-0744	1.44	2.88	0.67	3900-1744	1.50	2.88	0.67
1-1/2"	3900-0745	2.00"	3.00"	0.94	3900-1745	2.00"	3.00"	0.94"
2"	3900-0746	2.50"	3.86	0.94	3900-1746	2.50"	3.86"	0.94"

## Pro-Series NMTB 30 & 40 SHANK ER COLLET CHUCKS

- Tolerance: .0003" Max.

SUPERIOR FINISH & CRAFTSMANSHIP



Item#	Shank	Type	Nut Style	L	(mm) L1	d1	Drawbar End
3901-5083	#30	ER-32	Spanner	128.4	60	50	1/2"~13
3901-5084	#30	ER-40	Spanner	138.4	70	63	1/2"~13
3901-5088	#40	ER-16	Hex	138.4	45	28	5/8"~11
3901-5090	#40	ER-32	Spanner	153.4	60	50	5/8"~11
3901-5091	#40	ER-40	Spanner	163.4	70	63	5/8"~11

## NMTB 30 & 40 SHANK ER COLLET CHUCKS

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.



Item#	Shank	Type	Nut Style	Drawbar End
3900-5083	#30	ER-32	Spanner	1/2"~13
3900-5084	#30	ER-40	Spanner	1/2"~13
3900-5088	#40	ER-16	Hex	5/8"~11
3900-5090	#40	ER-32	Spanner	5/8"~11
3900-5091	#40	ER-40	Spanner	5/8"~11

## NMTB 30 & 40 TAPER ER COLLET CHUCK SETS

- High precision collet chuck system suitable for all milling and drilling applications.
- Unique self-releasing system.
- Wide holding range.

- With fitted case.
- Accuracy to .0005".

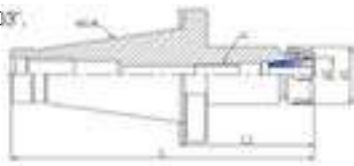
ER-32	ER-40
<b>• 14PC SET INCLUDES</b> 12-Collet 1/16, 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 & 13/16" 1-Collet Chuck 1-Wrench	<b>• 10PC SET INCLUDES</b> 8-Collet 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8 & 1" 1-Collet Chuck 1-Wrench



Item#	Chuck Shank	No.	Nut Style	Gage Length	Collet Set
3900-5300	#30	ER-32	Spanner	2.36"	14
3900-0505	#40	ER-32	Spanner	2.75"	14
3900-5301	#30	ER-40	Spanner	2.75"	17
3900-0538	#40	ER-40	Spanner	2.36"	10
3900-0540	#40	ER-40	Spanner	2.36"	17

## Pro-Series NMTB 30 TAPER ER COLLET CHUCK SETS

- Made of high grade tool steel NMTB shank high precision collet chuck system.
- Hardened & ground body for extended tool life.
- With fitted case.
- Chuck T.I.R. to .0003".



3900-4060	3900-4062
<b>• 14PC SET INCLUDES</b> 12-ER-32 Collet 1/16, 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 & 13/16" 1-#30 Collet Chuck 1-Spanner Wrench	<b>• 17PC SET INCLUDES</b> 15-ER-40 Collet 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" 1-#30 Collet Chuck 1-Spanner Wrench

Item#	Collet	NMTB Chuck Shank	Collet Set	Nut Style	Nut Dia. d1	Gage Length L1	L	Drawbar End
3900-4060	ER-32	#30	14	Spanner	2.0"	2.36"	2.36"	1/2"-13
3900-4062	ER-40	#30	17	Spanner	2.5"	2.75"	2.75"	1/2"-13

## NMTB TAPER INTEGRAL PRECISION KEYLESS DRILL CHUCKS

- Integrated design maximizes rigidity & accuracy.
- Integral shank is more compact than a combined drill chuck and arbor and eliminates the chuck slipping on its arbor.
- Keyless, self tightening design.

Item#	Brand	Clamping Capacity	Shank	T.I.R.
3701-3001	HHIP	0~1/2"	#30	.0022"
3701-3011	HHIP	0~1/2"	#40	.0022"
3701-3015	HHIP	0~5/8"	#40	.0022"



**HHIP PRO-SERIES**

**T.I.R. < .0022"**



**VERTEX**  
Max. T.I.R. < .002"

Item#	Brand	Clamping Capacity	Shank	T.I.R.
3701-3500	VERTEX	0~1/2"	#40	.0020"
3701-3625	VERTEX	1/8~5/8"	#40	.0020"

\* Vertex Tightening Wrench Included

# Z-AXIS SETTERS

## PRECISION DIAL Z-AXIS SETTERS

- Efficient to set "0" point with built in dial indicator.
- Positioning accuracy and repeatability: 0.0004".
- Height: 2" or 4" (with mag base)
- Setter Dimension: 1.45" (square) x 2" (height).



4401-0050



With Mag Base  
4401-0051

## Pro-Series DIAL Z-AXIS SETTER

- Efficient to set "0" point with built in dial indicator.
- Positioning accuracy and repeatability: 0.0002".
- With magnetic base.
- Dimension: 2" (square) x 4" (height).



4401-0062

## Pro-Series Z-Axis HEIGHT PRE-SETTER

- Base with magnet
- 50mm height
- Reading 0-50-0
- Accuracy: 0.01mm
- Weight: 2.6 lbs.
- Checking bar & case included.

MADE IN TAIWAN



4401-0054

## Pro-Series DIAL Z-AXIS SETTERS

- Efficient to set "0" point with built in dial indicator.
- Positioning accuracy and repeatability: 0.0005".
- Dimension: 2" (square) x 2" (height).
- With fitted wooden case.



With Magnet  
4401-0064



Without Magnet  
4401-0063

## Pro-Series OPTICAL HEIGHT PRE-SETTER

- Magnetic base
- 50mm height
- Red lamp illuminates when touched by ferrous material

MADE IN TAIWAN



4401-0052

## VERTEX BT TOOL HOLDER TIGHTENING FIXTURE STANDS

- Lightweight and compact design.
- Quick tool holder setting and locking.
- Securely hold BT tooling for pull stud installation and tool/collet change.

MADE IN TAIWAN



Item#	Shank Taper	D	d	3 Hole P.C.D.	H	(mm)						Wt. Lbs.
						A	B	C	D	E	F	
3900-4091	BT30	90	50	70	14(Dia.)x9x9(Dia.)	108	20	48	30	10	16	2.7
3900-4092	BT40	105	65	85	14(Dia.)x9x9(dia.)	130	20	50	50	10	16	4.9

## HORIZONTAL/VERTICAL CNC TOOL HOLDER TIGHTENING FIXTURES

- 2 positions
- For mounting on worktable or cart.
- Quick and easy way to set tool holders horizontal or vertical



Item#	Tool Shank
3900-4080	BT30
3900-4081	BT40
3900-4083*	CAT30
3900-4084	CAT40
3900-4085	CAT50

\*Limited Supply



## Dasqua® WATERPROOF DIGITAL IP65 Z-AXIS SETTERS



### 0.001MM RESOLUTION

- Accuracy (tolerance range):  $\pm 0.002\text{mm}/0.0001''$ , Repeatability:  $0.003\text{mm}/0.0001''$
- 3V Lithium battery CR2032



- **Used to help tool setting**  
Can be used in IP65 working environment (with inductive measurement against splash water) and will not damage the tool edge

- **Resolution reaches 0.001mm**  
Higher than other zero setting devices

- **Lighting indicating at "0"**  
More obvious and accurate compared to mechanic zero setting device

- **With magnetic base**

Fixed on machine steadily and shorten tool setting time and improve work efficiency greatly

- **Provided in fitted aluminum case**

Item#	Height	Resolution
1801-1005	50mm	0.001mm/0.00005"
1801-1010	100mm	0.001mm/0.00005"

## Dasqua® 1-2-3 BLOCKS

- Supplied with durable fitted ABS case.
- Product Dimensions: 1" x 2" x 3".
- Heat treated and case hardened to HRC 58-62.
- Hardened and precision ground on all 6 sides of each block.
- 23 holes consists of 5 tapped holes that are 3/8-16 for clamping and 18 untapped holes
- Sold in pairs.
- Tolerance of size  $\pm 0.0002''$ , Parallelism 0.0002", Height of pair 0.0002".
- Cross drilling design gives minimum weight and maximum strength.

**MATCHED PAIRS  
AND SOLD AS PAIR**



Item#	Size	Squareness
8407-0005	1 x 2 x 3"	0.0001"/1"
8407-0010	1 x 2 x 3"	0.0003"/1"

# RETENTION KNOBS

## Style 1, RETENTION KNOBS-BT 40

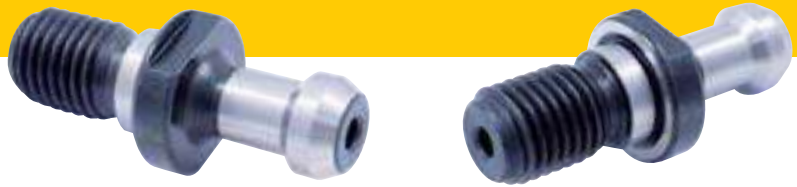
- Heat treated alloy steel.
- All dimensions in accordance to ANSI specifications for CAT holders and MAS specifications for BT holders.



Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5392	BT40	YES	M16x2.0	45°	0.591/15	0.394/10	0.150/3.8	0.669/17	0.906/23	2.374/60.3	1.102/28	2.421/61.5
3900-5393	BT40	YES	M16x2.0	60°	0.591/15	0.394/10	0.150/3.8	0.669/17	0.906/23	2.374/60.3	1.102/28	2.421/61.5
3900-5503	BT40	N/A	M16x2.0	45°	0.591/15	0.394/10	N/A	0.669/17	0.906/23	2.374/60.3	1.102/28	2.421/61.5
3900-5504	BT40	N/A	M16x2.0	60°	0.591/15	0.394/10	N/A	0.669/17	0.906/23	2.374/60.3	1.102/28	2.421/61.5

## Style 1, RETENTION KNOBS-BT 50

- SNMCM 21 alloy steel hardened to HRC 52-56°
- All dimensions in accordance to ANSI specifications for CAT holders and MAS specifications for BT holders.



Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5397	BT50	YES	M24x3.0	45°	0.906/23	0.669/17	0.268/6.8	0.984/25	1.496/38	3.346/85	1.378/35	3.937/100
3900-5508	BT50	N/A	M24x3.0	45°	0.906/23	0.669/17	0.268/6.8	0.984/25	1.496/38	3.346/85	1.378/35	3.937/100

## Style 1, RETENTION KNOBS-CAT 40

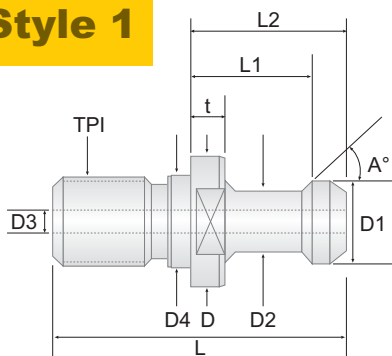
- Heat treated alloy steel hardened to HRC 52-56°.
- ANSI/AMSE B5.50-1994



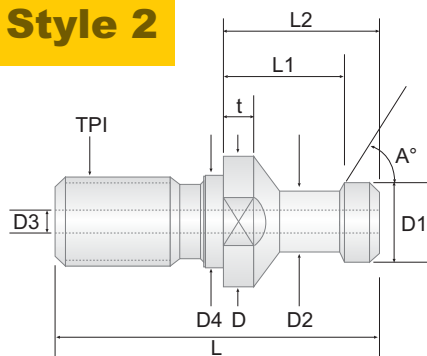
\*Limited Supply

Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5485	CAT40	N/A	M16x2.0	45°	0.591/15	0.394/10	N/A	0.669/17	0.906/23	2.244/57	0.984/25	2.362/60
3900-5486*	CAT40	N/A	M16x2.0	60°	0.591/15	0.394/10	N/A	N/A	0.906/23	2.244/57	0.984/25	2.362/60
3900-5491	CAT40	N/A	5/8~11	60°	0.591/15	0.394/10	N/A	N/A	0.906/23	2.244/57	0.984/25	2.362/60
3900-5528	CAT40	N/A	5/8~11	45°	0.591/15	0.394/10	N/A	N/A	0.906/23	2.244/57	0.984/25	2.362/60
3900-5529	CAT40	YES	5/8~11	45°	0.591/15	0.394/10	0.150/3.8	N/A	0.906/23	2.244/57	0.984/25	2.362/60
3900-5539	CAT40	YES	M16x2.0	45°	0.591/15	0.394/10	0.150/3.8	0.669/17	0.906/23	2.244/57	0.984/25	2.362/60

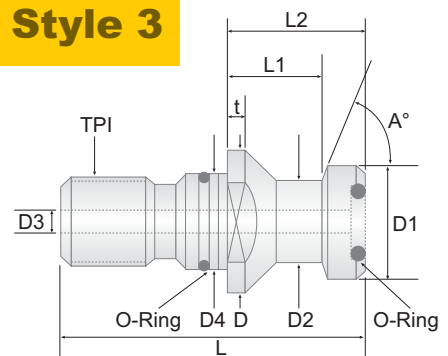
### Style 1



### Style 2



### Style 3



### Retention Knob Safety!

Retention knobs are not intended to last forever. Your Safety Program must include Retention Knob Inspections. Knobs must be visually inspected for damage and checked for tightness every time the tool in the holder is changed. Every 2 or 3 years, depending on use, knobs should be removed from the holder and Magnetic Particle inspected. Any Retention Knobs showing indications of cracking must be discarded. If your machine is in a crash, or releases a tool prematurely, this is an indication that either the Retention Knob Fingers, Finger Guide, Belleville Washers in the Spindle, or the Retention Knob is damaged. The machine tool should not be used until inspected by Maintenance Personnel. In this case all the Retention Knobs in the machine should be checked for cracks or damage immediately.

## Style 1, RETENTION KNOBS-CAT 50

- Heat treated alloy steel hardened to HRC 52-56°.
- ANSI/AMSE B5.50-1994



Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5493	CAT50	N/A	1-8	60°	0.906/23	0.669/17	N/A	N/A	1.496/38	3.094/78.6	1.386/35.2	3.937/100
3900-5535	CAT50	N/A	1-8	45°	0.906/23	0.669/17	N/A	N/A	1.496/38	3.094/78.6	1.386/35.2	3.937/100

## Style 2, RETENTION KNOBS-ISO 40A

- Heat treated alloy steel.
- All dimensions in accordance to ISO/DIS7388/2-1984A specifications.



Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5376	ISO40A	N/A	M16x2.0	15°	0.748/19	0.551/14	N/A	0.669/17	0.906/23	2.126/54	0.787/20	1.575/40
3900-5381	ISO40A	YES	M16x2.0	15°	0.748/19	0.551/14	0.276/7	0.669/17	0.906/23	2.126/54	0.787/20	1.575/40

## Style 2, RETENTION KNOBS-CAT 50

- Heat treated alloy steel hardened to HRC 52-56°.
- ANSI/AMSE B5.50-1994



Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5378	CAT50	YES	M24x3.0	15°	1.102/28	0.827/21	0.451/11.45	0.984/25	1.417/36	2.913/74	0.984/25	1.575/40

## Style 3, RETENTION KNOBS-ISO 50A

- Heat treated alloy steel.
- All dimensions in accordance to ISO/DIS7388/2-1984A specifications.



Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5373	ISO50A	YES	M24x3.0	45°	1.102/28	0.827/21	0.451/11.45	0.984/25	1.417/36	2.913/74	0.984/25	1.575/40

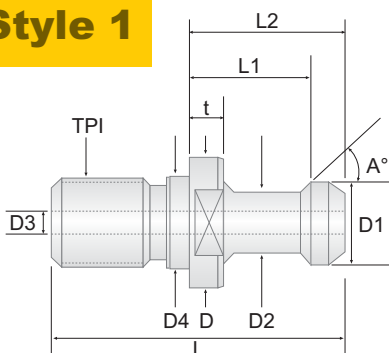
## Style 3, RETENTION KNOBS-CAT 50

- Heat treated alloy steel hardened to HRC 52-56°.
- ANSI/AMSE B5.50-1994

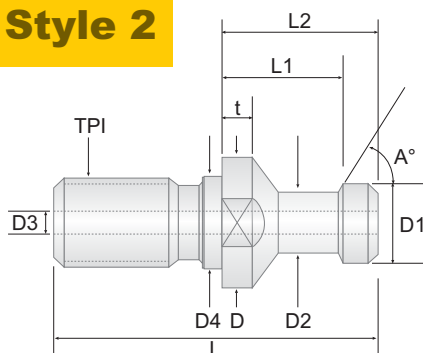


Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5383	CAT50	N/A	M24x3.0	15°	1.142/29	0.768/19.5	0.445/11.3	0.984/25	1.417/36	2.567/65.2	0.692/17.58	1.811/46

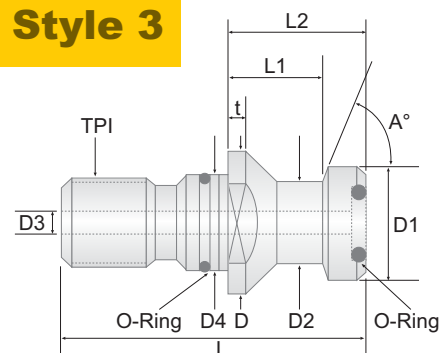
### Style 1



### Style 2



### Style 3





# RETENTION KNOBS

## Style 4, RETENTION KNOBS-ISO 40B

- Heat treated alloy steel.
- All dimensions in accordance to ISO/DIS7388/2-1984A specifications.



Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5372	ISO40B	YES	M16x2.0	45°	0.748/19	0.512/13	0.276/7	0.669/17	0.906/23	1.752/44.5	0.433/11	1.181/30

## Style 4, RETENTION KNOBS-BT 40

- Heat treated alloy steel.
- All dimensions in accordance to ANSI specifications for CAT holders and MAS specifications for BT holders.



Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5497	BT40	YES	M16x2.0	45°	0.740/18.8	0.490/12.45	0.315/8	0.669/17	0.866/22	1.736/44.1	0.551/14	1.22/31

## Style 4, RETENTION KNOBS-BT 50

- Heat treated alloy steel hardened to HRC 52-56°.
- All dimensions in accordance to ANSI specifications for CAT holders and MAS specifications for BT holders.



Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5499	BT50	YES	M24x3.0	45°	1.140/28.95	0.820/20.83	0.394/10	0.984/25	1.457/37	2.567/65.2	0.692/17.58	1.969/50

## Style 4, RETENTION KNOBS-ISO 50B

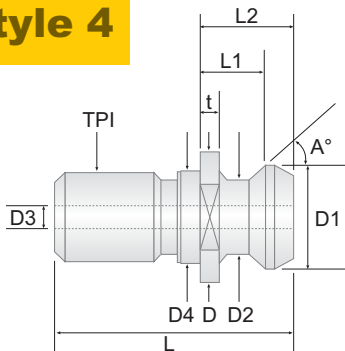
- Heat treated alloy steel.
- All dimensions in accordance to ISO/DIS7388/2-1984A specifications.

Limited Supply!

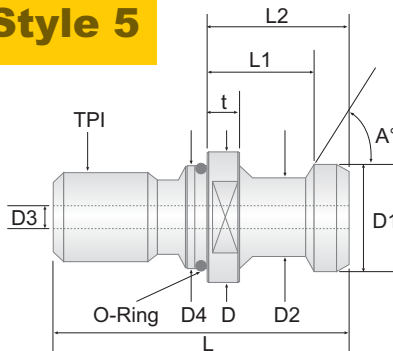


Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5374	ISO50B	YES	M24x3.0	45°	1.142/29	0.768/19.5	0.445/11.3	0.984/25	1.417/36	2.583/65.6	0.692/17.58	1.969/50

### Style 4



### Style 5



### Retention Knob Safety!

Retention knobs are not intended to last forever. Your Safety Program must include Retention Knob Inspections. Knobs must be visually inspected for damage and checked for tightness every time the tool in the holder is changed. Every 2 or 3 years, depending on use, knobs should be removed from the holder and Magnetic Particle inspected. Any Retention Knobs showing indications of cracking must be discarded. If your machine is in a crash, or releases a tool prematurely, this is an indication that either the Retention Knob Fingers, Finger Guide, Belleville Washers in the Spindle, or the Retention Knob is damaged. The machine tool should not be used until inspected by Maintenance Personnel. In this case all the Retention Knobs in the machine should be checked for cracks or damage immediately.

## Style 4, RETENTION KNOBS-CAT 40



- Heat treated alloy steel hardened to HRC 52~56°.
- ANSI/AMSE B5.50-1994

Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5512	CAT40	N/A	5/8~11	45°	0.740/18.79	0.488/12.4	N/A	N/A	0.886/22.5	1.535/39	0.433/11	1.26/32
3900-5513	CAT40	N/A	M16x2.0	45°	0.590/18.79	0.486/12.34	N/A	N/A	0.886/22.5	1.535/39	0.433/11	1.26/32
3900-5520	CAT40	YES	5/8~11	45°	0.740/18.79	0.400/12.34	0.276/7	N/A	0.886/22.5	1.496/38	0.433/11	1.24/31.5
3900-5521	CAT40	YES	M16x2.0	45°	0.740/18.79	0.486/12.34	0.276/7	N/A	0.937/23.8	1.496/38	0.433/11	1.24/31.5

## Style 4, RETENTION KNOBS-CAT 50



- Heat treated alloy steel hardened to HRC 52~56°.
- ANSI/AMSE B5.50-1994

Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5492	CAT50	N/A	1~8	45°	1.140/28.95	0.820/20.83	N/A	N/A	1.417/36	2.307/58.6	0.692/17.58	1.969/50
3900-5519	CAT50	N/A	M24X3.0	45°	1.140/28.95	0.820/20.83	N/A	N/A	1.437/36.5	2.307/58.6	0.692/17.58	1.969/50
3900-5522	CAT50	YES	1~8	45°	1.140/28.95	0.820/20.83	0.451/11.45	N/A	1.437/36.5	2.307/58.6	0.692/17.58	1.969/50
3900-5524	CAT50	YES	M24x3.0	45°	1.140/28.95	0.820/20.83	0.451/11.45	N/A	1.437/36.5	2.307/58.6	0.692/17.58	1.969/50

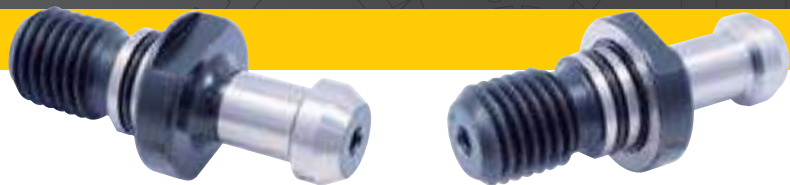
## Style 5, RETENTION KNOBS-ISO 40A



- Heat treated alloy steel.
- All dimensions in accordance to ISO/DIS7388/2-1984A specifications.

Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5371	ISO40A	YES	M16x2.0	45°	0.748/19	0.551/14	0.276/7	0.669/17	0.906/23	1.752/44.5	0.433/11	1.181/30

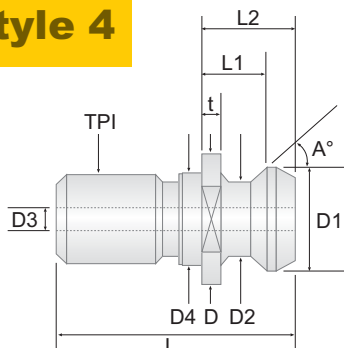
## Style 5, RETENTION KNOBS-BT 50



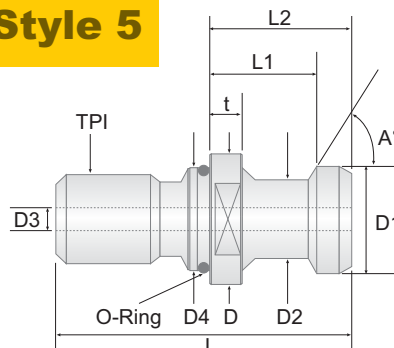
- SNCM 21 alloy steel hardened to HRC 52~56°
- All dimensions in accordance to ANSI specifications for CAT holders and MAS specifications for BT holders.

Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5398	BT50	YES	M24x3.0	60°	0.906/23	0.669/17	0.236/6	0.984/25	1.496/38	3.346/85	1.378/35	3.937/100

### Style 4



### Style 5



### Retention Knob Safety!

Retention knobs are not intended to last forever. Your Safety Program must include Retention Knob Inspections. Knobs must be visually inspected for damage and checked for tightness every time the tool in the holder is changed. Every 2 or 3 years, depending on use, knobs should be removed from the holder and Magnetic Particle inspected. Any Retention Knobs showing indications of cracking must be discarded. If your machine is in a crash, or releases a tool prematurely, this is an indication that either the Retention Knob Fingers, Finger Guide, Belleville Washers in the Spindle, or the Retention Knob is damaged. The machine tool should not be used until inspected by Maintenance Personnel. In this case all the Retention Knobs in the machine should be checked for cracks or damage immediately.

# CAT40 TOOL HOLDERS

## CAT 40 "V" FLANGE END MILL HOLDERS

INCH

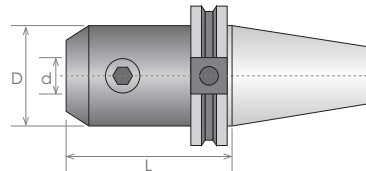
RETENTION KNOB THREAD: 5/8" -11

Item#	Bore Dia. d	Gage Depth L	Nose Dia. D	Item#	Bore Dia. d	Gage Depth L	Nose Dia. D
3900-4101*	3/16	1.38	0.68	3900-4111	1/2	2.50	1.25
3900-4102*	3/16	2.50	0.68	3900-4112*	1/2	4.72	1.38
3900-4103	1/4	1.38	0.88	3900-4113*	5/8	1.75	1.75
3900-4104*	1/4	2.50	0.88	3900-4114	5/8	2.50	1.50
3900-4105	5/16	1.38	1	3900-4115	5/8	3.94	1.62
3900-4106	5/16	2.50	1	3900-4116	3/4	1.75	1.75
3900-4107	3/8	1.38	1	3900-4117	3/4	2.50	1.75
3900-4108	3/8	2.50	1	3900-4118	3/4	3.94	1.75
3900-4191*	7/16	1.38	1.25	3900-4120	7/8	3.94	2
3900-4109	7/16	2.50	1.25	3900-4125*	1-1/4	3.94	2.62
3900-4110	1/2	1.75	1.75				

\*Limited Supply

- For CNC machines having CAT 40 taper spindles
- "V" flange end mill adapter
- Hardened and precision ground

T.I.R. < .0002"

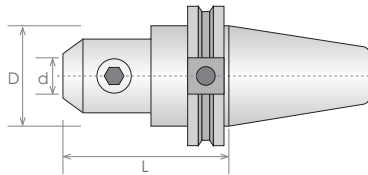


## Pro-Series CAT 40 HIGH SPEED, BALANCED END MILL HOLDERS



- Made of high grade alloy steel
- Balanced to 15,000 RPM
- Tolerance: .0003" Max.

T.I.R. < 0.01mm



SUPERIOR FINISH & CRAFTSMANSHIP

Item#	Bore Dia. d	Gage Length L	Nose Dia. D
3900-7721	3/16	2.5"	0.69"
3900-7724	1/4	3.0"	0.78"
3900-7727	5/16	3.0"	0.88"
3900-7730	3/8	3.0"	1"
3900-7736	1/2	3.0"	1.25"
3900-7740	5/8	3.0"	1.5"
3900-7745	3/4	3.0"	1.75"
3900-7749	7/8	3.5"	1.88"
3900-7751	1	4.0"	2"
3900-7756	1-1/4	4.6"	2.5"
3900-7760	1-1/2	4.5"	2.5"

## Pro-Series ULTRA PRECISION KEYLESS DRILL CHUCKS W/ INTEGRAL CAT 40 SHANKS

- Integrated design maximizes rigidity & accuracy.
- Integral shank is more compact than a combined drill chuck and arbor and eliminates the chuck slipping on its arbor.
- Keyless, self tightening design.
- **Tightening wrench included.**

Max. T.I.R. < .002"



Item#	Clamping Capacity	Shank
3701-0500	1/64~1/2"	CAT-40
3701-0625	1/8~5/8"	CAT-40



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## HORIZONTAL/VERTICAL CNC TOOL HOLDER TIGHTENING FIXTURES

- 2 positions
- For mounting on worktable or cart.
- Quick and easy way to set tool holders horizontal or vertical

Item#	Tool Shank
3900-4080	BT30
3900-4081	BT40
3900-4083*	CAT30
3900-4084	CAT40
3900-4085	CAT50

\*Limited Supply





# CAT40 TOOL HOLDERS

## CAT 40 "V" FLANGE DRILL CHUCK ARBORS

- For CNC machines having CAT 40 taper spindles
- Hardened and precision ground
- Gage depth: 1.772"

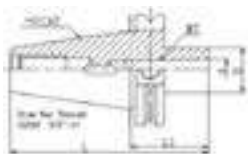
RETENTION KNOB THREAD: 5/8" -11

Item#	CAT Taper#	Jacobs No.
3900-4205	40	JT33
3900-4207	40	JT6
3900-4208	40	JT4
3900-4209	40	JT3
3900-4206	40	JT2



## CAT 40 "V" FLANGE MORSE TAPER ADAPTERS

- For CNC machines having CAT 40 taper spindles
- Hardened and precision ground



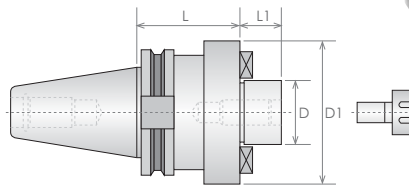
RETENTION KNOB THREAD: 5/8" ~11

Item#	CAT Taper#	Morse Taper No.	Gage Depth L1	D	OAL L
3900-4305	40	MT2	2.375"	1.26"	5.2"
3900-4307	40	MT3	3.000"	1.57"	5.6"
3900-4309	40	MT4	2.562"	1.89"	6.6"

## CAT 40 "V" FLANGE SHELL END MILL HOLDERS

- CAT 40 Shell End Mill Holder.
- For CNC machines having CAT 40 taper spindles.
- Hardened and precision ground.

RETENTION KNOB THREAD: 5/8" -11



Item#	Dia. for Bore in Shell End Mill D	D1	Gage Length L	L1	Bore Thread
3900-4255	3/4"	1.5"	1.50"	0.69"	3/8"~24
3900-4257	1"	2.0"	2.00"	0.69"	1/2"~20
3901-4257	1"	2.19"	2.06"	0.69"	1/2"~20
3900-4259	1-1/4"	2.5"	2.19"	0.69"	5/8"~18
3901-4259	1-1/4"	2.75"	2.21"	0.69"	5/8"~18
3900-4261	1-1/2"	3.0"	2.21"	0.94"	3/4"~16
3901-4261	1-1/2"	3.81"	2.21"	0.94"	3/4"~16

## PRECISION BORING SHANKS

- Use for boring heads.
- Made of high grade tool steel.
- Hardened and ground.



1-1/2" ~ 18 MOUNTING THREAD

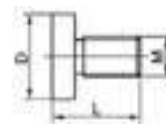
Item#	Taper of Shank	Draw Bar End
1001-0440	CAT40	5/8"~11

## SHELL END MILL HOLDER SCREWS

- Replacement screw for shell end mill holders.



Bore	Thread	D (mm)	L (mm)	Item#
1/2"	1/4"~28	16.7	21	3900-0761
3/4"	3/8"~24	22.2	27	3900-0764
1"	1/2"~20	30.2	33	3900-0767
1-1/4"	5/8"~18	38.1	39	3900-0770
1-1/2"	3/4"~16	47.6	45	3900-0773
2"	1"~14	63.1	52	3900-0777

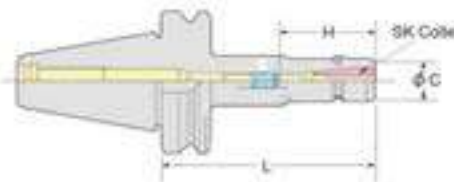


## CAT 40 SK LYNDX STYLE SLIM COLLET CHUCKS

- Dual contacts of taper and flange.
- Increase spindle contact by 53% over standard holders.
- Prevent tools from pulling into spindle.
- Balanced to 20,000 RPM.



RUNOUT ≤ 5 MICRON



CAT-40 (Drawbar End 5/8" ~11)

Item#	Collet Series	Collet Range	H	C	Gage Depth L (mm)
3901-5504	SK10	0.069~0.393"	1.181~1.969"	1.083"	90
3901-5506	SK10	0.069~0.393"	1.181~1.969"	1.083"	120
3901-5523	SK16	0.108~0.630"	1.772~2.756"	1.575"	90
3901-5525	SK16	0.108~0.630"	1.772~2.756"	1.575"	120

Collets shown on page 238

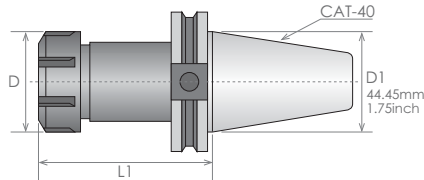
# CAT 40 ER HOLDERS

## CAT 40 ER COLLET CHUCKS

- For CNC machines having CAT 40 taper spindles.
- Hardened and precision ground.

**CAT-40** (DRAWBAR END: 5/8" ~11)

**T.I.R. ≤ 0.005mm**

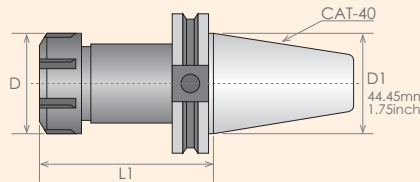


Item#	Type	Collet Range	Nut Style	Nut Dia. D	Gage Depth L1
3900-4362	ER-16	0.019~0.406"	Hex	1.1"	2.50"
3900-4361	ER-16	0.019~0.406"	Hex	1.1"	3.50"
3900-2060*	ER-16	0.019~0.406"	Hex	1.1"	2.76"
3900-2061*	ER-16	0.019~0.406"	Hex	1.1"	4.00"
3900-2028	ER-20	0.040~0.511"	Hex	1.4"	2.75"
3900-2039*	ER-20	0.040~0.511"	Hex	1.4"	4.00"
3900-2528	ER-25	0.040~0.629"	Spanner	1.7"	2.75"
3900-2539*	ER-25	0.040~0.629"	Spanner	1.7"	4.00"
3900-2073*	ER-32	0.078~0.787"	Spanner	2.0"	2.76"
3900-4369	ER-32	0.078~0.787"	Spanner	2.0"	3.20"
3900-4364*	ER-32	0.078~0.787"	Spanner	2.0"	4.00"
3900-4028	ER-40	0.120~1.020"	Spanner	2.5"	2.75"
3900-4039*	ER-40	0.120~1.020"	Spanner	2.5"	4.00"

\*Limited Supply

## CAT 40 ER SPRING COLLET CHUCK SETS

- High precision collet chuck system suitable for all milling and drilling applications.
- Unique self-releasing system.
- Wide holding range.
- With fitted case.
- Accuracy to .0005".



ER-16	ER-25	ER-32	ER-40
<b>• 11PC SET INCLUDES</b> 9-Collet 1/16, 3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32 & 3/8" 1-Collet Chuck 1-Wrench	<b>• 17PC SET INCLUDES</b> 15-Collet 1/16, 3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16 & 5/8" 1-Collet Chuck 1-Wrench	<b>• 20PC SET INCLUDES</b> 18-Collet 3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 23/32 & 3/4" 1-Collet Chuck 1-Wrench	<b>• 25PC SET INCLUDES</b> 23-Collet 1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 3/4, 25/32, 13/16, 27/32, 7/8, 15/16, 31/32 & 1" 1-Collet Chuck 1-Wrench

Item#	Type	Nut Style	Collet Set	Nut Dia. D	Gage Length L1
3900-4014	ER-16	Hex	11	1.1"	2.75"
3900-4023	ER-25	Spanner	17	1.7"	2.75"
3900-4029	ER-32	Spanner	20	2.0"	3.20"
3900-4042	ER-40	Spanner	25	2.5"	2.75"

## Pro-Series CAT 40 ER SPRING COLLET CHUCK SETS

- High precision collet chuck system suitable for all milling and drilling applications.
- Unique self-releasing system.
- Wide holding range.
- With fitted metal case.
- Accuracy to .0005".

**Max. T.I.R. ≤ 0.0005"**



ER-16	ER-25	ER-32	ER-40
<b>• 11PC SET INCLUDES</b> 9-Collet 1/16, 3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32 & 3/8" 1-Collet Chuck 1-Wrench	<b>• 12PC SET INCLUDES</b> 10-Collet 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16 & 5/8" 1-Collet Chuck 1-Wrench	<b>• 20PC SET INCLUDES</b> 18-Collet 3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 23/32 & 3/4" 1-Collet Chuck 1-Wrench	<b>• 25PC SET INCLUDES</b> 23-Collet 1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 3/4, 25/32, 13/16, 27/32, 7/8, 15/16, 31/32 & 1" 1-Collet Chuck 1-Wrench

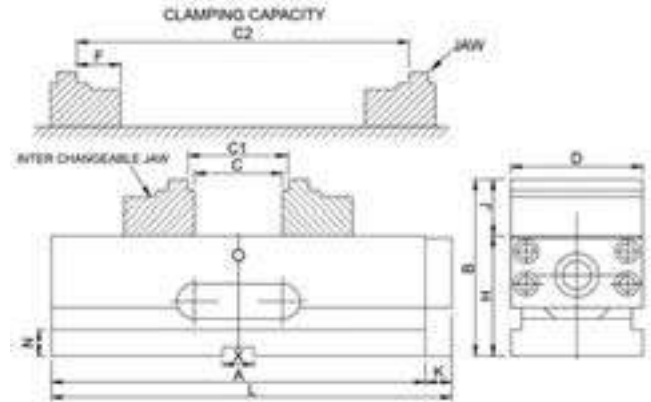
Item#	Type	Collet Set	Size Range	Nut Style	Gage Length
3900-4016	ER-16	11	1/16~3/8"	Hex	2.50"
3900-4025	ER-25	12	3/32~5/8"	Spanner	2.75"
3900-4032	ER-32	20	3/32~3/4"	Spanner	3.20"
3900-4040	ER-40	25	1/8~1"	Spanner	2.75"

## Pro-Series 3.98" SELF CENTERING CNC VISE

- Reversible Jaw: remove 4 screws to re-install jaws.
- Suitable for 4/5 axis CNC machines
- Repeat clamping tolerance +/- 0.0004"/ 0.01mm
- Material: FCD 60, high tension cast iron slide way has hardness of HRC 45.
- Interchangeable jaw heat treated to HRC 50.
- Lock down design to keep work piece from lifting.



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SELF-CENTERING

3900-2216

Jaw Width D	Jaw Depth J	Jaw Open C	Vise Height B	OAL L	Wt.	Max. Clamping C1	Clamping Range For C2	Max. Clamping Force	Torque For Clamping	A	F	H	K	N	X
3.98"	1.57"	5.20"	4.72"	10.24"	41 lbs	5.51"	2.44~7.56"	400 kgf	2.6m/kgf	9.45"	1.18"	3.15"	0.63"	0.83"	0.79"

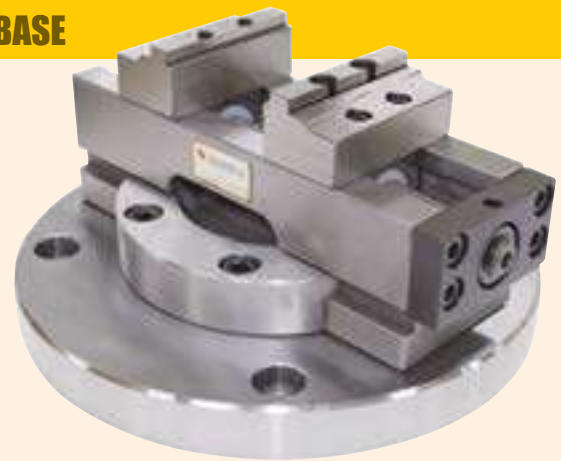
## Pro-Series 2.36" SELF CENTERING CNC VISE WITH SWIVEL BASE

- Suitable for 4/5 axis CNC machines
- Repeat clamping tolerance +/- 0.0004"/0.01mm
- Material: FCD 60, high tension cast iron slide way has hardness of HRC 450
- Interchangeable jaw heat treatment to HRC 55°.
- Lock down force to keep work piece from lifting.
- Swivel base 8" diameter x 22mm thickness
- Clamping Capacity: 1.77~5.51"

MADE IN TAIWAN

SWIVEL BASE INCLUDED

Item#	Jaw Width	Jaw Depth	Jaw Opening	Vise Height	OAL
3900-2220	2.36"	0.95"	3.94"	3.15 (w/o base)	7.3"



## VERTEX BT TOOL HOLDER TIGHTENING FIXTURE STANDS

- Lightweight and compact design.
- Securely hold BT tooling for pull stud installation and tool/collet change.
- Quick tool holder setting and locking.



MADE IN TAIWAN



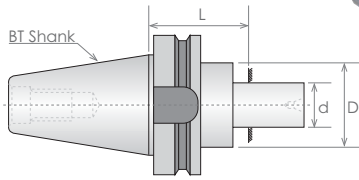
Item#	Shank Taper	D	d	3 Hole P.C.D.	H	(mm)						Wt. Lbs.
						A	B	C	D	E	F	
3900-4091	BT30	90	50	70	14(Dia.)x9x9(Dia.)	108	20	48	30	10	16	2.7
3900-4092	BT40	105	65	85	14(Dia.)x9x9(dia.)	130	20	50	50	10	16	4.9



# BT30 & 40 TOOL HOLDERS

## BT 30 & 40 TO JT DRILL CHUCK ARBORS

- For CNC machines having BT taper spindles.
- Concentricity .0002".
- All critical surfaces are hardened and precision ground.



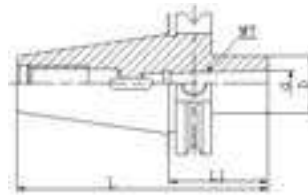
\*Limited Supply

Item#	BT Taper	JT Taper	Gage Depth L (Inch)	D (Inch)	OAL (Inch)
3900-4194	30	2	1.77	1.18	4.6
3900-4195	30	3	1.77	1.38	4.9
3900-4196	30	4	1.77	1.58	5.3
3900-4198*	30	33	1.77	1.18	3.7
3900-4199	40	2	1.77	1.18	5.2
3900-4200	40	3	1.77	1.38	5.6
3900-4201	40	4	1.77	1.58	6.0
3900-4202	40	6	1.77	1.18	5.4
3900-4203	40	33	1.77	1.18	5.4

## BT 30 & 40 TO MORSE TAPER ADAPTORS

- For CNC machines having BT taper spindles.
- All critical surfaces are hardened and precision ground.
- Concentricity .0002".

Item#	BT Taper	MT Taper	Gage Depth L1 (Inch)	D (Inch)	L (Inch)
3900-8701	30	MT2	2.36	1.26	4.3
3900-8702	30	MT3	3.15	1.58	5.0
3900-8705	40	MT2	1.97	1.26	4.5
3900-8708	40	MT3	2.76	1.58	5.3
3900-8710	40	MT4	3.54	1.89	6.1



## BT30 & 40 SHANK INTEGRAL ULTRA PRECISION KEYLESS DRILL CHUCKS

- Integrated design maximizes rigidity & accuracy.
- Integral shank is more compact than a combined drill chuck and arbor and eliminates the chuck slipping on its arbor.
- Keyless, self tightening design.

Item#	Brand	Clamping Capacity	Shank	Origin
3701-1050	VERTEX	1/64~1/2"	BT30	TAIWAN
3701-1054	VERTEX	1/64~1/2"	BT40	TAIWAN
3701-1062	VERTEX	1/8~5/8"	BT40	TAIWAN
3701-3503*	HHIP	1/64~1/2"	BT40	CHINA
3701-3628*	HHIP	1/64~5/8"	BT40	CHINA

\* Limited Supply



Max. T.I.R. < 0.002"

## Pro-Series BT40 HI-TORQUE INTEGRATED KEYLESS DRILL CHUCKS

- Reinforce torque design to increase more clamping power.
- Integrated design maximizes rigidity & accuracy
- Right turn and left turn allowable.
- Maximum T.I.R. does not exceed .002".
- Max. speed 6000 RPM.
- Supplied with wrench.

Limited Supply!

BT40 TAPER



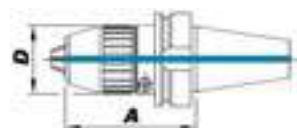
MADE IN TAIWAN

Item#	Clamping Range
3701-2650	.02~1/2"
3701-2662	.12~5/8"

## BT40 ULTRA PRECISION INTEGRAL DRILL CHUCKS - HEX-KEY LOCKING

- Manufactured and tested at a world class factory that produces highest quality European brands (Babel).
- Suitable for CNC and high precision machine applications.
- High precision and concentricity.
- Right and left rotation.
- High gripping force with effortless tool clamping.
- Short and sturdy design: tool shank and chuck form one unit.
- Simple operation: Quick tool change inside or outside of machine, no unintentional opening in case of sudden spindle stop or change of direction.
- Tightening wrench included.
- Runout test of drill chucks is done with a torque of approx 12 Nm using the following test mandrels:  
1/2": 6 mm, 8 mm, 12 mm  
5/8": 6 mm, 8 mm, 12 mm und 16 mm

T.I.R. < 0.0012"



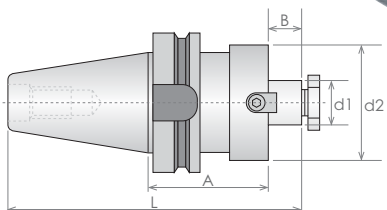
BT40 Shank

Item#	Capacity	A	D
3701-4650	1/2"	3.50"	1.77"
3701-4652	5/8"	3.74"	1.97"



## BT40 SHELL END MILL HOLDERS

- For CNC machines having BT taper spindles.
- Concentricity .0002".
- All critical surfaces are hardened and precision ground.



### BT40 (INCH BORE DIAMETER)

Item#	Bore Dia. d1 (Inch)	Gage Depth A (mm)	d2 (mm)	Arbor Thread
3900-4237*	7/8	60	40	M16
3900-4238*	1	60	48	M16
3900-4239*	1-1/4	60	58	M16
3900-4240*	1-1/2	60	70	M16

### BT40 (METRIC BORE DIAMETER)

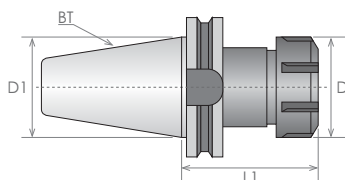
Item#	Bore Dia. d1 (mm)	Gage Depth A (mm)	d2 (mm)	Arbor Thread
3900-4241	22	45	40	M16
3900-4245	27	60	48	M16
3900-4250	32	60	58	M16
3900-4253	40	75	70	M16

\*Limited Supply

## BT 30 & 40 ER COLLET CHUCKS

- For CNC machines having BT taper spindles.
- Concentricity .0003".
- All critical surface are hardened and precision ground.

Draw Bar Thread: BT30 M12x1.75  
BT40 M16x2.00



BT30 Item#	Type	Collet Range	Nut Style	Nut Dia. D	Gage Depth L
3900-7554	ER-16	.019~.406"	Hex	1.1"	2.76"
3900-7562	ER-25	.040~.629"	Spanner	1.7"	2.76"
3900-7566	ER-32	.078~.787"	Spanner	2.0"	2.76"
3900-7570	ER-40	.120~1.020"	Spanner	2.5"	3.15"

BT40 Item#	Type	Collet Range	Nut Style	Nut Dia. D	Gage Depth L1
3900-7604	ER-16	.019~.406"	Hex	1.1"	2.48"
3900-8604	ER-16	.019~.406"	Hex	1.1"	2.76"
3900-7608	ER-20	.040~.511"	Hex	1.4"	2.76"
3900-7612	ER-25	.040~.629"	Spanner	1.7"	2.36"
3900-8618	ER-32	3/32~3/4"	Spanner	2.0"	2.76"
3900-8620	ER-32	3/32~3/4"	Spanner	2.0"	4"

## Pro-Series BT40 METRIC ER COLLET CHUCK SETS

- High precision collet chuck system suitable for all milling and drilling applications.
- Unique self-releasing system.
- Wide holding range.
- With fitted case.
- Accuracy to .0004", G6.3,15,000RPM.

ER-32		ER-25			
<ul style="list-style-type: none"> <li>• 10PC SET INCLUDES</li> <li>8-Collet: 4, 5, 6, 8, 10, 12, 16 &amp; 20mm</li> <li>1-Collet Chuck</li> <li>1-Wrench</li> </ul>		<ul style="list-style-type: none"> <li>• 10C SET INCLUDES</li> <li>8-Collet: 4, 5, 6, 8, 10, 12, 14 &amp; 16mm</li> <li>1-Collet Chuck</li> <li>1-Wrench</li> </ul>			
Item#	No.	Nut Style	Chuck Shank	Gage Length	Collet Set
3901-5101	ER-25	Spanner	BT40	3.94"	10
3901-5108	ER-32	Spanner	BT40	2.75"	10



## BT30 SK LYNDEX STYLE SLIM COLLET CHUCKS

- Dual contacts of taper and flange.
- Increase spindle contact by 53% over standard holders.
- Prevent tools from pulling into spindle.
- Balanced to 30,000 RPM.

RUNOUT ≤ 5 MICRON at 4D



Limited Supply!

BT30 (Drawbar End M12x1.75)

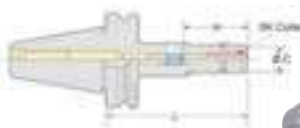
Item#	Collet Series	Collet Range	H	C	Gage Depth L (mm)
3901-5490	SK10	0.069~0.393"	1.181~1.969"	1.083"	90
3901-5492	SK16	0.108~0.630"	1.772~2.756"	1.575"	90

Wrench for SK10 Item# 3900-0590

## BT40 SK LYNDEX STYLE SLIM COLLET CHUCKS

- Dual contacts of taper and flange.
- Increase spindle contact by 53% over standard holders.
- Prevent tools from pulling into spindle.
- Balanced to 25,000 RPM.

RUNOUT ≤ 5 MICRON at 4D



Limited Supply!

BT40 (Drawbar End M16x2.00)

Item#	Collet Series	Collet Range	H	C	Gage Depth L (mm)
3901-5496	SK10	0.069~0.393"	1.181~1.969"	1.083"	90
3901-5498	SK16	0.108~0.630"	1.575~2.756"	1.575"	90

Wrench for SK10 Item# 3900-0590

# ER COLLETS & SETS

MACHINE TOOL ACCESSORIES

## Pro-Series HIGH ACCURACY ER SPRING COLLETS - AA GRADE 5 MICRON

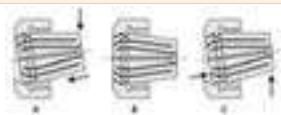
Series	Major Dia.	Overall Length
ER-16	.670"	1.052"
ER-20	.830"	1.230"
ER-32	1.300"	1.578"



- Made of high grade SUJ2 steel.
- Hardened and precision ground 44-48HRC.
- Exceeds Federal specifications.
- Inside diameter ground to reach mirror finish increased grip force.
- Surface treated to reduce rust and improve hardness.
- Cryogenic treatment to significantly increase wear resistance.

Size/Range	ER-16 Item#	ER-20 Item#	ER-32 Item#
1/32" (.02~.04)	3901-5150		
1/16" (.04~.08)	3901-5151	3901-5180	3901-5239
3/32" (.08~.12)	3901-5152	3901-5181	3901-5240
1/8" (.12~.16)	3901-5153	3901-5182	3901-5241
3/16" (.16~.20)	3901-5154	3901-5183	3901-5242
7/32" (.20~.236)	3901-5155	3901-5184	3901-5243
1/4" (.236~.275)	3901-5156	3901-5185	3901-5244
5/16" (.275~.316)	3901-5157	3901-5186	3901-5245
11/32" (.316~.354)	3901-5158	3901-5187	3901-5246
3/8" (.354~.393)	3901-5159	3901-5188	3901-5247
13/32" (.393~.433)		3901-5189	3901-5248
7/16" (.433~.472)		3901-5190	3901-5249
1/2" (.472~.511)		3901-5191	3901-5250
17/32" (.511~.551)			3901-5251
9/16" (.551~.590)			3901-5252
5/8" (.590~.629)			3901-5253
21/32" (.629~.669)			3901-5254
11/16" (.669~.708)			3901-5255
23/32" (.708~.748)			3901-5256
3/4" (.748~.787)			3901-5257
25/32" (.748~.787)			3901-5258
13/16" (.787~.826)			3901-5259

Collet must be assembled into collet chuck nut before inserting into collet chuck!



**RUNOUT ≤ .0002"/.005MM SUPERIOR FINISH**

**AA GRADE TOLERANCE: 5 MICRON**

## Pro-Series ER COLLET SETS - INCH & METRIC - AA GRADE 5 MICRON



Limited Supply!

**INCH, ER-16  
12 PC SET  
3901-5320**  
1/32~3/8" BY 32ND

**INCH, ER-20  
14 PC SET  
3901-5334**  
3/32~1/2" BY 32ND

**INCH, ER-32  
18 PC SET  
3901-5355**  
1/8~3/4" (1/8,5/32,3/16,7/32,1/4,9/32,5/16,11/32,3/8,7/16,15/32,1/2,9/16,19/32,5/8,11/16,23/32,3/4)

**METRIC, ER-16  
12 PC SET  
3901-5325**  
1~10mm  
(1, 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 9, 10)

**METRIC, ER-20  
14 PC SET  
3901-5338**  
1~13mm  
(1, 1.5, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13)

**METRIC, ER-32  
18 PC SET  
3901-5358**  
3~20mm BY 1MM

## Pro-Series ER COLLET & RACK SETS - INCH - AA GRADE 5 MICRON



**INCH, ER-16  
10 PC SET  
3901-5360**  
1/32~3/8"



**INCH, ER-20  
12 PC SET  
3901-5364**  
1/16~1/2"



**INCH, ER-32  
18 PC SET  
3901-5365**  
3/32~3/4"





# ER COLLETS & SETS

## PRECISION ER SPRING COLLETS & SETS

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.

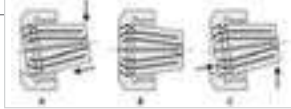
Series	Major Dia.	Overall Length
ER-11	.453"	.709"
ER-16	.670"	1.052"
ER-20	.830"	1.230"

Series	Major Dia.	Overall Length
ER-25	1.020"	1.390"
ER-32	1.300"	1.578"
ER-40	1.620"	1.810"



Size/Range	ER-11 Item#	ER-16 Item#	ER-20 Item#	ER-25 Item#	ER-32 Item#	ER-40 Item#
1/32" (.02~.04)	3900-5142	3900-5150				
1/16" (.04~.08)	3900-5143	3900-5151	3900-5180	3900-5210	3900-5239	
3/32" (.08~.12)	3900-5144	3900-5152	3900-5181	3900-5211	3900-5240	
1/8" (.12~.16)	3900-5145	3900-5153	3900-5182	3900-5212	3900-5241	3900-5270
3/16" (.16~.20)	3900-5146	3900-5154	3900-5183	3900-5213	3900-5242	3900-5271
7/32" (.20~.236)	3900-5147	3900-5155	3900-5184	3900-5214	3900-5243	3900-5272
1/4" (.236~.275)	3900-5148	3900-5156	3900-5185	3900-5215	3900-5244	3900-5273
5/16" (.275~.316)		3900-5157	3900-5186	3900-5216	3900-5245	3900-5274
11/32" (.316~.354)		3900-5158	3900-5187	3900-5217	3900-5246	3900-5275
3/8" (.354~.393)		3900-5159	3900-5188	3900-5218	3900-5247	3900-5276
13/32" (.393~.433)			3900-5189	3900-5219	3900-5248	3900-5277
7/16" (.433~.472)			3900-5190	3900-5220	3900-5249	3900-5278
1/2" (.472~.511)			3900-5191	3900-5221	3900-5250	3900-5279
17/32" (.511~.551)				3900-5222	3900-5251	3900-5280
9/16" (.551~.590)				3900-5223	3900-5252	3900-5281
5/8" (.590~.629)				3900-5224	3900-5253	3900-5282
21/32" (.629~.669)					3900-5254	3900-5283
11/16" (.669~.708)					3900-5255	3900-5284
23/32" (.708~.748)					3900-5256	3900-5293
3/4" (.748~.787)					3900-5257	3900-5285
25/32" (.748~.787)					3900-5265	3900-5286
13/16" (.787~.826)					3900-5263	3900-5287
27/32" (.826~.866)						3900-5288
7/8" (.866~.905)						3900-5289
15/16" (.905~.984)						3900-5290
31/32" (.944~.984)						3900-5291
1" (.984~1.02)						3900-5292

Collet must be assembled into collet chuck nut before inserting into collet chuck!



**9 PC SET, ER-11**  
**3900-5164**

1/32~9/32" By 32nd

**10 PC SET, ER-16**  
**3900-5165**

1/32~3/8", All Sizes Above

**12 PC SET, ER-20**  
**3900-5205**

1/16~1/2", All Sizes Above

**15 PC SET, ER-25**  
**3900-5235**

1/16~5/8", All Sizes Above

**18 PC SET, ER-32**  
**3900-5267**

3/32~3/4" Only

**24 PC SET, ER-40**  
**3900-5299**

1/8~1", All Sizes Above

## ER SPRING COLLET SETS-METRIC

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.

**12 PC SET, ER-32**  
**3903-5260**

3, 4, 5, 6, 8, 10, 12, 14, 15, 16, 18 & 20mm



**10 PC SET, ER-25**  
**3903-5230**

3, 4, 5, 6, 8, 10, 12, 14, 15 & 16mm

## ER-32 SPRING COLLET SETS

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.



**6 PC SET, ER-32**  
**3900-5166**

1/8~3/4" By 8ths

**11 PC SET, ER-32**  
**3900-5168**

1/8~3/4" By 16ths

**18 PC SET, ER-32**  
**3900-5267**

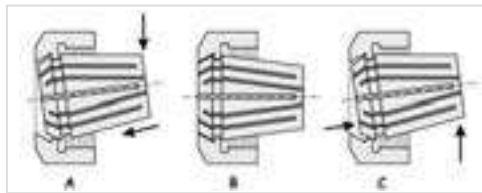
3/32~3/4" Only

## HARLINGEN® HIGH PERFORMANCE ER COLLETS - METRIC

**HARLINGEN®** ultra precision ER collets are made of special bearing steel, Grade GCr15, fully hardened and precisely ground by experienced craftsmen. Our powerful clamping ability and durability are ideal for boring, milling, drilling and tapping as well as grinding operations.

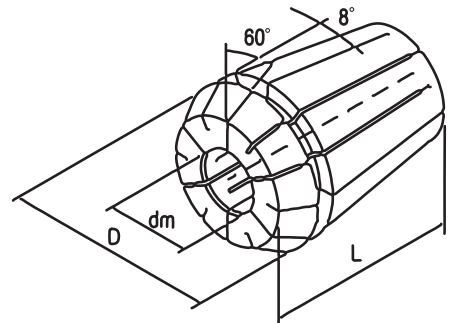
- Made of high-performance special bearing steel.
- Ideal for drilling, reaming and milling for high precision machining.
- Your choice for secure and rigid holding of drills of any size while retaining the highest concentricity within the range.
- 8 taper design enables maximum gripping power.
- All slits are spaced and ground evenly.
- Made of special bearing steel.

**Collet must be assembled into collet chuck nut before inserting into collet chuck !**



**Ultra-Precision Made of Special Bearing Steel !**

**DIN6499B  
RUNOUT ≤ .0005"**



Series	Major Dia. D	Overall Length L
ER-16	17.0mm	27.5mm
ER-20	21.0mm	31.5mm
ER-25	26.0mm	34.0mm
ER-32	33.0mm	40.0mm

Size Range	ER-16 Item#	ER-20 Item#	ER-25 Item#	ER-32 Item#
3.0-2.0mm	9710-4011	9710-4019	9710-4030	9710-4044
4.0-3.0mm	9710-4012	9710-4020	9710-4031	9710-4045
5.0-4.0mm	9710-4013	9710-4021	9710-4032	9710-4046
6.0-5.0mm	9710-4014	9710-4022	9710-4033	9710-4047
7.0-6.0mm	9710-4015	9710-4023	9710-4034	9710-4048
8.0-7.0mm	9710-4016	9710-4024	9710-4035	9710-4049
9.0-8.0mm	9710-4017	9710-4025	9710-4036	9710-4050
10.0-9.0mm	9710-4018	9710-4026	9710-4037	9710-4051
11.0-10.0mm		9710-4027	9710-4038	9710-4052
12.0-11.0mm		9710-4028	9710-4039	9710-4053
13.0-12.0mm		9710-4029	9710-4040	9710-4054
14.0-13.0mm			9710-4041	9710-4055
15.0-14.0mm			9710-4042	9710-4056
16.0-15.0mm			9710-4043	9710-4057
17.0-16.0mm				9710-4058
18.0-17.0mm				9710-4059
19.0-18.0mm				9710-4060
20.0-19.0mm				9710-4061

## SPINDLE TAPER WIPERS

- For all 30,40 & 50 tapers
- Maintains spindle accuracy and rigid contact
- Multiple usage on tool holder tapers NMTB, CAT and BT



Item#	Taper#
7016-0013	30
7016-0014	40
7016-0015	50

## TANG SCREW FOR DRAWBAR END HOLDERS

- Precision made from tool steel, hardened.
- Metric thread.



