

# Briney

## Tooling Systems

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## About Briney

Briney is an ISO 9001-certified Michigan based privately-owned corporation with a dedicated commitment to quality from the corporate executives, managing staff, and the entire highly-skilled work force. Briney operates two shifts and employs approx. 100 people, all committed to serving the American machining industry and the world market. Briney uses the "Quality Team" manufacturing philosophy, implementing the best ideas from all levels of the company, thus producing quality products and new innovative manufacturing ideas and tooling designs.

### SELECTION

Look to Briney for the most complete line of tooling for your CNC machining center or your manual milling machine: V Flange Shank 30, 40, 45, 50; BT Shank 30, 35, 40, 50; NMTB(QC) Shank 30, 40, 50; QSwitch 100, 200, 300, 400 and QChange; Straight Shank tools; Bilz Quick Change Tapping systems for all shank styles; Briney Quick Change Synchronized Tapping systems (for rigid tapping machines with coolant thru spindles); Jacobs Drill Chucks, and the most complete line of collet systems available in the industry. TG, ER, DA, and Briney Flex, collets are available from stock in all the popular sizes. You can count on Briney to have the tools you need for any machine style, in stock for immediate delivery.

### QUALITY

Shank quality is the key to machining accuracy. Briney shanks and bores are ground on state-of-the-art CNC grinding equipment, enabling Briney to provide the most accurate shank and concentricity in the industry. All shanks are traverse-ground to **AT3** ANSI tolerance (.001 taper per ft.) and inspected with the latest, most accurate air/electronic dedicated gaging system. Toolholder I.D.s (collet chuck tapers, end mill adapters, etc.) are traverse-ground on CNC ID grinders under simulated operating conditions.

This enables Briney to offer size repeatability and concentricity of .0002 or less from the tool shank to the bore. All grinding operations are closely monitored to ensure the highest quality and consistency in the industry.

The result of these quality features is superior performance, longer tool life, increased speeds and feed rates, and better surface finish resulting in lower operating costs.

Materials used for all Briney Tooling are certified and traceable to NIST standards. With in-plant heat treating, Briney controls the carbonizing and hardening process to ensure all tools have a .050 minimum case depth to maximize tool life and reduce distortion from prolonged use, mishaps, and mishandling.

Shanks are ground after black-oxide to guarantee the best concentricity, superior finish, and better spindle contact.

The critical grinding process is the last operation. This eliminates any distortion by heat treating or changing surface conditions of the tool. These conditions will affect the concentricity or cause the tool to be difficult for your toolchanger to operate. Both deeper case hardening and superior shank accuracy extend tool life, providing superior quality and superior value.

### SPECIAL TOOLING

Count on Briney to manufacture your special tooling requirements to the same high quality as standard Briney products. Just fax your requirements to **1-989-269-9559**, and you will receive a prompt quotation on your requirements. Our design team will provide a computer designed print for your approval before manufacturing to insure tooling is manufactured precisely to your specifications.

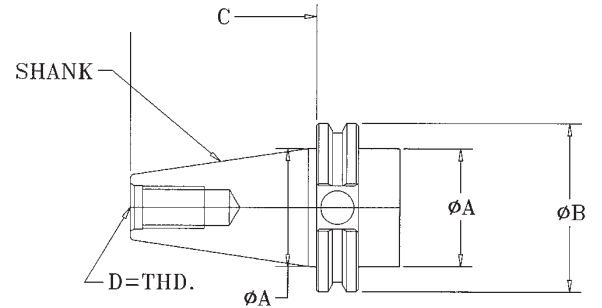
### BALANCED TOOLING

Briney leads the industry with the most complete line of high quality balanced tools. Choose the tooling to match your machining speeds. While the improved design of our standard tooling will perform well in most machining applications, for higher spindle speeds choose our Tru Velocity™ (TV) tooling. Briney's Tru Velocity line is balanced to 20,000 RPM. For even higher speeds, Briney's Maximum Velocity™ (MV) tooling is fully balanced and designed to perform up to speeds of 30,000 RPM. Also available from Briney is Balanced Engineered tooling for ultra high-speed applications – you choose the speed, and we'll balance to it. Whatever your balanced tooling needs, Briney is your choice for tooling.



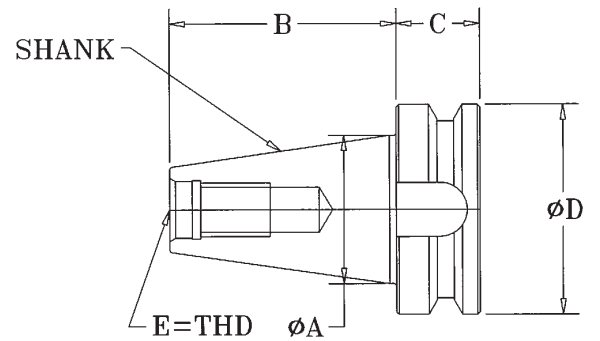
SHANK SIZE	A GAGE LINE	B	C	D
V30	1.250	1.812	1.875	1/2-13
V40	1.750	2.500	2.687	5/8-11
V45	2.250	3.250	3.250	3/4-10
V50	2.750	3.875	4.000	1-8

### V FLANGE SHANKS



SHANK SIZE	A GAGE LINE	B	C	D	E
*BT30	1.250	1.985	.787	1.811	M12
*BT35	1.500	2.299	.866	2.087	M12
BT40	1.750	2.654	.984	2.480	M16
BT50	2.750	4.126	1.378	3.937	M24

### BT SHANKS

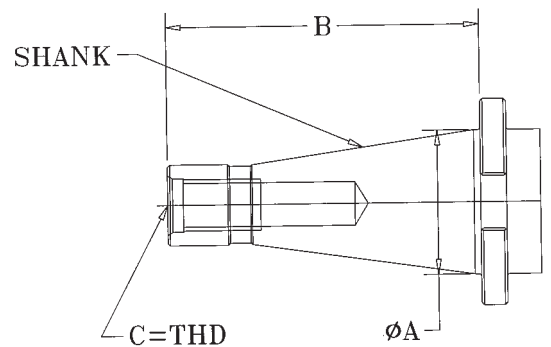


NOTE: Made to JIS B6339 - 1992 Specifications  
(equivalent to ISO 7388/1 - 1983)

\*.4920 pilot for pull stud

SHANK SIZE	A GAGE LINE	B	C
NMTB or QC30	1.250	2.75	1/2-13
NMTB or QC40	1.750	3.75	5/8-11
NMTB or QC50	2.750	5.12	1-8

### NMTB OR QUICK CHANGE SHANKS



## SHRINKER TOOLING BENEFITS

For critical high speed or high precision cutting applications, the Shrinker's TIR and tremendous holding strength are benefit enough — most toolholders simply can't achieve this degree of precision. Shrinker technology and design provides these benefits:

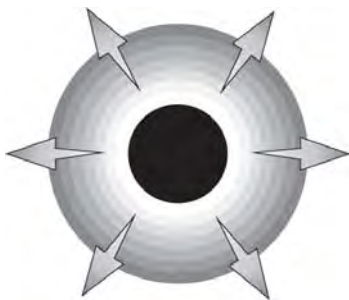
- Best possible TIR (Total Indicator Reading).
- Best possible balance.
- Best available gripping power.
- Increased tool and spindle life.
- Fastest tool change — in seconds!
- Thin profile holders for machining hard-to-reach places.
- Design and build custom holders for any application.
- Short gage lengths available for increased rigidity.
- Ability to preset for required tool length.
- Ideal for end milling, drilling, reaming, boring and all other critical rotary tool applications regardless of cutting tool material.
- Eliminates wrenches, collets, set screws and other accessories.
- Reduces costs associated with tool changes, holder maintenance and machine downtime.



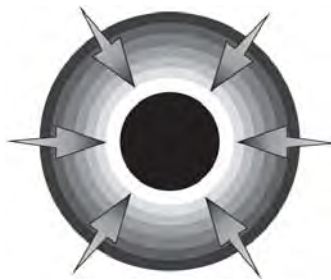
### HOW IT WORKS:

The concept is simple. Each Shrinker toolholder is manufactured with an inside diameter slightly smaller than the shank diameter of the cutting tool. A heat induction unit is used to quickly heat the holder end of the Shrinker, expanding this inside diameter. At this point, the tool shank slips easily into the holder. As the holder cools, the resulting thermal contraction exerts a tremendous, uniform pressure around the entire surface of the tool shank. No moving parts . . . no accessories . . . just total concentric gripping strength.

Removing the tool is just as simple — you simply reverse the process! Tool changes can be accomplished in seconds, dramatically increasing machining productivity by reducing tool change downtime.



Heat expands the inside diameter.



Cooling contracts the inside diameter.



## SHRINKER ADVANTAGES



**SUPERIOR CONCENTRICITY** - The concentricity of Shrink Fit Tooling is guaranteed .0002" or better with the cutting tool set in the shrunk condition.

**SUPERIOR BALANCE** - Shrink Fit Tools are manufactured for high speed operation. Balance pockets are machined in the drive keys on all V-Flange tooling, eliminating the inherent imbalance in V-Flange tooling. Shrink Fit tools are dynamically balanced on our Hoffman 2 plane balancing machine to G 2.5 at 20,000 RPM's. Special tools have been manufactured at a G 1.0 tolerance at 40,000 RPM. This results in balanced chip loads, better finishes, and increased speeds and feed rates. With no set screws and no moving parts, the toolholder remains in balance leaving the cutting tool as the only variable.

**SUPERIOR RIGIDITY** - The average gripping force imposed on the shank of the cutting tool is 10,000 lbs. – more than 5 times that of collet, milling, or hydraulic chucks. It would take over 100 horsepower in order to turn the tool within the bore of the toolholder. An additional advantage is the shank of the tool is gripped 360 degrees the entire length of the bore. Impossible with milling chucks and hydraulic chucks. These chucks leave an area of up to 1/4 inch from the end of the toolholder with no force applied to the tool shank. Using the Shrinker gives you the closest possible rigidity to an Integral Shank Tool with lower costs and more flexibility.

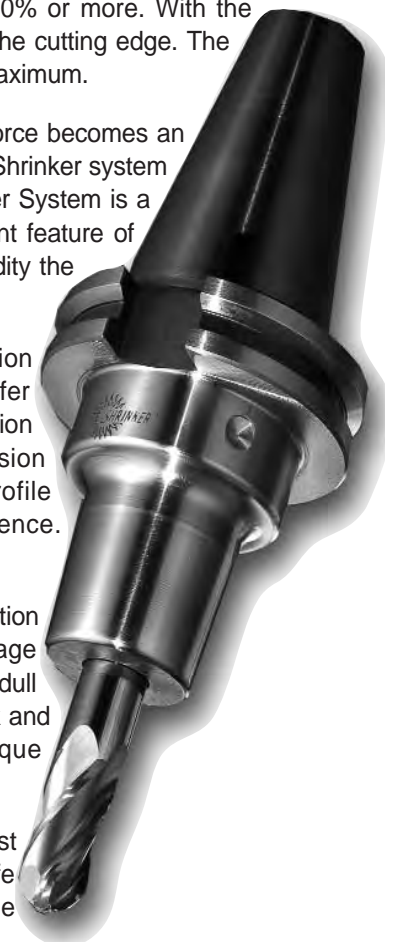
**SUPERIOR TOOL LIFE** - The Shrinker Toolholding System extends tool life up to 100% or more. With the superior holding force, concentricity, and balance, the chip load is evenly distributed on the cutting edge. The rigidity established with the Shrinker enables cutting tool technology to be pushed to the maximum.

**SUPERIOR HIGH SPEED OPERATION** - In extreme high speed operations centrifugal force becomes an important factor in desired speeds and feed rates. With the holding force induced by the Shrinker system being superior, no other system can meet and maintain the clamping force. The Shrinker System is a must in extreme high speed applications and is superior at any speed. A very important feature of Balanced Shrinker Tooling is the extended spindle life with the superior balance and rigidity the Shrinker offers.

**SUPERIOR OPERATING PARAMETERS** - No holding system offers shorter extension length capability with concentricity of .0002" or less. Milling and hydraulic chucks offer excellent concentricity, but the mechanical clamping system requires additional extension and sacrifices rigidity. Conventional end mill holders can provide very short extension lengths, but sacrifice concentricity and provide 2 or 3 point clamping. The thin profile required for the Shrinker enable the operations to be performed with less interference. Tooling can be preset by simply controlling the depth the shank extends into the bore.

**SIMPLE OPERATION** - The Shrinker System is truly the easiest system to use. The induction tool changer is by far the fastest and simplest method to change tooling. The average induction cycle takes 7 seconds to expand the bore, enabling the operator to remove the dull tool and insert the new tool. Seconds after the new tool is inserted, the bore shrinks back and can then be cooled. No wrenches to find, no vices, uniform chucking without torque wrenches, and faster than conventional clamping methods.

**CONCLUSION** - The Shrinker Thermo Contraction Toolholding System is by far the most economical system in the world today. The increased productivity and increased tool life can be measured. Additionally, reduced toolchange down time will contribute to the considerable reduction in costs.



## INDUCTION HEATING UNITS



**BTT-075-220**



**TIDD 10/10 N12**

### INDUCTION HEATING UNITS

BTTIU-075-220 .....	7-8
BTT-075-220 .....	9-10
TIDD 10/10 N12 .....	11-12
Cooling Devices .....	13



**BTTIU-075-220**



**THERMAX**



The Briney THERMAX Heat Shrink Unit opens the door to professional grade Shrinker tooling technology. This system offers; 7.5 kw output power operating at 20 - 25 khz, minimum 30% duty cycle, superior coil efficiency, and operating consistency. Safety features are also built in: overcurrent, overvoltage, overtemperature protection, which distinguishes Briney THERMAX.

Foolproof operation is designed into THERMAX. Choose the coil that fits the toolholder nose, insert into the vertical slide, lower slide, and press the carbide or steel keyswitch on the simple control panel.

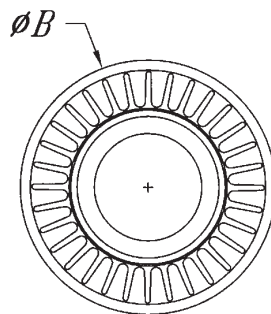
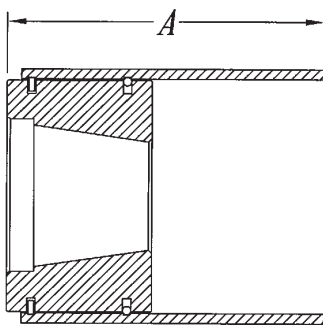
The PLC manages the preprogrammed cycle from there. Toolholder bores expand in seconds to permit insertion or removal of the cutting tool. Coil retracts automatically after heating cycle is complete.

Cooling is accomplished rapidly with the most efficient fans available conveniently integrated into the base. So you can prepare several tools at a time. Tool capacity range from .125 - 1.00 in. (3mm - 25mm), 18.75 in length. THERMAX is also provided with your choice of 5 different heat sinks for high-efficiency cooling, 4 heating coils and a cooling sleeve.

Protection from overheating of toolholder with timed cycles.

THERMAX INDUCTION HEATING UNIT	
PART NUMBER	DESCRIPTION
BTTIU - 075 - 220	Vertical unit with 220V/3 phase power requirement.

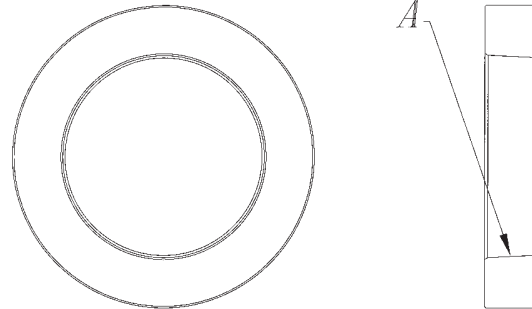
**THERMAX ACCESSORIES**



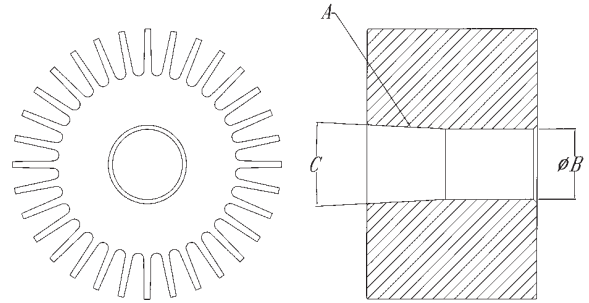
INDUCTION UNIT BASE POT		
PART NUMBER	A	B
B-LCR-BASE	5.875	4.75

## THERMAX ACCESSORIES

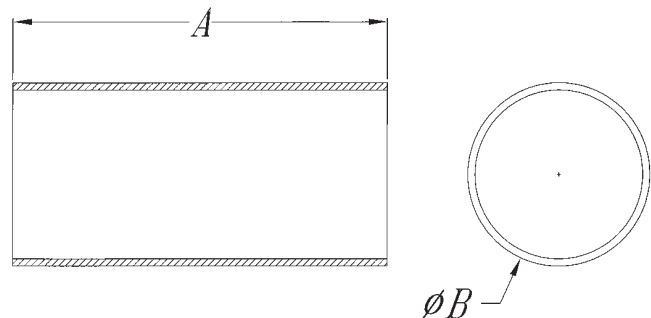
TAPERED HOLDER RING	
PART NUMBER	
LCR - V40	
LCR - HSK32	
LCR - HSK40	
LCR - HSK50	
LCR - HSK63	
LCR - HSK80	



HEAT SINK			
PART NUMBER	A	B	C
B-ICR-012	.883	.750	6° +/- .25°
B-ICR-018	.946	.813	6° +/- .25°
B-ICR-025, 6M	1.008	.875	6° +/- .25°
B-ICR-031	1.071	.938	6° +/- .25°
B-ICR-038, 8M, 10M	1.133	1.000	6° +/- .25°
B-ICR-044	1.188	1.057	6° +/- .25°
B-ICR-050, 12M	1.258	1.125	6° +/- .25°
B-ICR-062, 14M, 16M	1.383	1.250	6° +/- .25°
B-ICR-075, 18M, 20M	1.508	1.340	6° +/- .25°
B-ICR-088	1.633	1.460	6° +/- .25°
B-ICR-100, 25M	1.758	1.590	6° +/- .25°
B-ICR-125, 32M	2.008	1.800	6° +/- .25°
B-ICR-150	2.258	2.040	6° +/- .25°
B-ICR-200	2.758	2.500	6° +/- .25°
A-ICR-6M, 8M	1.071	.787	9° +/- .25°
A-ICR-10M, 12M	1.268	.945	9° +/- .25°
A-ICR-14M, 16M	1.347	1.063	9° +/- .25°
A-ICR-18M, 20M	1.662	1.300	9° +/- .25°
A-ICR-25M, 32M	2.095	1.733	9° +/- .25°



COOLING SLEEVE		
PART NUMBER	A	B
B-ICR-HOUSING	9.75	4.75







**TRU-THERM**



**ENHANCED CONTROL** - This high quality power supply provides more than ample power for shrink-fit heating applications. With 7.5 kw, cutting tool sizes can range from 3/16” through 1.500” with HSS in sizes larger than 3/8”.

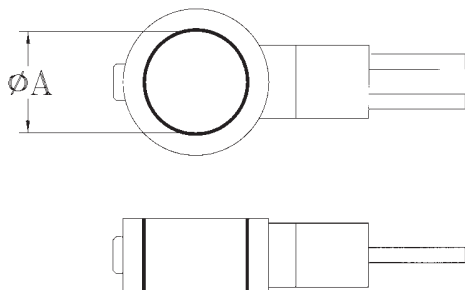
With its water cooled induction coils it offers unmatched durability. The water flow allows for the use of copper coils for the induction coil. These coils are far more efficient and several times more durable than the wrapped wire coils. This system also features a four station tool holder chilling unit built right into it. It uses an enclosed circulating coolant system to quickly draw the heat from the tool holder. With the quick-change removable cooling sleeves, you can switch size to match your cooling needs in seconds.

Touch screen programming guides the operator through the tool change cycle. It is designed for 100% duty cycle.

**INDUCTION HEATING UNIT**

PART NUMBER	DESCRIPTION
BTT - 075 - 220	Vertical unit with 220V/3 phase power requirement.

**INDUCTION HEATING UNIT ACCESSORIES**



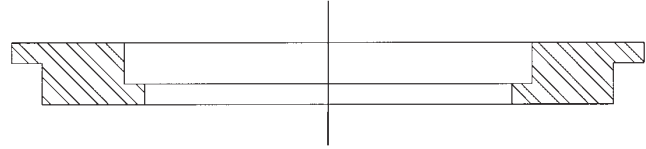
**INDUCTION COILS FOR VERTICAL UNIT**

PART NUMBER	A
BI - 1.19 ID Coil	To Change 3/16”, 1/4”, and 3/8” tools
BI - 1.45 ID Coil	To Change 1/2” and 5/8” tools
BI - 1.71 ID Coil	To Change 3/4” and 7/8” tools
BI - 2.07 ID Coil	To Change 1” and 1 1/4” tools

## INDUCTION HEATING UNIT ACCESSORIES

INDUCTION UNIT

INDUCTION ADAPTERS AND REDUCERS	
PART NUMBER	ADAPTS TO
TI HSK63-HSK40RA	From HSK 63 to HSK 40
TI V50-V40RA	From V50 to V40
TI V50-HSK40RA	From V50 to HSK 40

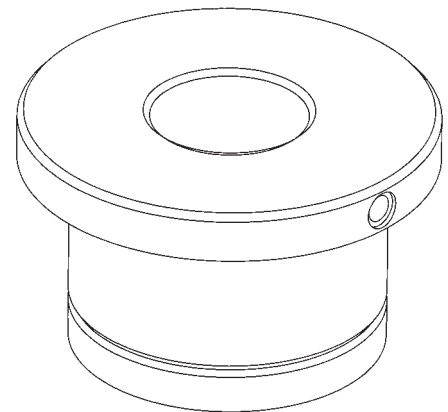


## COOLING DEVICES

### TIIPS-D11

Single aluminum cooling blocks to dissipate the heat from the toolholder. The interior diameter is tapered to match taper on O.D. of toolholder. The toolholder uses conduction to draw the heat from the holder. The cooling blocks can be immersed in water or coolant between tool changes to speed the cooling process. Average cooling times using a cold cooling block is 90 seconds. The cooling blocks can be ordered by specifying the ID size of the toolholder that is to be used.

**WARNING: Do not immerse toolholders in water or coolant without cooling first, it could cause distortion or breakage of toolholder due to rapid cooling (quenching) of the steel.**



COOLING SLEEVES	
PART NUMBER	CUTTING TOOL SIZE
TIIPS-D11-012	.125 TOOLS
TIIPS-D11-018	.187 TOOLS
TIIPS-D11-025, 6M	.250 & 6MM TOOLS
TIIPS-D11-031	.312 TOOLS
TIIPS-D11-038, 8M, 10M	.375, 8MM, & 10MM TOOLS
TIIPS-D11-044	.437 TOOLS
TIIPS-D11-050, 12M	.500 & 12MM TOOLS
TIIPS-D11-062, 14M, 16M	.625, 14MM, & 16MM TOOLS
TIIPS-D11-075, 20M, 18M	.750, 20MM, & 18MM TOOLS
TIIPS-D11-088	.875 TOOLS
TIIPS-D11-100, 25M	1.0 & 25MM TOOLS
TIIPS-D11-125, 32M	1.25 & 32MM TOOLS
TIIPS-D11-150	1.50 TOOLS
TIIPS-D11-200	2.0 TOOLS



## INDUCTION TOOL CHANGING SYSTEM



**SUPERIOR CONTROL** - Our ETL-approved, solid state Induction Tool Changing unit enables the operator to have total control over the heating process. The variable power setting on the machine provides a method of controlling the output of power. The power control regulates the amount of energy to be transmitted into heat and can easily be adjusted to the various sized tools.

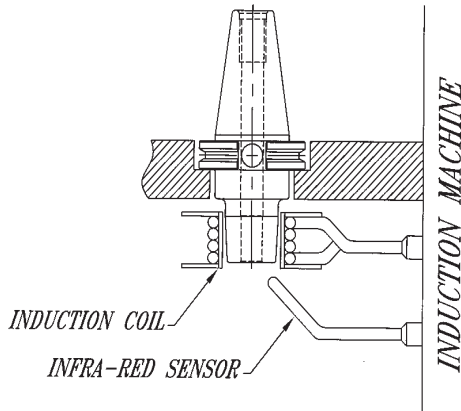
To assist in directing the correct amount of heat, the automatic cycle time control can be adjusted to the proper length of time necessary. This control can be set from 1 to 22 seconds. The normal settings for tooling from 1/4" thru 1 1/2" diameter is 70% power setting. If the outer diameter of the toolholder is relatively close in diameter to the coil the efficiency of the coil is enhanced. If the outer diameter is relatively small in relationship, the efficiency is reduced. The efficiency of the coil effects the cycle length, but small diameter tooling requires less shrink fit interference, therefore allowing for minimal adjustments of the machine to operate on most tooling. The normal cycle length for changing tooling is 7 seconds.

## INDUCTION HEATING UNITS & OPTIONS

INDUCTION HEATING UNITS	
PART NUMBER	DESCRIPTION
TIDD 10/10 N12	Vertical unit with 220V/3 phase power requirement with NEMA 12 electrical cabinet.
TIDD 10/10 HN12	Horizontal unit with 220V/3 phase power requirement with NEMA 12 electrical cabinet.
TIDD 10/10 N12480	Vertical unit with 480V transformer with NEMA 12 electrical cabinet.
TIDD 10/10 HN12480	Horizontal unit with 480V transformer with NEMA 12 electrical cabinet.

## INDUCTION MACHINE ACCESSORIES

INDUCTION UNIT

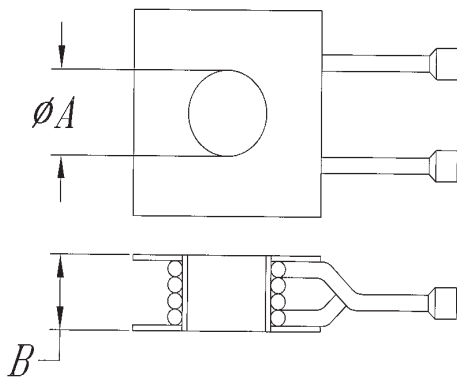


### INFRARED SENSOR OPTION

The Infrared Sensor Option allows for the most effective use of the Induction Machine in the shrink fit process. With the Infrared Option, the controls of the Induction Unit are overridden by using the desired temperature setting. When the toolholder reaches the desired temperature the machine shuts down automatically. This virtually eliminates improper use of the machine and operator error due to incorrect power and timer settings. Infrared is a practical addition for all shrink fit users.

PART NUMBER	DESCRIPTION
TIIR	Infrared Sensor

For use with all Induction Units.

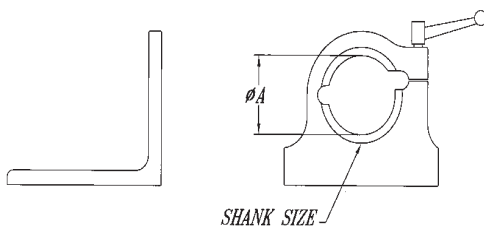


### INDUCTION COILS FOR VERTICAL UNITS

PART NUMBER	A	B	
TIIC - 050	1.375	1.12	To change .500 max diameter tool shank
TIIC - 125	2.125	1.25	To change 1.250 max diameter tool shank
TIIC - 200	2.875	2.12	To change 2.000 max diameter tool shank

### ENCLOSED INDUCTION COILS FOR HORIZONTAL UNITS

PART NUMBER	A	B	
TIEIC - 050	1.375	1.12	To change .500 max diameter tool shank
TIEIC - 125	2.125	1.25	To change 1.250 max diameter tool shank
TIEIC - 200	2.875	2.12	To change 2.000 max diameter tool shank

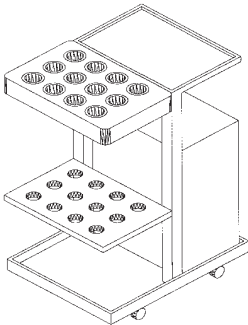


### HORIZONTAL CLAMPING FIXTURE

PART NUMBER	SHANK SIZE	A
TIHCF - V40	V40	2.50
TIHCF - V45	V45	3.25
TIHCF - V50	V50	3.88
TIHCF - BT40	BT40	2.48
TIHCF - BT50	BT50	3.94
TIHCF - HSK32	HSK32	1.26
TIHCF - HSK40	HSK40	1.58
TIHCF - HSK50	HSK50	1.97
TIHCF - HSK63	HSK63	2.48
TIHCF - HSK100	HSK100	3.94

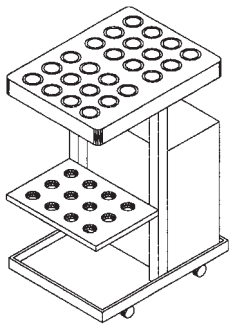
For clamping of additional toolholder styles on horizontal induction machines.

One clamping fixture is included with the horizontal machine.



**TI 12CB/CU II**

12-station cooling unit with self contained cooler unit for temperature regulation of the block and interchangeable cooling sleeves. The unit includes 12-TI 1CB interchangeable cooling blocks to customize the unit to meet your needs. The 12-station block is designed and supplied with coolant channels throughout the block. Fittings, piping, pump and adjustable cooler unit to regulate the temperature of the coolant and block for rapid cooling of inducted heated tooling. The unit is mounted on a free standing shelving unit with casters for better mobility. The storage shelves hold between 10 and 40 toolholders based on the size of the toolholders.



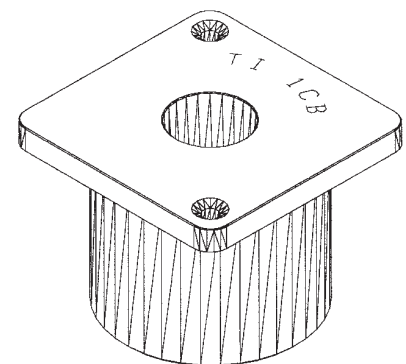
**TI 24CB/CU III**

24-station cooling unit manufactured from aluminum. Comes complete with moveable stand with shelves for tooling. Includes 24 TI 1CB single cooling blocks to customize the unit to meet the needs of the customers. The 24-station block is designed and supplied with coolant channels throughout the block, fittings, piping and fully contained chiller unit to regulate the temperature of the coolant and block within +/- 2 degrees. The unit is free standing on a shelving unit with casters for easy movement. The storage shelves hold between 10 and 40 toolholders based on the size of the holders. This unit is designed for high volume shrink fit users.