Tang for draw bar thread type holders

Item#	Morse Taper	Thread	Dimension (mm)			
			D	L	L1	L2
3900-0789	MT1	M6x1.00	9.5	27	7.5	3
3900-0790	MT2	M10x1.50	12	30	7	4
3900-0791	MT3	M12x1.75	17	40	12	4
3900-0792	MT4	M16x2.00	24	46	13	5
3900-0793	MT5	M24x3.00	34	47	14	5





# ER COLLET CHUCK NUTS

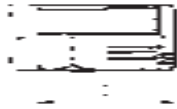
## TYPE A HEX ER CHUCK NUTS



Type A



Type A (Bearing Type)



Fits	Thread	D (mm)	L (mm)	Type A Item#	Type A (Bearing) Item#
ER-11	M14 x 0.75	19	11.3	3900-0614	3900-0654
ER-16	M22 x 1.50	28	17.5	3900-0616	3900-0656
ER-20	M25 x 1.50	35	19	3900-0620	3900-0660

## Pro-Series TYPE A 18,000 RPM ER CHUCK NUTS

- Balanced to 18,000 RPM
- Tolerance: .0003" Max.
- Material: 42 CrMo
- Hardness: HRC 50-52
- Thread Tolerance Class: 4H-Class



Item#	Fits	Thread	D (mm)	L (mm)
3900-0685	ER-11	M14 x 0.75	19	11.3
3900-0686	ER-16	M22 x 1.50	28	17.5

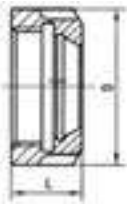
## TYPE KM & UM SPANNER ER CHUCK NUTS



Type UM



Type KM (Bearing Type)



Fits	Thread	D (mm)	L (mm)	Type UM Item#	Type KM Item#
ER-25	M32 X 1.50	42	20	3900-0625	3900-0645
ER-32	M40 X 1.50	50	22.5	3900-0632	3900-0647
ER-40	M50 X 1.50	63	25.5	3900-0640	3900-0649
ER-50	M64 X 2.00	78	35.5	3900-0642	3900-0651

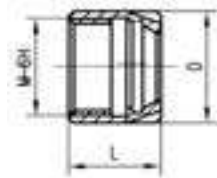
## Pro-Series TYPE UM 18,000 RPM ER CHUCK NUTS

- Balanced to 18,000 RPM
- Tolerance: .0003" Max.
- Material: 42 CrMo
- Hardness: HRC 50-52
- Thread Tolerance Class: 4H-Class



Item#	Fits	Thread	D (mm)	L (mm)
3900-0688	ER-16	M22x1.5	32	17
3900-0689	ER-20	M25x1.5	35	19
3900-0690	ER-25	M32 X 1.50	42	20
3900-0691	ER-32	M40 X 1.50	50	22.5
3900-0692	ER-40	M50 X 1.50	63	25.5
3900-0693	ER-50	M64 X 2.00	78	35.5

## ER CHUCK NUTS-Mini-Castle Nut FOR MINI TYPE SHANKS ONLY



Fits	Item#	Thread	D(mm)	L (mm)
ER-8 Mini	3900-0671	M10 x 0.75	12	12
ER-11 Mini	3900-0673	M13 x 0.75	16	12
ER-16 Mini	3900-0675	M19 x 1.00	22	18
ER-20 Mini	3900-0677	M24 x 1.00	28	19
ER-25 Mini	3900-0679	M30 x 1.00	35	20

## Pro-Series TYPE M 18,000 RPM ER CHUCK NUTS

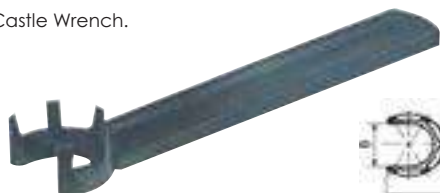
- Balanced to 18,000 RPM
- Tolerance: .0003" Max.
- Material: 42 CrMo
- Hardness: HRC 50-52
- Thread Tolerance Class: 4H-Class



Item#	Fits	Thread	D (mm)	L (mm)
3900-0680	ER-11 Mini	M13x.75	16	12
3900-0681	ER-16 Mini	M19x1.0	22	18
3900-0682	ER-20 Mini	M24x1.0	28	19

## ER CHUCK CASTLE WRENCHES-Mini FOR MINI NUTS

- Castle Wrench.



Item#	Fits	Open B (mm)	OAL L (mm)
3900-0606	ER-8 Mini	7.5	70
3900-0607	ER-11 Mini	11	90
3900-0608	ER-16 Mini	15	110
3900-0609	ER-20 Mini	19.5	120
3900-0610	ER-25 Mini	25	130

# ER COLLET CHUCK WRENCHES & RACKS

## ER CHUCK HEX WRENCHES FOR TYPE A NUT

- For hex ER chuck nuts.



Item#	Fits	Open B (mm)	OAL L (mm)
3900-0591	ER-11	17	110
3900-0593	ER-16	25	110
3900-0592	ER-20	30	160

## ER CHUCK SLOTTED WRENCHES FOR TYPE KM&UM NUT

- For ER chuck nuts with slots.



Item#	Fits	Open B (mm)	OAL L (mm)
3900-0601	ER-25	37	210
3900-0602	ER-32	45	250
3900-0603	ER-40	58	290
3900-0605	ER-50	72	350

## ER CHUCK SPANNER HOOK WRENCHES FOR TYPE KM&UM NUT

- For ER chuck nuts with slots.



Item#	Fits	Open (mm)	OAL L (mm)
3900-0594	ER-25	38-42	168
3900-0595	ER-32	45-52	190
3900-0596	ER-40	55-63	210
3900-0599	ER-50	78-85	240

## COLLET RACK-5C, ER32

- Holds 8 collets: 5C, ER32 or others.
- Supplied with mounting hardware.
- 4 mounting holes: 3.5" & 5.5" apart.
- Made from durable ABS material, heavy duty.

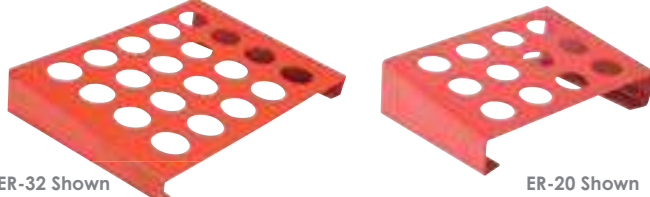


3900-1609

COLLETS ARE NOT INCLUDED

## ER COLLET RACKS

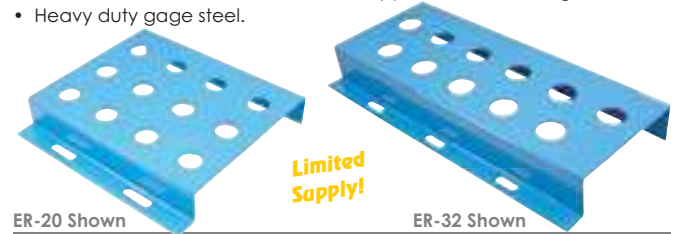
- Holds ER collets.
- Made from heavy duty gage steel.
- Supplied with mounting hardware.



Item#	TYPE	HOLD COLLET	FOOTPRINT
3900-8671	ER-11	12	70x100mm
3900-8672	ER-16	12	80x110mm
3900-8676	ER-20	12	100x140mm
3900-8680	ER-25	15	130x190mm
3900-8684	ER-32	20	200x260mm
3900-8688	ER-40	24	245x360mm

## ER COLLET RACKS

- Holds ER collets.
- Heavy duty gage steel.
- Supplied with mounting hardware.



Item#	TYPE	HOLD COLLET	FOOTPRINT
3900-5171	ER-11	13	110x160mm
3900-5172	ER-16	8	110x180mm
3900-5174	ER-20	12	160x185mm
3900-5175	ER-25	15	180x300mm
3900-5176	ER-32	11	180x400mm
3900-5178	ER-40	15	250x360mm

## 8PC EXPANDING ARBOR SETS

- Chuck the shank of the expanding mandrel in a collet, jaw chuck, or fixture.
- With an Allen wrench tighten the hex draw bolt until it expands. Then machine the slotted part larger than bore of part.
- Loosen hex draw bolt, position part, tighten draw screw. The part is now chucked and ready for machining.
- Can be used with standard collets, vises, jaw chucks and many other special fixtures.
- Multiple expanding mandrels are also used in other special fixtures for holding multiple work pieces "side by side".

### SET INCLUDES:

Sizes shown, Allen wrench and wood block.

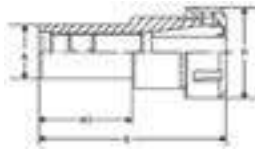
Item#	Sizes Included
3906-4006	1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1 & 1-1/4"
3906-4008	6, 10, 12, 16, 19, 22, 25 & 32mm

See page 286 for additional arbors & sets.



# ER COLLET CHUCKS

## STRAIGHT SHANK ER COLLET CHUCKS

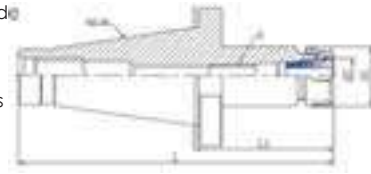


- Precision made with 0.0008" T.I.R.
- For heavy duty jobs.

Item#	Shank Ax B1	Type	Capacity	Nut Style	(mm) B	(mm) D
3900-5106	5/8x2-1/2"	ER-11	.02~.275"	Hex	88.9	19
3900-7692	16mmx4"	ER-11	.02~.275"	Mini	127	19
3900-5107	3/4x2-1/2"	ER-11	.02~.275"	Hex	88.9	19
3900-5108	3/4x4"	ER-11	.02~.275"	Hex	127	19
3900-5109	3/4x2-1/2"	ER-16	.02~.393"	Hex	103.5	28
3900-5110	3/4x4"	ER-16	.02~.393"	Hex	141.6	28
3900-5111	3/4x6"	ER-16	.02~.393"	Hex	192.4	28
3900-7694	20mmx4"	ER-16	.02~.393"	Hex	141.6	28
3900-5112	3/4x2-1/2"	ER-20	.04~.511"	Hex	104	34
3900-5116	3/4x4"	ER-20	.04~.511"	Hex	142.1	34
3900-5113	3/4x6"	ER-20	.04~.511"	Hex	192.9	34
3900-5115	3/4x2"	ER-25	.04~.629"	Spanner	101.8	42
3900-5114	3/4x4"	ER-25	.04~.629"	Spanner	152.6	42
3900-5118	1x2"	ER-32	.08~.787"	Spanner	101.5	50
3900-5122	1-1/4x6"	ER-32	.08~.787"	Spanner	201.5	50

## NMTB 30 & 40 SHANK ER COLLET CHUCKS

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.



Item#	Shank	Type	Nut Style	L	(mm) L1	d1	Drawbar End
3900-5083	#30	ER-32	Spanner	128.4	60	50	1/2"~13
3900-5084	#30	ER-40	Spanner	138.4	70	63	1/2"~13
3900-5088	#40	ER-16	Hex	138.4	45	28	5/8"~11
3900-5090	#40	ER-32	Spanner	153.4	60	50	5/8"~11
3900-5091	#40	ER-40	Spanner	163.4	70	63	5/8"~11

## Pro-Series NMTB 30 & 40 SHANK ER COLLET CHUCKS

- Made of high grade alloy steel
- Tolerance: .0003" Max.

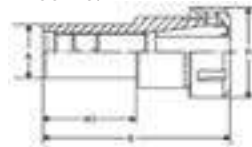
**SUPERIOR FINISH & CRAFTSMANSHIP**



Item#	Shank	Type	Nut Style	L	(mm) L1	d1	Drawbar End
3901-5083	#30	ER-32	Spanner	128.4	60	50	1/2"~13
3901-5084	#30	ER-40	Spanner	138.4	70	63	1/2"~13
3901-5088	#40	ER-16	Hex	138.4	45	28	5/8"~11
3901-5090	#40	ER-32	Spanner	153.4	60	50	5/8"~11
3901-5091	#40	ER-40	Spanner	163.4	70	63	5/8"~11

## Pro-Series STRAIGHT SHANK BALANCED ER COLLET CHUCKS

- Made of high grade alloy steel.
- Premium hardened & all ground body for extended tool life.



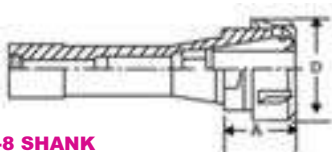
**MAX. RPM: 18,000  
T.I.R. ≤ .0003"  
SUPERIOR FINISH**

Item#	Type	Shank Ax B1	Nut Style	B	(mm) D
3900-2080	ER-11	5/8X2-1/2"	Hex	3.457"	19
3900-2082	ER-11	3/4X4"	Hex	4.957"	19
3900-2083	ER-16	3/4x2-1/2"	Hex	4.087"	28
3900-2084	ER-16	3/4x4"	Hex	5.587"	28
3900-2085	ER-16	3/4x6"	Hex	7.587"	28
3900-2086	ER-20	3/4X2-1/2"	Hex	4.476"	34
3900-2088	ER-20	3/4X4"	Hex	5.976"	34
3900-2089	ER-20	3/4X6"	Hex	7.976"	34
3900-2091	ER-25	3/4X2"	Spanner	4.232"	42
3900-2092	ER-25	3/4X4"	Spanner	6.232"	42
3900-2094*	ER-32	1X2"	Spanner	4.252"	50
3900-2095*	ER-32	1X4"	Spanner	6.252"	50

\*Limited Supply

## R8 SHANK ER COLLET CHUCKS

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.
- Thread of Drawbar End: 7/16" -20



**R-8 SHANK**

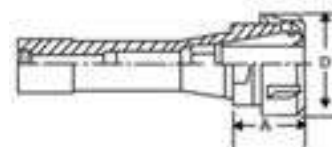
Item#	Type	Nut Style	(Inch) A	D
3900-5061	ER-16	Hex	1.50	1.10
3900-5066	ER-32	Spanner	157	1.97
3900-5069	ER-40	Spanner	2.76	2.48



## Pro-Series R8 SHANK ER COLLET CHUCKS

- Made of high grade alloy steel
- Premium hardened & all ground body for extended tool life.
- Thread of Drawbar End: R8- 7/16" -20

**R-8 SHANK  
MAX. RPM: 8,000  
T.I.R. ≤ .0002"  
SUPERIOR FINISH**



Item#	Type	Nut Style	(Inch) A	D
3901-5061*	ER-16	Hex	1.50	1.10
3901-5063	ER-20	Hex	1.50	1.38
3901-5064*	ER-25	Spanner	1.57	1.66
3901-5066	ER-32	Spanner	157	1.97
3901-5069	ER-40	Spanner	2.76	2.48

\*Limited Supply



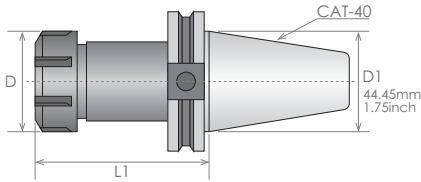


## CAT 40 ER COLLET CHUCKS

- For CNC machines having CAT 40 taper spindles.
- Hardened and precision ground.

**CAT-40** (DRAWBAR END: 5/8" ~11")

**T.I.R. ≤ 0.005mm**



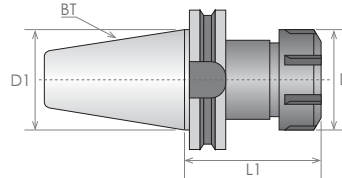
Item#	Type	Collet Range	Nut Style	Nut Dia. D	Gage Depth L1
3900-4362	ER-16	0.019~0.406"	Hex	1.1"	2.50"
3900-4361	ER-16	0.019~0.406"	Hex	1.1"	3.50"
3900-2060*	ER-16	0.019~0.406"	Hex	1.1"	2.76"
3900-2061*	ER-16	0.019~0.406"	Hex	1.1"	4.00"
3900-2028	ER-20	0.040~0.511"	Hex	1.4"	2.75"
3900-2039*	ER-20	0.040~0.511"	Hex	1.4"	4.00"
3900-2528	ER-25	0.040~0.629"	Spanner	1.7"	2.75"
3900-2539*	ER-25	0.040~0.629"	Spanner	1.7"	4.00"
3900-2073*	ER-32	0.078~0.787"	Spanner	2.0"	2.76"
3900-4369	ER-32	0.078~0.787"	Spanner	2.0"	3.20"
3900-4364*	ER-32	0.078~0.787"	Spanner	2.0"	4.00"
3900-4028	ER-40	0.120~1.020"	Spanner	2.5"	2.75"
3900-4039*	ER-40	0.120~1.020"	Spanner	2.5"	4.00"

\*Limited Supply

## BT 30 & 40 ER COLLET CHUCKS

- For CNC machines having BT taper spindles.
- Concentricity .0003".
- All critical surface are hardened and precision ground.

**Draw Bar Thread: BT30 M12x1.75  
BT40 M16x2.00**



Item#	Type	Collet Range	Nut Style	Nut Dia. D	Gage Depth L1
3900-7554	ER-16	.019~.406"	Hex	1.1"	2.76"
3900-7562	ER-25	.040~.629"	Spanner	1.7"	2.76"
3900-7566	ER-32	.078~.787"	Spanner	2.0"	2.76"
3900-7570	ER-40	.120~1.020"	Spanner	2.5"	3.15"

Item#	Type	Collet Range	Nut Style	Nut Dia. D	Gage Depth L1
3900-7604*	ER-16	.019~.406"	Hex	1.1"	2.48"
3900-8604*	ER-16	.019~.406"	Hex	1.1"	2.76"
3900-7608*	ER-20	.040~.511"	Hex	1.4"	2.76"
3900-7612*	ER-25	.040~.629"	Spanner	1.7"	2.36"
3900-8618*	ER-32	3/32~3/4"	Spanner	2.0"	2.76"
3900-8620*	ER-32	3/32~3/4"	Spanner	2.0"	4"

\*Limited Supply

## 5C ER32 COLLET CHUCK

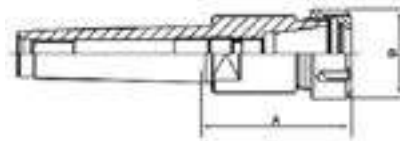
- 5C ER32 collet chuck.
- Made with DIN6499B (0.0005") Run-Out Tolerance.
- Holds all ER32 collets.
- Drawbar : 5C collet standard.
- Hardened and precision ground.
- Half-moon spanner wrench included.

**3900-5099**



## MT SHANK ER COLLET CHUCKS

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.



Item#	Shank	Type	Nut Style	Drawbar End	A (mm)	D (mm)
3900-5072	MT2	ER-20	Hex	3/8"~16	43	34
3900-5073	MT2	ER-25	Spanner	3/8"~16	47	42
3900-5077	MT3	ER-32	Spanner	3/8"~16	70	50
3900-5078	MT3	ER-40	Spanner	3/8"~16	80	63
3900-5079	MT4	ER-40	Spanner	5/8"~11	82	63



## Jacobs Taper ER COLLET SLEEVES & DRILL CHUCKS

- ER collet sleeves provide rigid & accurate holding of ID tooling. These collet sleeves feature ground shanks and tapers.
- Compatible with standard Jacobs taper spindles.
- Precision ground & hardened for accuracy and precision
- Can be used for coolant-thru applications
- Superior to keyed and keyless drill chucks in concentricity and holding power.



3903-6010 Shown

**MAX. RPM: 8,000  
T.I.R. ≤ .0002"  
SUPERIOR FINISH**

Item#	Type	Female JT Taper	Nut Style	SHANK DIA. D1	(mm) SHANK L1	OAL L2
3903-6010	ER-16	JT2	Hex	26	45	65
3903-6014	ER-20	JT2	Hex	26	45	65
3903-6018	ER-25	JT2	Spanner	32	46	67
3903-6050	ER-16	JT33	Hex	26	38	65
3903-6054	ER-20	JT33	Hex	26	38	65
3903-6058	ER-25	JT33	Spanner	32	40	72
3903-6062	ER-32	JT33	Spanner	40	48	71
3903-6082	ER-32	JT6	Spanner	40	50	73

Additional sizes shown on page 237

# ER COLLET CHUCK SETS

## ER SPRING COLLET CHUCK SETS

- High precision collet chuck system suitable for all milling and drilling applications.
- Unique self-releasing system.
- Wide holding range.
- With fitted case.
- Accuracy to .0005".



ER-11	ER-25	ER-32
<p><b>• 9PC SET INCLUDES</b></p> <p>7-Collet: 1/16, 3/32, 1/8, 3/16, 7/32, 1/4 &amp; 5/16"</p> <p>1-Collet Chuck 1-Wrench</p>	<p><b>• 10PC SET INCLUDES</b></p> <p>8-Collet 4, 5, 6, 8, 10, 12, 14 &amp; 16mm</p> <p>1-Collet Chuck 1-Wrench</p> <p><b>• 12PC SET INCLUDES</b></p> <p>10-Collet 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16 &amp; 5/8"</p> <p>1-Collet Chuck 1-Wrench</p> <p><b>• 17PC SET INCLUDES</b></p> <p>15-Collet 1/16, 3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16 &amp; 5/8"</p> <p>1-Collet Chuck 1-Wrench</p>	<p><b>• 8PC SET INCLUDES</b></p> <p>6-Collet 1/4, 5/16, 3/8, 1/2, 5/8 &amp; 3/4"</p> <p>1-Collet Chuck 1-Wrench</p> <p><b>• 10PC SET INCLUDES</b></p> <p>8-Collet 4, 5, 6, 8, 10, 12, 16 &amp; 20mm</p> <p>1-Collet Chuck 1-Wrench</p> <p><b>• 14PC SET INCLUDES</b></p> <p>12-Collet 1/16, 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 &amp; 13/16"</p> <p>1-Collet Chuck 1-Wrench</p> <p><b>• 20PC SET INCLUDES</b></p> <p>18-Collet 3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 23/32 &amp; 3/4"</p> <p>1-Collet Chuck 1-Wrench</p>

ER-16
<p><b>• 11PC SET INCLUDES</b></p> <p>9-Collet 1/16, 3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32 &amp; 3/8"</p> <p>1-Collet Chuck 1-Wrench</p>

ER-40		
<p><b>• 10PC SET INCLUDES</b></p> <p>8-Collet 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8 &amp; 1"</p> <p>1-Collet Chuck 1-Wrench</p>	<p><b>• 17PC SET INCLUDES</b></p> <p>15-Collet 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 &amp; 1"</p> <p>1-Collet Chuck 1-Wrench</p>	<p><b>• 25PC SET INCLUDES</b></p> <p>23-Collet 1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 3/4, 25/32, 13/16, 27/32, 7/8, 15/16, 31/32 &amp; 1"</p> <p>1-Collet Chuck 1-Wrench</p>

Item#	Type	Collet Set	Size Range	Chuck Shank	Nut Style	Gage Length
3900-1172	ER-11	9	1/16~5/16"	1/2"	Mini	---
3900-1174	ER-11	9	1/16~5/16"	3/4x2-1/2"	Hex	---
3900-1176	ER-11	9	1/16~5/16"	3/4x2-1/2"	Mini	---
3900-1177	ER-11	9	1/16~5/16"	3/4x4"	Mini	---
3900-1178	ER-11	9	1/16~5/16"	3/4x6"	Hex	---
3900-1672	ER-16	11	1/16~3/8"	3/4"x4"	Hex	---
3900-0501	ER-16	11	1/16~3/8"	R8	Hex	---
3900-4014	ER-16	11	1/16~3/8"	CAT40	Hex	2.75"
3900-2573	ER-25	17	1/16~5/8"	3/4"x2-1/2"	Spanner	---
3900-0502	ER-25	12	3/32~5/8"	MT2	Spanner	1.85"
3901-5101	ER-25	10	4~16mm	BT40	Spanner	2.75"
3900-4023	ER-25	17	1/16~5/8"	CAT40	Spanner	2.75"
3900-7530	ER-32	20	3/32~3/4"	3/4"x4"	Spanner	---
3900-0507	ER-32	8	1/4~3/4"	R8	Spanner	---
3900-0508	ER-32	14	1/16~13/16"	R8	Spanner	---
3900-0503	ER-32	14	1/16~13/16"	MT3	Spanner	2.75"
3900-5300	ER-32	14	1/16~13/16"	#30	Spanner	2.36"
3900-0505	ER-32	14	1/16~13/16"	#40	Spanner	2.75"
3901-5108	ER-32	10	4~20mm	BT40	Spanner	2.75"
3900-4029	ER-32	20	3/32~3/4"	CAT40	Spanner	3.20"
3900-7538	ER-40	17	1/8~1"	3/4x3"	Spanner	---
3900-0004	ER-40	10	1/8~1"	R8	Spanner	2.76"
3900-0005	ER-40	17	1/8~1"	R8	Spanner	2.76"
3900-0531	ER-40	17	1/8~1"	MT3	Spanner	3.15"
3900-0504	ER-40	17	1/8~1"	MT4	Spanner	2.75"
3900-5301	ER-40	17	1/8~1"	#30	Spanner	2.36"
3900-0538	ER-40	10	1/8~1"	#40	Spanner	2.36"
3900-0540	ER-40	17	1/8~1"	#40	Spanner	2.36"
3900-4042	ER-40	25	1/8~1"	CAT40	Spanner	2.75"

## Pro-Series ER SPRING COLLET CHUCK SETS

- High precision collet chuck system suitable for all milling and drilling applications.
- Unique self-releasing system.
- Wide holding range.
- With fitted metal case.
- Accuracy to .0003".

**SUPERIOR CRAFTSMANSHIP**



### ER-11

**• 9PC SET INCLUDES**

- 7-Collet: 1/16, 3/32, 1/8, 3/16, 7/32, 1/4 & 5/16"
- 1-Collet Chuck
- 1-Wrench

### ER-16

**• 11PC SET INCLUDES**

- 9-Collet: 1/16, 3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32 & 3/8"
- 1-Collet Chuck
- 1-Wrench

### ER-32

**• 20PC SET INCLUDES**

- 18-Collet  
3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 23/32 & 3/4"
- 1-Collet Chuck
- 1-Wrench

**• 14PC SET INCLUDES**

- 12-Collet  
1/16, 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 & 13/16"
- 1-Collet Chuck
- 1-Spanner Wrench

### ER-25

**• 12PC SET INCLUDES**

- 10-Collet  
3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16 & 5/8"
- 1-Collet Chuck
- 1-Wrench

### ER-40

**• 17PC SET INCLUDES**

- 15-Collet  
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"
- 1-Collet Chuck
- 1-Wrench

**• 25PC SET INCLUDES**

- 23-Collet  
1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 3/4, 25/32, 13/16, 27/32, 7/8, 15/16, 31/32 & 1"
- 1-Collet Chuck
- 1-Wrench

Item#	Type	Collet Set	Size Range	Chuck Shank	Nut Style	Gage Length
3900-1173	ER-11	9	1/16~5/16"	1/2"	Hex	---
3900-1175*	ER-11	9	1/16~5/16"	3/4x8"	Hex	---
3900-4016	ER-16	11	1/16~3/8"	CAT40	Hex	2.50"
3900-1675	ER-16	11	1/16~3/8"	3/4x6"	Hex	---
3900-4025	ER-25	12	3/32~5/8"	CAT40	Spanner	2.75"
3900-2575	ER-25	17	1/16~5/8"	3/4x4"	Spanner	---
3900-4050	ER-25	12	3/32~5/8"	MT2	Spanner	2.50"
3900-4032	ER-32	20	3/32~3/4"	CAT40	Spanner	3.20"
3900-7532	ER-32	20	3/32~3/4"	3/4x4"	Spanner	---
3900-4052	ER-32	14	1/16~13/16"	MT3	Spanner	2.75"
3900-4060	ER-32	14	1/16~13/16"	NMTB #30	Spanner	2.36"
3900-4040	ER-40	25	1/8~1"	CAT40	Spanner	2.75"
3900-4054	ER-40	17	1/8~1"	MT3	Spanner	3.20"
3900-4056	ER-40	17	1/8~1"	MT4	Spanner	3.20"
3900-4062	ER-40	17	1/8~1"	NMTB #30	Spanner	2.75"

\*Limited Supply



# ER COLLET FIXTURES & ACCESSORIES

## ER COLLET FIXTURES-Plain Back

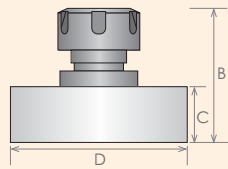
- Mount to your choice of backplate for using on a lathe or could be used as a fixture on a milling table.
- Concentricity: .04mm/ .00016"



Item#	Type	D1	(mm) D	L	No. of Bolt Hole	Bolt Hole Size
3901-5016	ER-16	45	22	25	4	5
3901-5025	ER-25	102	52	36	3	M10
3901-5032	ER-32	80	55	42	3	M6
3901-5033	ER-32	100	72	42	3	M8
3901-5034	ER-32	130	100	42	3	M8x1.25
3901-5035	ER-32	160	130	42	3	M8x1.25
3901-5036	ER-40	100	72	42	3	M8
3901-5038	ER-40	132	100	42	3	M10

## ER-40 COLLET CHUCK FIXTURE-Direct Mount

- Mount to D1 spindle of lathe.
- Concentricity .0002"



Item#	Type	D	Mount	B	C
3901-5041	ER-40	125mm	D1-3	54.9mm	23mm
3901-5042	ER-40	125mm	D1-4	54.9mm	23mm

## HEX / SQUARE ER COLLET BLOCKS

- Block Dimension: 1-3/4 x 1-3/4 x Height.
- For fast set-ups on CNC machines.
- For parallel, square or hex shapes as well as for cross hole drilling at 60°, 90° or 120°.
- Made of tool steel hardened and ground to .0005" flatness, squareness and parallelism.
- Through hole allows for long parts to be machined.
- May be used standing upright.
- Uses standard ER collets.
- ER nut included.



Item#	Shape	ER Collet	Block Height
3900-5123	Square	ER-25	2.7
3900-5124	Square	ER-32	2.8
3900-5125	Square	ER-40	3.2
3900-5127	Hex	ER-25	2.7
3900-5128	Hex	ER-32	2.8
3900-5129	Hex	ER-40	3.2

## Jacobs Taper ER COLLET SLEEVES & DRILL CHUCKS

- ER collet sleeves provide rigid & accurate holding of ID tooling. These collet sleeves feature ground shanks and tapers.
- Compatible with standard Jacobs taper spindles.

- Precision ground & hardened for accuracy and precision
- Can be used for coolant-thru applications
- Superior to keyed and keyless drill chucks in concentricity and holding power.



**MAX. RPM: 8,000**  
**T.I.R. < .0002"**  
**SUPERIOR FINISH**

Item#	Type	Female JT Taper	Nut Style	SHANK DIA. D1	(mm) SHANK L1	OAL L2
3903-6010	ER-16	JT2	Hex	26	45	65
3903-6014	ER-20	JT2	Hex	26	45	65
3903-6018	ER-25	JT2	Spanner	32	46	67
3903-6022	ER-32	JT2	Spanner	40	40	72
3903-6028	ER-16	JT3	Hex	32	45	72
3903-6032	ER-20	JT3	Hex	32	45	72
3903-6036	ER-25	JT3	Spanner	32	56	77
3903-6040	ER-32	JT3	Spanner	40	45	77
3903-6050	ER-16	JT33	Hex	26	38	65
3903-6054	ER-20	JT33	Hex	26	38	65
3903-6058	ER-25	JT33	Spanner	32	40	72
3903-6062	ER-32	JT33	Spanner	40	48	71
3903-6070	ER-16	JT6	Hex	25	38	65
3903-6074	ER-20	JT6	Hex	26	38	65
3903-6078	ER-25	JT6	Spanner	32	38	72
3903-6082	ER-32	JT6	Spanner	40	50	73

# SK HOLDERS & ACCESSORIES - LYNDEx STYLE

## BT30 SK SLIM COLLET CHUCKS - LYNDEx STYLE

- Dual contacts of taper and flange.
- Increase spindle contact by 53% over standard holders.
- Prevent tools from pulling into spindle.
- BT-30 Balanced to 30,000 RPM.

Limited Supply!



RUNOUT ≤ 5 MICRON at 4D

BT30 (Drawbar End M12x1.75)

Item#	Collet Series	Collet Range	H	C	Gage Depth L (mm)
3901-5490	SK10	0.069~0.393"	1.181~1.969"	1.083"	90
3901-5492	SK16	0.108~0.630"	1.772~2.756"	1.575"	90

## SK SLIM COLLET CHUCK NUTS - LYNDEx STYLE

- For SK-10 or SK-16 collet chucks.
- Holds SK-10 or SK-16 style collets.
- Economical.



Item#	Collet Series	Nut Dia.	Nut Length	Nut Thread
3901-5555	SK10	27.1mm	24mm	M21.5x1.0
3901-5558	SK16	40.0mm	31mm	M32x1.5

## SK10 SK STRAIGHT SHANK SLIM COLLET & CHUCK SET - LYNDEx STYLE

- Dual contacts of taper and flange.
- Increase spindle contact by 53% over standard holders
- Prevent tools from pulling into spindle.
- Slim design for better clearance.
- Max. Speed: 15,000 RPM



Limited Supply!

MADE IN TAIWAN

RUNOUT ≤ 5 MICRON

Set Includes:

- 1PC of Straight Shank SK10 Holder (Shank: 20mm x100mm Length)
- 8PC of SK10 Collets: 3,4,5,6,7,8,9,&10mm
- 1PC of Wrench
- Fitted Case

10PC SET (M3~M10)  
3901-5583



## CAT40 SK SLIM COLLET CHUCKS - LYNDEx STYLE

- Dual contacts of taper and flange.
- Increase spindle contact by 53% over standard holders.
- Prevent tools from pulling into spindle.
- Balanced to 20,000 RPM.



Limited Supply!

CAT40 (Drawbar End 5/8" ~11)

RUNOUT ≤ 5 MICRON

Item#	Collet Series	Collet Range	H	C	Gage Depth L (mm)
3901-5504	SK10	0.069~0.393"	1.181~1.969"	1.083"	90
3901-5506	SK10	0.069~0.393"	1.181~1.969"	1.083"	120
3901-5523	SK16	0.108~0.630"	1.772~2.756"	1.575"	90
3901-5525	SK16	0.108~0.630"	1.772~2.756"	1.575"	120

## SK10 & SK16 SK SLIM CHUCK COLLETS - LYNDEx STYLE

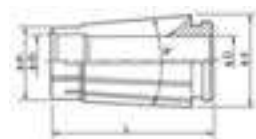
- Vacuum quenching heat treatment to hardness HRC46~50.
- Collet front cone convex platform design reduces the entry of dust and chips increasing longer service life.
- The SK slim collet system features an 8° taper angle versus the 16° taper for ER type collets.
- The SK collet results in greater gripping forces. Note! This results in less range capacity for each collet.
- SK collets sit deeper in the tool holder compared to TG and ER type collet systems. This extra length results in higher accuracy and rigidity.

RUNOUT ≤ 5 MICRON



SK10

Item#	Size D	Collapse Range
3901-5401	1/8	0.115~0.125"
3901-5404	3/16	0.168~0.188"
3901-5407	1/4	0.230~0.250"
3901-5410	5-16	0.293~0.313"
3901-5414	3/8	0.355~0.375"



SK16  
3901-5401 Shown



SK16

Item#	Size D	Collapse Range
3901-5431	1/8	0.112~0.125"
3901-5435	3/16	0.168~0.188"
3901-5439	1/4	0.230~0.250"
3901-5444	5-16	0.293~0.313"
3901-5448	3/8	0.355~0.375"
3901-5452	7/16	0.419~0.438"
3901-5456	1/2	0.480~0.500"
3901-5460	9/16	0.543~0.562"
3901-5464	5/8	0.605~0.625"

Collet Dimensions

Series	d	(mm) d1	d2	L
SK10	15.45	12.0	9.50	30.5
SK16	24.52	18.8	15.5	45.0

# KEYLESS DRILL CHUCKS

## PRECISION KEYLESS DRILL CHUCKS WITH INTEGRAL SHANKS

- Integrated design maximizes rigidity & accuracy.
- Integral shank is more compact than a combined drill chuck and arbor and eliminates the chuck slipping on its arbor.



T.I.R.  $\leq$  .0025"

Item#	Clamping Capacity	Shank
3701-1501	0~1/2"	R8
3701-1626	1/64~5/8"	R8
3701-2490	1/64~5/16"	MT2
3701-2499	1/64~1/2"	MT3
3701-2502	1/64~1/2"	MT4
3701-2624	1/64~5/8"	MT3
3701-2627	1/64~5/8"	MT4
3701-3503*	1/64~1/2"	BT40
3701-3628*	1/64~5/8"	BT40
3701-3001	0~1/2"	NMTB #30
3701-3011	0~1/2"	NMTB #40
3701-3015	1/64~5/8"	NMTB #40

\*Limited Supply

## Pro-Series ULTRA PRECISION KEYLESS DRILL CHUCKS WITH INTEGRAL SHANKS

- Integrated design maximizes rigidity & accuracy.
- Keyless, self tightening design.

MADE IN TAIWAN



Max. T.I.R.  $\leq$  .002"

- Integral shank is more compact than a combined drill chuck and arbor and eliminates the chuck slipping on its arbor.

Item#	Clamping Capacity	Shank
3701-0500	1/64~1/2"	CAT40
3701-0625	1/8~5/8"	CAT40
3701-1050	1/64~1/2"	BT30
3701-1054	0~1/2"	BT40
3701-1062	1/8~5/8"	BT40
3701-1500	0~1/2"	R8
3701-1625	1/8~5/8"	R8
3701-2500	0~1/2"	MT3
3701-2501	0~1/2"	MT4
3701-2625	1/8~5/8"	MT3
3701-2626	1/8~5/8"	MT4
3701-3500	0~1/2"	#40NMTB
3701-3625	1/8~5/8"	#40NMTB

## Pro-Series BT40 HI-TORQUE INTEGRATED KEYLESS DRILL CHUCKS

- Reinforce torque design to increase more clamping power.
- Integrated design maximizes rigidity & accuracy
- Right turn and left turn allowable.
- Maximum T.I.R. does not exceed .002".
- Max. speed 6000 RPM.
- Supplied with wrench.

Limited Supply!



BT40 TAPER

MADE IN TAIWAN

Item#	Clamping Range
3701-2650	.02~1/2"
3701-2662	.12~5/8"

## BT40 ULTRA PRECISION INTEGRAL DRILL CHUCKS - HEX-KEY LOCKING

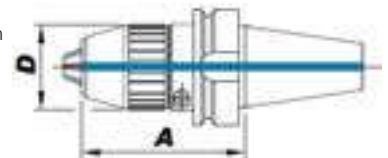
- Manufactured and tested at a world class factory that produces highest quality European brands (Babel).
- Suitable for CNC and high precision machine applications.
- High precision and concentricity.
- Right and left rotation.
- High gripping force with effortless tool clamping.
- Short and sturdy design: tool shank and chuck form one unit.
- Simple operation: Quick tool change inside or outside of machine, no unintentional opening in case of sudden spindle stop or change of direction.
- Tightening wrench included.
- Runout test of drill chucks is done with a torque of approx 12 Nm using the following test mandrels:  
1/2": 6 mm, 8 mm, 12 mm  
5/8": 6 mm, 8 mm, 12 mm und 16 mm



T.I.R.  $<$  0.0012"

### BT40 Shank

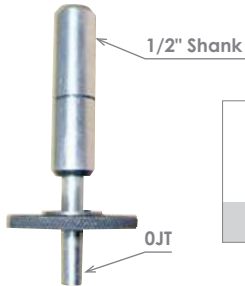
Item#	Capacity	A	D
3701-4650	1/2"	3.50"	1.77"
3701-4652	5/8"	3.74"	1.97"





## SENSITIVE HAND DRILL FEED & SET

- 1/2" diameter hardened and precision ground straight shank x OJT.
- Grasp free turning ring and feed drill.
- Spring loaded 3/4" travel fits any drill, mill, lathe or jig borer.
- Reduces small drill breakage.
- Suitable for drills (.008-5/32")
- TIR: .002"



**Drill Feed, JTO**  
**3700-0001**

**NEW**  
**Drill Feed & Drill Chuck Combo**  
**3700-5000**

Include: Drill Feed JTO (3700-0001)  
1/8" Keyless Drill Chuck (3700-0002)



## 1/8" JTO KEYLESS DRILL CHUCK

- Precision made with highest T.I.R.
- Ultra smooth bearings.

**0~1/8"/0~3MM**  
**3700-0002**



## Pro-Series STRAIGHT SHANK INTEGRATED KEYLESS DRILL CHUCKS

- Integrated design maximizes rigidity & accuracy
- Supplied with wrench.

**T.I.R. < .0002"**



**SUPERIOR FINISH**

Item#	Clamping Range	Shank Dimension
3701-4500	1/64~1/2"	5/8x2.4"
3701-4502	1/64~1/2"	3/4x3.2"
3701-4625	1/64~5/8"	5/8x2.4"
3701-4627	1/64~5/8"	3/4x3.2"

## HEAVY DUTY KEYLESS DRILL CHUCKS

- Self-tightening design.
- No chuck key required.
- Hardened tool steel to insure accuracy and extended chuck life.
- Can be used on a wide variety of machinery.
- Solid steel body.

**TAPER MOUNTED**

**0~1/2", JT33**  
**3700-0210**



Item#	Capacity	Taper Mount
3700-0204	0~3/8"	JT2
3700-0207	0~3/8"	JT33
3700-0210	1/32~1/2"	JT33
3700-0212	1/32~1/2"	JT2
3700-0213	1/32~1/2"	JT6
3700-0215	1/8~5/8"	JT6

## ULTRA PRECISION KEYLESS DRILL CHUCKS

- Super heavy duty ultra precision.
- Closer tolerances assure excellent runout accuracy.
- Normal gripping power when hand tightened and double the torque when used with spanner wrench.
- Especially suitable for CNC machines.

**HHIP PRO-SERIES**

**TAPER MOUNTED**

**0~1/2", JT33**  
**3700-0255**



Item#	Capacity (Inch)	Accuracy (Inch)	Taper Mount	Body Dia.
3700-0250	1/32~3/8	.0024	JT2	1.65"
3700-0251	1/32~3/8	.0024	JT33	1.65"
3700-0255	1/32~1/2	.0024	JT33	1.89"
3700-0257	1/32~1/2	.0024	JT6	1.89"
3700-0259	1/32~5/8	.0028	JT6	2.09"

## WRENCHES FOR KEYLESS DRILL CHUCKS

**Hook wrench for keyless drill chucks**



Item#	Fit Chuck Size	Taper Mount
3700-0291	0~5/16"	JT1
3700-0292	0~3/8"	JT2, JT33
3700-0293	0~1/2"	JT33, JT6
3700-0294	1/8~5/8"	JT3, JT6

# DRILL CHUCKS

## BUDGET DRILL CHUCKS

- Accuracy and strong gripping force.
- For portable, bench or floor type drill press.
- Supplied with chuck key.

### TAPER MOUNTED

Item#	Capacity	Taper Mount
3700-0100	1/32~3/8"	JT2
3700-0102	1/32~1/2"	JT33
3700-0103	1/32~1/2"	JT6
3700-0105	1/8~5/8"	JT3
3700-0106	1/32~5/8"	JT33
3700-0108	3/16~3/4"	JT3



1/2", JT33  
3700-0102

## BALL BEARING DRILL CHUCKS

- Extra heavy duty.
- Anti-thrust ball bearing to increase the grip power with high speed drilling.
- All parts hardened and precision ground.
- Ultra smooth with ball bearing.
- Supplied with chuck key.

**RUNOUT: < .0032"**



Item#	Capacity	Taper Mount
3700-1091	1/32~3/8"	JT2
3700-1092	1/32~1/2"	JT6
3700-1093	1/32~1/2"	JT33
3700-1094	1/32~1/2"	JT3
3700-1095	1/32~5/8"	JT3
3700-1097	1/32~3/4"	JT4

## Pro-Series DRILL CHUCKS - With Key

- Precision made with the highest T.I.R.
- For heavy duty jobs.
- Supplied with chuck key.

**RUNOUT: .005"**  
**TAPER MOUNTED**



Item#	Capacity	Taper Mount
3700-0081	1/32~3/8"	JT2
3700-0083	1/32~1/2"	JT33
3700-0084	1/32~1/2"	JT6
3700-0085	1/8~5/8"	JT3
3700-0086	1/8~5/8"	JT33
3700-0087	1/8~5/8"	JT6
3700-0089	3/16~3/4"	JT3

## STAINLESS STEEL DRILL CHUCKS - With Key

- Made of stainless steel (Anti-Rust).
- Acid resistance.
- Recommended for EDM machines and the food & marine industries.



Item#	Capacity	Taper Mount	Key Size
3700-0301	1/64~5/32"	JT0	T0-3S
3700-0302	1/64~1/4"	JT1	T1-3S
3700-0309	1/64~3/8"	JT2S	T2-3S
3700-3001*	1/64~3/8"	JT2	T2-3S

\* Limited Supply



### REPLACEMENT KEY

Item#	Key Size
3700-0311	T0-3S
3700-0312	T1-3S
3700-0313	T2-3S

## Pro-Series PRECISION DRILL CHUCKS - With Key

- Super precision durable with strong body.
- The nut and jaws are AISI-52100 (bearing steel) and heat treated.
- The taper is precision ground for improved precision.
- Accuracy: 0.0032".
- Supplied with chuck key.

**MADE IN TAIWAN**



Item#	Capacity	Taper Mount
3701-0100	1/64~1/4"	JT1
3701-0108	1/64~1/2"	JT33
3701-0110	1/64~1/2"	JT6
3701-0115	1/32~5/8"	JT3
3701-0120	1/8~3/4"	JT4

## 4-IN-1 MASTER DRILL CHUCK KEYS

- Convenient one-key can open different chucks.
- Fits most popular chucks.

3070-0048

For SIZE: K1, K2, K3, K4

3070-0481

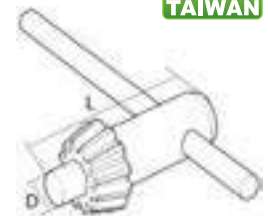
For SIZE: K5, K6, K7, K8



## Pro-Series REPLACEMENT DRILL CHUCK KEYS

- For key type drill.
- Measure the chucks diameter of the pilot hole/shank(D) to match drill chuck.

**MADE IN TAIWAN**



Item#	Type	(mm) D	(mm) L
3070-0041	T1	3.2	35
3070-0042	T2	4	42
3070-0045	T4	6	45
3070-0047	T5	6.5	45
3070-0049	T7	8	50
3070-0057	T8	9.5	65
3070-0059	T9	11	100

## 3PC PIN CHUCK SET

- Holds small drills firmly.
- Ensures complete collet length.
- Overall length: 2-1/2"
- Shank size: 1/4"

**Includes:**  
3 Collets - capacity: 0 - 1/32",  
1/32 - 1/16", 1/16 - 3/32"



**3700-0501**

## 4PC PIN VISE SET

- Hollow handle for long wire or rods.



**Includes:**  
Ranges: 0~.055", .025~.075",  
.045~.125", .110~.187"

**3700-0505**

## MT TO JT REVOLVING TAILSTOCK ARBORS/ADAPTERS

- Use to support small diameter work where a live center is not practical.
- This is a "live" adapter with smooth, sealed bearings for the tailstock.
- Use it to mate with any Jacob Taper (JT) taper drill chuck.
- The shank is Morse taper (MT).



**MT2 x JT2**  
**3906-4922**

**MT TO JT**



\* Drill Chuck Not Included

Item#	Taper	Drawbar Thread
3906-4922	MT 2 x JT2	M10
3906-4925	MT2 x JT3	M10
3906-4928	MT3 x JT2	M12
3906-4932	MT3 x JT3	M12

## DRILL CHUCK ARBORS



**Hardened & Ground**



**Straight TO JT**

Item#	Arbor Taper to Chuck	Item#	Arbor Taper to Chuck
3700-0111	MT1 to JT0	3700-0162	1/2" to JT0
3700-0112	MT1 to JT1	3700-0163	1/2" to JT1
3700-0113	MT1 to JT33	3700-0164	1/2" to JT2
3700-0115	MT2 to JT1	3700-0178	1/2" to JT3
3700-0151	MT2 to JT2	3700-0165	1/2" to JT6
3700-0149	MT2 to JT3	3700-0170	1/2" to JT33
3700-0117	MT2 to JT4	3700-0166	5/8" to JT2
3700-0150	MT2 to JT6	3700-0171	5/8" to JT33
3700-0152	MT2 to JT33	3700-0167	3/4" to JT2
3700-0153	MT3 to JT33	3700-0168	3/4" to JT3
3700-0154	MT3 to JT2	3700-0172	3/4" to JT33
3700-0155	MT3 to JT3	3700-0180	3/4" to JT4
3700-0159	MT3 to JT4	3700-0181	3/4" to JT6
3700-0156	MT3 to JT6	3700-0185	5/8" to JT1
3700-0160	MT4 to JT3	3700-0187	5/8" to JT3
3700-0161	MT4 to JT4	3700-0189	5/8" to JT6
3700-0157	MT4 to JT33	3700-1721	7/8" to JT33
3700-0120	MT4 to JT5	3700-0191	1" to JT2
3700-0158	MT4 to JT6	3700-0174	1" to JT33
3700-0123	MT5 to JT3	3700-0193	1" to JT4
3700-0124	MT5 to JT4	3700-0173	1-1/4" to JT33
		3700-0175	1-1/2" to JT33
		3700-0176	1-3/4" to JT33

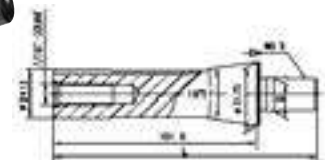
## R8 DRILL CHUCK ARBORS

- Hardened and ground.

for Bridgeport® type mills



**DRAWBAR END THREAD: 7/16" -20**



Item#	Arbor Taper to Chuck	D (mm)	L (mm)
3700-0135	R8 to JT2	14.199	128
3700-0138	R8 to JT3	20.599	137
3700-0131	R8 to JT33	15.85	132
3700-0139	R8 to JT4	28.55	148
3700-0140	R8 to JT6	17.17	132

## CHUCK WEDGE SETS



Item#	JT #
3700-0401	2
3700-0402	3
3700-0405	6&33

- For removing taper mount chucks from arbors or spindles.
- 2pc per set.



# DRILL CHUCK ARBORS

## MORSE TAPER (MT) SLEEVES



- Used to convert spindles to larger or smaller tapers and extend the spindles of drill presses, radial drills, boring mills and turret lathes.

### INDIVIDUALS

Item#	Inside Taper	Outside Taper
3900-1843	MT1	MT2
3900-1841	MT1	MT3
3900-1842	MT2	MT3
3900-1844	MT2	MT4
3900-1848	MT3	MT4
3900-1849	MT3	MT5
3900-1853	MT4	MT5
3900-1856	MT5	MT6

**4 PC SET**  
**3900-1850**

MT1-MT2, MT2-MT3, MT3-MT4, MT4-MT5

## NMTB 30 & 40 TAPER TO JACOBS ARBORS

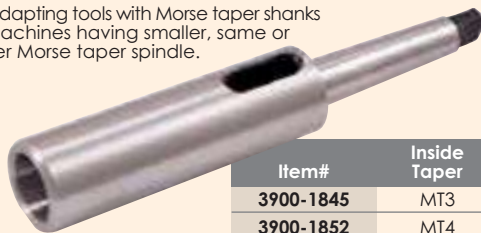


Drawbar End: #30- 1/2"~13  
#40- 5/8"~11

Jacob Taper	Taper 30 Item#	Taper 40 Item#
JT2	3900-1762	3900-1772
JT3	3900-1763	3900-1773
JT33	3900-1764	3900-1774
JT6	3900-1766	3900-1776

## MORSE TAPER EXTENSION SOCKETS

- For adapting tools with Morse taper shanks to machines having smaller, same or larger Morse taper spindle.



Item#	Inside Taper	Outside Taper
3900-1845	MT3	MT2
3900-1852	MT4	MT3
3900-1872	MT5	MT4

## CAT 40 "V" FLANGE DRILL CHUCK ARBORS

- For CNC machines having CAT 40 taper spindles
- Hardened and precision ground
- Gage depth: 1.772"



RETENTION KNOB THREAD: 5/8" -11

Item#	CAT Taper#	Jacobs Taper
3900-4205	40	JT33
3900-4207	40	JT6
3900-4208	40	JT4
3900-4209	40	JT3
3900-4206	40	JT2

## DRIFT/CENTER KEYS



- Fully drop-forged
- Used for knocking taper shank drills, reamers, etc. out of Morse taper sleeves.

### INDIVIDUALS

Item#	Size for
3900-0261	MT1
3900-0262	MT2
3900-0263	MT3
3900-0264	MT4,5,6

**4 PC SET**  
**3900-0265**

## BT 30 & 40 TO JT DRILL CHUCK ARBORS

- For CNC machines having BT taper spindles.
- Concentricity .0002".
- All critical surfaces are hardened and precision ground.



Item#	BT Taper	Jacobs Taper	Gage Depth (Inch)	OAL (Inch)
3900-4194	30	2	1.77	4.6
3900-4195	30	3	1.77	4.9
3900-4196	30	4	1.77	5.3
3900-4197	30	6	1.77	3.7
3900-4198	30	33	1.77	3.7
3900-4199	40	2	1.77	5.2
3900-4200	40	3	1.77	5.6
3900-4201	40	4	1.77	6.0
3900-4202	40	6	1.77	5.4
3900-4203	40	33	1.77	5.4

## Pro-Series DAYTON STYLE HAND DRIFT TOOL

- Forged and hardened, high rigid tools.
- Used to remove taper shank tools from machinery spindles, sleeves, and extension sockets.
- Morse Taper Drift Range: MT2 ~ MT5

15" LONG



Range MT2-MT5  
**3900-0267**

MADE IN TAIWAN



# BORING & FACING HEAD SET

## VERTEX R8 3 Inch UNIVERSAL BORING & FACING HEAD SET

• Main part of the universal boring head 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 external 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 to the brake ring (7), by means of the handle (8). The clutch (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.



HHP PRO-SERIES

**GRADUATION: 0.01MM**

**Boring Range: 5~250mm Dia.  
1001-6008**

MADE IN TAIWAN

**Set Includes:**

- 1 - Boring Head
- 1 - R8 Shank
- 4 - Carbide Tipped Boring Bars
- 1 - BP-21 Adapter
- 2 - Adapter (Hold 1/4" Square Tool Bit)
- 2 - Clamping Sleeve
- 1 - Stop Rod
- 1 - HSS 1/4" Square Tool Bit
- 3 - Allen Wrenches
- 1 - Fitted Carry Case

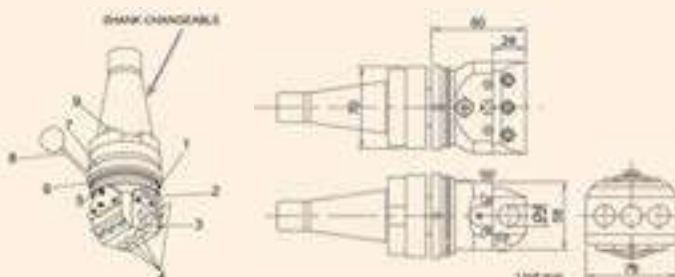


**SPECIFICATION (mm)**

Actual Size	Overing Bar Hole Size	Boring Bar Hole Size	Center Dist. Between Holes	Cross Hole Dia.	Offset
78	100	18	23	18	15



Boring Bar		Clamping Sleeve		Adapter	
Material	Length	Material	Length	Material	Length
HSS	100	Aluminum	20	HSS	100
HSS	150	Aluminum	20	HSS	150
HSS	200	Aluminum	20	HSS	200
HSS	250	Aluminum	20	HSS	250



MACHINE TOOL ACCESSORIES

# BORING HEADS & SHANKS

## BORING HEAD SETS

- BORING HEAD: Bar holder moves freely and smoothly. Design assures superior rigidity for chatter-free boring and precise hole size accuracy. Hardened and ground adjusting screw designed for long lasting and trouble free use.

**KIT INCLUDES:**

BORING HEAD, SHANK, C6 CARBIDE TIPPED BORING BAR SET



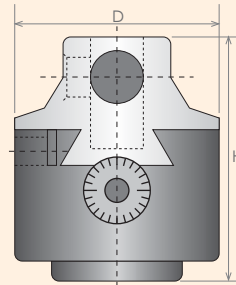
Item#	Head Size	Shank Taper	Shank To Head	Boring Bar	Tool Capacity
1001-0105	2"	3MT	7/8"~20	1/2"/9pc	Up to 1/2"
1001-0106	2"	R8	7/8"~20	1/2"/9pc	Up to 1/2"
1001-0107	3"	R8	1-1/2"~18	3/4"/12pc	Up to 3/4"

## BORING HEADS

- Bar holder moves freely and smoothly.
- Design assures superior rigidity for chatter-free boring and precise hole size accuracy.
- Hardened and ground adjusting screw designed for long lasting and trouble free use.
- Threaded back for adapting to boring shank.



ADAPTING THREAD



GRADUATION .0005"

Item#	Head Dia. D	Head Ht H	Adapting Threads	Tool Capacity	Max. Offset	Boring Bar Hole Size	Shaft Hole Diameter	Dia of Boring
1001-0101	2"	2-7/16	1-1/2"~18	Up to 1/2"	5/8"	1/2	1/2	3/8~5.0
1001-1011	2"	2-7/16	7/8"~20	Up to 1/2"	5/8"	1/2	1/2	3/8~5.0
1001-0102	3"	3-5/32	1-1/2"~18	Up to 3/4"	1"	3/4	3/4	1/2~9.0
1001-0103	4"	3-1/2	1-1/2"~18	Up to 1"	1-5/8"	1	1	5/8~15.0

## PRECISION BORING HEAD SHANKS

- Use for boring heads.
- Made of high grade tool steel.
- Hardened and ground.



**7/8" ~ 20 MOUNTING THREAD**

Item#	Taper of Shank	End Type
1001-0090	R8	Draw Bar
1001-0080	MT2	Draw Bar
1001-0431	MT3	Draw Bar
1001-0050	#30NMTB	Draw Bar
1001-0052	#40NMTB	Draw Bar
1001-0056	Straight 1/2"	
1001-0058	Straight 3/4"	
1001-0060	Straight 1"	
1001-0062	Straight 1-1/4"	

**DRAWBAR END THREAD**

- R8- 7/16" -20
- MT2- 3/8" -16
- MT3- 3/8" -16
- MT4- 1/2" -13
- #30- 1/2" -13
- #40- 5/8" -11
- #50- 1"-8

**1-1/2" ~ 18 MOUNTING THREAD**

Item#	Taper of Shank	End Type
1001-0089	R8	Draw Bar
1001-0081	MT2	Draw Bar
1001-0085	MT3	Draw Bar
1001-0068	#30NMTB	Draw Bar
1001-0069	#40NMTB	Draw Bar
1001-0070	#50NMTB	Draw Bar
1001-0072	Straight 1/2"	
1001-0073	Straight 5/8"	
1001-0074	Straight 3/4"	
1001-0076	Straight 1"	
1001-0077	Straight 1-1/4"	
1001-0078	Straight 1-1/2"	
1001-0079	Straight 2"	
1001-0440	CAT40	



## Pro-Series BORING TOOL SETS

- Rugged design allows excellent rigidity for chatter-free boring.
- Head features a threaded back for multiple shanks.
- Set complete with Boring Head, Boring Shank, Carbide Tipped Boring Bar & L-shape Hex Wrenches.
- Dial on head with 0.0005" graduation for accurate hole sizing.
- Fitted durable carry case included.



1001-5937 Shown



1001-5937 Shown

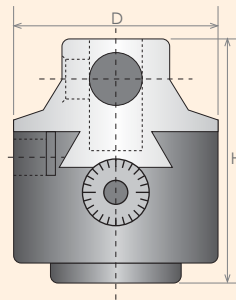
	2" HEAD	3" HEAD
Boring Head Thread	7/8"-20 T.P.I.	1-1/2"-18 T.P.I.
Offset	5/8"	3/4"
Crosshole	1/2"	3/4"
Shank Thread		
(Drawbar End)R8	7/16"-20 UNC	7/16"-20 UNC
(Drawbar End)MT2	3/8"-16 UNC	
(Drawbar End)NT40		5/8"-11 UNC
Mini. Boring Diameter	0.394"	0.394"
Max. Boring Diameter	5.906"	7.874"
Max. Boring Depth	1.970"	3.150"

Item#	Boring Head (Dia.)	Shank	No. of Boring Bars	Boring Bar Hole Size
1001-5935	2"	R8	9	1/2"
1001-5937	2"	MT2	9	1/2"
1001-5940	3"	R8	12	3/4"
1001-5942	3"	NT/NMTB 40	12	3/4"

## Pro-Series BORING HEADS

- Direct reading dial screw.
- Bar holder moves freely and smoothly.
- Design assures superior rigidity for chatter-free boring and precise hole size accuracy.
- Made of high grade alloy steel.
- Threaded back for adapting to boring shank.

**ADAPTING THREAD GRADUATION .0005" .001" 0-50 READING**



**SUPERIOR CRAFTSMANSHIP  
HARDENED & GROUND**

Item#	Head Size, D	Adapting Threads	Tool Capacity	Max. Offset	Head OAL, H	Boring Bar Hole Size	Shaft Hole Diameter	Diameter of Boring
1001-1020	2"	1-1/2"~18	Up to 1/2"	5/8"	2-7/16	1/2	1/2	3/8-5.0
1001-1021	2"	7/8"~20	Up to 1/2"	5/8"	2-7/16	1/2	1/2	3/8-5.0
1001-1023	3"	1-1/2"~18	Up to 3/4"	1"	3-5/32	3/4	3/4	1/2-9.0
1001-1026	4"	1-1/2"~18	Up to 1"	1-5/8"	3-1/2	1	1	5/8-15.0

## Pro-Series BORING SHANKS

- Made of 20CrMnTi alloy steel.
- Electrolysis nickel coating.
- Superior craftsmanship.

**HARDENED & GROUND**

### DRAWBAR END THREAD

- R8: 7/16" -20
- MT3: 3/8" -16



### 7/8" ~ 20 MOUNTING THREAD

Item#	Taper of Shank	End Type
1001-1090	R8	Draw Bar
1001-1431	MT3	Draw Bar

### 1-1/2" ~ 18 MOUNTING THREAD

Item#	Taper of Shank	End Type
1001-1080	MT3	Draw Bar
1001-1089	R8	Draw Bar

# BORING HEAD SETS

## Pro-Series BORING TOOL SETS

- Wide bearing surface provides super accuracy.
- Rugged design allows excellent rigidity for chatter-free boring.
- Head features a threaded back for multiple shanks exchangeable.

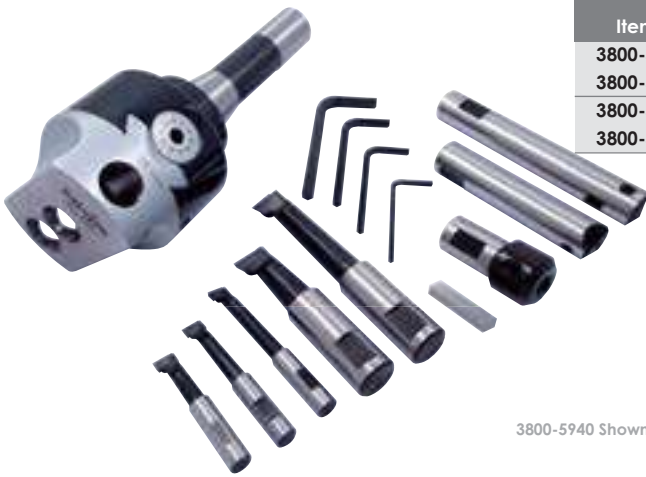
- Set complete with Boring Head, Boring Shank, Boring Bars, Adapters and L-shape Hex Wrenches.
- Dial on head with 0.0005" graduation for accurate hole sizing.
- Fitted durable carry case included.

HHIP  
PRO-SERIES

MADE IN  
TAIWAN



3800-5935 Shown



3800-5940 Shown

Item#	Boring Head (Dia.)	Shank	No. of Boring Bar/Adapter	Boring Bar Hole Size	N.W. (lbs.)
3800-5935	2"	R8	2/1	1/2"	5
3800-5940	3"	R8	5/3	3/4"	10
3800-5942	3"	NT/NMTB 40	5/3	3/4"	11
3800-5943	3"	BT40	5/3	3/4"	11



**GRADUATION .0005"**  
**READING .0005"/0-100**

### SPECIFICATIONS

#### 2" HEAD

Boring Head Thread.....	1-1/2"-18 T.P.I.
Offset.....	5/8"
Crosshole.....	1/2"
Shank Thread (Drawbar End) R8.....	7/16"-20 UNC
Mini. Boring Diameter.....	0.394"
Max. Boring Diameter.....	5.906"
Max. Boring Depth.....	1.970"
Boring Bars Size.....	1/2"
Adapter 1 (Hold 3/8" Boring Bar).....	None
Adapter 2 (Hold 1/4"x1.2" Square Tool Bit).....	Ø1/2"xØ3/4"x3.5"
Adapter 3 (Hold 1/4"x1.2" Square Tool Bit).....	None
Adapter 4 (Hold 1/4"x1.2" Square Tool Bit).....	None

#### 3" HEAD

Boring Head Thread.....	1-1/2"-18 T.P.I.
Offset.....	3/4"
Crosshole.....	3/4"
Shank Thread (Drawbar End): R8.....	7/16"-20 UNC
NT 40.....	5/8"-11 UNC
BT40.....	M16x2.0
Mini. Boring Diameter.....	0.394"
Max. Boring Diameter.....	7.874"
Max. Boring Depth.....	3.150"
Boring Bars Size.....	3/8" & 3/4"
Adapter 1 (Hold 3/8" Boring Bar).....	Ø3/4" x Ø3/8" x 2"
Adapter 2 (Hold 1/4"x1.2" Square Tool Bit).....	None
Adapter 3 (Hold 1/4"x1.2" Square Tool Bit).....	Ø3/4" x 3.5"
Adapter 4 (Hold 1/4"x1.2" Square Tool Bit).....	Ø3/4" x 4.7"



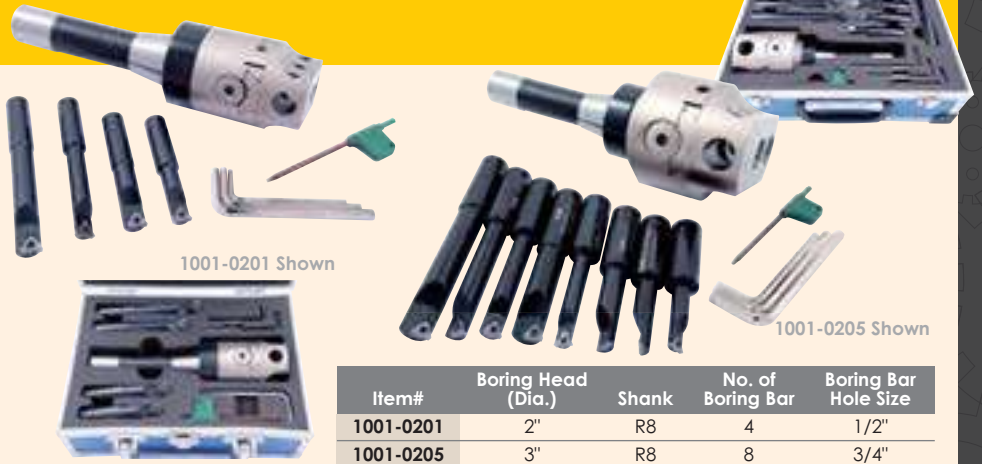
3800-5942 Shown



3800-5943 Shown

## R8 BORING TOOL SETS -WITH INDEXABLE BORING BARS

- Indexable boring bars take TC\_21.5 C6 carbide inserts (included).
- Head features a threaded back for multiple shanks exchangeable.
- Set complete with Boring Head, Boring Shank, Indexable Boring Bars, Torx & L-shape Hex Wrenches.
- Fitted carry case included.
- A micrometer lead screw provides 0.001" direct reading accuracy and ease of adjusting.
- 1 DIV = 0.001 meaning **on the 0-50 dial**, when turning the dial by 1 division/graduation, the boring head's travel is 0.001" in radius movement, 0.002" in diameter movement; **on the 0-100 dial**, when turning the dial by 1 division/graduation, the boring head's travel is 0.0005" in radius movement, 0.001" in diameter movement.



Item#	Boring Head (Dia.)	Shank	No. of Boring Bar	Boring Bar Hole Size
1001-0201	2"	R8	4	1/2"
1001-0205	3"	R8	8	3/4"

### BORING BAR SET INCLUDED

Set	Shank	Min. Bore	(Inch) OAL	Bore Depth	Use Insert	Use Torx Wr.	Use Screw	Item #
4	1/2	7/16	2-3/4	1-1/4	TCMT21-51	T-8	M2.5x5.0	1001-0704
		7/16	3-5/8	2-1/8				
		1/2	3	1-1/2				
		1/2	4	2-1/2				
8	3/4	7/16	3-3/8	1-3/8	TCMT21-51	T-8	M2.5x5.0	1001-0708
		7/16	4-1/4	2-1/4				
		1/2	3-5/8	1-5/8				
		1/2	4-5/8	2-5/8				
		9/16	3-7/8	1-7/8				
		9/16	5	3				
11/16	4-1/4	2-1/4						
11/16	5-1/2	3-1/2						

### C6 GRADE: carbide for steel and alloy steel

	2" HEAD	3" HEAD
Graduations	0.001"/0-50	0.0005"/0-100
Boring Head Thread	1-1/2"-18 T.P.I.	1-1/2"-18 T.P.I.
Offset	5/8"	1"
Crosshole	1/2"	3/4"
Shank Thread (Drawbar End)	7/16"-20 UNC	7/16"-20 UNC
Mini. Boring Diameter	0.394"	0.394"
Max. Boring Diameter	5.906"	7.874"
Max. Boring Depth	1.970"	3.150"

## Pro-Series OFFSET BORING TOOL SETS

- Rugged construction for smooth and chatter-free boring.
- Heat treated parts made from SCM steel.
- Feeding quantity cutting will proceed 0.0008" at every scale of 0.0004".
- Set complete with Boring Head, Boring Shank, Boring Bars, Adapters and L-shape Hex Wrenches.
- Dial on head with 0.0005" graduation for accurate hole sizing.
- Fitted durable carry case included.

**OPTIONAL NT40 SHANK**  
3800-5951

**OPTIONAL R8 SHANK**  
3800-5950

### SPECIFICATION

Boring Head Shank Hole.....	M36
Offset.....	1.1"
Crosshole.....	3/4"
Shank Thread (Drawbar End):	
R8.....	7/16"-20 UNC
NT 40.....	5/8"-11 UNC
Mini. Boring Diameter.....	0.197"
Max. Boring Diameter.....	9.840"
Max. Boring Depth.....	3.540"
Boring Bars Size.....	3/8" & 3/4"
Adapter 1 (Hold 3/8" Boring Bar).....	Ø3/4" x Ø3/8" x 2"
Adapter 2 (Hold 1/4"x1.2" Square Tool Bit).....	Ø3/4" x 3.5"
Adapter 3 (Hold 1/4"x1.2" Square Tool Bit).....	Ø3/4" x 4.7"



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HHIP PRO-SERIES



3800-5945 Shown

Item#	Boring Head (Dia.)	Included Shank	No. of Boring Bar/Adapter	Boring Bar Hole Size	N.W. (lbs.)
3800-5945	3.3"	R8	5/3	3/4"	11
3800-5947	3.3"	NT/NMTB 40	5/3	3/4"	12



# CLAMPING KITS

## Pro-Series 58PC STEEL CLAMPING KITS

- Fits milling machines, tables & machines with T-slots.
- Made of powdered casting steel for stronger strength.
- All parts heat treated.
- Plastic rack included.



5/8" T-Slot  
3900-0001

SET 3900-0001  
Shown



\* T-SLOT CLEANER & WRENCH INCLUDED

Item#	Table Slot	Stud Size
3900-2110	3/8"	5/16"~18
3900-0002	1/2"	3/8"~16
3900-2112	7/16"	3/8"~16
3900-0001*	5/8"	1/2"~13
3900-0003	3/4"	5/8"~11

Each Kit Contains						
24	4	6	6	6	12	1
Studs 4 of ea. 3", 4", 5", 6", 7", 8" long	Coupling units	Flange nuts	Forged steel step clamps 2 ea. based on stud sets	T-Nuts	Steel step blocks	Wall rack

## Ultra Quality 58PC STEEL CLAMPING KITS

- Manufactured at world class factory that produces highest quality US brands.
- Made of IC45e steel for stronger strength.
- All parts are case hardend or heat treated to HRC30~40.

Item#	Table Slot	Stud Size
3901-0002	7/16"	3/8"~16
3901-0006	5/8"	1/2"~13

Each Kit Contains						
24	4	6	6	6	12	1
Studs 4 of ea. 3", 4", 5", 6", 7", 8" long	Coupling units	Flange nuts	Forged steel step clamps 2 ea. based on stud sets	T-Nuts	Steel step blocks	Wall rack



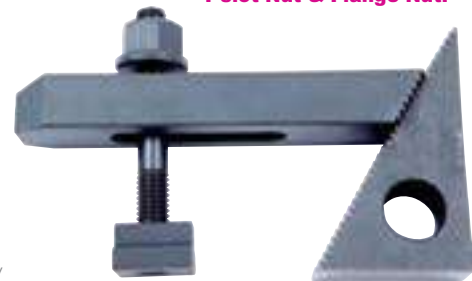
## Ultra Quality 5PC STEEL CLAMPING SETS

- Manufactured at world class factory that produces highest quality US bands.
- Made of IC45e steel for stronger strength.
- All parts are case hardend or heat treated to HRC30~40.

EACH KIT CONTAINS: Step Clamp, Step Block, Stud, T-slot Nut & Flange Nut.

Item#	Table Slot	Stud Size	(Inch) Clamp Length	Clamp Height
3901-0301	3/8	5/16~18	4	3
3901-0302	7/16	3/8~16	4	3
3901-0304	0.54	1/2~13	6	3
3901-0307	5/8	1/2~13	6	3
3901-0311*	11/16	5/8~11	6	4.5
3901-0314*	3/4	5/8~11	6	4.5

\*Limited Supply



## Pro-Series 58PC METRIC STEEL CLAMPING KITS

- Fits milling machines, tables & machines with T-slots.
- Made of powdered casting steel for stronger strength.
- All parts heat treated.
- Plastic rack included.



Item#	Table Slot	Stud Size
3901-0008	10mm	M8x1.25P
3901-0010	12mm	M10x1.5P
3901-0012	14mm	M12x1.75P

Each Kit Contains						
24	4	6	6	6	12	1
Studs 4 of ea. 3", 4", 5", 6", 7", 8" long	Coupling units	Flange nuts	Forged steel step clamps 2 ea. based on stud sets	T-Nuts	Steel step blocks	Wall rack

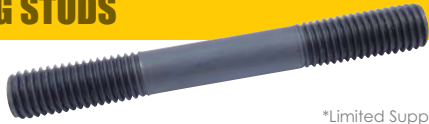
**NEW**



3901-0012 Shown

## INCH CLAMPING STUDS

- Made of alloy steel and heat treated.
- Black oxide finish.



\*Limited Supply

Item#	Stud Thread	Overall Length	Item#	Stud Thread	Overall Length
3421-3984	1/4~20	2	3436-3649	5/8~11	6
3421-4008	1/4~20	3	3436-3656	5/8~11	7
3421-4024	1/4~20	4	3436-3664	5/8~11	8
3436-3250	5/16~18	2	3436-3672	5/8~11	9"
3436-3276	5/16~18	3	3436-3680	5/8~11	10
3436-3292	5/16~18	4	3436-3698	5/8~11	12
3436-3318	3/8~16	2	3436-3722*	3/4~10	4
3436-3334	3/8~16	3	3436-3748*	3/4~10	5
3436-3359	3/8~16	4	3436-3763*	3/4~10	6
3436-3375	3/8~16	5	3436-3771*	3/4~10	7
3436-3391	3/8~16	6	3436-3789*	3/4~10	8
3436-3409	3/8~16	7	3436-3797*	3/4~10	10
3436-3417	3/8~16	8	3436-3805*	3/4~10	12
3436-3425	1/2~13	2	3436-3813*	7/8~9	4
3436-3441	1/2~13	3	3436-3821*	7/8~9	5
3436-3466	1/2~13	4	3436-3839*	7/8~9	6
3436-3490	1/2~13	5	3436-3847*	7/8~9	8
3436-3516	1/2~13	6	3436-3854*	7/8~9	10
3436-3524	1/2~13	7	3436-3870*	1~8	4
3436-3532	1/2~13	8	3436-3888*	1~8	5
3436-3540	1/2~13	9	3436-3896*	1~8	6
3436-3581	5/8~11	3	3436-3904*	1~8	8
3436-3607	5/8~11	4	3436-3912*	1~8	10
3436-3623	5/8~11	5	3436-3920*	1~8	12

## T-SLOT BOLTS

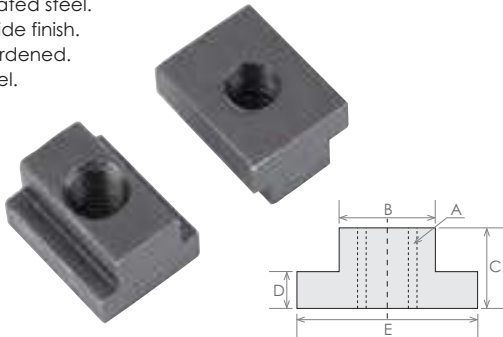
- Forged steel with milled T-slot guide.
- Black oxide finish.
- Heat treated to HRC 36-40.



Item#	T-Slot F (In)	Thread (A)	Length Under Head B (In)	Thread Length E
3900-1270	1/2	1/2"~13	2	1
3900-1272	1/2	1/2"~13	3	1-1/2
3900-1274	1/2	1/2"~13	4	1-1/2
3900-1275	1/2	1/2"~13	5	2
3900-1279	5/8	5/8"~11	2-1/2	1-1/4
3900-1280	5/8	5/8"~11	3	1-1/2
3900-1281	5/8	5/8"~11	3-1/2	1-1/2
3900-1282	5/8	5/8"~11	4	1-1/2
3900-1283	5/8	5/8"~11	5	1-1/2
3900-1284	5/8	5/8"~11	6	1-1/2
3900-1285	5/8	5/8"~11	8	3
3900-1289	3/4	3/4"~10	3	1-1/4
3900-1291	3/4	3/4"~10	4	1-1/2
3900-1292	3/4	3/4"~10	5	1-1/2
3900-1298	1	1"~8	4	2

## Pro-Series T - SLOT NUTS

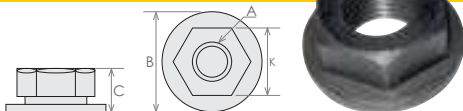
- Heat treated steel.
- Black oxide finish.
- Case hardened.
- 1040 Steel.



Item#	B (In)	Thread A	C (In)	D (In)	E (In)	Length (In)
3900-1201	3/8	5/16"~18	1/2	3/16	5/8	7/8
3900-1202	7/16	3/8"~16	1/2	7/32	11/16	7/8
3900-1203	1/2	3/8"~16	1/2	9/32	7/8	7/8
3903-1214	9/16	3/8"~16	5/8	11/32	7/8	1-1/8
3900-1204	9/16	1/2"~13	5/8	11/32	1	1-1/8
3900-1205	5/8	1/2"~13	5/8	11/32	1-1/8	1-1/8
3903-1217	11/16	1/2"~13	3/4	7/16	1-1/8	1-1/4
3903-1218	11/16	5/8"~11	3/4	7/16	1-1/4	1-1/4
3900-1213	3/4	5/8"~11	3/4	15/32	1-1/4	1-1/4
3903-1220	13/16	5/8"~11	1	9/16	1-1/4	1-1/2
3903-1221	13/16	3/4"~10	1	9/16	1-1/4	1-1/2
3900-1209	7/8	3/4"~10	1	9/16	1-1/2	1-1/2
3903-1223	1	3/4"~10	1	5/8	1-5/8	1-3/4
3903-1224	1-1/16	3/4"~10	1-1/8	11/16	1-5/8	2
3900-1210	1	7/8"~9	1	5/8	1-5/8	1-3/4
3903-1226	1-1/16	1"~8	1-1/8	11/16	1-5/8	2

## FLANGED NUTS

- Heat treated steel.
- Black oxide finish.
- Case hardened.



Item#	Thread A	B (Inch)	C (Inch)	K (Inch)
3900-1221	5/16"~18	11/16	9/32	1/2
3900-1222	3/8"~16	3/4	9/32	9/16
3900-1224	1/2"~13	1-5/32	1/2	7/8
3900-1225	5/8"~11	1-5/16	5/8	15/16
3900-1228	3/4"~10	1-1/2	21/32	1-1/8
3900-1227	7/8"~9	1-3/4	3/4	1-5/16

## COUPLING NUTS

- Case hardened.
- Black oxide finish.



\*Limited Supply

Item#	Thread	Hex	Height
3900-1181	1/4"~20	1/2	5/8
3900-1183	5/16"~18	9/16	7/8
3900-1185	3/8"~16	11/16	1
3900-1187	1/2"~13	7/8	1-1/4
3900-1189	5/8"~11	1-1/16	1-3/4
3900-1191	3/4"~10	1-1/4	1-7/8
3900-1193*	7/8"~9	1-7/16	2-1/4
3900-1195	1"~8	1-5/8	2-1/2

## HEAVY DUTY HEX NUTS

- Case hardened.
- Black oxide finish.

Limited Supply!



Item#	Thread	Hex	Height	Item#	Thread	Hex	Height
3421-3885	1/4"~20	7/16	7/32	3421-3935	3/4"~10	1-1/8	41/64
3421-3893	5/16"~18	1/2	17/64	3421-3943	7/8"~9	1-5/16	3/4
3421-3901	3/8"~16	9/16	21/64	3421-3950	1"~8	1-1/2	55/64
3421-3919	1/2"~13	3/4	7/16				

# CLAMPING COMPONENTS

## 10PC MINI STEEL CLAMPING KITS

- Drop forged steel.
- All parts are case hardened and heat treated.

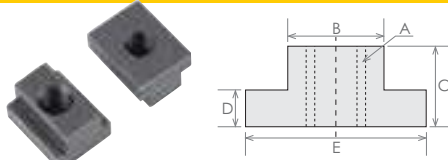
**EACH KIT CONTAINS: Two pc each of Step Clamp, Step Block, Stud, T-slot Nut & Flange Nut.**



Item#	T-Slot Nut Width	Stud Thread	Clamp Capacity
3906-0320	13x7.5mm	M6x1.00	Up to 22mm
3906-0322	16x10.5mm	M8x1.25	Up to 45mm

## Pro-Series T - SLOT NUTS-Metric Thread

- Heat treated steel.
- Black oxide finish.
- Case hardened.
- 1040 Steel.



Item#	B (mm)	Thread A	C (mm)	D (mm)	E (mm)	Length (mm)
3903-1236	7.7	M6	9.5	4.5	14	15
3903-1238	9.7	M8	12	6	15	18
3903-1240	11.7	M10	14	7	21	22
3903-1242	13.7	M12	16	8	22	27
3903-1244	15.7	M14	18	8.5	25	28
3903-1246	17.7	M16	20	10	28	30
3903-1248	19.7	M18	24	10.5	32	32
3903-1250	21.7	M20	28	13	36	36
3903-1252*	23.7	M22	32	15	40	40
3903-1254	27.7	M24	36	16	44	44

\*Limited Supply

## CLAMPING STUDS-Metric Thread

- Made of alloy steel and heat treated.
- Black oxide finish.



Item#	Stud Thread	Overall Length
3436-5001	M8X1.25	75
3436-5008	M10X1.25	100
3436-5010	M10X1.25	150
3436-5013	M12X1.75	75
3436-5014	M12X1.75	100
3436-5015	M12X1.75	125
3436-5016	M12X1.75	150
3436-5017	M12X1.75	175
3436-5018	M12X1.75	200
3436-5022	M14X2.00	150

Item#	Stud Thread	Overall Length
3436-5026	M16X2.00	100
3436-5028	M16X2.00	150
3436-5030	M16X2.00	200
3436-5033	M18X2.50	150
3436-5037	M20X2.50	100
3436-5038	M20X2.50	125
3436-5039	M20X2.50	150
3436-5040	M20X2.50	175
3436-5041	M20X2.50	200
3436-5047	M22X2.50	200
3436-5052	M24X3.00	200

## Pro-Series COUPLING NUTS-Metric Thread

- Case hardened.
- Black oxide finish.

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Item#	Thread A	Parallel B	Length L
3903-1312	M8x1.25	13	22
3903-1313	M10x1.5	17	25
3903-1314	M12x1.75	21	32
3903-1315	M14x2.0	21	32
3903-1316	M16x2.0	26	41
3903-1317	M18x2.5	32	48
3903-1318	M20x2.5	32	48
3903-1319	M24x3.0	41	64

## Pro-Series FLANGE NUTS-Metric Thread

- Heat treated steel.
- Black oxide finish.
- Case hardened.

**NEW**

MADE IN TAIWAN



Item#	Thread	A (mm)	B (mm)	C (mm)	D (mm)
3903-1262	M8x1.25	19	13	8	2
3903-1263	M10x1.5	22	17	12	3
3903-1264	M12x1.75	28	21	16	4
3903-1265	M14x2.0	28	21	16	4
3903-1266	M16x2.0	35	26	17	5
3903-1267	M18x2.5	40	32	25	6
3903-1268	M20x2.5	40	32	25	6
3903-1269	M24x3.0	50	41	32	6

## BALL PLUNGERS-Metric Thread

- Body Material: 12L14 Steel
- Ball Material: 302 Stainless Steel
- Smallest and lightest spring loaded device
- Side-load tolerant
- Controlled end forces
- Screwdriver installation



Item #	Thread	Dimension (mm)		End Forces(lbs.)	
		d (Ball Dia.)	L	Initial	Final
8017-0100	M4x0.70	2.5	9	2	4.9
8017-0102	M6x1.00	3.5	13	4.9	14
8017-0104	M8x1.25	5.0	15	7	19
8017-0108	M10x1.50	6.0	16	8	24
8017-0112	M12x1.75	8.0	22	9	29



# CLAMPING KITS & HOLD DOWN SETS

## Pro-Series 4PC T-SLOT CLAMPING KITS

- Special made downward force for holding thin or small workpiece
- Used for milling, drilling and EDM with T-slot table
- Quick and easy setting with hex key wrench
- Made of tool steel hardened
- With fitted wood case

### 4PC KIT

Item#	Table Slot
3900-0314	7/16"
3900-0315	1/2"
3900-0316	5/8"
3900-0317	3/4"

**Kit includes:**  
4 pc of t-slot,  
clamping pieces and bolts



MADE IN  
TAIWAN



## T-SLOT CLAMPING KIT



- Quick and easy setting with hex key wrench
- Used for working table with 5/8" T-slot
- Made of hardened tool steel.
- **Kit includes:** 4 pc of t-nuts, 6 pc of clamps, 2 pc of hex keys.
- With fitted case

**5/8 T-NUT(1/2"~13)**  
**3900-0318**

## ADJUSTABLE CLAMPING ASSEMBLIES

- One piece assembly allows quick set-up on mill tables with T-slot.
- Instant height adjustment.
- Attached brass shims protect machine table and workpiece



### PRICED PER EACH

Item#	T-slot Bolt	Clamping	Clamping	Each
	T-slot	(Stud x Length)	Range	Width
3900-0301	3/8"	3/8"-16 x 3"	Up to 1-3/4"	1-1/4"
3900-0302	1/2"	1/2"-13 x 4"	Up to 2-1/16"	1-5/8"
3900-0303	5/8"	5/8"-11 x 5"	Up to 3"	1-7/8"

## HEAVY DUTY HOLD-DOWN CLAMP SETS

- One piece forged steel heads, fully heat treated.
- Allows quick set-up on mill table with T-slot.
- Instant height adjustment.
- Self-positioning.
- Hinged brass swivel rocker protecting workpiece.



### PRICED AND SOLD BY PAIR



Item#	T-slot Width	Size of Clamp (WidthxLength)	Clamping Range	Stud Thread
3900-0324	0.62"	1.95x5.5"	Up to 3.5"	1/2~13
3900-0326	0.74"	2.25x7"	Up to 5"	5/8~11

## HEAVY DUTY HOLD-DOWN CLAMP SETS

- One piece forged steel heads, fully heat treated.
- Allows quick set-up on mill table with T-slot.
- Instant height adjustment.
- Self-positioning.
- Hinged swivel rocker.

### PRICED AND SOLD BY PAIR



Item#	T-slot	Size of Head	Clamping Range	Load Limit (lbs)
3900-0306	5/8"	4.4 x 1.8"	Up to 3"	16,000
3900-0307	3/4"	5.0 x 2.1"	Up to 4"	18,000
3900-0312	7/8"	6.0 x 2.3"	Up to 5"	24,000

## T-SLOT CLEANER

- Fits most of Bridgeport type mill tables.

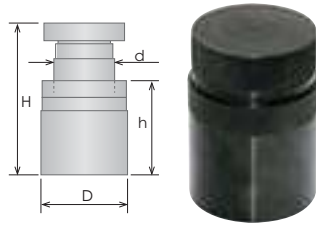


**7016-0030**

# SCREW JACKS

## ADJUSTABLE SCREW JACKS

- Ideal for setup work where fine adjustment may be required to level work piece or as a replacement for a step block when using a clamp kit.
- Acme threads
- Made from high quality tool steel.



Item#	Adjustable Range	H	h	d	D
3901-0076	23-30mm	30	23	M16	34
3901-0077	40-60mm	60	40	M16	34
3901-0078	70-100mm	100	70	Tr30x4	50
3901-0079	100-140mm	140	100	Tr30x4	50

## Pro-Series SCREW JACKS

- Ideal for setup work where fine adjustment may be required to level work piece or as a replacement for a step block when using a clamp kit.
- Acme threads
- Manufactured from toughened steel



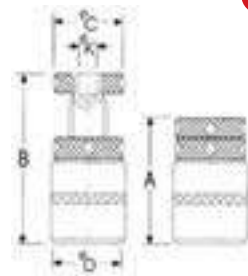
MADE IN TAIWAN

Item#	Adjustable Range	Body Dia.	Weight (lbs)
3901-0072	1.57~2.17"	1.5"	0.7
3901-0073	2.76~3.74"	1.5"	1.0
3901-0074	3.94~5.91"	2.0"	2.5
3901-0075	6~9"	2.83"	10

## Pro-Series SCREW JACKS WITH MAGNETS

- Cross type fixture gives best positioning.
- Built-in magnets.
- Easy to clean chips.
- Adjustable height.

NEW



Item#	A	B	(mm) C	D	K
3901-0088	51	65	35	40	11.5
3901-0090	86	116	40	45	11.5
3901-0092	110	170	45	50	11.5

## "LITTLE GIANT" STYLE JACK SCREW SETS

- For leveling work on planer beds and upright drills or for setting up machinery

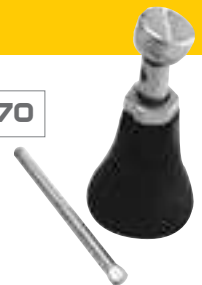


Item#	Lift Range	No. of Pieces
3900-0260	1-1/2 to 2-1/4"	6
3900-0266	2-1/4 to 3-3/8"	6

## MACHINIST'S JACK

- Tested lifting capacity-approximately 1000 lbs.
- Made of heavy cast steel.
- Adjustable screw and tilting swivel head.
- Adjustable pin and lock nut for permanent positioning.
- 3-4" Range, 1" height adjustment,

3900-0070



## Pro-Series 60-140MM JACK SCREW SET

NEW

- Suitable for irregular workpieces rapid setting.
- Work clamping & support.
- Adjustable height.
- Ideal for work clamping and fixed support.

10PC Set  
60-140mm  
3901-0095

- Includes:
- 2pcs. 65-90mm jacks
  - 2pcs. 90-140mm jacks
  - 6pcs. 1A, 2A, 3A, 4A, 5A, 6A pads - 1 each pad



MADE IN TAIWAN

## HORIZONTAL Toggle CLAMPS -Flanged Base

- All parts die stamped from solid steel.
- Plastic hand grip for safety & convenience.
- Double plated to avoid rust.
- Carbon steel rivet for durability.

**Holding Capacity:** 27Kg  
**Hand Moves:** 80°  
**Bar Moves:** 90°

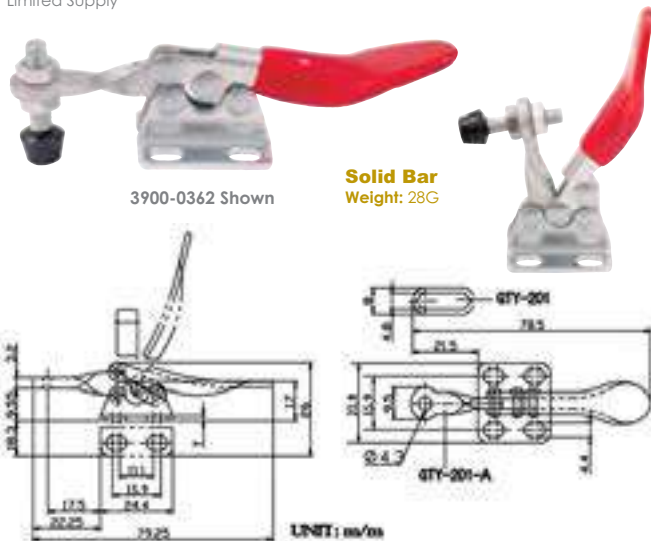


3900-0360 Shown

**U-Bar**  
**Weight:** 29G

Item#	Bar	Holding Pressure	Mfr. #
3900-0360	U-Bar	60 lbs	201
3900-0362*	Solid	60 lbs	201A

\*Limited Supply



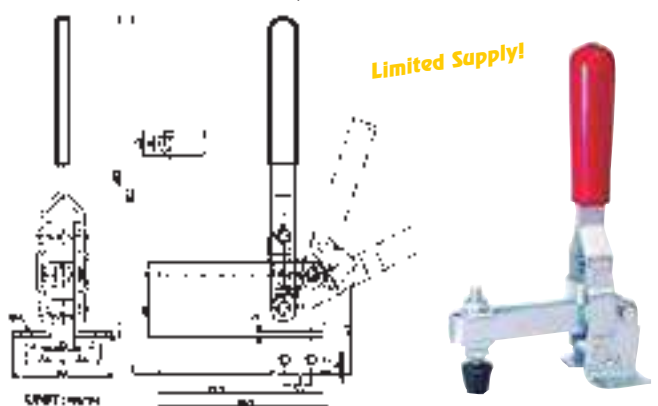
3900-0362 Shown

**Solid Bar**  
**Weight:** 28G

## VERTICAL Toggle CLAMPS -Flanged Base, U-Bar

- All parts die stamped from solid steel.
- Plastic hand grip for safety & convenience.
- Double plated to avoid rust.
- Carbon steel rivet for durability.

**Holding Capacity:** 200Kg  
**Weight:** 420G  
**Hand Moves:** 64°  
**Bar Moves:** 110°



**Limited Supply!**

Item#	Bar	Holding Pressure	Mfr. #
3900-0339	U-bar	440 lbs	11412

## VERTICAL Toggle CLAMPS -Flanged Base, U-Bar

- All parts die stamped from solid steel.
- Plastic hand grip for safety & convenience.
- Double plated to avoid rust.
- Carbon steel rivet for durability.

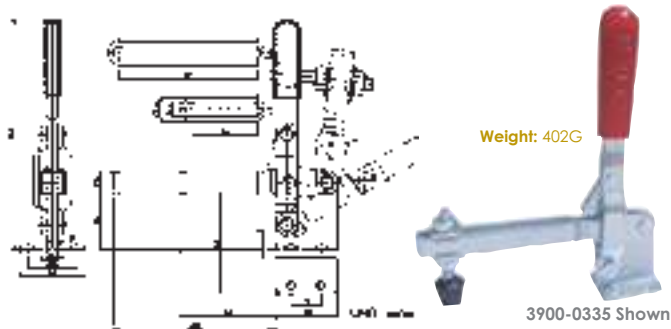
**Limited Supply!**

**Holding Capacity:** 185Kg  
**Hand Moves:** 46°  
**Bar Moves:** 95°

3900-0334 Shown

**Weight:** 370G

Item#	Bar	Holding Pressure	Bar Length	Mfr. #
3900-0334	U-bar	400 lbs	41mm	101-D
3900-0335	U-bar	400 lbs	87mm	101-E



**Weight:** 402G

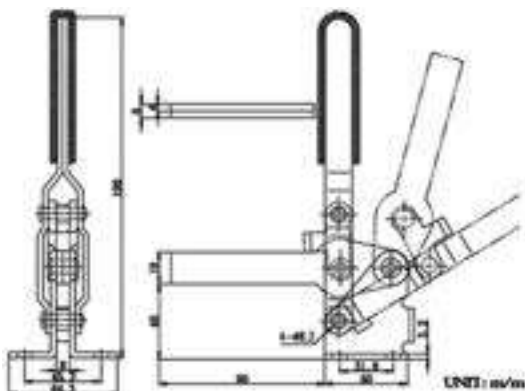
3900-0335 Shown

## VERTICAL Toggle CLAMPS -Open Bar, U-Bar

- All parts die stamped from solid steel.
- Plastic hand grip for safety & convenience.
- Double plated to avoid rust.
- Carbon steel rivet for durability.

**Holding Capacity:** 335Kg  
**Weight:** 635G  
**Hand Moves:** 59°  
**Bar Moves:** 106°

**Limited Supply!**



3900-0341 Shown

Item#	Base	Holding Pressure	Mfr. #
3900-0341	Flanged	750 lbs	12265
3900-0342	Straight	750 lbs	12270



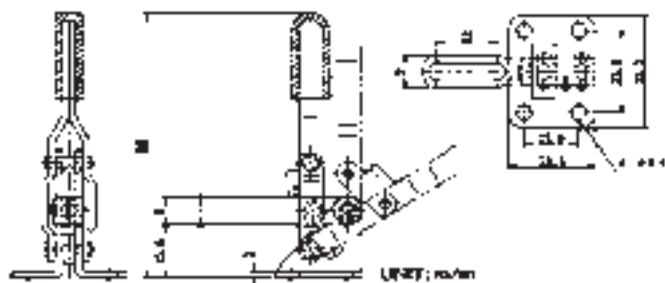
# HIGH QUALITY TOGGLE CLAMPS

## VERTICAL Toggle CLAMPS -Flanged Base, U-Bar

- All parts die stamped from solid steel.
- Plastic hand grip for safety & convenience.
- Double plated to avoid rust.
- Carbon steel rivet for durability.

**Holding Capacity:** 48Kg  
**Weight:** 70G  
**Hand Moves:** 57°  
**Bar Moves:** 101°

Limited Supply!



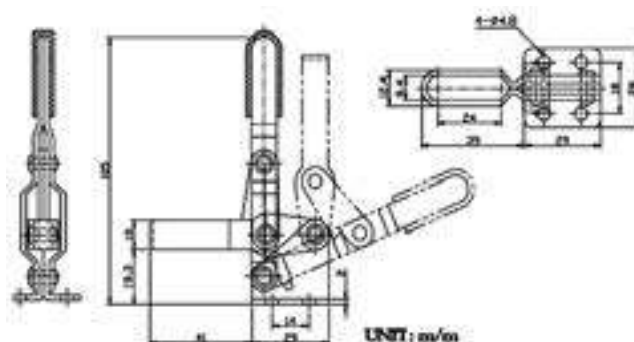
Item#	Bar	Holding Pressure	Mfr. #
3900-0330	U-bar	110 lbs	101-A

## VERTICAL Toggle CLAMPS -Flanged Base, U-Bar

- All parts die stamped from solid steel.
- Plastic hand grip for safety & convenience.
- Double plated to avoid rust.
- Carbon steel rivet for durability.

**Holding Capacity:** 100Kg  
**Weight:** 118G  
**Hand Moves:** 64°  
**Bar Moves:** 90°

Limited Supply!

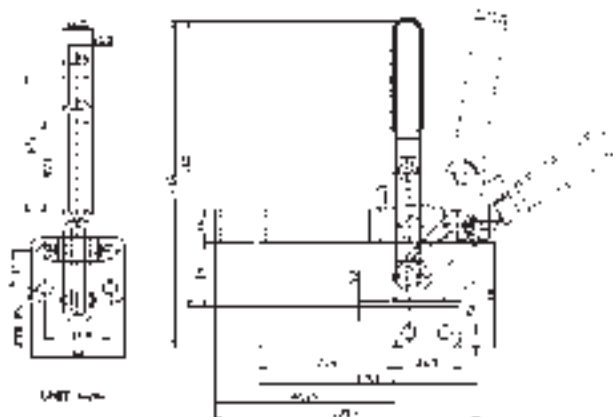


Item#	Bar	Holding Pressure	Mfr. #
3900-0336	U-bar	220 lbs	102-B

## VERTICAL Toggle CLAMPS -Flanged Base, U-Bar

- All parts die stamped from solid steel.
- Plastic hand grip for safety & convenience.
- Double plated to avoid rust.
- Carbon steel rivet for durability.

**Holding Capacity:** 227Kg  
**Weight:** 346G  
**Hand Moves:** 60°  
**Bar Moves:** 100°



Item#	Bar	Holding Pressure	Mfr. #
3900-0344	U-bar	500 lbs	12130

## SPINDLE ASSEMBLIES

- For use with our toggle clamps
- Zinc plated.
- Black neoprene spindle cap (except where noted)



3900-0356 Shown

Item#	Screw Size	Used on Clamp Item#
3900-0350*	M5 x 40mm	101-A
3900-0353	M8 x 60mm	101-D, 101-E, 12130, 203-F, 203-FL, 225-D
3900-0356	M10 x 50mm (steel head)	304-E, 305-E
3900-0357*	M8 x 50mm (steel head)	11412, 304-C, 305-C, 302-F, 36020
3900-0358	M4 x 20mm	201, 201-A
3900-0359	M12 x 50mm (steel head)	304-H, 305-H

\*Limited Supply

## HORIZONTAL Toggle CLAMP -Flanged Base, U-Bar

- All parts die stamped from solid steel.
- Double plated to avoid rust.
- Plastic hand grip for safety & convenience.
- Carbon steel rivet for durability.



REGULAR BAR

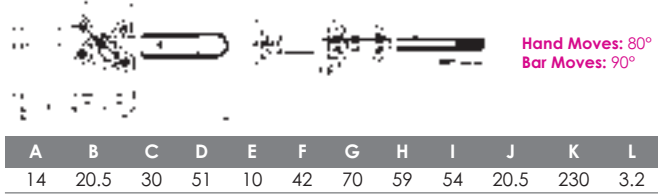
Item#	Bar	Holding Pressure	Mfr. #
3900-0370	U-Bar	880 lbs	200W



REGULAR BAR WITH LOCK

Item#	Bar	Holding Pressure	Mfr. #
3900-0375*	U-Bar	880 lbs	220WH

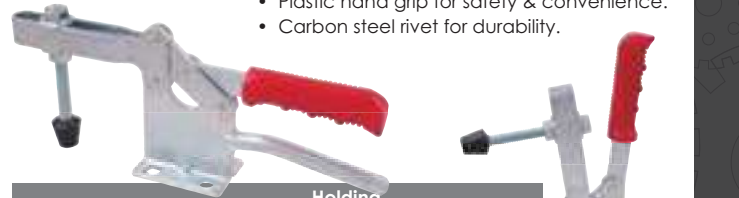
\*Limited Supply



## HORIZONTAL Toggle CLAMPS -Flanged Base, Long U-Bar

Limited Supply!

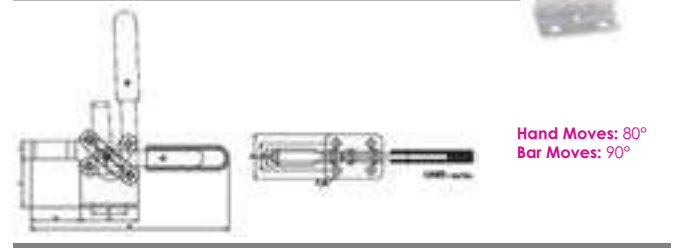
- All parts die stamped from solid steel.
- Double plated to avoid rust.
- Plastic hand grip for safety & convenience.
- Carbon steel rivet for durability.



Item#	Bar	Holding Pressure	Mfr. #
3900-0377	Long U-Bar	880 lbs	220-WHL

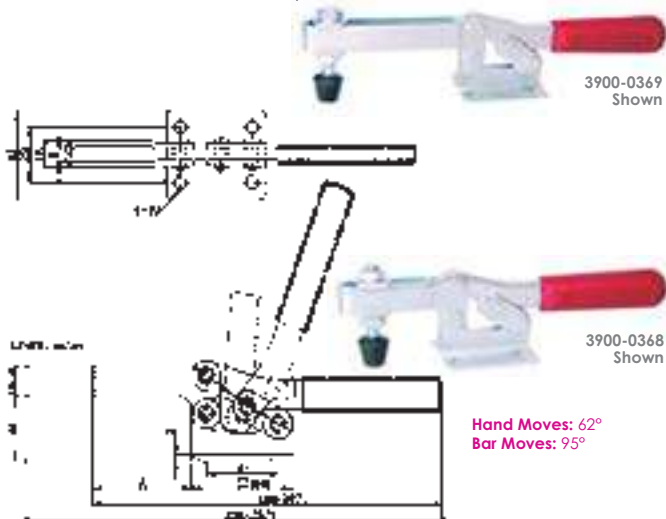


Item#	Bar	Holding Pressure	Mfr. #
3900-0372	Long U-Bar	880 lbs	200WL



## HORIZONTAL Toggle CLAMPS -Flanged Base, U-Bar

- All parts die stamped from solid steel.
- Double plated to avoid rust.
- Plastic hand grip for safety & convenience.
- Carbon steel rivet for durability.

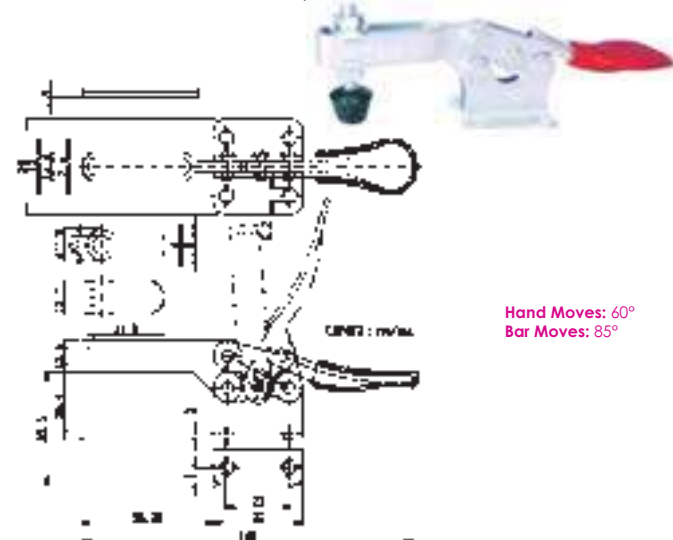


Item#	Bar	A	Holding Pressure	Mfr. #
3900-0368*	U-bar	2.24"	500 lbs	203-F
3900-0369	Long U-Bar	3.70"	500 lbs	203-FL

\*Limited Supply

## HORIZONTAL Toggle CLAMPS -Flanged Base, U-Bar

- All parts die stamped from solid steel.
- Double plated to avoid rust.
- Plastic hand grip for safety & convenience.
- Carbon steel rivet for durability.

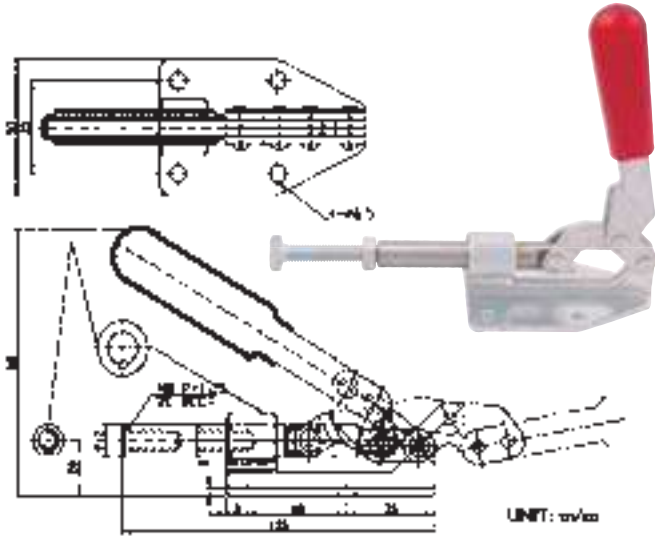


Item#	Bar	Holding Pressure	Mfr. #
3900-0365	U-bar	200 lbs	201B

# HIGH QUALITY TOGGLE CLAMPS

## PUSH/PULL TOGGLE CLAMP

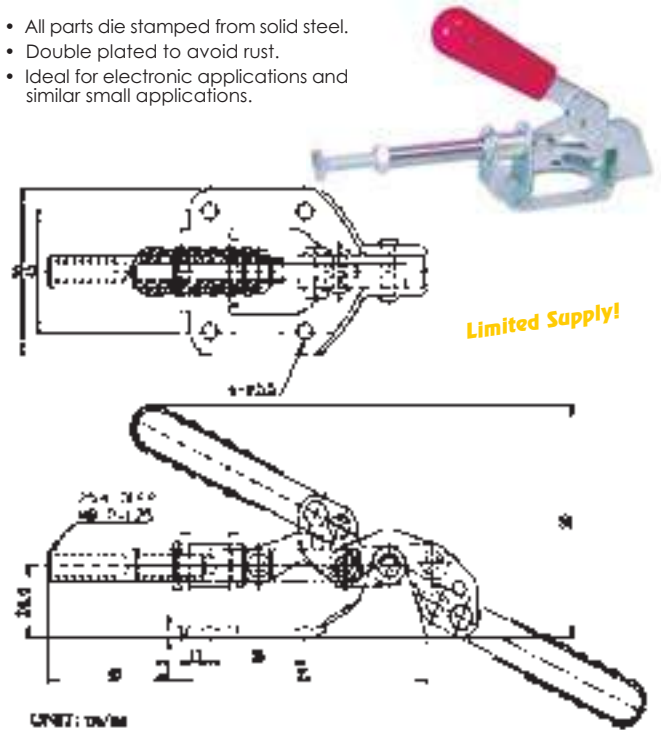
- All parts die stamped from solid steel.
- Double plated to avoid rust.
- Ideal for electronic applications and similar small applications.



Item#	Handle Move	Holding Capacity	Plunger Travel	Mfr. #
3900-0397	144°	400 lbs	30mm	36020

## PUSH/PULL TOGGLE CLAMP

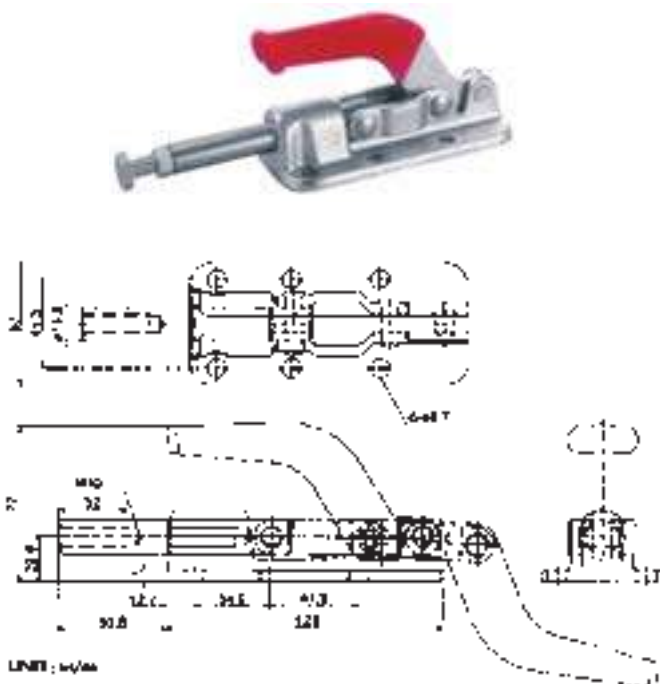
- All parts die stamped from solid steel.
- Double plated to avoid rust.
- Ideal for electronic applications and similar small applications.



Item#	Handle Move	Holding Capacity	Plunger Travel	Mfr. #
3900-0398	180°	300 lbs	32mm	302-F

## HEAVY DUTY PUSH/PULL TOGGLE CLAMP

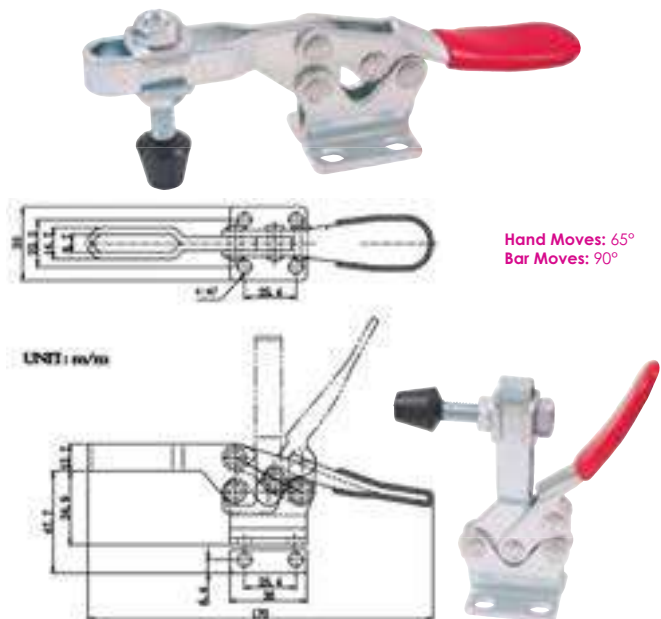
- All parts die stamped from solid steel.
- Double plated to avoid rust.
- Ideal for electronic applications and similar small applications.



Item#	Handle Move	Holding Capacity	Plunger Travel	Mfr. #
3900-0399	180°	2500 lbs	50mm	36330

## HORIZONTAL Toggle CLAMPS -Flanged Base, U-Bar

- All parts die stamped from solid steel.
- Double plated to avoid rust.
- Plastic hand grip for safety & convenience.
- Carbon steel rivet for durability.



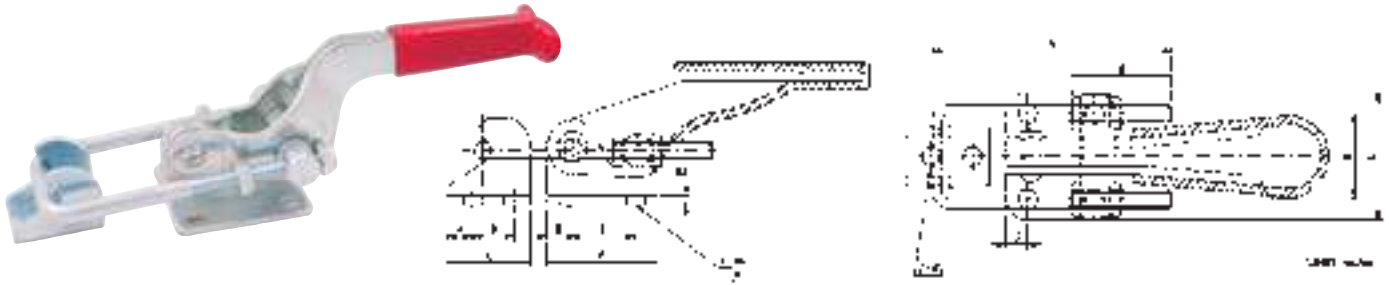
Item#	Bar	Holding Pressure	Mfr. #
3900-0380	U-bar	500 lbs	225-D



# HIGH QUALITY TOGGLE CLAMPS

## PULL ACTION LATCH TOGGLE CLAMP

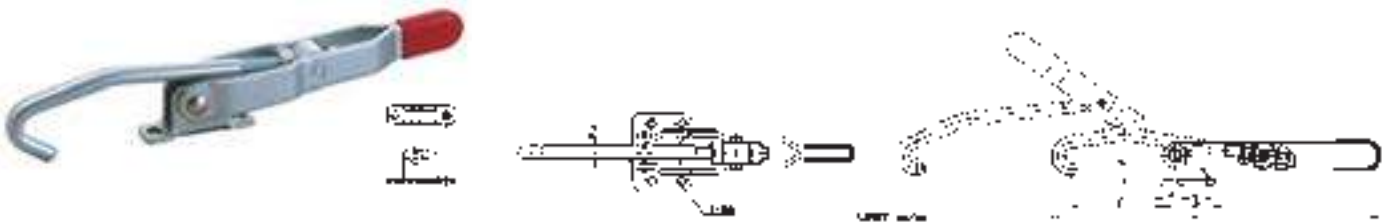
- All parts die stamped from solid steel.
- Double plated to avoid rust.
- Ideal for electronic applications and similar small applications.



Item#	Holding Capacity	Mfr. #	A	B	C	D	E	F	G	H	I	J	K	L	M	N
3900-0402	350 lbs	40323	6	9.9	19.8	5.2	15.9	26.2	4.4	2	29.3	5.2	19	28.2	24	57
3900-0403	660 lbs	431	6.8	11.5	25.4	6.4	19	39.7	6.7	3.2	41.3	6.35	31.6	44.5	38	90

## HOOK TYPE PULL ACTION CLAMP

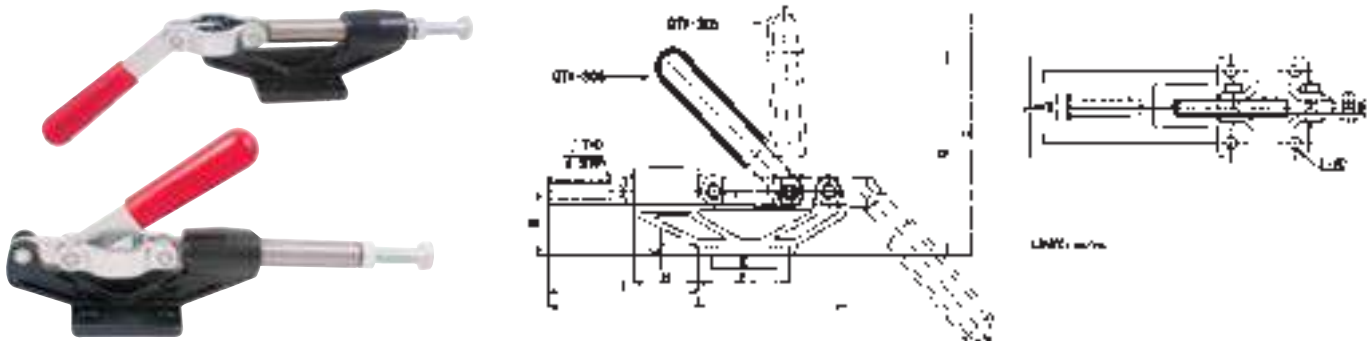
- Excellent for many types of latching operations.
- With base bolted or welded in place, unit can be use for latching pressure vessels, etc.
- Pull bar is threaded for convenient adjustment
- Furnished with red vinyl grip



Item#	Holding Capacity	Mfr. #	A	B	C	D	E	F	G	H	L	J
3900-0408	380 lbs	451	5.6	12.7	19	38.1	217	54.88	8	48	33.2	36.5
3900-0409	750 lbs	40371	8.7	-	31.8	47.6	286	79.4	9.5	65.7	48.2	57.3

## DELUXE PUSH/PULL

- All parts die stamped from solid steel.
- Plastic hand grip for safety & convenience.
- Double plated to avoid rust.
- Carbon steel rivet for durability.



Item#	Handle Move	Mfr. #	Holding Capacity	A	B	C	D	E	F	G	H	I	J	K	L	M	O	Stroke
3900-0388	45°	304-C	500 lbs	12.7	41.1	57.2	6.7	35	52.4	4.8	20.6	52.4	M8P=1.25	30.2	125.4	25.4	74.6	32
3900-0389*	90°	305-C	500 lbs	12.7	41.1	57.2	6.7	35	52.4	4.8	20.6	52.4	M8P=1.25	30.2	125.4	25.4	90.5	32
3900-0390	45°	304-E	800 lbs	16	41.1	57.2	8.3	41.1	58.8	4.8	31.8	81	M10P=1.5	39.2	158.8	31.8	98.4	42
3900-0391	90°	305-E	800 lbs	16	41.1	57.2	8.3	41.1	58.8	4.8	31.8	81	M10P=1.5	39.2	158.8	31.8	122.8	42
3900-0392*	45°	304-H	1500 lbs	19.2	50.8	72	8.3	50.8	72	6.4	50.8	120.8	M12P=1.75	49.2	238.2	50.8	133.4	60
3900-0393	90°	305-H	1500 lbs	19.2	50.8	72	8.3	50.8	72	6.4	50.8	120.8	M12P=1.75	49.2	238.2	50.8	171.6	60

\* Limited Supply

# DRILL PRESS & CROSS SLIDE VISES

## Pro-Series ANGLE DRILL PRESS VISES - With Base

- Full 90° adjustment, horizontal to vertical.
- Two bolt lugs on base for setting on machine table.
- One grooved and one plain jaw plate.
- Swivel base providing 360° rotation.



Item#	Jaw Width	Jaw Opening	Jaw Depth	Wt. (Lbs.)
3901-1735	4"	4"	1.8"	38
3901-1737	6"	6"	2.1"	86

## DELUXE TILT VISES

- Full 90° horizontal to vertical adjustment.
- Base with multi-bolt slots for working table setting.
- One side of vise with angle dial and another side with lock knob very convenient for angle set-up.
- Strong cast iron with rail for secure angle adjustment.

Item#	Jaw Width	Jaw Depth	Jaw Opening
3900-2683	3"	1-3/8"	3"
3900-2684	4"	1-5/8"	4"



## SUPER CROSS SLIDE VISES

- Suitable for clamping soft materials such as aluminum, copper, etc.
- Secures firmly on drill press table and moves similar to vertical mill.
- Accurate positioning in two directions(crossed).
- Each dial is graduated in .1mm increments for precise adjustments and easily adjusts to 0.
- Ball crank handles are solid and balanced.
- Feed screws have precision cut acme threads.
- Dial in 1mm increments.
- High grade cast body.
- Heat treated steel jaws.
- Jaws interchangeable with Wilton.