COOLING UNITS	
PART NUMBER	DESCRIPTION
TI12CB/CU II	12-Station with cooler
TI 24CB/CU III	Deluxe Cooling Unit 24-Station with Chiller

**TI 1 CB**

Single aluminum cooling blocks to dissipate the heat from the toolholder. The interior diameter is tapered to match taper on O.D. of toolholder. The toolholder uses conduction to draw the heat from the holder. The cooling blocks can be immersed in water or coolant between tool changes to speed the cooling process. Average cooling times using a cold cooling block is 90 seconds. The cooling blocks can be ordered by specifying the ID size of the toolholder that is to be used.



**WARNING: Do not immerse toolholders in water or coolant without cooling first, it could cause distortion or breakage of toolholder due to rapid cooling (quenching) of the steel.**

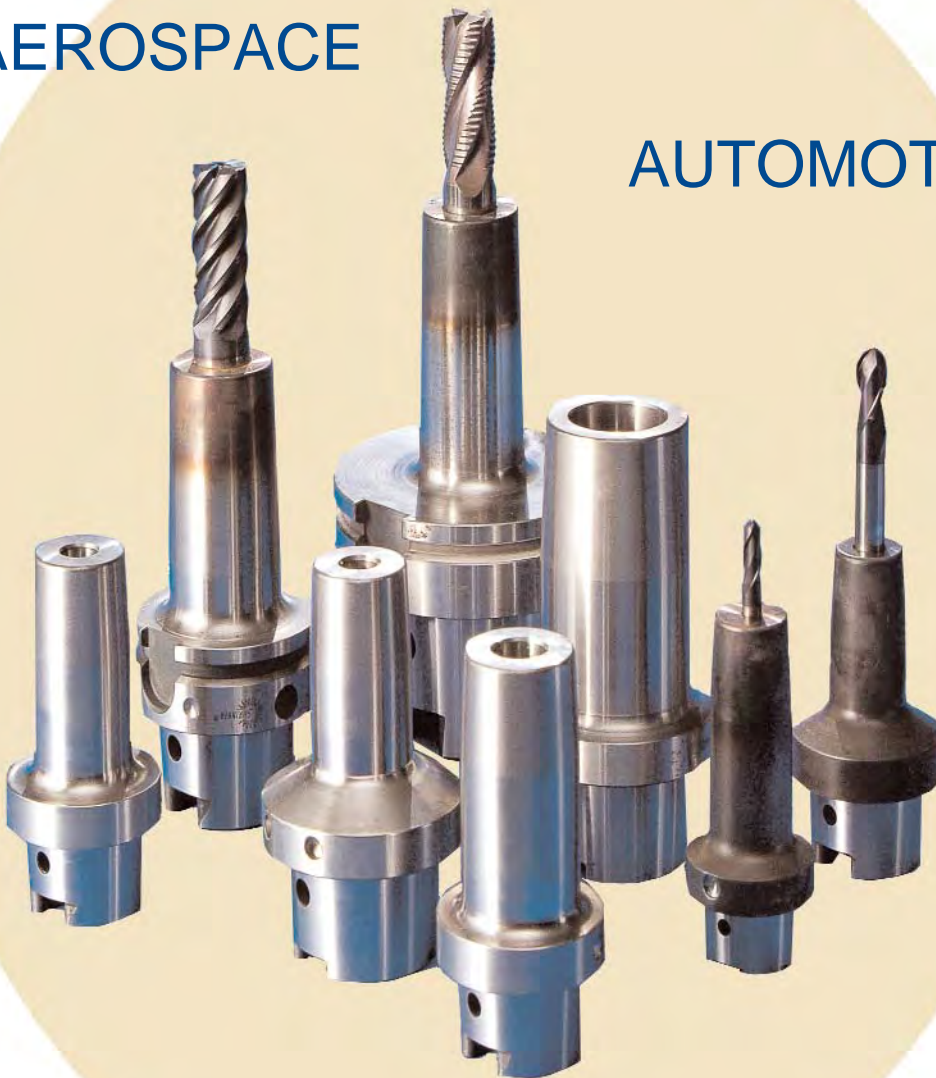
COOLING SLEEVES					
PART NUMBER	CUTTING TOOL SIZE	PART NUMBER	CUTTING TOOL SIZE	PART NUMBER	CUTTING TOOL SIZE
TI 1CB-3/16	.187	TI 1CB-3/4	.750	TI 1CB-8M	8MM
TI 1CB-1/4	.250	TI 1CB-7/8	.875	TI 1CB-10M	10MM
TI 1CB-5/16	.312	TI 1CB-1"	1.00	TI 1CB-12M	12MM
TI 1CB-3/8	.375	TI 1CB-1 1/4	1.25	TI 1CB-16M	16MM
TI 1CB-7/16	.437	TI 1CB-1 1/2	1.50	TI 1CB-20M	20MM
TI 1CB-1/2	.500	TI 1CB-2"	2.00	TI 1CB-25M	25MM
TI 1CB-5/8	.625	TI 1CB-6M	6MM	TI 1CB-32M	32MM

**SHRINKER TOOLING**

SHRINKER  
TOOLING

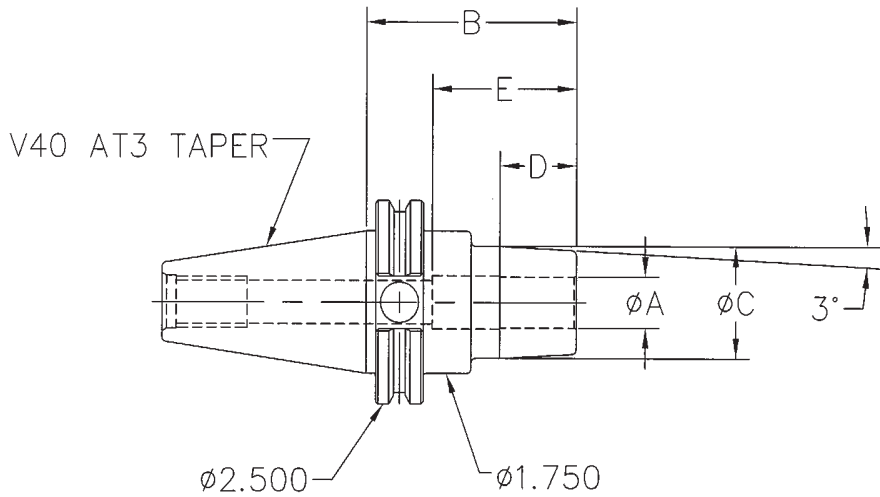
AEROSPACE

AUTOMOTIVE



GENERAL MACHINING

## CAT 40 V FLANGE ADAPTERS



For coolant thru Bore  
Tooling, see page 32

V FLANGE  
TOOLING

STANDARD LENGTH					
PART NUMBER	A	B	C	D	E
V40SF-018-275	.1875	2.750	.937	.500	3.75
V40SF-025-275	.2500	2.750	1.000	.750	3.75
V40SF-038-275	.3750	2.750	1.125	1.00	3.75
V40SF-050-275	.5000	2.750	1.250	1.00	2.00
V40SF-062-275	.6250	2.750	1.375	1.00	2.12
V40SF-075-275	.7500	2.750	1.500	1.25	2.25
V40SF-088-275	.8750	2.750	1.625	1.25	2.25
V40SF-100-275	1.0000	2.750	1.750	1.25	2.25
V40SF-125-275	1.2500	2.750	2.000	1.50	2.50
V40SF-150-325	1.5000	3.250	2.250	1.75	2.75

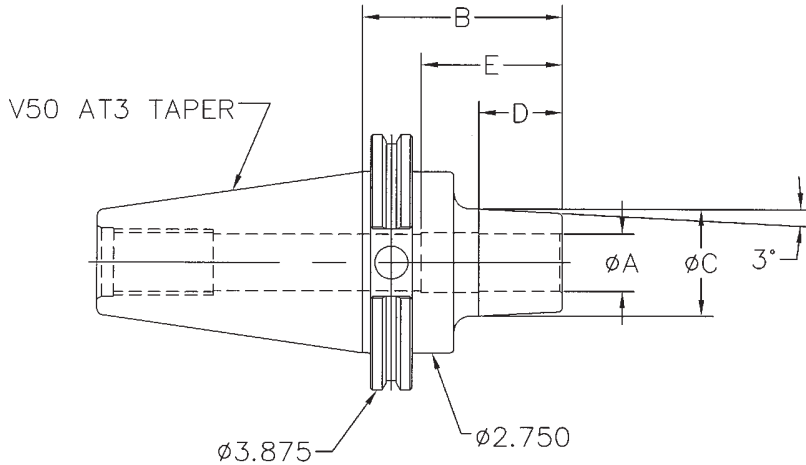
METRIC STANDARD LENGTH (mm)					
PART NUMBER	A	B	C	D	E
V40SF-6M-70	6	70	25.40	19.05	-
V40SF-8M-70	8	70	28.58	25.40	-
V40SF-10M-70	10	70	28.58	25.40	38.10
V40SF-12M-70	12	70	31.75	25.40	44.45
V40SF-14M-70	14	70	34.93	25.40	44.45
V40SF-16M-70	16	70	34.93	25.40	50.80
V40SF-18M-70	18	70	38.10	31.75	50.80
V40SF-20M-70	20	70	44.45	31.75	57.15
V40SF-32M-70	32	70	50.80	38.10	57.15

EXTENDED LENGTH					
PART NUMBER	A	B	C	D	E
V40SF-018-600	.1875	6.000	.937	.500	2.00
V40SF-025-600	.2500	6.000	1.000	.750	2.00
V40SF-038-600	.3750	6.000	1.125	1.00	2.00
V40SF-050-600	.5000	6.000	1.250	1.00	2.00
V40SF-062-600	.6250	6.000	1.375	1.00	2.12
V40SF-075-600	.7500	6.000	1.500	1.25	2.25
V40SF-088-600	.8750	6.000	1.625	1.25	2.25
V40SF-100-600	1.0000	6.000	1.750	1.25	2.25
V40SF-125-600	1.2500	6.000	2.000	1.50	2.50
V40SF-150-600	1.5000	6.000	2.250	1.75	2.75

## CAT 50 V FLANGE ADAPTERS

V FLANGE TOOLING

For coolant thru Bore  
Tooling, see page 32



STANDARD LENGTH					
PART NUMBER	A	B	C	D	E
V50SF-018-300	.1875	3.00	.937	.500	2.00
V50SF-025-300	.2500	3.00	1.000	.750	2.00
V50SF-038-300	.3750	3.00	1.125	1.00	2.00
V50SF-050-300	.5000	3.00	1.250	1.00	2.00
V50SF-062-300	.6250	3.00	1.375	1.00	2.00
V50SF-075-300	.7500	3.00	1.500	1.25	2.00
V50SF-088-300	.8750	3.00	1.625	1.25	2.25
V50SF-100-300	1.0000	3.00	1.750	1.25	2.25
V50SF-125-300	1.2500	3.00	2.000	1.50	2.50
V50SF-150-300	1.5000	3.00	2.250	1.75	2.75
V50SF-200-300	2.0000	3.00	2.750	2.00	3.00

EXTRA EXTENDED LENGTH					
PART NUMBER	A	B	C	D	E
V50SF-018-700	.1875	7.00	.937	.500	2.00
V50SF-025-700	.2500	7.00	1.000	.750	2.00
V50SF-038-700	.3750	7.00	1.125	1.00	2.00
V50SF-050-700	.5000	7.00	1.250	1.00	2.00
V50SF-062-700	.6250	7.00	1.375	1.00	2.00
V50SF-075-700	.7500	7.00	1.500	1.25	2.00
V50SF-088-700	.8750	7.00	1.625	1.25	2.25
V50SF-100-700	1.0000	7.00	1.750	1.25	2.25
V50SF-125-700	1.2500	7.00	2.000	1.50	2.50
V50SF-150-700	1.5000	7.00	2.250	1.75	2.75
V50SF-200-700	2.0000	7.00	2.750	2.00	3.00

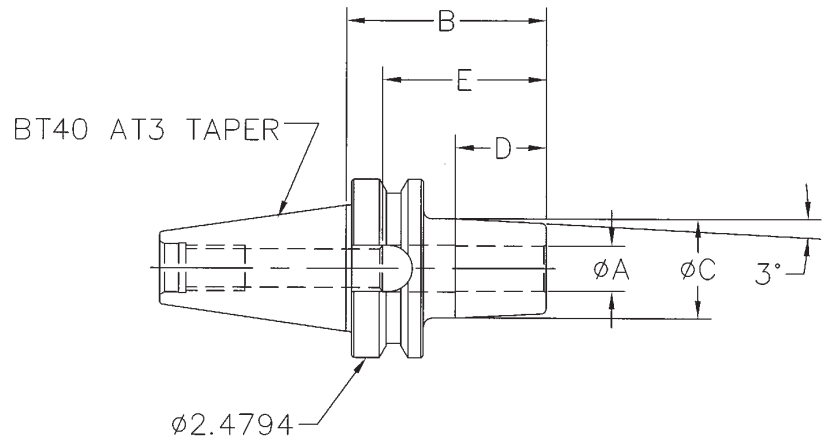
EXTENDED LENGTH					
PART NUMBER	A	B	C	D	E
V50SF-018-500	.1875	5.00	.937	.500	2.00
V50SF-025-500	.2500	5.00	1.000	.750	2.00
V50SF-038-500	.3750	5.00	1.125	1.00	2.00
V50SF-050-500	.5000	5.00	1.250	1.00	2.00
V50SF-062-500	.6250	5.00	1.375	1.00	2.00
V50SF-075-500	.7500	5.00	1.500	1.25	2.00
V50SF-088-500	.8750	5.00	1.625	1.25	2.25
V50SF-100-500	1.0000	5.00	1.750	1.25	2.25
V50SF-125-500	1.2500	5.00	2.000	1.50	2.50
V50SF-150-500	1.5000	5.00	2.250	1.75	2.75
V50SF-200-500	2.0000	5.00	2.750	2.00	3.00

METRIC STANDARD LENGTH (mm)					
PART NUMBER	A	B	C	D	E
V50SF-6M-75	6	75	25.40	19.05	-
V50SF-8M-75	8	75	28.58	25.40	-
V50SF-10M-75	10	75	28.58	25.40	38.10
V50SF-12M-75	12	75	31.75	25.40	44.45
V50SF-14M-75	14	75	34.93	25.40	44.45
V50SF-16M-75	16	75	34.93	25.40	50.80
V50SF-18M-75	18	75	38.10	31.75	50.80
V50SF-20M-75	20	75	38.10	31.75	50.80
V50SF-25M-75	25	75	44.45	31.75	57.15
V50SF-32M-75	32	75	50.80	38.10	57.15



## 40 BT FLANGE ADAPTERS

For coolant thru Bore  
Tooling, see page 32



BT FLANGE  
TOOLING

### STANDARD LENGTH

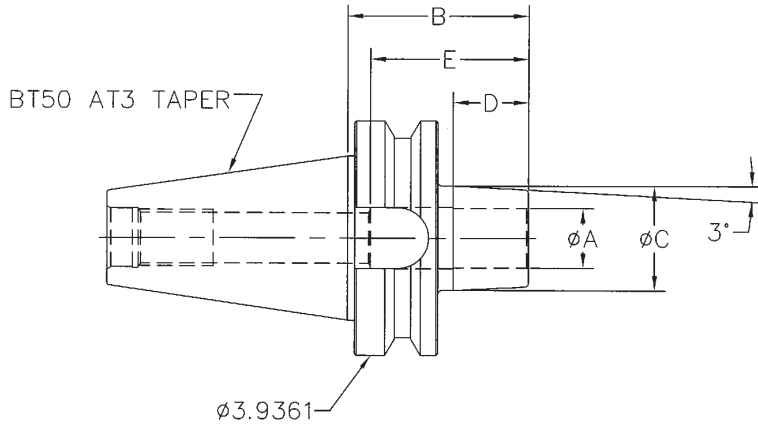
PART NUMBER	A	B	C	D	E
BT40SF-018-275	.1875	2.75	.937	.500	2.00
BT40SF-038-275	.3750	2.75	1.125	1.00	2.00
BT40SF-050-275	.5000	2.75	1.250	1.00	2.00
BT40SF-062-275	.6250	2.75	1.375	1.00	2.12
BT40SF-075-275	.7500	2.75	1.500	1.25	2.25
BT40SF-088-275	.8750	2.75	1.625	1.25	2.25
BT40SF-100-275	1.0000	2.75	1.750	1.25	2.25
BT40SF-125-275	1.2500	2.75	2.000	1.50	2.50
BT40SF-150-275	1.5000	2.75	2.250	1.75	2.75

### EXTENDED LENGTH

PART NUMBER	A	B	C	D	E
BT40SF-018-600	.1875	6.00	.937	.500	2.00
BT40SF-038-600	.3750	6.00	1.125	1.00	2.00
BT40SF-050-600	.5000	6.00	1.250	1.00	2.00
BT40SF-062-600	.6250	6.00	1.375	1.00	2.12
BT40SF-075-600	.7500	6.00	1.500	1.25	2.25
BT40SF-088-600	.8750	6.00	1.625	1.25	2.25
BT40SF-100-600	1.0000	6.00	1.750	1.25	2.25
BT40SF-125-600	1.2500	6.00	2.000	1.50	2.50
BT40SF-150-600	1.5000	6.00	2.250	1.75	2.75

## 50 BT FLANGE ADAPTER

For coolant thru Bore  
Tooling, see page 32



BT FLANGE  
TOOLING

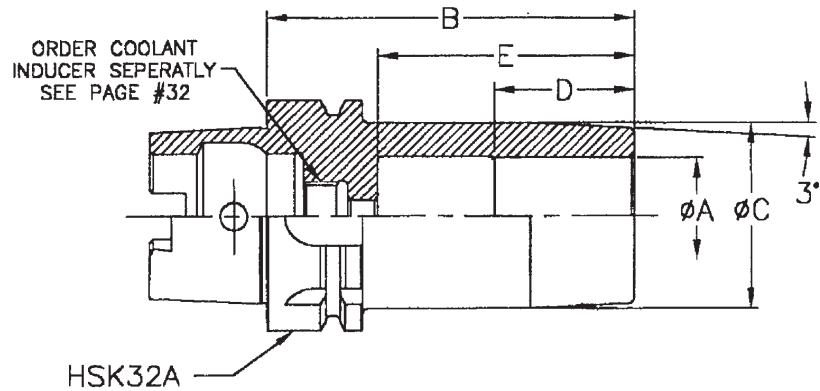
### STANDARD LENGTH

PART NUMBER	A	B	C	D	E
BT50SF-018-300	.1875	3.00	.937	.500	2.00
BT50SF-038-300	.3750	3.00	1.125	1.00	2.00
BT50SF-050-300	.5000	3.00	1.250	1.00	2.00
BT50SF-062-300	.6250	3.00	1.375	1.00	2.00
BT50SF-075-300	.7500	3.00	1.500	1.25	2.00
BT50SF-088-300	.8750	3.00	1.625	1.25	2.25
BT50SF-100-300	1.0000	3.00	1.750	1.25	2.25
BT50SF-125-300	1.2500	3.00	2.000	1.50	2.50
BT50SF-150-300	1.5000	3.00	2.250	1.75	2.75
BT50SF-200-300	2.0000	3.00	2.750	2.00	3.00

### EXTENDED LENGTH

PART NUMBER	A	B	C	D	E
BT50SF-018-500	.1875	5.00	.937	.500	2.00
BT50SF-038-500	.3750	5.00	1.125	1.00	2.00
BT50SF-050-500	.5000	5.00	1.250	1.00	2.00
BT50SF-062-500	.6250	5.00	1.375	1.00	2.00
BT50SF-075-500	.7500	5.00	1.500	1.25	2.00
BT50SF-088-500	.8750	5.00	1.625	1.25	2.25
BT50SF-100-500	1.0000	5.00	1.750	1.25	2.25
BT50SF-125-500	1.2500	5.00	2.000	1.50	2.50
BT50SF-150-500	1.5000	5.00	2.250	1.75	2.75
BT50SF-200-500	2.0000	5.00	2.750	2.00	3.00

For coolant thru Bore  
Tooling, see page 32



HSK  
TOOLING

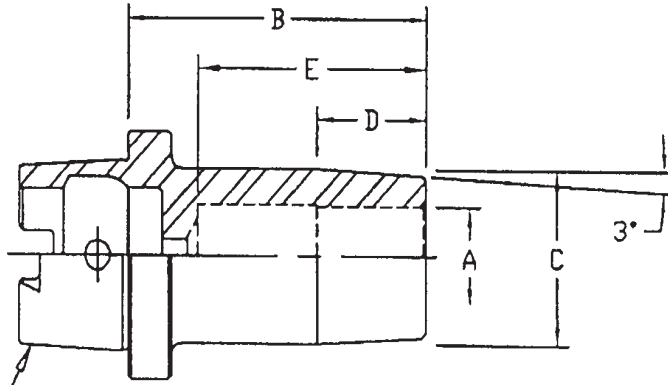
STANDARD LENGTH					
PART NUMBER	A	B	C	D	E
HSK32ASF-018-236	.1875	2.36	.937	.500	1.25
HSK32ASF-025-236	.2500	2.36	1.000	.750	1.25
HSK32ASF-038-256	.3750	2.56	1.125	1.00	1.50
HSK32ASF-050-276	.5000	2.76	1.250	1.00	1.60

EXTENDED LENGTH					
PART NUMBER	A	B	C	D	E
HSK32ASF-018-315	.1875	3.15	.937	.500	1.25
HSK32ASF-025-315	.2500	3.15	1.000	.750	1.25
HSK32ASF-038-315	.3750	3.15	1.125	1.00	1.50
HSK32ASF-050-354	.5000	3.54	1.250	1.00	1.60

METRIC STANDARD LENGTH (mm)					
PART NUMBER	A	B	C	D	E
HSK32ASF-6M-60	6	60	25.40	19.05	31.75
HSK32ASF-10M-65	10	65	28.57	25.40	38.10
HSK32ASF-12M-70	12	70	31.75	25.40	40.64

## HSK32C DIN69893

For coolant thru Bore  
Tooling, see page 32



HSK-C SHANK  
DIN 69893-1

### STANDARD LENGTH

PART NUMBER	A	B	C	D	E
HSK32CSF-018-236	.1875	2.36	.937	.500	1.25
HSK32CSF-025-236	.2500	2.36	1.000	.750	1.25
HSK32CSF-038-256	.3750	2.56	1.125	1.00	1.50
HSK32CSF-050-276	.5000	2.76	1.250	1.00	1.60

### EXTENDED LENGTH

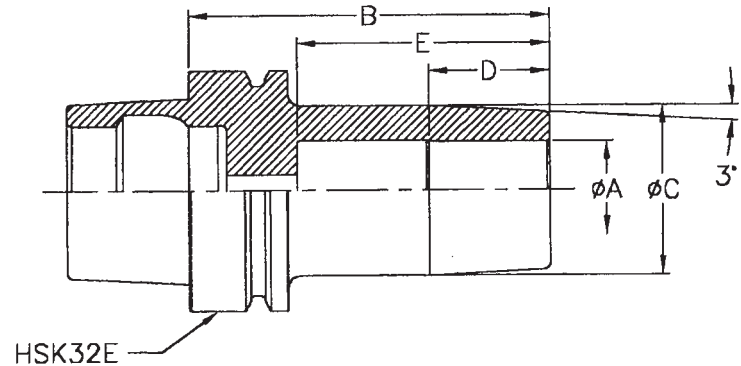
PART NUMBER	A	B	C	D	E
HSK32CSF-018-315	.1875	3.15	.937	.500	1.25
HSK32CSF-025-315	.2500	3.15	1.000	.750	1.25
HSK32CSF-038-315	.3750	3.15	1.125	1.00	1.50
HSK32CSF-050-354	.5000	3.54	1.250	1.00	1.60

### METRIC STANDARD LENGTH (mm)

PART NUMBER	A	B	C	D	E
HSK32CSF-6M-60	6	60	25.40	19.05	31.75
HSK32SCF-8M-60	8	60	28.58	25.40	31.75
HSK32CSF-10M-65	10	65	28.57	25.40	38.10
HSK32CSF-12M-70	12	70	31.75	25.40	40.64

HSK  
TOOLING

For coolant thru Bore  
Tooling, see page 32



### STANDARD LENGTH

PART NUMBER	A	B	C	D	E
HSK32ESF-018-236	.1875	2.36	.937	.500	1.25
HSK32ESF-025-236	.2500	2.36	1.000	.750	1.25
HSK32ESF-038-256	.3750	2.56	1.125	1.00	1.50
HSK32ESF-050-276	.5000	2.76	1.250	1.00	1.60

### EXTENDED LENGTH

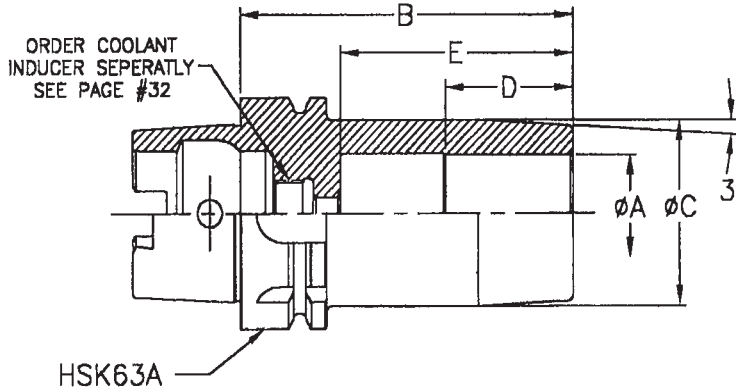
PART NUMBER	A	B	C	D	E
HSK32ESF-018-315	.1875	3.15	.937	.500	1.25
HSK32ESF-025-315	.2500	3.15	1.000	.750	1.25
HSK32ESF-038-315	.3750	3.15	1.125	1.00	1.50
HSK32ESF-050-354	.5000	3.54	1.250	1.00	1.60

### METRIC STANDARD LENGTH (mm)

PART NUMBER	A	B	C	D	E
HSK32ESF-6M-60	6	60	25.40	19.05	31.75
HSK32ESF-10M-65	10	65	28.57	25.40	38.10
HSK32ESF-12M-70	12	70	31.75	25.40	40.64

## HSK63A DIN69893

For coolant thru Bore  
Tooling, see page 32



HSK  
TOOLING

### STUB LENGTH

PART NUMBER	A	B	C	D	E
HSK63ASF-018-236	.1875	2.36	.937	.500	1.25
HSK63ASF-025-236	.2500	2.36	1.000	.750	1.25
HSK63ASF-038-256	.3750	2.56	1.125	1.00	1.50
HSK63ASF-050-295	.5000	2.95	1.250	1.00	1.75
HSK63ASF-062-315	.6250	3.15	1.375	1.00	2.00
HSK63ASF-075-315	.7500	3.15	1.500	1.25	2.00
HSK63ASF-100-374	1.0000	3.74	1.750	1.25	2.25
HSK63ASF-125-394	1.2500	3.94	2.000	1.50	2.50

### EXTENDED LENGTH

PART NUMBER	A	B	C	D	E
HSK63ASF-018-590	.1875	5.90	.937	.500	1.25
HSK63ASF-025-590	.2500	5.90	1.000	.750	1.25
HSK63ASF-038-590	.3750	5.90	1.125	1.00	1.50
HSK63ASF-050-590	.5000	5.90	1.250	1.00	1.75
HSK63ASF-062-590	.6250	5.90	1.375	1.00	2.00
HSK63ASF-075-590	.7500	5.90	1.500	1.25	2.00
HSK63ASF-100-590	1.0000	5.90	1.750	1.25	2.25
HSK63ASF-125-590	1.2500	5.90	2.000	1.50	2.50

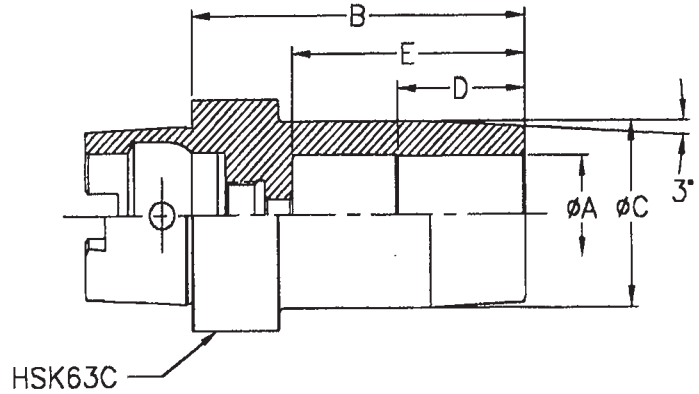
### STANDARD LENGTH

PART NUMBER	A	B	C	D	E
HSK63ASF-018-315	.1875	3.15	.937	.500	1.25
HSK63ASF-025-315	.2500	3.15	1.000	.750	1.25
HSK63ASF-038-315	.3750	3.15	1.125	1.00	1.50
HSK63ASF-050-354	.5000	3.54	1.250	1.00	1.75
HSK63ASF-062-394	.6250	3.94	1.375	1.00	2.00
HSK63ASF-075-394	.7500	3.94	1.500	1.25	2.00
HSK63ASF-100-433	1.0000	4.33	1.750	1.25	2.25
HSK63ASF-125-433	1.2500	4.33	2.000	1.50	2.50

### METRIC STANDARD LENGTH (mm)

PART NUMBER	A	B	C	D	E
HSK63ASF-6M-80	6	80	25.40	19.05	31.75
HSK63ASF-8M-80	8	80	28.58	25.40	38.10
HSK63ASF-10M-80	10	80	28.58	25.40	38.10
HSK63ASF-12M-90	12	90	31.75	25.40	44.45
HSK63ASF-14M-95	14	95	34.93	25.40	44.45
HSK63ASF-16M-100	16	100	34.93	25.40	50.80
HSK63ASF-18M-100	18	100	38.10	31.75	50.80
HSK63ASF-20M-100	20	100	38.10	31.75	50.80
HSK63ASF-25M-110	25	110	44.45	31.75	57.15
HSK63ASF-32M-110	32	110	50.80	38.10	57.15

For coolant thru Bore  
Tooling, see page 32



HSK  
TOOLING

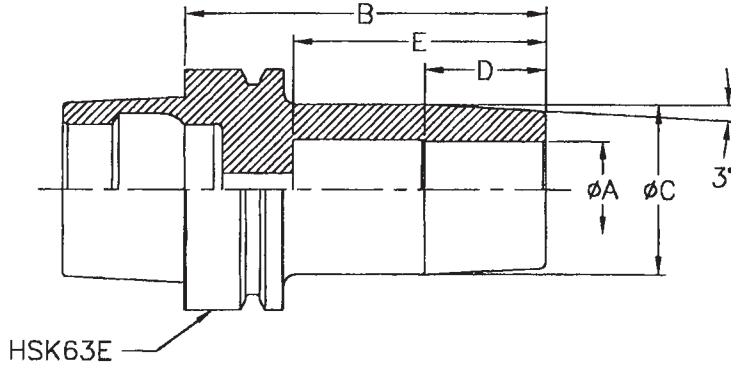
STUB LENGTH					
PART NUMBER	A	B	C	D	E
HSK63CSF-018-236	.1875	2.36	.937	.500	1.25
HSK63CSF-025-236	.2500	2.36	1.000	.750	1.25
HSK63CSF-038-256	.3750	2.56	1.125	1.00	1.50
HSK63CSF-050-295	.5000	2.95	1.250	1.00	1.75
HSK63CSF-062-315	.6250	3.15	1.375	1.00	2.00
HSK63CSF-075-315	.7500	3.15	1.500	1.25	2.00
HSK63CSF-100-374	1.0000	3.74	1.750	1.25	2.25
HSK63CSF-125-394	1.2500	3.94	2.000	1.50	2.50

METRIC STUB LENGTH					
PART NUMBER	A	B	C	D	E
HSK63CSF-6M-60	6	60	25.40	19.05	—
HSK63CSF-8M-60	8	60	28.58	25.40	—
HSK63CSF-10M-65	10	65	28.58	25.40	38.10
HSK63CSF-12M-75	12	75	31.75	25.40	44.45
HSK63CSF-14M-75	14	75	34.93	25.40	44.45
HSK63CSF-16M-80	16	80	34.93	25.40	50.80
HSK63CSF-18M-80	18	80	38.10	31.75	50.80
HSK63CSF-20M-80	20	80	38.10	31.75	50.80
HSK63CSF-25M-95	25	95	44.45	31.75	57.15
HSK63CSF-32M-95	32	95	50.80	38.10	57.15

STANDARD LENGTH					
PART NUMBER	A	B	C	D	E
HSK63CSF-018-315	.1875	3.15	.937	.500	1.25
HSK63CSF-025-315	.2500	3.15	1.000	.750	1.25
HSK63CSF-038-315	.3750	3.15	1.125	1.00	1.50
HSK63CSF-050-354	.5000	3.54	1.250	1.00	1.75
HSK63CSF-062-394	.6250	3.94	1.375	1.00	2.00
HSK63CSF-075-394	.7500	3.94	1.500	1.25	2.00
HSK63CSF-100-433	1.0000	4.33	1.750	1.25	2.25
HSK63CSF-125-433	1.2500	4.33	2.000	1.50	2.50

METRIC STANDARD LENGTH (mm)					
PART NUMBER	A	B	C	D	E
HSK63CSF-6M-80	6	80	25.40	19.05	31.75
HSK63CSF-8M-80	8	80	28.58	25.40	38.10
HSK63CSF-10M-80	10	80	28.58	25.40	38.10
HSK63CSF-12M-90	12	90	31.75	25.40	44.45
HSK63CSF-14M-90	14	90	34.93	25.40	44.45
HSK63CSF-16M-100	16	100	34.93	25.40	50.80
HSK63CSF-18M-100	18	100	38.10	31.75	50.80
HSK63CSF-20M-100	20	100	38.10	31.75	50.80
HSK63CSF-25M-110	25	110	44.45	31.75	57.15
HSK63CSF-32M-110	32	110	50.80	38.10	57.15

For coolant thru Bore  
Tooling, see page 32



### STUB LENGTH

PART NUMBER	A	B	C	D	E
HSK63ESF-018-236	.1875	2.36	.937	.500	1.25
HSK63ESF-025-236	.2500	2.36	1.000	.750	1.25
HSK63ESF-038-256	.3750	2.56	1.125	1.00	1.50
HSK63ESF-050-295	.5000	2.95	1.250	1.00	1.75
HSK63ESF-062-315	.6250	3.15	1.375	1.00	2.00
HSK63ESF-075-315	.7500	3.15	1.500	1.25	2.00
HSK63ESF-100-374	1.0000	3.74	1.750	1.25	2.25
HSK63ESF-125-394	1.2500	3.94	2.000	1.50	2.50

### STANDARD LENGTH

PART NUMBER	A	B	C	D	E
HSK63ESF-018-315	.1875	3.15	.937	.500	1.25
HSK63ESF-025-315	.2500	3.15	1.000	.750	1.25
HSK63ESF-038-315	.3750	3.15	1.125	1.00	1.50
HSK63ESF-050-354	.5000	3.54	1.250	1.00	1.75
HSK63ESF-062-394	.6250	3.94	1.375	1.00	2.00
HSK63ESF-075-394	.7500	3.94	1.500	1.25	2.00
HSK63ESF-100-433	1.0000	4.33	1.750	1.25	2.25
HSK63ESF-125-433	1.2500	4.33	2.000	1.50	2.50

### EXTENDED LENGTH

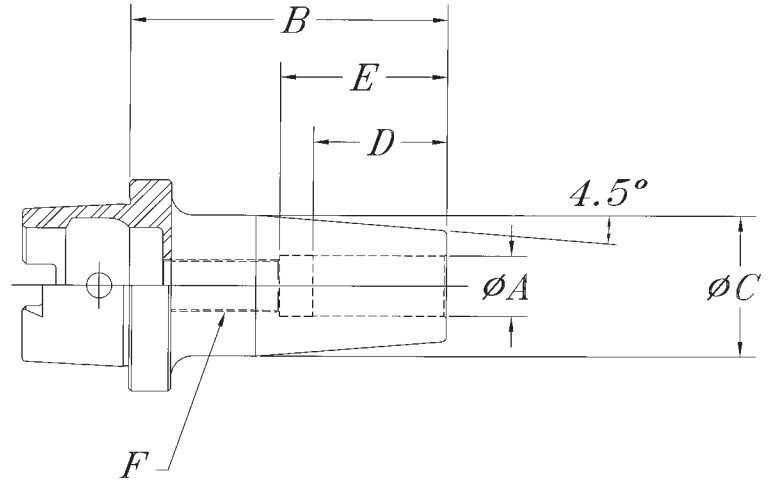
PART NUMBER	A	B	C	D	E
HSK63ESF-018-590	.1875	5.90	.937	.500	1.25
HSK63ESF-025-590	.2500	5.90	1.000	.750	1.25
HSK63ESF-038-590	.3750	5.90	1.125	1.00	1.50
HSK63ESF-050-590	.5000	5.90	1.250	1.00	1.75
HSK63ESF-062-590	.6250	5.90	1.375	1.00	2.00
HSK63ESF-075-590	.7500	5.90	1.500	1.25	2.00
HSK63ESF-100-590	1.0000	5.90	1.750	1.25	2.25
HSK63ESF-125-590	1.2500	5.90	2.000	1.50	2.50

### METRIC STANDARD LENGTH (mm)

PART NUMBER	A	B	C	D	E
HSK63ESF-6M-80	6	80	25.40	19.05	31.75
HSK63ESF-10M-80	10	80	28.50	25.40	38.10
HSK63ESF-12M-90	12	90	31.75	25.40	44.45
HSK63ESF-16M-100	16	100	34.93	25.40	50.80
HSK63ESF-20M-100	20	100	38.10	31.75	50.80
HSK63ESF-25M-110	25	110	44.45	31.75	57.15



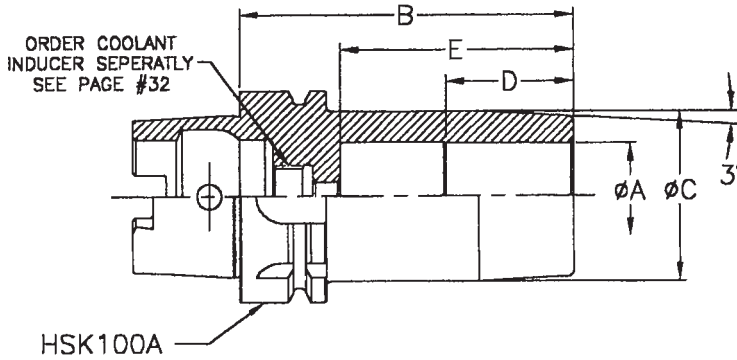
For coolant thru Bore Tooling, see page 32



### STANDARD LENGTH

PART NUMBER	A	B	C	D	E	F
HSK63ASFA-6M-80	6MM	80MM	27MM	26MM	36MM	M5X0.8LH
HSK63ASFA-8M-80	8MM	80MM	27MM	26MM	36MM	M6X1.0LH
HSK63ASFA-10M-85	10MM	85MM	32MM	32MM	42MM	M8X1.25LH
HSK63ASFA-12M-90	12MM	90MM	32MM	37MM	47MM	M10X1.5LH
HSK63ASFA-14M-90	14MM	90MM	34MM	37MM	47MM	M12X1.75LH
HSK63ASFA-16M-95	16MM	95MM	34MM	40MM	50MM	M14X2.0LH
HSK63ASFA-18M-95	18MM	95MM	42MM	40MM	50MM	M16X2.0LH
HSK63ASFA-20M-100	20MM	100MM	42MM	42MM	52MM	M18X1.5LH
HSK63ASFA-25M-115	25MM	115MM	53MM	48MM	58MM	M18X1.5LH
HSK63ASFA-32M-120	32MM	120MM	53MM	48MM	58MM	M18X1.5LH

For coolant thru Bore  
Tooling, see page 32



### STUB LENGTH

PART NUMBER	A	B	C	D	E
HSK100ASF-038-315	.3750	3.15	1.125	1.00	1.50
HSK100ASF-050-315	.5000	3.15	1.250	1.00	1.75
HSK100ASF-062-315	.6250	3.15	1.375	1.00	2.00
HSK100ASF-075-315	.7500	3.15	1.500	1.25	2.00
HSK100ASF-100-315	1.0000	3.15	1.750	1.25	2.25
HSK100ASF-125-315	1.2500	3.15	2.000	1.50	2.50
HSK100ASF-150-315	1.5000	3.15	2.250	1.75	2.75

### STANDARD LENGTH

PART NUMBER	A	B	C	D	E
HSK100ASF-038-394	.3750	3.94	1.125	1.00	1.50
HSK100ASF-050-394	.5000	3.94	1.250	1.00	1.75
HSK100ASF-062-394	.6250	3.94	1.375	1.00	2.00
HSK100ASF-075-433	.7500	4.33	1.500	1.25	2.00
HSK100ASF-100-472	1.0000	4.72	1.750	1.25	2.25
HSK100ASF-125-472	1.2500	4.72	2.000	1.50	2.50
HSK100ASF-150-472	1.5000	4.72	2.250	1.75	2.75

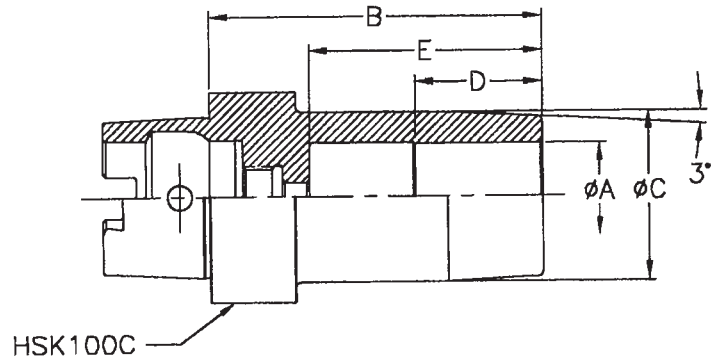
### EXTENDED LENGTH

PART NUMBER	A	B	C	D	E
HSK100ASF-038-650	.3750	6.50	1.125	1.00	1.50
HSK100ASF-050-650	.5000	6.50	1.250	1.00	1.75
HSK100ASF-062-650	.6250	6.50	1.375	1.00	2.00
HSK100ASF-075-650	.7500	6.50	1.500	1.25	2.00
HSK100ASF-100-650	1.0000	6.50	1.750	1.25	2.25
HSK100ASF-125-650	1.2500	6.50	2.000	1.50	2.50
HSK100ASF-150-650	1.5000	6.50	2.250	1.75	2.75

### METRIC STANDARD LENGTH (mm)

PART NUMBER	A	B	C	D	E
HSK100ASF-6M-100	6	100	25.40	19.05	-
HSK100ASF-8M-100	8	100	28.58	25.40	-
HSK100ASF-10M-100	10	100	28.58	25.40	-
HSK100ASF-12M-100	12	100	31.75	25.40	44.45
HSK100ASF-14M-105	14	105	34.93	25.40	44.45
HSK100ASF-16M-110	16	110	34.93	25.40	50.80
HSK100ASF-18M-110	18	110	38.10	31.75	50.80
HSK100ASF-20M-120	20	120	38.10	31.75	50.80
HSK100ASF-25M-120	25	120	44.45	31.75	57.15
HSK100ASF-32M-120	32	120	50.80	38.10	57.15

For coolant thru Bore  
Tooling, see page 32



### STUB LENGTH

PART NUMBER	A	B	C	D	E
HSK100CSF-038-315	.3750	3.15	1.125	1.00	1.50
HSK100CSF-050-315	.5000	3.15	1.250	1.00	1.75
HSK100CSF-062-315	.6250	3.15	1.375	1.00	2.00
HSK100CSF-075-315	.7500	3.15	1.500	1.25	2.00
HSK100CSF-100-315	1.0000	3.15	1.750	1.25	2.25
HSK100CSF-125-315	1.2500	3.15	2.000	1.50	2.50
HSK100CSF-150-315	1.5000	3.15	2.250	1.75	2.75

### STANDARD LENGTH

PART NUMBER	A	B	C	D	E
HSK100CSF-038-394	.3750	3.94	1.125	1.00	1.50
HSK100CSF-050-394	.5000	3.94	1.250	1.00	1.75
HSK100CSF-062-394	.6250	3.94	1.375	1.00	2.00
HSK100CSF-075-433	.7500	4.33	1.500	1.25	2.00
HSK100CSF-100-472	1.0000	4.72	1.750	1.25	2.25
HSK100CSF-125-472	1.2500	4.72	2.000	1.50	2.50
HSK100CSF-150-472	1.5000	4.72	2.250	1.75	2.75

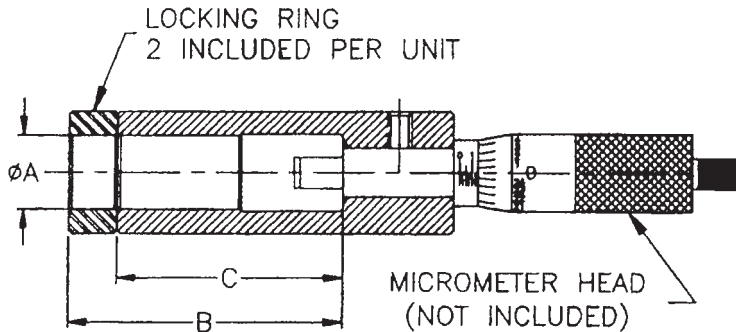
### EXTENDED LENGTH

PART NUMBER	A	B	C	D	E
HSK100CSF-038-650	.3750	6.50	1.125	1.00	1.50
HSK100CSF-050-650	.5000	6.50	1.250	1.00	1.75
HSK100CSF-062-650	.6250	6.50	1.375	1.00	2.00
HSK100CSF-075-650	.7500	6.50	1.500	1.25	2.00
HSK100CSF-100-650	1.0000	6.50	1.750	1.25	2.25
HSK100CSF-125-650	1.2500	6.50	2.000	1.50	2.50
HSK100CSF-150-650	1.5000	6.50	2.250	1.75	2.75

### METRIC STANDARD LENGTH (mm)

PART NUMBER	A	B	C	D	E
HSK100CSF-6M-100	6	100	25.40	19.05	—
HSK100CSF-8M-100	8	100	28.58	25.40	—
HSK100CSF-10M-100	10	100	28.58	25.40	—
HSK100CSF-12M-100	12	100	31.75	25.40	44.45
HSK100CSF-14M-105	14	105	34.93	25.40	44.45
HSK100CSF-16M-110	16	110	34.93	28.58	50.80
HSK100CSF-18M-110	18	110	38.10	28.58	50.80
HSK100CSF-20M-120	20	120	38.10	28.58	50.80
HSK100CSF-25M-120	25	120	44.45	31.75	57.15
HSK100CSF-32M-120	32	120	50.80	38.10	57.15

## DEPTH SETTING UNITS



Use our depth setting unit to pre-set the projection of the cutting tool. Select the proper unit for the tool to be pre-set:

- 1.) Place locking ring over cutting tool to approximate depth.
- 2.) Insert the cutting tool in to depth setting unit.
- 3.) Adjust the micrometer to the projection length desired.
- 4.) Hold locking ring in place against setting unit and clamp in place using lock screw. Remove depth setting unit.
- 5.) Select proper toolholder and cycle Induction Unit to expand bore.
- 6.) Insert cutting tool shank into heat expanded toolholder.
- 7.) When the toolholder cools and the shank is clamped remove locking ring.
- 8.) Allow toolholder to cool in cooling unit or cooling block.
- 9.) Tool and holder are ready for use.

### 1.00 to 2.00 ADJUSTABLE DEPTH SETTING UNITS

PART NUMBER	A	B	C
TIDSU-038	.3750	2.000	1.500
TIDSU-050	.5000	2.000	1.500
TIDSU-062	.6250	2.000	1.500
TIDSU-075	.7500	2.000	1.500
TIDSU-100	1.0000	2.000	1.500
TIDSU-125	1.2500	2.000	1.500
TIDSU-150	1.5000	2.000	1.500
TIDSU-200	2.0000	2.000	1.500

### 2.00 TO 4.00 ADJUSTABLE DEPTH SETTING UNITS

PART NUMBER	A	B	C
TIDSU4-038	.3750	4.000	3.500
TIDSU4-050	.5000	4.000	3.500
TIDSU4-062	.6250	4.000	3.500
TIDSU4-075	.7500	4.000	3.500
TIDSU4-100	1.0000	4.000	3.500
TIDSU4-125	1.2500	4.000	3.500
TIDSU4-150	1.5000	4.000	3.500
TIDSU4-200	2.0000	4.000	3.500

### METRIC

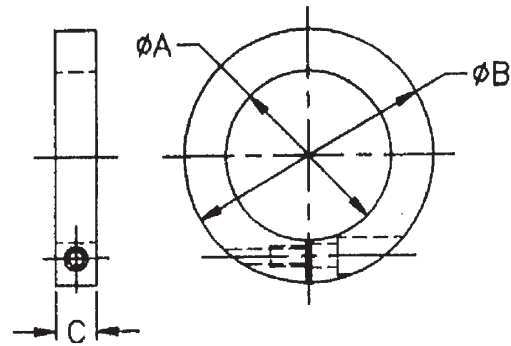
PART NUMBER	A	B	C
TIDSU-6M	6mm	2.000	1.500
TIDSU-10M	10mm	2.000	1.500
TIDSU-12M	12mm	2.000	1.500
TIDSU-16M	16mm	2.000	1.500
TIDSU-20M	20mm	2.000	1.500
TIDSU-25M	25mm	2.000	1.500
TIDSU-32M	32mm	2.000	1.500

### 2.00 TO 4.00 ADJUSTABLE DEPTH SETTING UNITS

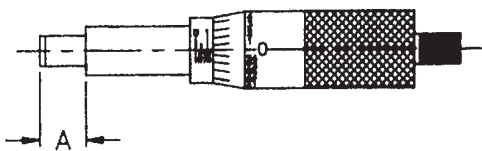
PART NUMBER	A	B	C
TIDSU4-6M	6mm	4.000	3.500
TIDSU4-10M	10mm	4.000	3.500
TIDSU4-12M	12mm	4.000	3.500
TIDSU4-16M	16mm	4.000	3.500
TIDSU4-20M	20mm	4.000	3.500
TIDSU4-25M	25mm	4.000	3.500
TIDSU4-32M	32mm	4.000	3.500

All Shrinker toolholders are qualified from the gage line or flange shoulder to the end of the holder to within +/- .001. The locking collars are precision ground to .5000 +/- .0002. By controlling the projection from the face of the holder, tools can be preset to .001 or less. If required, the toolholders can be qualified to closer tolerance and presetting to +/- .0002 or less can be achieved. Shrinker toolholders are being used extensively on multiple spindle machines using this method of presetting. Additional locking rings are available on page 29.

Select the proper locking ring to clamp onto the cutting tool and control the projection of the tool.



- 1.) Place the locking ring over the cutting tool, adjust to the proper depth and clamp in place using the locking screw.
- 2.) Insert the Tool Shank into the heat expanded bore of the toolholder.
- 3.) When the Tool holder cools and the shank is clamped, remove the locking ring.
- 4.) Tool and Toolholder are ready for use.



### LOCKING RINGS

PART NUMBER	A	B	C
TILR-038	.3750	1.50	.5000
TILR-050	.5000	1.50	.5000
TILR-062	.6250	1.75	.5000
TILR-075	.7500	1.75	.5000
TILR-100	1.0000	2.00	.5000
TILR-125	1.2500	2.25	.5000
TILR-150	1.5000	2.50	.5000
TILR-200	2.0000	3.00	.5000

### METRIC LOCKING RINGS

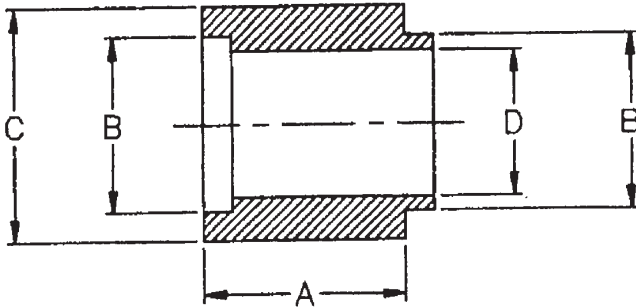
PART NUMBER	A	B	C
TILR-6M	6mm	1.50	.5000
TILR-8M	8mm	1.50	.5000
TILR-10M	10mm	1.50	.5000
TILR-12M	12mm	1.50	.5000
TILR-14M	14mm	1.50	.5000
TILR-16M	16mm	1.50	.5000
TILR-20M	20mm	1.50	.5000
TILR-25M	25mm	1.50	.5000
TILR-32M	32mm	1.50	.5000

### MICROMETER HEAD

PART NUMBER	A
TIMH-100	0 - 1.00
TIMH-200	0 - 2.00

Micrometer heads are for use with depth setting units on page 28.

## INDUCTION SPACER RINGS



### FOR V FLANGE HOLDERS

PART NUMBER	SHANK SIZE	EXT. LENGTH A	B	C	D
ISR-V40-275	V 40	2.750	2.50	2.75	2.25
ISR-V40-325	V 40	3.250	2.50	2.75	2.25
ISR-V45-200	V 45	2.000	3.25	3.50	3.00
ISR-V45-400	V 45	4.000	3.25	3.50	3.00
ISR-V50-200	V 50	2.000	3.88	4.12	3.62
ISR-V50-400	V 50	4.000	3.88	4.12	3.62

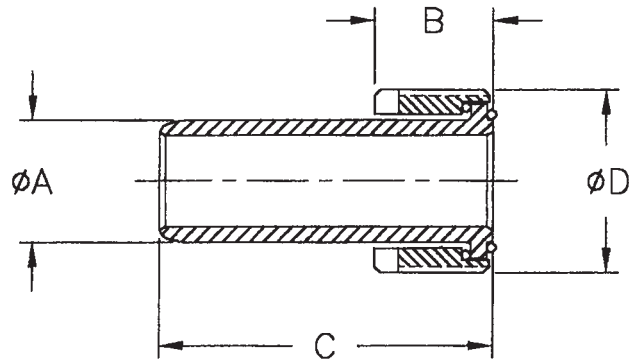
Use our Induction Spacer Rings to eliminate the adjustment of the table height on the Vertical Induction Heating Units. These spacer rings allow for quick change over from standard to extended and extra extended length holders.

### FOR HSK SHANK HOLDERS

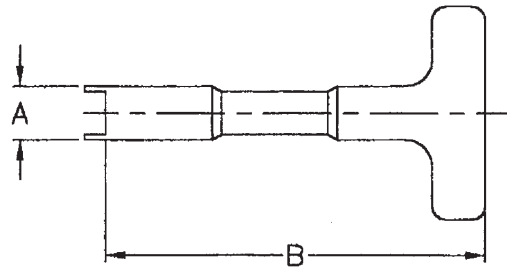
PART NUMBER	SHANK SIZE	EXT. LENGTH A	B	C	D
ISR-HSK32-040	HSK32	.400	1.26	1.51	1.01
ISR-HSK32-075	HSK32	.750	1.26	1.51	1.01
ISR-HSK32-100	HSK32	1.000	1.26	1.51	1.01
ISR-HSK40-040	HSK40	.400	1.58	1.83	1.33
ISR-HSK40-060	HSK40	.600	1.58	1.83	1.33
ISR-HSK40-160	HSK40	1.600	1.58	1.83	1.33
ISR-HSK50-040	HSK50	.400	1.97	2.22	1.72
ISR-HSK50-060	HSK50	.600	1.97	2.22	1.72
ISR-HSK50-120	HSK50	1.200	1.97	2.22	1.72
ISR-HSK50-160	HSK50	1.600	1.97	2.22	1.72
ISR-HSK63-040	HSK63	.400	2.48	2.73	2.23
ISR-HSK63-060	HSK63	.600	2.48	2.73	2.23
ISR-HSK63-120	HSK63	1.200	2.48	2.73	2.23
ISR-HSK63-160	HSK63	1.600	2.48	2.73	2.23
ISR-HSK63-197	HSK63	1.970	2.48	2.73	2.23
ISR-HSK63-354	HSK63	3.540	2.48	2.73	2.23
ISR-HSK100-080	HSK100	.800	3.94	4.19	3.69
ISR-HSK100-118	HSK100	1.180	3.94	4.19	3.69
ISR-HSK100-157	HSK100	1.570	3.94	4.19	3.69
ISR-HSK100-178	HSK100	1.780	3.94	4.19	3.69
ISR-HSK100-217	HSK100	2.170	3.94	4.19	3.69
ISR-HSK100-256	HSK100	2.560	3.94	4.19	3.69
ISR-HSK100-335	HSK100	3.350	3.94	4.19	3.69

EXAMPLE: set the Induction machine table at the proper height to change a standard length V50SF-100-300. The 300 designates the projection is 3.00 from the gage line to the end of the toolholder. If you wish to change a V50SF-100-500 a 5.00 projection toolholder, you select the ISR-V50-200, (A 2.00 extension spacer) place the ring on the Induction Machine table and insert the toolholder. The spacer ring will suspend the toolholder at the proper changing height without adjusting the table.

# HSK COOLANT TUBES & INSTALLATION WRENCH



HSK COOLANT TUBES					
PART NUMBER	TAPER SIZE	A	B	C	D
TICT-HSK32	HSK32	.236	.216	1.012	M10X1
TICT-HSK40	HSK40	.315	.295	1.150	M12X1
TICT-HSK50	HSK50	.394	.374	1.287	M16X1
TICT-HSK63	HSK63	.472	.452	1.425	M18X1
TICT-HSK100	HSK100	.630	.610	1.716	M24X1.5

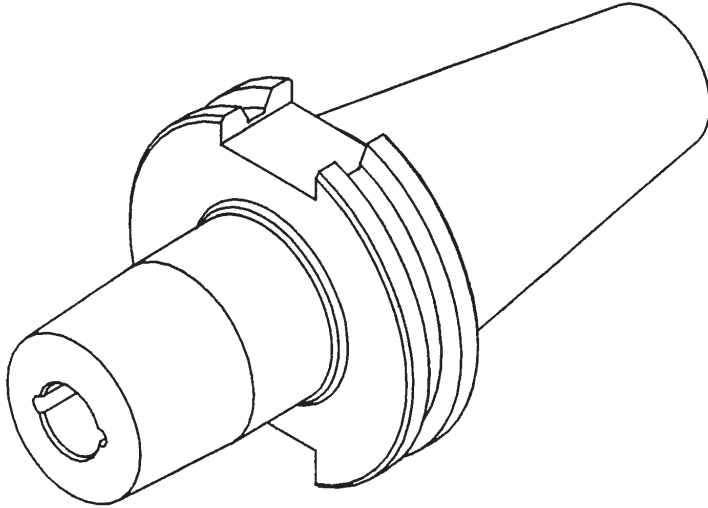


INSTALLATION WRENCH			
PART NUMBER	TAPER SIZE	A	B
TIIW-HSK32	HSK32	.334	4.21
TIIW-HSK40	HSK40	.413	4.40
TIIW-HSK50	HSK50	.570	4.60
TIIW-HSK63	HSK63	.650	4.80
TIIW-HSK100	HSK100	.866	5.55

HSK  
COOLANT  
TUBES

## COOLANT THROUGH BORE TOOLING

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### EXAMPLE: V40SFC-050-250

Briney Tooling Systems offers the ultimate in coolant through bore toolholders. By utilizing the shrink fit connection, which creates an air and coolant tight seal, coolant grooves can be added to the bore, to direct coolant down the flutes of the cutting tool, directly onto the cutting edge. Our system eliminates the need for special coolant through tools, sealing accessories or altering the tool shank for coolant delivery.

To order coolant through bore tooling, please add a "C" after the SF in the part number. EXAMPLE: V40SFC-050-250. Send for your quote today for the best in coolant through tooling.