Item#	Jaw Width	Jaw Depth	Cross Travel	(Inch) Jaw Opening	Longitudinal Travel	Weight lbs.
3901-2703	3	1.38	3	3	5	16
3901-2704	4	1.81	4	4	5	20
3901-2705	5	1.97	5	5	6	41
3901-2706	6	2.09	6	6	8	60
3901-2708	8	2.09	8	8	8	77

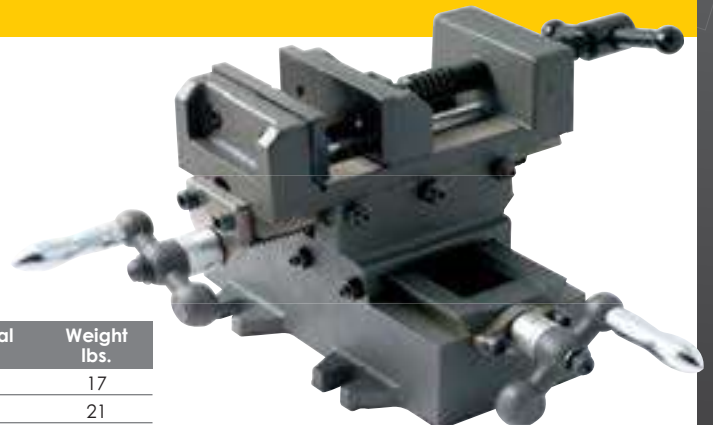


## Pre-Series X-Y CROSS SLIDE VISES

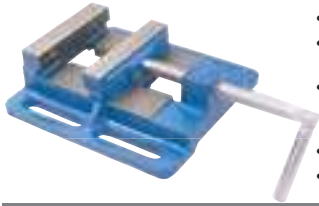
- Suitable for clamping soft materials such as aluminum, copper, etc.
- Secures firmly on drill press table and moves similar to vertical mill.
- Accurate positioning in two directions(crossed).
- Each dial is graduated in .1mm increments for precise adjustments and easily adjusts to 0.
- Ball crank handles are solid and balanced.
- Feed screws have precision cut acme threads.
- High grade cast body.
- Heat treated steel jaws.

HANDLES ARE CLEAR FROM MILL TABLE

Item#	Jaw Width	Jaw Depth	Cross Travel	Jaw Opening	Longitudinal Travel	Weight lbs.
3900-2703	3"	1-1/8"	3"	2.80"	5"	17
3900-2704	4"	1-7/16"	4"	3.80"	6"	21
3900-2706	6"	1-11/16"	6"	5.80"	8"	63



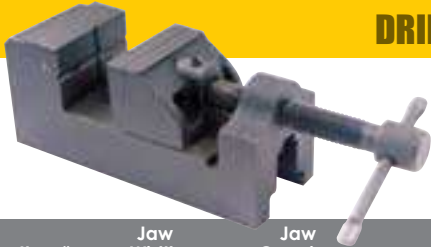
## DRILL PRESS VISES



- Four slots for easy clamping to tables.
- Body and slide made of selected cast iron.
- Guiding groove controls the parallel movement and rigidity of moveable jaw.
- Replaceable steel jaws.
- Handle adjusts to any angle.

Item#	Jaw Width	Jaw Opening	Jaw Depth
3900-0177	3"	3"	1"
3900-0174	4"	4"	1-3/8"
3900-0175	5"	5"	1-1/2"
3900-0176	6"	6"	1-5/8"

## DRILL PRESS VISES

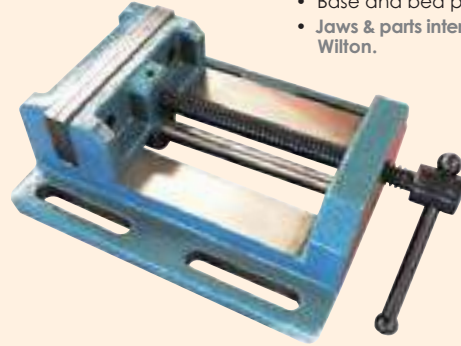


- Grooved jaw

Item#	Jaw Width	Jaw Opening	Jaw Depth	OAL
3900-1730	1-1/2"	1-1/2"	1"	5-1/4"
3900-1731	2-1/2"	2-1/2"	1-1/2"	7-1/2"
3900-1732	3-1/2"	3-1/2"	1-3/4"	9-1/4"

## Pro-Series LOW PROFILE DRILL PRESS VISES

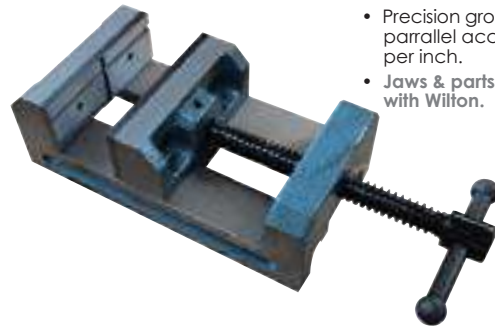
- Low profile clearance provides increased working room on machine table.
- Hardened V-groove jaws hold round shapes in either vertical or horizontal position.
- Slip handle allows for easy turning and added leverage body and slide are made of selected fine grain cast iron.
- Four slots for secure mounting to machine table.
- Base and bed parallel to 0.001".
- Jaws & parts interchangeable with Wilton.



Item#	Jaw Width	Jaw Opening	Throat Depth	Wt. (Lbs.)
3901-0173	3"	3"	1-1/8"	9
3901-0174	4"	4"	1-3/4"	12
3901-0176	6"	6"	2"	32
3901-0178	8"	8"	2"	51

## Pro-Series INDUSTRIAL DRILL PRESS VISES

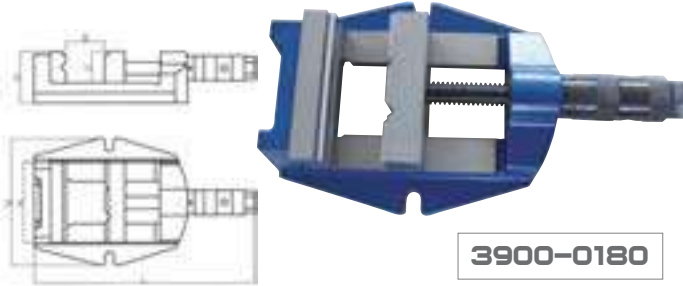
- Precision machined on 4 sides, can be used on base, sides or end.
- Body & slide are made of selected fine grain cast iron.
- Hardened steel V-groove jaws hold round shapes in both vertical or horizontal position.
- Slip handle allows for easy turning and added leverage.
- Precision ground for square and parallel accuracy to +/- 0.001" per inch.
- Jaws & parts interchangeable with Wilton.



Item#	Jaw Width	Jaw Opening	Jaw Depth	Wt. (Lbs.)
3901-0184	4"	4"	1.5"	9.5
3901-0186	6"	6"	2.0"	35

## Pro-Series 5" SUPER DUTY DRILL/MILL VISE

- Made of top grade strong stress relieved casting.
- Quick action handle with hex end for strong force tightening.
- Grooved jaws.
- All working surfaces are ground and hardened.



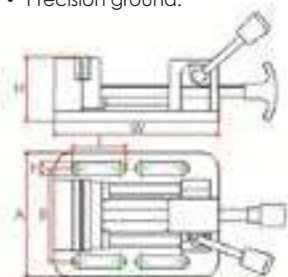
3900-0180

Unit: mm

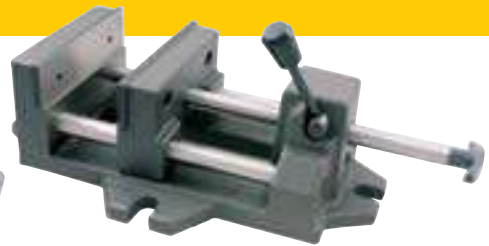
Jaw Width	Jaw Opening	Jaw Depth	OAL	Base Width	Height	Wt. (Lbs.)
A	B	C	L	W	H	
125	90	50	350	200	82	23

## Pre-Series QUICK SLIDE DRILL PRESS VISES

- Made of high grade strong stress relieved iron casting.
- The 4&6" have 1/2" lugs on each side for mounting.
- The 3" features 1/2" slots for mounting.
- Precision ground.



3900-0183 Shown



3900-0186 Shown

Item#	Jaw Width	Jaw Opening	Jaw Depth	(mm)					
				A	B	H	W	h	l
3900-0183	3"	3"	1"	140	104	72	183	14	60
3900-0184	4"	4"	1-1/2"	152	126	90	308	14	--
3900-0186	6"	6"	1-7/8"	230	192	109	368	18	--



# WISE JAWS

## MAGNETIC VISE JAWS

- Designed to protect both the vise jaws and the workpiece from marring and distortion during any clamping application.
- Constructed from a hardened aluminum alloy with two built-in circular permanent magnets on the backside which holds the workpiece securely to the vise.
- Different face material to ensure tight holding of different shapes and material of workpiece.

**SOLD BY PAIR**

### SOFT FACE

Aluminum alloy design includes straight grooves to compensate for the unevenness of the workpiece.



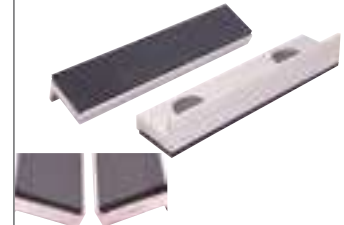
### PRISM FACE

Jaw construction includes a 120° horizontal V-groove and a vertical V-groove for marking out and center punching. Ideal for light tapping and thread cutting applications.



### RUBBER FACE

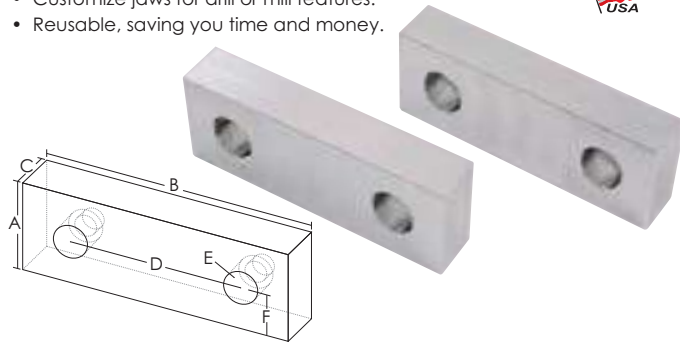
Aluminum alloy with synthetic rubber cover. Jaw cap conforms to workpiece and grips firmly without slipping while protecting work surface.



Jaw Width	Jaw Height	Soft Face Item#	Prism Face Item#	Rubber Face Item#
3"	1-1/8"	3900-2143	3900-2261	3900-2271
4"	1-1/8"	3900-2145	3900-2263	-----
5"	1-1/8"	3900-2147	3900-2265	3900-2275
6"	1-1/8"	3900-2149	-----	3900-2277
8"	1-1/8"	3900-2152	-----	3900-2279

## ALUMINUM VISE JAWS

- Fits **Kurt Anglock™** & similar precision milling machine vises.
- Perfect for easy and quick set-ups, reducing down time.
- Customize jaws for drill or mill features.
- Reusable, saving you time and money.

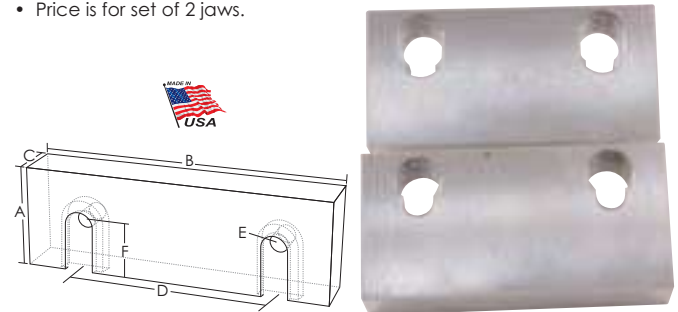


Item#	Vise Size	Height A	Length B	Hole Space D	Screw Size E	Hole Dist. F	Width C
3900-2180	4"	1-3/4	4	2-1/2	3/8	.687	3/4
3900-2184	4"	2	5	2-1/2	3/8	.687	1
3900-2187	6"	2	6	No Hole	---	---	1
3900-2188*	6"	2	6	3-7/8	1/2	.937	1

\* Top/Bottom REVERSIBLE

## ALUMINUM QUICK LOCK VISE JAWS

- Fits **Kurt Anglock™** & similar precision milling machine vises.
- Easy and quick set-ups.
- Machinable vise jaws for drill or mill features.
- Price is for set of 2 jaws.



Item#	Vise Size	Height A	Length B	Hole Space D	Screw Size E	Hole Dist. F	Width C
3900-2191	4"	2	4	2-1/2	3/8	.687	1
3900-2193	6"	2	6	3-7/8	1/2	.937	1
3900-2194	6"	3	6	3-7/8	1/2	.937	1
3900-2195*	6"	3	6	3-7/8	1/2	.937	2

\* Limited Supply

## Pro-Series PRISMA VISE JAWS

- Multi-function V-shape jaw can hold round and square workpiece.
- Made of high grade tool steel hardened and precision ground.
- Squareness and Parallelism: 0.0002".

Limited Supply!



### FOR "Vertex" K-TYPE VISES

Item#	Fit Vise	Height	Length	Width	Screw Size	Hole Space
3900-2169	VK-5	1.50"	5.2"	.38"	M8	3.15"
3900-2170	VK-6	1.69"	6.0"	.38"	M10	3.55"
3900-2171	VK-8	2.48"	8.0"	.49"	M10	4.72"

## Pro-Series PRISMA VISE JAWS

- Multi-function V-shape jaw can hold round and square workpiece.
- Made of high grade tool steel hardened and precision ground.
- Squareness and Parallelism: 0.0002".
- Fits "Kurt" vises & American standard milling machine vises.

Limited Supply!



### For Kurt Vise

Item#	Fit Vise	Height	(Inch) Length	Screw Size	Hole Space
3900-2175	4	1.42	4.1	3/8	2.500
3900-2176	5	1.50	5.2	3/8	2.500

## UNIVERSAL VISE JAWS WITH WORK STOP

- Multi-function V-shape jaw can hold workpiece at horizontal and vertical position.
- Made of high grade tool steel hardened and precision ground.
- Squareness and Parallelism: 0.0002".
- Will fit vise jaw with same or similar width.
- Two set screws are attached to vise and one long set screw used as work stop.

MADE IN TAIWAN



Item#	Fits Vise	Dimension (mm)					Wt. (lbs)
		A	B	C	D	V	
3900-2164	4"	145	110	49	38	32	3.5
3900-2165	5"	175	140	49	39	32	4.0
3900-2166	6"	190	160	53	40	32	4.8
3900-2167	8"	245	210	76	42	32	9.0

## MILL VISE STOP - Fits 3 & 4"

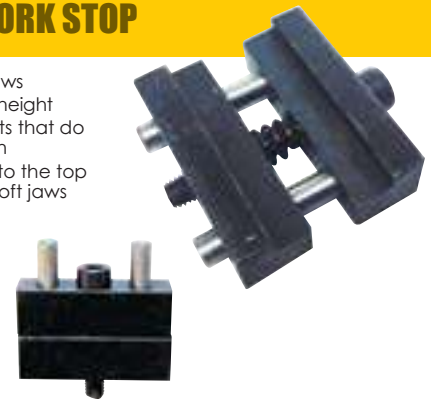
- Fits the most popular machine vises.
- Bolt-on design, requires no modification to vise.
- Will work in left or right hand location.



FITS 3 & 4"  
3900-2122

## QUICK CLAMP WORK STOP

- Fits mill vises with 1/2-1" jaws
- steel body 1" wide x .38" height
- Very handy for small parts that do not require the full length
- Clamps quickly & easily to the top of existing hard jaws or soft jaws



3900-2131

## MILL VISE STOP - Fits 5 & 6"

- Fits the most popular machine vises.
- Bolt-on design, requires no modification to vise.
- Will work in left or right hand location.



FITS 5 & 6"  
3900-2123

## VICE WORK STOP



- To fit angle lock type vises.
- Single thumb screw tightens clamp to vise jaw.
- Two ground pins on both sides of clamp.
- Easily mounts to the top of most vise jaws.
- 7/8" capacity.

3900-2120

## UNIVERSAL WORK STOP

- Serves as a rigid stop for milling set-up.
- Made of hardened tool steel.
- Use with vises, angle plates, jigs, etc.
- Column: 5/8 x 6-1/4".
- Base: 5/8 x 2 x 4-3/8".
- Rod: 3/8 x 10".



3900-2125

## Pro-Series MULTI AXIS WORK STOP -5/8" TABLE SLOTS

- For use with repetitive jobs that require exact placement in the vise.
- 5 Axis Adjustment, 1/4" diameter x 6" length stop rod, locking lever can be positioned at 360 degrees.
- T nut fits 5/8" table slots.
- Height 8", Length 8"
- Capacity-approximately 700 lbs.



Limited Supply!

3900-2118

# MILLING VISES & HANDLES

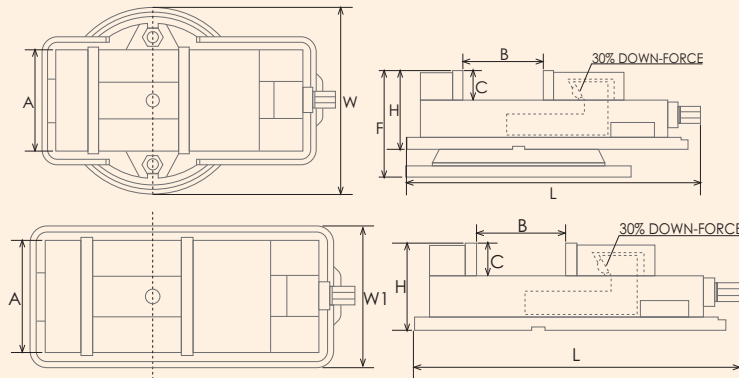
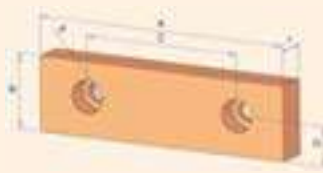
## Pro-Series HEAVY DUTY MILLING VISES

- Precision ground to accuracy.
- Full 360° swivel base with graduation included.
- Used in milling, shaping and drilling machines.

- Lock down design secures the movable jaw, preventing it from lifting upwards.
- Angle-Tight Positive-Lock style-jaws are interchangeable with American Standard vises.

### Jaw Dimensions

Jaw Width	A	B	C	(mm)		
				D	E	F
3"	80	24	45	12.5	7	9.5
4"	100	32	63.5	16	9	12
5"	125	40	76	18	9	14
6"	160	45	98.4	23.9	13	19
8"	200	50	120.6	31	13	19



Jaw Width A	Jaw Opening B	Jaw Height C	(Inch) OAL L	Width of Swiv Base W	Width of Vise Base W1	Vise Height H	Height with Base F	Wt. (LBS.)	WISE ONLY Item#	WISE W/SWIV. BASE Item#
3	3.74	0.940	10.60	6.70	4.7	2.76	3.74	15/22	3900-2223	3900-2104
4	5.12	1.181	12.80	8.70	6.3	3.54	4.72	25/40	3900-2224	3900-2102
5	5.71	1.575	14.80	8.70	7.0	3.94	5.12	48	-----	3900-2101
6	8.00	1.932	18.70	11.0	8.9	4.53	5.98	68/86	3900-2226	3900-2103
8	9.25	1.969	20.90	16.1	--	4.92	7.87	130	-----	3900-2106

### WISE JAWS-Replacement



Set of 2

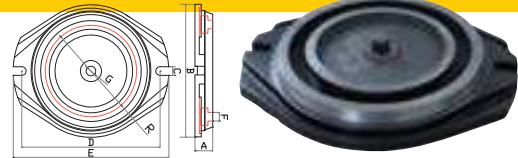
Item#	Fit Vise
3900-2133	3"
3900-2134	4"
3900-2136	6"

### JAW BLOCKS-Replacement



Item#	Fit Vise
3900-2140	3"
3900-2141	4"
3900-2142	6"

### SWIVEL BASES-Optional



Item#	Fit Vise	(mm)							
		A	B	C	D	E	F	G	R
3900-2233	3"	25	168	12	160	187	10	14	98
3900-2234	4"	30	216	14	217	244	12	20	132
3900-2236	6"	37	285	18	284	322	18	20	190

### QUICKIE VISE HANDLES

- Fits all vises with 3/4" hex
- Speed up opening and closing of machine vises.
- Provides faster and more efficient production.
- Short turning radius for clamping of more delicate parts.
- Machined anodized aluminum.



**SINGLE HUB**  
3900-2107

**DOUBLE HUB**  
3900-2108

### REPLACEMENT VISE HANDLES



**1/2" Hex Hub**  
3900-2137

**9/16" Hex Hub**  
3900-2138

**3/4" Hex Hub**  
3900-2139

### WISE SPEED HANDLE

- Designed for 6" milling vise.
- Speed up the clamping force of vise.
- Fits most milling vises.



**3/4" Hex Hub**  
3900-0202



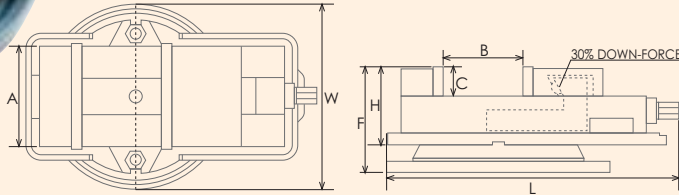
## Ultra-Series ANGLE-TIGHT POSITIVE-LOCK MILLING VISES



- Super precision ground to accuracy. High quality.
- Totally enclosed heat treated screw.
- Smooth operation, high repeatability.
- Angle-Tight Positive-lock style-lock down type jaws.
- Jaws interchangeable with American standard vises.

**OPTIONAL Swivel Base for 6" Vise**  
**3900-2207**

Weight 29 lbs.



SHOWN WITH OPTIONAL SWIVEL BASE

Item#	Jaw Width A	Jaw Opening B	Jaw Depth C	(Inch) OAL L	Vise Height H	Height with Base F	W	Jaw Hole Space O	With Swivel Base	Weight (lbs.)
3900-2203	3	3	1.00	11.00	3-5/32	4-9/32	7-9/32	1.772"	Yes	28
3900-2204	4	4	1.20	13.50	3-37/64	5-1/32	9-7/32	2.500"	Yes	52
3900-2205	5	5	1.50	17.30	4-1/16	5-9/16	9-49/64	2.992"	Yes	71
3900-2206	6	7.5	1.95	21.00	4-27/32	---	---	3.874"	No	86

## Pro-Series 6" PRECISION MILLING VISE -With 8.6" Jaw Opening

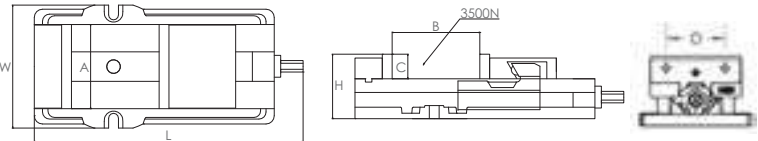


**NEW DESIGN!**

- Precision ground to accuracy to .0004" on parallelism and .0008" on squareness.
- Lock down design secures the movable jaw, preventing it from lifting upwards.
- Angle-Tight Positive-Lock style-jaws are interchangeable with American Standard vises.

**6" VISE**  
**3900-2246**

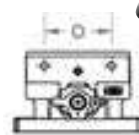
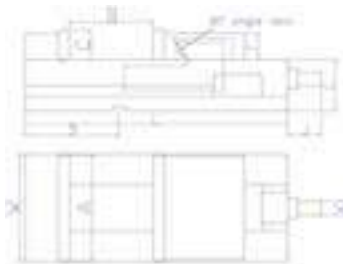
**OPTIONAL BASE**  
**Fits Vise 6"**  
**3900-2236**



Item#	Jaw Width	Jaw Opening	Weight (LBS.)	A	B	C	(Inch) L	W	H	Jaw Hole Space O
3900-2246	6"	8.6"	75	6	8.6	1.77	19.5	9.2	4.65	3.874"

## SUPER-LOCK VISE FOR NC/CNC MACHINES

- Lock down type.
- Ideal for all types of milling, grinding, drilling and tapping application in multiple vise set-ups.
- Flatness of all sides to .001" guaranteed.
- Mounting in 3 modes: upright, left and right side.
- Both sides parallel to each other to .0005" per 4".
- Up to 3000 N clamping force.



Item#	Jaw Width (Inch/mm)	A	B	C	(Inch)				J	K	L	Base W	Jaw Hole Space O	Weight Lbs.
3900-0170	3.15/80	3.15	3.15	0.94	3.15	1.97	0.87	1.22	0.44	8.27	3.18	1.77	18	
3900-1719	3.94/100	3.94	4.15	1.26	4.05	2.36	1.14	1.34	1.44	10.43	3.97	2.50	23	
3900-0171	4.92/125	4.92	5.10	1.57	3.93	2.52	1.47	1.42	0.55	11.85	4.96	2.99	40	
3900-0172	6.30/160	6.30	7.32	1.73	5.51	3.03	1.65	1.93	0.75	15.39	6.33	3.88	64	

# MILLING VISES

## TWIN - LOCK PRECISION CNC MILLING VISES -Self Centering

- Precision clamping force per jaw set.
- Precision ground on all sides, can be mounted vertically or horizontally.
- Bed hardened to RC 45 or higher to resist wear.
- Reversible hardened jaw plates for standard or, stepped part holding.
- Reduces the tool changes per job by 50%.
- Uses the same machine space as conventional vises limited to half the part holding capacity.
- Top mounted center block can be removed easily for larger parts application.



### Data Without Center Jaw

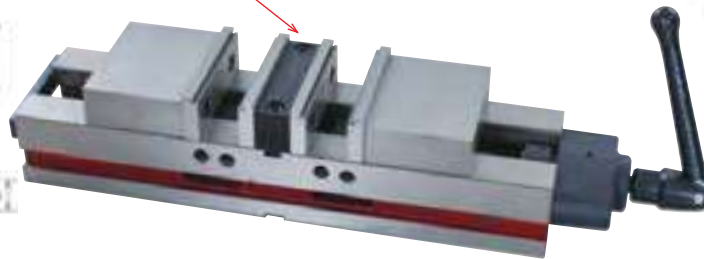
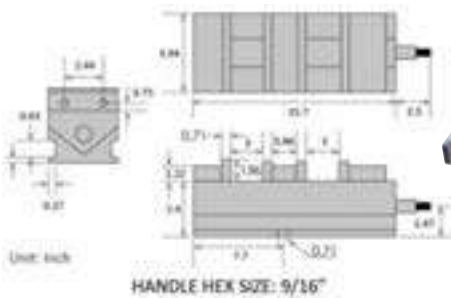
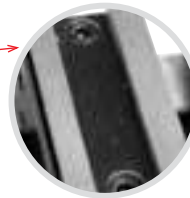
Item#	Jaw Width	Inch		Wt. Lbs.
		A	B	
3900-1722	3.94/100mm	3.94	7.87	36
3900-0173	6.30/160mm	6.30	10.43	95



### 4" Jaw Width 3900-1722

Weight: 45 LBS.

### Top Mount Removable Jaw

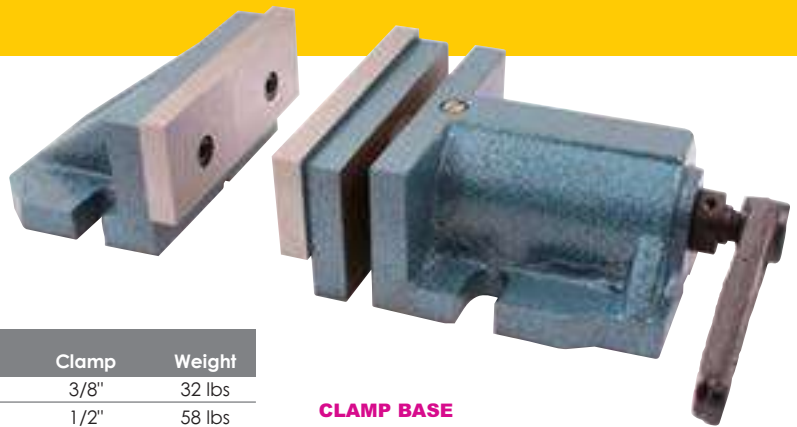


### 6" Jaw Width 3900-0173

Weight: 109 LBS.

## 2PC QUICK CLAMP MILL VISES

- Work locates directly on bed for rigidity
- Mechanical type, actuated by Acme screw riding in bronze nut and guided by two H&G pins
- Quarter-turn handle clamps work firm enough for heaviest cuts
- Vise handle included

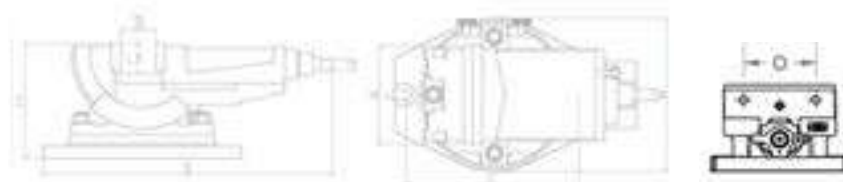


CLAMP BASE

Item#	Jaw Width	Depth of Jaws	Key Slot Width	Min. T-Slot	Clamp	Weight
3900-1726	6"	3"	11/16"	2-1/4~2-3/4"	3/8"	32 lbs
3900-1728	8"	4"	13/16"	2-3/4~3-3/4"	1/2"	58 lbs

## 2-WAY SWIVEL MOVEMENT ANGLE VISES

- Positive locking to withstand heavy loads.
- Horizontal swivel movement 360°.
- Vertical swivel movement 90°.
- Totally enclosed acme thread screw.
- Hardened and ground jaws.
- Vises supplied with plain jaws.
- Base T-slot width: 0.71"
- Vise handle included.



\*Limited Supply

Item#	Jaw Width	Inch					Jaw Hole O	Weight Lbs.				
		A	B	C	D	E						
3900-0018	3.94/100mm	3.94	3.15	1.69	15.55	0.55	8.78	0.55	7.24	6.18	2.36	54
3900-0015*	4.92/125mm	4.92	3.94	1.81	18.89	0.55	9.96	0.67	8.78	6.73	3.15	61
3900-0019	6.30/160mm	6.30	4.92	1.97	21.85	0.71	11.34	0.67	10.04	7.48	2.76	89

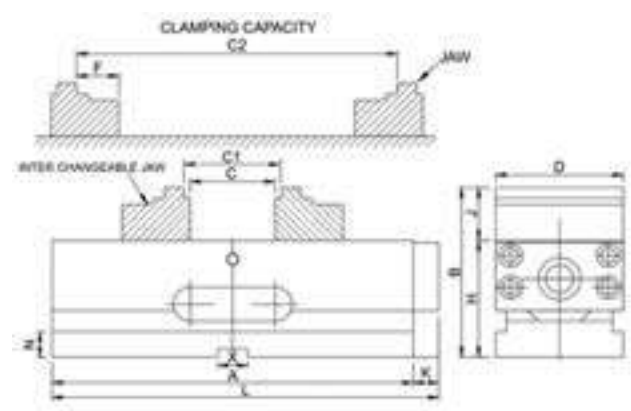
# CNC & MACHINE VISES

## Pro-Series 3.98" SELF CENTERING CNC VISE

- Reversible Jaw: remove 4 screws to re-install jaws.
- Suitable for 4/5 axis CNC machines
- Repeat clamping tolerance +/- 0.0004"/ 0.01mm
- Material: FCD 60, high tension cast iron slide way has hardness of HRC 45.
- Interchangeable jaw heat treated to HRC 50.
- Lock down design to keep work piece from lifting.



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SELF-CENTERING

3900-2216

Jaw Width D	Jaw Depth J	Jaw Open C	Vise Height B	OAL L	Wt.	Max. Clamping C1	Clamping Range For C2	Max. Clamping Force	Torque For Clamping	A	F	H	K	N	X
3.98"	1.57"	5.20"	4.72"	10.24"	41 lbs	5.51"	2.44~7.56"	400 kgf	2.6m/kgf	9.45"	1.18"	3.15"	0.63"	0.83"	0.79"

## Pro-Series 2.36" SELF CENTERING CNC VISE - With Swivel Base

- Suitable for 4/5 axis CNC machines
- Repeat clamping tolerance +/- 0.0004"/0.01mm
- Material: FCD 60, high tension cast iron slide way has hardness of HRC 450
- Interchangeable jaw heat treatment to HRC 55°.
- Lock down force to keep work piece from lifting.
- Swivel base 8" diameter x 22mm thickness
- Clamping Capacity: 1.77~5.51"



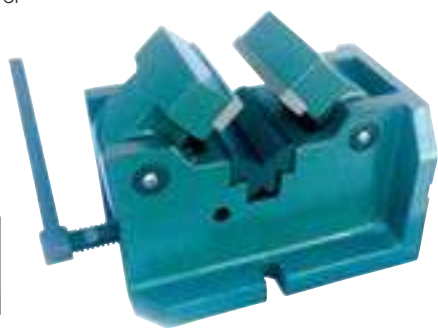
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SWIVEL BASE INCLUDED

Item#	Jaw Width	Jaw Depth	Jaw Opening	Vise Height	OAL
3900-2220	2.36"	0.95"	3.94"	3.15 (w/o base)	7.3"

## HORIZONTAL/VERTICLE MACHINE VISE - for Holding Shafts and Round Parts

- 4" wide hardened steel replaceable jaws.
- Capacity 3/8" to 2-1/2" round parts.
- Work rests on V-block made of hardened and ground tool steel.
- Adjustable sliding rod to set work in proper position.
- Vise ends are ground so that it can be used vertically or horizontally.



4 INCH  
3900-1720  
Weight: 50 Lbs.

## Pro-Series MACHINIST'S STEEL VISE

- 360° swivel base or double lock down to keep stationary in any position.
- Self-centering, hardened steel pipe jaws, holds up to 6" pipe safely and securely.
- Straight line pull guaranteeing a lifetime spindle and nut.
- Cast steel body.

MADE IN TAIWAN



Item#	Jaw Width B	Jaw Opening A	(Inch) Height H	Min. OAL L	S	h	Weight (Lbs.)
3900-2511	6	5.9	7.2	16.5	9	3.1	31
3900-2513*	8	7.8	8.0	19.7	9.4	3.4	40

\*Limited Supply

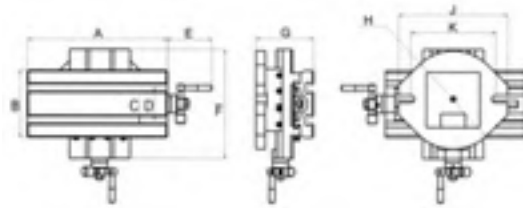


# COMPOUND TABLES

## 5-1/2 X 12" COMPOUND SLIDE TABLE

- A heavy, rugged slide used in positioning, milling, drilling, microscope viewing and staging.
- Adjustable bases for heavy loads, small jig boring, precision cut-off.
- T-slot Width: 5/8"

**3900-0027**



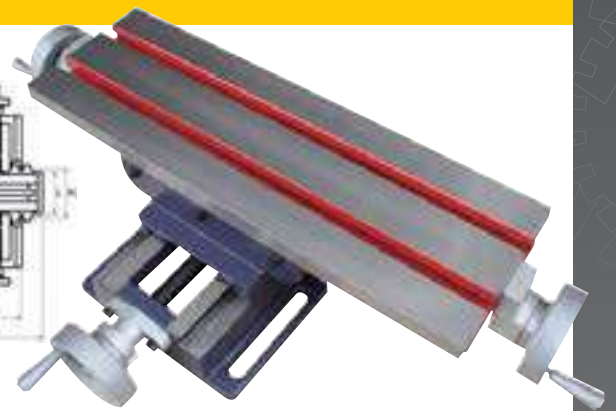
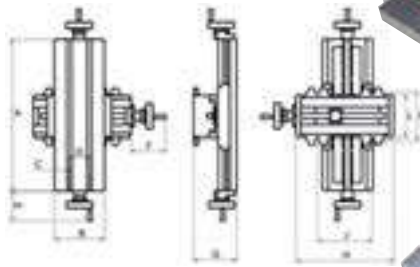
Unit: Inch

A	B	C	D	E	F	G	H	J	K	X Travel	Y Travel	Weight
12	5.5	5/8	2.5	3	9	4.5	8	9	7.6	8	5	40 Lbs.

## 6 x 18-1/2" COMPOUND MILLING TABLE

- Solid cast iron construction.
- Features 12" of longitudinal travel and 7-1/2" of transverse travel, adjustable gibs, dovetailed ways, dependable Acme screws, vernier scales and 9/16" T-slots.

**3900-2728**



**SPECIFICATIONS**

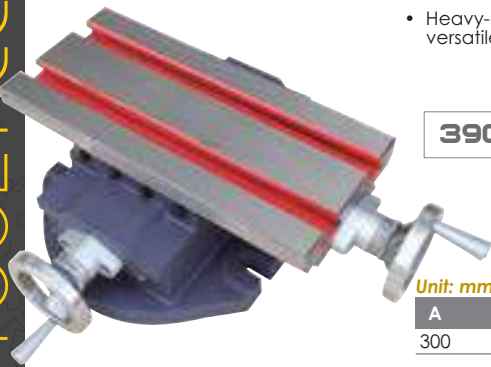
Table Size.....	18-1/2 x 6"
Table Height.....	5-1/4"
Footprint.....	8 x 10-1/2"
T-Slot.....	9/16"
Mounting Slot.....	1/2" [2-1/4" on center]
Wt (lbs).....	58

Unit: mm

A	B	C	D	E	F	G	H	J	K	L	X Travel	Y Travel
473	156	14	62.5	94	108	134	305	170	152	130	270	120

## 5-1/2 x 12" COMPOUND SLIDE TABLE

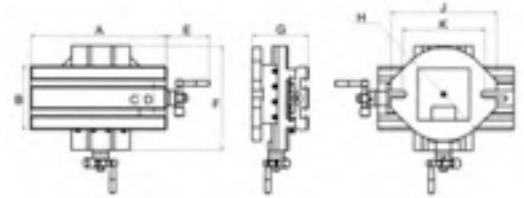
- Heavy-duty compound slide table features 8" of longitudinal and 5" of transverse travel for versatile milling and drilling. Features 5-1/2" x 12" table, 5/8" slots, and adjustable gibs.



**3900-2718**

**SPECIFICATIONS**

Table Size.....	12x5-1/2"
Table Height.....	.5"
T-Slot.....	5/8"
Wt (lbs).....	38



Unit: mm

A	B	C	D	E	F	G	H	J	K	X Travel	Y Travel	Weight
300	140	16	65	300	232	123	208	234	182	180	100	18kg

## VERTICAL SLIDING MILLING/DRILLING TABLE

- 80mm up down travel distance.
- Solid cast iron construction.
- Table Size: 125 x 100mm/4.92 x 3.94"
- No. of T-slot: 3
- T-Slot Width: T-Slots is 9.8mm/0.386" wide at the top of the Tee, 16.5mm/0.65" wide at the bottom of the Tee.
- Easy to bolt on a mill table with 2 bolt holes [9mm/0.354" diameter].
- Weight: 11 lbs.

**3906-2720**



## SWIVEL ANGLE PLATES

- Adjustable range 0-90°.
- High grade casting with rugged construction.
- Machined "T" slots.
- 2-screw lock setting.
- Working surfaces are hardened and ground.



Item#	Size	Height	T-Slot	Wt. (Lbs)
3501-0014	6 x 8"	5"	1/2"	29
3501-0016*	8 x 10"	6"	9/16"	45
3501-0018*	10 x 12"	7"	5/8"	80

\*Limited Supply

## HEAVY DUTY TILTING TABLES

- Supplied complete with crank handle.
- Range 0-80° (40° each side).
- Has 2 screws for locked settings.
- Graduated in degrees for quick setting purposes.
- Heavy duty casting and precision ground with three T-slots.
- Set at any angle with indexer.
- Convex movement.



Item#	Size	Height	T-Slot	Wt. (Lbs)
3501-0001	7x5"	3-3/4"	1/2"	21
3501-0002*	10x7"	5"	1/2"	50
3501-0003*	15x10"	6-1/2"	1/2"	130

\*Limited Supply

## 4" HORIZONTAL/VERTICAL ROTARY TABLE & DIVIDING PLATE

- 10 second vernier reading.
- One rotation of handle equals 4° on collar.
- Center height: 2.75"
- Gear ratio 72:1.
- Center Hole: 2MT
- Number of T-slot: 4



**DIVIDING PLATE**  
3900-2400

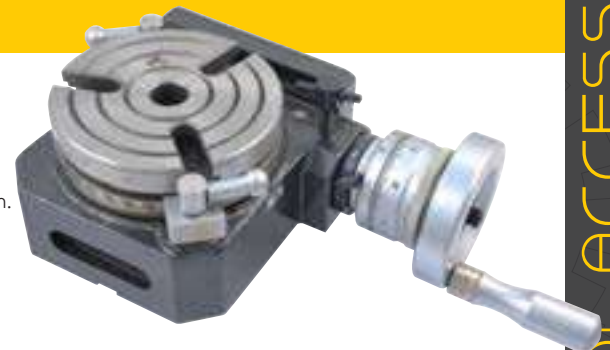
**4" ROTARY TABLE**  
3900-2304

SPECIFICATIONS	
Vernier Reading.....	10 seconds
Squareness .....	0.0008"
Base Parallelism (face to face).....	0.0004"
Taper (MT2) center bore Concentricity.....	0.0008"
Clamping surface flatness.....	0.0006"

- This set consists of one plate with a set of 10 holes. This allows you to divide a circle into 1/2 degree increments. You can divide a circle into the following number of divisions 2, 3, 4, 5, 6, 8, 9, 10, 12, 15, 16, 18, 20, 24, 30, 36, 40, 45, 48, 60, 72, 80, 90, 120, 144, 180, 240, 360, 720.

## 4" HORIZONTAL/VERTICAL ROTARY TABLE

- Table Diameter: 110mm/4-3/8".
- Horizontal Overall Height: 80mm/3-1/8"
- Vertical Overall Height: 152mm
- Overall Length (with handle): 280mm
- Center height: 86mm
- Gear ratio 90:1.
- Center Hole: 2MT
- T-Slot Width: 11mm/7/16"
- Number of T-slot: 3
- 10 second vernier reading.
- Graduated 360 degrees
- One rotation of handle equals 4° on collar.
- Worm gear is easily disengaged for free rotation.



**4" ROTARY TABLE**  
3906-2304

## 100MM STEEL VISE - For 4" HORIZONTAL/VERTICAL ROTARY TABLE

- Made from tool steel
- Hardened and ground
- Low profile
- 4 mounting holes for easy attachment to rotary table.
- 4 mounting T-nut and cap screw included.
- V-groove for holding round parts.

3906-2214

SPECIFICATIONS	
T-nut Width.....	7.6mm
Jaw Width.....	80mm
Jaw Depth.....	20mm
Jaw Opening.....	40mm
Base Diameter.....	100mm



# ROTARY TABLES & ACCESSORIES

## 4" TILTING ROTARY TABLE

- Table Diameter: 100mm/3.94".
- Horizontal Overall Height: 70mm/2.76"
- Vertical Center Height: 70mm/2.76".
- Gear ratio 36:1.
- T-Slot Width: 7.95mm/5/16"
- Number of T-slot: 4
- 10 second vernier reading.
- One rotation of handle equals 10° on collar.
- Worm gear is easily disengaged for free rotation.
- Tilts 0~90°
- Base has two bolt holes: 9.8mm/0.386" diameter.



3906-2338



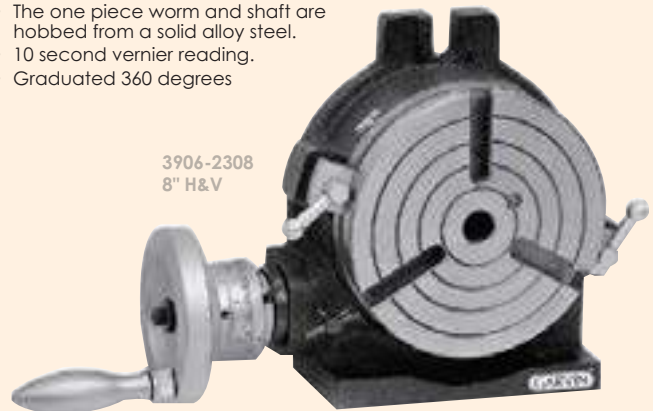
## HORIZONTAL & VERTICAL PRECISION ROTARY TABLES

- All rotary tables are precision ground.
- Low profile design .
- Worm gear is easily disengaged for free rotation.
- All rotary table parts are strategically positioned for easy access.

- The one piece worm and shaft were hobbled from a solid alloy steel.
- 10 second vernier reading.
- Graduated 360 degrees



3906-2306  
6" H&V



3906-2308  
8" H&V

Item#	Table Size (Dia.)	Center Hole	(Inch) Center Height Vert	Horizontal Overall Height	Number of T-slots	T-slot Width	Weight (lbs.)
3906-2306	6"	2M.T.	4.02	3-1/4	4	0.63	31
3906-2308	8"	3M.T.	5.31	4-1/4	3	0.94	65

SPECIFICATIONS	VARIATION MAX.
CLAMPING SURFACE FLATNESS.....	0.0006"
CYLINDER CENTER BORE TIR.....	0.0008"
TAPER CENTER BORE TIR.....	0.0008"
SURFACE TO BASE PARALLELISM.....	0.0008"
SURFACE TO ANGLE FACE SQUARENESS.....	0.0004"
SURFACE TO CENTER SLOT SQUARENESS.....	0.0008"

## DIVIDING PLATES - For 4~6" Rotary Tables

### SET INCLUDES:

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

3906-2390

Fits Most of 4~6" Rotary Table



## ADJUSTABLE TAILSTOCKS - For Rotary Tables



Fits 4~6" Rotary Table  
3906-2406

Fits 6~8" Rotary Table  
3906-2407

Item#	Fits Table	Adjustable Height (Min.~Max.)	Weight (lbs.)
3906-2406	4~6"	42~92mm/1.65~3.62"	6.2
3906-2407	6~8"	93~125mm/3.66~4.92"	22.5





# ROTARY TABLES & ACCESSORIES

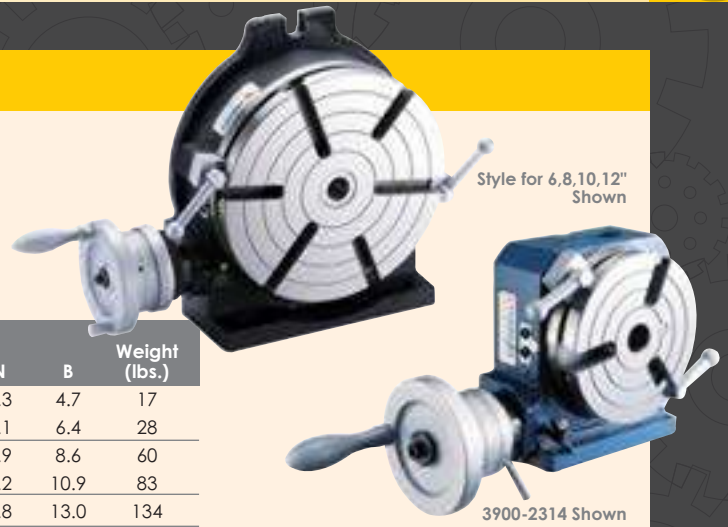
## Pro-Series HORIZONTAL/VERTICAL ROTARY TABLES

- 10 second vernier reading.
- Gear ratio 90:1.
- One rotation of handle equals 4° on collar.

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Unit: Inch

Item#	Table Size D	Height-over-all H	A	Center Hole	Center Height C	Number of T-slots	T-Slot Size	N	B	Weight (lbs.)
3900-2314	4.3"	2.8	5.4	2M.T.	3.3	3	.43	2.3	4.7	17
3900-2316	6"	3.1	8.1	2M.T.	3.9	3	.43	3.1	6.4	28
3900-2328	8"	4.1	10.4	3M.T.	5.3	3	.55	3.9	8.6	60
3900-2330	10"	4.5	12.6	3M.T.	6.5	6	.55	4.2	10.9	83
3900-2332	12"	5.3	15.3	4M.T.	7.7	6	.63	4.8	13.0	134



## Pro-Series DIVIDING PLATES

MADE IN TAIWAN

- Suitable for Pro-Series rotary tables.
- Set includes: index plates, crank handle, 3pc screw, sector & U washer.

Item#	Fits Rotary Table (Dia.)	Plate Include
3900-2390	4 & 6"	SET I
3900-2392	8"	SET II
3900-2394	10 & 12"	SET II
3900-2396	6 & 8" (Super Spacer)	SET II

### SET II

- Plate A** - 26, 30, 34, 38, 41, 44, 47, 51, 57, 28, 32, 37, 39, 43, 46, 49, 53, 59  
**Plate B** - 62, 67, 71, 77, 81, 87, 91, 97, 63, 69, 73, 83, 89, 93, 99

### SET I

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



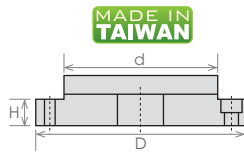
## ADJUSTABLE TAILSTOCKS

Item#	Fits Table	Origin	Center Height
3900-2406	4"	China	2.75"
3900-2407	4-6"	Taiwan	3.2-4.3"
3900-2409	6 & 8"	Taiwan	4.5-5.7"
3900-2402	8 & 10"	China	5.5-7.5"
3900-2411	8, 10 & 12"	Taiwan	5.2-8.1"
3900-2403	12"	China	7.5-9.0"



## FLANGES

- For front mount.
- For adapting a chuck to rotary table.
- Compatible with Pro-Series rotary tables, holes pattern may need to be modified for non Pro-Series.



MADE IN TAIWAN



Item#	Fit Chuck Size	Used For Table (Dia.)	D (Inch)		
			D	d	H
3900-2352	5	6 & 8	5.43	3.94	0.787
3900-2355	6	8 & 10	6.69	5.12	0.827
3900-2358*	7	10 & 12	7.68	6.10	0.945
3900-2360	8	12	8.27	6.30	0.945

\* Limited Supply

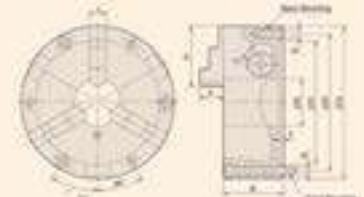
## 3-JAW FRONT-MOUNT SELF-CENTER CHUCKS FOR ROTARY TABLES

- Plain back.
- Made of high quality steel.
- Hardened and ground.
- Lathe chuck wrench supplied.

### TOP JAWS REVERSIBLE

Front mount chucks are designed to be used with rotary tables and other devices where back mounting chucks can not be used.

SQUARE & PARALLEL .0002"



Item#	Chuck Size		D (Inch)		Center Hole E	Mount Thread G	
	A	D	C	B		Front	Back
3900-3430	6"	5.51	4.92	2.60	1.575	M8x70	M8x25
3900-3432	8"	6.93	6.30	3.00	2.559	M10x80	M10x30
3900-3434	10"	8.82	7.87	3.42	3.150	M12x85	M12x35
3900-3436	12"	11.26	10.24	3.86	3.937	M16x100	M16x40

# ROTARY TABLES & INDEXERS

## Pro-Series Low Profile HORIZONTAL & VERTICAL PRECISION ROTARY TABLES

- High precision bearing surfaces insure ultra-smooth rotation.
- Superior grade meehanite castings provide the ultimate rigidity.
- All rotary tables are precision ground to meet the most exacting requirements and are individually supplied with a certificate of inspection.
- The engraved graduations are both crisp and clear, eliminating erroneous readings.
- Low profile design minimizes machine capacity losses without sacrificing work load capacity.
- T-slots are machined within acceptable tolerances.
- Worm gear is easily disengaged for free rotation.
- Long life and continued accuracy is assured by a convenient adjustment to compensate for wear.
- All rotary table parts are strategically positioned for easy access.
- The one piece worm and shaft are hobbled from a solid alloy steel.
- Extra deep coolant channel
- 10 second vernier reading
- Dual positive action locks
- Graduated 360 degrees
- Gear drive immersed in oil
- 90:1 gear ratio



3903-2308



3903-2310

Limited Supply!

### DIVIDING PLATES INTERCHANGEABLE WITH Phase II

Item#	Table Size (Dia.)	Center Hole	Center Height Vert (In.)	Number of T-slots	T-slot Width (In.)	Weight (lbs.)
3903-2308	8"	3M.T.	5.98	4	0.465	70
3903-2310	10"	3M.T.	6.75	6	0.465	102

SPECIFICATIONS	VARIATION MAX.
CLAMPING SURFACE FLATNESS.....	0.0006"
CYLINDER CENTER BORE TIR.....	0.0008"
TAPER CENTER BORE TIR.....	0.0008"
SURFACE TO BASE PARALLELISM.....	0.0008"
SURFACE TO ANGLE FACE SQUARENESS.....	0.0004"
SURFACE TO CENTER SLOT SQUARENESS.....	0.0008"

## 4" SUPER RAPID INDEXER

- Simple and rapid operation
- 4" 3-jaw chuck give a big range clamping capacity
- 24 position index (15° increments)
- 1° table scale for angle indexing
- Center hole 1.18" dia.
- Horizontal and vertical operation
- 2 sets of jaws (Internal & External).

**MADE IN TAIWAN**  
**4" Indexer**  
**3900-2414**  
 Weight: 23 Lbs.

**HHIP**  
**100mm Indexer**  
**3906-2414**  
 Weight: 22 Lbs.



## VERTEX 5 INCH 3-JAW FREE ANGLE ROTARY CHUCK

- Easy & quick setting at any angle
- Four hex head bolts lock & secure chuck.
- 3-Jaw self centering chuck.
- 360° rotation, 30° tilting.
- Load Capacity: 33 lbs.
- 2 sets of solid jaws included (ID & OD).

**MADE IN TAIWAN**

**3900-2350**

Locking With Hex Key (Included)



Chuck Jaw	O.D. Clamping Range	I.D. Clamping Range	A	B	C	D	E	F	G	H	Wt.
5"	0.12~4.33"	1.38~3.94"	5.51"	4.72"	0.79"	7.48"	2.83"	6.22"	0.67"	8.00"	38 lbs

## PRECISION UNIVERSAL TILTING TABLE WITH SWIVEL BASE

- Heavy and sturdy machined construction.
- Range 45 degree each way from vertical.
- Keyway slot at bottom of swivel base: 0.485" position.
- Swivel base graduation 360 degree.
- Can be locked into position with 2 clamping screws on each end.
- 2 Machined "T" slots that are 0.31" width and precise ground table surface.

**Table Size: 4x5"**  
**3501-0030**

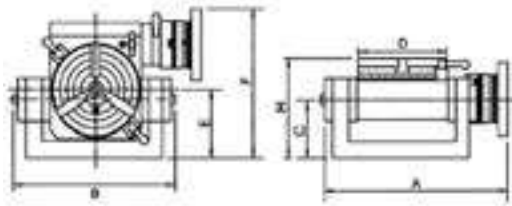
Weight: 13 Lbs.



## Pro-Series UNIVERSAL TILTING ROTARY TABLES

- Highly rigid in the market
- Tilting 0-90° from horizontal to vertical position Lock setting with 2 screws
- 90:1 ratio worm is hardened and ground
- The work table is graduated a full 360° and micro collar is in steps of 2' min.

**Tailstock and Dividing Plates are optional**



MADE IN  
TAIWAN

Unit: Inch

Item#	Table Size G	Height-Over-All H	Center Hole F	Center Hole	Center Height E	A	OAL B	C	Number of T-slots	T-Slot Size	Suitable Tailstock	Suitable Dividing Plate	Weight (lbs.)
3900-2338	4.3	4.61"	6.97"	2M.T.	3.15"	9.0	8.0	2.68	3	0.433	3900-2407	3900-2390	30
3900-2340	8	6.97"	11.14"	3M.T.	5.55"	16.9	17.0	4.37	3	0.551	3900-2411	3900-2392	110

## TSK SERIES 10" TILTING ROTARY TABLE

- 10 second vernier reading.
- Gear ratio 90:1.
- Dual positive action locks
- Low profile
- gear drive immersed in oil
- maximum cumulative spacing error: 45 seconds

### SPECIFICATIONS

Squareness (surface to angle face)	.....0.0004"
Squareness (surface to center slot)	.....0.0008"
Parallelism (surface to base)	.....0.0008"
Cylindrical enter bore Concentricity	.....0.0008"
Taper center bore Concentricity	.....0.0008"
Clamping surface flatness	.....0.0006"

**3900-2315**

Weight: 182 Lbs.

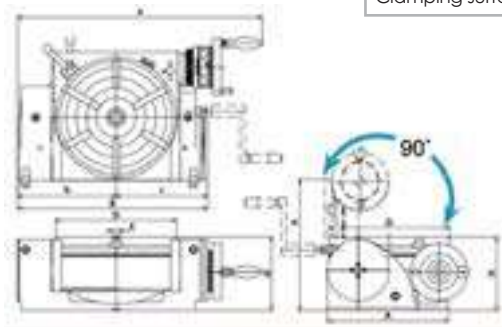


Table Dia.	Tilting Height	Range	Center Height	Hole	T-slot	Base
10"	8"	90°	5-1/2"	3MT	1/2"	10 x 12"



**Pro-Series SUPER 6" & 8" ROTARY INDEXING FIXTURES**

- 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 10 second adjustable vernier plate insures accurate readings.
- Each unit is equipped with 6 masking plates for fast and simple indexing of 2, 3, 4, 6, 8 and 12 divisions.
- Complete with 3-jaw chuck and faceplate.



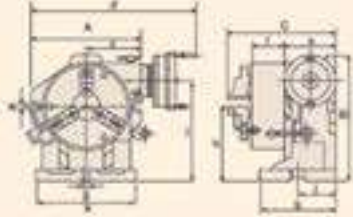
FACE PLATE SHOWN



**MADE IN TAIWAN**

**SPECIFICATIONS**

Max. Individual Spacing Error.....	25 seconds
Vernier Reading.....	10 seconds
Squareness (table base to chuck 90°).....	0.0008"
Base Parallelism (face to face).....	0.0004"
Mounting Flange Concentricity.....	0.0008"
Chuck Concentricity.....	0.0005"



Unit: Inch

Item#	Table Size	Face Plate	Chuck Center Hole	A	B	C	a	b	d	e	f	g	Center Height h	i	j	k	Number of T-slots	T-Slot Size	Weight (lbs.)
3900-2318	6	8	1-23/32	9.84	9.37	8.15	7.17	5.5	16	4.41	2.6	.63	4.8	7.52	3.15	.63	6	0.433	98
3900-2321	8	10	2-15/32	12.6	11.57	9.27	9.06	6.3	19	4.99	3.0	.63	6.1	9.24	3.74	.79	6	0.551	177

MACHINE TOOL ACCESSORIES

**Pro-Series ADJUSTABLE TAILSTOCKS -For 6&8" Rotary Indexing Fixture**



**MADE IN TAIWAN**

**Fits 6" Indexing Spacer**  
**3900-2409**  
4.5 - 5.7" Center Height

**Fits 8" Indexing Spacer**  
**3900-2411**  
5.125 - 8.07" Center Height

**Pro-Series DIVIDING PLATES -For 6&8" Rotary Indexing Fixture**

- Suitable for Pro-Series rotary tables.
- Set includes: index plates, crank handle, 3pc screw, sector & U washer.

**MADE IN TAIWAN**



**SET INCLUDES:**

- Plate A** - 26, 30, 34, 38, 41, 44, 47, 51, 57, 28, 32, 37, 39, 43, 46, 49, 53, 59
- Plate B** - 62, 67, 71, 77, 81, 87, 91, 97, 63, 69, 73, 83, 89, 93, 99

**Fits 6&8" Indexing Spacer**  
**3900-2396**

**Pro-Series REPLACEMENT PARTS -FOR 8" INDEXING FIXTURE (Vertex Brand)**

**MADE IN TAIWAN**



**Worm Metal**  
**3900-2323**



**Worm Gear**  
**3900-2324**

**Pro-Series 8" 4 JAW ROTARY CHUCK-SELF CENTERING**

**MADE IN TAIWAN**

- 360 degrees vernier scale: smooth swivel motion and easy locking by screws
- 2 sets of jaws



**3900-2418**

Unit: mm

A	A1	B	B1	D	E	F	H	I	J	K	M	Wt.
305	270	159	125	200	65	20	86	3-M10	75	34	18	67 lbs

**Pro-Series 6" 3 JAW ROTARY CHUCK-SELF CENTERING**

**MADE IN TAIWAN**

- 360 degrees vernier scale: smooth swivel motion and easy locking by screws
- 2 sets of jaws

**3900-2416**



Unit: mm

A	A1	B	B1	D	E	F	H	I	J	K	M	Wt.
245	233	139	110	160	45	15	70	3-M8	69	29	14	40 lbs

**Pro-Series SEMI - UNIVERSAL DIVIDING HEAD SETS**

- Provides high accuracy with little backlash for a smooth rotation.
- Features easy indexing of divisions from 2 to 50 and most numbers up to 380.
- 3 dividing plates enable you to use different sizes (included).
- Adjustable tailstock allows you to work on various size workpieces (included).
- Ruggedly constructed of hardened and ground worm gear.
- Set also includes head, center and backplate for mounting 3-jaw chuck.



**MADE IN TAIWAN**

**DIVIDING PLATE A B C**

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

**7-1/2" SWING**  
**3800-5810**

Weight: 55 Lbs.

**10" SWING**  
**3800-5812**

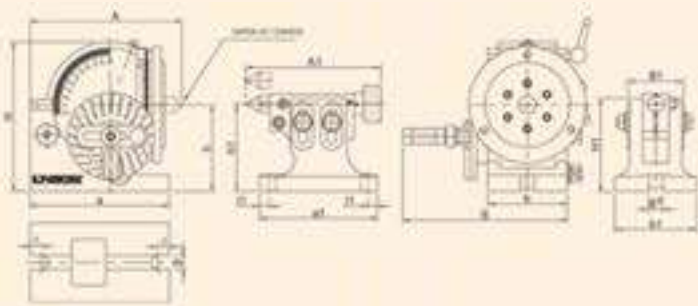
Weight: 80 Lbs.