The shrinker toolholding system delivers more gripping strength and machining accuracy than any other toolholder.





**COLLET CHUCKS**

COLLET CHUCKS

**BT-FLANGE**

BT-FLANGE

**END MILL ADAPTERS**

END MILL ADAPTERS

**V-FLANGE**

V-FLANGE

**HSK**

HSK

**NMTB**

NMTB



# V 40 & BT 40 FLANGE MACHINE START-UP PACKAGE



\* PLEASE SPECIFY V 40 or BT 40 Flange Tooling

These items are a suggested package of toolholders to allow you to perform the various machining operations on your new CNC mill.

QUANTITY ORDERED	QUANTITY RECOMMENDED	DESCRIPTION / PART NUMBER
	1 1 1 1 1 1	3/8 END MILL ADAPTER 1/2 END MILL ADAPTER 5/8 END MILL ADAPTER 3/4 END MILL ADAPTER 1" END MILL ADAPTER 1-1/4 END MILL ADAPTER
	4	COLLET CHUCK ADAPTER 3/32-1" RANGE
	1 SET	BTG100-30
	1	BTG100-HW
	1 1	SHELL MILL ADAPTER 1.00 SHELL MILL ADAPTER 1.25
	1 1	#33 JACOBS TAPER ADAPTER #6 JACOBS TAPER ADAPTER
	1 1	#9682 #9685
	2 1 1	#2 MORSE TAPER ADAPTER #3 MORSE TAPER ADAPTER #4 MORSE TAPER ADAPTER
	2	TAP HOLDERS

NOTE: THE ABOVE ITEMS DO NOT INCLUDE RETENTION KNOBS.

PLEASE INFORM BRINEY OF THE MAKE & MODEL OF YOUR MACHINE, AND WE WILL QUOTE THE PROPER KNOBS.

\* PLEASE SPECIFY V 50 or BT 50 Flange Tooling

These items are a suggested package of toolholders to allow you to perform the various machining operations on your new CNC mill.

QUANTITY ORDERED	QUANTITY RECOMMENDED	DESCRIPTION / PART NUMBER
	1 2 2 2 2 2 1 1	3/8 END MILL ADAPTER 1/2 END MILL ADAPTER 5/8 END MILL ADAPTER 3/4 END MILL ADAPTER 1" END MILL ADAPTER 1-1/4 END MILL ADAPTER 1-1/2 END MILL ADAPTER 2" END MILL ADAPTER
	4	COLLET CHUCK ADAPTER 3/32-1 RANGE
	1 SET	BTG100-30
	1	BTG100-HW
	1 1 1	SHELL MILL ADAPTER 1.00 SHELL MILL ADAPTER 1.25 SHELL MILL ADAPTER 1.50
	1 1	#33 JACOBS TAPER ADAPTER #6 JACOBS TAPER ADAPTER
	1 1	#9682 #9685
	2 1	#3 MORSE TAPER ADAPTER #4 MORSE TAPER ADAPTER
	2	#1 SIZE TAP HOLDERS
	1	#2 SIZE TAP HOLDERS

NOTE: THE ABOVE ITEMS DO NOT INCLUDE RETENTION KNOBS.  
PLEASE INFORM BRINEY OF THE MAKE & MODEL OF YOUR MACHINE AND WE WILL QUOTE THE PROPER KNOBS.

# BRINEY ECCENTRIC BORE TOOLHOLDERS

**Briney**  
*Tooling Systems*

ECCENTRIC BORE  
TOOLHOLDERS

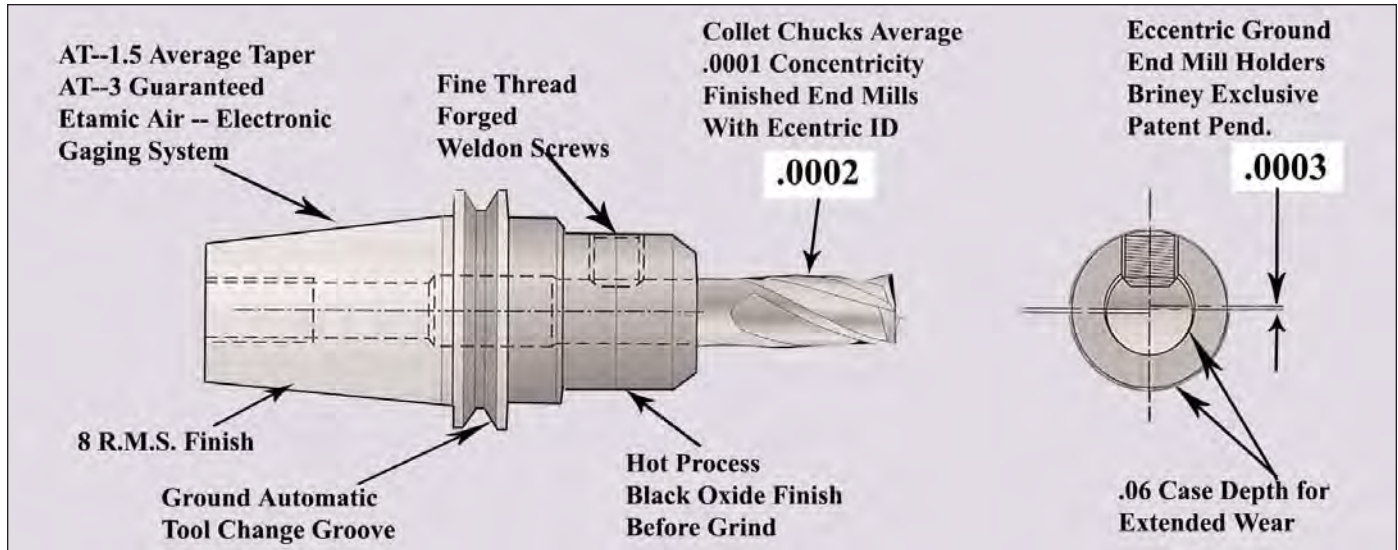


Briney Eccentric Bore Tooling, an innovative, proven end mill holder design dramatically reduces total indicator runout (TIR) typical of all end mill holders using a set screw or Weldon flat set screw. Improving the out-of-concentric condition of the tool holder bore from .0008" to .0002", the Briney holders feature an eccentric bore, imparting .0003" eccentricity in the direction of the set screw.

For example, a standard 1" tool holder bore diameter is 1.0001", and the end mill for that holder is .9997"; the clearance between the diameters is .0004". With the Briney .0003" eccentric bore, as the set screw is tightened, the clearance is pushed to within .0001" of center, while the standard holder maintains the .0004" clearance and the clearances are pushed .0004" off-center. So, when a set screw is turned down in the standard holder and the tool is rotated 180 degrees, the total runout is .0008".

**Eccentric Bore  
Toolholders are  
available in these  
styles:**

- V40
- V50
- BT40
- BT50



The Briney Eccentric Bore concept. A special grinding technique reduces runout in all Briney end mill holders to .0002" from .0008" typical in other holders.

With the Briney Eccentric Bore Tooling, the shallow recess of the .0003" eccentric ground into the bore effectively reduces the potential off-center condition of the tool caused by the application of the set screw, keeping TIR to .0002" when the tool is rotated and properly located, according to the company.

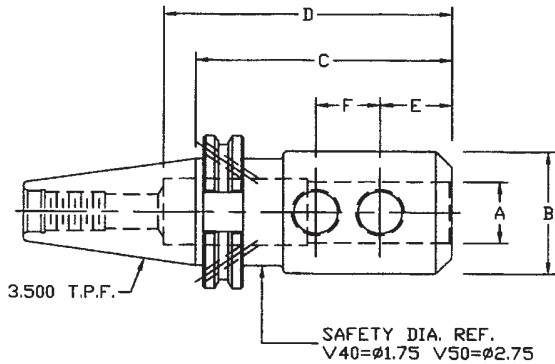
A patented internal grinding technique reduces bore runout in Briney end mill holders after clamping from 0.002" typical in every other holder to our new standard 0.0002" regardless of size, without affecting other tool holder features and tolerances. All Briney V40, V50, BT40 and BT 50 holders are ground with bores featuring the offset, improving milling quality and tool and holder life without additional cost to the user.

### ADVANTAGES INCLUDE:

- Less runout means a more even chip load and a lot less chatter
- Fewer passes to mill slots because of improved on-center rotation, saving time and improving machining quality
- Twice the tool life you can get with any other end mill holder plus half the tooling replacement expense because tools last longer

## COOLANT THRU FACE TOOLING

### END MILL ADAPTERS



Briney builds coolant through the face (CTF) holders. CTF holders are sometimes referred to as DIN B holders. DIN 69871 Form B calls for metric retention knob threads and an orientation notch. DIN 69871 also calls for a larger safety diameter than CTF holders. CTF holders are used primarily in Mori Seiki machining centers to accommodate through the face coolant routing.

**NOTE! To order coolant thru face tooling specify with an CTF after part number. Example: V40E-018-250-CTF or see back page of book for details.**

## HIGH SPEED BALANCED TOOLING

BRINEY offers a choice to match your high speed needs:  
Tru Velocity and Maximum Velocity Balanced Tooling



**BTI Model THB-25**  
**Dynamic Balancing Machine**

### TRU VELOCITY Balanced Tooling

- Static or dynamic balanced for speeds up to **20,000 RPM**. Recommended for all machines over 5,000 RPM and up to 20,000 RPM.
- Concentric .0002" shank-to-bore.
- CNC precision traverse ground to AT3 Taper Quality.

#### Benefits:

- Extended tool life.
- Faster speeds and feed rates.
- Increased accuracy and repeatability.
- Superior surface finish.

### MAXIMUM VELOCITY Dynamic Balanced Tooling

- Dynamically balanced for speeds up to **30,000 RPM**.
- Concentric .0002" shank-to-bore.
- CNC precision traverse ground to AT3 Taper Quality.
- Recommended for machines 20,000 RPM to 30,000 RPM spindle speed.

#### Benefits:

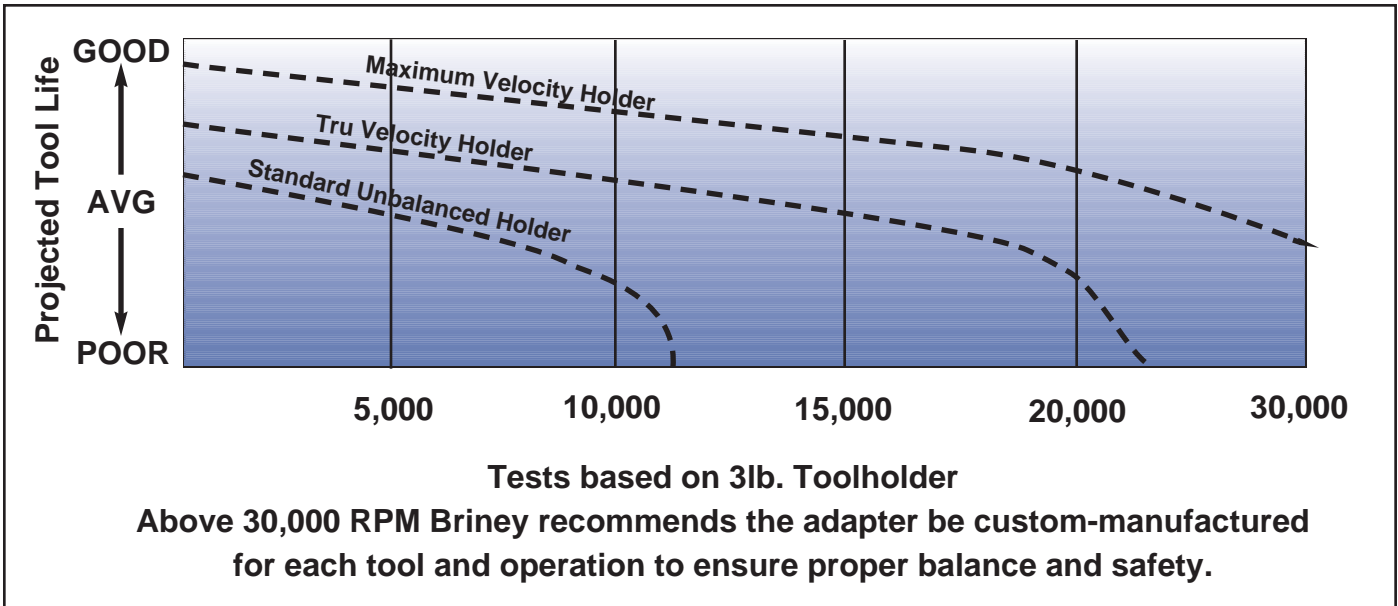
- Extended tool life.
- Optimum speeds and feed rates.
- Increased accuracy and repeatability.
- Eliminates vibration and chatter.
- Increases productivity.
- Cost savings (tooling and machine time).

### Understanding Unbalance Tolerance

The American National Standards Institute for Balance Quality of Rigid Rotating Bodies ANSI S.19-1989, defines permissible residual unbalance for a rotating body relative to its maximum service speed. Machine builders follow this specification in manufacturing spindles used in today's machining centers. Balance quality specifications for spindles is G 2.5mm/sec. However, the typical Cat V Flange tool has 250 gr/mm unbalance due to the unequaled drive slots in the original design.

To correct for this design unbalance, all Briney tooling is manufactured with an altered standard drive slot to properly equalize the weight. This change in tool design enables the Dynamically Balanced Briney **Tru Velocity™** tools to meet the G 2.5 tolerance of machine spindles. **Tru Velocity** tools can run up to 20,000 RPM without putting undue stress on the machine spindle.

In developing the formulas for unbalance, spindle speed is the primary factor in determining the balance tolerance. For machines with spindle speeds that exceed 20,000 RPM, the amount of unbalance allowed to meet the G 2.5 specification is greatly reduced.

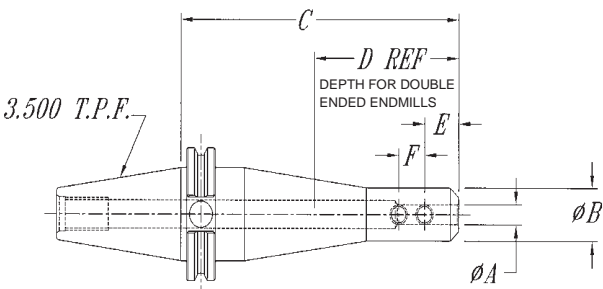
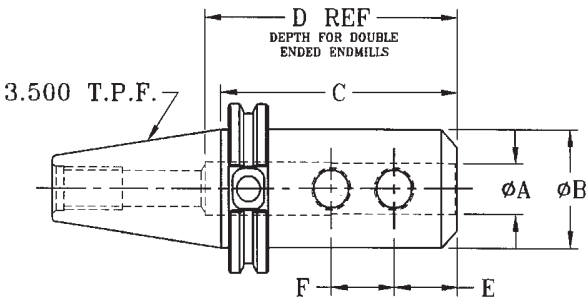
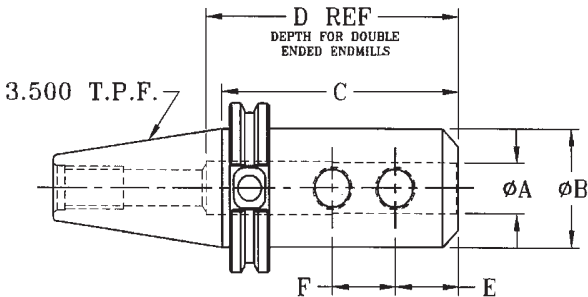
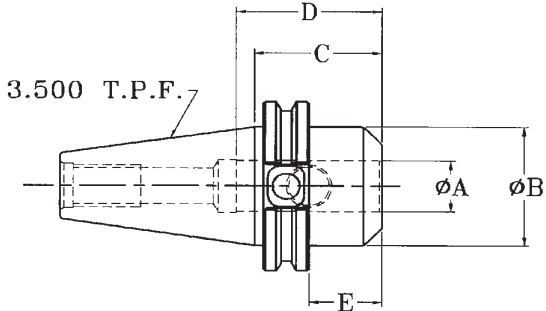


To meet this stricter balance specification, Briney offers **Maximum Velocity™** tooling. **Maximum Velocity** tools are manufactured with improved designs, special operations, and improved accessory items.

The final step in the process is a complete dynamic balancing operation. Our dynamic balancing machine is a state-of-the-art hard bearing 2-plane balancing system with spindleless drive and highly sensitive electronic measuring system. Briney **Maximum Velocity** tooling is balanced to G 2.5 or better at 30,000 RPM. This specification meets or exceeds the spindle balance specification for all machine tool builders. For spindle speeds over 30,000 RPM, contact Briney for a quotation on **Balanced Engineered** tooling. These special tooling requirements will be engineered and manufactured to meet the high speed specification required and then custom balanced with the cutting tools assembled to ensure the correct balance at ultra high speed.

## V 40 FLANGE

### END MILL ADAPTERS



#### STUB LENGTH

PART NUMBER	A DIA.	B DIA.	C	D	E	SET SCREW	END MILL TYPE
V40E-050-175	.500	1.75	1.75	—	.88	7/16-20W	SINGLE END
V40E-062-175	.625	1.75	1.75	2.38	.94	9/16-18W	
V40E-075-175	.750	1.75	1.75	2.25	1.00	5/8-18W	
V40E-100-175	1.000	1.75	1.75	2.50	1.12	3/4-16W	
*V40E-125-200	1.250	2.25	2.00	2.35	1.12	3/4-16W	

Order retention knobs separately, specify machine make and model #.  
\*Cannot be used with some automatic tool changers.

#### STANDARD LENGTH

PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	TYPE
V40E-012-250	.125	.68	2.50	—	.31	—	8-32W	SINGLE OR DOUBLE END
V40E-018-250	.1875	.68	2.50	—	.44	—	1/4-28W	
V40E-025-250	.250	.88	2.50	—	.44	—	1/4-28W	
V40E-031-250	.3125	1.00	2.50	—	.44	—	10-32W	
V40E-038-250	.375	1.00	2.50	—	.74	—	3/8-24W	
V40E-044-250	.4375	1.25	2.50	—	.74	—	3/8-24W	
V40E-050-262	.500	1.25	2.62	—	.88	—	7/16-20W	
V40E-062-375	.625	1.50	3.75	3.62	.94	—	9/16-18W	
V40E-075-375	.750	1.75	3.75	4.00	1.00	—	5/8-18W	
V40E-088-400	.875	2.00	4.00	4.00	1.00	.81	5/8-18W	
V40E-100-300	1.000	2.00	3.00	4.00	1.12	—	3/4-16W	SINGLE
V40E-100-400	1.000	2.00	4.00	4.50	1.12	1.00	3/4-16W	DOUBLE
V40E-125-425	1.250	2.50	4.25	2.50	1.12	1.00	3/4-16W	SINGLE END
V40E-150-462	1.500	2.75	4.62	2.75	1.12	1.00	3/4-16W	

Order retention knobs separately, specify machine make and model #.

#### INTERMEDIATE LENGTH

PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	TYPE
V40E-025-450	.250	0.88	4.50	—	.44	—	1/4-28W	SINGLE OR DOUBLE END
V40E-038-450	.375	1.00	4.50	—	.74	—	3/8-24W	
V40E-050-450	.500	1.25	4.50	—	.88	—	7/16-20W	
V40E-062-475	.625	1.50	4.75	3.62	.94	—	9/16-18W	
V40E-075-475	.750	1.75	4.75	4.00	1.00	—	5/8-18W	

Order retention knobs separately, specify machine make and model #.

#### EXTENDED LENGTH

PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	ENDMILL TYPE	
V40E-018-600	.1875	.68	6.00	—	.44	—	1/4-28W	SINGLE OR DOUBLE END	
V40E-025-600	.250	.88	6.00	—	.44	—	1/4-28W		
V40E-038-600	.375	1.00	6.00	—	.74	—	3/8-24W		
V40E-050-600	.500	1.25	6.00	—	.88	—	7/16-20W		
V40E-062-600	.625	1.50	6.00	3.62	.94	—	9/16-18W		
V40E-075-600	.750	1.75	6.00	4.00	1.00	—	5/8-18W		
V40E-088-600	.875	2.00	6.00	4.00	1.00	.81	5/8-18W		
V40E-100-600	1.000	2.00	6.00	4.50	1.12	1.00	3/4-16W		
V40E-125-600	1.250	2.50	6.00	2.50	1.12	1.00	3/4-16W		SINGLE END

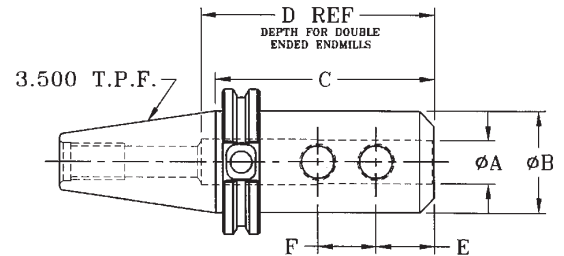
Order retention knobs separately, specify machine make and model #.



METRIC STANDARD LENGTH								
PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	ENDMILL TYPE
V40E-6MM-250	6MM	.88	2.50	—	.44	—	M6 W	DOUBLE END
V40E-8MM-250	8MM	1.00	2.50	—	.44	—	M8 W	
V40E-10MM-250	10MM	1.00	2.50	—	.74	—	M10 W	
V40E-12MM-262	12MM	1.25	2.62	—	.88	—	M12 W	
V40E-16MM-375	16MM	1.50	3.75	3.62	.94	—	M16 W	
V40E-20MM-375	20MM	1.75	3.75	4.00	1.00	—	M16 W	

Order retention knobs separately, specify machine make and model #.

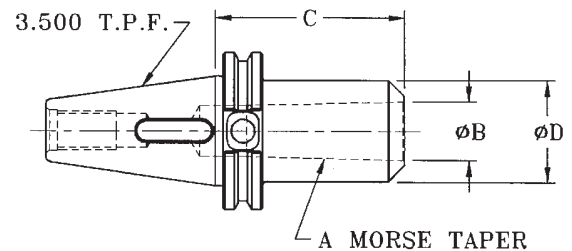
### METRIC END MILL ADAPTERS



PART NUMBER	A MORSE TAPER	B DIA.	C DIA.	D
V40-MT1	1	.475	1.00	1.75
V40-MT2	2	.700	1.25	2.44
V40-MT3	3	.938	1.62	3.00
V40-MT4	4	1.231	2.00	3.75

Order retention knobs separately, specify machine make and model #.

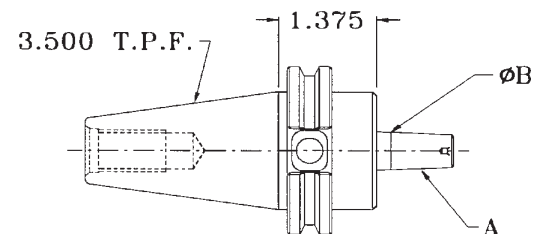
### MORSE TAPER ADAPTERS



PART NUMBER	A JACOBS TAPER	B DIA.
V40-JT2	2	.559
V40-JT3	3	.811
V40-JT4	4	1.12
V40-JT6	6	.676
V40-JT33	33	.624

Order retention knobs separately, specify machine make and model #.  
Drill chucks sold separately, pages 91 and 92.

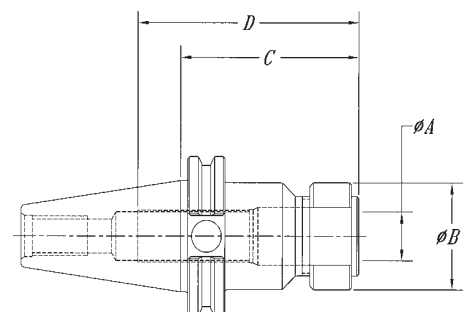
### JACOBS TAPER ADAPTERS



### DOUBLE ANGLE COLLET CHUCKS

PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
V40DA-100-300	DA100	.062-.562	1.39	3.00	3.00	DACN-100	5/8-LH	DA10W
V40DA-180-300	DA180	.062-.750	1.70	3.00	2.75	DACN-180	13/16-LH	DA18W
V40DA-180-500	DA180	.062-.750	1.70	5.00	2.75	DACN-180	13/16-LH	DA18W
V40DA-200-300	DA200	.062-.375	1.125	3.00	3.00	DACN-200	7/16-LH	DA20W
V40DA-200-500	DA200	.062-.375	1.125	5.00	3.00	DACN-200	7/16-LH	DA20W
V40DA-300-300	DA300	.031-.250	.86	3.00	3.82	DACN-300	5/16-LH	DA30W

Order retention knobs separately, specify machine make and model #.  
Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 87 and 93.  
NOTE! Do not exceed the following torque recommendations:  
DA300 - 20 ft/lbs. DA200 - 25 ft/lbs. DA100 - 35 ft/lbs. DA180 - 45 ft/lbs.



## V 40 FLANGE

### BRINEY FLEX COLLET CHUCKS

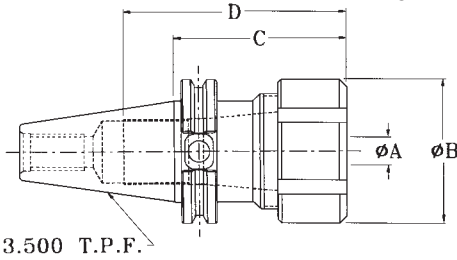
PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C DIA.	D	COLLET NUT	STOP SCREW	COLLET WRENCH
V40BF-075-272	BF075	.109-.750	1.94	2.72	3.50	BFCN-75	13/16-LH	BFG75SW
V40BF-100-300	BF100	.234-1.000	2.50	3.00	3.25	BFCN-100	—	BFG100SW

Order retention knobs separately, specify machine make and model #.

Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 89 and 95.

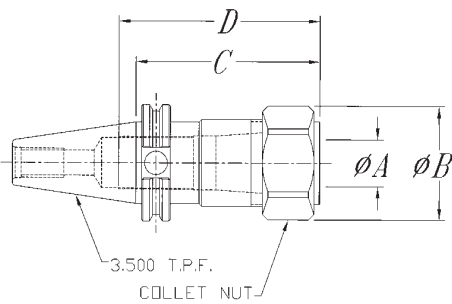
NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations: BF075 - 60 ft/lbs. BF100 - 75 ft/lbs.



V FLANGE TOOLING

### TG COLLET CHUCKS



PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
V40CH-075-275	BTG075	.062-.750	1.87	2.75	3.31	BTGCN-075	13/16-LH	BTG075HW
V40CH-100-300	BTG100	.093-1.000	2.245	3.00	3.68	BTGCN-100	—	BTG100HW
V40CH-100-400	BTG100	.093-1.000	2.245	4.00	4.68	BTGCN-100	1-1/8-LH	BTG100HW
V40CH-100-550	BTG100	.093-1.000	2.245	5.50	5.68	BTGCN-100	1-1/8-LH	BTG100HW
V40CH-100-650	BTG100	.093-1.000	2.245	6.50	7.18	BTGCN-100	1-1/8-LH	BTG100HW
*V40CH-150-488	BTG150	.500-1.50	3.25	4.88	3.22	BTGCN-150	1-5/8-LH	BTG150SW

Order retention knobs separately, specify machine make and model #.

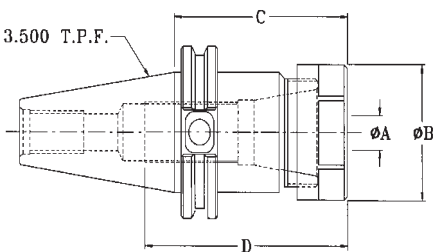
Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 88 and 94.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations: BTG75 - 60 ft/lbs. BTG100 - 75 ft/lbs. BTG150 - 90 ft/lbs.

\*No Safety Diameter

### ULTRA PRECISION COLLET CHUCKS



PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COMP NUT	STOP SCREW	COLLET NUT WRENCH
V40BR-11-300	BR11	.019-.276	.63	3.00	4.00	BRCN-11M	5/16-LH	BR11MW
V40BR-16-250	BR16	.019-.393	1.10	2.50	3.00	BRCN-16	7/16-LH	BR16HW
V40BR-16-500	BR16	.019-.393	1.10	5.00	3.00	BRCN-16	7/16-LH	BR16HW
V40BR-20-275	BR20	.039-.512	1.34	2.75	3.00	BRCN-20	9/16-LH	BR20HW
V40BR-20-400	BR20	.039-.512	1.34	4.00	3.00	BRCN-20	9/16-LH	BR20HW
V40BR-20-525	BR20	.039-.512	1.34	5.25	3.00	BRCN-20	9/16-LH	BR20HW
V40BR-25-250	BR25	.039-.630	1.65	2.50	3.00	BRCN-25	M18LH	BR25SW
V40BR-25-400	BR25	.039-.630	1.65	4.00	3.00	BRCN-25	M18LH	BR25SW
V40BR-25-600	BR25	.039-.630	1.65	6.00	3.00	BRCN-25	M18LH	BR25HW
V40BR-32-238	BR32	.078-.787	1.97	2.38	3.00	BRCN-32	7/8-LH	BR32SW
V40BR-32-300	BR32	.078-.787	1.97	3.00	3.00	BRCN-32	7/8-LH	BR32SW
V40BR-32-400	BR32	.078-.787	1.97	4.00	3.00	BRCN-32	7/8-LH	BR32SW
V40BR-32-600	BR32	.078-.787	1.97	6.00	3.00	BRCN-32	7/8-LH	BR32SW
V40BR-40-315	BR40	.394-1.339	3.07	3.15	5.00	BRCN-40	1-1/8-LH	BR40SW

Order retention knobs separately, specify machine make and model #.

Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 90, 96, 97.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

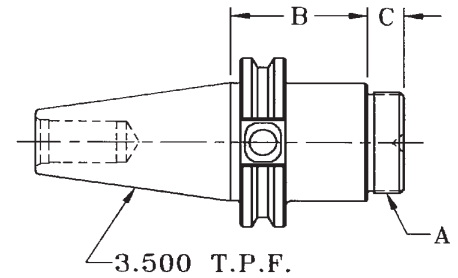
NOTE! Do not exceed the following torque recommendations: BR11 - 25 ft/lbs. BR16 - 40 ft/lbs.

BR20 - 65 ft/lbs. BR25 - 65 ft/lbs. BR32 - 80 ft/lbs. BR40 - 90 ft/lbs.

PART NUMBER	A THREAD	B	C	BORING HEAD MFG. FIT
V40BH-625-18	5/8-18	1.50	.45	BRIDGEPORT #1 BORING HD ERICKSON #37 OR #50
V40BH-875-20	7/8-20	1.80	.51	CRITERION BORING HD
V40BH-150-18	1-1/2-18	1.80	.51	CRITERION BORING HD
V40BH-200-12	2-12	2.00	.62	FLYNN #32, 33, 36, 47, 48, 49, 65, 67, 68

Order retention knobs separately, specify machine make and model #.

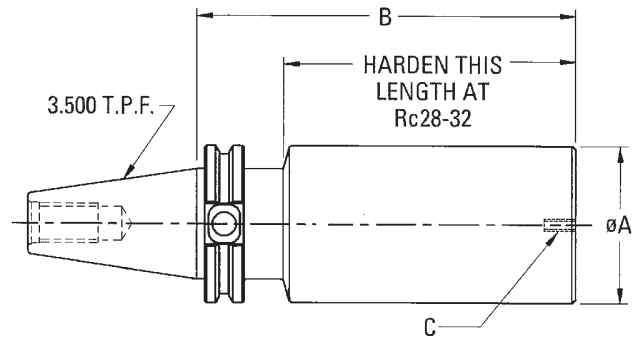
### BORING HEAD ADAPTERS



PART NUMBER	A DIA.	B	C TAPPED HOLE	MATERIAL
V40BB-250-600	2.50	6.00	10-24 x 1/2"	PHT 4150
V40BB-250-800	2.50	8.00	10-24 x 1/2"	
V40BB-400-600	4.00	6.00	1/4-20 x 3/4"	
V40BB-400-800	4.00	8.00	1/4-20 x 3/4"	
V40BB-400-1200	4.00	12.00	1/4-20 x 3/4"	

Order retention knobs separately, specify machine make and model #.

### BLANK BARS

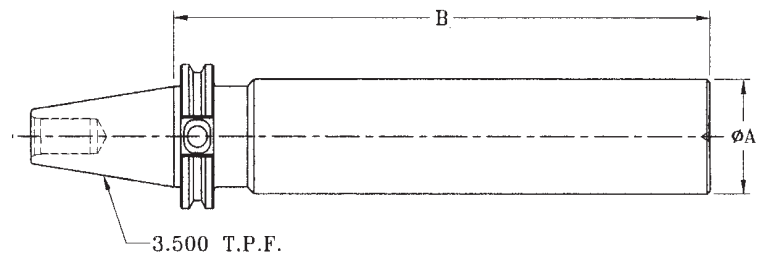


PART NUMBER	A DIA.	B	CONCENTRICITY
V40PTB-200-1000	2.00	10.00	.0002

Order retention knobs separately, specify machine make and model #.

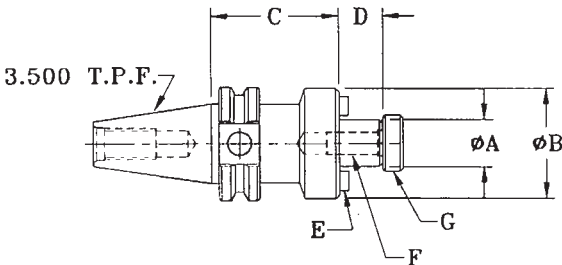
Test bars are calibrated and certified, bar diameters are concentric to taper within .0002.

### PRECISION TEST BARS



## V 40 FLANGE

### SHELL MILL ADAPTERS

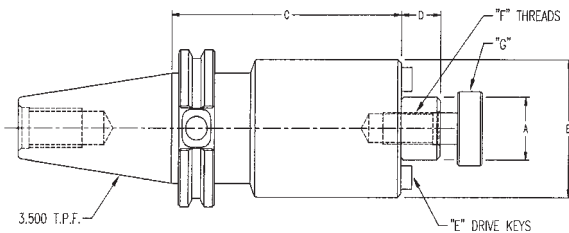


STANDARD LENGTH							
PART NUMBER	A DIA.	B DIA.	C	D	E KEY	F THREAD	G SCREW
V40SM-075-138	.750	1.75	1.375	.68	.31	3/8-24	B5002
V40SM-100-206	1.000	2.19	2.062	.68	.38	1/2-20	B5003
V40SM-125-212	1.250	2.88	2.125	.68	.50	5/8-18	B5004
V40SM-150-240	1.500	3.81	2.406	.94	.62	3/4-16	B5005

Order retention knobs separately, specify machine make & model #.  
Includes shell screw and drive keys.

V FLANGE TOOLING

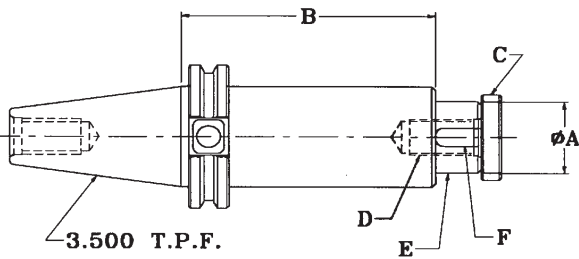
### EXTENDED SHELL MILL ADAPTERS



EXTENDED LENGTH							
PART NUMBER	A DIA.	B DIA.	C	D	E KEY	F THREAD	G SCREW
V40SM-075-400	.750	1.75	4.00	.68	.31	3/8-24	B5002
V40SM-100-400	1.000	2.19	4.00	.68	.38	1/2-20	B5003
V40SM-125-400	1.250	2.88	4.00	.68	.50	5/8-18	B5004
V40SM-150-400	1.500	3.81	4.00	.94	.62	3/4-16	B5005

Order retention knobs separately, specify machine make & model #.  
Includes shell screw and drive keys.

### STUB ARBOR SCREW TYPE

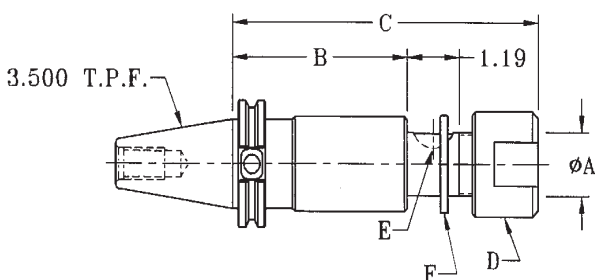


PART NUMBER	A DIA.	B	C SCREW	D THREAD	E SPACER	F KEY
V40SA-100-400	1.00	4.00	B5003	1/2-20	B6031	.250
V40SA-125-400	1.25	4.00	B5004	5/8-18	B6041	.312
V40SA-150-400	1.50	4.00	B5005	3/4-16	B6051	.375

Order retention knobs separately, specify machine make & model #.

Includes 2 spacers, 1/4 and 1/2, key and standard shell screw.  
Additional spacers available, page 74.

### STUB ARBOR NUT TYPE



PART NUMBER	A DIA.	B	C	D NUT	E KEY	F SPACER
V40SAN-100-400	1.00	4.00	6.19	B5040	.250	B6030
V40SAN-125-400	1.25	4.00	6.44	B5050	.312	B6040
V40SAN-150-400	1.50	4.00	6.69	B5060	.375	B6050

Order retention knobs separately, specify machine make & model #.

Includes 3 spacers, 1/8, 3/8, 3/4, key and nut. Additional spacers available on page 74.

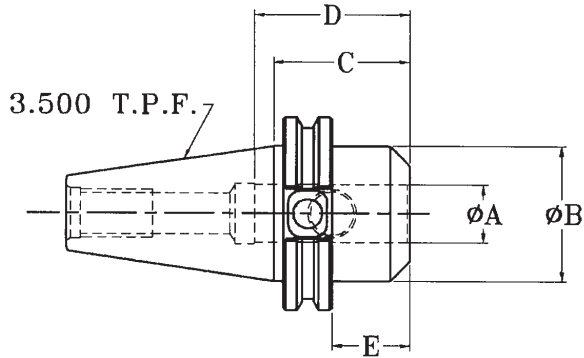
V 45 Flange Toolholders are available upon request in these styles:

- END MILL ADAPTERS
- MORSE TAPER ADAPTERS
- JACOBS TAPER ADAPTERS
- DOUBLE ANGLE COLLET CHUCKS
- BRINEY FLEX COLLET CHUCKS
- TG COLLET CHUCKS
- ULTRA PRECISION COLLET CHUCKS
- BLANK BARS
- SHELL MILL ADAPTERS



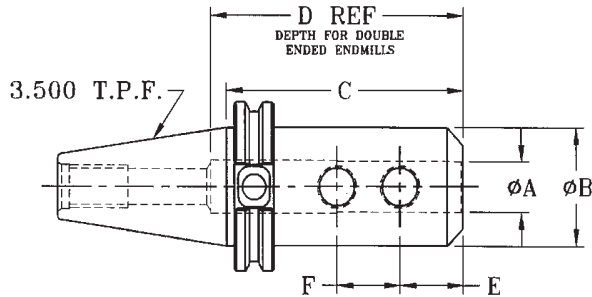
## V 50 FLANGE

### END MILL ADAPTERS



STUB LENGTH							
PART NUMBER	A DIA.	B DIA.	C	D	E	SET SCREW	ENDMILL TYPE
V50E-062-206	.625	2.75	2.06	—	.94	9/16-18W	SINGLE
V50E-075-206	.750	2.75	2.06	—	1.00	5/8-18W	OR
V50E-100-225	1.00	2.75	2.25	4.50	1.12	3/4-16W	DOUBLE
V50E-125-225	1.25	2.75	2.25	2.75	1.12	3/4-16W	SINGLE
V50E-150-275	1.50	2.75	2.75	2.75	1.12	3/4-16W	END

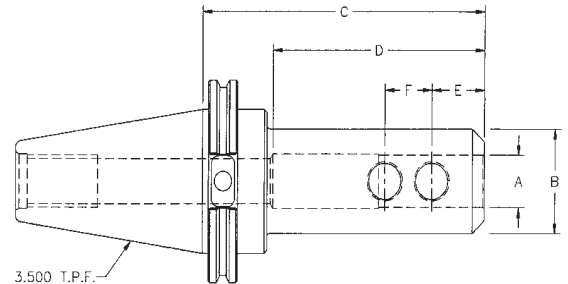
Order retention knobs separately, specify machine make and model #.



STANDARD LENGTH								
PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	ENDMILL TYPE
V50E-018-250	.1875	.68	2.50	—	.56	—	1/4-28W	SINGLE OR DOUBLE END
V50E-025-250	.250	.875	2.50	—	.56	—	1/4-28W	
V50E-031-250	.3125	1.00	2.50	—	.56	—	1/4-28W	
V50E-038-250	.375	1.00	2.50	—	.75	—	3/8-24W	
V50E-044-250	.4375	1.25	2.50	—	.75	—	3/8-24W	
V50E-050-262	.500	1.25	2.62	—	.88	—	7/16-20W	
V50E-062-375	.625	1.50	3.75	—	.94	—	9/16-18W	
V50E-075-375	.750	1.75	3.75	—	1.00	—	5/8-18W	
V50E-088-375	.875	2.00	3.75	4.00	1.00	.81	5/8-18W	
V50E-100-400	1.000	2.00	4.00	4.50	1.12	1.00	3/4-16W	
V50E-125-400	1.250	2.50	4.00	2.50	1.12	1.00	3/4-16W	SINGLE END
V50E-150-400	1.500	2.75	4.00	2.75	1.50	1.00	3/4-16W	
V50E-175-400	1.750	3.12	4.00	2.75	1.12	1.00	3/4-16W	
V50E-200-562	2.000	3.75	5.62	3.50	1.41	1.50	1"-14W	

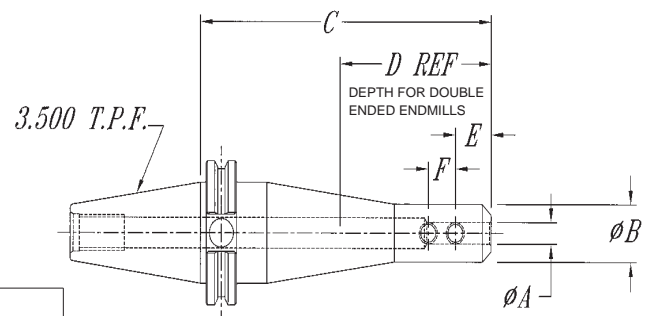
Order retention knobs separately, specify machine make and model #.

### END MILL ADAPTERS



EXTENDED LENGTH								
PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	ENDMILL TYPE
V50E-018-450	.1875	.68	4.50	—	.56	—	1/4-28W	SINGLE OR DOUBLE END
V50E-025-450	.250	.875	4.50	—	.56	—	1/4-28W	
V50E-031-450	.3125	1.00	4.50	—	.56	—	1/4-28W	
V50E-038-450	.375	1.00	4.50	—	.75	—	3/8-24W	
V50E-044-450	.4375	1.25	4.50	—	.75	—	3/8-24W	
V50E-050-462	.500	1.25	4.62	—	.88	—	7/16-20W	
V50E-062-575	.625	1.50	5.75	—	.94	—	9/16-18W	
V50E-075-575	.750	1.75	5.75	—	1.00	—	5/8-18W	
V50E-088-575	.875	2.00	5.75	4.00	1.00	.81	5/8-18W	
V50E-100-600	1.000	2.00	6.00	4.50	1.12	1.00	3/4-16W	
V50E-125-600	1.250	2.50	6.00	2.50	1.12	1.00	3/4-16W	SINGLE END
V50E-150-600	1.500	2.75	6.00	2.75	1.50	1.00	3/4-16W	
V50E-200-762	2.000	3.75	7.62	3.50	1.41	1.50	1"-14W	

Order retention knobs separately, specify machine make and model #.

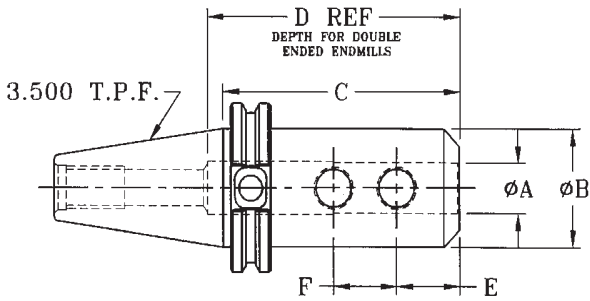


EXTRA EXTENDED LENGTH								
PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	ENDMILL TYPE
V50E-018-650	.1875	.68	6.50	—	.56	—	1/4-28W	SINGLE OR DOUBLE END
V50E-025-650	.250	.875	6.50	—	.56	—	1/4-28W	
V50E-031-650	.3125	1.00	6.50	—	.56	—	1/4-28W	
V50E-038-650	.375	1.00	6.50	—	.75	—	3/8-24W	
V50E-044-650	.4375	1.25	6.50	—	.75	—	3/8-24W	
V50E-050-662	.500	1.25	6.62	—	.88	—	7/16-20W	
V50E-062-775	.625	1.50	7.75	—	.94	—	9/16-18W	
V50E-075-775	.750	1.75	7.75	—	1.00	—	5/8-18W	
V50E-088-775	.875	2.00	7.75	4.00	1.00	.81	5/8-18W	
V50E-100-800	1.000	2.00	8.00	4.50	1.12	1.00	3/4-16W	
V50E-125-800	1.250	2.50	8.00	2.50	1.12	1.00	3/4-16W	SINGLE END
V50E-150-800	1.500	2.75	8.00	2.75	1.50	1.00	3/4-16W	
V50E-200-962	2.000	3.75	9.62	3.50	1.41	1.50	1"-14-W	

Order retention knobs separately, specify machine make and model #.

## V 50 FLANGE

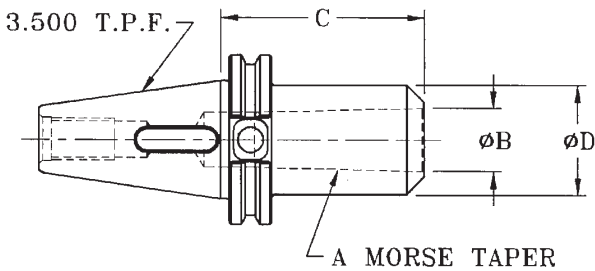
### METRIC END MILL ADAPTERS



METRIC STANDARD LENGTH								
PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	ENDMILL TYPE
V50E-6MM-250	6MM	.875	2.50	—	.44	—	M6 W	DOUBLE END
V50E-8MM-250	8MM	1.00	2.50	—	.44	—	M8 W	
V50E-10MM-250	10MM	1.00	2.50	—	.74	—	M10 W	
V50E-12MM-262	12MM	1.25	2.62	—	.88	—	M12 W	
V50E-16MM-375	16MM	1.50	3.75	—	.94	—	M16 W	
V50E-20MM-375	20MM	1.75	3.75	—	1.00	—	M16 W	DOUBLE END
V50E-25-MM-400	25MM	2.00	4.00	4.50	1.12	1.00	M20 W	
V50E-32MM-400	32MM	2.50	4.00	2.52	1.12	1.00	M20 W	SINGLE END

Order retention knobs separately, specify machine make and model #.

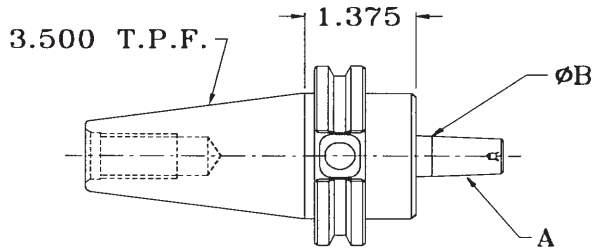
### MORSE TAPER ADAPTERS



PART NUMBER	A MORSE TAPER	B DIA.	C	D DIA.
V50-MT2	2	.700	2.00	1.25
V50-MT3	3	.938	2.50	1.62
V50-MT4	4	1.231	3.38	2.00
V50-MT5	5	1.748	3.75	2.75

Order retention knobs separately, specify machine make and model #.

### JACOBS TAPER ADAPTERS

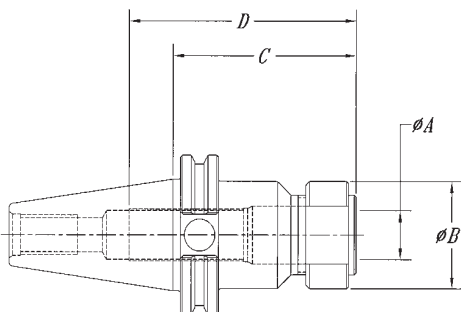


PART NUMBER	A JACOBS TAPER	B DIA.
V50-JT2	2	.559
V50-JT3	3	.811
V50-JT4	4	1.12
V50-JT6	6	.676
V50-JT33	33	.624

Order retention knobs separately, specify machine make and model #.

Drill chucks sold separately, pages 91 and 92.

### DOUBLE ANGLE COLLET CHUCKS



PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
V50DA-100-300	DA100	.062-.56	1.39	3.00	3.00	DACN-100	5/8-LH	DA10W
V50DA-100-600	DA100	.062-.56	1.39	6.00	3.00	DACN-100	5/8-LH	DA10W
V50DA-180-300	DA180	.062-.75	1.70	3.00	4.04	DACN-180	13/16-LH	DA18W
V50DA-180-600	DA180	.062-.75	1.70	6.00	4.04	DACN-180	13/16-LH	DA18W

Order retention knobs separately, specify machine make and model #.

Includes collet nut and standard stop screw.

Purchase collets and wrenches separately, pages 87 and 93.

NOTE! Do not exceed the following torque recommendations: DA100 - 35 ft/lbs. DA180 - 45 ft/lbs.



PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
V50BF-100-300	BF100	.118-1.00	2.50	3.00	4.44	BFCN-100	1-1/8-LH	BFG100SW
V50BF-100-600	BF100	.118-1.00	2.50	6.00	6.00	BFCN-100	1-1/8-LH	BFG100SW

**Order retention knobs separately, specify machine make and model #.**

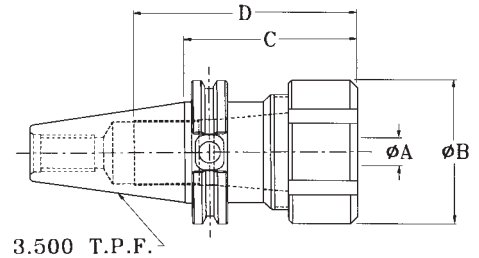
Includes collet nut and standard stop screw.

Purchase collets and wrenches separately, pages 89 and 95.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations: BF100 - 75 ft/lbs.

### BRINEY FLEX COLLET CHUCKS



PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
V50CH-100-300	BTG100	.093-1.000	2.245	3.00	4.50	BTGCN-100	1-1/8-LH	BTG100HW
V50CH-100-550	BTG100	.093-1.000	2.245	5.50	7.00	BTGCN-100	1-1/8-LH	BTG100HW
V50CH-100-750	BTG100	.093-1.000	2.245	7.50	9.00	BTGCN-100	1-1/8-LH	BTG100HW
V50CH-150-300	BTG150	.500-1.500	3.25	3.00	4.50	BTGCN-150	1-5/8-LH	BTG150SW
V50CH-150-500	BTG150	.500-1.500	3.25	5.00	7.00	BTGCN-150	1-5/8-LH	BTG150SW
V50CH-150-700	BTG150	.500-1.500	3.25	7.00	9.00	BTGCN-150	1-5/8-LH	BTG150SW

**Order retention knobs separately, specify machine make and model #.**

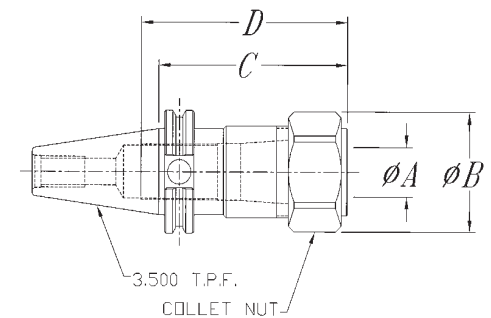
Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 88 and 94.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations:

BTG100 - 75 ft/lbs. BTG150 - 90 ft/lbs. BTG200 - 120 ft/lbs.

### TG COLLET CHUCKS



V FLANGE  
TOOLING

PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
V50BR-16-400	BR16	.019-.393	1.10	4.00	3.00	BRCN-16	7/16-LH	BR16HW
V50BR-16-500	BR16	.019-.393	1.10	5.00	3.00	BRCN-16	7/16-LH	BR16HW
V50BR-16-700	BR16	.019-.393	1.10	7.00	3.00	BRCN-16	7/16-LH	BR16HW
V50BR-20-400	BR20	.039-.511	1.34	4.00	3.00	BRCN-20	9/16-LH	BR20HW
V50BR-20-600	BR20	.039-.511	1.34	6.00	3.00	BRCN-20	9/16-LH	BR20HW
V50BR-25-400	BR25	.039-.630	1.65	4.00	3.00	BRCN-25	M18LH	BR25SW
V50BR-25-600	BR25	.039-.630	1.65	6.00	3.00	BRCN-25	M18LH	BR25SW
V50BR-32-400	BR32	.078-.787	1.97	4.00	3.00	BRCN-32	7/8-LH	BR32SW
V50BR-32-650	BR32	.078-.787	1.97	6.50	3.00	BRCN-32	7/8-LH	BR32SW
V50BR-40-400	BR40	.118-1.024	2.48	4.00	3.00	BRCN-40	1-1/8-LH	BR40SW
V50BR-40-630	BR40	.118-1.024	2.48	6.30	3.00	BRCN-40	1-1/8-LH	BR40SW
V50BR-50-400	BR50	.394-1.339	3.07	4.00	3.00	BRCN-50	1-1/2-LH	BR50SW

**Order retention knobs separately, specify machine make and model #.**

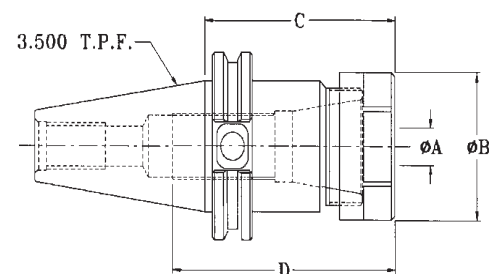
Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 90, 96 and 97.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations: BR16 - 40 ft/lbs. BR20 - 65 ft/lbs.

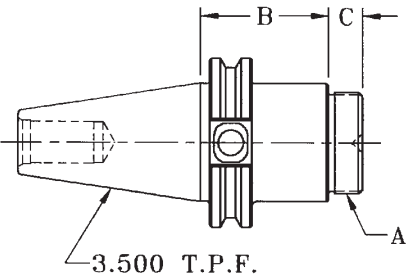
BR25-65 ft/lbs. BR32 - 80 ft/lbs. BR40 - 90 ft/lbs. BR50 - 90 ft/lbs.

### ULTRA PRECISION COLLET CHUCKS



## V 50 FLANGE

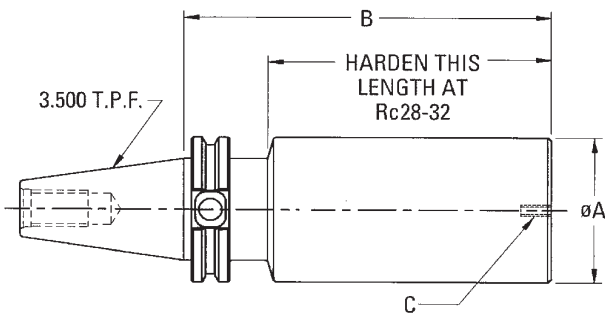
### BORING HEAD ADAPTERS



PART NUMBER	A THREAD	B	C	BORING HEAD MFG.
V50BH-625-18	5/8-18	2.18	.44	ERICKSON #37 OR #50
V50BH-150-18	1-1/2-18	2.18	.44	CRITERION, SPI & YUASA
V50BH-200-12	2"-12	2.18	.44	FLYNN SERIES #32, 33, 36, 47, 48, 49, 65, 67, 68

Order retention knobs separately, specify machine make and model #.

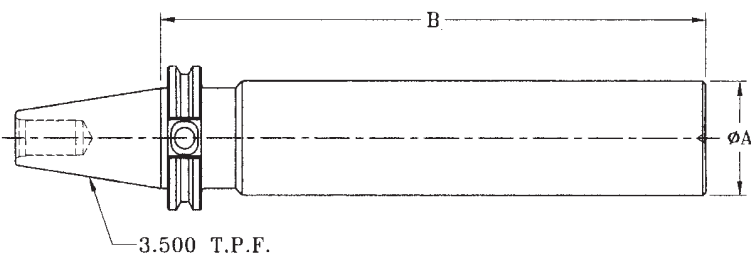
### BLANK BARS



PART NUMBER	A DIA.	B	C TAPPED HOLE	MATERIAL
V50BB-400-600	4.00	6.00	1/4-20 x 3/4"	PHT 4150
V50BB-400-800	4.00	8.00	1/4-20 x 3/4"	
V50BB-600-1200	6.00	12.00	1/4-20 x 3/4"	

Order retention knobs separately, specify machine make and model #.

### PRECISION TEST BARS

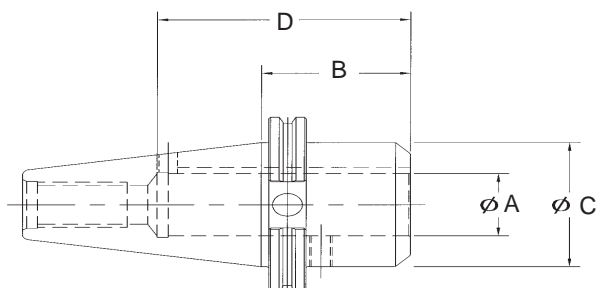


PART NUMBER	A DIA.	B	CONCENTRICITY
V50PTB-200-1200	2.00	12.00	.0002

Order retention knobs separately, specify machine make and model #.

Test bars are calibrated and certified, bar diameters are concentric to taper within .0002.

### AUTOMOTIVE SHANK ADAPTER



PART NUMBER	A DIA.	B	C DIA.	D
V50A-106	1.062	2.50	2.00	3.375
V50A-138	1.375	2.50	2.75	4.25

Order retention knobs separately, specify machine make and model #.

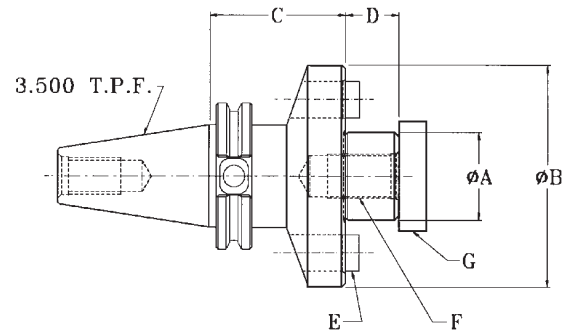
PART NUMBER	A DIA.	B DIA.	C	D	E KEY	F THREAD	G SCREW
V50SM-075-150	.750	2.750	1.50	.68	.31	3/8-24	B5002
V50SM-075-350	.750	1.750	3.50	.68	.31	3/8-24	B5002
V50SM-075-550	.750	1.750	5.50	.68	.31	3/8-24	B5002
V50SM-100-200	1.000	2.190	2.00	.68	.38	1/2-20	B5003
V50SM-100-400	1.000	2.190	4.00	.68	.38	1/2-20	B5003
V50SM-100-600	1.000	2.190	6.00	.68	.38	1/2-20	B5003
V50SM-125-150	1.250	2.750	1.50	.68	.50	5/8-18	B5004
V50SM-125-350	1.250	2.880	3.50	.68	.50	5/8-18	B5004
V50SM-125-550	1.250	2.880	5.50	.68	.50	5/8-18	B5004
V50SM-150-240	1.500	3.810	2.40	.93	.62	3/4-16	B5005
V50SM-150-400	1.500	3.810	4.00	.93	.62	3/4-16	B5005
V50SM-150-600	1.500	3.810	6.00	.93	.62	3/4-16	B5005
*V50SM-200-240	2.000	4.875	2.40	.93	.75	1"-14	B5006
*V50SM-200-400	2.000	4.875	4.00	.93	.75	1"-14	B5006
*V50SM-200-600	2.000	4.875	6.00	.93	.75	1"-14	B5006
*V50SM-250-240	2.500	4.875	2.40	1.125	1.00	1"-14	B5007
*V50SM-250-400	2.500	4.875	4.00	1.125	1.00	1"-14	B5007
*V50SM-250-600	2.500	4.875	6.00	1.125	1.00	1"-14	B5007

Order retention knobs separately, specify machine make and model #.