**HIP PRO-SERIES**

**OPTIONAL FRONT-MOUNT 3-JAW CHUCKS**

Chuck Size	Item#
4"	<b>3800-5820</b>
5"	<b>3800-5821</b>
6"	<b>3800-5822</b>

SPECIFICATIONS	ITEM 3800-5810	ITEM 3800-5812
Swing:	7-1/2"	10"
Center Height(h):	3-15/16"	5-3/64"
Hole Through Spindle(dia.):	0.709"	0.787"
Spindle Taper:	2MT	3MT
A/B/H	7.44"/5.52"/6.30"	11.34"/6.14"/8.66"
a/b	6.30"/3.58"	8.16"/4.48"
Optional 3-Jaw Chuck:	4"/5"	5"/6"
Tailstock Dimension:		
(A1xb1xH1)	6.6"x3.3"x4.3"	7.5"x4.3"x5.4"
a1/B1	5.13"/3.16"	5.91"/3.16"
g=g1	33/64"	5/8"



**Pro-Series UNIVERSAL DIVIDING HEAD SET**

**HIP PRO-SERIES**



- Ideal for easy indexing of divisions from 2 to 50 and most numbers from 52 to 380.
- Designed for all types of gear cutting.
- Worm and spindle are hardened and ground.
- Features spiral machining capability.
- Allows you to divide in any angle by the direct, indirect or differential methods with unique dividing head.

- Ratio between worm and worm gear: 40:1
- Features threaded spindle nose and 24 hole dividing plates with easy conversion to fast, direct indexing on numbers 2, 3, 4, 6, 8, 12, and 24.
- Complete set includes Dividing Head, Adjustable Tailstock, 3 Dividing Plates, 12 gears with 2 arms for differential indexing or transmitting machine table feed to worm shaft for spiral cutting.

**10-1/2" SWING**  
**3800-5815**

Weight: 180 Lbs.

**MADE IN TAIWAN**

**DIVIDING PLATE A B C**

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

**MAX. VARIATION**

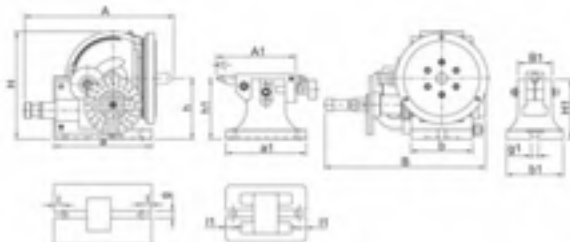
True Running Center:	.....0.0006"
True Running of Inside Taper of Dividing Spindle Measured at Spindle Nose:	.....0.0006"
Alignment of Dividing Head & Tailstock Vertical & Horizontal Plane:	.....0.0008"

**SPECIFICATIONS**

Swing:	.....10-1/2"
Center Height (h):	.....5.22"
Hole Through Spindle (dia.):	.....0.945"
Spindle Taper:	.....4MT
A/B/H:	.....14.37" /10.71" /9.29"
a/b:	.....8.39" /5.28"
Optional 3-Jaw Chuck:	.....6"/8"
Tailstock Dimension (A1xb1xH1):	.....10.0" x 4.9" x 5.5"
a1:	.....6.89"
g=g1:	.....0.63"

**OPTIONAL FRONT MOUNT CHUCKS**

- 6" 3-Jaw Chuck (Item #3800-5822)
- 8" 3-Jaw Chuck (Item #3800-5823)



MACHINE TOOL ACCESSORIES

**Pro-Series 10-1/2" SEMI-UNIVERSAL DIVIDING HEAD SET -WITHOUT CHANGING GEAR**



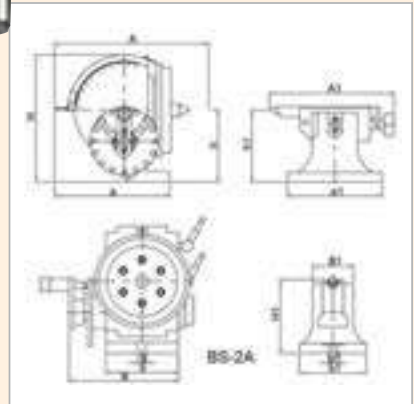
**HIP PRO-SERIES**

**MADE IN TAIWAN**

**BS-2A  
10-1/2" SWING  
3800-5814**

Weight: 106 Lbs.

- **Set Includes:**  
A tail stock, a set of dividing plates, set of carrier clamps, 3-Jaw plate and center.



- Vertex BS-2A 10-1/2" Semi-Universal Dividing Head Set.
- Hole through the spindle is 0.945"
- Spindle Taper is MT4
- Dividing head can divide in any angle by the direct, indirect or other methods.
- Feature easy indexing of divisions from 2 to 50 and most numbers up to 380
- Hardened and ground spindle is rigidly held in a taper roller bearing.
- Ruggedly constructed hardened and ground worm gear
- The swivel head can be locked at any angle from 10 degrees below horizontal to 90 degrees vertical allowing for a precision fit to the base assuring smooth rotation
- Provides high accuracy with little backlash for a smooth rotation
- The included adjustable tailstock allows you to work on various size workpieces
- Threaded spindle nose and 24 hole dividing plate provides easy conversion to fast direct indexing on numbers 2, 3, 4, 6, 8, 12 and 24
- The included dividing plates enable you to use different sizes
- Set also includes head, center, dog and backplate for mounting a 3-jaw chuck
- Optional front mount 3-jaw chucks that are available include a 6" #3800-5822 and a 8" 3800-5823

**MAX. VARIATION**

True Running Center:	.....0.0006"
True Running of Inside Taper of Dividing Spindle Measured at Spindle Nose:	.....0.0006"
Alignment of Dividing Head & Tailstock Vertical & Horizontal Plane:	.....0.0008"

**SPECIFICATIONS**

Swing:	.....10-1/2"
Center Height (h):	.....5.22"
Hole Through Spindle (dia.):	.....0.945"
Spindle Taper:	.....MT4
A/B/H:	.....11.22" /7.95" /9.33"
a/b:	.....8.39" /5.28"
Optional 3-Jaw Chuck:	.....6"/8"
Tailstock Dimension (A l x b l x H l):	.....8.6" x 4.8" x 5.5"
a1	.....6.89"
g=g1	.....0.63"



- OPTIONAL FRONT MOUNT CHUCKS**
- **6" 3-Jaw Chuck** (Item #3800-5822)  
Machine To Adapter Plate To Fit.
  - **8" 3-Jaw Chuck** (Item #3800-5823)  
Fits on Dividing Head-No Machining Required.

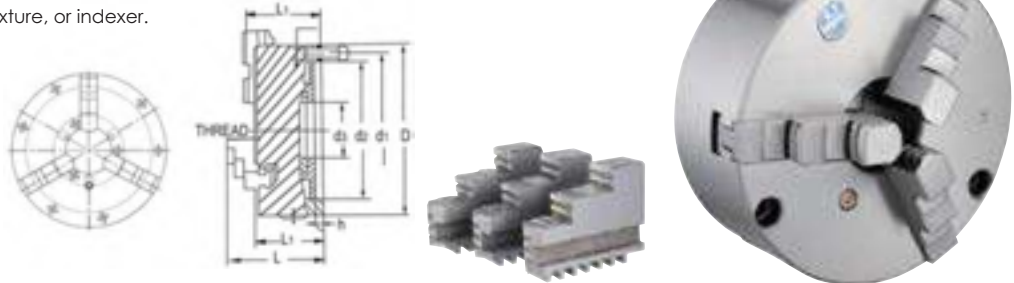
**DIVIDING PLATE A B C**

Numbers of Hole	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	

**Pro-Series 3-JAW FRONT-MOUNT SELF-CENTER CHUCKS, PLAIN BACK**

- Easily mount on table, dividing head, fixture, or indexer.
- Lathe chuck wrench supplied.

**MADE IN TAIWAN**



Front mount chucks are designed to be used with rotary tables dividing head and other devices where back mounting chucks can not be used.

**Includes One Set of External Jaws & Internal Jaws**

Item#	Chuck Size D (Inch/mm)	d1	(Inch) d2	Center Hole d3	L	L1	h	Thread Z-d	Gripping Range O.D. (mm)	I.D.(mm)
3800-5819	3/80	2.60	2.17	0.63	2.6	2.0	0.138	3-M6	2~70	24~64
3800-5820	4/100	3.31	2.83	0.87	2.9	2.2	0.138	3-M8	3~90	32~84
3800-5821	5/130	4.53	3.94	1.18	3.1	2.2	0.138	3-M8	3~110	35~100
3800-5822	6/160	5.59	5.12	1.77	3.7	2.6	0.197	3-M10	3~160	48~150
3800-5823	8/200	7.09	6.50	2.75	4.3	3.0	0.197	3-M12	4~180	56~170
3800-5824	10/250	8.86	8.11	3.15	4.7	3.2	0.197	3-M12	6~220	70~250



# ER COLLET BLOCKS & FIXTURES

## HEX / SQUARE ER COLLET BLOCKS

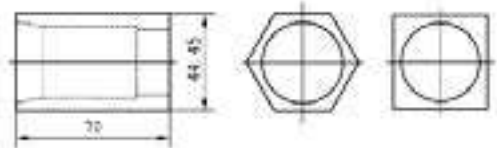
- Block Dimension: 1-3/4 x 1-3/4 x Height.
- For fast set-ups on CNC machines.
- For parallel, square or hex shapes as well as for cross hole drilling at 60°, 90° or 120°.
- Made of tool steel hardened and ground to .0005" flatness, squareness and parallelism.
- Through hole allows for long parts to be machined.
- May be used standing upright.
- Uses standard ER collets.
- ER nut included.



Item#	Shape	ER Collet	Block Height
3900-5123	Square	ER-25	2.7
3900-5124	Square	ER-32	2.8
3900-5125	Square	ER-40	3.2
3900-5127	Hex	ER-25	2.7
3900-5128	Hex	ER-32	2.8
3900-5129	Hex	ER-40	3.2

## HEX & SQUARE COLLET BLOCK SET

- Capacity for standard 5C collets: 1/16" ~ 1-1/16".
- Overall Dimensions: 1-3/4" x 1-3/4" x 3-1/4".
- For fast set-ups on milling machines, lathes, surface grinders & drill presses.
- For parallel, square or hex shapes as well as for cross hole drilling at 60°, 90° or 120°.
- Made of tool steel hardened and ground to .0005" flatness, squareness and parallelism.



**5 PC SET**  
3900-1620

**5 PC INCLUDES:**  
Square, Hex, Quick Acting Rings & Lever collet closer cam operated.

## 5C H/V ANGLE COLLET FIXTURE

- For any standard 5C collet
- Horizontal or vertical position.
- Lever movement to open or close collet.
- Base Size (horizontal): 5 x 4"
- Base Size (vertical): 5 x 3-5/8"
- Height (H/V): 3-5/8" / 4"

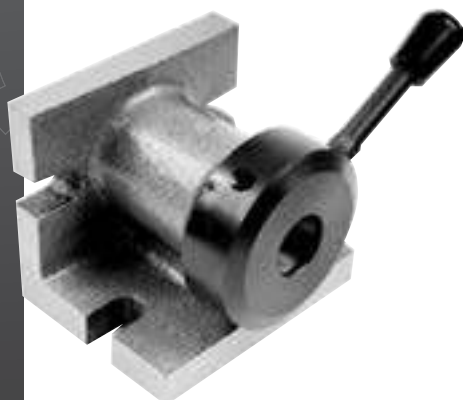
3900-1625



5C COLLET NOT INCLUDED



## 5C H/V COLLET FIXTURE



- For any standard 5C collet up to 1-1/8".
- Can be used in either horizontal or vertical position.
- Lever movement to open or close collet.
- Base Size: 4-1/4" x 4-1/4".
- Height: 4-1/4".
- Weight: 12 lbs

3900-1621

## ANGLE END MILL GRINDING FIXTURE

- This fixture takes 5C round collets for grinding end mills 1/16" ~ 1-1/8" .
- Shell mills can easily be held with straight shank arbors.
- Solid negative ball stops with 15° spacing fast & easy set-ups.
- Can be used for grinding 2-3-4-6-8 and 12 flute end mills.
- Clearance & relief angles are built into the base.
- Solid 2-1/2" X 4-1/2" base bottom ground for sure contact.
- Black oxide finish.
- 5C collet not included.

3600-0056

5C COLLET NOT INCLUDED



# COLLET INDEX FIXTURES

## ER-32 PRECISION INDEXING SPIN JIG

- Indexing and Grinding Fixture.
- Uses ER-32 collets (range 1/16~13/16") for better gripping and accuracy.
- Extends the capabilities of Drill Presses, Surface Grinders, Gear Cutters and Milling Machines.
- Spindle hardened and ground with .0005" (T.I.R.) run-out.
- 10 vernier holes for 1° indexing.
- 2" spindle travel for flute grinding.
- 5" diameter index plate has 36 hole circle and graduated by 0 to 35 for direct indexing in 10° steps and is marked in 5° increments.
- Spindle lock for tightening collet.
- Base Footprint: 4.5x4" ground parallel to spindle.
- Weight: 14 lbs.

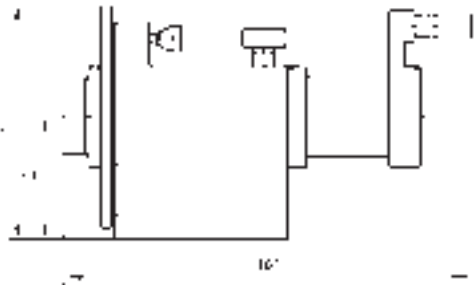
**CENTER HEIGHT: 2.75"**

**3903-1600**

**NEW DESIGN  
USES ER-32 COLLETS**



**WRENCH INCLUDED**



**ER COLLET  
NOT INCLUDED**



### OPTIONAL TAILSTOCK



**3900-2406**

### OPTIONAL ER32 COLLET SETS

**18 PC SET, INCH  
3900-5267**

3/32-3/4" BY 1/32



**12 PC SET, METRIC  
3903-5260**

3,4,5,6,8,10,12,14,15,16,18&20mm

## HIGH PRECISION 5C INDEXING SPIN JIG

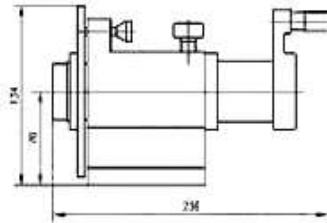
- Uses 5C Collets, 1 1/8" max. capacity. Extends the capabilities of Drill Presses, Surface Grinders, and Milling Machines. Vernier reads to 10 minute accuracy, .0004" ground lapped; 2" travel for flute grinding. Simple 1° indexing. Hardened and ground spindle. Index plate has 36 hole circle. Spindle run out within .0005"(T.I.R). Spindle lock & hole for tightening collet. Plate graduated by 10 to 360.
- Index plate with 36 holes for direct indexing in 10° steps and is marked in 5° increments.
- Base size: 5x5"
- Weight: 20 lbs.

**CENTER HEIGHT: 2.76"**

**3900-1604**



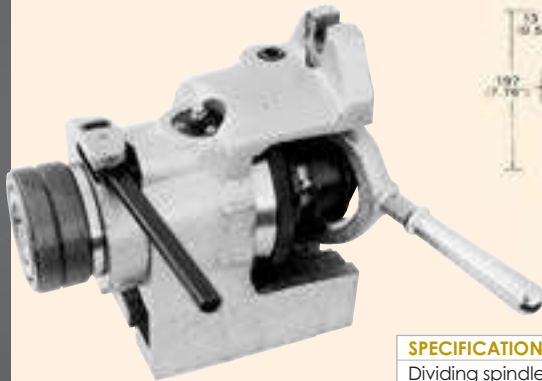
Optional Tailstock:  
**3900-2406**



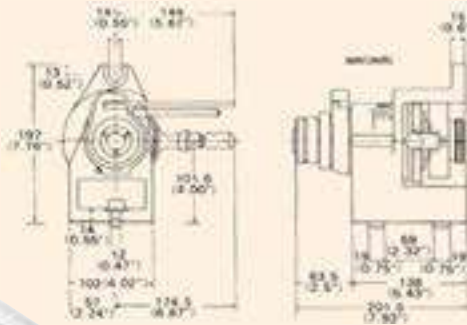
## HIGH PRECISION 5C COLLET INDEXERS-Horizontal & Vertical

- Utilizes 5C collets.
- Spindle is manufactured with tapered seat in body frame.
- Lever operated collet closer with 100:1 leverage ratio.
- Front mounted ratchet control for rapid indexing.
- Index plate has 24 index locations (15° increments) that may be masked off for greater variety in applications).
- Single lever design.

**DIVIDING SPINDLE CONCENTRICITY:  
MAX. VARIATION .0002"**



**3900-1607**



Threaded spindle is hardened and ground  
(2-1/4"~8 TPI)

SPECIFICATIONS	VARIATION MAX.
Dividing spindle concentricity.....	0.0002"
Cylindrical center bore (per 1" ) concentricity.....	0.0008"
Spindle center line parallelism.....	0.0008"
Base to face squareness.....	0.0008"
Center slot to dividing spindle concentricity.....	0.0008"
Lateral offset of center slot to dividing spindle.....	0.0008"



Optional Tailstock  
(adjustable 4-6"):  
**3900-2407**



**Pro-Series Quality  
3903-1607**

Pro-Series PARTS  
ARE INTERCHANGEABLE WITH PHASE II

## 5C EXPANDING COLLETS & SET

- Size Range: 0.250" - 1.937".
- Fits any standard 5-C spindle.
- Concentricity within .0005".
- Shoulder widths within .001".
- Effective expansion up to .006".
- Head : 1" length.
- Machinable.

**EASILY  
MACHINED**

**4 PC SET  
3900-1606**

INCLUDES: #1,2,3 & 4

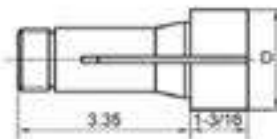


### INDIVIDUALS

Item#	Size
3900-1627	.250~.468" (#1)
3900-1628	.437~.800" (#2)
3900-1629	.750~1.437" (#3)
3900-1630	.750~1.937" (#4)

## 5C CLUTCH COLLETS-STEP

- One-piece construction
- Spring-tempered to allow easy workpiece loading and removal
- Easily machined
- Fits all 5C closers and fixtures
- 1-3/16" head thickness



Item#	Size D
3900-1632	2"
3900-1633	3"
3900-1634	4"
3900-1635	5"
3900-1636*	6"

\*Limited Supply





# 5C COLLETS & ACCESSORIES

## 30PC 5C COLLET RACK

- Baked enamel paint finish.
- Hangs on wall or machine, or sets on a shelf or work bench.

3900-1602



HOLDS 30PC 5C COLLETS

FOOTPRINT: 12x9"

## 8PC COLLET RACK

- Holds 8 collets 5C, ER32 or others.
- Made from durable ABS material, heavy duty.
- Supplied with mounting hardware.
- 4 mounting holes: 3.5" and 5.5" apart.

3900-1609



COLLETS NOT INCLUDED

## 5C COLLET STOP WITH TIPS-UNIVERSAL

- Speeding up repeat machining cycle.
- Includes: 5C Collet Stop, 2 Spring Ejector Tips & 2 Static tips.
- Tips size under 1/4" & 5/8" diameter.

3900-1616



Unit: mm

## HARLINGEN® HIGH PRECISION 5C COLLETS



- Clamping nose HRC55, body HRC40 and thread HRC25.
- Roughness Ra 0.4
- Internal and external thread machining after heat treatment reduces deformation, burrs and provides you with smooth threaded engagement.
- "STEP" Hardened and Ground Surface throughout protects the connection with spindle, also guarantees high accuracy, durability and long tool life.

Run-out accuracy  
≤ 0.0006 INCHES at 3xD



MADE OF HIGH GRADE TOOL STEEL

## 5C ADJUSTABLE COLLET STOP

- Fully threaded adjustment screw.
- Thread size: 3/8" - 24.
- Fits collets with internal threads.

3900-1615



Unit: mm

## 5C COLLET WRENCH

- Simplifies insertion and removal of collets on the spindle noses of CNC turning machines.
- Steel head with comfort handle

3900-1617



## 5C ER-32 COLLET CHUCK

- 5C-ER32 collet chuck Milling Chuck Holder.
- Made with DIN6499B (0.0005") Run-Out Tolerance.
- Holds all ER32 collets.
- Drawbar : 5C collet standard.
- Hardened and precision ground.
- Half-moon Spanner included.

3900-5099



Item#	Size	Item#	Size
9742-3007	1/8"	9742-3031	1/2"
9742-3008	9/64"	9742-3032	33/64"
9742-3009	5/32"	9742-3033	17/32"
9742-3010	11/64"	9742-3034	35/64"
9742-3011	3/16"	9742-3035	9/16"
9742-3012	13/64"	9742-3036	37/64"
9742-3013	7/32"	9742-3037	19/32"
9742-3014	15/64"	9742-3038	39/64"
9742-3015	1/4"	9742-3039	5/8"
9742-3016	17/64"	9742-3040	41/64"
9742-3017	9/32"	9742-3041	21/32"
9742-3018	19/64"	9742-3042	43/64"
9742-3019	5/16"	9742-3043	11/16"
9742-3020	21/64"	9742-3044	45/64"
9742-3021	11/32"	9742-3045	23/32"
9742-3022	23/64"	9742-3046	47/64"
9742-3023	3/8"	9742-3047	3/4"
9742-3024	25/64"	9742-3048	49/64"
9742-3025	13/32"	9742-3049	25/32"
9742-3026	27/64"	9742-3050	51/64"
9742-3027	7/16"	9742-3051	13/16"
9742-3028	29/64"	9742-3052	53/64"
9742-3029	15/32"	9742-3053	27/32"
9742-3030	31/64"	9742-3054	55/64"

## 5C ROUND COLLETS & SETS

- Made of high grade tool steel.
- Hardened and precision ground.
- Internal and external threaded.

### 9 PC SET, Metric 3903-0012

4 to 20mm by 2mm

### 14 PC SET, Metric 3903-0014

12 to 25mm by 1mm

### 24 PC SET, Metric 3903-0016

3 to 26mm by 1mm



### 6 PC SET, Inch 3900-0012

1/8 - 3/4 by 8ths

### 17 PC SET, Inch 3900-0013

1/16 - 1/16 by 16ths

### 33 PC SET, Inch 3900-0014

1/16 - 1/16 by 32nds



### 69 PC SET, Inch 3900-1112

1/16 - 1/8 by 64ths

Item#	Size (Inch)	Item#	Size(Inch)
3900-0011	1/16	3900-1136	39/64
3900-1101	5/64	3900-1137	5/8
3900-1102	3/32	3900-1138	41/64
3900-1103	7/64	3900-1139	21/32
3900-1104	1/8	3900-1140	43/64
3900-1105	9/64	3900-1141	11/16
3900-1106	5/32	3900-1142	45/64
3900-1107	11/64	3900-1143	23/32
3900-1108	3/16	3900-1144	47/64
3900-1109	13/64	3900-1145	3/4
3900-1110	7/32	3900-1146	49/64
3900-1111	15/64	3900-1147	25/32
3900-1113	1/4	3900-1148	51/64
3900-1114	17/64	3900-1149	13/16
3900-1115	9/32	3900-1150	53/64
3900-1116	19/64	3900-1151	27/32
3900-1117	5/16	3900-1152	55/64
3900-1118	21/64	3900-1153	7/8
3900-1119	11/32	3900-1154	57/64
3900-1120	23/64	3900-1155	29/32
3900-1121	3/8	3900-1156	59/64
3900-1122	25/64	3900-1157	15/16
3900-1123	13/32	3900-1158	61/64
3900-1124	27/64	3900-1159	31/32
3900-1125	7/16	3900-1160	63/64
3900-1126	29/64	3900-1161	1
3900-1127	15/32	3900-1162	1-1/64
3900-1128	31/64	3900-1163	1-1/32
3900-1129	1/2	3900-1164	1-3/64
3900-1130	33/64	3900-1165	1-1/16
3900-1131	17/32	3900-1166	1-5/64
3900-1132	35/64	3900-1167	1-3/32
3900-1133	9/16	3900-1168	1-7/64
3900-1134	37/64	3900-1169	1-1/8
3900-1135	19/32		

## Pro-Series 5C ROUND COLLET SET

- **Guaranteed T.I.R: <0.0005"**.
- Made of high grade tool steel.
- Hardened and precision ground.
- Internal and external threaded.

HIP  
PRO-SERIES

### 15 PC SET 3900-1170

1/8 - 1 by 16ths

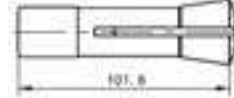


## 5C EMERGENCY COLLETS



1/16"

Unit: mm



- Used for holding soft or delicate work pieces without marring surfaces.
- Internal and external threaded.

Item#	Material
3900-1611	Steel
3900-1612	Brass
3900-1613	Nylon

## 5C PRECISION SQUARE COLLETS

SQUARE



- Made of high grade tool steel.
- Hardened and precision ground.
- Internal and external threaded.

Item#	Size (Inch)
3900-1564	1/8
3900-1566	3/16
3900-1568	1/4
3900-1570	5/16
3900-1572	3/8
3900-1574	7/16
3900-1576	1/2
3900-1578	9/16
3900-1580	5/8
3900-1582	11/16
3900-1584	3/4

## 5C PRECISION HEX COLLETS

- Made of high grade tool steel.
- Hardened and precision ground.
- Internal and external threaded.

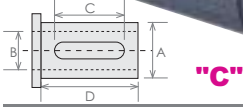
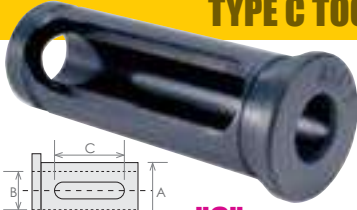
HEX



Item#	Size (Inch)
3900-1517	1/8
3900-1518	3/16
3900-1520	1/4
3900-1522	5/16
3900-1524	3/8
3900-1526	7/16
3900-1528	1/2
3900-1530	9/16
3900-1532	5/8
3900-1534	11/16
3900-1536	3/4
3900-1538	13/16
3900-1540	7/8

# TOOL HOLDER BUSHINGS

## TYPE C TOOL HOLDER BUSHINGS



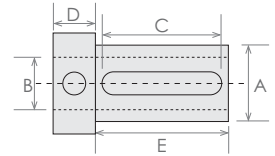
- Made of high quality tool steel.
- Tool Holder Bushing for universal use on all CNC turning machines to adapt a wide variety of boring bars, drills, reamers and shank type tools.
- Hardened and precision ground to highest concentricity.

Item#	A O.D.	B I.D.	C Slot Length	D		
3900-1911	3/4"	1/4	1-7/8"	2-1/4"		
3900-1912		5/16				
3900-1913		3/8				
3900-1914		1/2				
3900-1915	1"	1/4	2-3/8"	2-3/4"		
3900-1916		5/16				
3900-1917		3/8				
3900-1918		1/2				
3900-1919		5/8				
3900-2910		3/4				
3900-2911	1-1/4"	3/8	2-7/8"	3-1/4"		
3900-2912		1/2				
3900-2913		5/8				
3900-2914		3/4				
3900-2915		7/8				
3900-2916		1				
3900-2917		3/8			3"	3-3/8"
3900-2918		1/2				
3900-2919	5/8					
3900-2920	3/4					
3900-2921	7/8					
3900-2922	1					
3900-2923	1-1/4					
3900-2924	1/2	3-1/8"	3-1/2"			
3900-2925	5/8					
3900-2926	3/4					
3900-2927	7/8					
3900-2928	1					
3900-2929	1-1/4					
3900-2930	1-1/2					
3900-2931	1/2			3-5/8"	4"	
3900-2932	5/8					
3900-2933	3/4					
3900-2938	7/8					
3900-2934	1					
3900-2935	1-1/4					
3900-2936	1-1/2					
3900-2937	1-3/4					

## TYPE Z TOOL HOLDER BUSHINGS

- Made of high quality tool steel
- Tool Holder Bushing for all type of N/C-CNC turning centers, turret lathes and chucks
- The elongated slots give the user a complete interchangeability with all brands of equipment
- Hardened and precision ground to highest concentricity.

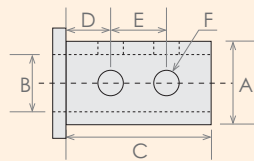
Limited Supply!



"Z"

Item#	A O.D.	B I.D.	C Slot Length	E	D
3900-3913	1-1/4"	5/8	2-5/8"	3"	5/8"
3900-3915		7/8			
3900-3921	1-1/2"	7/8	2-7/8"	3-1/4"	3/4"
3900-3924	1-3/4"	1/2	3-1/8"	3-1/2"	3/4"
3900-3925		5/8			
3900-3926		3/4			
3900-3927		7/8			
3900-3928		1			
3900-3929		1-1/4			
3900-3930		1-1/2			
3900-3931		1/2			
3900-3932	5/8				
3900-3934	7/8				
3900-3935	1				
3900-3936	1-1/4				
3900-3938	1-3/4				

## TYPE J TOOL HOLDER BUSHINGS



2- Holes  
4- Holes

Limited Supply!

Item#	A O.D.	B I.D.	C	E	D	F
3900-1902	3/4"	5/16	1-1/2"	13/16"	3/8"	3/8"
3900-1905	1"	3/8	1-3/4"	7/8"	7/16"	5/8"
3900-1909	1-1/4"	3/8	2-1/8"	1"	5/8"	5/8"
3900-1910		1/2				
3900-4911		5/8				
3900-4913	1-1/2"	7/8	2-1/2"	1-1/8"	11/16"	7/8"
3900-4917		3/8				
3900-4918		1/2				
3900-4919		5/8				
3900-4921		7/8				

- Made of high quality tool steel Tool Holder.
- Hardened and precision ground to highest concentricity.
- Bushing has clearance holes so that you can clamp directly on the tool with set screws for positive alignment of the cutting edge of the tool.

Item#	A O.D.	B I.D.	C	E	D	F
3900-4924	1-3/4"	1/2	3"	1-1/4"	3/4"	7/8"
3900-4925		5/8				
3900-4926		3/4				
3900-4927		7/8				
3900-4928		1				
3900-4929		1-1/4				
3900-4930		1-1/2				
3900-4932		5/8				
3900-4933	3/4					
3900-4934	7/8					
3900-4936	1-1/4					
3900-4938	1-3/4					



# EXPANDING ARBORS & MANDRELS

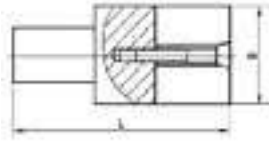
## EXPANDING ARBORS & SET

### OPERATION:

- Chuck arbor in machine to be used.
- Tighten expanding screw so that arbor expands .005".
- Machine arbor to length and size required.
- Loosen expanding screw.
- Position part on arbor and tighten expanding screw.

### IMPROVED QUALITY

**8 PC SET**  
**3902-4006**



### SET INCLUDES:

- (8) Sizes 1/4 to 1-1/4" arbors with alloy wrenches in a handy wooden stand.

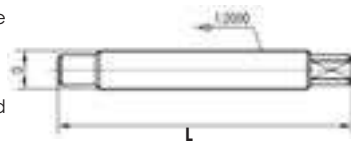
### INDIVIDUAL ARBORS

Item#	Size, D	Length, L
3902-4016	1/4"	3"
3902-4018	3/8"	3"
3902-4020	1/2"	3"
3902-4022	5/8"	3"
3902-4024	3/4"	4"
3902-4026	7/8"	4"
3902-4028	1"	4"
3902-4030	1-1/4"	4"

## LATHE AND OD GRINDER MANDRELS

Designed For Setting-Up Accurately Bored Or Reamed Blanks And Castings

- Standard taper: .0005" per 1".
- Sizes under 1" are .0005" undersize on smaller end.
- Sizes 1-1/16" to 3" are .001" undersized on smaller end.
- Made of tool steel hardened and ground.



Unit: Inch

\* Limited Supply

Dia. D	OAL L	Item#	Dia. D	OAL L	Item#	Dia. D	OAL L	Item#	Dia. D	OAL L	Item#
1/8	2-1/2	3902-2008	19/32	5-1/2	3902-2038	1-1/16	7-1/4	3902-2104	1-5/8	9-1/2	3902-2140
5/32	3	3902-2010	5/8	5-1/2	3902-2040	1-3/32	7-1/2	3902-2106	1-11/16	9-3/4	3902-2144
3/16	3	3902-2012	21/32	5-3/4	3902-2042	1-1/8	7-1/2	3902-2108	1-3/4	10	3902-2148
7/32	3-3/4	3902-2014	11/16	5-3/4	3902-2044	1-5/32	7-3/4	3902-2110	1-13/16	10-1/4	3902-2152
1/4	3-3/4	3902-2016	23/32	6	3902-2046	1-3/16	7-3/4	3902-2112	1-7/8	10-1/2	3902-2156
9/32	4	3902-2018	3/4	6	3902-2048	1-7/32	8	3902-2114	1-15/16	10-3/4	3902-2160
5/16	4	3902-2020	25/32	6-1/4	3902-2050	1-1/4	8	3902-2116	2	11	3902-2200
11/32	4-1/4	3902-2022	13/16	6-1/4	3902-2052	1-9/32	8-1/4	3902-2118	2-1/8	11-1/2	3902-2208
3/8	4-1/4	3902-2024	27/32	6-1/2	3902-2054	1-5/16	8-1/4	3902-2120	2-1/4	12	3902-2216
13/32	4-1/4	3902-2026	7/8	6-1/2	3902-2056	1-11/32	8-3/4	3902-2122	2-3/8	12	3902-2224
7/16	4-1/4	3902-2028	29/32	6-3/4	3902-2058	1-3/8	8-1/2	3902-2124	2-1/2	12-1/2	3902-2232
15/32	5	3902-2030	15/16	6-3/4	3902-2060	1-7/16	8-3/4	3902-2128	2-5/8	12-1/2	3902-2240*
1/2	5	3902-2032	31/32	7	3902-2062	1-15/32	9	3902-2130	2-3/4	13	3902-2248
17/32	5-1/4	3902-2034	1	7	3902-2100	1-1/2	9	3902-2132	2-7/8	13	3902-2256
9/16	5-1/4	3902-2036	1-1/32	7-1/4	3902-2102	1-9/16	9-1/4	3902-2136	3	13	3902-2300

## EXPANDING MANDRELS & SETS

- Made of high grade tool steel
- Precision ground and heat treated for maximum concentricity and holding power.
- Center holes are ground and lapped.
- The automatic expansion feature can be utilized on any bore (standard or no-standard) within the range of the mandrel.
- Sizes up to 1" capacity are furnished with 1 sleeve; larger sizes are furnished with 2 sleeves (1 large and 1 small).
- Arbors are tapered, sleeves are flexible and size is obtained by moving sleeve along arbor.
- A range from 1/2" thru 2" by .0001" can be covered by a total of 8 mandrels.



REPLACEMENT SLEEVES AVAILABLE!

### EXPANDING MANDREL SETS

Item#	Size Range (D)	No. of Mandrels
3902-3070	1/2 ~ 1"	5
3902-3072	1 ~ 2"	3
3902-3074	1/2 ~ 2"	8
3902-3076	2~2-3/4"	3
3902-3078	2-3/4~3-3/4"	3

### INDIVIDUAL EXPANDING MANDRELS

Item#	Size Range D	Length of Arbor (L)	Length of Sleeve (H)	Sleeves Furnished
3902-3050	1/2~9/16"	5"	2-1/2"	1
3902-3052	9/16~21/32"	6"	2-3/4"	1
3902-3054	21/32~3/4"	7"	2-3/4"	1
3902-3056	3/4~7/8"	7"	3-1/4"	1
3902-3058	7/8~1"	7"	3-1/4"	1
3902-3060	1~1-1/4"	9"	4"	2
3902-3062	1-1/4~1-1/2"	9"	4"	2
3902-3064	1-1/2~2"	11-1/2"	5"	2

## LATHE CHUCK MOUNTING TYPES

### American Standard "A" Series Spindle

- X Dimension refers to outside diameter of spindle nose.

Spindle	<b>A5</b>	<b>A6</b>	<b>A7</b>
X=	3-1/4	4-3/16	5-1/2
Spindle	<b>A11</b>	<b>A15</b>	<b>A20</b>
X=	7-3/4	11-1/4	16-1/4

### Camlock "D" Series Spindle

- X Dimension refers to outside diameter of spindle nose.

Spindle	<b>D1-3</b>	<b>D1-4</b>	<b>D1-5</b>
X=	3-5/8	4-5/8	5-3/4
Spindle	<b>D1-6</b>	<b>D1-8</b>	<b>D1-11</b>
X=	7-1/8	8-7/8	11-3/4

### Long Taper Key Drive "L" Series Spindle

- X Dimension refers to largest portion of taper.

Spindle	<b>L00</b>	<b>L0</b>	<b>L1</b>
X=	2-3/4	3-1/4	4-1/8
Spindle	<b>L2</b>	<b>L3</b>	
X=	5-1/4	6-1/2	

### Threaded Series Spindle

- X Dimension refers to major diameter of thread.

X= Dia.(inch) - Pitch		
3/4-16	1-10	2-1/4-8
1/2-24	1-1/2-8	2-3/8-6
1/2-20	1-3/4-8	2-3/4-8
1-8		

## BACK PLATE MOUNTING INSTRUCTIONS

### Chuck Mounting Information: Using Semi-Finished Plates - For Standard Flat Back Lathe Chucks:

NOT for "Adjustable Run-Out" models (see separate instructions). When using a Chuck Adapter Plate to mount a flat back lathe chuck:

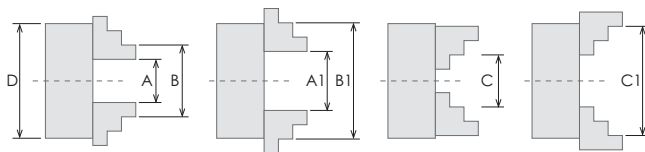
1. The lathe must be levelled with a precision level, this assures machining accuracy.
2. Adapter plate or chuck plate is to be mounted on lathe spindle.
3. A skim facing cut across the full face of the adaptor must be made. This assures that the face is at 90° to the centerline of the lathe spindle.
4. The chuck plate has a boss onto which the recess in back of the chuck must mount. Turn the boss to fit tightly into the chuck body. The accuracy of this operation is directly relative to best results.
5. Turn the O.D. of chuck plate to match the chuck - not always the same size of the chuck body, especially with 4 jaw independent chucks.
6. In most cases the chuck has threaded holes in the chuck body, to accept mounting bolts, or the chuck plate has threaded holes, for chucks having through holes in the body for front insertion. In some instances it may be necessary to transfer hole locations and drill clearance holes.
7. "A" type adaptors come in two versions: A-1 has two bolt circles (inner & outer), A-2 has a single outer bolt circle of tapped holes. The chuck adaptor is fastened to spindle separately, then the chuck is fastened to the plate.
8. Lathes having threaded spindle noses follow similar procedures 1 thru 6.

### Chuck Mounting Information: Using Zero-Set Mounting Plates:

This type of chuck is designed so that the chuck body can be moved by utilizing adjusting screws. A ground pin is held firmly in the chuck mounted on the lathe. The pin is trammed with a test indicator and the adjusting screws used to correct the run-out. The design of the chuck adaptor permits the chuck adjusting screws to contact an extended boss on the plate, facilitating adjustment. These adaptors are to be "zeroed in" prior to actually mounting the chuck by taking a skim facing cut across the flange. All other dimensions should be compared to the back of the specific chuck and machined accordingly, if necessary. Once the mounted chuck has been "zeroed-in" in all respects, the chuck must be "locked" into the adjusted position. Double check with ground pin and test indicator.

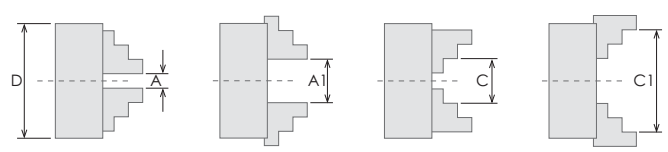
## LATHE CHUCK CLAMPING RANGE

### Self-Centering Chucks



Chuck Size Inch/MM	Internal Jaw		External Jaw Clamping Range C-C1 (MM)
	Clamping Range A-A1 (MM)	Jamming Range B-B1 (MM)	
<b>3/80</b>	2-22	25-70	22-63
<b>4/100</b>	2-30	30-90	30-80
<b>5/125</b>	2.5-40	38-125	38-110
<b>6/160</b>	3-55	50-160	55-145
<b>8/200</b>	4-85	65-200	65-200
<b>10/250</b>	6-110	80-250	90-250
<b>12/315</b>	10-140	95-315	100-315
<b>15/400</b>	15-210	120-400	120-400
<b>20/500</b>	25-280	150-500	150-500

### Independent Chucks



Chuck Size Inch/MM	Internal Jaw		External Jaw Clamping Range C-C1 (MM)
	Clamping Range A-A1 (MM)	Clamping Range A-A1 (MM)	
<b>3/80</b>	5-35		35-80
<b>4/100</b>	6-45		40-100
<b>5/125</b>	7-57		48-125
<b>6/160</b>	8-80		50-160
<b>8/200</b>	10-100		63-200
<b>10/250</b>	15-130		80-250
<b>12/315</b>	20-170		100-315
<b>15/400</b>	25-250		118-400
<b>20/500</b>	35-300		120-500

## HARLINGEN® PREMIUM LATHE CHUCKS - ADVANTAGES

**Radial Runout  
≤ 0.002 inches**



### • CHUCK BODY

Body is entirely made of wear-resisting semi-steel No.40/No.45 (ASTM) providing a higher hardness at HB190-220 compared to other brands using HT250 cast iron with hardness of HB180-220.

### • COVER PLATE

High quality No.35 (ASTM) is used to achieve a higher accuracy, strength and extended tool life. Competitors use HT150 cast iron or engineering plastics as a substitute.



### • SOLID JAWS

Jaws are made of carbon 1045 (ASTM) steel and hardened. Pressed individually to ensure precise fit, powerful clamping performance and each jaw is interchangeable while maintaining accuracy.

### • H-GROOVE

Specific machine and fixtures have been adopted to process H-Groove simultaneously so the clamping accuracy is guaranteed.



### • PINIONS

Made of 20CrMnTi, quenching procedure to enhance wear-resistance and strength.



### • SCROLL PLATE

Made of 5140 (ASTM) to enhance wear resistance and strength. Hardened and precision machined. Scroll face threads are processed with high accuracy CNC machining which improves self-centering performance.

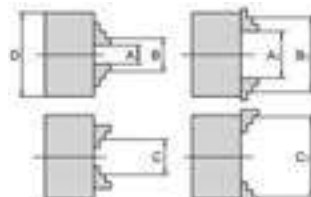
### • INSPECTION REPORT

Each chuck body has its own ID and 100% inspected with trackable data.



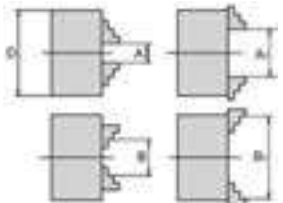
### Clamping Range For Self-Centering Chucks

Size	Internal Jaws		External Jaws
	Clamping Range A-A1	Jamming Range B-B1	Clamping Range C-C1
3"	0.08"-0.87"	0.98"-2.76"	0.87"-2.48"
4"	0.08"-1.18"	1.18"-3.54"	1.18"-3.15"
5"	0.1"-1.57"	1.5"-4.92"	1.5"-4.33"
6"	0.12"-2.17"	1.97"-6.3"	2.17"-5.71"
8"	0.16"-3.35"	2.56"-7.87"	2.56"-7.87"



### Clamping Range For Independent Chucks

Size	Internal Jaws	External Jaws
	Clamping Range A-A1	Clamping Range B-B1
3"	0.2"-1.38"	1.38"-3.15"
4"	0.24"-1.77"	1.57"-3.94"
5"	0.28"-2.24"	1.89"-4.92"
6"	0.31"-3.15"	1.97"-6.3"
8"	0.39"-3.94"	2.48"-7.87"





# 3-JAW PLAIN BACK LATHE CHUCKS

## 3-JAW SELF-CENTERING LATHE CHUCKS -PLAIN BACK

- Body made of high quality semi-steel.
- Hardened and ground.
- Lathe chuck wrench supplied.

**PLAIN BACK**



**2 SETS OF HARD JAWS (INTERNAL AND EXTERNAL)**  
1 SET OF MOUNTING SCREWS INCLUDED



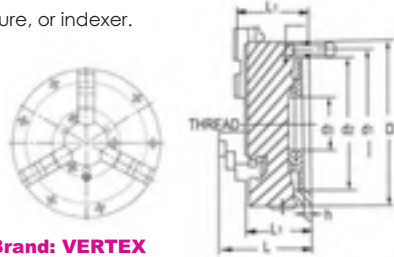
Item#	Size D	(Inch)		h	H	Z-d	Center Hole	Max. RPM	T.I.R
		D1	D2						
3900-0031	3"	2.17	2.6	0.14	1.97	3-M6	0.630	4000	.003
3900-0032	4"	2.83	3.3	0.14	2.36	3-M8	0.866	3500	.003
3900-0033	5"	3.94	4.17	0.14	2.36	3-M8	1.181	3000	.003
3900-0035	6"	5.15	5.6	0.20	2.56	3-M8	1.575	2500	.003
3900-0037	8"	6.50	7.1	0.20	2.95	3-M10	2.559	2000	.004
3900-0038	10"	8.11	8.9	0.20	3.15	3-M12	2.756	1600	.004
3900-0040	12"	10.71	11.65	0.48	3.54	3-M16	3.937	1200	.005
3900-0039	15"	12.80	13.75	0.24	6.13	3-M16	5.709	1200	.005

## Pro-Series 3-JAW FRONT-MOUNT SELF-CENTER CHUCKS -PLAIN BACK

- Easily mount on table, dividing head, fixture, or indexer.
- Lathe chuck wrench supplied.

**HiP PRO-SERIES**

**MADE IN TAIWAN**



Front mount chucks are designed to be used with rotary tables dividing head and other devices where back mounting chucks can not be used.

**Brand: VERTEX**

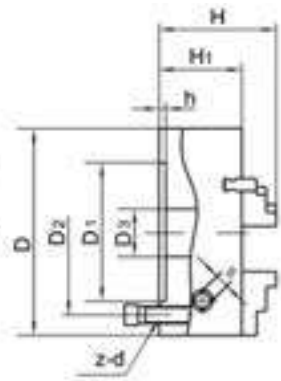
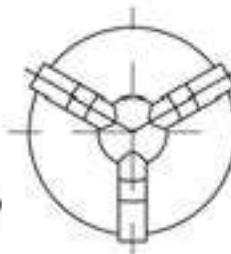
Item#	Chuck Size D (Inch/mm)	d1	(Inch) d2	Center Hole d3	L	L1	h	Thread Z-d	Gripping Range O.D. (mm) I.D.(mm)	
									O.D.	I.D.
3800-5819	3/80	2.60	2.17	0.63	2.6	2.0	0.138	3-M6	2~70	24~64
3800-5820	4/100	3.31	2.83	0.87	2.9	2.2	0.138	3-M8	3~90	32~84
3800-5821	5/130	4.53	3.94	1.18	3.1	2.2	0.138	3-M8	3~110	35~100
3800-5822	6/160	5.59	5.12	1.77	3.7	2.6	0.197	3-M10	3~160	48~150
3800-5823	8/200	7.09	6.50	2.75	4.3	3.0	0.197	3-M12	4~180	56~170
3800-5824	10/250	8.86	8.11	3.15	4.7	3.2	0.197	3-M12	6~220	70~250

**With One Set of External Jaws & Internal Jaws**

## HARLINGEN® 3-JAW SELF-CENTERING LATHE CHUCKS -PLAIN BACK

- 2 sets of jaws
- Lathe chuck wrench and 1 set of mounting screws included

See page 284 for Advantages!



Item#	D	D1	D2	D3	H	H1	h	Wrench S	Screw	Max. Input Torque Nm	Max. Speed r/min	Weight (Lbs.)
9712-1105	3"	2.17"	2.6"	0.63"	2.6"	1.97"	0.14"	0.31"	3-M6	40	4000	4.2
9712-1106	4"	2.83"	3.3"	0.87"	2.93"	2.17"	0.14"	0.31"	3-M8	60	3500	7.1
9712-1107	5"	3.74"	4.25"	1.18"	3.3"	2.28"	0.16"	0.39"	3-M8	100	3000	11
9712-1108	6"	5.12"	5.6"	1.57"	3.74"	2.6"	0.2"	0.39"	3-M8	160	2500	19.4
9712-1109	8"	6.5"	7.09"	2.56"	4.29"	2.95	0.2"	0.47"	3-M10	160	2000	34.2

# 3 & 6-JAW PLAIN BACK LATHE CHUCKS

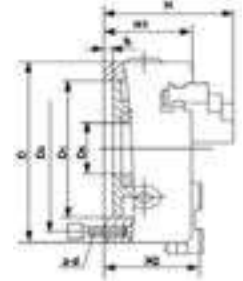
## 3-JAW (TOP REVERSIBLE JAWS) SELF-CENTERING CHUCKS -PLAIN BACK



See page 289 & 290 for back plates

- Made of high quality steel.
- Hardened and ground.
- Lathe chuck wrench supplied.

**TOP JAWS REVERSIBLE**



Item#	Size D	D1	D2	(Inch) h	A	Z-d	Center Hole	Max. RPM	T.I.R.
3900-3401	6"	5.12	5.60	0.20	2.5	3-M8	1.575	2500	.003
3900-3402	8"	6.50	7.09	0.20	3.0	3-M10	2.559	2000	.004
3900-3403	10"	8.10	8.90	0.20	3.3	3-M12	3.150	1600	.004
3900-3412	12"	10.70	11.66	0.24	4.2	3-M16	3.937	1200	.005
3900-3415	15"	12.80	13.78	0.24	4.3	3-M16	5.320	1000	.005
3900-3420	20"	17.32	18.31	0.24	5.0	6-M16	8.268	800	.006

## 3-JAW FRONT-MOUNT (TOP REVERSABLE JAWS) SELF-CENTERING CHUCKS -PLAIN BACK

- Easily mount on table, fixture, or indexer.
- Made of high quality steel.
- Hardened and ground.
- Lathe chuck wrench supplied.

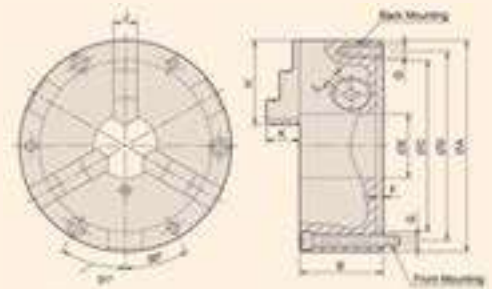
**SQUARE & PARALLEL .0002"**



**TOP JAWS REVERSIBLE**



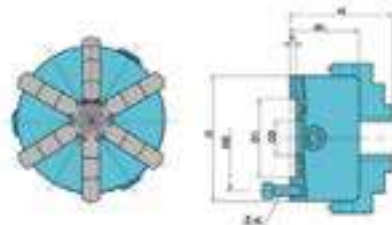
Front mount chucks are designed to be used with rotary tables and other devices where back mounting chucks can not be used.



Item#	Chuck Size A	D	(Inch) C	B	Center Hole, E	G	Max. RPM	T.I.R.
3900-3430	6"	5.51	5.12	2.60	1.575	3-M8	2500	.003
3900-3432	8"	6.93	6.30	3.00	2.559	3-M10	2000	.004
3900-3434	10"	8.82	7.87	3.42	3.150	3-M12	1600	.004
3900-3436	12"	11.26	10.24	3.86	3.937	3-M16	1200	.005

## 6-JAW SELF-CENTERING LATHE CHUCKS -PLAIN BACK

- Excellent for holding and machining thin walled workpieces.
- Made of high grade semi-steel.
- Self centering jaws, hardened and precision ground.
- 1 set of mounting screws included.
- Adjusting wrench supplied.
- .003" T.I.R
- One set of internal solid jaws.



**PLAIN BACK**



\*Limited Supply

Item#	Chuck Size	(INCH)							Center Hole D3	Max. RPM	CLAMPING RANGE	
		D	D1	D2	h	H1	H	Z-d			Internal Jaws	External Jaws
3900-4550	4	4.4	3.15	3.74	0.14	2.30	4.1	3-M8	1.26	3500	2.0-30mm	30-80mm
3900-4552	5	5.1	3.94	4.53	0.14	2.40	3.4	3-M8	1.38	3000	4-40mm	40-130mm
3900-4555*	6	6.3	5.12	5.60	0.20	2.60	3.7	3-M8	1.77	2500	5-55mm	50-160mm
3900-4558*	8	7.9	6.50	7.09	0.20	3.00	4.3	3-M10	2.56	2000	6-85mm	65-200mm
3900-4559*	10	9.8	8.11	8.96	0.20	3.00	4.7	3-M12	3.15	1600	7.5-110mm	80-250mm

# SELF CENTERING LATHE CHUCKS

## 4-JAW SELF-CENTERING SCROLL CHUCKS - PLAIN BACK

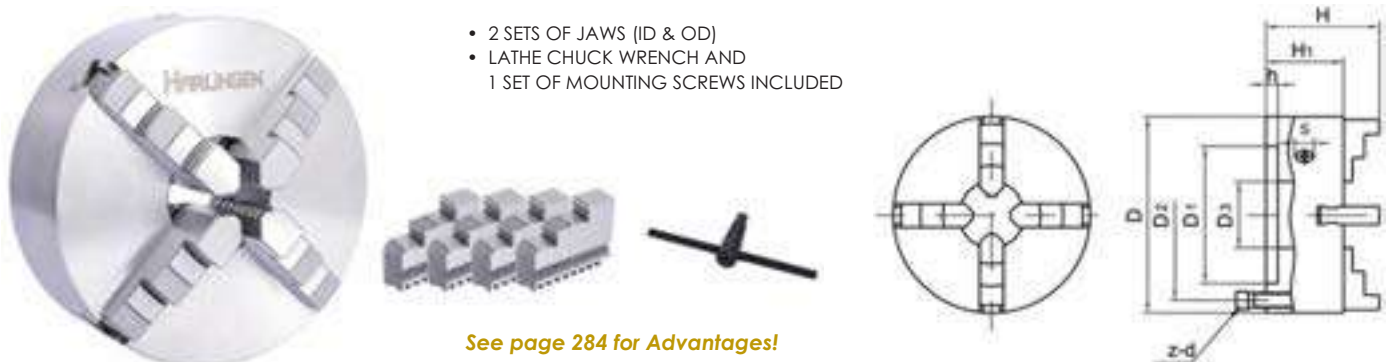
- Made of high grade tool steel.
- Universal scroll chucks.
- 2 sets of solid jaws included (ID & OD).
- Chuck wrench included.



Item#	Chuck Size D	D1	D2	(Inch) h	H1	H	Z-d	Center Hole D3	Max. RPM	T.I.R.
3900-0423	3	2.165	2.598	.14	1.97	2.6	3-M6	0.630	4000	.003
3900-0424	4	2.835	3.307	.14	2.17	3.0	3-M8	0.866	3500	.003
3900-0425	5	3.740	4.252	.16	2.28	3.3	3-M8	1.181	3000	.003
3900-0426	6	5.118	5.591	.20	2.56	3.8	3-M8	1.772	3000	.003
3900-0428	8	6.495	7.087	.20	2.95	4.5	3-M10	2.559	2000	.004
3900-0430	10	8.110	8.898	.20	3.54	4.9	3-M12	3.150	1600	.005
3900-0432	12	10.236	11.220	.24	3.74	5.6	3-M16	3.937	1200	.005

## HARLINGEN® 4-JAW SELF-CENTERING LATHE CHUCKS -PLAIN BACK

- 2 SETS OF JAWS (ID & OD)
- LATHE CHUCK WRENCH AND 1 SET OF MOUNTING SCREWS INCLUDED



See page 284 for Advantages!

Item#	D	D1	D2	D3	H	H1	h	Wrench S	Screw	Weight (Lbs.)
9713-2110	3"	2.17"	2.6"	0.63"	2.6"	1.97"	0.14"	0.31"	3-M6	4.4
9713-2101	4"	2.83"	3.31"	0.87"	2.87"	2.11"	0.14"	0.31"	3-M8	6.6
9713-2102	5"	3.74"	4.25"	1.18"	3.31"	2.28"	0.16"	0.39"	3-M8	11
9713-2103	6"	5.12"	5.59"	1.57"	3.74"	2.56"	0.20"	0.39"	3-M8	19.4

## 5C MOUNT SELF-CENTERING 3 & 4-JAW LATHE CHUCKS

- Quick set up in fixtures and 5C spindles.
- Supplied with chuck wrench.
- T.I.R. 0.0006".
- Chuck jaws are self centering, scroll type.
- 5C adapter with standard internal and external threads.

2 SETS OF SOLID STEEL JAWS (INTERNAL AND EXTERNAL)

Item#	Chuck Size	Jaw
3900-4701	3"	3-Jaw
3900-4710	3"	4-Jaw
3900-4702	4"	3-Jaw
3900-4711	4"	4-Jaw

SPECIFICATION	Chuck Size	Outside Diameter (Clamp Range)	Inside Diameter (Jam Range)	Hole thru. 5C Adapter	Hole thru. Chuck
3-JAW	3"	0.079~2.480"	0.964~2.756"	0.75"	0.630"
	4"	0.079~3.150"	1.181~3.543"	0.75"	0.866"
4-JAW	3"	.062~2.50"	.700~2.50"	0.75"	0.800"
	4"	.062~3.00"	.900~3.50"	0.75"	0.950"



# 4-JAW INDEPENDENT LATHE CHUCKS

## 4-JAW INDEPENDENT LATHE CHUCKS -PLAIN BACK



PLAIN BACK



- Body made of high quality semi-steel.
- Hardened and ground.
- 1 set of mounting screws included.
- Reversible individual adjusting jaws.
- Adjusting wrench supplied.



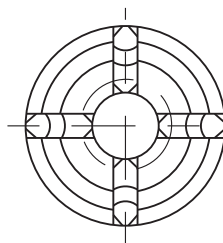
Item#	Size D	D1	D2	(Inch) h	H	Z-d	Center Hole
3900-0413	3"	2.17	2.60	0.12	1.65	3-M6	0.630
3900-0414	4"	2.83	3.30	0.14	2.13	4-M8	0.866
3900-0415	5"	3.74	4.25	0.18	2.21	4-M8	1.180
3900-0041	6"	2.56	3.74	0.20	2.56	4-M10	1.772
3900-0042	8"	3.15	4.41	0.24	2.95	4-M10	2.205
3900-0043	10"	4.33	5.12	0.24	3.15	4-M12	3.150
3900-0046	12"	5.51	6.50	0.24	3.54	4-M16	3.543
3900-0048	16"	7.87	8.94	0.39	4.13	4-M16	3.937

Designed to grip round or odd shaped work.

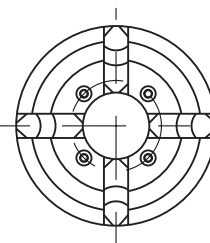
## HARLINGEN® 4-JAW INDEPENDENT LATHE CHUCKS -PLAIN BACK



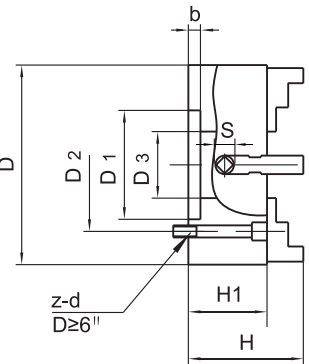
6 & 8" SHOWN



D=3,4&5"



D=6&8"



- Reversible jaws
- Lathe chuck wrench and 1 Set of mounting screws included

See page 284 for Advantages!

6&8" chucks are provided with thru-hole for easily mounting on table, dividing head, fixture, or indexer.

Item#	D	D1	D2	D3	H	H1	h	Wrench S	Screw	Max. Input Torque Nm	Max. Speed r/min	Weight (Lbs.)
9713-1101	3"	2.17"	2.6"	0.87"	2.2"	1.65"	0.14"	0.31"	4-M6	25	4000	5.5
9713-1102	4"	2.83"	3.30"	0.98"	2.13"	2.91"	0.14"	0.31"	4-M8	30	3500	6.6
9713-1103	5"	3.74"	4.25"	1.18"	3.07"	2.2"	0.18"	0.39"	4-M8	50	3000	11
9713-1104	6"	2.56"	3.74"	1.77"	3.66"	2.56"	0.2"	0.39"	4-M10	70	2500	19.8
9713-1105	8"	3.15"	4.41"	2.2"	4.21"	2.95"	0.24"	0.47"	4-M10	100	2000	33

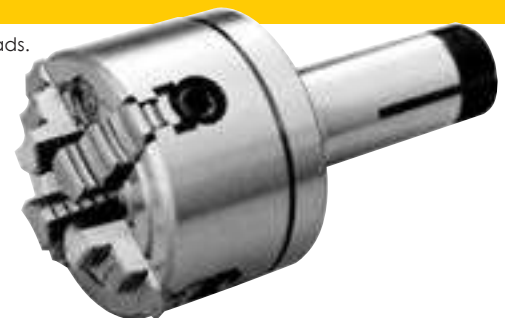
## 5C 4-JAW INDEPENDENT LATHE CHUCKS

- Quick set up in fixtures and 5C spindles.
- Supplied with 1 set of reversible jaws.
- T.I.R. 0.0006".
- 5C adapter with standard internal and external threads.
- Supplied with chuck wrench.

3", 4 JAW  
3900-4712

4", 4 JAW  
3900-4713

Chuck Size	Outside Diameter (Clamp Range)	Inside Diameter (Jam Range)	Hole thru. 5C Adapter	Hole thru. Chuck
3"	.062~2.50"	.700~2.50"	0.75"	0.63"
4"	.062~3.00"	.900~3.50"	0.75"	0.86"



# BACK PLATES

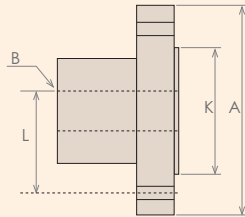
## THREADED BACKPLATES FOR LATHE CHUCKS -With Bolt HOLE

- Fits most plain back chucks.
- Made of high grade casting steel.
- Assembly instructions included.