Includes shell screw and drive keys.

\*Includes 4 5/8-11 tapped holes on a 4" bolt circle.

### SHELL MILL ADAPTERS



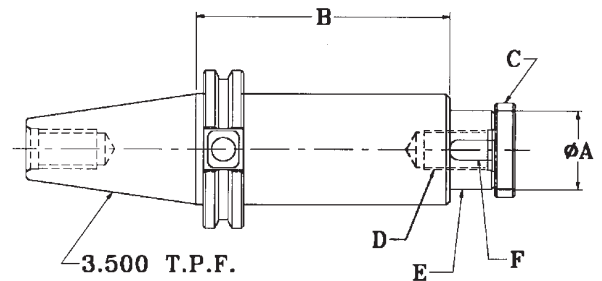
V FLANGE TOOLING

### STUB ARBOR SCREW TYPE

PART NUMBER	A DIA.	B	C SCREW	D THREAD	E SPACER	F KEY
V50SA-125-400	1.25	4.00	B5004	5/8-18	B6041	.312
V50SA-150-400	1.50	4.00	B5005	3/4-16	B6051	.375

Order retention knobs separately, specify machine make and model #.

Includes 1/4 and 1/2 spacers, key and shell screw. Additional spacers available, page 74.

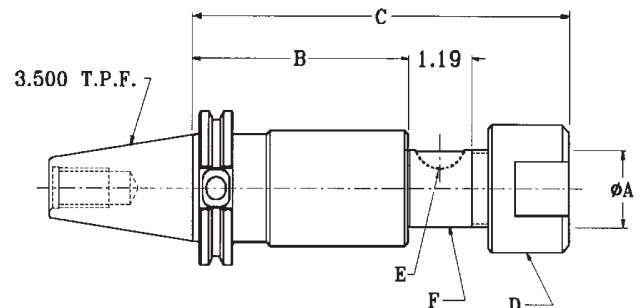


### STUB ARBOR NUT TYPE

PART NUMBER	A DIA.	B	C	D NUT	E KEY	F SPACER
V50SAN-125-400	1.25	4.00	6.44	B5040	.312	B6040
V50SAN-150-400	1.50	4.00	6.69	B5060	.375	B6050

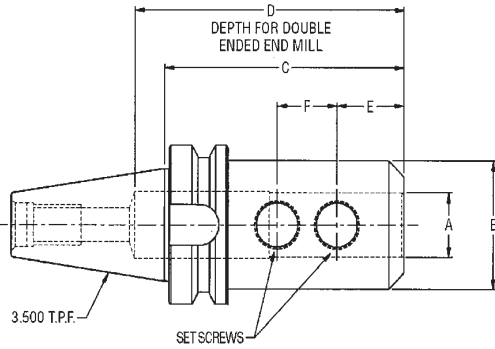
Order retention knobs separately, specify machine make and model #.

Includes 3 spacers, 1/8, 3/8, 3/4, key and nut. Additional spacers available, page 74.



## BT 30 FLANGE

### END MILL ADAPTERS

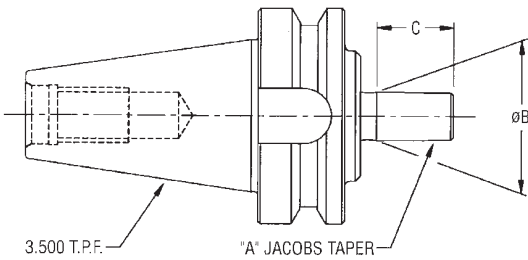


PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	ENDMILL TYPE
BT30E-018-250	.1875	.68	2.50	—	.44	—	1/4-28W	SINGLE OR DOUBLE END
BT30E-025-250	.250	.875	2.50	—	.44	—	1/4-28W	
BT30E-038-250	.375	1.00	2.50	—	.75	—	3/8-24W	
BT30E-050-250	.500	1.25	2.50	2.00	.88	—	7/16-20W	SINGLE END
BT30E-062-300	.625	1.50	3.00	2.62	.94	—	9/16-18W	
BT30E-075-300	.750	1.75	3.00	2.63	1.00	—	5/8-18W	
BT30E-088-400	.875	2.00	4.00	3.13	1.00	.81	5/8-18W	
BT30E-100-400	1.000	2.00	4.00	2.50	1.12	1.00	3/4-16W	

Order retention knobs separately, specify machine make and model #.

BT FLANGE TOOLING

### JACOBS TAPER ADAPTERS



PART NUMBER	A TAPER	B DIA.	C
BT30-JT2	2	.559	.870
BT30-JT3	3	.811	1.22
BT30-JT33	33	.624	1.09

Order retention knobs separately, specify machine make and model #.

Drill chucks sold separately, pages 91 and 92.

### TG COLLET CHUCKS

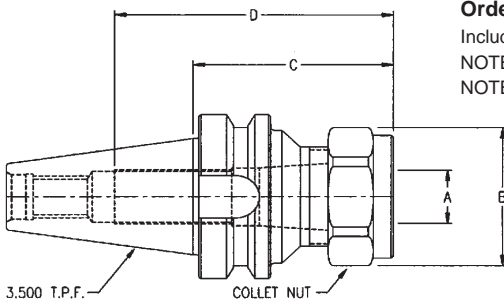
PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
BT30CH-075-300	BTG075	.062-.750	1.87	3.00	3.12	BTGCN-075	—	BTG075HW

Order retention knobs separately, specify machine make and model #.

Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 88 and 94.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations: BTG75 - 60 ft/lbs.



PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
BT30BR-16-275	BR16	.019-.393	1.10	2.75	3.00	BRCN-16	7/16-LH	BR16HW
BT30BR-32-275	BR32	.078-.787	1.97	2.75	2.75	BRCN-32	—	BR32SW

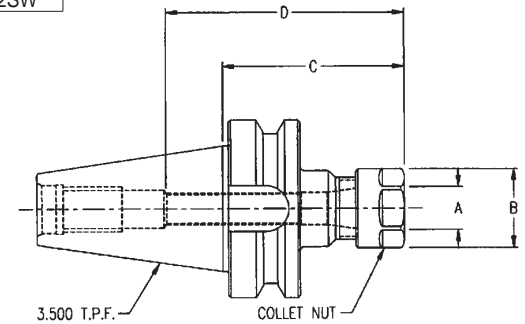
### ULTRA PRECISION COLLET CHUCKS

**Order retention knobs separately, specify machine make and model #.**

Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 90, 96 and 97.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations: BR16 - 40 ft/lbs. BR32 - 80 ft/lbs.

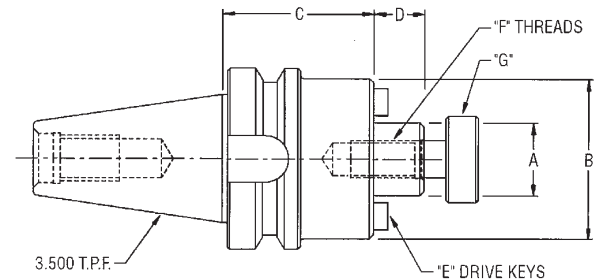


PART NUMBER	A DIA.	B DIA.	C	D	E KEY	F THREAD	G SCREW
BT30SM-075-200	.750	1.750	2.00	.687	.31	3/8-24	B5002
BT30SM-100-200	1.000	2.19	2.00	.687	.38	1/2-20	B5003

### SHELL MILL ADAPTERS

**Order retention knobs separately, specify machine make and model #.**

Includes shell screw and drive keys.



## BT 35 FLANGE

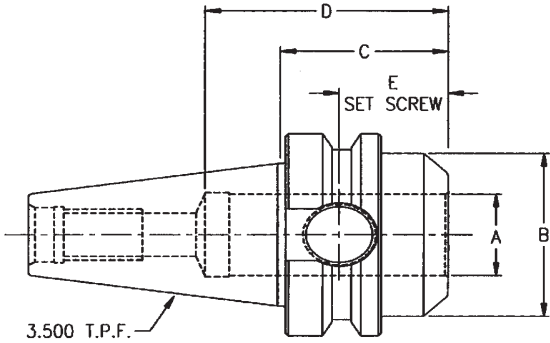
BT 35 Flange Toolholders are available upon request in these styles:

- END MILL ADAPTERS
- JACOBS TAPER ADAPTERS
- TG COLLET CHUCKS
- ULTRA PRECISION COLLET CHUCKS
- SHELL MILL ADAPTERS



## BT 40 FLANGE

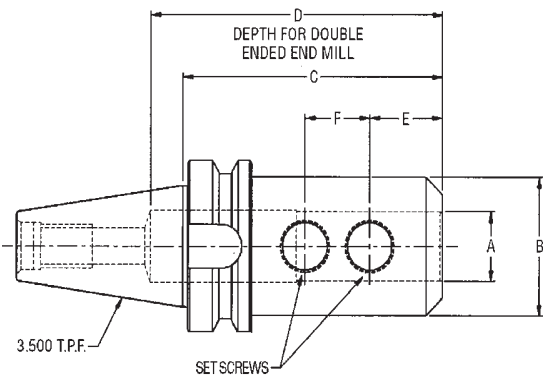
### END MILL ADAPTERS



STUB LENGTH							
PART NUMBER	A DIA.	B DIA.	C	D	E	SET SCREW	ENDMILL TYPE
BT40E-050-175	.500	1.25	1.75	—	.88	7/16-20W	SINGLE END
BT40E-062-175	.625	1.50	1.75	2.38	.94	9/16-18W	
BT40E-075-175	.750	1.75	1.75	2.25	1.00	5/8-18W	
BT40E-100-175	1.000	2.00	1.75	2.50	1.12	3/4-16W	
BT40E-125-200	1.250	2.25	2.00	2.50	1.12	3/4-16W	

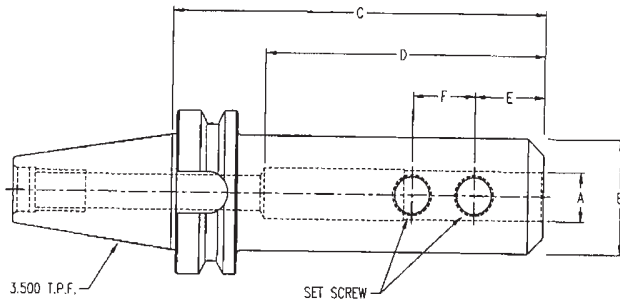
Order retention knobs separately, specify machine make and model #.

BT FLANGE TOOLING



STANDARD LENGTH								
PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	ENDMILL TYPE
BT40E-018-250	.1875	.68	2.50	—	.44	—	1/4-28W	SINGLE OR DOUBLE END
BT40E-025-250	.250	.88	2.50	—	.44	—	1/4-28W	
BT40E-031-250	.3125	1.00	2.50	—	.44	—	1/4-28W	
BT40E-038-250	.375	1.00	2.50	—	.74	—	3/8-24W	
BT40E-044-250	.4375	1.25	2.50	—	.74	—	3/8-24W	
BT40E-050-262	.500	1.25	2.62	—	.88	—	7/16-20W	
BT40E-062-375	.625	1.50	3.75	3.62	.94	—	9/16-18W	
BT40E-075-375	.750	1.75	3.75	4.00	1.00	—	5/8-18W	
BT40E-088-400	.875	2.00	4.00	4.00	1.00	.81	5/8-18W	
BT40E-100-400	1.000	2.00	4.00	4.50	1.12	1.00	3/4-16W	
BT40E-125-425	1.250	2.50	4.25	2.50	1.12	1.00	3/4-16W	SINGLE
BT40E-150-462	1.500	2.75	4.62	2.75	1.12	1.00	3/4-16W	SINGLE

Order retention knobs separately, specify machine make and model #.



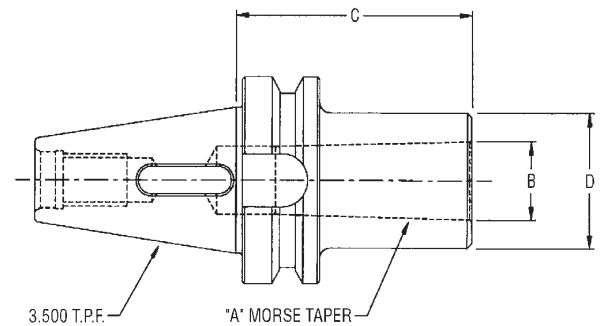
EXTENDED LENGTH							
PART NUMBER	A DIA.	B DIA.	C	D	E	SET SCREW	TYPE
BT40E-038-600	.375	1.00	6.00	—	.74	3/8-24W	SINGLE OR DOUBLE END
BT40E-050-600	.500	1.50	6.00	—	.88	7/16-20W	
BT40E-062-600	.625	1.75	6.00	3.62	.94	9/16-18W	
BT40E-075-600	.750	2.00	6.00	4.00	1.00	5/8-18W	
BT40E-088-600	1.000	2.00	6.00	4.00	1.00	3/4-16W	

Order retention knobs separately, specify machine make and model #.

PART NUMBER	A TAPER	B DIA.	C	D DIA.
BT40-MT2	2	.700	1.25	2.44
BT40-MT3	3	.938	1.62	3.00
BT40-MT4	4	1.231	2.00	3.75

Order retention knobs separately, specify machine make and model #.

### MORSE TAPER ADAPTERS

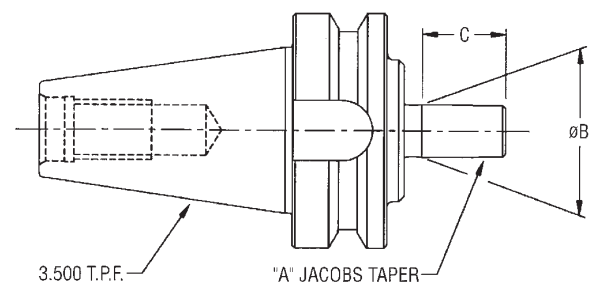


PART NUMBER	A TAPER	B DIA.	C
BT40-JT2	2	.559	.875
BT40-JT3	3	.811	1.21
BT40-JT4	4	1.12	1.65
BT40-JT6	6	.676	1.00
BT40-JT33	33	.624	1.00

Order retention knobs separately, specify machine make and model #.

Drill chucks sold separately, pages 91 and 92.

### JACOBS TAPER ADAPTERS



PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
BT40DA-100-300	DA100	.062-.562	1.39	3.00	3.00	DACN-100	9/16-LH	DA10W
BT40DA-180-300	DA180	.062-.750	1.70	3.00	2.75	DACN-180	13/16-LH	DA18W
BT40DA-200-300	DA200	.062-.375	1.125	3.00	3.00	DACN-200	7/16-LH	DA20W

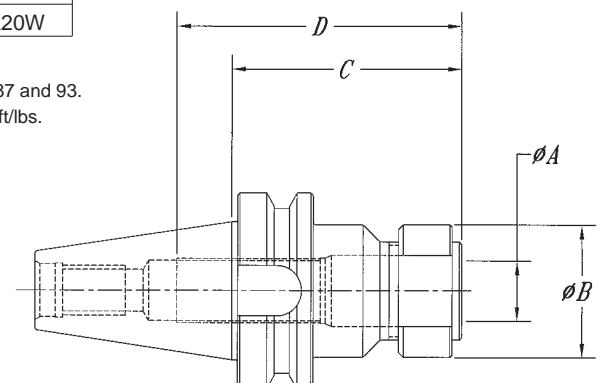
Order retention knobs separately, specify machine make and model #.

Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 87 and 93.

NOTE! Do not exceed the following torque recommendations: DA300 - 20 ft/lbs. DA200 - 25 ft/lbs.

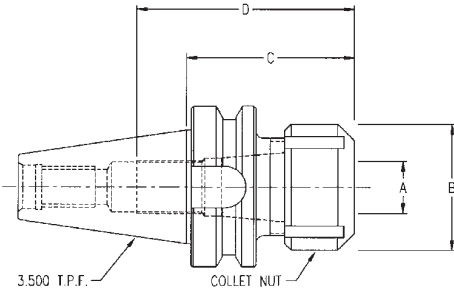
DA100 - 35 ft/lbs. DA180 - 45 ft/lbs.

### DOUBLE ANGLE COLLET CHUCKS



## BT 40 FLANGE

### BRINEY FLEX COLLET CHUCKS



PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
BT40BF-075-256	BF75	.109-3/4	1.94	2.56	3.12	BFCN-75	13/16-LH	BFG75SW
BT40BF-100-315	BF100	.218-1.00	2.50	3.15	3.25	BFCN-100	1-1/8-LH	BFG100SW

**Order retention knobs separately, specify machine make and model #.**

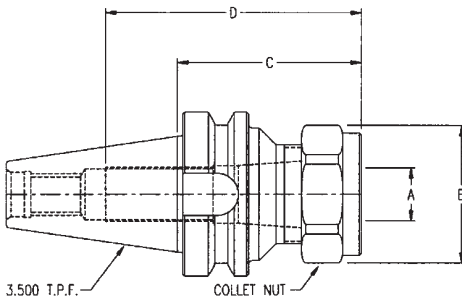
Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 89 and 95.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations: BF075 - 60 ft/lbs. BF100 - 75 ft/lbs.

BT FLANGE TOOLING

### TG COLLET CHUCKS



PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
BT40CH-075-275	BTG075	.062-.750	1.87	2.75	3.31	BTCN-075	13/16-LH	BTG075HW
BT40CH-100-300	BTG100	.093-1.000	2.245	3.00	3.68	BTCN-100	1-1/8-LH	BTG100HW
BT40CH-100-500	BTG100	.093-1.000	2.245	5.00	5.68	BTCN-100	1-1/8-LH	BTG100HW

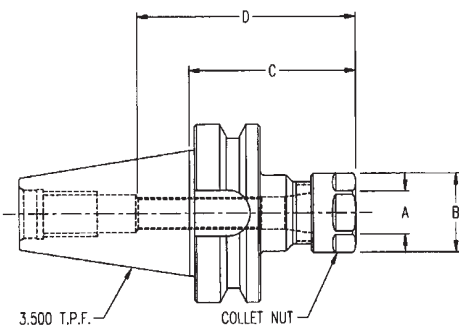
**Order retention knobs separately, specify machine make and model #.**

Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 88 and 94.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations: BTG075 - 60 ft/lbs. BTG100 - 75 ft/lbs.

### ULTRA PRECISION COLLET CHUCKS



PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
BT40BR-16-250	BR16	.019-.393	1.10	2.50	2.85	BRCN-16	7/16-LH	BR16HW
BT40BR-16-500	BR16	.019-.393	1.10	5.00	3.25	BRCN-16	7/16-LH	BR16HW
BT40BR-20-275	BR20	.039-.511	1.34	2.75	3.00	BRCN-20	9/16-LH	BR20HW
BT40BR-20-400	BR20	.039-.511	1.34	4.00	3.00	BRCN-20	9/16-LH	BR20HW
BT40BR-20-531	BR20	.039-.511	1.34	5.31	3.00	BRCN-20	9/16-LH	BR20HW
BT40BR-25-590	BR25	.039-.630	1.65	5.90	4.00	BRCN-25	M18LH	BR25HW
BT40BR-32-300	BR32	.078-.787	1.97	3.00	2.50	BRCN-32	7/8-LH	BR32SW
BT40BR-40-315	BR40	.110-1.024	2.48	3.15	3.00	BRCN-40	1-1/8-LH	BR40SW

**Order retention knobs separately, specify machine make and model #.**

Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 90, 96 and 97.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations:

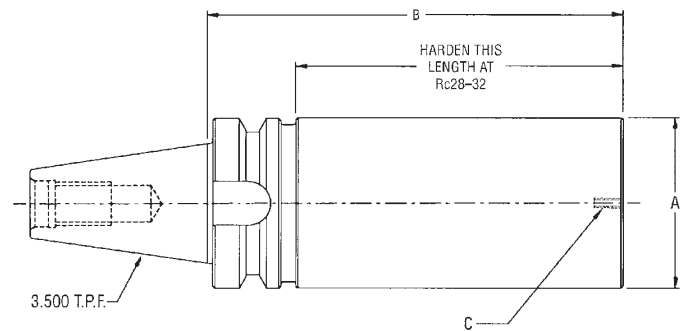
BR16 - 40 ft/lbs. BR20 - 65 ft/lbs. BR25 - 65 ft/lbs. BR32 - 80 ft/lbs. BR40 - 90 ft/lbs.



### BLANK BARS

PART NUMBER	A DIA.	B	C TAPPED HOLE	MATERIAL
BT40BB-250-600	2.50	6.00	10-24 x 1/2"	PHT 4150

Order retention knobs separately, specify machine make and model #.

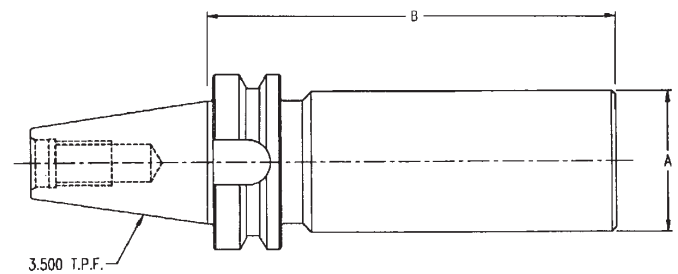


PART NUMBER	A DIA.	B	CONCENTRICITY
BT40PTB-200-1000	2.00	10.00	.0002

Order retention knobs separately, specify machine make and model #.

Test bars are calibrated and certified, bar diameter is concentric to taper within .0002.

### PRECISION TEST BARS

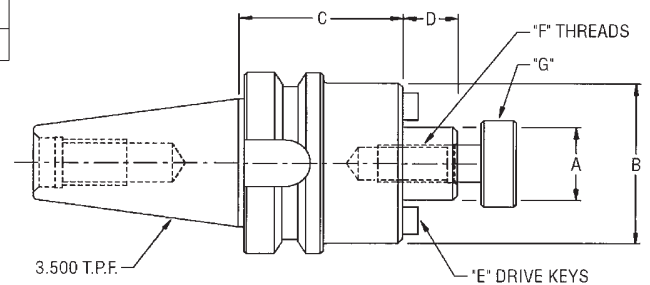


PART NUMBER	A DIA.	B DIA.	C	D	E KEY	F	G SCREW
BT40SM-075-138	.750	1.75	1.375	.68	.31	3/8-24	B5002
BT40SM-100-206	1.000	2.19	2.06	.68	.38	1/2-20	B5003
BT40SM-125-212	1.250	2.88	2.12	.68	.50	5/8-18	B5004
BT40SM-150-240	1.500	3.81	2.40	.94	.62	3/4-16	B5005

Order retention knobs separately, specify machine make and model #.

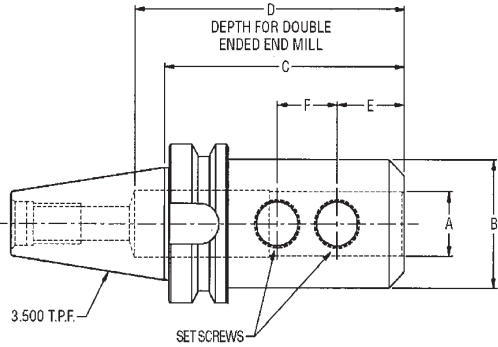
Includes shell screw and drive keys.

### SHELL MILL ADAPTERS



## BT 50 FLANGE

### END MILL ADAPTERS

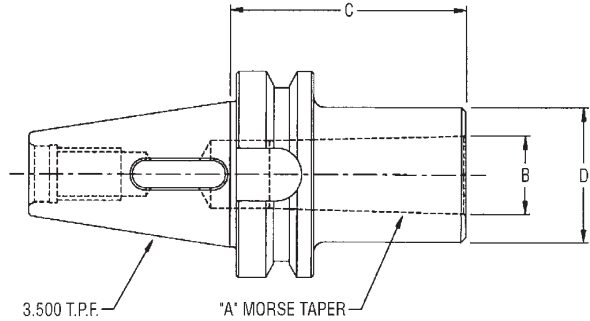


PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	ENDMILL TYPE
BT50E-038-300	.375	1.00	3.00	—	.750	—	3/8-24W	SINGLE OR DOUBLE END
BT50E-050-300	.500	1.25	3.00	—	.875	—	7/16-20W	
BT50E-062-300	.625	1.50	3.00	—	.937	—	9/16-18W	
BT50E-075-300	.750	1.75	3.00	4.00	1.000	—	5/8-18W	
BT50E-088-400	.875	2.00	4.00	4.00	1.000	.81	5/8-18W	
BT50E-100-400	1.000	2.00	4.00	4.50	1.125	1.00	3/4-16W	
BT50E-125-400	1.250	2.50	4.00	2.50	1.125	1.00	3/4-16W	SINGLE END
BT50E-150-462	1.500	2.75	4.62	2.75	1.125	1.00	3/4-16W	
BT50E-200-525	2.000	3.75	5.25	3.50	1.406	1.50	1-14W	

Order retention knobs separately, specify machine make and model #.

BT FLANGE TOOLING

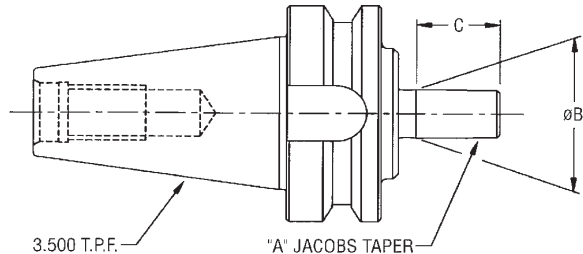
### MORSE TAPER ADAPTERS



PART NUMBER	A TAPER	B DIA.	C	D DIA.
BT50-MT2	2	.700	2.00	1.25
BT50-MT3	3	.938	2.50	1.62
BT50-MT4	4	1.231	3.75	2.00
BT50-MT5	5	1.748	4.81	2.75

Order retention knobs separately, specify machine make and model #.

### JACOBS TAPER ADAPTERS



PART NUMBER	A TAPER	B DIA.	C
BT50-JT3	3	.811	1.21
BT50-JT6	6	.676	1.00
BT50-JT33	33	.624	1.00

Order retention knobs separately, specify machine make and model #.

Drill chucks sold separately, pages 91 and 92.

PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
BT50CH-100-350	BTG100	.093-1.000	2.245	3.50	4.75	BTGCN-100	1-1/8-LH	BTG100HW
BT50CH-100-600	BTG100	.093-1.000	2.245	6.00	4.15	BTGCN-100	1-1/8-LH	BTG100HW
BT50CH-150-350	BTG150	.500-1.500	3.25	3.50	4.50	BTGCN-150	1-5/8-LH	BTG150SW

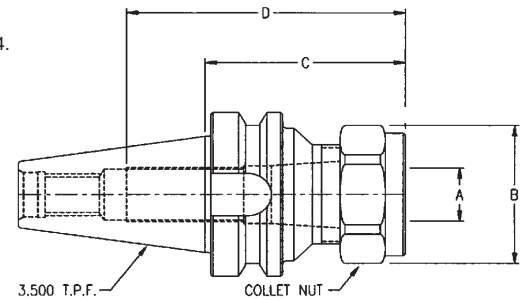
### TG COLLET CHUCKS

**Order retention knobs separately, specify machine make and model #.**

Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 88 and 94.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations: BTG100 - 75 ft/lbs. BTG150 - 90 ft/lbs.



PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
BT50BR-16-532	BR16	.019-.393	1.10	5.32	3.00	BRCN-16	7/16-LH	BR16HW
BT50BR-20-532	BR20	.039-.511	1.34	5.32	3.00	BRCN-20	9/16-LH	BR20HW
BT50BR-32-532	BR32	.078-.787	1.97	5.32	3.00	BRCN-32	7/8-LH	BR32SW
BT50BR-40-315	BR40	.118-1.024	2.48	3.15	4.00	BRCN-40	1-1/8-LH	BR40SW
BT50BR-50-400	BR50	.393-1.339	3.10	4.00	4.50	BRCN-50	1-1/2-LH	BR50SW

### ULTRA PRECISION COLLET CHUCKS

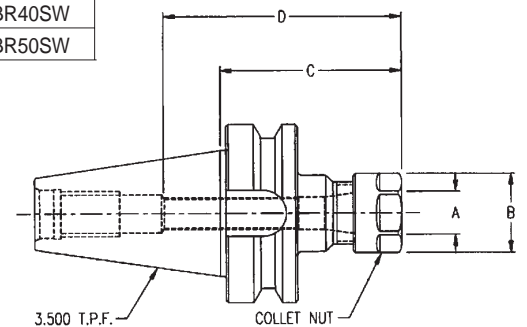
**Order retention knobs separately, specify machine make and model #.**

Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 90, 96 and 97.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations:

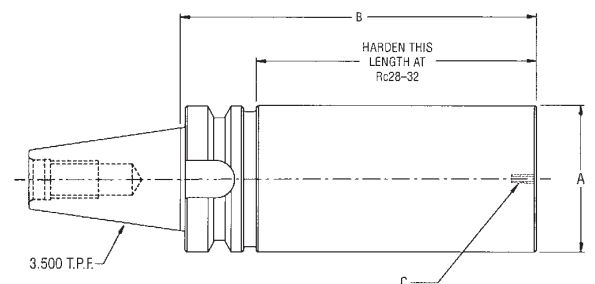
BR16 - 40 ft/lbs. BR20 - 70 ft/lbs. BR32 - 80 ft/lbs. BR40 - 90 ft/lbs. BR50 - 90 ft/lbs.



PART NUMBER	A DIA.	B	C TAPPED HOLE	MATERIAL
BT50BB-400-600	4.00	6.00	1/4-20 x 3/4"	PHT 4150

### BLANK BARS

**Order retention knobs separately, specify machine make and model #.**

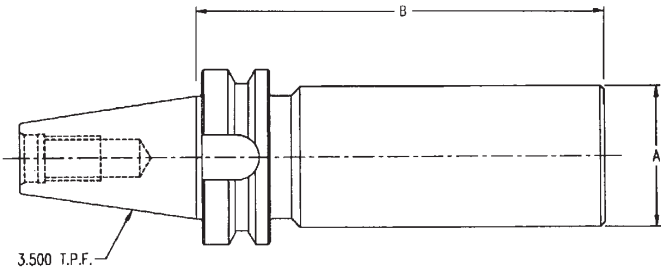


## BT 50 FLANGE

### PRECISION TEST BARS

PART NUMBER	A DIA.	B	CONCENTRICITY
BT50PTB-200-1200	2.00	12.00	.0002

Order retention knobs separately, specify machine make and model #.  
 Test bars are calibrated and certified, bar diameters are concentric to taper within .0002.

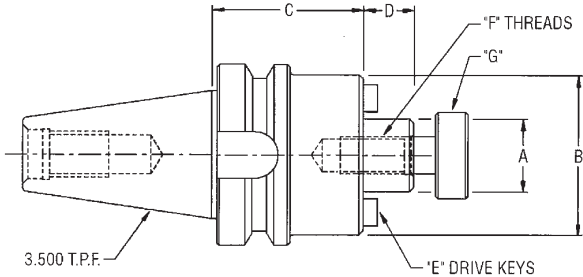


BT FLANGE TOOLING

### SHELL MILL ADAPTERS

PART NUMBER	A DIA.	B DIA.	C	D	E KEY	F THREAD	G SCREW
BT50SM-075-200	.750	1.75	2.00	.68	.31	3/8-24	B5002
BT50SM-100-200	1.000	2.19	2.00	.68	.38	1/2-20	B5003
BT50SM-125-200	1.250	2.88	2.00	.68	.50	5/8-18	B5004
BT50SM-150-240	1.500	3.88	2.40	.94	.62	3/4-16	B5005
*BT50SM-200-350	2.000	4.88	3.50	.94	.75	1"-14	B5006
*BT50SM-250-350	2.500	4.88	3.50	1.125	1.00	1"-14	B5007

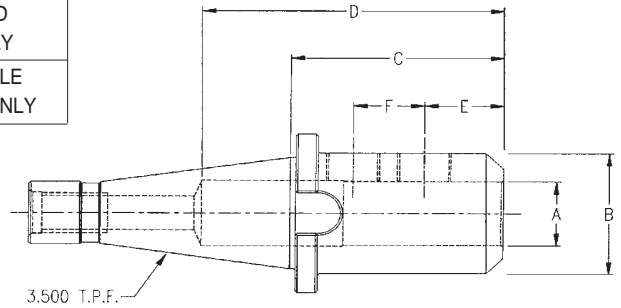
Order retention knobs separately, specify machine make and model #.  
 Includes shell screw and drive key.  
 \*Includes 4 5/8-11 tapped holes on a 4" bolt circle.



PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREWS	END MILL TYPE
NMTB30E-018-175	.1875	.688	1.75	—	.44	—	1/4-28W	SINGLE OR
NMTB30E-025-175	.250	.875	1.75	—	.44	—	1/4-28W	DOUBLE
NMTB30E-038-175	.375	1.00	1.75	—	.75	—	3/8-24W	END
NMTB30E-050-175	.500	1.25	1.75	3.12	.88	—	7/16-20W	SINGLE
NMTB30E-062-175	.625	1.44	1.75	2.13	.94	—	9/16-18W	END
NMTB30E-075-213	.750	1.75	2.13	2.25	1.00	—	5/8-18W	ONLY
NMTB30E-100-275	1.000	2.00	2.75	2.50	1.12	—	3/4-16W	SINGLE
NMTB30E-125-375	1.250	2.50	3.75	2.50	1.12	1.00	3/4-16W	END ONLY

### END MILL ADAPTERS

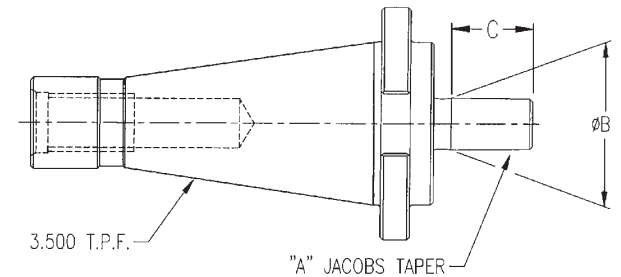
Our Qualified Flange will fit Erickson Tool Change System.



PART NUMBER	A JACOBS TAPER	B	C
NMTB30-JT2	2	.559	.88
NMTB30-JT3	3	.811	1.21
NMTB30-JT33	33	.624	1.00

### JACOBS TAPER ADAPTERS

Our Qualified Flange will fit Erickson Tool Change System.  
Drill chucks sold separately, pages 91 and 92.



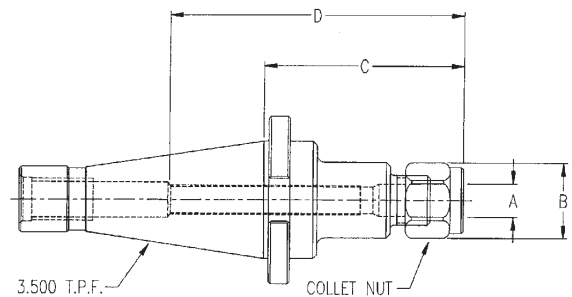
NMTB QC TOOLING

PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
NMTB30DA-180-300	DA180	.062-.750	1.70	3.00	3.12	DACN180	13/16-LH	DA18W
NMTB30DA-200-300	DA200	.062-.375	1.13	3.00	3.80	DACN200	7/16-LH	DA20W
NMTB30DA-300-162	DA300	.031-.250	.860	1.62	2.24	DACN300	5/16-LH	DA30W

### DOUBLE ANGLE COLLET CHUCKS

Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 87 and 93.  
Our Qualified Flange will fit Erickson Tool Change System.

NOTE! Do not exceed the following torque recommendations: DA300 - 20 ft/lbs. DA200 - 25 ft/lbs. DA180 - 45 ft/lbs.



# NMTB QC 30 SHANK

## TG COLLET CHUCKS

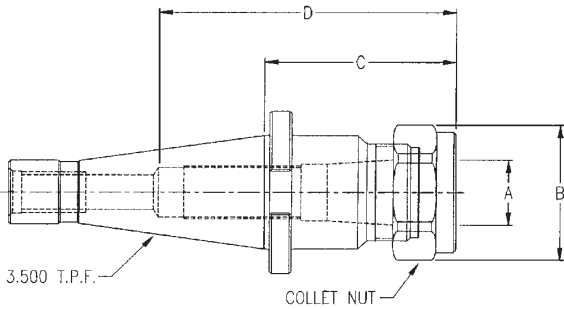
PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
NMTB30CH-075-275	BTG075	.062-.750	1.87	2.75	3.06	BTGCN-075	13/16-LH	BTG075HW

Includes collet nut and standard stop screw. Purchase collets and wrenches separately, pages 88 and 94

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

Our Qualified Flange will fit Erickson Tool Change System.

NOTE! Do not exceed the following torque recommendations: BTG75 - 60 ft/lbs.

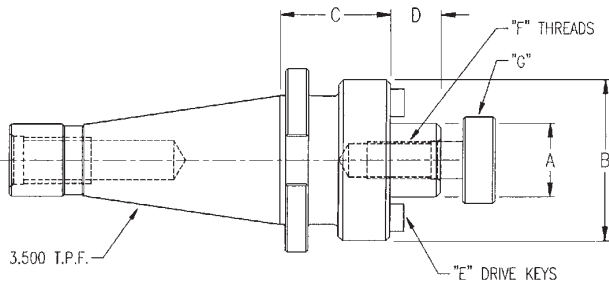


## SHELL MILL ADAPTERS

PART NUMBER	A DIA.	B DIA.	C	D	E KEY	F THREAD	G SCREW
NMTB30SM-075-131	.750	1.750	1.312	.687	.31	3/8-24	B5002
NMTB30SM-100-131	1.000	2.190	1.312	.687	.38	1/2-20	B5003
NMTB30SM-125-144	1.250	2.880	1.438	.687	.50	5/8-18	B5004

Includes shell screw and drive keys.

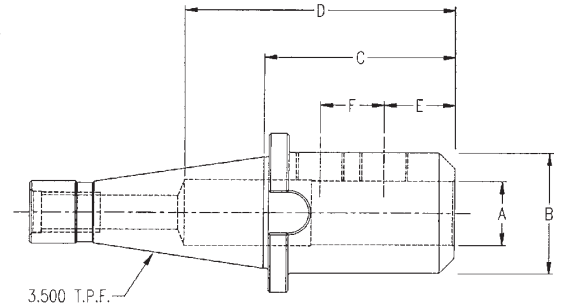
Our Qualified Flange will fit Erickson Tool Change System.



PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	END MILL TYPE
NMTB40E-018-231	.1875	.688	2.31	—	.44	—	1/4-28W	SINGLE OR DOUBLE END
NMTB40E-025-231	.250	.875	2.31	—	.44	—	1/4-28W	
NMTB40E-038-231	.375	1.00	2.31	—	.74	—	3/8-24W	
NMTB40E-050-231	.500	1.25	2.31	—	.88	—	7/16-20W	
NMTB40E-062-231	.625	1.50	2.31	3.62	.94	—	9/16-18W	
NMTB40E-075-231	.750	1.75	2.31	4.00	1.00	—	5/8-18W	
NMTB40E-100-300	1.000	1.90	3.00	4.25	1.12	1.00	3/4-16W	SINGLE END
NMTB40E-125-306	1.250	2.50	3.06	2.50	1.12	1.00	3/4-16W	
NMTB40E-150-395	1.500	2.75	3.95	2.75	1.12	1.00	3/4-16W	

Our Qualified Flange will fit Erickson Tool Change System.

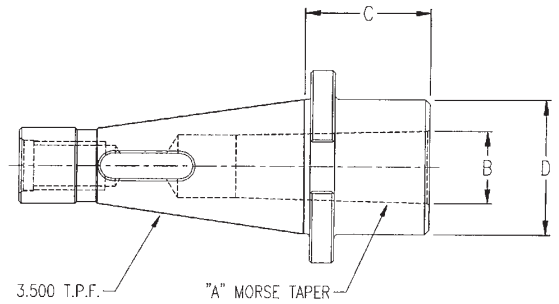
### END MILL ADAPTERS



PART NUMBER	A MORSE TAPER	B DIA.	C	D DIA.
NMTB40-MT2	2	.700	1.25	1.25
NMTB40-MT3	3	.938	1.62	1.75
NMTB40-MT4	4	1.231	3.50	2.00

Our Qualified Flange will fit Erickson Tool Change System.

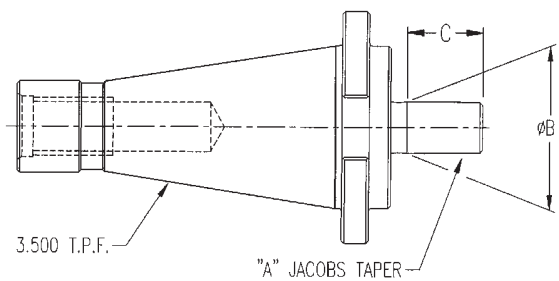
### MORSE TAPER ADAPTERS



PART NUMBER	A JACOBS TAPER	B DIA.	C
NMTB40-JT2	2	.559	.88
NMTB40-JT3	3	.811	1.21
NMTB40-JT4	4	1.12	1.66
NMTB40-JT6	6	.676	1.00
NMTB40-JT33	33	.624	1.00

Our Qualified Flange will fit Erickson Tool Change System.  
Drill chucks sold separately, pages 91 and 92.

### JACOBS TAPER ADAPTERS



NMTB QC TOOLING

# NMTB QC 40 SHANK

## TG COLLET CHUCKS

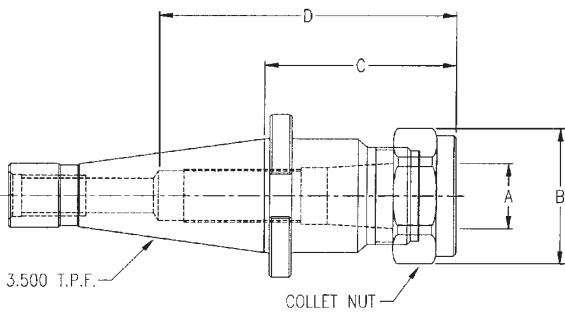
PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
NMTB40CH-075-275	BTG075	.062-.750	1.87	2.75	3.06	BTGCN-075	13/16-LH	BTG075HW
NMTB40CH-100-300	BTG100	.093-1.000	2.245	3.00	3.68	BTGCN-100	1-1/8-LH	BTG100HW

Includes collet nut and standard stop screw. Purchase collets separately, pages 88 and 94.

Our Qualified Flange will fit Erickson Tool Change System.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations:  
BTG75 - 60 ft/lbs. BTG100 - 75 ft/lbs. BTG150 - 90 ft/lbs.



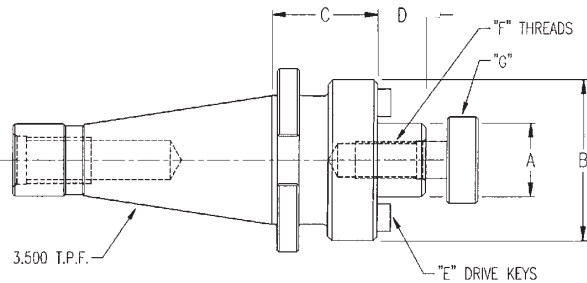
NMTB QC TOOLING

## SHELL MILL ADAPTERS

PART NUMBER	A DIA.	B DIA.	C	D	E KEY	F THREAD	G SCREW
NMTB40SM-075-150	.750	1.750	1.500	.687	.31	3/8-24	B5002
NMTB40SM-100-150	1.000	2.190	1.500	.687	.38	1/2-20	B5003
NMTB40SM-125-150	1.250	2.880	1.500	.687	.50	5/8-18	B5004
NMTB40SM-150-240	1.500	3.810	2.400	.937	.62	3/4-16	B5005

Includes shell screw and drive keys.

Our Qualified Flange will fit Erickson Tool Change System.

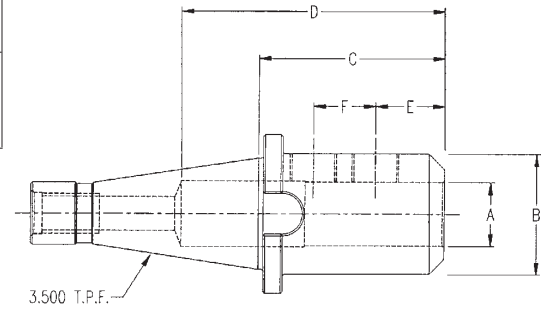




PART NUMBER	A DIA.	B DIA.	C	D	E	F	SET SCREW	END MILL TYPE
NMTB50E-038-275	.375	1.00	2.75	—	.75	—	3/8-24W	SINGLE OR DOUBLE END
NMTB50E-050-275	.500	1.25	2.75	—	.88	—	7/16-20W	
NMTB50E-062-275	.625	1.50	2.75	—	.94	—	9/16-18W	
NMTB50E-075-275	.750	1.75	2.75	—	1.00	—	5/8-18W	
NMTB50E-100-275	1.000	2.00	2.75	4.50	1.12	—	3/4-16W	
NMTB50E-125-275	1.250	2.50	2.75	2.50	1.12	1.00	3/4-16W	SINGLE END
NMTB50E-150-350	1.500	2.75	3.50	2.75	1.12	1.00	3/4-16W	
NMTB50E-200-475	2.000	3.75	4.75	3.50	1.41	1.50	1"-14W	

Our Qualified Flange will fit Erickson Tool Change System.

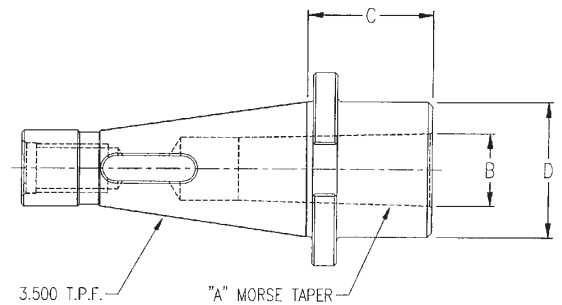
### END MILL ADAPTERS



PART NUMBER	A TAPER	B DIA.	C	D DIA.
NMTB50-MT2	2	.700	2.44	1.25
NMTB50-MT3	3	.938	1.62	1.62
NMTB50-MT4	4	1.231	3.75	2.00
NMTB50-MT5	5	1.748	3.75	2.75

Our Qualified Flange will fit Erickson Tool Change System.

### MORSE TAPER ADAPTERS

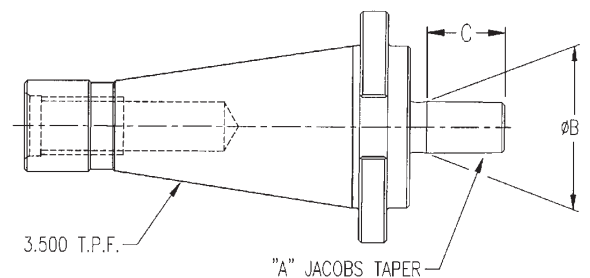


NMTB QC TOOLING

PART NUMBER	A TAPER	B DIA.	C
NMTB50-JT2	2	.559	.88
NMTB50-JT3	3	.811	1.21
NMTB50-JT4	4	1.12	1.66
NMTB50-JT6	6	.676	1.00
NMTB50-JT33	33	.624	1.00

Our Qualified Flange will fit Erickson Tool Change System.  
Drill chucks sold separately, pages 91 and 92.

### JACOBS TAPER ADAPTERS



## NMTB QC 50 SHANK

### TG COLLET CHUCKS

PART NUMBER	COLLET SERIES	A COLLET RANGE	B DIA.	C	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
NMTB50CH-100-300	BTG100	.093-1.00	2.245	3.00	3.68	BTGCN-100	1-1/8-LH	BTG100HW

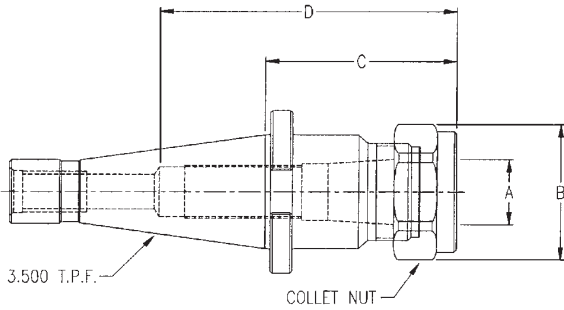
Includes collet nut and standard stop screw.

Purchase collets and wrenches separately, pages 88 and 94.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

Our Qualified Flange will fit Erickson Tool Change System.

NOTE! Do not exceed the following torque recommendations: BTG100 - 75 ft/lbs. BTG150 - 90 ft/lbs.



NMTB QC  
TOOLING

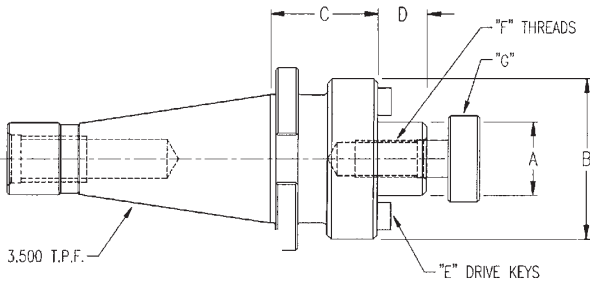
### SHELL MILL ADAPTERS

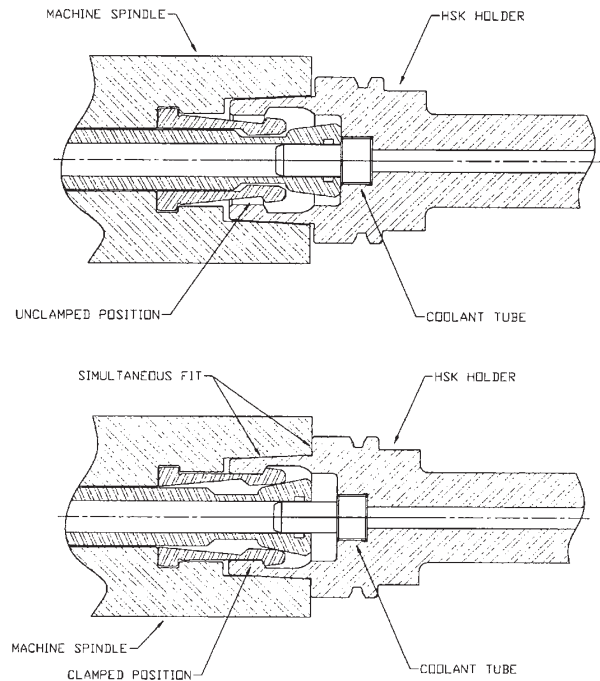
PART NUMBER	A DIA.	B DIA.	C	D	E KEY	F THREAD	G SCREW
NMTB50SM-075-150	.750	1.75	1.50	.68	.31	3/8-24	B5002
NMTB50SM-100-150	1.000	2.19	1.50	.68	.38	1/2-20	B5003
NMTB50SM-125-150	1.250	2.88	1.50	.68	.50	5/8-18	B5004
NMTB50SM-150-240	1.500	3.81	2.40	.93	.62	3/4-16	B5005
*NMTB50SM-200-240	2.000	4.875	2.40	.93	.75	1"-14	B5006
*NMTB50SM-250-240	2.500	4.875	2.40	1.125	1.00	1"-14	B5007

Includes shell screw and drive keys.

Our Qualified Flange will fit Erickson Tool Change System.

\*Includes 4 5/8-11 tapped holes on a 4" bolt circle.





## THE HSK CONNECTION

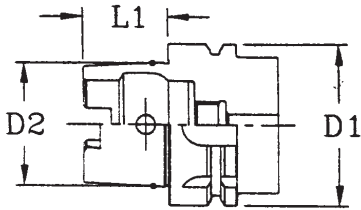
The HSK connection is the internationally recognized standard for superior high speed toolholder performance. Briney offers the premium toolholder with superior materials and processes. These improvements provide extended wear, superior durability, increased rigidity and dependability.

The HSK connection utilizes the combination of face contact and improved taper contact to provide users with:

- Increased stiffness: 5-7 times higher than steep tapers.
- Repeatability: Taper and face contact increase positioning accuracy thus reducing run out.
- Superior High Speed Performance: The short taper and hollow shank design results in a reduction in the holder weight, therefore reducing spindle stresses. Interior taper clamping reduces the effects that centrifugal forces generates, at higher speeds.
- High Torque Transmission: The combination of face contact and taper contact create improved friction. This in conjunction with positive drive key design improve torque transfer under heavy cutting loads.

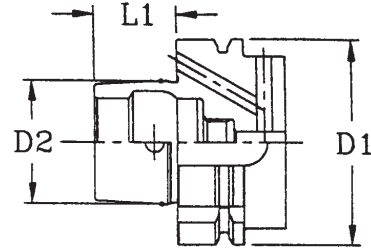
Since its introduction in 1993, HSK has proven to be the new world standard for high speed toolholding. Briney combines the HSK connection with improved materials and processes to provide the highest quality HSK toolholders in the industry.

## HSK SHANK DIN 69893



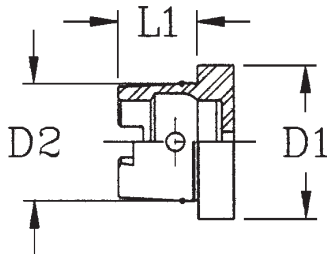
**FORM A**

For Automatic Tool Change



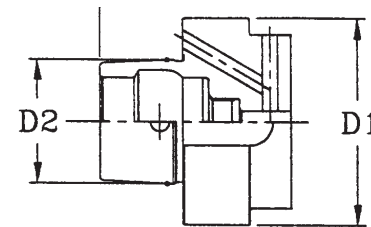
**FORM B**

For Automatic Tool Change With Additional Face Contact And Coolant Through Face



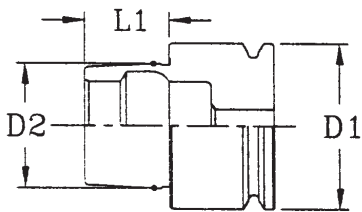
**FORM C**

Manual Clamping



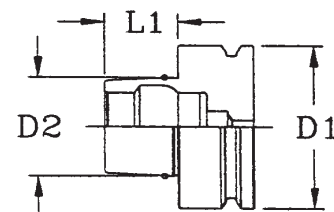
**FORM D**

Manual Additional Face Contact And Coolant Through Face



**FORM E**

For Ultra High Speed Application



**FORM F**

Ultra High Speed With Additional Face Contact

**FORM A/C/E**

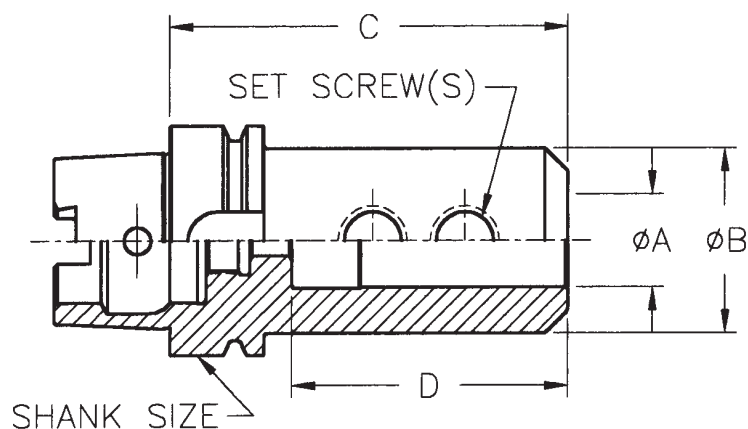
D1	D2	L1
32 (1.2598)	24 (.945)	16 (.630)
40 (1.5748)	30 (1.181)	20 (.787)
50 (1.9685)	38 (1.496)	25 (.984)
63 (2.4803)	48 (1.890)	32 (1.260)
80 (3.1496)	60 (2.362)	40 (1.575)
100 (3.9370)	75 (2.953)	50 (1.969)
125 (4.9213)	95 (3.740)	63 (2.480)
160 (6.2992)	120 (4.724)	80 (3.150)

**FORM B/D/F**

D1	D2	L1
--	--	--
40 (1.5748)	24 (.945)	16 (.630)
50 (1.9685)	30 (1.181)	20 (.787)
63 (2.4803)	38 (1.496)	25 (.984)
80 (3.1496)	48 (1.890)	32 (1.260)
100 (3.9370)	60 (2.362)	40 (1.575)
125 (4.9213)	75 (2.953)	50 (1.969)
160 (6.2992)	95 (3.740)	63 (2.480)

Briney offers HSK tooling from stock in sizes 63A and 100A. Choose Briney HSK for maximum rigidity in high speed machining. It's the pinnacle of toolholder stiffness, concentricity and consistent position accuracy.

Select the size and style you need from HSK32 thru HSK125 sizes and styles A thru E. From stock or manufactured to order.

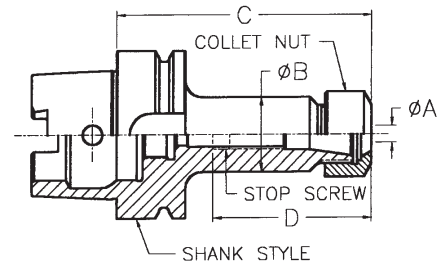


### END MILL ADAPTERS

PART NUMBER	SHANK SIZE	A DIA.	B DIA.	C	D	SET SCREW
HSK63AE-018-236	63A	.1875	.688	2.362	1.88	1/4-28W
HSK63AE-025-236	63A	.2500	.875	2.362	1.81	1/4-28W
HSK63AE-038-315	63A	.3750	1.00	3.150	1.90	3/8-24W
HSK63AE-050-354	63A	.5000	1.25	3.543	2.53	7/16-20W
HSK63AE-062-394	63A	.6250	1.50	3.937	2.75	9/16-18W
HSK63AE-075-394	63A	.7500	1.75	3.937	2.75	5/8-18W
HSK63AE-100-433	63A	1.000	2.00	4.330	3.00	3/4-16W
HSK63AE-125-433	63A	1.250	2.50	4.330	2.50	3/4-16W
HSK100AE-038-394	100A	.3750	1.00	3.937	1.90	3/8-24W
HSK100AE-050-394	100A	.5000	1.25	3.937	2.53	7/16-20W
HSK100AE-062-394	100A	.6250	1.50	3.937	2.75	9/16-18W
HSK100AE-075-433	100A	.7500	1.75	4.330	2.75	5/8-18W
HSK100AE-100-472	100A	1.000	2.00	4.724	3.00	3/4-16W
HSK100AE-125-472	100A	1.250	2.50	4.724	2.50	3/4-16W
HSK100AE-150-472	100A	1.500	2.75	4.724	2.75	3/4-16W

Order coolant tubes separately, page 71.