### THREADED MOUNT

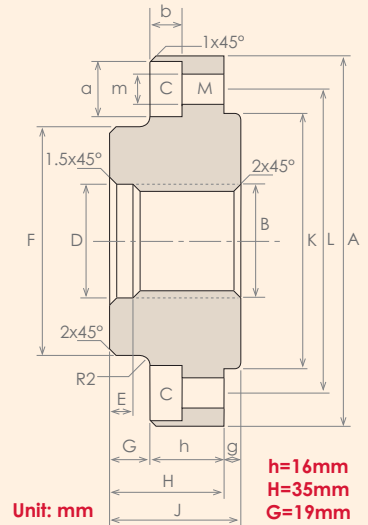
For 3-Jaw Chucks

Item#	Chuck Size D
3900-3107	3
3900-3108	3
3900-3109	3
3900-3110	3
3900-3111	3
3900-3112	3
3900-3210	4
3900-3211	4
3900-3212	4
3900-3215	4



For 4-Jaw Chucks

Item#	Chuck Size D
3900-4129	3
3900-4130	3
3900-4131	3
3900-4132	3
3900-4133	3
3900-4141	4
3900-4142	4
3900-4143	4



Item#	Chuck Size	Body Diameter A	Thread B	Bolt Hole C	Reg Dia D	Reg Len E	Hub Dia F	Boss Len g	All Len J (g+H)	Boss Dia K (mm/Inch)	Bolt Cir L (mm/Inch)	Bolt M	a	b	m
3900-3107	3"	80	3/4"-16	3	3/4"	4	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-3108	3"	80	1/2"-24	3	1/2"	4	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-3109	3"	80	1/2"-20	3	1/2"	4	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-3110	3"	80	1"-8	3	1"	5	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-3111	3"	80	1"-10	3	1"	5	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-3112	3"	80	1-1/2"-8	3	1-1/2"	6	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-4129	3"	80	1/2"-20	4	1/2"	4	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-4130	3"	80	3/4"-16	4	3/4"	4	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-4131	3"	80	1"-8	4	1"	5	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-4132	3"	80	1"-10	4	1"	5	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-4133	3"	80	1-1/2"-8	4	1-1/2"	6	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-3210	4"	100	1"-8	3	1"	5	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5
3900-3211	4"	100	1"-10	3	1"	5	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5
3900-3212	4"	100	1-1/2"-8	3	1-1/2"	6	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5
3900-4141	4"	100	1"-8	4	1"	5	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5
3900-4142	4"	100	1"-10	4	1"	5	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5
3900-4143	4"	100	1-1/2"-8	4	1-1/2"	6	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5
3900-3215	4"	100	M39x4	3	1-1/2"	5	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5

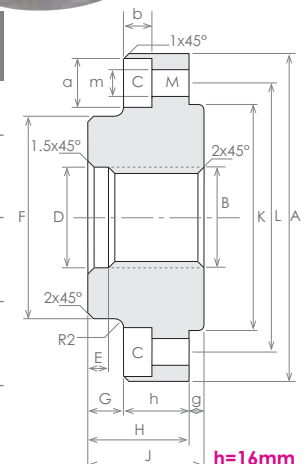
## THREADED & BLANK BACKPLATES FOR LATHE CHUCKS -NO BOLT HOLE

- Made of high grade casting steel.

**NO BOLT HOLE BACKPLATES MACHINING REQUIRED BEFORE MOUNTING TO ENSURE CONCENTRICITY**

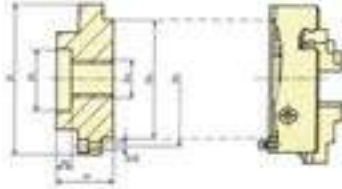
For 3&4-Jaw Chucks

Item#	Chuck Size D	Thread Z-d	Body Diameter A	Thread B	Reg Dia D	Reg Len E	Hub Dia F	(mm) Hub Len G	Boss Len g	Face Len H (G+h)	All Len J (g+H)	Boss Dia K
3900-3304	4"	1"-8	100	1"-8	1"	5	56	10	3	26	29	72
3900-3306	4"	M39x4	100	M39x4	40mm	10	56	24	3	40	43	72
3900-3305	4"	None	100	None	10mm	10	56	24	3	40	43	72
3900-3308	5"	1"-8	130	1"-8	1"	5	56	10	4	26	30	100
3900-3309	5"	1"-10	130	1"-10	1"	6.35	56	10	4	26	30	100
3900-3311	6"	1"-8	160	1"-8	1"	10	56	10	4	26	30	130
3900-3312	6"	1"-10	160	1"-10	1"	NONE	56	10	4	26	30	130
3900-3313	6"	None	160	UNTHREADED	NONE	10	75	24	4	40	44	130
3900-3315	6"	1-1/2"-8	160	1-1/2"-8	1-1/2"	10	56	14	4	30	34	130
3900-3322	6"	2-1/4"-8	160	2-1/4"-8	2-1/4"	10	75	16	4	32	36	130
3900-3339	6"	M39 x 4	160	M39X4	40mm	10	56	24	4	40	44	130
3900-3324	8"	1-1/2"-8	200	1-1/2"-8	1-1/2"	10	56	24	6.35	40	46.35	124.46
3900-3326	8"	2-1/4"-8	200	2-1/4"-8	2-1/4"	10	75	24	6.35	40	46.35	124.46
3900-3340	8"	None	200	NONE	NONE	10	75	24	6.35	40	46.35	124.46



## 6" 3-JAW SELF-CENTERING LATHE CHUCKS - THREADED DIRECT MOUNT

- Made of high quality semi-steel.
- Hardened and precision ground.
- Wrench is included.



**2 SETS OF HARD JAWS  
(INTERNAL AND EXTERNAL) &  
1 SET OF MOUNTING SCREWS INCLUDED**

Item#	Size D	Back Plate Thread (Inch)							Chuck Center Hole	Max. RPM	T.I.R
		D3	D1	D2	D4	H	H1	z-d			
3900-4722	6"	1-1/2"-8	1.55	5.6	130	40	13	3x9mm(Dia.)	1.575	2500	.003
3900-4724	6"	2-1/4"-8	2.34	5.6	130	40	17.5	3x9mm(Dia.)	1.575	2500	.003

## STEEL HARD INTERNAL & EXTERNAL JAW SETS-For K11 Lathe Chucks

- Set includes 3pcs
- Fits most of 3-jaw self-centering lathe chucks with replaceable **internal & external** jaws.

**FOR 3-JAW CHUCKS**



External Jaws Shown

### EXTERNAL SET

Item#	Fits Chuck Size
3900-4730	3"
3900-4732	4"
3900-4734	5"
3900-4736	6"
3900-4738	8"

### INTERNAL SET

Item#	Fits Chuck Size
3900-4740	3"
3900-4742	4"
3900-4744	5"
3900-4746	6"
3900-4748	8"



Internal Jaws Shown

## 2MT MORSE TAPER SHANK 3 & 4-JAW SELF-CENTERING CHUCKS

- Steel body-hardened and ground scroll and pinions
- Hardened and ground MT spindle
- Supplied with chuck wrench.
- 3/8-16 threaded drawbar.
- 2 MT shank.
- T.I.R. 0.0006".

**2 SETS OF SOLID STEEL JAWS  
(INTERNAL AND EXTERNAL)**



3900-4706 SHOWN

**3", 3 JAW  
3900-4706**

**3", 4 JAW  
3900-4707**

## 5C MOUNTS FOR 3&4 JAW LATHE CHUCKS -5C Adapter with Standard Internal & External Threads

- 5C adapter body.
- 3 hole chuck mounting pattern is pre-drilled.
- Hardened and ground.

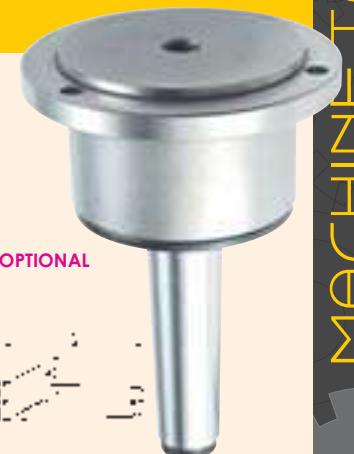


**3 Inch  
3900-4703**

**4 Inch  
3900-4704**

## REVOLVING TAILSTOCK BACK PLATES

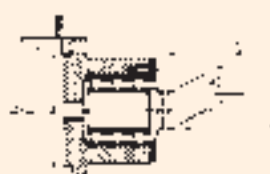
- Used for calibration or support workpiece during processing.
- Three ball bearings for heavy duty load and relatively high speed.
- 3 hole chuck mounting pattern is pre-drilled.



LATHE CHUCK OPTIONAL

\*Limited Supply

Item#	Shank Taper	A	Fits Lathe Chuck	B	(mm) C	D	E	Max Load (lbs)	T.I.R. (Inch)	Speed RPM
3900-6022	MT2	17.78	3"	80	64	55	66	1100	.0002	4000
3900-6021*	MT2	17.78	4"	100	64	72	84	1100	.0002	2500
3900-6023	MT3	23.83	3"	80	81	55	66	1760	.0002	4000
3900-6026	MT3	23.83	4"	100	81	72	84	1760	.0002	2500
3900-6024	MT4	31.27	4"	100	103	72	84	2200	.0002	2500
3900-6025*	MT5	44.40	5"	125	130	95	108	3300	.0004	2000
3900-6030	MT4	31.27	5"	125	103	95	108	2200	.0004	2000
3900-6031	MT5	44.40	6"	160	130	130	142	3300	.0004	1500





# CHUCK ADAPTERS

## A, D & L MOUNT SEMI-MACHINED CHUCK ADAPTERS - BACK PLATES

- Back plates for universal chucks
- Plain-back chucks require the adapter plate to be machined before mounting to ensure concentricity

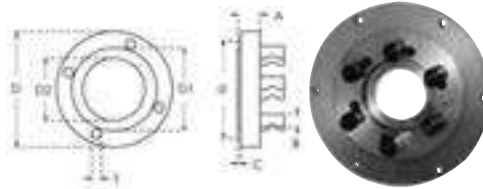
MADE OF HIGH GRADE CASTING STEEL



A-MOUNT

A-MOUNT

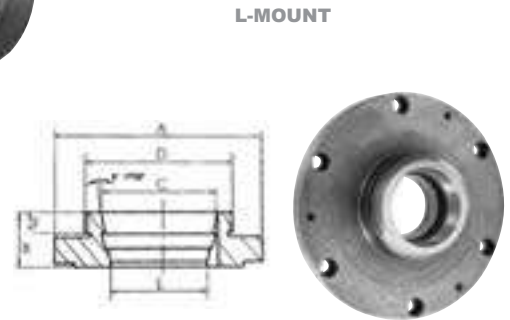
Item#	Chuck Size	Spindle	D1
3900-4841	8-1/4"	A1-5	6.555"
3900-4843	10"	A1-6	6.555"
3900-4844	10"	A1-8	8.189"
3900-4845	12"	A1-6	10.315"



D-MOUNT

D-MOUNT

Item#	Chuck Size, D	Spindle	Recess D1
3900-4822	6"	D-3	2.125"
3900-4823	6"	D-4	2.501"
3900-4826	8"	D-3	2.125"
3900-4827	8"	D-4	2.501"
3900-4898	8"	D-5	3.251"
3900-4829	8"	D-6	4.188"
3900-4835	10"	D-6	4.188"
3900-4837	10"	D-8	5.501"
3900-4891	12"	D-6	4.188"
3900-4892	12"	D-8	5.501"
3900-4895	15"	D-11	7.751"



L-MOUNT

L-MOUNT

Item#	Chuck Size A	Spindle	Thread T-UN33 D	B
3900-4847	6"	L-00	3-3/4~6	2.13"
3900-4849	8-1/4"	L-00	3-3/4~6	2.13"

## 5C 5" COLLET CHUCKS

- Designed for use with 5C collets
- Used for turning, facing, boring, grinding and milling on center lathes and grinding machines
- Key-operated scroll provides a uniform distortion-free clamping of workpieces and low collet exchange times
- Chuck wrench included



D1-4 SHOWN



T.I.R <0.0006"

Item#	Spindle	Bolt Circle	Studs Included	Dis. of Studs
3900-4714	Plain Back	4.252"	--	---
3900-4715	D1-4	3.252"	3	5/8
3900-4717	D1-5	3.252"	6	3/4
3900-4716	D1-6	5.252"	6	7/8
3900-4718	D1-8	6.748"	6	1

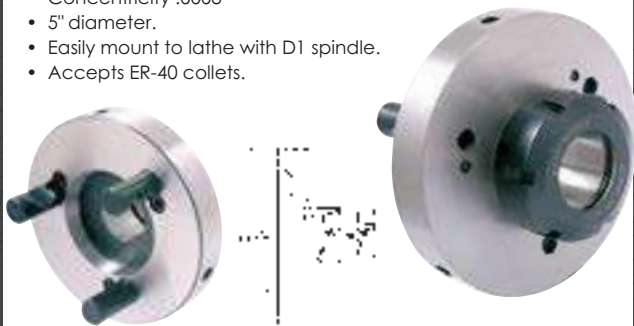


### SPECIFICATIONS

Chuck Size.....5"  
 Collet capacity.....1/16-1-1/8"  
 Weight.....Approx. 13 lbs  
 Max. RPM.....6,000

## ER-40 COLLET CHUCK FIXTURE - Direct Mount

- Concentricity .0008"
- 5" diameter.
- Easily mount to lathe with D1 spindle.
- Accepts ER-40 collets.



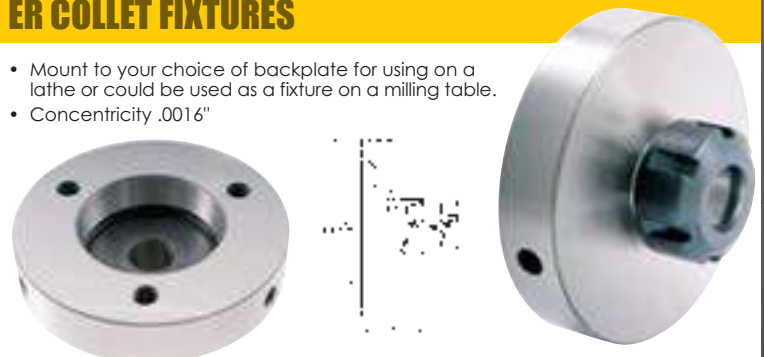
D1-3 Mount  
3901-5041

D1-4 Mount  
3901-5042

Item#	Mount	No. of Stud	Dia. of Stud	D1 (mm)	D (mm)	L (mm)
3901-5041	D1-3	3	9/16"	125	54	42
3901-5042	D1-4	3	5/8"	125	64	42

## ER COLLET FIXTURES

- Mount to your choice of backplate for using on a lathe or could be used as a fixture on a milling table.
- Concentricity .0016"



Item#	Type	No. of Bolt Hole	Bolt Hole Circle (mm)	Bolt Hole Size	D1 (mm)	D (mm)	L (mm)
3901-5016	ER-16	4	35	5mm	45	22	25
3901-5025	ER-25	3	75	M10	102	52	36
3901-5032	ER-32	3	66	M6	80	55	42
3901-5033	ER-32	3	84	M8	100	72	42
3901-5034	ER-32	3	125	M8	130	100	42
3901-5035	ER-32	3	125	M8	160	130	42
3901-5036	ER-40	3	84	M8	100	72	42
3901-5038	ER-40	3	115	M10	132	100	42

# ZERO-SET LATHE CHUCKS & BACK PLATES

## 3 & 6-JAW ZERO-SET SELF-CENTERING LATHE CHUCKS - Plain Back

- Semi-Steel
- Run true "0" set.
- Made of high grade cast steel.
- Hardened and ground to the highest T.I.R. 0.0005" repeatability.
- Two piece top & master jaws are American standard tongue & groove.
- 2pc top Jaws can be reversed for clamping and jamming.
- 6-jaw models provide increased gripping force with less jaw distortion

T.I.R. <0.0005"

OPPOSING ADJUSTING SCREWS FOR "DEAD TRUE" ACCURACY

.0005" REPEATABILITY ON DUPLICATE PARTS



FINE ADJUSTMENT • PLAIN BACK



WORKING HOLDING CAPACITIES

### 3-Jaw

Item#	Chuck Dia. D	D1	D2	(Inch) Center Hole D3	H	H1	h	z-d	Max. RPM	Wt. (lbs)
3900-4576	6	3.125	5.343	1.535	3.88	2.32	0.689	1/4-20	3,400	19
3900-4578	8.27	4.750	7.500	2.264	5.21	3.12	0.752	3/8-16	3,100	50
3900-4580	10	6.374	4.375	2.835	6.06	3.49	0.803	7/16-14	2,700	70
3900-4582*	12	7.905	5.250	3.268	6.57	3.98	0.803	1/2-13	2,200	116

\*Limited Supply

Chuck Dia.	OD Min.	OD Max.	ID Min.	ID Max.
6	0.125	6.00	1.875	5.75
8.27	0.200	8.25	2.125	6.75
10	0.500	9.36	2.937	8.72
12	0.500	11.31	3.281	10.13

### 6-Jaw

Item#	Chuck Dia. D	D1	D2	(Inch) Center Hole D3	H	H1	h	z-d	Max. RPM	Wt. (lbs)
3900-4560*	6	3.125	5.343	1.535	3.88	2.32	0.689	1/4-20	2,500	19
3900-4563*	12	7.905	5.250	3.268	6.57	3.98	0.803	1/2-13	1,500	140

Chuck Dia.	OD Min.	OD Max.	ID Min.	ID Max.
6	0.200	6.00	1.875	5.75
8.27	0.425	8.25	2.125	6.75
10	0.625	9.36	2.937	8.72
12	0.775	11.31	3.281	10.13

## ZERO-SET MOUNTING PLATES, A-Mount

FOR ZERO-SET 3&6 JAW CHUCKS

- Designed for easy installation.
- Zero-set recessed design minimizes overhang.
- All Zero-set mountings are interchangeable on the same size chuck.



A-MOUNT- American Standard Flange Nose.

Item#	Chuck Size	Spindle
3900-4900	6	A-5
3900-4901*	6"	A-6
3900-4902	8"	A-5
3900-4903*	8"	A-6
3900-4905	10"	A-5
3900-4906*	10"	A-6
3900-4907*	10"	A-8

\*Limited Supply

## ZERO-SET MOUNTING PLATES, D-Mount

FOR ZERO-SET 3&6 JAW CHUCKS

- Designed for easy installation.
- Zero-set recessed design minimizes overhang.
- All Zero-set mountings are interchangeable on the same size chuck.



D-MOUNT-Camlock

Item#	Chuck Size	Spindle
3900-5606	6"	D-4
3900-5607	8"	D-4
3900-5608	8"	D-6
3900-5610	10"	D-5
3900-5611	10"	D-6
3900-5612	10"	D-8
3900-5618	12"	D-8
3900-5619	12"	D-6
3900-5621	12"	D-11

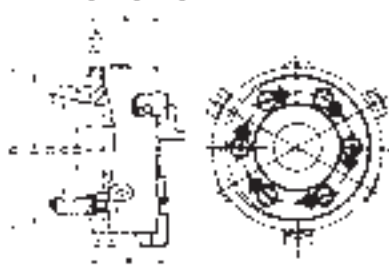
MACHINE TOOL ACCESSORIES

# 3-JAW SELF-CENTERING LATHE CHUCKS

## 3-JAW D1 SELF-CENTERING SCROLL CHUCKS - DIRECT MOUNT

- Direct Mounting chuck with Camlock Nose.
- Body made of high grade semi-steel.
- Top jaws are reversible.
- Self centering jaws, hardened and precision ground.
- Lathe chuck wrench supplied.

**D-MOUNT**



**SPINDLE NOSE DIMENSIONS**

Spindle Nose	D-3	D-4	D-6	D-8	D-11
Dia.	2.13"	2.50"	4.19"	5.50"	7.75"

**2PC TOP REVERSIBLE HARD JAWS**

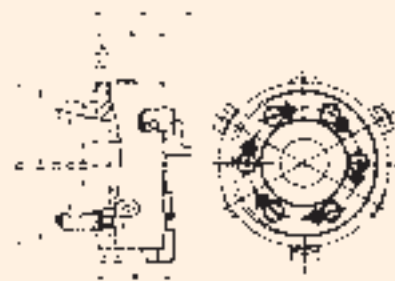
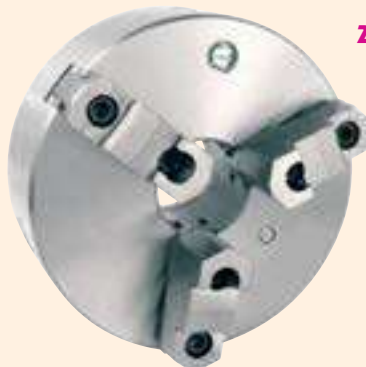
Item#	Chuck Dia. D5	To Fit Spindle	Max. RPM	T.I.R.	Studs B.C. D2	Studs Included	Dia. of Stud	Center Hole D3	D1	H	H1	h	Z-d	Weight (Lbs)
3900-4605	6"	D1-3	2500	.003	2.780	3	9/16	1.575	2.130	4.5	3.0	0.512	M10x1	23
3900-4606	6"	D1-4	2500	.003	3.252	3	5/8	1.575	2.130	4.5	3.0	0.512	M10x1	23
3900-4607	8"	D1-4	2000	.004	3.252	3	5/8	2.362	2.500	5.3	3.4	0.630	M10x1	45
3900-4609	8"	D1-5	2000	.004	3.252	6	3/4	2.560	2.500	5.3	3.4	0.630	M10x1	45
3900-4608	8"	D1-6	2000	.004	5.252	6	7/8	2.362	4.188	5.3	3.4	0.630	M16x1.5	45
3900-4630	10"	D1-5	1600	.004	3.252	6	3/4	3.145	4.188	6.0	3.9	0.709	M10x1	75
3900-4631	10"	D1-6	1600	.004	5.252	6	7/8	3.145	4.188	6.0	3.9	0.709	M20x1.5	75
3900-4610	10"	D1-8	1600	.004	6.748	6	1	2.750	5.500	6.0	3.9	0.709	M20x1.5	75
3900-4615	12"	D1-6	1200	.005	5.252	6	7/8	3.937	4.188	6.7	4.2	0.709	M20x1.5	130
3900-4612	12"	D1-8	1200	.005	6.748	6	1	3.937	5.500	6.7	4.2	0.709	M20x1.5	130
3900-4616	15"	D1-11	1100	.005	9.252	6	1-3/16	5.315	5.500	6.7	4.6	0.709	M22x1.5	225

Larger sizes available

## Pro-Series 3-JAW D1 SELF-CENTERING SCROLL CHUCKS - DIRECT MOUNT

- Semi-steel body.
- Direct mount self-centering scroll chucks.
- American standard two piece top reversible tongue & groove Jaws.
- All guide ways & bearing surfaces are precisely ground.
- Pinions are hardened & ground
- Scroll plate is dropped forged of fine alloy steel and case fully hardened. Thread flanks are ground on both sides for smooth operation.

**2PC TOP REVERSIBLE HARD JAWS**



**AMERICAN STANDARD**



Item#	Chuck Dia. D5	To Fit Spindle	Max. RPM	T.I.R.	Studs B.C. D2	Studs Included	(Inch) Dia. of Stud	Center Hole D3	D1	H	H1	h	Z-d	Weight (Lbs)
3900-8005	5"	D1-4	3200	.003	3.252	3	5/8	1.260	2.501	4.33	2.76	0.512	M10x1	11
3900-8008	6"	D1-3	3000	.003	2.780	3	9/16	1.654	2.125	4.90	3.21	0.512	M10x1	20
3900-8009	6"	D1-4	3000	.003	3.252	3	5/8	1.654	2.501	4.90	3.21	0.512	M10x1	20
3900-8013	8"	D1-3	2500	.003	2.780	3	9/16	2.028	2.125	5.35	3.58	0.512	M10x1	42
3900-8014	8"	D1-4	2500	.003	3.252	3	5/8	2.165	2.501	5.35	3.58	0.512	M10x1	42
3900-8015	8"	D1-5	2500	.003	4.126	6	3/4	2.165	3.251	5.35	3.58	0.563	M12x1	42
3900-8016	8"	D1-6	2500	.003	5.252	6	7/8	2.165	4.188	5.35	3.58	0.563	M16x1.5	42
3900-8020	10"	D1-5	2000	.003	4.126	6	3/4	2.992	3.251	6.16	4.08	0.563	M12x1	71
3900-8021	10"	D1-6	2000	.003	5.252	6	7/8	2.992	4.188	6.16	4.08	0.630	M16x1.5	71
3900-8022	10"	D1-8	2000	.003	6.748	6	1	2.992	5.501	6.16	4.08	0.709	M20x1.5	71
3900-8024	12"	D1-6	1500	.0035	5.252	6	7/8	4.055	4.188	6.88	4.64	0.630	M16x1.5	112
3900-8025	12"	D1-8	1500	.0035	6.748	6	1	5.354	5.501	6.88	4.64	0.709	M20x1.5	112
3900-8028	15"	D1-8	1000	.004	6.748	6	1	5.354	5.501	7.70	5.06	0.709	M20x1.5	223
3900-8030	15"	D1-11	1000	.004	9.252	6	1-3/16	5.906	7.751	7.70	5.06	0.787	M22x1.5	223



# 4-JAW LATHE CHUCKS & WRENCHES

## 4 - JAW CAMLOCK SPINDLES "D-1" LATHE CHUCKS - Direct Mount

- Direct Mounting chuck with Camlock Nose.
- Body made of high grade semi-steel.
- Jaws are individually adjustable, allowing firm gripping of odd shaped work.
- Hardened and precision ground reversible jaws.
- With T-wrench.



### SPINDLE NOSE DIMENSIONS

Spindle Nose Dia.	D-3	D-4	D-6	D-8
	2.13"	2.50"	4.19"	5.50"

Item#	Chuck Dia. D	To Fit Spindle	Studs B.C. D2	Studs Included	Dia. of Stud	(Inch) Center Hole D3	D1	H	H1	h	Z-d	Weight (Lbs)
3900-4808	8"	D1-4	3.346	3	5/8	2.165	2.500	4.2	3.0	0.518	M10x1	37
3900-4810	10"	D1-6	5.252	6	7/8	2.953	4.190	4.7	3.2	0.630	M16x1.5	52
3900-4809	12"	D1-6	5.252	6	7/8	3.740	4.188	5.3	3.6	0.630	M16x1.5	100
3900-4878	16"	D1-8	6.748	6	1	4.921	5.500	5.6	3.7	0.709	M20x1.5	140

## Pro-Series 4-JAW INDEPENDENT "D-1" LATHE CHUCKS - DIRECT MOUNT

### STANDARD ACCESSORIES

- 1 set of American Standard reversible jaws.
- 1 T-wrench
- 2 Hex keys
- 2 eye bolts for chucks 10" & up
- 1 set of mounting bolts.

- Semi-steel body.
- Hard solid reversible jaws.

10" & Up Include T-slot

AMERICAN STANDARD

DESIGNED TO GRIP ROUND OR ODD SHAPED WORK



3900-8110 Shown



Item#	Chuck Dia. D	To Fit Spindle	Studs B.C. D2	Studs Included	Dia. of Stud	(Inch) Center Hole D3	D1	H	H1	h	Z-d
3900-8110	8"	D1-4	3.252	3	5/8	2.205	2.501	4.33	2.95	0.512	M10x1
3900-8111	8"	D1-5	4.126	6	3/4	2.205	3.251	4.33	2.95	0.590	M12X1
3900-8113	10"	D1-5	4.126	6	3/4	2.953	4.188	4.70	3.35	0.630	M16x1.5
3900-8114	10"	D1-6	5.252	6	7/8	2.953	4.188	4.70	3.35	0.630	M16x1.5
3900-8118	12"	D1-6	5.252	6	7/8	2.953	4.188	5.70	3.74	0.630	M16x1.5
3900-8122	12"	D1-8	6.748	6	1	3.740	5.501	5.70	3.74	0.709	M20x1.5
3900-8126	16"	D1-8	6.748	6	1	4.921	5.501	6.10	4.13	0.709	M20x1.5
3900-8130	20"	D1-11	9.252	6	1-3/16	4.921	7.751	7.07	4.72	0.787	M22X1.5

Larger sizes available

## CHUCK WRENCHES/KEYS

- Made of high quality tool steel.
- Hardened & tempered.
- Heavy duty construction.



STANDARD



SELF-EJECT

Square Head Size	Standard Item#	Self-Eject Item#
15/64"(6mm)	3900-4862	-----
9/32"(7.15mm)	3900-4863	-----
15/32"(12mm)	3900-4864	-----
1/4"(6.35mm)	3900-4865	-----
5/16"(8mm)	3900-4866	3900-4857
3/8"(9.5mm)	3900-4867	3900-4853*
7/16"(11.2mm)	3900-4868	-----
1/2"(12.7mm)	3900-4869	3900-4855
9/16"(14.3mm)	3900-4870	-----
5/8"(16mm)	3900-4871	-----
11/16"(17.5mm)	3900-4872	-----
3/4"(19mm)	3900-4873	-----

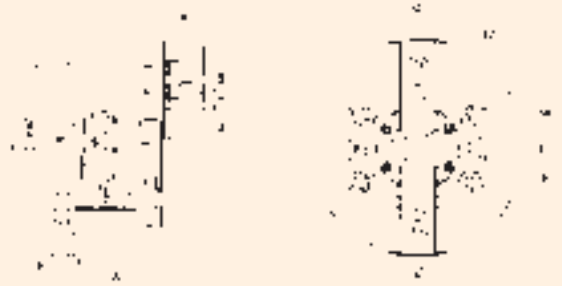
\*Limited Supply

# HIGH SPEED POWER CHUCKS

## TaiKi 2-JAW CNC POWER CHUCKS - Direct Mount

Interchangeable with Kitagawa BT200 series chucks • Chuck adaptor suit to spindle nose A2 • Serrations Pitch 1.5mm X 60°

- Optimum for gripping irregular shaped works.
- Approx. 20% higher speed, gripping force and larger bore when compared to conventional chucks.
- Made from high grade alloy steel. All sliding surfaces are hardened and ground for accurate actual running and long service repeatability.
- **Standard Equipment:** Chuck comes fitted with chuck adaptor and includes mounting bolts, T-nuts and jaw mounting bolts. Also included blank drawnut and mounting wrench.



Limited Supply!

MADE IN TAIWAN

Item#	Chuck Size	Chuck Dia. (mm)	Thru-hole Dia.	Plunger Strok (mm)	Jaw Strok Diameter (mm)	Max. Draw Bar Pull Force (kgf)	Max. Gripping Force (kgf)	Max. Speed RPM	Max. Hydraulic Pressure (kgf/cm <sup>2</sup> )	Mount Spindle	Cross to Kitagawa
3900-4597	5"	135	1.299"	10	5.4	1050	2960	7000	24.3	A2-4	BT-205
3900-4599	8"	210	2.047"	16	7.4	2250	5600	4800	18.4	A2-6	BT-208

### DIMENSIONS (mm)

Chuck Size	A		B		C (H6)		F		H		J		K		L		M		N		O		P		Q		R		S		T		U	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.				
5"	65	135	110	4	82.55	33	4-M10	14	14	26.5	23.80	19.5	6.0	1.0	-9.0	23	10	15.0	26	M40x1.5														
8"	91	210	170	5	133.35	52	6-M12	20	25	38.7	35.00	30.0	10.5	14.5	-1.5	35	14	16.5	37	M60x2.0														

## TaiKi 3-JAW CNC POWER CHUCKS - Direct Mount

Interchangeable with Kitagawa B200 series chucks • Chuck adaptor suit to spindle nose A2 • Serrations Pitch 1.5mm X 60°

- Approx. 20% higher speed, gripping force and larger bore when compared to conventional chucks.
- Made from high grade alloy steel. All sliding surfaces are hardened and ground for accurate actual running and long service repeatability.
- **Standard Equipment:** Chuck comes fitted with chuck adaptor and includes mounting bolts, T-nuts and jaw mounting bolts.



Limited Supply!

MADE IN TAIWAN

Item#	Chuck Size	Chuck Dia. (mm)	Thru-hole Dia.	Plunger Strok (mm)	Jaw Strok Diameter (mm)	Max. Draw Bar Pull Force (kgf)	Max. Gripping Force (kgf)	Max. Speed RPM	Max. Hydraulic Pressure (kgf/cm <sup>2</sup> )	Mount Spindle	Cross to Kitagawa
3900-4585	5"	135	1.299"	10	5.4	1750	3600	7000	29	A2-4	B-205A4
3900-4588	8"	210	2.047"	16	7.4	3400	8500	4800	26	A2-6	B-208A6
3900-4592	12"	304	3.583"	23	10.6	5500	14400	3000	27	A2-8	B-212A8

### DIMENSIONS (mm)

Chuck Size	A		B		C		D		E		F		G		H		J		K		L		M		N		P		Q		R		T	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.				
5"	65	135	110	82.55	4	33	1.0	-9.0	20	12	M40x1.5	3-M10	26	54	14	26.5	23.80	19.5	6.0	23														
8"	91	210	170	133.35	5	52	14.5	-1.5	20.5	30	M60x2.0	6-M12	37	95	25	38.7	35.00	30.0	10.5	35														
12"	123	304	220	171.45	5	91	8.0	-15.0	28	50	M100x2.0	6-M16	48	129	30	61.3	56.00	46.5	12.0	48														

## TaiKi JAW BORING RINGS - For Boring Soft & Round Jaws

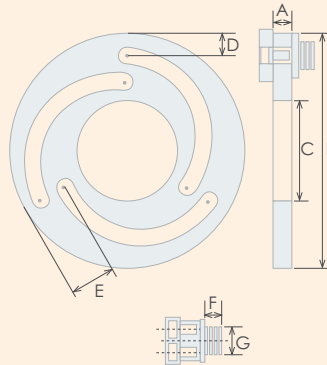
### How to install:

- Place the jaw boring ring over our chuck and locate the bring ring pins in the counterbore of your chuck jaws
  - Turn the jaw boring ring until snug
  - Activate your jaws
- The jaw boring ring will apply equal pressure on all jaws, allowing for a consistent bore.

- Since no discs or bungs are used to clamp jaws, through boring of jaws is possible.
- Attaches to front of jaws without tools, compensating for "jaw lift".
- Suitable for CNC lathe.
- Ideal for machining soft jaws.
- Applies equal pressure on all jaws.

MADE IN TAIWAN

Item#	Chuck Size	Dimensions (Inch)						
		A	B	C	D	E	F	G
3900-4649	4"	.47	4.5	1.34	.47	1.10	.35	.51
3900-4650	5"	.47	5.5	2.36	.47	1.10	.35	.51
3900-4651	6"	.47	6.6	3.15	.47	1.26	.35	.65
3900-4654	8"	.47	8.6	4.53	.59	1.42	.35	.73
3900-4656	10"	.47	10.2	5.91	.67	1.57	.35	.73
3900-4658	12"	.59	12.4	7.40	.83	1.97	.35	.96
3900-4660	15"	.79	15.0	9.06	.91	2.05	.63	1.22



## TaiKi TL-JAW BORING RINGS - For Boring Soft & Round Jaws

- Suitable for CNC lathe.
- Ideal for machining soft jaws.
- Attaches to front of jaws without tools, compensating for "jaw lift".
- Applies equal pressure on all jaws.
- Since no discs or bungs are used to clamp jaws, through boring of jaws is possible.

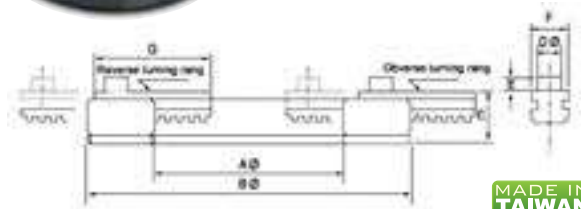
For 6, 8, 10" Chuck  
3900-4668



### How to install:

- Place the jaw boring ring over our chuck and locate the bring ring pins in the counterbore of your chuck jaws
  - Turn the jaw boring ring until snug
  - Activate your jaws
- The jaw boring ring will apply equal pressure on all jaws, allowing for a consistent bore.

- Set the jaws for the required job. The diameter of the jaws must be set smaller than the part diameter.
- adjust the Boring Rings to fit into the bolt holes of the soft jaws. Then, rotate the body of the Boring Rings until snug, pulling the jaws rigid in the opposite direction of the clamping force (away from the part to be held).
- Lock the chuck. Jaws must be locked in the direction of the part to be held. The soft jaws will then be held rigidly by the Boring Rings as if holding the part.
- Machining the diameter desired. The bore diameter must be precise with the diameter of the part to be held.
- Remove the Boring Rings. Unlock the chuck opposite in the locking direction.
- Chuck the part. If these steps are followed correctly, the part will be true within .0002 T.I.R.

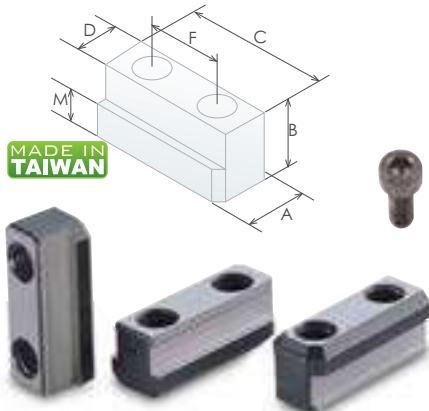


MADE IN TAIWAN

Item#	Chuck Size	Dimensions (Inch)				D(dia)-E	F-G	Jaw Stroke (ea.)	Max. Speed (RPM)
		A	B	C	D				
3900-4666	5,6,8"	3.94	6.7	1.02	.512~.28	.748~2.4	7.4	800	
3900-4668	6,8,10"	4.92	7.9	1.02	.642~.32	.748~2.4	7.4	700	
3900-4669	8,10,12"	6.30	9.8	1.22	.720~.32	.945~3.2	8.5	600	

## TaiKi JAW NUTS & SCREWS

FOR USE ON: Kitagawa, Samchully, Strong, MMK, SMW Autoblok, Howa & Hitachi-Seiki Chucks



MADE IN TAIWAN

Chuck Size Inch	CRITICAL DIMENSIONS				Nut Height B	Nut Width A	Nut Length C	Jaw Nut (set of 3) Item#	Screw Item#
	Heel Height M	Groove Width D	Screw Size	Hole Space F					
5	0.197	0.393 (10mm)	M8x20	0.551	0.571	0.551	0.965	3900-4780	3900-4796
6	0.295	0.472 (12mm)	M10x25	0.787	0.728	0.689	1.417	3900-4781	3900-4797
6	0.276	0.472 (12mm)	M10x25	0.787	0.866	0.689	1.437	3900-4788	3900-4797
8	0.335	0.551 (14mm)	M12x30	0.984	0.807	0.807	1.831	3900-4782	3900-4798
8	0.394	0.551 (14mm)	M12x30	0.984	1.024	0.807	1.890	3900-4789	3900-4798
8	0.394	0.629 (16mm)	M12x30	1.181	0.807	0.807	1.890	3900-4782	3900-4798
10	0.335	0.629 (16mm)	M12x30	1.181	0.846	0.886	2.008	3900-4783	3900-4798
10	0.394	0.629 (16mm)	M12x30	1.181	1.024	0.886	2.165	3900-4790	3900-4798
10	0.394	0.629 (16mm)	M12x30	0.984	0.846	0.886	2.008	3900-4786	3900-4798
12	0.453	0.827 (21mm)	M16x40	1.181	1.102	1.102	2.185	3900-4784	3900-4799
12	0.531	0.709 (18mm)	M14x40	1.181	1.319	1.043	2.185	3900-4791	3900-4800
15	0.650	0.866 (22mm)	M20x60	1.693	1.791	1.319	3.150	3900-4786	3900-4801
15	0.748	1.004 (25.5mm)	M20x55	1.693	1.535	1.378	3.150	3900-4793	3900-4802
15	0.654	0.945 (24mm)	M16x40	1.181	1.719	1.280	2.363	3900-4795	3900-4799

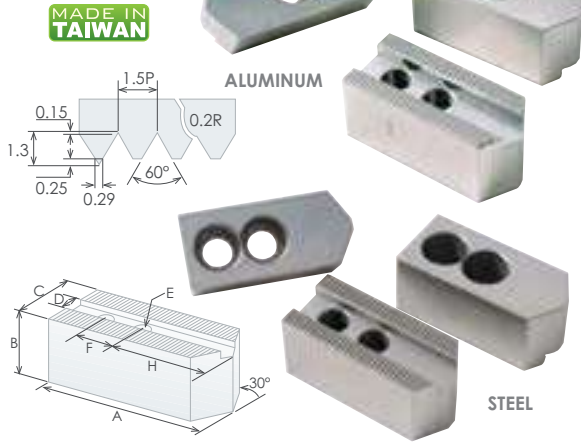


# CHUCK JAWS

## TaiKi SOFT JAWS - 1.5 mm x 60 Degree Serrations

- Supplies maximum concentricity on finish turning operations
- Can be bored or turned to fit workpiece
- Jaws can be hardened
- Set includes 3 pcs

FOR USE ON: Kitagawa, Samchully, Strong, MMK, SMW Autoblok, Howa & Hitachi-Seiki Chucks



Chuck Size	CRITICAL DIMENSIONS				Width Inch C	Length Inch A	Height Inch B	STEEL (set of 3) Item #	ALUMINUM (set of 3) Item #
	Groove Width D	Screw Size E	Hole Space F	Hole to Front H					
4	0.394 (10mm)	5/16 (M8)	0.551 (14mm)	1-1/16	0.91	2.00	0.91	3900-4684	3900-4764*
6	0.472 (12mm)	3/8 (M10)	0.787 (20mm)	1-1/2	1.22	2.87	1.18	3900-4686	3900-4766
8	0.551 (14mm)	1/2 (M12)	0.984 (25mm)	1.811	1.38	3.74	1.46	3900-4688	3900-4768
10	0.630 (16mm)	1/2 (M12)	1.181 (30mm)	1.969	1.57	4.33	1.65	3900-4690	3900-4770
12	0.710 (18mm)	0.55 (M14)	1.181 (30mm)	2.362	1.89	5.08	1.89	3900-4692	3900-4772
12	0.827 (21mm)	0.63 (M16)	1.181 (30mm)	2.362	1.89	5.08	1.89	3900-4693	3900-4773
15	0.866 (22mm)	0.787 (M20)	1.690 (43mm)	3.346	2.44	6.50	2.44	3900-4695	3900-4775
15	1.003 (25.5mm)	0.787 (M20)	1.690 (43mm)	3.346	2.44	6.50	2.44	3900-4696	3900-4776

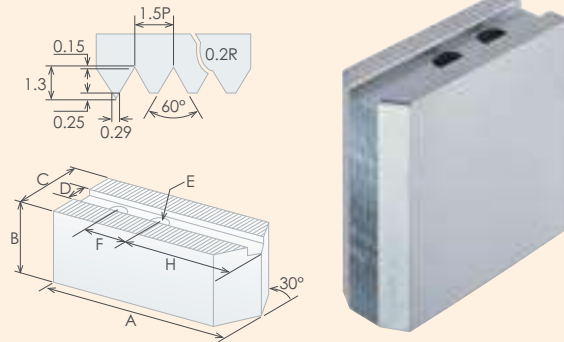
\* Limited Supply

## TaiKi SOFT STEEL JAWS EXTRA HEIGHT - 1.5mm x 60 Deg Serrations

FOR USE ON: Kitagawa, Samchully, Strong, MMK, SMW Autoblok, Howa & Hitachi-Seiki Chucks

- Extra-height jaws are suitable for longer workpiece, such as 4" length workpiece will need jaws with over 3" height which will increase the accuracy and stability of production process.
- Supplies maximum concentricity on finish turning operations.
- Price is for a set of 3 jaws.
- Jaws can be hardened.
- Can be bored or turned to fit workpiece.

MADE IN TAIWAN



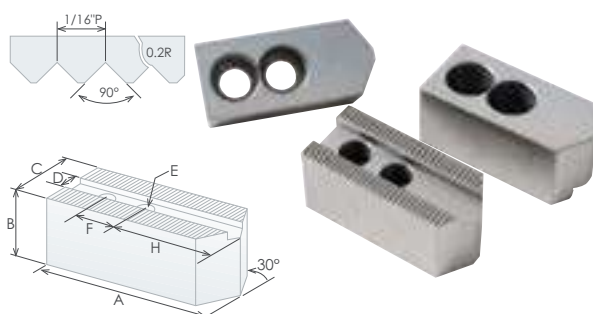
Chuck Size	CRITICAL DIMENSIONS				Hole to Front H	Jaw Width C	Jaw Length A	Jaw Height B	(set of 3) Item #
	Groove Width D	Screw Size E	Hole Space F	Hole to Front H					
6	0.472 (12mm)	3/8 (M10)	0.787 (20mm)	1-1/2	1.22	2.87	2.36 (60mm)	3900-5656	
6	0.472 (12mm)	3/8 (M10)	0.781 (20mm)	1-1/2	1.22	2.87	3.15 (80mm)	3900-5658	
8	0.551 (14mm)	1/2 (M12)	0.984 (25mm)	1.811	1.38	3.74	2.36 (60mm)	3900-5660	
8	0.551 (14mm)	1/2 (M12)	0.984 (25mm)	1.811	1.38	3.74	3.15 (80mm)	3900-5662	
8	0.551 (14mm)	1/2 (M12)	0.984 (25mm)	1.811	1.38	3.74	3.94 (100mm)	3900-5663	
10	0.630 (16mm)	1/2 (M12)	1.181 (30mm)	1.969	1.57	4.33	2.36 (60mm)	3900-5665	
10	0.630 (16mm)	1/2 (M12)	1.181 (30mm)	1.969	1.57	4.33	3.15 (80mm)	3900-5667	
10	0.630 (16mm)	1/2 (M12)	1.181 (30mm)	1.969	1.57	4.33	3.94 (100mm)	3900-5668	
12	0.710 (18mm)	0.55 (M14)	1.181 (30mm)	2.362	1.89	5.08	3.15 (80mm)	3900-5670	
12	0.710 (18mm)	0.55 (M14)	1.181 (30mm)	2.362	1.89	5.08	3.94 (100mm)	3900-5672	

## TaiKi SOFT STEEL JAWS - 1/16" x 90 Degree Serrations

- Supplies maximum concentricity on finish turning operations
- Can be bored or turned to fit workpiece

- Jaws can be hardened, steel material SAE1045
- Set includes 3 pcs

FOR USE ON: SMW Autoblok, Rohm, Pratt Burnerd & Other Chucks



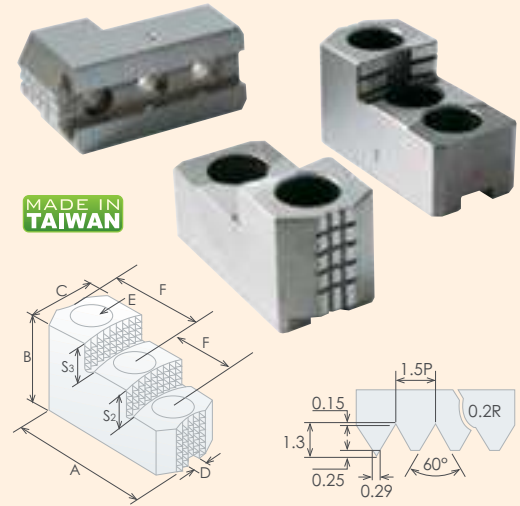
Chuck Size	CRITICAL DIMENSIONS				Width Inch C	Length Inch A	Height Inch B	(set of 3) Item #
	Groove Width D	Screw Size E	Hole Space F	Hole to Front H				
6	0.669 (17mm)	12mm	0.875 (22mm)	1.417	1.22	2.87	1.18	3900-4642
8	0.669 (17mm)	12mm	0.875 (22mm)	1.929	1.38	3.74	1.46	3900-4644
10	0.669 (17mm)	12mm	0.875 (22mm)	2.283	1.57	4.33	1.65	3900-4646
12	0.827 (21mm)	16mm	1.102 (28mm)	2.520	1.89	5.08	1.89	3900-4648

## TaiKi BEST-GRIP HARD STEEL JAWS - 1.5 mm x 60 Degree Serrations

FOR USE ON: Kitagawa, Samchully, Strong, MMK, SMW Autoblok, Howa & Hitachi-Seiki Chucks

- Supplies maximum concentricity on finish turning operations
- Set includes 3 pcs

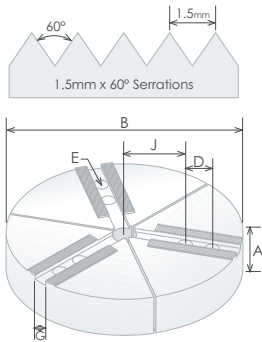
Chuck Size	CRITICAL DIMENSIONS			No. of Holes	No. of Steps	Step Height S2	Step Height S3	Width Inch C	Length Inch A	Height Inch B	(set of 3) Item#
	Groove Width D	Screw Size E	Hole Space F								
6	0.472 (12mm)	M10	0.787 (20mm)	3	1	0	0.47	1.22	2.64	1.42	3900-4671
8	0.551 (14mm)	M12	0.984 (25mm)	3	2	0.47	0.47	1.38	3.39	2.01	3900-4673
10	0.630 (16mm)	M12	1.181 (30mm)	3	2	0.55	0.55	1.57	3.94	2.13	3900-4675
12	0.709 (18MM)	M14	1.181 (30mm)	3	1	0	0.79	1.97	4.45	2.05	3900-4677
12	0.827 (21mm)	M16	1.181 (30mm)	3	1	0	0.79	1.97	4.45	2.05	3900-4678
15	0.866 (22MM)	M20	1.693 (43mm)	3	2	0.73	0.73	2.44	5.63	3.39	3900-4680
15	1.005 (25.5MM)	M20	1.693 (43mm)	3	2	0.73	0.73	2.44	5.63	3.39	3900-4681



## TaiKi SOFT ROUND/PIE JAWS - 1.5mm x 60 Deg Serrations

FOR USE ON: Kitagawa, Samchully, Strong, MMK, SMW Autoblok, Howa & Hitachi-Seiki Chucks

MADE IN TAIWAN



- Round jaws allow for complete gripping of workpiece.
- Can be machined to fit workpiece.
- Set includes 3 pcs

- Ideal for thin-walled or irregular shaped workpieces.
- Steel jaws can be hardened.

### STEEL JAWS

Chuck Size	CRITICAL DIMENSIONS			Hole to Front J	Pie Dia. B	Thru Hole	Jaw Height A	(set of 3) Item #
	Groove Width G	Screw Size E	Hole Space D					
6-5/8"	0.472 (12mm)	M10	0.787 (20mm)	1.949	6.65	0.948	1.58	3900-5686
8"	0.551 (14mm)	M12	0.984 (25mm)	2.008	7.87	0.948	1.97	3900-5688
10"	0.63 (16mm)	M16	1.181 (30mm)	2.559	9.84	0.948	1.97	3900-5690
12"	0.827 (21mm)	M16	1.181 (30mm)	3.189	11.81	0.948	1.97	3900-5692

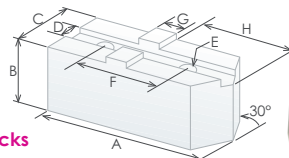
### ALUMINUM JAWS

Chuck Size	CRITICAL DIMENSIONS			Hole to Front J	Pie Dia. B	Thru Hole	Jaw Height A	(set of 3) Item #
	Groove Width G	Screw Size E	Hole Space D					
6-5/8"	0.472 (12mm)	M10	0.787 (20mm)	1.949	6.65	0.948	1.58	3900-5695
8"	0.551 (14mm)	M12	0.984 (25mm)	2.008	7.87	0.948	1.97	3900-5697
10"	0.63 (16mm)	M16	1.181 (30mm)	2.559	9.84	0.948	1.97	3900-5700
12"	0.827 (21mm)	M16	1.181 (30mm)	3.189	11.81	0.948	1.97	3900-5702

## TaiKi 3PC SET SOFT STEEL JAWS - AMERICAN STANDARD TONGUE & GROOVE

- Supplies maximum concentricity on finish turning operations
- Can be bored or turned to fit workpiece
- Jaws can be hardened
- Set includes 3 pcs

FOR USE ON: Buck, Bison, Cushman, Huron, PBA, Yuasa & Rohm Chucks



MADE IN TAIWAN



Chuck Size	CRITICAL DIMENSIONS				Tongue to Front H	Tongue Position C	Width Inch A	Length Inch B	Height Inch	Item #
	Groove Width D	Tongue Width G	Screw Size E	Hole Space F						
6	0.313	1/2	5/16	1.500	0.866	Offset	1-1/4	2-7/8	1-1/4	3900-4756
8	0.313	1/2	3/8	1.750	1.329	Offset	1-1/4	3-3/4	1-1/4	3900-4758
10	0.500	3/4	1/2	2.125	1.220	Offset	1-1/4	4-1/8	1-1/4	3900-4760
12	0.500	3/4	1/2	2.500	1.398	Offset	1-9/16	4-15/16	2-1/8	3900-4762

# KDK STYLE QUICK CHANGE TOOLS

## KDK STYLE 6PC TOOL POST & HOLDERS SETS

- Interchangeable with KDK same series.
- All working parts hardened and ground.
- **Lathe Swing:**  
8-12" (0 Series)  
12~16" (100 Series),  
15~18" (150 Series),  
18~24" (200 Series)
- **Lock Down Bolt Diameter:**  
7/16" (0 & 100 Series) ,  
5/8" (150 Series),  
3/4" (200 Series)
- **Center Height:**  
.750" & Up (0 Series)  
1.000" & Up (100 Series)  
1.250" & Up (150 Series)  
1.500" & Up (200 Series)

**#0 Series Set**  
**3900-5424**

**#100 Series Set**  
**3900-5425**

**#150 Series Set**  
**3900-5426**

**#200 Series Set**  
**3900-5427**

**6PC/SET INCLUDES**  
Holders:  
No. 1 - Turning & Facing  
No. 2 - Threading & Facing  
No. 3 - Extension Turning Bar  
No. 4 - Parting Bar  
No. 5 - Master Bar For Boring Bars  
Tool Post: KDK Body



T-slot nut & mounting bolt not included.

## KDK STYLE 0, 100, 150, 200 TOOL POSTS

- Interchangeable with KDK same series.
- All working parts hardened and ground.
- **Lathe Swing:**  
8-12" (0 Series), 12~16" (100 Series),  
15~18" (150 Series), 18~24" (200 Series)
- **Lock Down Bolt Diameter:**  
7/16" (0 & 100 Series), 5/8" (150 Series),  
3/4" (200 Series)
- **Center Height:**  
.750" & Up (0 Series)  
1.000" & Up (100 Series)  
1.250" & Up (150 Series)  
1.500" & Up (200 Series)

**#0 Series Post**  
**3900-5422**

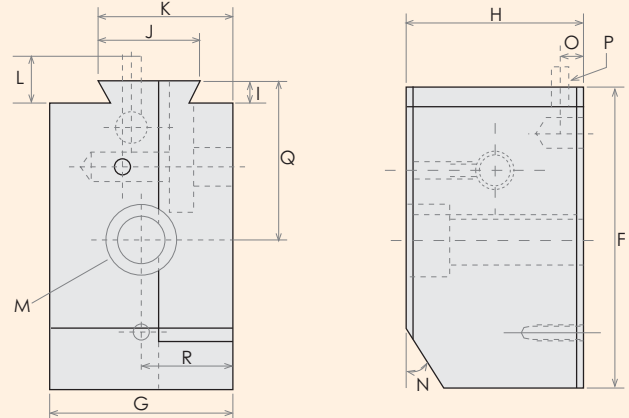
**#100 Series Post**  
**3900-5423**

**#150 Series Post**  
**3900-5427**

**#200 Series Post**  
**3900-5458**



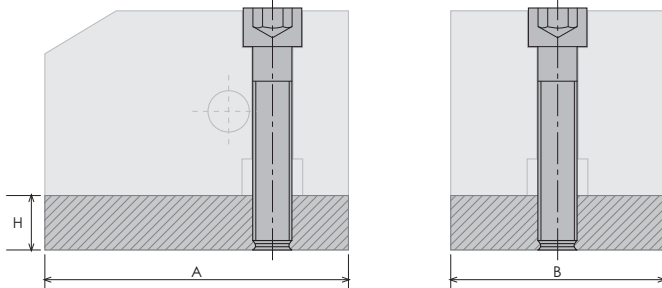
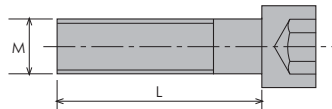
T-slot nut & mounting bolt not included.



Body No.	(Inch)												
	F	G	H	I	J	K	L	M	N	O	P	Q	R
0	3.00	2.25	1.62	.312	1.750	1.875	.687	7/16	30°	.312	1/4	.687	1.343
100	3.50	2.50	2.25	.312	1.750	2.215	.687	7/16	30°	.331	1/4	.875	1.375
150	4.37	2.50	2.25	.312	1.750	2.215	.687	5/8	30°	.331	5/16	2.312	1.250
200	5.00	2.87	3.00	.312	1.750	2.215	.687	3/4	30°	.331	5/16	2.562	1.437

## T-NUT BLANKS AND SCREW BOLTS FOR KDK STYLE TOOL POSTS

- T-nut blank can be machined to fit.



Item#	Fits Post No.	Blank Dimensions (Thick. H x B x A)	Bolt Thread M x L
3900-5436	100	1/2 x 1-1/2 x 2-1/4"	7/16-20UNF x 2.17"
3900-5437	100	5/8 x 2-1/4 x 2-3/4"	7/16-20UNF x 2.32"
3900-5438	100	3/4 x 2-1/2 x 3"	7/16-20UNF x 2.44"
3900-5439	150	5/8 x 2-1/4 x 2-3/4"	5/8-18UNF x 2.09"
3900-5440	150	3/4 x 2-1/2 x 3"	5/8-18UNF x 2.17"
3900-5441	150	7/8 x 2-1/2 x 3-1/2"	5/8-18UNF x 2.36"
3900-5442	150	1 x 3 x 4-1/2"	5/8-18UNF x 2.36"
3900-5443	200	7/8 x 2-1/2 x 3-1/2"	3/4-16UNF x 2.95"
3900-5444	200	1 x 3 x 4-1/2"	3/4-16UNF x 2.95"
3900-5445	200	1-1/2 x 4 x 5"	3/4-16UNF x 3.54"

## 5C COLLET BAR KDK STYLE 119 TOOL HOLDER

- No. 119 holder is for KDK-100, 150 & 200 quick change tool post.
- Assures the simplicity of preset quick change tools to all 5 C collet jobs.
- For lathes having 1" Center Height or more.
- Spanner Wrench and Lock Ring included.
- All working parts hardened and ground.

**Holder No. 119**  
**3900-5419**



Replacement Ring Nut & Wrench (Item#3900-5420)



# KDK STYLE QUICK CHANGE HOLDERS

## TURNING AND FACING BAR COMBINATION KDK STYLE 01, 101, 151, 201 TOOL HOLDERS



ALL BARS INTERCHANGEABLE ON 01, 100, 150 & 200 BODY

- Interchangeable with KDK same series tool holders.
- All working parts hardened and ground.

Item#	Holder No.	Wt. (lbs.)	Tool Bit Capacity	Lathe Swing
3900-5410	01	1.0	3/8"	8~12"
3900-5411	101	1.8	1/2"	12~16"
3900-5451	151	3.3	5/8"	15~18"
3900-5431	201	4.5	3/4"	18~24"
3900-5448	201-1	4.1	1"	18~24"

## THREADING AND FACING BAR COMBINATION KDK STYLE 01, 102, 152, 202 TOOL HOLDERS



ALL BARS INTERCHANGEABLE ON 01, 100, 150 & 200 BODY

- Interchangeable with KDK same series tool holders.
- All working parts hardened and ground.

Item#	Holder No.	Wt. (lbs.)	Tool Bit Capacity	Lathe Swing
3900-5402	02	1.0	3/8"	8~12"
3900-5412	102	2.0	1/2"	12~16"
3900-5452	152	4.0	5/8"	15~18"
3900-5432	202	4.8	3/4"	18~24"
3900-5449	202-1	4.4	1"	18~24"

## EXTENSION TURNING BAR COMBINATION KDK STYLE 03, 103, 153, 203 TOOL HOLDERS

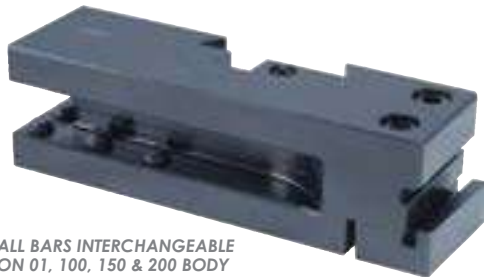
- Interchangeable with KDK same series tool holders.
- All working parts hardened and ground.

Item#	Holder No.	Wt. (lbs.)	Tool Bit Capacity	Lathe Swing
3900-5403	03	1.0	3/8"	8~12"
3900-5413	103	1.8	1/2"	12~16"
3900-5453	153	3.3	5/8"	15~18"
3900-5433	203	4.5	3/4"	18~24"
3900-5450	203-1	4.0	1"	18~24"



ALL BARS INTERCHANGEABLE ON 01, 100, 150 & 200 BODY

## PARTING BAR COMBINATION KDK STYLE 04, 104, 154, 204 TOOL HOLDERS



ALL BARS INTERCHANGEABLE ON 01, 100, 150 & 200 BODY

- Interchangeable with KDK same series tool holders.
- All working parts hardened and ground.

Item#	Holder No.	Wt. (lbs.)	Tool Bit Capacity (Thick. x Width)	Lathe Swing
3900-5404	04	1.5	3/32x1/2"	8~12"
3900-5414	104	2.3	1/8X11/16"	12~16"
3900-5454	154	4.3	1/8X7/8"	15~18"
3900-5434	204	5.0	1/8X1-1/8"	18~24"

## MASTER BAR FOR BORING BARS KDK STYLE 05, 105, 155, 205 TOOL HOLDERS

- Interchangeable with KDK same series tool holders.
- All working parts hardened and ground.

Item#	Holder No.	Wt. (lbs.)	Boring Bar Capacity	Lathe Swing
3900-5405	05	1.3	3/4" Hole	8~12"
3900-5415	105	1.5	1" Hole	12~16"
3900-5455	155	3.8	1-1/4" Hole	15~18"
3900-5435	205	5.3	1-1/2" Hole	18~24"
3900-5429	205-1-3/4	8.1	1-3/4" Hole	18~24"
3900-5430	205-2	7.8	2" Hole	18~24"

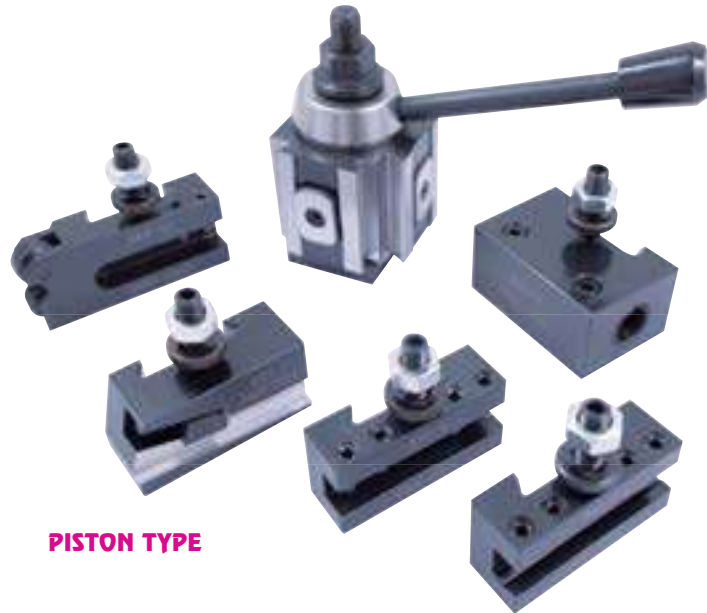


ALL BARS INTERCHANGEABLE ON 01, 100, 150 & 200 BODY

# QUICK-CHANGE TOOL SETS

## 6PC QUICK-CHANGE TOOL POST SETS - Piston Type

- Interchangeable with Aloris® and DORIAN® same series tool holders.
- All working parts hardened and ground.
- Completely sealed for maintenance-free operation.
- Increases productivity of all lathe operations.
- T-nut can be machined to fit.



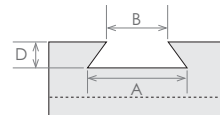
**PISTON TYPE**

**BXA Series**  
3900-5920

Interchangeable with **Aloris®**  
and **DORIAN®** same series

### 6PC SET INCLUDES

- Holders:**
- No. 1 - Turning & Facing;
  - No. 2 - Boring, Turning & Facing
  - No. 4 - Boring, Heavy Duty;
  - No. 7 - Universal parting blade
  - No.10 - Knurling, Facing & Turning
- Tool Post: Piston Type**



Dimension of Dovetails

Series	Item#	A	B	D	Swing Capacity
AXA	3900-5910	1.64"	1.37"	0.383"	up to 12"
BXA	3900-5920	1.65"	1.41"	0.411"	10~15"
CXA	3900-5230	2.16"	1.68"	0.565"	13~18"
CA	3900-5260	2.62"	2.21"	0.493"	14~20"

## 6PC QUICK-CHANGE TOOL POST SETS - Wedge Type

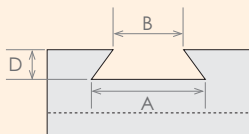
- Interchangeable with Aloris® and DORIAN® same series tool holders.
- All working parts hardened and ground.
- Completely sealed for maintenance-free operation.
- Increases productivity of all lathe operations.
- Precision design to assure repetitive accuracy.
- T-nut can be machined to fit.



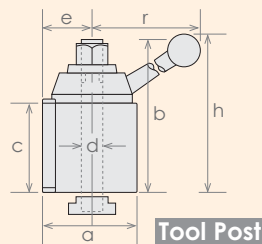
**CXA Series**  
3900-5130

Interchangeable with **Aloris®**  
and **DORIAN®** same series

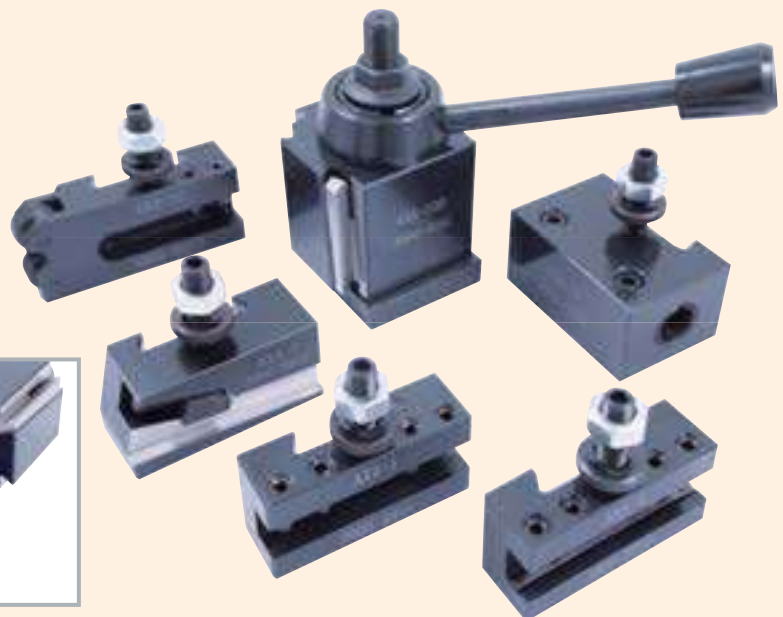
**WEDGE TYPE**



Dimension of Dovetails



Tool Post



### 6PC SET INCLUDES

- Holders:**
- No. 1 - Turning & Facing;
  - No. 2 - Boring, Turning & Facing
  - No. 4 - Boring, Heavy Duty;
  - No. 7 - Universal parting blade(4°)
  - No.10 - Knurling, Facing & Turning
- Tool Post: Wedge Type**

Series	Item#	A	B	D	a	b	c	d	e	h	r	Swing Capacity
OXA	3900-5100	1.10"	0.92"	.257"	1-3/4	2-3/4	1-9/16	3/8	7/8	3-1/4	3-7/8	up to 8"
AXA	3900-5105	1.64"	1.37"	.383"	2-1/2	3-7/8	2-1/4	9/16	1-3/8	4-11/16	5-3/4	up to 12"
BXA	3900-5120	1.65"	1.41"	.411"	3	4-5/8	2-3/4	5/8	1-5/8	5-9/16	7-5/16	10~15"
CXA	3900-5130	2.16"	1.68"	.565"	3-1/2	5-1/8	3	3/4	1-7/8	6-1/8	7-7/8	13~18"
CA	3900-5140	2.62"	2.21"	.493"	4	6-1/4	3-5/8	7/8	2-1/8	7	9	14~20"
DA	3900-5160	3.25"	2.72"	.600"	5	7-5/8	4-5/8	7/8	2-11/16	8-1/4	10-7/8	17~48"

# QUICK-CHANGE TOOL HOLDERS & SETS

## 6PC OXA MINI QUICK-CHANGE TOOL POST & HOLDER SETS - With Two No 1 Holders

- This true wedge type tool post set has maximum rigidity and provide chatter free performance.
- All working parts are hardened and ground. It is completely sealed for maintenance-free operation.
- Quick change tool post set for lathes with up to 9" swing. It requires 3/4" from the top of the compound rest to the center of the lathe.
- 60% of AXA, or series 100 size wedge type QCTP.

- It will hold turning tools with shanks from 1/4" to 1/2". The boring bar holder will hold 3/8" and 1/2" boring bars. It will hold 1/2" tall cut-off blades.
- This tool post mounts with an M10 stud that is included. It also includes a piece of steel from which you can make a T-slot nut to fit your lathe.
- All steel construction
- T-nut can be machined to fit.



**KIT INCLUDES - 4° Parting Tool**  
 Tool post,  
 2- #1 turning & facing tool holders,  
 1- #2 boring,  
 turning & facing tool holder,  
 1-#4 heavy duty boring tool holder,  
 1-#7 4° universal parting tool holder

**Swing Capacity up to 9"**  
**3900-5102**



**KIT INCLUDES - 0° Parting Tool**  
 Tool post,  
 2- #1 turning & facing tool holders,  
 1-#2 boring,  
 turning & facing tool holder,  
 1-#4 heavy duty boring tool holder,  
 1-#7 0° Universal parting tool holder

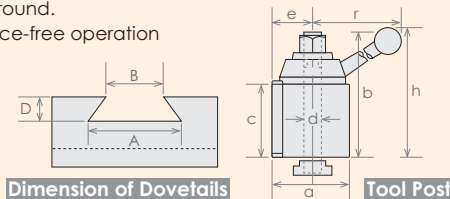
**Swing Capacity up to 9"**  
**3900-5101**

## QUICK-CHANGE TOOL POSTS - Wedge Type

- All working parts hardened and ground.
- Completely sealed for maintenance-free operation

**HHIP PRO-SERIES**

Interchangeable with **Aloris®** and **DORIAN®** same series



**WEDGE TYPE**

Series	Item#	A	B	D	a	b	c	d	e	h	r	Swing Capacity
OXA	3900-5460	1.10"	0.92"	.257"	1-11/16	2-19/32	1-1/2	3/8	15/16	3-9/64	3-27/32	up to 9"
AXA	3900-5161	1.64"	1.37"	.383"	2-1/2	3-7/8	2-1/4	9/16	1-3/8	4-11/16	5-3/4	up to 12"
BXA	3900-5121	1.65"	1.41"	.411"	3	4-5/8	2-3/4	5/8	1-5/8	5-9/16	7-5/16	10~15"
CXA	3900-5131	2.16"	1.68"	.565"	3-1/2	5-1/8	3	3/4	1-7/8	6-1/8	7-7/8	13~18"
CA	3900-5141	2.62"	2.21"	.493"	4	6-1/4	3-5/8	7/8	2-1/8	7	9	14~20"
DA	3900-5162	3.25"	2.72"	.600"	5	7-5/8	4-5/8	7/8	2-11/16	8-1/4	10-7/8	17~48"

## Replacement Screws - For Aloris Type Turning & Facing Holders

- Replace worn or lost hold down screws.



**FITS #7 HOLDERS**

Item#	Series	Size	Item#	Series	Size
3900-5472	OXA	M6X16	3900-5473	OXA	M6X48
3900-5919	AXA	M8X20	3900-5474	OXA-T	M6X48
3900-5476	BXA	M8X30	3900-5475	AXA	M8X70
3900-5478	CXA	M10X28	3900-5477	BXA	M8X82
3900-5480	CA	M12X32	3900-5479	CXA	M10X93
3900-5482	DA	M12X32	3900-5481	CA	M10X104
			3900-5483	DA	M10X134

**STUD FITS #7 HOLDERS**

Item#	Series	Size
3900-5913	AXA	M8X70mm



## NO. 16E - INDEXABLE THREADING & FACING HOLDERS

- Unique design allows you to use both sides for threading cut.
- Supplied with fully adjustable carbide chip breaker and carbide shims.
- Two triangular carbide inserts included.



Interchangeable with **Aloris®** and **DORIAN®** same series

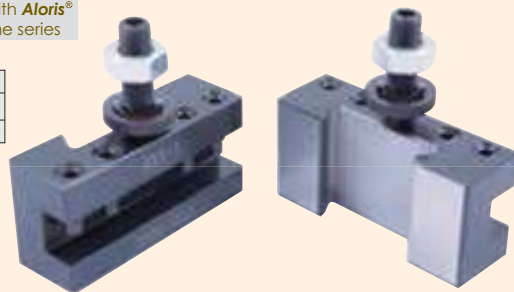
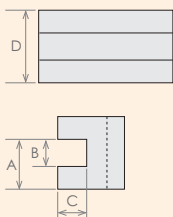
Item#	Series	Description
3900-5259	AXA	Holder with TCMT-32.51 inserts
3900-5925	BXA	Holder with TCMT-32.51 inserts
6004-9031		TCMT-32.51 TiN Carbide Insert



# QUICK-CHANGE TOOL HOLDERS

## NO. 1 - TURNING & FACING HOLDERS

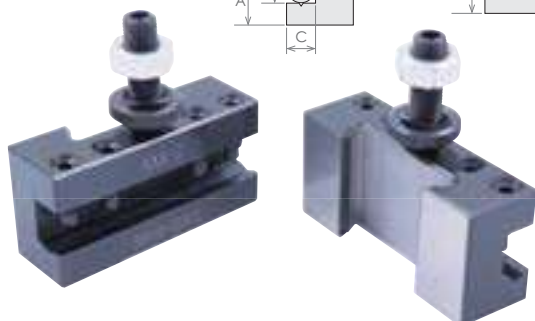
Interchangeable with **Aloris®** and **DORIAN®** same series



Item#	Series	A	(Inch) B	C	D	Tool Bit Capacity
3900-5461	OXA	5/8	1/2	5/16	1	Up to 1/2
3900-5911	AXA	15/16	1/2	7/16	1-1/2	3/16~1/2
3900-5931	AXA-1S	1-3/64	5/8	9/16	1-1/2	1/4~5/8
3900-5261	BXA	1-1/8	5/8	1/2	1-3/4	1/4~5/8
3900-5934	BXA-1S	1-13/64	3/4	5/8	1-3/4	1/2~3/4
3900-5231	CXA	1-7/16	3/4	5/8	2-1/8	1/2~3/4
3900-5941	CA	1-11/16	1	3/4	2-1/2	1/2~1
3900-6001	DA	3-3/16	1-1/4	1	3-1/8	3/4~1-1/4

## NO. 2 - BORING, TURNING & FACING HOLDERS

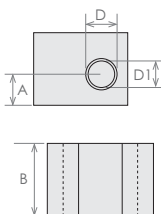
Interchangeable with **Aloris®** and **DORIAN®** same series



Item#	Series	(Inch) A	B	C	D	Tool Bit Capacity	Shank
3900-5462	OXA	5/8	1/2	5/16	1	Up to 1/2	7/24
3900-5912	AXA	15/16	1/2	7/16	1-1/2	3/16~1/2	7/16
3900-5932	AXA-2S	1-1/32	5/8	9/16	1-1/2	1/4~5/8	1/2
3900-5262	BXA	1-1/8	5/8	1/2	1-3/4	1/4~5/8	1/2
3900-5935	BXA-2S	1-7/32	3/4	5/8	1-3/4	1/2~3/4	3/4
3900-5232	CXA	1-7/16	3/4	5/8	2-1/8	1/2~3/4	3/4
3900-5942	CA	1-11/16	1	3/4	2-1/2	1/2~1	13/16
3900-6002	DA	3-3/16	1-1/4	1	3-1/8	3/4~1-1/4	1

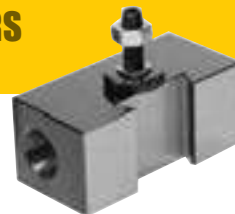
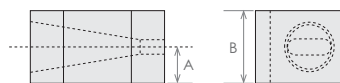
## NO. 4 - HEAVY DUTY BORING HOLDERS

Interchangeable with **Aloris®** and **DORIAN®** same series



Item#	Series	Inside A	B	D	D1
3900-5464	OXA	1/2	1	1/2	5/12
3900-5203	AXA	3/4	1-1/2	3/4	5/8
3900-5204	BXA	1	2	1	3/4
3900-5233	CXA	1	2	1	3/4
3900-5206	CA	1-3/8	2-3/4	1-1/4	1
3900-6004	DA	1-9/16	3-1/8	1-1/2	1-1/4

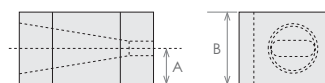
## NO. 5 - MORSE TAPER HOLDERS FOR DRILLING



Item#	Series	Taper Hole	A	B
3900-5226	OXA	MT2	1/2	1-1/4
3900-5917*	AXA	MT 2	3/4	1-1/2
3900-5227*	BXA	MT 2	7/8	1-3/4
3900-5237*	CXA	MT 3	1	2
3900-5947*	CA	MT 3	1-1/4	2-1/2

\*Limited Supply

## NO. 53, 54, 55 - MORSE TAPER HOLDERS FOR DRILLING



Item#	Series	Taper Hole	A	B
3900-5258	AXA	MT 3	3/4	1-1/2
3900-5228	BXA	MT 3	7/8	1-3/4
3900-5948	CA	MT 4	1-1/4	2-1/2

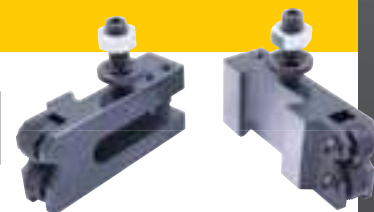
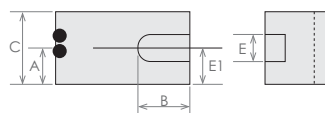
## NO. 7 - UNIVERSAL PARTING BLADE HOLDERS



Item#	Series	Parting Angle	A	B	C	D
3900-5467	OXA	4°	13/16	1/2	1/8	1
3900-5468	OXA	0°	5/8	1/2	1/8	1
3900-5914	AXA	4°	13/16	1/2	3/16	1-1/2
3900-5264	BXA	4°	1	11/16	3/16	1-3/4
3900-5234	CXA	4°	1-3/16	3/4	3/16	2
3900-5944	CA	4°	1-7/16	7/8	1/4	2-1/2
3900-6007	DA	4°	1-3/4	1-1/8	1/4	2-3/4

See page 304 for parting blades

## NO. 10 - KNURLING, TURNING AND FACING HOLDERS



Item#	Series	A	B	(Inch) C	E	E1	Capacity Tool Bit
3900-5470	OXA	1/2	1-3/4	1-1/8	7/16	3/8	Up to 1/2
3900-5915	AXA	7/8	2-1/2	1-9/16	1/2	3/8	3/16~1/2
3900-5225	BXA	1	2-5/8	1-3/4	5/8	1/2	1/4~5/8
3900-5236	CXA	1-3/16	3-1/8	2	3/4	5/8	1/2~3/4
3900-5946	CA	1-7/16	3-3/4	2-1/2	1	3/4	1/2~1
3900-6010	DA	1-7/8	4-1/2	3-1/8	1-1/4	1	1/2~1-1/4

# QUICK-CHANGE TOOL POSTS & HOLDERS

## 5PC MINI QUICK-CHANGE TOOL POST & HOLDER KIT

- Fits 7x10, 7x12 and 7x14 mini lathes
- No tools required to change tools
- Made of aluminum

- ACCEPT**
- Turning Holder: 1/4-3/8" Shank
  - Boring Holder: 3/8" Shank
  - Cut-off Blade Holder: 1/2"



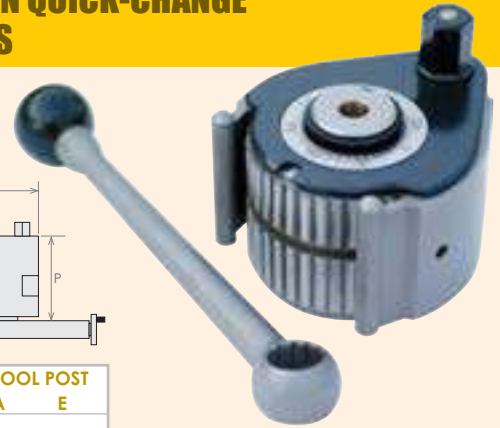
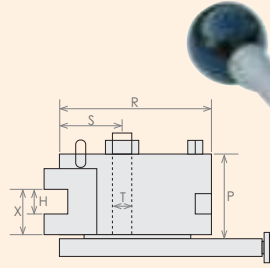
Limited Supply!

Aluminum  
3900-5350

### KIT INCLUDES

Tool post, Mounting hardware, Two turning tool holders, a boring tool holder and a cut-off blade holder

## 40-POSITION QUICK-CHANGE TOOL POSTS



### DIMENSION OF TOOL POST

	A	E
Max. Driving Power (HP)	3	6
R Maximum	4.13"	5.14"
S Maximum	2.07"	2.57"
P	1.83"	2.30"
T	0.79"	0.79"
H	0.83"	0.94"
X Minimum	1.18"	1.37"
X Maximum	1.61"	2.04"

All Holders are Interchangeable With Most of 40-Position Tool Post A, E & B

Item#	Series	Swing
3900-5310	A	6-13"
3900-5320	E	10-18"

## RETROFIT GTN CUT-OFF AND GROOVING BLADES

- Used on Aloris and DORAIN Type Quick-Change Tool Holders
- High performance rates. No more re-grinding. Insert indexability.
- Also can use GTL, GTR inserts.



FOR GROOVING, PARTING-OFF AND CHAMFERING

INSERT IS NOT INCLUDED

Item#	Fits Holder	HSS Blade Reference	Blade Height	Cutting Width	Overall Length	Use Insert
3900-5971	AXA-7	P2	1/2	.087&.093"	4-11/32	GTN/R/L 2
3900-5973	BXA-7	P3N	11/16	.087&.093"	4-11/32	GTN/R/L 2
3900-5975	BXA-7	P3, T3	11/16	.120"	4-11/32	GTN/R/L 3
3900-5977	CXA-7	P3W	3/4	.120"	4-11/32	GTN/R/L 3
3900-5979	CA-7	PSX	7/8	.120"	5-29/32	GTN/R/L 3
3900-5981	CA-7	PSN	7/8	.160"	5-29/32	GTN/R/L 4

See page 139 for inserts

## CUT-OFF BLADES, BEVELED



(Inch) Size(TxWxL)	HSS Item#	5% COBALT Item#
3/32 x 1/2 x 4-1/2	2000-1002	2000-1102
3/32 x 5/8 x 5	2000-1003	2000-1106
1/8 x 1/2 x 4-1/2	2000-1000	2000-1110
1/8 x 3/4 x 5	2000-1004	2000-1114
1/8 x 7/8 x 6	2000-1005	2000-1118

## 40-POSITION QUICK-CHANGE TOOL HOLDERS

All Holders are Interchangeable With Most of 40-Position Tool Post A, E & B



HOLDER A

Fit Post	HOLDER A - Cut-off		
	Item#	Fits Blade Width	Holder Length
A	3900-5391	0.41"	3.16"
E	3900-5327	0.63"	4.00"
B	3900-5332	0.63"	4.75"



HOLDER B

Fit Post	HOLDER B - Boring, Turning & Facing		
	Item#	Max. Holding Dia.	Holder Length
A	3900-5304	0.75"	3.54"
E	3900-5321	1.00"	4.00"
B	3900-5331	1.00"	5.00"

Fit Post	HOLDER D - Turning & Facing		
	Item#	Max Holding Height	Holder Length
A	3900-5305	0.75"	3.54"
E	3900-5322	0.75"	4.00"
B	3900-5335*	1.25"	5.50"

\*Limited Supply



HOLDER D

Fit Post	HOLDER S - Heavy-Duty Boring & Drilling		
	Item#	Holder Hole Dia.	Holder Length
E	3900-5323	1-5/8"	4.00"
B	3900-5336	1-5/8"	4.75"



HOLDER S

Fit Post	BUSHINGS For Holder S		
	Item#	Taper	Holder Hole Dia.
A	3900-5307*	MT1	1-3/16"
A	3900-5308*	MT2	1-3/16"
E	3900-5326	MT2	1-3/16"
E	3900-5324	MT3	1-5/8"
B	3900-5338*	MT3	1-5/8"
B	3900-5339*	MT4	1-5/8"



\*Limited Supply

# KNURLING TOOLS & KNURLS

## 3K REVOLVING HEAD KNURLING TOOLS

- Machined ground steel in shiny black finish.
- Knurls are hob cut from high speed steel and heat treated.
- Provided with one pair each of fine, medium and coarse knurls.
- Replacement knurls are offered as a complete spare set for knurling tools.



Item#	Holder size W x H x L	Knurl Dimensions Dia. x Thickness x Hole
2220-0008	1/2 x 1-1/8 x 6-1/2"	3/4 x 3/8 x 1/4"
2220-0010	5/8 x 1-3/8 x 7-1/2"	3/4 x 3/8 x 1/4"

## PIVOT HEAD KNURLING TOOL - Diamond

- Self-adjusting pivot head.
- Holder shank size: 4-1/2x1/2x1/2"
- Knurls Dimension:  
3/4(Diameter)x3/8(Thickness)x1/4" (Hole).
- Produces medium diamond pattern.



**VALUE**  
2226-0005

**HHIP**  
2220-0005

## SINGLE KNURLING TOOL

### Features:

- Supplied with medium cut high speed steel knurl.
- Each holder includes one medium pitch.
- Holder size 4 x 5/8 x 5/8.
- Straight (AA) pattern knurl.



**Knurl Size:**  
3/4x1/4x1/4"  
2220-0004

## HSS KNURLING WHEELS

- High speed steel.
- Dimension: 3/4 (O.D.)x3/8 (Width)x1/4" (Hole)

**SOLD AND SUPPLIED IN PAIRS**



Pitch	Lines (Inch)	Diamond Item#	Straight Item#
Coarse	14	2220-0014	2220-0214
Medium	21	2220-0016	2220-0216
Fine	33	2220-0018	2220-0218

## HSS KNURLING WHEEL 4 PAIR KIT

- High speed steel.
- Wheel Dimension:  
3/4 (Diameter)x3/8 (Thickness)x1/4" (Hole)
- **Kit Includes:**  
1 Pair of Diamond Coarse (14 Lines/Inch),  
Diamond Medium (21 Lines/Inch),  
Diamond Fine (33 Lines/Inch)  
& Straight Medium (21 Lines/Inch)



**4 PAIR KIT (8pcs)**  
2220-0030

## QUICK ACTING KNURLING TOOLS

**NEW**

- Fast set up knurling tool.
- Minimizes pressure on lathes
- Depth of knurling impression can be preset for production work.
- Finished with one set of medium diamond pattern knurls 3/4" x 3/8" x 1/4" (19 x 9.5 x 6.35)



Item#	Length	Shank H x W	Knurl Dimensions	Capacity
2220-0022	6"	1/2 x 5/8"	3/4x3/8x1/4"	1/16-2-1/4"
2220-0024	8-1/4"	5/8 x 3/4"	3/4x3/8x1/4"	1-1/2-4-1/2"

## SELF ADJUSTING KNURLING TOOLS

**NEW**

- Machined ground steel in shiny black finish.
- Knurls are hob cut from high speed steel and heat treated.
- Provided with one pair of medium knurls.
- Replacement knurls are offered as a complete spare set for knurling tools.



Item#	Holder size W x H x L	Knurl Dimensions Dia. x Thickness x Hole
2220-0027	1/2 x 1-1/8 x 6-1/2"	3/4 x 3/8 x 1/4"
2220-0029	5/8 x 1-3/8 x 7-1/2"	3/4 x 3/8 x 1/4"



## MORSE TAPER TAILSTOCK TURRETS

- Taper: Morse Taper.
- Fill tool socket with 5/8" diameter.
- Head Diameter: 2-1/2".
- Will save time quick change machining operation within seconds.



Item#	Taper	Drawbar End
3900-4910	MT 2	3/8"~16
3900-4909	MT 3	3/8"~16

## MT TO JT REVOLVING TAILSTOCK ARBORS/ADAPTERS

- This is a "live" drill chuck adapter with smooth, sealed bearing for the tailstock.
- Use it to mate with a JT drill chuck and support small diameter work where a live center is not practical.
- The shank is 2 or 3 Morse taper.



Item#	Taper	Drawbar Thread
3906-4922	MT 2 x JT2	M10
3906-4925	MT2 x JT3	M10
3901-4910	MT2 x JT33	M10
3906-4928	MT3 x JT2	M12
3906-4932	MT3 x JT3	M12

## REVOLVING TAILSTOCK BACKPLATES For Lathe Chucks

- Used for calibrate or support workpiece during processing.
- Three ball bearings for heavy duty load and relatively high speed.
- 3 hole chuck mounting pattern is pre-drilled.



LATHE CHUCK OPTIONAL

Item#	Shank Taper	A	B	(mm) C	D	E	Max Load (lbs)	T.I.R. (Inch)	Speed RPM
3900-6022	MT2	17.78	80	64	55	66	1100	.0002	4000
3900-6021	MT2	17.78	100	64	72	84	1100	.0002	2500
3900-6023	MT3	23.83	80	81	55	66	1760	.0002	4000
3900-6026	MT3	23.83	100	81	72	84	1760	.0002	2500
3900-6024	MT4	31.27	100	103	72	84	2200	.0002	4000
3900-6025	MT5	44.40	125	130	95	108	3300	.0004	3500
3900-6030	MT4	31.27	125	103	95	108	2200	.0004	4000
3900-6031	MT5	44.40	160	130	130	142	3300	.0004	3500

## 2MT MORSE TAPER SHANK 3 & 4-JAW SELF-CENTERING CHUCKS

- Steel body-hardened and ground scroll and pinions
- Hardened and ground MT spindle
- Supplied with chuck wrench.
- 3/8-16 threaded drawbar.
- 2 MT shank.
- T.I.R. 0.0006".

3", 3 JAW  
3900-4706

3", 4 JAW  
3900-4707

2 SETS OF SOLID STEEL JAWS  
(INTERNAL AND EXTERNAL)

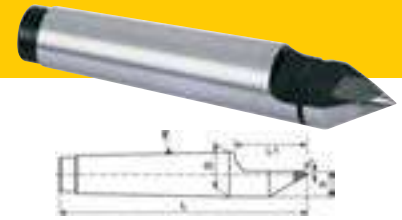
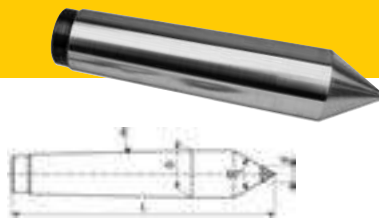
3900-4706 SHOWN



## DEAD CENTERS -Full, Half, Steel Or With Carbide Tip

- Made of tool steel, hardened and ground.
- +/- .0002" TIR

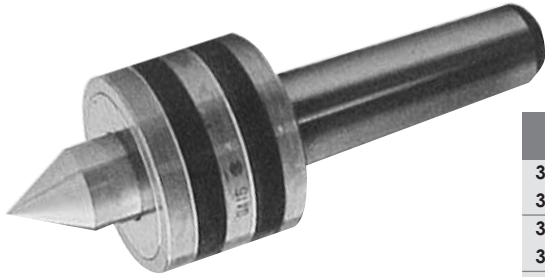
Carbide Tip Shown



Morse Taper	(mm)							Full Point		Half Point	
	h1	h	d	D	L1	L	Accuracy	Steel Item#	Carbide Tipped Item#	Steel Item#	Carbide Tipped Item#
1 MT	1.5	5.5	8	12.065	35	80	0.01	3900-5051	3900-5056	3900-6051	3900-6056
2 MT	2	6	8	17.78	43	100	0.01	3900-5062	3900-5057	3900-6052	3900-6057
3 MT	3	9	12	23.825	57	125	0.01	3900-5063	3900-5058	3900-6053	3900-6058
4 MT	5	12.5	15	31.267	70	160	0.01	3900-5064	3900-5059	3900-6054	3900-6059
5 MT	7	16	18	44.399	90	200	0.01	3900-5065	3900-5060	3900-6055	3900-6060

## ECONOMY LIVE CENTERS

- Central spindle is made of hardened alloy steel and ground for high accuracy.
- Precision high quality bearings, combination of ball bearing and thrust bearing.
- Dustproof seal on the front end.



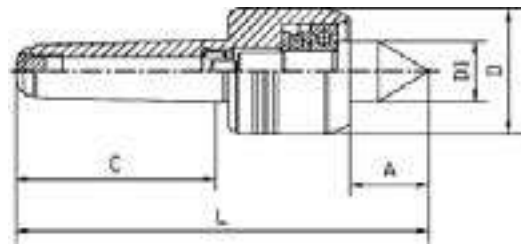
Item#	Morse Taper	d	D	(Inch) D1	L1	OAL	Accuracy Load	Radial Load (N)	Max. RPM
3900-5001	1	.71	1.3	.475	.79	4.33	.0004	900	4000
3900-5002	2	.98	1.8	.700	1.02	5.71	.0004	1500	3500
3900-5003	3	1.10	2.1	.938	1.18	6.69	.0004	2000	3000
3900-5004	4	1.26	2.4	1.231	1.37	8.10	.0004	3200	2500
3900-5005	5	1.77	3.0	1.748	1.77	10.0	.0006	6300	2000
3900-5006	6	2.95	4.9	2.494	2.70	14.25	.0006	10000	1200

## MEDIUM DUTY LIVE CENTERS

- With 60° included angle.
- Made of hardened steel and ground to high accuracy.
- The central spindle lengthened to reduce vibration.
- Two special designed high-quality ball bearing and thrust bearings.
- Complete protection of bearings from the ingress of coolant, dirt or swart.
- Slim body design.



CONCENTRICITY WITHIN .0002"

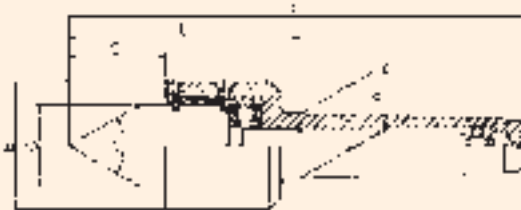


Item#	Morse Taper	d1	D	(Inch) A	C	L	Load Rate lbs.	Max. RPM
3900-5029	2	0.86	1.65	1.12	4.58	5.70	330	3500
3900-5030	3	0.90	1.86	1.12	5.73	6.85	660	3000
3900-5040	4	1.02	2.17	1.25	6.95	8.20	990	2500
3900-5041	5	1.38	2.70	1.90	8.60	10.50	1760	2000

## SUPER DUTY HIGH PERFORMANCE LIVE CENTERS

- Combination of needle roller, thrust ball and deep groove ball bearings.
- Central spindle is made of hardened alloy steel and ground.
- Oil filler in the head for maintain the internal bearings to extend the life time.

CONCENTRICITY WITHIN .0002"

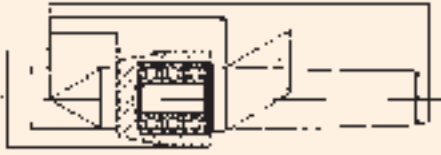


Item#	Morse Taper	A	B	(mm) C	D	E	F	Load Rate lbs.	Max. RPM
3900-6074	2	17.78	36	22	26	68.5	126	660	5500
3900-6075	3	23.83	47	30	35	93.0	166	880	4500
3900-6076	4	31.27	55	35	40	104.0	197	2640	4000
3900-6078	5	44.40	70	45	51	134.5	246	4400	3000

## SMALL HEAD LIVE CENTERS - REVOLVING BODY STYLE

- Revolving body turn vs common head turns.
- The center adopts the combinatin of deep groove ball bearings.
- Small head can be used in different processing demands.

- Applicable to medium high speed light load applications.
- The head is made of alloy steel and hardened to HRC 58-62
- Dustproof sealed.



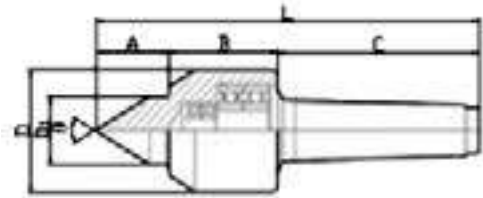
CONCENTRICITY WITHIN .0002"

Item#	Morse Taper	A	B	(mm) C	D	E	F	Radial Load (lbs.)	Max. RPM
3900-6101	1	12.07	32	16	21	54.5	108	88	4000
3900-6102	2	17.78	40	22	26	68	132	264	3500
3900-6103	3	23.83	45	26	32	83	164	550	3000
3900-6104	4	31.27	48	30	34	93.5	188	770	2500
3900-6105	5	44.40	68	45	50	118.5	248	1100	2000

## LIVE CENTERS - REVOLVING BODY STYLE

- One piece central spindle and revolving body is made of hardened alloy steel and ground for high accuracy.
- Precision high quality bearings, combination of ball bearing and thrust bearing.
- Dustproof sealed.

CONCENTRICITY WITHIN .0002"



Item#	Morse Taper	A	B	(mm) C	D	D1	L	Accuracy Load	Radial Load (lbs.)	Max. RPM
3900-6093	3	33	56	88	53	28	177	.0002"	700	6000
3900-6094	4	40	60	108	63	35	211	.0002"	1200	5000
3900-6095	5	50	62	138	73	45	250	.0003"	1800	3000

## ULTRA PRECISION HEAVY DUTY LIVE CENTERS

- Triple bearing design.
- Machined from one piece of forging, hardened and precisely ground.
- Accuracy: less or equal .0002" TIR.
- Ultra precision radial bearing reduces run out to minimum after much use.



CONCENTRICITY WITHIN .0002"



Item#	Morse Taper	A	B	(mm) C	D	D1	L	Load Rate lbs.	Max. RPM
3900-6082	2	31	48	69	46	20	147	770	6300
3900-6083	3	39	55	86	53	30	180	1200	5000
3900-6084	4	42	62	108	63	32	208	1760	3800
3900-6085	5	49	71	136	83	40	256	4400	3000



# LIVE CENTERS

## 7PC MULTI-SHAPE LIVE CENTER SETS

- Made of high grade tool steel hardened and ground.
- Precision needle bearings used for high accuracy with long life.
- Accuracy guaranteed to 0.0012~0.0039" at center head.
- Less heat is generated due to spring plate used.
- Complete with fitted case.

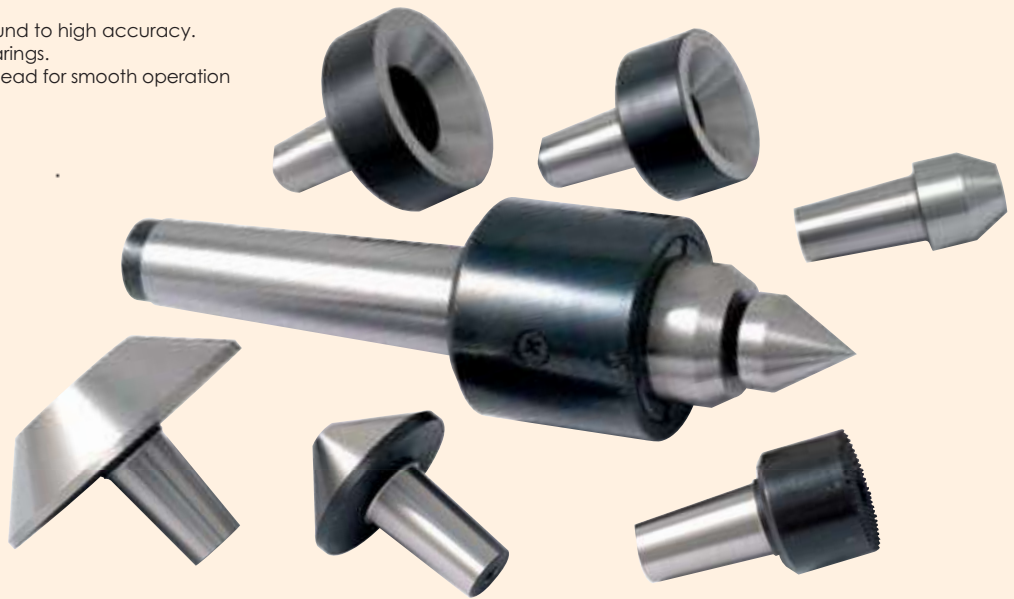
Item#	Morse Taper	Thrust Load lbs.	Origin
3906-5019	MT1	330	India
3906-5020	MT2	330	India
3900-5021	MT3	900	China
3900-5022	MT4	1200	China
3900-5023	MT5	1600	China



**SET INCLUDES:**  
MORSE TAPER LIVE CENTER,  
7 INTERCHANGEABLE TIPS, WRENCH

## INTERCHANGEABLE POINT LIVE CENTER KITS

- Used for CNC machines.
- Fine adjustment for better grip.
- Made of hardened tool steel and ground to high accuracy.
- Two special designed high-quality bearings.
- Can be lubricated through a hole on head for smooth operation and longer bearings life.
- Heat treated to HRC 60.



**KIT INCLUDES**

- Live Center Body
- 3 of Bull Nose Point
- 2 of Cone Shape Point
- 1 Serrated Point
- 1 Wrench Tool

Item#	Morse Taper	(mm)							Load Rate kg	RPM	Accuracy
		A	B	C	D	E	F	G			
3900-5052	2	17.780	36	22	10.5	68.5	110	10	300	5500	0.01
3900-5053	3	23.825	47	30	15	93	145	15	400	4500	0.01
3900-5054	4	31.267	55	35	16	104	172	20	1200	4000	0.01
3900-5055	5	44.399	70	45	20	134.5	216	25	2000	3000	0.02

**POINT DIMENSIONS:**

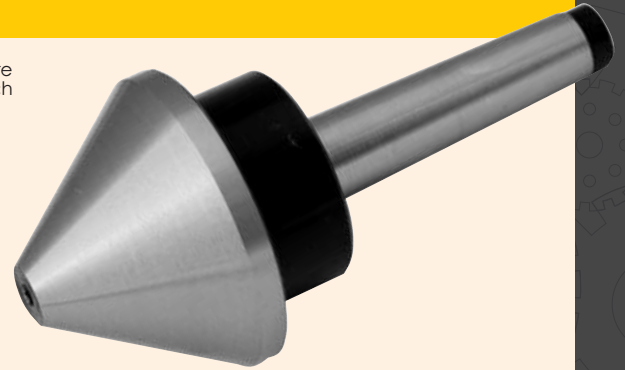


**Unit: Inch**

Morse Taper	A			B			C			D			E			F			G						
	d	l	L	D	D1	L	D	D1	L	D	D1	D2	L	D	D1	D2	L	D	D1	L					
2	.380	.630	1.51	.60	--	1.51	1.13	.201	1.38	1.73	0.80	1.40	1.12	0.77	.22	1.40	1.52	1.10	.55	1.39	.59	.06	1.38	.88	1.38
3	.590	.984	1.97	.79	.019	1.97	1.42	.236	1.77	2.48	1.30	1.77	1.42	1.10	.47	1.77	1.77	1.50	.87	1.77	.79	.10	1.77	.98	1.77
4	.784	1.181	2.36	.98	.019	2.36	1.77	.393	2.09	2.76	1.38	2.09	1.77	1.46	.67	2.09	2.48	2.09	1.18	2.09	.98	.20	2.09	1.26	2.09
5	.984	1.496	2.87	1.26	.039	2.87	2.20	.551	2.56	3.15	1.50	2.56	2.20	1.73	.79	2.56	2.78	2.36	1.42	2.56	1.26	.20	2.56	1.77	2.56

## HEAVY DUTY BULL NOSE LIVE CENTERS

- Bull nose live centers are typically used in applications where the center hole is a large bore or when the application calls for the machining of pipe or other cylindrical components such as hydraulic cylinders, manufacturers of power generation components, and pipe manufacturers.
- Bull nose live centers are constructed with larger bearings to carry these heavy loads.
- The strength and alignment of the fully supported bull nose head provides longer center life.
- The rigidity of this live center helps dampen vibration and resist chatter.



Item#	Morse Taper	A	D	(Inch) B	$\alpha$	L	Load Rate Lbs.	Drawbar Threads
3900-5010	MT2	0.50	2.49	1.42	70°	5.37	440	3/8-16
3900-5011	MT3	0.75	3.10	1.66	70°	6.75	440	3/8-16
3900-5015	MT3	1.25	4.00	2.06	75°	7.15	880	3/8-16
3900-5008	MT3	1.25	5.00	2.40	75°	7.65	880	3/8-16
3900-5009*	MT3	1.38	6.00	4.06	75°	7.24	1320	3/8-16
3900-5014	MT4	1.25	4.00	2.06	75°	8.11	1760	5/8-11
3900-5012	MT4	1.37	5.05	2.45	75°	7.60	1760	5/8-11
3900-4998	MT4	1.38	6.00	4.11	75°	8.15	1760	5/8-11
3900-4999	MT4	1.57	8.00	4.82	75°	8.86	3520	5/8-11
3900-5016	MT5	1.26	4.75	2.40	75°	9.09	3000	3/4-16
3900-5013	MT5	1.38	6.00	3.20	75°	8.75	3000	3/4-16
3900-5017	MT5	1.57	8.00	4.84	75°	9.92	3000	3/4-16
3900-5018	MT5	2.24	10.00	5.96	75°	10.00	2640	3/4-16
3900-5019	MT6	1.57	8.00	4.25	75°	12.60	3500	1-8

\*Limited Supply

## Pro-Series HIGH SPEED CNC LIVE CENTERS

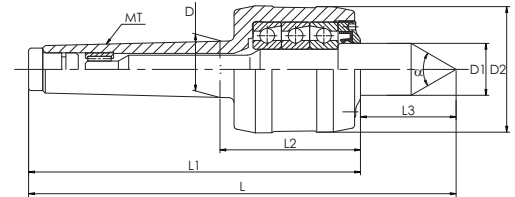


HHIP  
PRO-SERIES

- With 60° included angle.
- Designed for high speed on N/C lathe
- Point is high-carbon alloy steel and heat treated.
- Bearings permanently lubricated
- Body is hardened for extra strength and extra rigidity

Limited Supply!

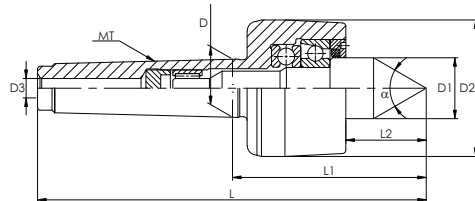
8,000RPM  
≤ .0002" TIR



Item#	Morse Taper	D	D1	D2	(Inch) $\alpha$	L	L1	L2	L3	Max. RPM	Weight lbs
3901-7002	2	0.700	0.71	1.7	60°	5.5	4.5	1.91	0.96	8000	1.9
3901-7003	3	0.938	0.87	2.1	60°	7.1	5.5	2.34	1.59	8000	2.9

## Pro-Series MEDIUM-DUTY CNC LIVE CENTERS

- With 60° included angle.
- Designed for long life, medium duty on N/C lathe.
- Point is high-carbon alloy steel and heat treated.
- Bearings permanently lubricated.
- Body is hardened for extra strength and extra rigidity.



Limited Supply!

Item#	Morse Taper	D	D1	D2	(mm) $\alpha$	L	L1	L2	Max. RPM	Load Rate Lbs.	Weight Lbs.
3901-7013	3	23.83	24.8	56	60°	171	91	45	4000	660	2.2
3901-7015	5	44.40	40.7	83	60°	265	135	73	2500	3300	8.8

≤ .0003" TIR

HHIP  
PRO-SERIES

# LIVE CENTERS

## PRECISION EXTENDED POINT LIVE CENTERS

- Suitable for medium/high speed application
- Ball bearing construction

- Made of alloy steel and hardened to 58-62 RC
- Dustproof seal on the front end to prevent the entry of cutting fluid and dust



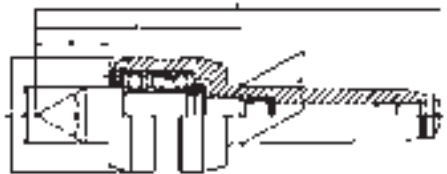
≤ .0002" TIR

Item#	Morse Taper	Nose Length	OAL	Max. RPM	Load Rate (Lbs)
3900-5024	2	1.16"	6.14"	5000	260
3900-5025	3	1.25"	7.25"	4000	660
3900-5026	4	1.44"	8.45"	3500	1100
3900-5027	5	1.78"	10.35"	2500	2200

## HIGH SPEED CNC LIVE CENTERS

- With 60° included angle.
- Made of hardened tool steel and precision ground.
- Two special designed high-quality bearings.
- Complete protection of bearings from the ingress of coolant, dirt or swarf.
- Spindle heat treated to HRC 60.

≤ .0002" TIR



Morse Taper	Max. RPM	Load Rate Lbs.	Item#	Type A Nose Length	OAL	Item#	Type B Nose Length	OAL
3	6000	550	3900-5037	1.16"	6.5"	3900-5047	1.75"	7.3"
4	5000	880	3900-5038	1.48"	8.2"	3900-5048	2.00"	9.0"
5	4000	1760	3900-5039	1.81"	10.0"	3900-5049	2.50"	10.8"

## Pro-Series HIGH SPEED CNC LIVE CENTERS

- With 60° included angle.
- Designed for long life, high speed on N/C lathe
- Point is high-carbon alloy steel and heat treated.

- Bearings permanently lubricated
- Body is hardened for extra strength and extra rigidity

≤ .0002" TIR

HIP PRO-SERIES

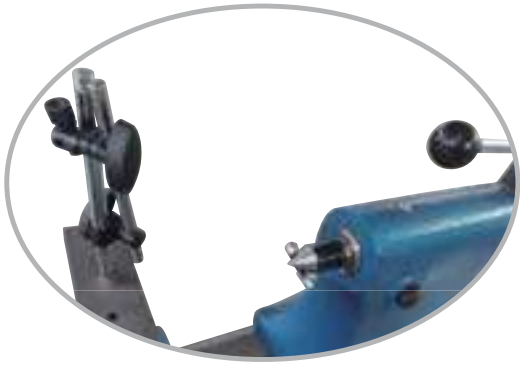


MADE IN TAIWAN

Item#	Morse Taper	Type	A	B	C	D	(Inch) D1	b	OAL	d1	Load Rate lbs.	Max. RPM	Weight lbs
3900-5033	3	A	1.54	2.17	3.39	2.09	1.18	---	7.09	0.47	200	4000	2.8
3900-5034	4	A	1.65	2.44	4.25	2.48	1.26	---	8.35	0.47	360	3000	4.8
3900-5035	5	A	2.24	2.80	5.35	3.27	1.57	---	10.40	0.71	800	2500	9.5
3900-5043	3	B	1.77	2.17	3.39	2.09	1.18	0.393	7.32	0.47	200	4000	2.8
3900-5044	4	B	2.05	2.44	4.25	2.48	1.26	0.472	8.74	0.47	360	3000	4.8
3900-5045	5	B	2.64	2.80	5.35	3.27	1.57	0.551	10.79	0.71	800	2500	9.7

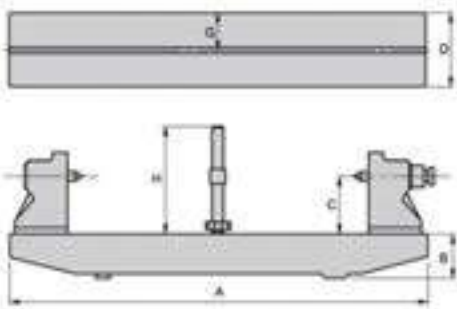
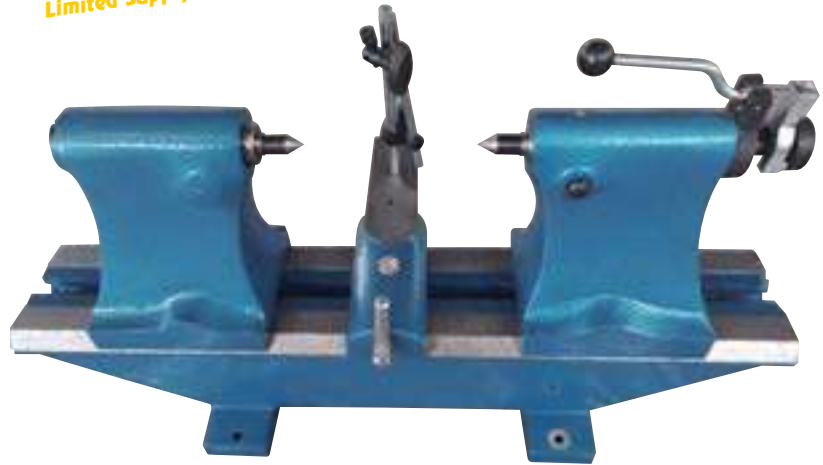


## HEAVY-DUTY PRECISION BENCH CENTERS



- Centers are hardened and precision ground.
- Quick-release centers.
- Hand scraped ways, adjustable gibbs.
- MT2 dead center.
- Heavy duty adjustable indicator holder included and accepts most of AGD indicators.
- Head stock can be adjusted lengthwise and locked securely with special lever type handle.

Limited Supply!

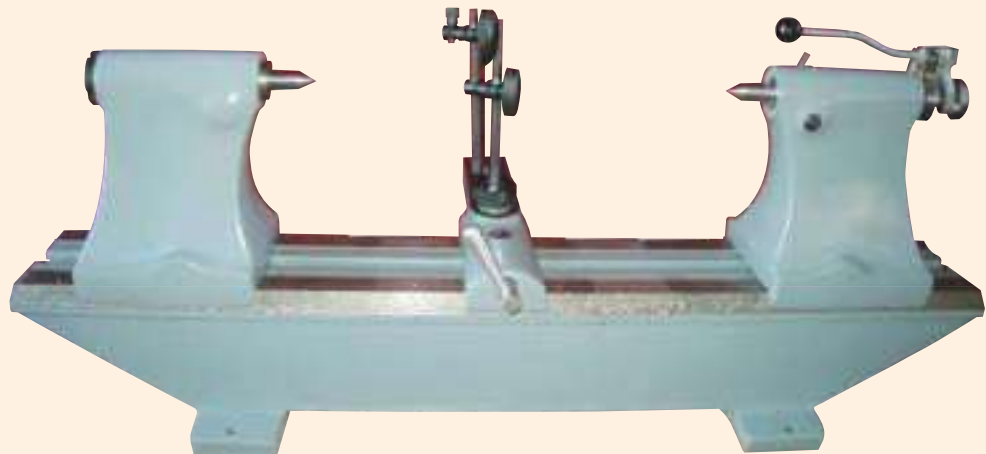
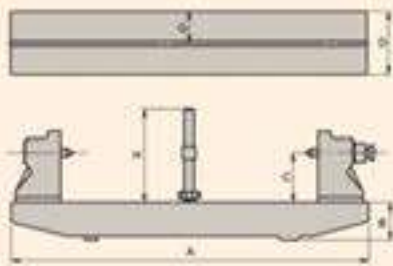


Item#	OAL A	Center to Center	Max. Swing C	B	D	G	H	Accuracy Run-out	Weight (Lbs.)
4401-0069	21	7.78"	3.9"	4.33"	4.33"	2.16	8.7"	0.0002"	78
4401-0072	29	11.8"	6.7"	6.1"	5.51"	2.80"	8.7"	0.0002"	125

## HEAVY-DUTY PRECISION BENCH CENTERS

- Centers are hardened and precision ground.
- Quick-release centers.
- Hand scraped ways, adjustable gibbs.
- MT2 live center.
- Heavy duty adjustable indicator holder included.
- Indicator holder included and accepts most of AGD indicators.
- Head stock can be adjusted lengthwise and locked securely with special lever type handle.

23.5"  
(Center to Center)  
4401-0024



Item#	OAL A	Center to Center	Max. Swing C	B	D	G	H	Accuracy Run-out	Weight (Lbs.)
4401-0023	36"	19"	5.25"	6.3"	5.5"	2.76"	7.9"	0.00015"	240
4401-0024	40"	23.5"	5.25"	6.3"	5.5"	2.76"	7.9"	0.00015"	440
4401-0025	56"	39"	8.50"	6.3"	5.5"	2.76"	7.9"	0.00018"	620

# CONCENTRICITY CHECKERS

## Pro-Series PRECISION CONCENTRICITY CHECKER



- Suitable for measuring concentricity, roundness and deviation with high accuracy.
- Metal base can be easily attached a magnetic base
- Measuring Range: 0.059~0.980"/1.5~25 mm diameter.
- Device Dimension: 10.5 L x 4.5 W x 5" H.
- Accuracy: 0.00008"/ 0.002mm.
- Max. length to hold a parts: 4"

4401-1001

MADE IN  
TAIWAN



MINI UNIVERSAL MAG BASE  
W/FINE ADJUSTMENT



Accuracy: 0.00008"/ 0.002mm.

**.0005 GRADUATION**  
0-0.03" RANGE TEST INDICATOR

Base & Indicator Kit  
**4400-0027**

With Fitted Case



SHOWN WITH OPTIONAL KIT

## LARGER CAPACITY UNIVERSAL CONCENTRICITY GAGE/CHECKER

**NEW**

- Concentricity Gage allows you to measure the runout of parts internal and external.
- Diameter Capacity: 0.394~1.969"(10~50 mm)
- Length Capacity: 6"
- Device Dimension: 360 (length) X 150 (width) X 151mm (height)
- Accuracy: 0.00012"/ 0.003mm.
- Directional Drive Hand Wheel pushes the parts into the stop for accurate repeatable readings with equal pressure.
- Two position wheels made from solid steel

- Precision Drive Wheel has a perfect ratio to push the parts down.
- Ultra high precision ball bearings provide friction free movement.
- Heavy duty base mounted fine adjustable sliding test indicator holder. Will accept test indicator with dovetail slot.
- Adjustable mechanical arm stop holds the arm up for one handed operation.
- Two master setting pins included: 10 & 50mm diameter

Accuracy: 0.00012"/ 0.003mm

4401-1011



**.0005 GRADUATION**  
0-0.03" Range Test Indicator  
**4400-0010**

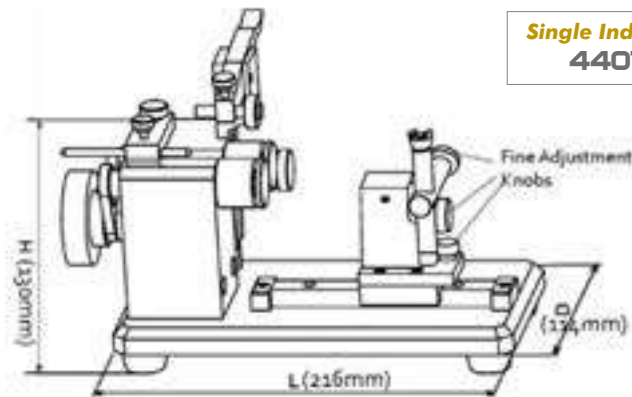
## UNIVERSAL CONCENTRICITY GAGE/CHECKERS

### SINGLE INDICATOR HOLDER



- Concentricity Gage allows you to measure the runout of parts internal and external.
- Diameter Capacity: 0.157-0.980"(4-25 mm)
- Length Capacity: 4"
- Device Dimension: 216 (length) X114 (width) X 130mm (height)
- Weight: 10.90 lbs.
- Accuracy: 0.00012"/ 0.003mm.
- Directional Drive Hand Wheel pushes the parts into the stop for accurate repeatable readings with equal pressure.
- Two position wheels made from solid steel
- Precision Drive Wheel has a perfect ratio to push the parts down.
- Ultra high precision ball bearings provide friction free movement.
- Heavy duty base mounted fine adjustable sliding test indicator holder. Will accept test indicator with dovetail slot.
- Adjustable mechanical arm stop holds the arm up for one handed operation.
- Two master setting pins included: 4 & 10mm diameter

**Accuracy: 0.00012"/ 0.003mm.**



**Single Indicator Holder  
4401-1006**



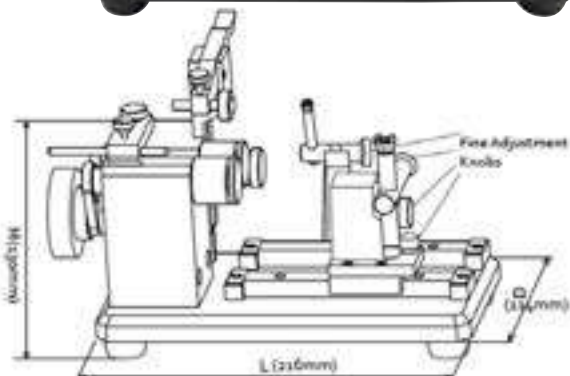
SHOWN WITH OPTIONAL INDICATOR(not included)



### DOUBLE INDICATOR HOLDER



**Double Indicator Holder  
4401-1008**



**.0005 GRADUATION  
0-0.03" Range Test Indicator  
4400-0010**





# PUNCH FORMERS & GRINDERS

MACHINE TOOL ACCESSORIES

## Pro-Series 2-WAY ULTRA PRECISION PUNCH FORMER

- FINE-TUNING function punch former has stronger compact structure for longer durability.
- Vertical & horizontal adjustment function is particularly suitable for oval punch grinding.
- V-block clamping can accurately stabilize workpiece and vertical fine-tuning can make setting center easy
- High precision double bearings help achieve higher accuracy, rigidity and stability
- Stopper design in position slot allows for easy & precisely stabilization for polygonal punches
- Dust-proof and water resistance

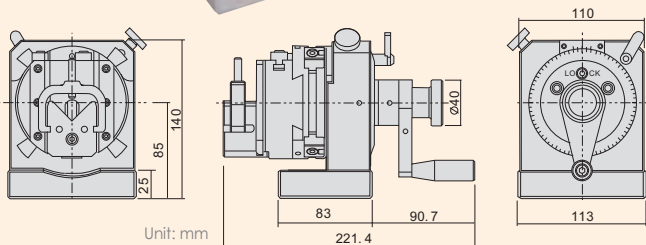
**3800-5007**

**MADE IN TAIWAN**

Punch Forming Applications



**HHIP PRO-SERIES**



### SPECIFICATIONS

Center Height .....	3.35 +/- 0.02", 85 +/- 0.5mm
Clamping Dia. Range of V-block.....	0.12~1.18"/ 3~ 30mm
Travel of V-block.....	1.77"/ 45mm
Slide plate horizontal Movement.....	+/- 0.71"/18mm
Indexer Number of tooth & Accuracy.....	24, 15 deg. +/-10"
Clamping Accuracy (50mm).....	0.0002"/ 0.005mm

## ER COLLET PUNCH FORMER

- Clamps workpiece quickly and steadily when processing.
- Clamping diameter: .0787~.787".
- Utilized with ER32 spring collet.

**3800-6808**



**INCLUDES: 7PC ER-32 COLLET SET:**  
1/8, 1/4, 5/16, 3/8, 1/2, 5/8, 3/4

## Pro-Series PRECISION PUNCH GRINDER

- Can be used on the surface of grinding machine for round punches (0.12" ~ 1.18" dia.).
- Punches can be ground by putting among three rollers of punch grinder without checking the center.
- Accuracy of Roller (Turning Right or Left): 0.0002"
- Accuracy of Point A (Turning): 0.000197"
- Accuracy of Point B (Turning): 0.00031"

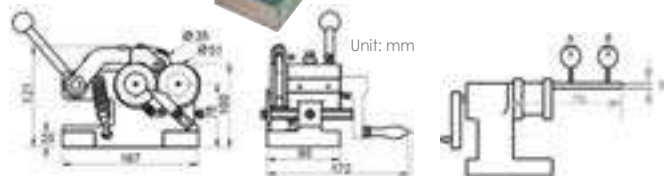
**HHIP PRO-SERIES**

**3600-0037**

**MADE IN TAIWAN**



**0.12~1.18" DIA. CAPACITY**



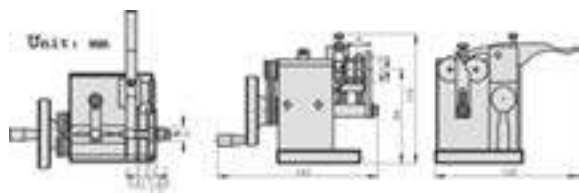
## Pro-Series PRECISION SMALL PUNCH GRINDER

- Punch grinder can be placed on the bed of surface grinder for automatic precision cylindrical grinding.
- Punch grinder rollers are used to adjust the workpiece before grinding.
- Workpiece is turned with a crank handle.

### SPECIFICATIONS

Accuracy of the rollers:.....	within 0.0002"
Diameter of punches can be ground:.....	0.020~0.236"/0.5~6.0mm
Net Weight:.....	6 lbs.

**0.020~0.236" DIA. CAPACITY**



**HHIP PRO-SERIES**

**3800-5150**

**MADE IN TAIWAN**

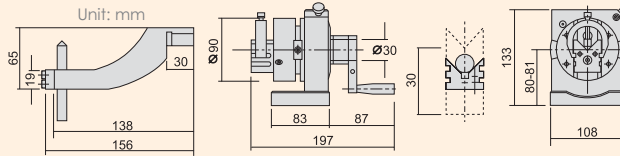


# PUNCH FORMERS & RADIUS DRESSERS

## Pro-Series PUNCH FORMER & RADIUS DRESSER

- For concave and convex radius.
- Hardened tool steel construction.

**3600-0371**



**HHIP PRO-SERIES**

### SPECIFICATIONS

Max. dia. workpiece.....	1-1/4"
V-block.....	1-3/16"
Tangential travel (either side of center).....	25/32"
V-block adjusting system.....	rack & pinion
Center height.....	3-1/2"
Indexing div.....	24 every 15L ±10 seconds
Roundness.....	0.0001"
Parallelism.....	within .0001" in 4"
Squareness.....	within .0002" in 4"
Graduation.....	.360°
Max. Convex/Concave.....	1.89/3.94"
Min. Convex/Concave.....	.0012

### Punch forming applications



### Grinding wheel dressing application



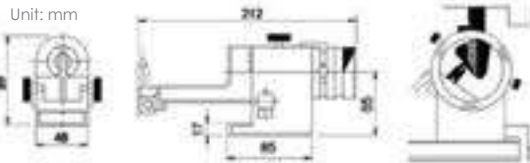
**MADE IN TAIWAN**



REPLACEMENT DIAMOND ON PAGE 319

## Pro-Series VISI - DRESS RADIUS AND ANGLE DRESSER

- 1° Vernier markings for dressing angles.
- Magnification through hole in the spindle, makes it possible to see how to dress the form on the grinding wheel.
- Dresser is tested and guaranteed for accuracy.



**3900-0060**

**HHIP PRO-SERIES**

### SPECIFICATIONS

Overall Height.....	4"
Length.....	8-1/4"
Swing Arm.....	180°
Max. Size Grinding Wheel.....	8"
Max. Outside Radius (on wheel approx.).....	5/8"
Max. Inside Radius (on wheel approx.).....	1"
Spindle.....	1" O.D.
Weight.....	11 lbs



REPLACEMENT DIAMOND ON PAGE 319



**MADE IN TAIWAN**

## Pro-Series UNIVERSAL WHEEL DRESSER

### GRINDING WHEEL APPLICATIONS



- Adaptable on surface grinding machine and universal tool grinder for dressing grinding wheels into various shapes.
- Extremely accurate.

### HOW TO CALCULATE

$H = L = "0" R$   
 H - Distance between two locating pins (as picture shows)  
 R - Radius of arc surface to be dressed  
 L - Distance from tip of diamond to base plate

To dress convex arc surface:  $H=L+R$   
 To dress concave arc surface:  $H=L-R$

### SPECIFICATIONS

Center Height: .....	7.68"/195mm
Pin Diameter:.....	0.394"/10mm
Max. Swing Distance of Diamond Dresser:.....	±0.55"/14mm
Max. Wheel Diameter:.....	7.87"/200mm
Reading Accuracy of Turret Index: .....	.5'
Max. Translation of Feed:.....	0.98"/25mm
Feed Graduations of Handle Scale:.....	0.0003"/0.01mm

**MADE IN TAIWAN**

**HHIP PRO-SERIES**

**3800-5210**

REPLACEMENT DIAMOND ON PAGE 319



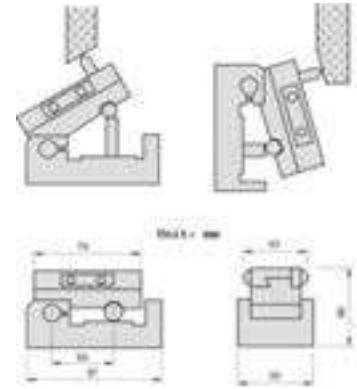
# RADIUS & ANGLE DRESSERS

## Pro-Series PRECISION SINE DRESSER

- Combination sine system and crossfeed for dressing grinding wheels at precise angles.



**3800-5240**  
Weight: 3.5 lbs.



SPECIFICATIONS	
Range of Angles:	0~60°
Distance of Rolls Center to Center:	2"
Accuracy:	within 0.0002"
Net Weight:	3.5 lbs.

USE 3/8" DIAMOND DRESSER (not included)  
REPLACEMENT DIAMOND ON PAGE 319

## Pro-Series RADIUS AND ANGLE DRESSER

### GRINDING WHEEL APPLICATIONS



**3800-5227**  
Weight: 26 lbs.

MADE IN TAIWAN



REPLACEMENT DIAMOND ON PAGE 319

- Positive setting of the diamond to absolute center with the special gauge included with the dresser.
- Simple, fast, accurate radius setting; no height gauge or other set-up aids required. Radius is set on the grinder by measuring over the two pins or by inserting a gauge 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.
- 4x90° graduation in full 360° circle. 6 minute vernier reading.
- One push-pull type knob for radius and angle control and for safer and faster operations.
- ACCURACY, extremely close tolerances are held in the manufacturing of this tool, assured by hardening and precision grinding of all critical parts. Ways are chrome hardened.
- ECONOMY, set-up & dressing time reduced to a bare minimum due to simplicity.

SPECIFICATIONS	
Max. Diameter of Wheel:	10"
Convex Range:	0.8R~40R
Concave Range:	0~40R
Max. Wheel Extending Diameter:	14.8"
Overall Length:	13"
Overall Height:	6.3"
Net Weight (lbs.):	26

## Pro-Series RADIUS AND ANGLE DRESSER

- Perfect for outside, inside diameter and surface grinding operations.
- Extreme accuracy and versatility is assured with dual purpose knob for radii and angular movements.
- Unique design features a fast, easy and accurate radius setting with included setting gauge.
- Stop feature available for concave and convex radii.
- Lapped moving parts and adjustable gibs take up future wear.

### GRINDING WHEEL APPLICATIONS

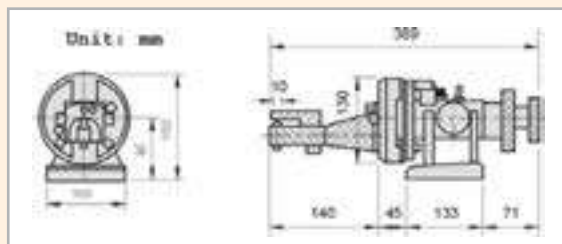


MADE IN TAIWAN

**3800-5225**  
Weight: 27 lbs.



REPLACEMENT DIAMOND ON PAGE 319



SPECIFICATIONS	
Max. Diameter of Wheel:	12"
Convex Radii:	0~2.36"
Concave Radii:	0~5.90"
Tangent Travel Either Side of Center:	1.95"
Center Line of Dresser:	3.40"
Resolution of Vernier Reading:	6'
Overall Length:	15.30"
Overall Height:	5.90"
Net Weight (lbs.):	27

MAX. VARIATION	
Face Plate to Dresser Arm	
Squareness (per 2')	0.0005"
Face Plate to Base	
Squareness:	0.0006"
Center Runout of Dovetail	
Groove to Wheel Center:	0.0006"



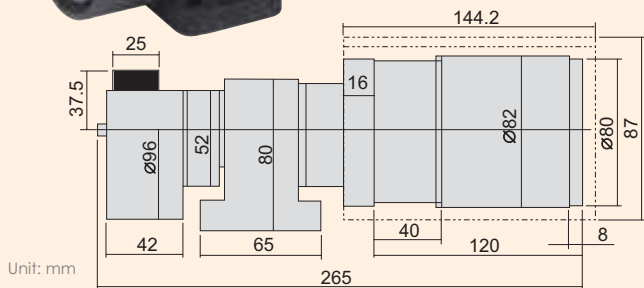
## Pro-Series MOTORIZED BRAKE TRUING DRESSER

### How To:

- Mount the device with its wheel spindle parallel to the spindle of the straight wheel being trued. For cylinder or cup wheels, mount perpendicular to their spindle. The correct wheel specification is determined by the grit size and bond type of the diamond wheel being trued.
- Bring the diamond wheel and the truing wheel together until they almost touch. Turn on the diamond wheel (at normal grinding speed). At the point of contact, bring the two wheels together until they just touch. Be sure that the truing wheel is turning in the same direction as the diamond wheel. Switch on the Power Dresser.
- The Power Dresser device is always used dry. Traverse the Power Dresser back and forth at 30 to 60 inches per minute. Downfeed .0005" to .001" at the end of each traverse. The truing wheel should run off the diamond wheel after each traverse to avoid chipping the edges of the diamond wheel. During the last few passes, reduce the downfeed to .00025" per pass.
- When using the Power Dresser truing device, the only movement between the two wheels is traverse. Do not operate the work table on a rotary or reciprocating table traverse surface grinder.
- When the truing operation has been completed, there will be a smooth, continuous contact and firing throughout each traverse stroke. Visual inspection of the diamond section will show an even appearance around the wheel. A reading with a dial indicator will show no runout.
- **THIS MOTORIZED POWER DRESSER IS DESIGNED FOR THE USE OF TRUING THE PERIPHERY AND THE FACE OF LARGER DIAMOND, CBN AND SUPERABRASIVE WHEELS. IT CAN BE MOUNTED ON ALMOST ANY GRINDING MACHINE USING EITHER A MAGNETIC CHUCK TABLE OR MOUNTED WITH SCREWS TO A FIXTURING DEVICE. CONSTRUCTED OF CAST IRON AND STEEL, IT IS VERY RUGGED AND DURABLE.**
- For exceptionally good finishes,
- THIS DEVICE OPERATES AT 120 RPM
- Power Supply: 110V/60Hz/ 1 Phase
- Dimensions: 105" x 5" x 3.5"
- Net Weight: 13 lbs

3800-5251

MADE IN TAIWAN



Unit: mm

## MAGNETIC CHUCK CONTROLLER

- Suitable for standard type of electric magnetic chucks
- Precisely adjust the magnetic force of electric magnetic chucks
- **Current capacity up to 5A**
- Demagnetizing Time: 6-15 seconds.
- Dimension: 8 Lx5.4 Wx 5" H
- **Input: AC 110V/1 phase**
- **Output: DC 0-100V**
- Weight: 8 lbs.



3012-5483

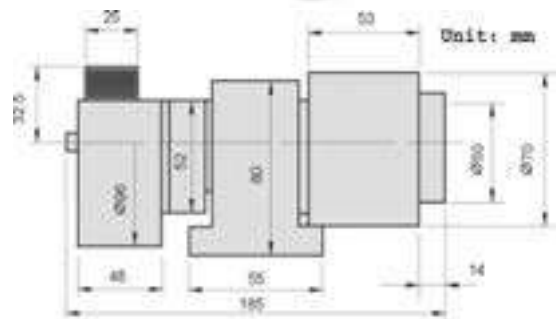
## Pro-Series DIAMOND WHEEL BRAKE TRUING DRESSER

- For truing diamond and CBN wheels.
- Provides continuous contact between diamond wheel and workpieces.
- Designed for truing cup and peripheral wheels on machines with a horizontal and vertical spindle.
- Rigid structure with durable life.

MADE IN TAIWAN

HHIP PRO-SERIES

3800-5250



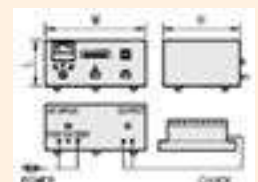
Replacement Grinding Wheel(3x1x1/2") (Item #3800-5252)

## MAGNETIC CHUCK CURRENT ADJUSTER

- Made for super powerful type of big electric magnetic chucks and could control two chucks at the same time.
- With current capacity of 20A, demagnetizing time is 8-15 seconds.
- Precisely adjust the magnetic force with indicate LED voltage and current.
- Built-in fan for radiating heat.
- Suitable for any kind of electric magnetic chucks.



Limited Supply!



Item #	Input Voltage (Single Phase)	Output Voltage	W	L	H	Weight (Lbs.)
3012-5484	220V AC	0-120V DC	15"	7.6"	11.5"	70

# DIAMOND DRESSERS

MACHINE TOOL ACCESSORIES

## SINGLE POINT DIAMOND DRESSERS - 3" Shank

- For straight dressing and dressing grinding wheels with simple profiles.
- 3" Long
- Single point



Carat (Approx.)	3/8x3" Item#	7/16x3" Item#	1/2x3" Item#
1/4	3903-0032	3903-0042	3903-0092
1/3	3903-0033	3903-0043	3903-0093
1/2	3903-0034	3903-0044	3903-0094
3/4	3903-0035	3903-0045	3903-0095
1	3903-0039	3903-0050	3903-0099

## SINGLE POINT DIAMOND DRESSERS - 3" Shank



Carat (Approx.)	3/8x3" Item#	7/16x3" Item#
1/4	3900-0072	3900-0082
1/3	3900-0073	3900-0083
1/2	3900-0074	3900-0084
3/4	3900-0075	3900-0085
1	3900-0079	3900-0090

## SINGLE POINT DIAMOND DRESSERS - 2" Shank



**NEW**

Carat (Approx.)	3/8x2" Item#	7/16x2" Item#
1/4	3903-0071	3903-0081
1/3	3903-0072	3903-0082
1/2	3903-0073	3903-0083
3/4	3903-0074	3903-0084
1	3903-0078	3903-0088

## CONVEX RADIUS DIAMOND DRESSERS



Item#	Radius
3900-0077	.125-.250"
3900-0078	.250" & Up

**3/8 X 2" SHANK  
OCTO STYLE**

## GRINDING WHEEL DRESSER

- For dressing, truing, sharpening and removing glaze from solid abrasive wheels.
- Use on grinding wheels up to 1" Width
- Four Star-toothed Hardened Steel Cutters and Two Spacers Structure.
- Supplied with L-wrench.



Wheel Diameter: 1-1/4"  
Face Width: 0.45"  
Overall Length: 8-1/2"

**3900-0062**

## CONCAVE RADIUS DIAMOND DRESSERS



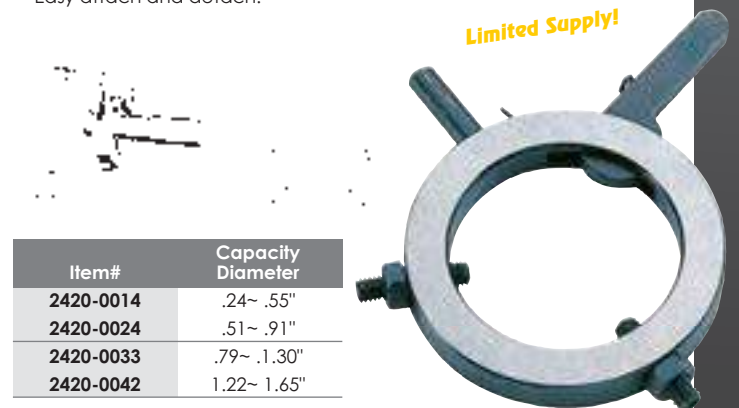
**3/8 X 2" SHANK  
GN STYLE**

Item#	Radius
3900-0086	.010"
3900-0087	.015"
3900-0088	.020"

## GRINDING DRIVING CARRIERS

- Suitable for grinding of shafts
- Easy attach and detach.
- Precision Steel Castings.

**Limited Supply!**



Item#	Capacity Diameter
2420-0014	.24~.55"
2420-0024	.51~.91"
2420-0033	.79~.1.30"
2420-0042	1.22~1.65"

## VM CONVEX RADIUS DIAMOND DRESSERS

- Concentric radius tools
- Special octahedron diamonds for fine work

**3/8 X 2" SHANK**

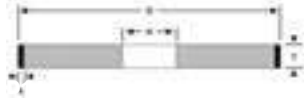
**GRADE AAA 90°  
3900-0097**



## D1A1 STRAIGHT STYLE DIAMOND & CBN WHEELS



- 100% concentration.
- Arbor Hole: 1-1/4" (H)



Wheel Diameter D	Wheel Thickness T	Diamond Depth X	Diamond (150 Grit) Item#	CBN (120 Grit) Item#
4"	1/16"	1/8"	2400-4062	2400-4063
4"	1/8"	1/8"	2400-4125	2400-4126*
4"	1/4"	1/8"	2400-4250	2400-4251
5"	1/8"	1/8"	2400-5125*	2400-5126*
5"	1/4"	1/8"	2400-5250*	2400-5251*
6"	1/16"	1/8"	2400-6062	2400-6063
6"	1/8"	1/8"	2400-6125	2400-6126
6"	1/4"	1/8"	2400-6250	2400-6251*
6"	3/8"	1/8"	2400-6375	2400-6376
6"	1/2"	1/8"	2400-6500	2400-6501
7"	1/4"	1/8"	2400-7250	2400-7251
7"	3/8"	1/8"	2400-7375	2400-7376*
7"	1/2"	1/8"	2400-7500	2400-7501*

\*Limited Supply

## D11V9 FLARING CUP DIAMOND & CBN WHEELS



- 100% concentration.
- Arbor Hole: 1-1/4" (H)
- For tool and cutter applications including sharpening of end mills, reamers, milling cutters and broaches.



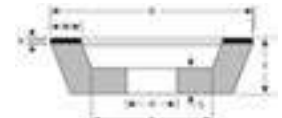
STYLE D11V9

Wheel Diameter D	Wheel Thickness T	Diamond Depth X	Back Thick E	B	Diamond (150 Grit) Item#	CBN (120 Grit) Item#
3-3/4"	1-1/2"	1/8"	3/8"	70°	2404-4125	2404-4126
5"	1-3/4"	1/16"	1/2"	70°	2404-5062	2404-5063
5"	1-3/4"	1/8"	1/2"	70°	2404-5125	2404-5126

## D11A2 FLARING CUP DIAMOND & CBN WHEELS



- 100% concentration.
- Arbor Hole: 1-1/4" (H)



STYLE D11A2

Wheel Diameter D	Wheel Thickness T	Diamond Depth X	Rim Width W	Back Thick E	Diamond (150 Grit) Item#	CBN (120 Grit) Item#
3"	7/8"	1/8"	3/8"	3/8"	2405-3875	2405-3876
4"	1-1/4"	1/8"	1/2"	1/2"	2405-4250	2405-4251
5"	1-3/4"	1/8"	3/8"	1/2"	2405-5275	2405-5276

## D1A1R DIAMOND & CBN CUT-OFF WHEELS



- Arbor hole: 1-1/4" (H)

STYLE D1A1R



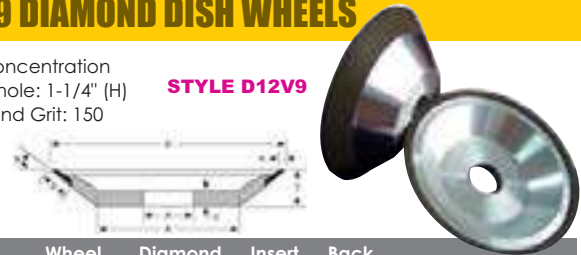
Wheel Diameter D	Thickness T	Diamond (150 Grit) Item#	CBN (120 Grit) Item#
4"	.035"	2401-4035	-----
5"	.035"	-----	2401-5036*
6"	.035"	2401-6035	2401-6036
6"	.045"	2401-6045	2401-6046*
8"	.045"	2401-8045	-----

\*Limited Supply

## D12V9 DIAMOND DISH WHEELS

- 75% concentration
- Arbor hole: 1-1/4" (H)
- Diamond Grit: 150

STYLE D12V9



Wheel Diameter D	Wheel Thickness T	Diamond Depth X	Insert Length U	Back Thick E	B	Item#
4"	1/2"	1/16"	1/4"	1/4"	75°	2402-4062
4"	1/2"	1/8"	1/4"	1/4"	75°	2402-4125
6"	3/4"	1/8"	7/16"	7/16"	75°	2402-6125

## 6A2C DIAMOND & CBN PLAIN CUT WHEELS

- With countersunk bolt holes
- Mount on popular 6" carbide grinders
- Use for off-hand grinding on brazed tipped carbide single point turning tools.
- Back Thickness: 7/16"
- Arbor Hole : 1-1/4"(H)

STYLE 6A2C



### 75% CONCENTRATION

Wheel Diameter D	Wheel Thickness T	Diamond Width W	Diamond Depth X	Diamond (150 Grit) Item#	CBN (120 Grit) Item#
6"	3/4"	1/2"	1/16"	2403-6502	-----
6"	3/4"	3/4"	1/16"	2403-6752	-----
6"	3/4"	1"	1/16"	2403-6998	2403-6999

### 100% CONCENTRATION

Wheel Diameter D	Wheel Thickness T	Diamond Width W	Diamond Depth X	Diamond (150 Grit) Item#	CBN (120 Grit) Item#
6"	3/4"	3/4"	1/8"	2403-6500*	-----
6"	3/4"	1"	1/16"	2403-6750	2403-6751*

\*Limited Supply

## D12A2 DISH DIAMOND & CBN WHEELS

- 100% concentration.
- Arbor Hole: 1-1/4" (H)



STYLE D12A2



Wheel Diameter D	Wheel Thickness T	Diamond Depth X	Rim Width W	E	B	Diamond (150 Grit) Item#	CBN (120 Grit) Item#
6"	1"	1/8"	3/16"	1/2"	30°	2406-6187	2406-6188*
6"	1"	1/8"	1/4"	1/2"	30°	2406-6250*	2406-6251*
6"	1"	1/8"	3/8"	1/2"	30°	2406-6375*	-----

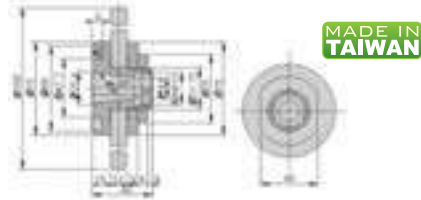
\*Limited Supply



# GRINDING WHEEL ADAPTERS

## F350 GRINDING WHEEL ADAPTER

- Hardened and ground
- For 1-1/4" I.D. Wheels
- Balance adjustable
- Wheel width capacity: 1/4 to 3/4"
- 1" diameter at large end of taper hole
- 1-1/4"-16 thread (left hand)
- Heat treated and precision ground
- Heat treated nuts
- Adapter O.D.: 3"



MADE IN TAIWAN



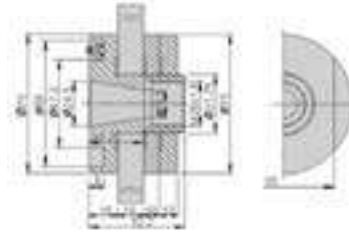
2420-0350

## F520 GRINDING WHEEL ADAPTER/FLANGE

- F520 is suitable for OKAMOTO 52DX cylinder of tool grinder.
- Hardened and ground
- For 1-1/4" I.D. Wheels

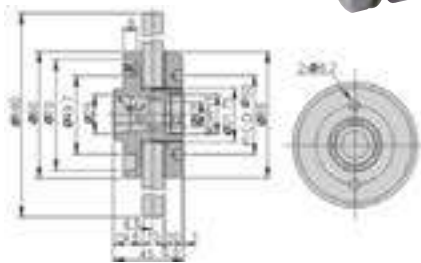
2420-0520

MADE IN TAIWAN



## F450 GRINDING WHEEL ADAPTER

- F450 is used in cylinder of US standard grinding machines
- Hardened and ground.
- For 1-1/4" I.D. grinding wheels.
- Wheel width capacity: 1/4 to 3/4"
- 1" diameter at large end of taper hole



MADE IN TAIWAN



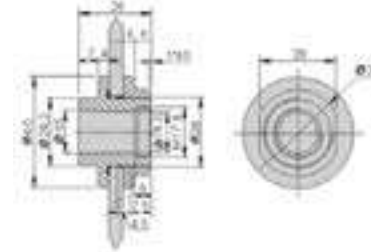
2420-0352

## W20 GRINDING WHEEL ADAPTER/FLANGE

- W20 is used for WAIDA optical profile grinder.
- Hardened and ground
- For 24mm I.D. Wheels

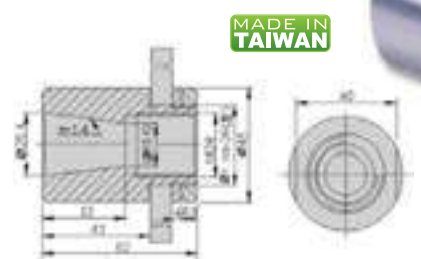
2420-0420

MADE IN TAIWAN



## F300 GRINDING WHEEL ADAPTER/FLANGE

- F300 is applied to US standard 614, 618 surface grinding machines.
- Hardened and ground
- For 1-1/4" I.D. Wheels



MADE IN TAIWAN



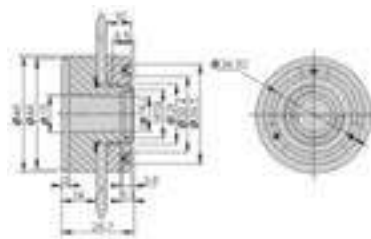
2420-0300

## W40 GRINDING WHEEL ADAPTER/FLANGE

- W40 is used for WAIDA optical profile grinder.
- Hardened and ground
- For 24mm I.D. Wheels

2420-0440

MADE IN TAIWAN

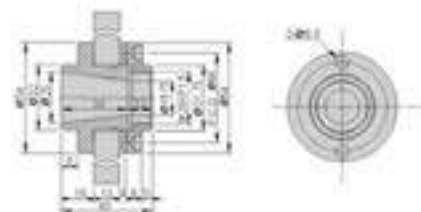


## F320 GRINDING WHEEL ADAPTER/FLANGE

- F320 is used for US standard cylinder of tool grinder.
- Similar to sopko 1"
- Hardened and ground
- For 1-1/4" I.D. Wheels

2420-0320

MADE IN TAIWAN

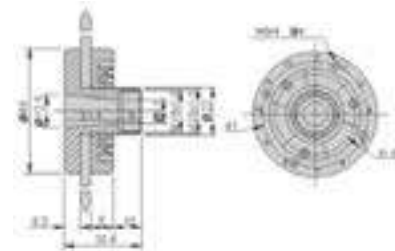


## P60 GRINDING WHEEL ADAPTER/FLANGE

- P60 is used for Petewe optical profile grinder.
- Hardened and ground
- For 22mm I.D. Wheels

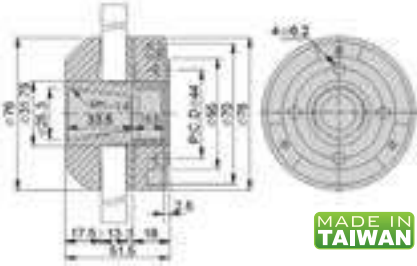
2420-0460

MADE IN TAIWAN





## FC110 WASINO GRINDING WHEEL ADAPTER/FLANGE



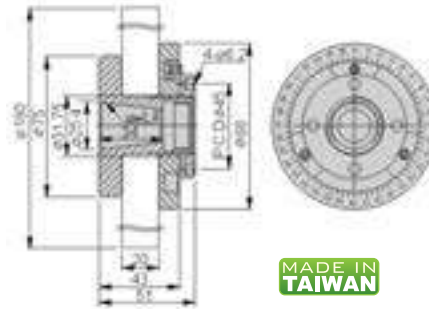
MADE IN TAIWAN

- FC110 is suitable for WASINO grinders.
- Hardened and ground

2420-0411

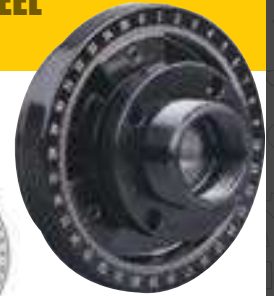
## FEB10 TATUNG GRINDING WHEEL ADAPTER/FLANGE

- FEB10 is suitable for TATUNG EN350 grinders.
- Hardened and ground

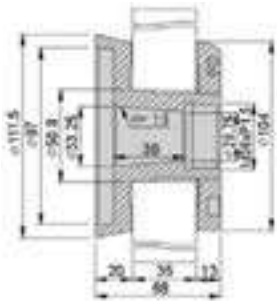


MADE IN TAIWAN

2420-0410



## FC520 GRINDING WHEEL ADAPTER/FLANGE



- FC520 is suitable for OKAMOTO ACC-52DX grinders.
- Hardened and ground
- Heat treated nuts

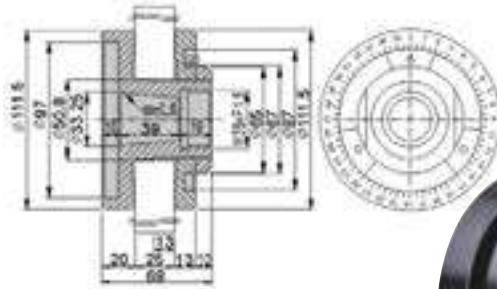
MADE IN TAIWAN

2420-0452



## FEB18 TATUNG/OKAMOTO GRINDING WHEEL ADAPTER/FLANGE

- FEB18 is suitable for TATUNG , OKAMOTO ACC-52DX grinders.
- Hardened and ground

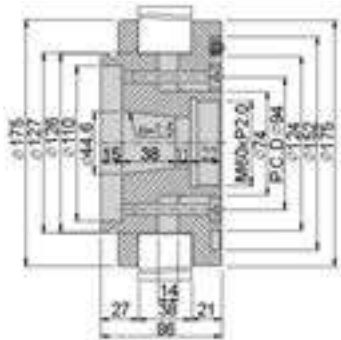


MADE IN TAIWAN

2420-0418



## FC630 GRINDING WHEEL ADAPTER/FLANGE



- F630 is suitable for OKAMOTO ACC-63DX, TATUNG PSG-64 grinders.
- Hardened and ground

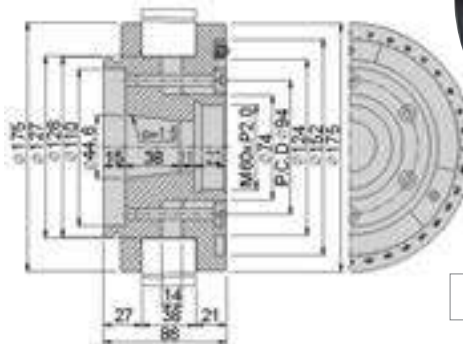
MADE IN TAIWAN

2420-0463



## FEB22 TATUNG/OKAMOTO GRINDING WHEEL ADAPTER/FLANGE

- FEB22 is suitable for OKAMOTO ACC-63DX, TATUNG PSG-64 grinders.
- Hardened and ground



MADE IN TAIWAN

2420-0422

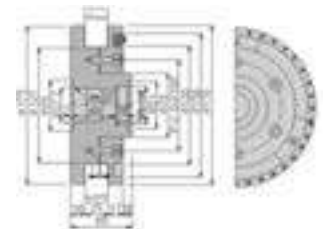


## FEB20 KENT GRINDING WHEEL ADAPTER/FLANGE

- FEB20 is suitable for KENT 410 grinders.
- Hardened and ground
- Laser mark graduation reading on plates.

2420-0424

MADE IN TAIWAN



# PERMANENT MAGNETIC CHUCKS

## PERMANENT MAGNETIC CHUCKS -Standard Pole

- Can be used for processing various magnetic conduction work pieces.
- For surface grinder, tool grinder, EDM and other applications.
- Chucks are sealed and lubricated to be maintenance free.
- Magnetic force ON/OFF switch.
- Ceramic dense magnets for superior holding power.
- Removable handle.

Item#	Table Size	Table Length L (mm)	Table Width B (mm)	Table Height H (mm)	T (mm)	P	Weight (lbs)
3402-0838	8 x 18"	450	200	53	22	1+3	87
3402-0839	8 x 20"	500	200	53	22	1+3	92
3402-0840*	8 x 24"	600	200	53	22	1+3	110
3402-0844	10 x 16"	400	250	58	23	1+3	100
3402-0848	10 x 18"	450	250	58	23	1+3	113
3402-0850*	10 x 24"	500	250	58	23	1+3	125
3402-0852*	10 x 24"	600	250	58	23	1+3	150
3402-0858*	12 x 24"	500	300	58	23	1+3	150
3402-0860*	12 x 24"	600	300	58	23	1+3	169

\*Limited Supply



STANDARD POLE

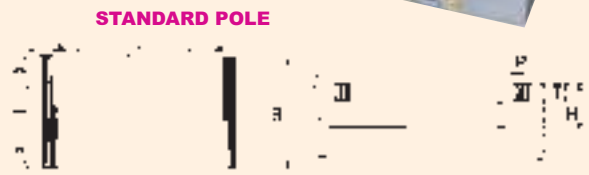
## Pro-Series PERMANENT MAGNETIC CHUCKS -Standard Pole

- Can be used for processing various magnetic conduction work pieces.
- For surface grinder, tool grinder, EDM and other applications.
- Chucks are sealed and lubricated to be maintenance free.
- Magnetic force ON/OFF switch.
- Ceramic dense magnets for superior holding power.
- Removable handle.

SIDE MAGNETIC FORCE 18KG, PLATE CENTER 26KG

SUIT FOR WORK PIECE THICKNESS > 3MM LENGTH > 25MM

Item#	Table Size	A	B	(mm) C	D	Pole P	G	E	F	H	Weight (lbs)
3402-1801	4 x 7"	100	175	146	20	8(2+6)	8	187	15	50	16
3402-1802	5 x 10"	125	250	206	20	8(2+6)	8	262	15	50	33
3402-1803	6 x 12"	150	300	256	20	8(2+6)	8	318	15	50	41
3402-1808	6 x 18"	150	450	406	20	8(2+6)	8	468	15	50	61



STANDARD POLE

## PERMANENT MAGNETIC CHUCKS -Fine Pole

- Can be used for processing various magnetic conduction work pieces.
- For surface grinder, tool grinder, EDM and other applications.
- Chucks are sealed and lubricated to be maintenance free.
- Ceramic dense magnets for superior holding power.
- Removable handle.

Item#	Table Size W x L	Pole Height	Table Height	Pole Spacing	Weight (lbs)
3402-0801	4 x 7"	0.70"	1.60"	1/16 x 1/32"	19
3402-0802	5 x 10"	0.70"	1.60"	1/16 x 1/32"	35
3402-0803	6 x 12"	0.70"	1.60"	1/16 x 1/32"	47
3402-0804	6 x 18"	0.70"	1.60"	1/16 x 1/32"	65
3402-0806*	8 x 18"	0.87"	1.97"	1/16 x 1/32"	130
3402-0807*	8 x 20"	0.87"	1.97"	1/16 x 1/32"	140
3402-0805*	8 x 22"	0.87"	1.97"	1/16 x 1/32"	150

\*Limited Supply



FINE POLE

## MAGNETIC SINE PLATE -Fine Pole



FINE POLE

- Ceramic dense permanent magnets plate provide extreme power up to 100 lbs.
- Fine pole spacing works for both thick and thin parts.
- Rigid angles lock strap capacity 0~60° (Accuracy 5" /per 15°).
- Hardened side and back rolls included.
- Made of high grade steel hardened to 55~62 RC and ground.
- Removable On/Off handle included.
- Gross Weight: 35 lbs.

3402-0810

Size AxBxC	Rolls Center F	Pole Spacing	Square & Parallel	D	E
6 x 6 x 4"	100mm	1/16 x 1/32"	.0003"	8"	6"



## ROUND MAGNETIC CHUCKS-STANDARD POLE

- Chucks are sealed and lubricated to be maintenance free.
- Ceramic permanent magnets for superior holding power.
- Bottom surface has tapped holes with counterbores for convenient mounting.
- Handle is removable for turning on/off magnet.



BOTTOM VIEW



STANDARD POLE

Item#	Size D	Height H	(MM)			Pole Spacing P	Wt. (lbs.)
			K	C	Z-M		
3402-0821*	150mm(6")	48	3	100	M6x1.0	1+3	15
3402-0823	200mm(8")	52	4	120	M8x1.25	1+3	28
3402-0827*	300mm(12")	58	4	220	M8x1.25	1+3	70

\*Limited Supply

## ROUND MAGNETIC CHUCKS-FINE POLE

- Chucks are sealed and lubricated to be maintenance free.
- Ceramic permanent magnets for superior holding power.
- Bottom surface with tapped holes with counterbores for convenient mounting.
- Handle is removable for turning on/off magnet.



FINE POLE

Item#	Size	Height	Pole Spacing	Wt. (lbs.)
3402-0822	6"	2-15/16	1/16 x 1/32"	18
3402-0824	8"	3-1/8	1/16 x 1/32"	29
3402-0828	12"	3-5/16	1/16 x 1/32"	65

## Pro-Series PERMANENT MAGNETIC SINE BAR

### SPECIFICATIONS

Base Magnetic Power:.....8 lbs.  
 Parallelism:.....within 0.0001"  
 Squareness:.....within 0.0002"  
 Distance between Roll Centers:.....2"  
 Rolls Accuracy:.....+ 0.00008"  
 Overall Length:.....3"

- Designed for any machine on angular testing.
- Magnetic base with permanent power pull
- Hardened and precision ground HRC 56~68.

HHIP PRO-SERIES

3800-5410

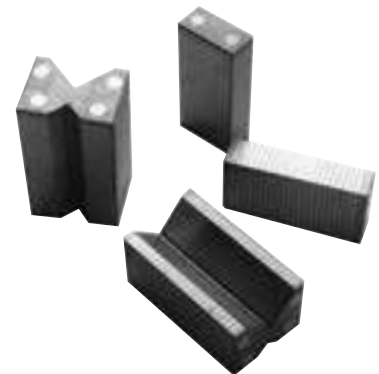
MADE IN TAIWAN



## MAGNETIC V-BLOCKS & PARALLELS

- Universal-holds in any direction on the magnetic chuck.
- Aluminum cast.
- Ground all over.
- Blocks transmit magnetism, they are not magnetic.

USE ON MAGNETIC CHUCK



V-BLOCK & PARALLELS KIT  
3402-0013

Item 3402-0006 & 3402-0009

### V-BLOCKS:

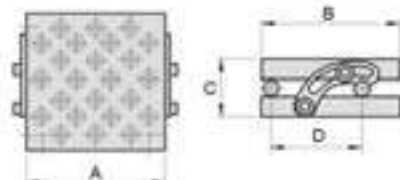
- 90° Vee Capacity:  
Small Vee-1/2", Large Vee-2"

Item#	Description	Length	Width	Height
3402-0007	SINGLE 90° V-BLOCK	4-3/8"	2-3/8"	1-7/8"
3402-0006	MATCHED PAIR 90° V-BLOCK	2"	2-3/8"	1-7/8"
3402-0009	MATCHED PAIR PARALLELS	4"	2"	1"

## 6x6 ULTRA PRECISION SINE PLATES



- Made of high grade tool steel hardened and precision ground HRC 55~58.
- Two hardened side rails and one locking strap included.



Value

3900-5526

MADE IN CHINA

HHIP PRO-SERIES

3800-5526

MADE IN TAIWAN

### SPECIFICATIONS

Capacity:.....0~60°  
 Squareness:.....within 0.0002"  
 Parallelism:.....within 0.0002"  
 Center Distance of Rolls Accuracy:.....within 0.0002"  
 Minute Angle Step on Gage Block Roll:.....0.200"  
 Tapped holes:.....1/4"-20 UNC  
 Size (B x A).....6" x 6"  
 Height (C).....2.36  
 Center Distance of Rolls (D).....5"  
 No. of Tapped Hole.....24  
 Wt.(lbs.).....18

# TOOLMAKER'S VISES

## 1" TOOLMAKER'S VISE

- Hardened and precision ground.
- The "no-rise" jaw construction exerts a continual downward pressure to the jaw, eliminating tilting & lifting
- Jaw can be opened and closed without unbolting from work surface.
- **With step jaws.**



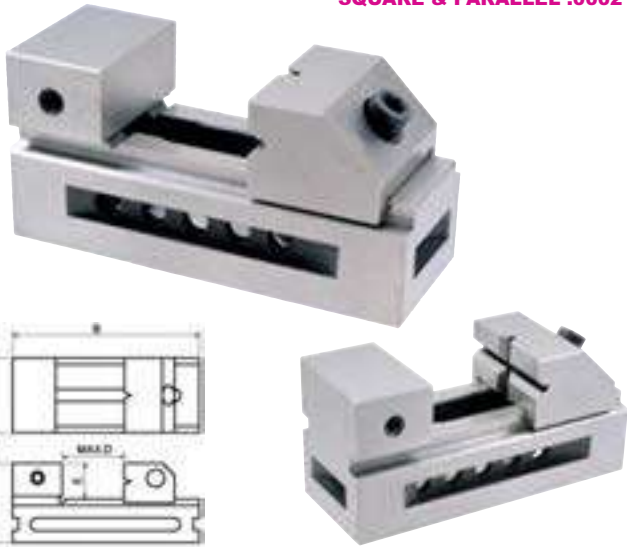
**SQUARE & PARALLEL .0002"**

Item#	Jaw Width	Jaw Depth	Jaw Opening	OAL
3900-0124	1"	0.5"	1"	2.6"

## 38mm TOOLMAKER'S VISE

- Hardened and precision ground.
- The "no-rise" jaw construction exerts a continual downward pressure to the jaw, eliminating tilting & lifting
- Jaw can be opened and closed without unbolting from work surface.
- **No step jaws.**
- **1.5" jaw width.**

**SQUARE & PARALLEL .0002"**



Item#	Jaw Width A	Jaw Depth E	Jaw Opening D	Vise Ht. C	OAL B
3900-0125	38mm	20mm	40mm	48mm	100mm

## TOOLMAKER'S VISES-Without Slot

- Hardened and precision ground.
- No clamping slot.
- Ground "V" way in sliding jaw.

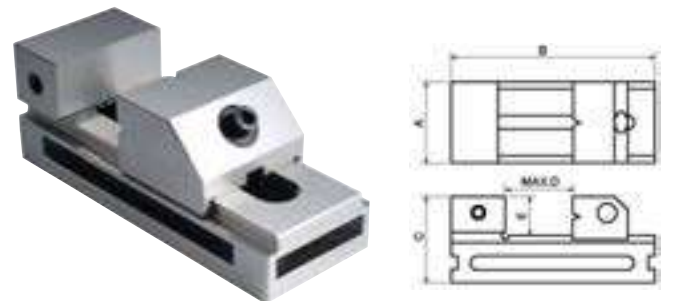
**SQUARE & PARALLEL .0002"**



Item#	Jaw Width B	Jaw Depth D	Jaw Opening G	A	C	Weight Lbs.
3900-0122	2"	1.00"	2.4"	5.3"	2"	4.0
3900-0123	3"	1.38"	3.8"	7.3"	3"	9.5

## PRECISION SCREWLESS VISES

- With V-Groove
- Oil hardened.
- Precision ground.
- Rapid positioning notches.
- .00025" square and parallel.

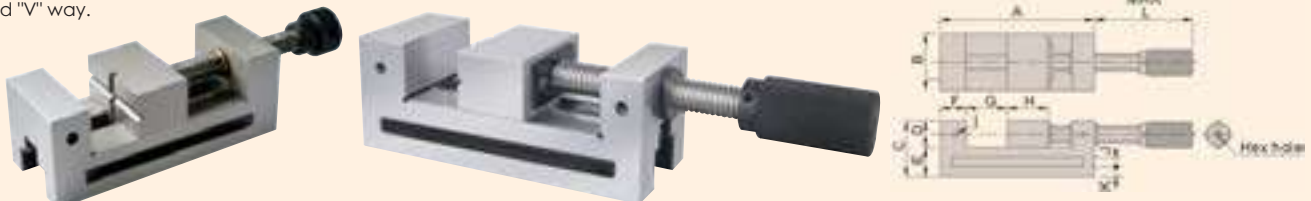


Item#	Jaw Width A	Jaw Depth E	Jaw Opening D	Vise Ht. C	OAL B
3900-0020	1"	3/8"	1"	1.2"	2-5/8"
3900-0022*	2"	1-1/4"	2.25"	2.0"	6"
3900-0024*	3"	1-5/8"	4"	3.2"	7-5/8"

\*Limited Supply

## PRECISION TOOLMAKER'S VISES-Screw Type

- All surfaces are hardened (52~58 HRC) and precision ground square and parallel to accuracy of +/- .0002".
- Clamping slots are provided and jaws are easily replaced.
- Ground "V" way.



Unit: mm

Item#	Jaw Width	A	B	C	D	E	F	G	H	I	J	L	Weight
3900-0067	2"	156	48	52	25	27	25	0-63	34	M6	8	125	5.1 lbs
3900-0251	3"	190	73	73	35	38	35	0-76	45	M6	10	151	12.1 lbs
3900-0068	4"	255	98	82	40	42	40	0-120	50	M8	12	196	24.2 lbs

## ULTRA PRECISION TOOLMAKER'S VISES

- Hardened and precision ground, HRC55-60°.
- The "no-rise" jaw construction exerts a continual downward pressure to the jaw, eliminating tilting & lifting.

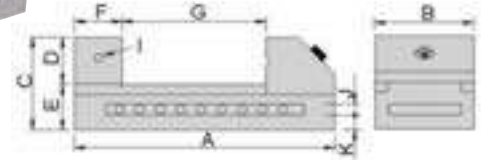
- Jaw can be opened and closed without unbolting from work surface.
- Tolerance within .00012"(Parallelism), .0002" (Squareness).



**SQUARE & PARALLEL .0002"**



**HIP PRO-SERIES**



Item#	Jaw Width B	(mm)								
	A	C	D	E	F	G	I	J	K	
3900-2012	50	150	53	25	28	30	0-80	M6	8	8
3900-2013	73	190	70	35	35	35	0-100	M6	10	12
3900-2003	88	235	80	40	40	40	0-130	M8	12	14
3900-2014	100	245	90	45	45	45	0-130	M8	12	16
3900-2015	125	285	100	50	50	45	0-160	M8	14	18

## PRECISION SINE VISES

- Hardened and precision ground, provides a tolerance of .0004" for both parallelism and squareness.
- Sine range: 6-60°.
- Jaw can be opened or closed without unbolting from work surface.



Item#	Jaw Width	Jaw Depth	Jaw Opening	Center to Center	Base Size
3900-2603	2"	1"	2-5/8"	4.00"	5-3/8"x2"
3900-2605	3"	1-1/4"	4"	4.00"	7-5/8"x3"

## MINI PRECISION TILT/SWIVEL VISE

- Hardened and precision ground tool steel.
- Horizontal swivel movement 360°.
- Vertical swivel movement 90° graduation in degrees for quick setting.
- Base has slots for clamping on the mill table.



**Limited Supply!**

**3900-2625**

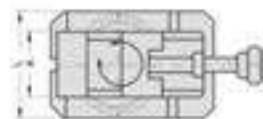
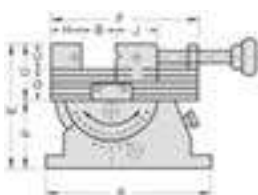
Jaw Width	Jaw Height	Jaw Opening	OAL Height	Footprint
2-1/4"	25/32"	17/32"	3.7"	4.65x2.60"

## Pro-Series UNIVERSAL MOVEMENT VISE

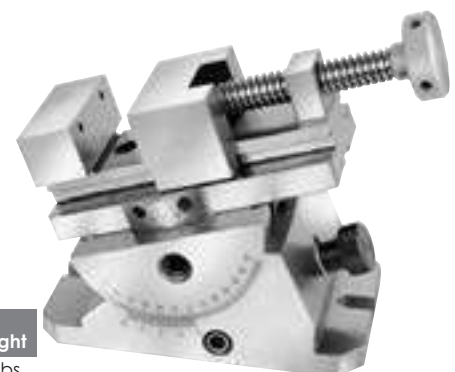
- This fixture is composed of two parts: namely a precision vise and a swivel angle plate base.
- Vise is capable of revolving 360° horizontally with 3' graduation engraved and ±45° vertical with 3' graduation engraved.
- L-wrench included for locking vise horizontal at any position.
- Vertical angle can be adjusted with fine adjustable knob.
- Hardened and precision ground. Provides a tolerance of 0.0004" Parallelism and Squareness.
- Unique universal movement for precision grinding, machining, boring and various applications.

**HIP PRO-SERIES**

**MADE IN TAIWAN**



**2-3/4" Jaw Width  
3900-2621**



Jaw Width	Jaw Depth	Jaw Opening	A	B	C	E	(Inch)		J	L	P	S	Weight	
							F	G	H					
2-3/4	1.18	3.15	3.75	3.15	1.18	5.39	6.3	1.3	1.3	1.8	4.33	2.95	7.09	31 lbs



# Pro-Series STAINLESS STEEL VISES

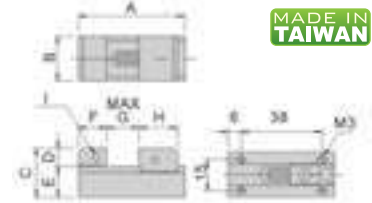
## STAINLESS STEEL VISE - 21MM Jaw Width



- A delicate vise suitable for clamping precision workpieces.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°

**SQUARE & PARALLEL .00012"**

**21MM JAW  
3901-2721**



**MADE IN TAIWAN**

Jaw Width B	Jaw Depth D	Jaw Opening G	Vise Height C	Vise Length A	E	F	H	Threaded Hole I	Wt. (Lbs)
21mm	8.5mm	15mm	23.5mm	50mm	15mm	13mm	18mm	M3	0.4

## STAINLESS STEEL VISES - 25MM Jaw Width

- A compact precision vise suitable for small precision workpieces, apply by wrench.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.

- Hardened and precision ground.
- Hardness: HRC 48~55°

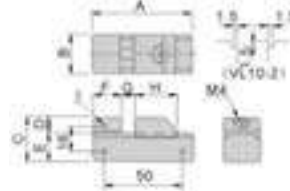
**MADE IN TAIWAN**



3901-2725 Shown



**25MM With Step Jaw  
3901-2728**



3901-2728 Shown

**SQUARE & PARALLEL .00012"**

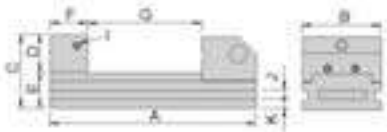
Unit: mm

Item #	Step Jaws	Jaw Width B	Jaw Depth D	Jaw Opening G	Vise Height C	Vise Length A	E	F	H	Threaded Hole I	Wt. (Lbs)
3901-2725	No	25	12	20	32	65	20	20	25	M4	0.6
3901-2728	Yes	25	12	20	32	65	20	20	25	M4	0.6

## STAINLESS STEEL TOOLMAKERS VISE - 73MM Jaw Width

- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°

**SQUARENESS < 0.0002"**  
**PARALLELISM < 0.00012"**



**73MM JAW  
3901-2772**



**MADE IN TAIWAN**

Jaw Width B	Jaw Depth D	Jaw Opening G	Vise Height C	Vise Length A	E	P	Wt. (Lbs)
73mm	35mm	100mm	70mm	190mm	35mm	50mm	9.5

## STAINLESS STEEL TOOLMAKER'S & EDM VISE - 50mm or 72mm Jaw Width

- Suitable for high precision grinding, milling and EDM.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°

**SQUARE & PARALLEL .00012"**

**MADE IN TAIWAN**

**50MM JAW  
3901-2732**

**72MM JAW  
3901-2734**



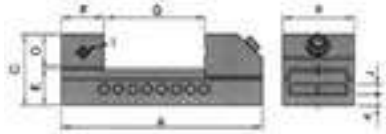
Unit: mm

Item #	Jaw Width B	Jaw Depth D	Jaw Opening G	Vise Height C	Vise Length A	E	F	H	Threaded Hole I	Slot J	K	Wt. (Lbs)
3901-2732	50	25	75	53	140	28	25	40	M6	6 W x 5 D	8.5	3.3
3901-2734	72	30	100	62	180	32	35	45	M6	8 W x 7 D	9.0	6.6

## STAINLESS STEEL VISE - Screwless Type

- Hardened and precision ground.
- Made of stainless steel specially for EDM, grinding and other application which is sensitive to rust.

**SQUARE & PARALLEL .0002"**



**2-3/4" JAW  
3900-2001**

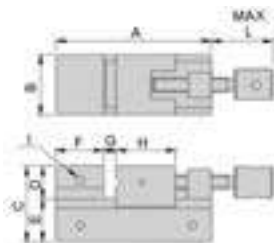


**MADE IN TAIWAN**

Jaw Width B	Jaw Depth D	Jaw Opening G	Vise Height C	Vise Length A	E	F	Weight (Lbs)
2.87"	1.38"	3.94"	2.68"	7.48"	1.3"	1.38"	9.8

## STAINLESS STEEL VISE WITH HANDLE - 25MM Jaw Width

- Screw rod design allows you to easily tighten the jaws on tight workpieces.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°



**MADE IN TAIWAN**

**25MM JAW  
3901-2741**



**SQUARE & PARALLEL .00012"**

Jaw Width B	Jaw Depth D	Jaw Opening G	Vise Height C	Vise Length A	Max. L	E	F	H	Threaded Hole I	Wt. (Lbs)
25mm	14mm	25mm	32mm	70mm	43mm	18mm	20mm	25mm	M4	1.1

## STAINLESS STEEL VISE WITH HANDLE - 35MM Jaw Width

- New structure design with higher repeatability and stability.
- Compact screw rod design for easy tightening.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.

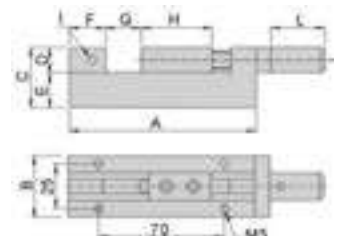
- Hardened and precision ground.
- Hardness: HRC 48~55°

**35MM JAW  
3901-2755**

**MADE IN TAIWAN**



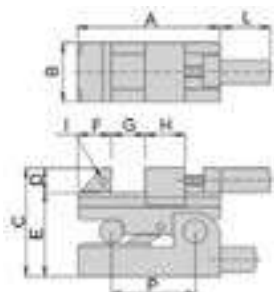
**SQUARE & PARALLEL .00012"**



Jaw Width B	Jaw Depth D	Jaw Opening G	Vise Height C	Vise Length A	E	F	H	Threaded Hole I	Wt. (Lbs)
35mm	15mm	30mm	35mm	105mm	20mm	20mm	40mm	M5	2.5

## STAINLESS STEEL SINE VISE - For EDM/Toolmakers

- Screw rod design allows you to easily tighten the jaws on tight workpieces.
- Precision sine vise suitable for precision and small workpieces.
- Screw rod design for easy tightening.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°



**MADE IN TAIWAN**

**35MM JAW  
3901-2760**

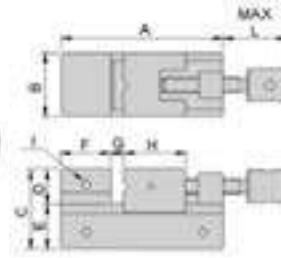


Jaw Width B	Jaw Depth D	Jaw Opening G	Vise Height C	Vise Length A	L	E	F	H	Threaded Hole I	P	Wt. (Lbs)
35mm	15mm	30mm	65mm	85mm	37mm	50mm	20mm	24mm	M4	50mm	2.2

# Pro-Series STAINLESS STEEL VISES

## STAINLESS STEEL VISE WITH HANDLE - 36MM Jaw Width

- Screw rod design for easy tightening.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°



MADE IN TAIWAN

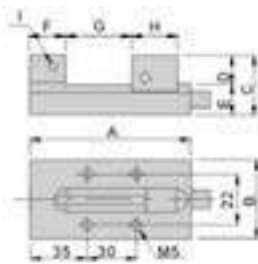
**36MM JAW**  
**3901-2743**

**SQUARE & PARALLEL .00012"**

Jaw Width B	Jaw Depth D	Jaw Opening G	Vise Height C	Vise Length A	Max. L	E	F	H	Threaded Hole I	Wt. (Lbs)
36mm	16.5mm	50mm	35mm	100mm	76.5mm	18.5mm	20mm	30mm	M5	2.2

## STAINLESS STEEL COMPACT VISE WITH HANDLE - 40MM Jaw Width

- Compact structure vise with a special design to prevent any floating of workpiece when clamped.
- Compact screw rod design for easy tightening.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°



MADE IN TAIWAN

**40MM JAW**  
**3901-2750**



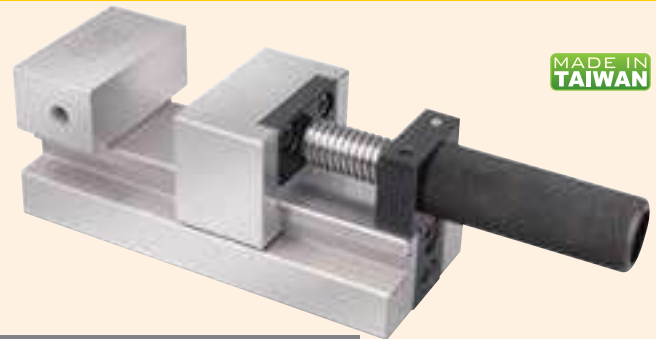
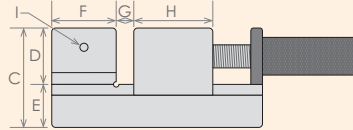
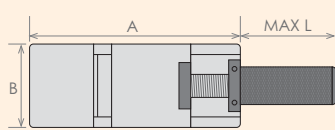
**SQUARE & PARALLEL .00012"**

Jaw Width B	Jaw Depth D	Jaw Opening G	Vise Height C	Vise Length A	E	F	H	Threaded Hole I	Wt. (Lbs)
40mm	15mm	40mm	40mm	100mm	25mm	25mm	25mm	M5	2.2

## STAINLESS STEEL TOOLMAKERS VISE - 1-3/4" Jaw Width

- Hardened and ground.
- Made of stainless steel specially for EDM, grinding and other application which is sensitive to rust.
- Hardness: 48~55°

**SQUARE & PARALLEL: .00012"**



MADE IN TAIWAN

Item#	Jaw Width B	Jaw Depth D	Jaw Opening G	Vise Height C	Vise Length A	E	F	H	I	Weight (Lbs)
3900-2004	1-3/4"	0.79"	0~1.97"	1.77	4.33"	0.98"	0.98"	0.94"	M5	3.8

SCREW ROD DESIGN LOCKS TIGHT TO HOLD SMALL WORKPIECE.

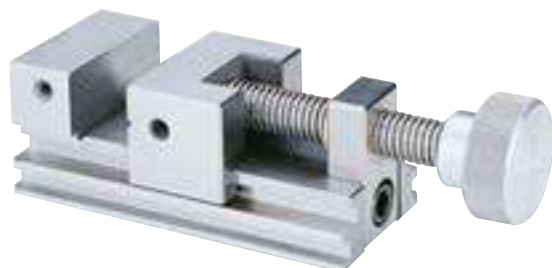
## STAINLESS STEEL VISES - Screw Type

- Hardened and precision ground.
- Made of stainless steel specially for EDM, grinding and other application which is sensitive to rust.

MADE IN TAIWAN

**SQUARE & PARALLEL .0002"**

**2-3/4" Jaw Width**  
**3900-2005**







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▶ **AIR, POWER & HAND TOOLS**

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