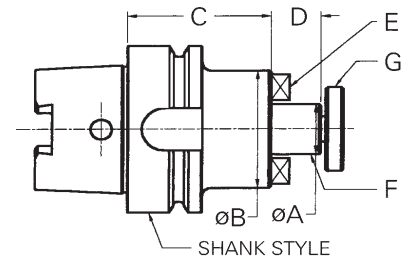
# HSK SHANK DIN 69893



## COLLET CHUCK ADAPTERS

PART NUMBER	SHANK SIZE	A COLLET RANGE IN./MM	COLLET SERIES	B DIA.	C IN./MM	D	COLLET NUT	STOP SCREW	COLLET NUT WRENCH
HSK63ABR-16-65m	HSK63A	.019-.393/5-10	BR16	28mm	2.559/65	51mm	BRCN16	7/16 LH	BR16HW
HSK63ABR-16-100m	HSK63A	.019-.393/5-10	BR16	28mm	3.937/100	51mm	BRCN16	7/16 LH	BR16HW
HSK63ABR-16-120m	HSK63A	.019-.393/5-10	BR16	28mm	4.724/120	51mm	BRCN16	7/16 LH	BR16HW
HSK63ABR-16-160m	HSK63A	.019-.393/5-10	BR16	28mm	6.299/160	51mm	BRCN16	7/16 LH	BR16HW
HSK63ABR-20-70m	HSK63A	.039-.507/1-13	BR20	34mm	2.756/70	55mm	BRCN20	9/16 LH	BR20HW
HSK63ABR-20-100m	HSK63A	.039-.507/1-13	BR20	34mm	3.937/100	55mm	BRCN20	9/16 LH	BR20HW
HSK63ABR-20-120m	HSK63A	.039-.507/1-13	BR20	34mm	4.724/120	55mm	BRCN20	9/16 LH	BR20HW
HSK63ABR-20-170m	HSK63A	.039-.507/1-13	BR20	34mm	6.693/170	55mm	BRCN20	9/16 LH	BR20HW
HSK63ABR-25-80m	HSK63A	.039-.624/1-16	BR25	42mm	3.150/80	60mm	BRCN25	M18 LH	BR25SW
HSK63ABR-25-120m	HSK63A	.039-.624/1-16	BR25	42mm	4.724/120	60mm	BRCN25	M18 LH	BR25SW
HSK63ABR-25-175m	HSK63A	.039-.624/1-16	BR25	42mm	6.889/175	60mm	BRCN25	M18 LH	BR25SW
HSK63ABR-32-80m	HSK63A	.078-.787/2-20	BR32	50mm	3.937/80	68.5mm	BRCN32	7/8 LH	BR32SW
HSK63ABR-32-100m	HSK63A	.078-.787/2-20	BR32	50mm	3.937/100	68.5mm	BRCN32	7/8 LH	BR32SW
HSK63ABR-32-130m	HSK63A	.078-.787/2-20	BR32	50mm	5.118/130	68.5mm	BRCN32	7/8 LH	BR32SW
HSK63ABR-32-180m	HSK63A	.078-.787/2-20	BR32	50mm	7.087/180	68.5mm	BRCN32	7/8 LH	BR32SW
HSK63ABR-40-100m	HSK63A	.118-1.024/3-26	BR40	63mm	3.937/100	70mm	BRCN40	1-1/8 LH	BR32SW
HSK63ABR-40-160m	HSK63A	.118-1.024/3-26	BR40	63mm	6.299/160	70mm	BRCN40	1-1/8 LH	BR32SW
HSK100ABR-16-394	HSK100A	.019 - .393/5-10	BR16	28mm	3.937/100	51mm	BRCN16	7/16 LH	BR16HW
HSK100ABR-32-394	HSK100A	.078 - .787/2-20	BR32	50mm	3.937/100	51mm	BRCN32	7/8 LH	BR32SW
HSK100ABR-40-472	HSK100A	.118 - 1.024/3-26	BR40	63mm	4.724/120	82.5mm	BRCN40	1-1/8 LH	BR40SW

Purchase collets and wrenches separately, pages 90, 96 and 97.  
Order coolant tubes separately, page 71.



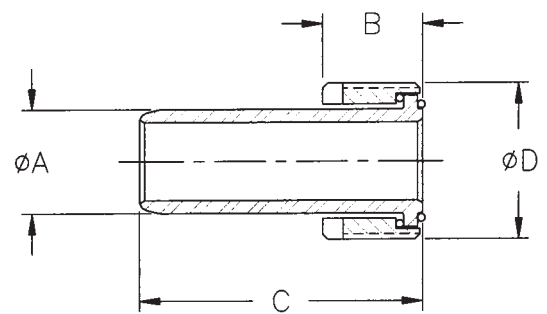
## SHELL MILL ADAPTERS

PART NUMBER	SHANK SIZE	A DIA.	B DIA.	C	D	E KEY	F THREAD	G SCREW
HSK63ASM-075-197	HSK63A	.7500	1.750	1.968	.68	.31	3/8 - 24	B5002
HSK63ASM-100-216	HSK63A	1.000	2.190	2.165	.68	.38	1/2-20	B5003
HSK63ASM-125-216	HSK63A	1.250	2.880	2.165	.68	.50	5/8-18	B5004
HSK100ASM-075-197	HSK100A	.7500	1.750	1.968	.68	.31	3/8-24	B5002
HSK100ASM-100-216	HSK100A	1.000	2.750	2.165	.68	.38	1/2-20	B5003
HSK100ASM-125-216	HSK100A	1.250	2.880	2.165	.68	.50	5/8-18	B5004
HSK100ASM-150-236	HSK100A	1.500	3.810	2.362	.93	.62	3/4-16	B5005

Order coolant tubes separately, page 71.

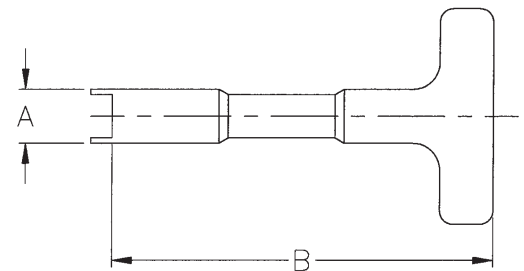
PART NUMBER	TAPER SIZE	A DIA.	B	C	D
TICT-HSK32	HSK32	.236	.216	1.012	M10X1
TICT-HSK40	HSK40	.315	.295	1.150	M12X1
TICT-HSK50	HSK50	.394	.374	1.287	M16X1
TICT-HSK63	HSK63	.472	.452	1.425	M18X1
TICT-HSK100	HSK100	.630	.610	1.716	M24X1.5

### HSK COOLANT TUBES



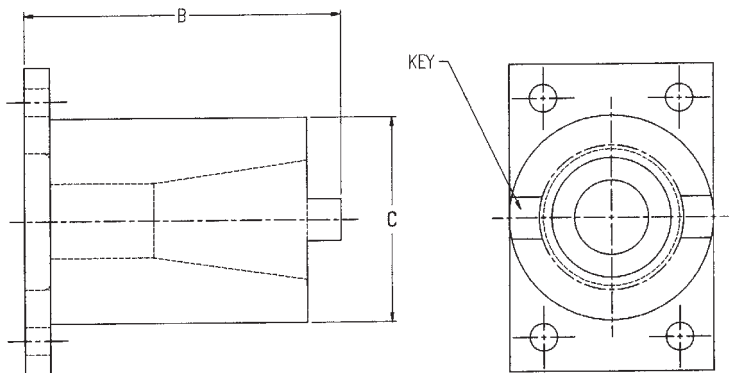
PART NUMBER	TAPER SIZE	A	B
TIIW-HSK32	HSK32	.334	4.21
TIIW-HSK40	HSK40	.413	4.40
TIIW-HSK50	HSK50	.570	4.60
TIIW-HSK63	HSK63	.650	4.80
TIIW-HSK100	HSK100	.866	5.55

### HSK COOLANT TUBE WRENCHES



# ACCESSORIES — TIGHTENING FIXTURES

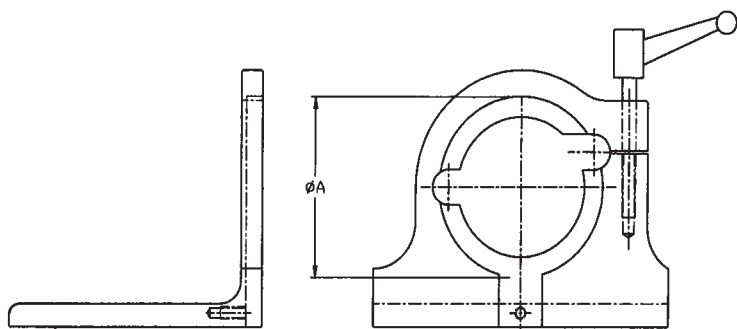
## TIGHTENING FIXTURE (ALL TAPERS)



PART NUMBER	SHANK SIZE	B	C	KEY
B30TF	30	3.91	3.00	.62
B35TF	35	4.65	3.00	.62
B40TF	40	4.65	3.00	.62
B45TF	45	4.90	3.50	.75
B50TF	50	6.35	4.00	1.00
B60TF	60	9.00	6.00	1.00

All tightening fixtures fit V flange, BT shank and NMTB tooling. Bolt down or use in vise.

## LOCKING TIGHTENING FIXTURE



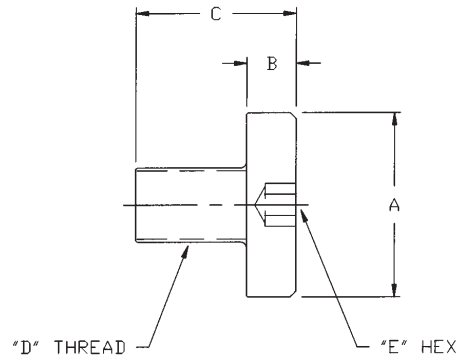
PART NUMBER	A SHANK SIZE	B
B40LTF	40	FOR V FLANGE
B50LTF	50	ADAPTERS ONLY

For use in any position, to access tool or retention knob.



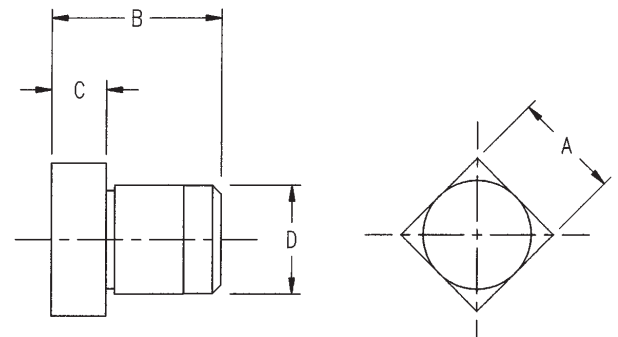
PART NUMBER	A	B	C	D	E
B5001	.62	.34	.84	1/4-28	3/16
B5002	.88	.37	1.00	3/8-24	1/4
B5003	1.19	.43	1.25	1/2-20	5/16
B5004	1.50	.37	1.25	5/8-18	5/16
B5005	1.865	.50	1.62	3/4-16	3/8
B5006	2.50	.50	1.93	1-14	1/2
B5007	3.12	.62	1.93	1-14	1/2

### SHELL MILL SCREWS



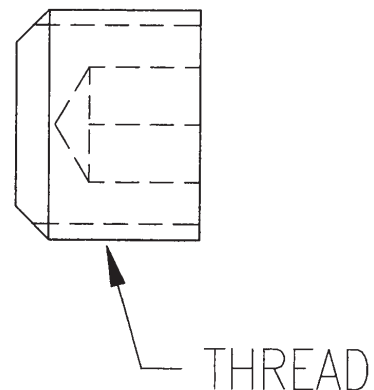
PART NUMBER	A	B	C	D DIA.	ADAPTER PILOT SIZE
BDK-250	.250	.50	.13	.251	.500
BDK-312	.312	.50	.16	.313	.750
BDK-375	.375	.59	.19	.376	1.000
BDK-500	.500	.78	.25	.501	1.250
BDK-625	.625	.96	.31	.626	1.500
BDK-750	.750	1.03	.38	.751	2.000
BDK-1.00	1.00	1.38	.50	1.001	2.500
BDK-1.00A	1.00	1.09	.50	1.001	2.500

### SHELL MILL DRIVE KEYS



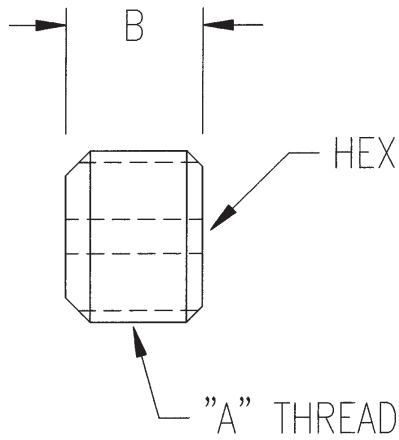
PART NUMBER	THREAD SIZE	LENGTH
10-32W	10-32	.25
1/4-28W	1/4-28	.25
3/8-24W	3/8-24	.31
7/16-20W	7/16-20	.38
9/16-18W	9/16-18	.50
5/8-18W	5/8-18	.50
3/4-16W	3/4-16	.50
1-14W	1-14	.88

### END MILL SET SCREWS (WELDON FORGED)



# ACCESSORIES

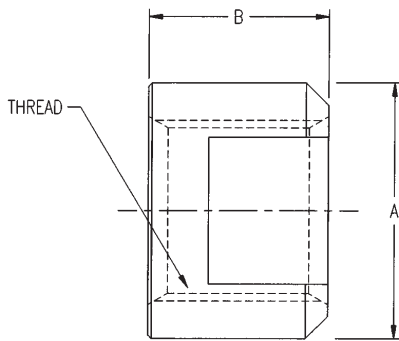
## STOP SCREWS



PART NUMBER	A THREAD SIZE	B
5/16LH	5/16-24LH	.38
7/16LH	7/16-20LH	.50
9/16LH	9/16-18LH	.50
5/8LH	5/8-18LH	.50
13/16LH	13/16-16LH	.62
7/8LH	7/8-14LH	.62
1-1/8LH	1-1/8-16LH	.62
1-1/2LH	1-1/2-12LH	.62
1-5/8LH	1-5/8-12LH	.62

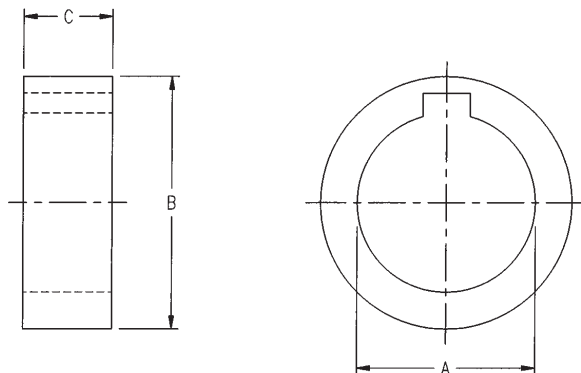
Stop screws have coolant thru holes.

## STUB ARBOR NUTS



PART NUMBER	A	B	THREAD
B5030	1.50	1.00	1-14
B5040	1.88	1.25	1-1/4-12
B5060	2.08	1.50	1-1/2-12

## STUB ARBOR & STUB ARBOR NUT SPACER SETS



PART NUMBER	A	B	C Set incl. 1 ea.
B6030	1.003	1.56	1/8-3/8-3/4
B6040	1.253	1.88	1/8-3/8-3/4
B6050	1.503	2.12	1/8-3/8-3/4
B6031	1.003	1.56	1/4-1/2
B6041	1.253	1.88	1/4-1/2
B6051	1.503	2.12	1/4-1/2

### MODULAR TOOL STORAGE SYSTEMS

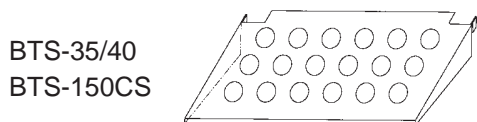
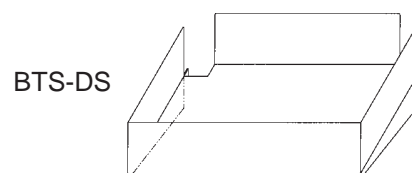
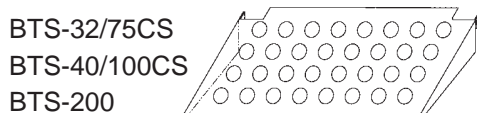
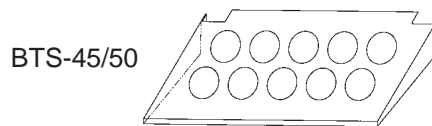
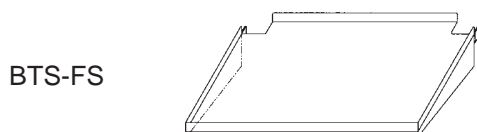
#### TOOL CARTS

PART NUMBER	DESCRIPTION	CAPACITY
*BTK-35/40	Tool storage cart	Holds 54 BT35, BT40, or V40 shank tools
*BTK-45/50	Tool storage cart	Holds 42 BT45, BT50, V45, or V50 shank tools
*BTK-200	Tool storage cart	Holds 96 QS200 shank tools

\* Includes your choice of 3 shelves for tooling, collets, or flat shelves. Please specify when ordering. Exact collet shelves must be specified to ensure correct diameter of holes in shelf.

#### TOOL SHELVES

PART NUMBER	DESCRIPTION	CAPACITY
BTS-FS	Flat shelf	Flat storage shelf
BTS-32/75CS	Collet shelf	Holds 32 ER32 or TG75 collets
BTS-40/100CS	Collet shelf	Holds 32 ER40 or TG100 collets
BTS-150CS	Collet shelf	Holds 18 TG150 collets
BTS-35/40	Tooling shelf	Holds 18 BT35, BT40, or V40 shank tools
BTS-200	Tooling shelf	Holds 32 QS200 shank tools
BTS-45/50	Tooling shelf	Holds 10 BT40 or BT50 shank tools
BTS-DS	Deep shelf	Deep storage shelf with mat
BTS-B#1CT	Tap collet tray	Holds 32 #1 series tap adapters
BTS-B#2CT	Tap collet tray	Holds 32 #2 series tap adapters

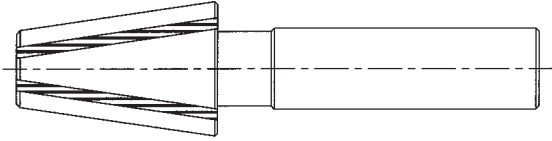


Dimensions 24" x 24" x 45" HT

Briney Modular Tool Storage Systems, is the superior choice for all styles of tool shanks. This heavy-duty steel framed mobile kart can be customized to fit your needs. Just choose 3 shelf styles, included in your purchase and add additional shelves now or at a later date.

## SPINDLEMATE

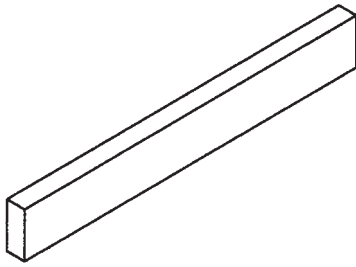
### SPINDLEMATE CLEANER KIT



PART NUMBER	DESCRIPTION
B30-Spindle	30 Taper 3.50 T.P.F.
B35-Spindle	35 Taper 3.50 T.P.F.
B40-Spindle	40 Taper 3.50 T.P.F.
B45-Spindle	45 Taper 3.50 T.P.F.
B50-Spindle	50 Taper 3.50 T.P.F.
B200-Spindle	Q Switch 200 Taper 2.00 T.P.F.

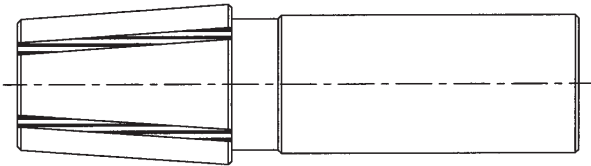
Complete with one set of standard, varnish and polish blades.  
(Will not work in some Quick Change Spindles due to Draw Bar will not retract).

### SPINDLEMATE BLADE KITS



PART NUMBER			SPINDLE
B30-ST	B30-VR	B30-EP	B30
B35-ST	B35-VR	B35-EP	B35
B40-ST	B40-VR	B40-EP	B40
B45-ST	B45-VR	B45-EP	B45
B50-ST	B50-VR	B50-EP	B50
B200-ST	B200-VR	B200-EP	B200
3 Blade/Set	3 Blade/Set	6 Blade/Set	

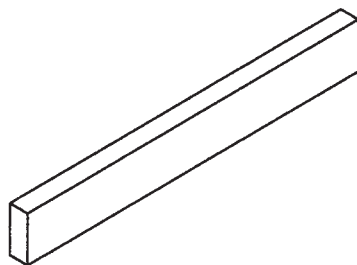
### COLLET SPINDLEMATE CLEANER KIT



PART NUMBER	DESCRIPTION
BTG075-Collet	TG75 Collet Taper
BTG100-Collet	TG100 Collet Taper
BTG150-Collet	TG150 Collet Taper
BR16-Collet	ER16 Collet Taper
BR20-Collet	ER20 Collet Taper
BR25-Collet	ER25 Collet Taper
BR32-Collet	ER32 Collet Taper

Complete with one set of standard, varnish and polish blades.

### COLLET SPINDLEMATE BLADE KITS



PART NUMBER			COLLET SERIES
BTG075-ST	BTG075-VR	BTG075-EP	BTG75
BTG100-ST	BTG100-VR	BTG100-EP	BTG100
BTG150-ST	BTG150-VR	BTG150-EP	BTG150
BR16-ST	BR16-VR	BR16-EP	BR16
BR20-ST	BR20-VR	BR20-EP	BR20
BR25-ST	BR25-VR	BR25-EP	BR25
BR32-ST	BR32-VR	BR32-EP	BR32
3 Blade/Set	3 Blade/Set	6 Blade/Set	



## TAPPING PRODUCTS

Through Briney Tool Holding, you can order any of the leading brand or type of tapping products you need. Both rigid and tension/compression systems are available off-the-shelf for quick delivery at competitive prices.

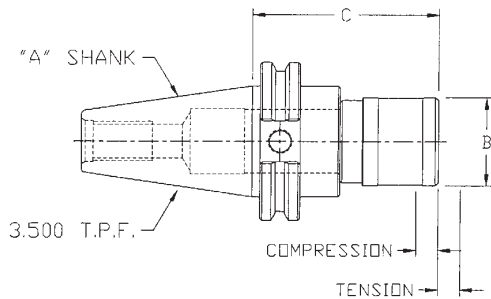


**Briney**



# QUICK CHANGE TAPPING SYSTEM T/C

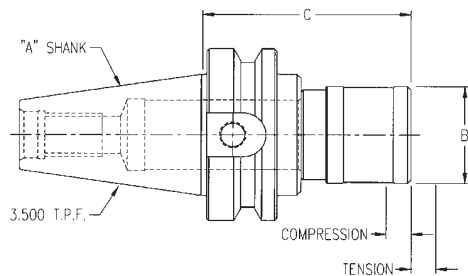
## V FLANGE TAP HOLDERS



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C	TENSION	COMP-RESSION
BWFLK1-V40	#1	V40	0-9/16 hand, 1/8 pipe	1.42	2.955	.300	.300
BWFLK2-V40	#2	V40	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.855	.490	.490
BWFLK1-V50	#1	V50	0-9/16 hand, 1/8 pipe	1.42	2.955	.300	.300
BWFLK2-V50	#2	V50	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.855	.490	.490
BWFLK3-V50	#3	V50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	5.780	.790	.790

NOTE: All holders are 2 piece modular system. Purchase tap adapters separately, page 80.

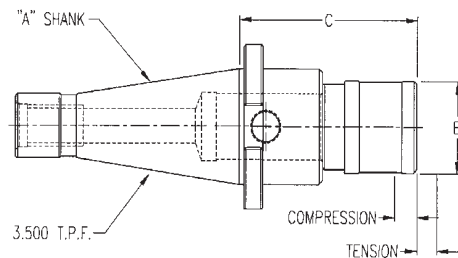
## BT FLANGE TAP HOLDERS



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C	TENSION	COMP-RESSION
BWFLK1-BT30	#1	BT30	0-9/16 hand, 1/8 pipe	1.42	3.580	.300	.300
BWFLK1-BT40	#1	BT40	0-9/16 hand, 1/8 pipe	1.42	2.642	.300	.300
BWFLK2-BT40	#2	BT40	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.542	.490	.490
BWFLK1-BT50	#1	BT50	0-9/16 hand, 1/8 pipe	1.42	3.255	.300	.300
BWFLK2-BT50	#2	BT50	5/16-7/8 hand, 1/4-1/2 pipe	2.09	4.355	.490	.490
BWFLK3-BT50	#3	BT50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	5.655	.790	.790

NOTE: All holders are 2 piece modular system. Purchase tap adapters separately, page 80.

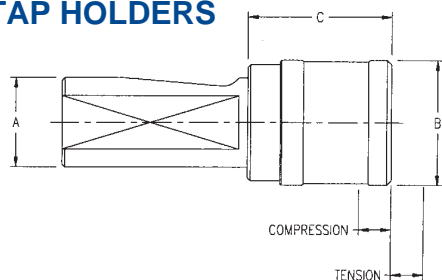
## NMTB FLANGE TAP HOLDERS



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C	TENSION	COMP-RESSION
BWFLK1-NMTB40	#1	NMTB40	0-9/16 hand, 1/8-1/4 pipe	1.42	2.96	.300	.300
BWFLK2-NMTB40	#2	NMTB40	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.86	.490	.490
BWFLK1-NMTB50	#1	NMTB50	0-9/16 hand, 1/8-1/4 pipe	1.42	2.96	.300	.300
BWFLK2-NMTB50	#2	NMTB50	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.86	.490	.490
BWFLK3-NMTB50	#3	NMTB50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	5.16	.790	.790

NOTE: All holders are 2 piece modular system. Purchase tap adapters separately, page 80.

## STRAIGHT SHANK TAP HOLDERS



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C	TENSION	COMP-RESSION
BWFLK1-1"SS	#1	1.00	0-9/16 hand, 1/8 pipe	1.42	1.580	.300	.300
BWFLK2-1"SS	#2	1.00	5/16-7/8 hand, 1/4-1/2 pipe	2.09	2.480	.490	.490
BWFLK3-1.50"SS	#3	1.50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	3.780	.790	.790

NOTE: All holders are 2 piece modular system. Purchase tap adapters separately, page 80.

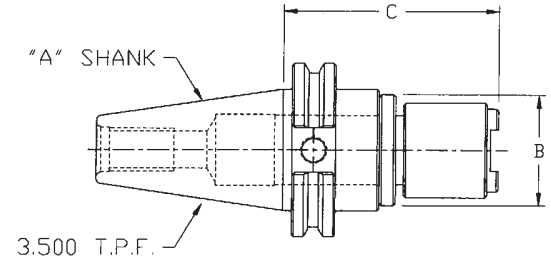
Tapping Head Holders available for all shank sizes on page 84.

## RIGID QUICK CHANGE TAPPING SYSTEM

PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C
BWF1-V40	#1	V40	0-9/16 hand, 1/8 pipe	1.42	2.955
BWF2-V40	#2	V40	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.855
BWF1-V50	#1	V50	0-9/16 hand, 1/8 pipe	1.42	2.955
BWF2-V50	#2	V50	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.855
BWF3-V50	#3	V50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	5.780

NOTE: All holders are 2 piece modular system.  
Purchase tap adapters separately, page 80.

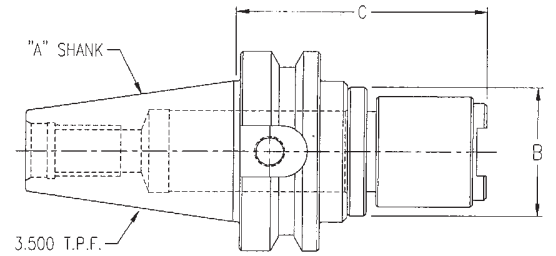
### V FLANGE TAP HOLDERS



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C
BWF1-BT30	#1	BT30	0-9/16 hand, 1/8 pipe	1.42	3.580
BWF1-BT40	#1	BT40	0-9/16 hand, 1/8 pipe	1.42	2.642
BWF2-BT40	#2	BT40	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.542
BWF1-BT50	#1	BT50	0-9/16 hand, 1/8 pipe	1.42	3.255
BWF2-BT50	#2	BT50	5/16-7/8 hand, 1/4-1/2 pipe	2.09	4.355
BWF3-BT50	#3	BT50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	5.655

NOTE: All holders are 2 piece modular system.  
Purchase tap adapters separately, page 80.

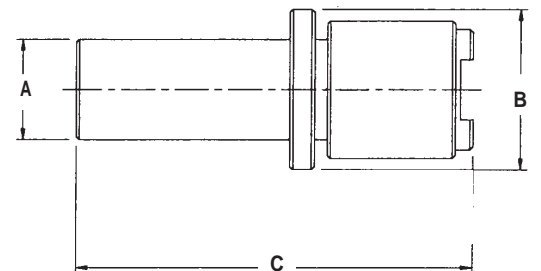
### BT FLANGE TAP HOLDERS



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C
BWF1-1"SS	#1	1.00	0-9/16 hand, 1/8 pipe	1.42	1.457
BWF2-1"SS	#2	1.00	5/16-7/8 hand, 1/4-1/2 pipe	2.09	2.126
BWF3-1.50"SS	#3	1.50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	3.350

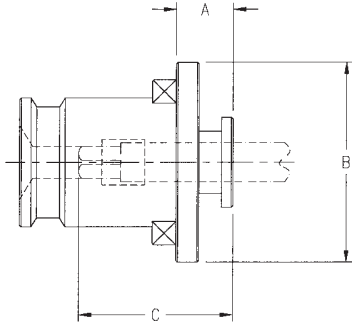
NOTE: All holders are 2 piece modular system.  
Purchase tap adapters separately, page 80.

### STRAIGHT SHANK TAP HOLDERS



BILZ TAPPING

Tapping Head Holders available for all shank sizes on page 84.

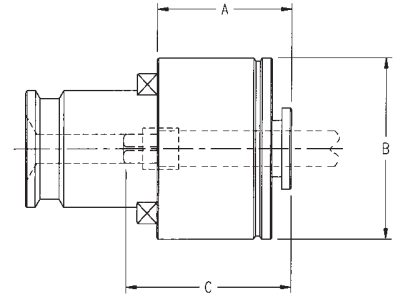


### How to Order:

Select the positive drive **OR** torque control style and order by part number. Adapter size and holder size must match.

**Positive Drive Adapter**, for positive depth control. Quick Change, change taps or tap sizes in 2 seconds, by hand, without the aid of any tools.

**Torque Control Adapter**, with safety clutch, protects against breakage of worn taps and when tap bottoms out. Quick Change, change taps or tap sizes in 2 seconds, by hand, without the aid of any tools.



POSITIVE DRIVE				TORQUE CONTROL				ADAPTER SIZE	CHUCK TAP RANGE	ADAPTER TAP SIZE					
PART NUMBER	A	B	C	PART NUMBER	A	B	C								
BWE1-6	.28	1.18	.85	BWES1-6	.98	1.26	.85	#1	0-9/16 HAND	#0-#6					
BWE1-8			.92	BWES1-8			.92			#8					
BWE1-10			.92	BWES1-10			.92			#10					
BWE1-12			.95	BWES1-12			.95			#12					
BWE1-1/4			.95	BWES1-1/4			.95			1/4					
BWE1-5/16			.98	BWES1-5/16			.98			5/16					
BWE1-3/8			1.05	BWES1-3/8			1.05			3/8					
BWE1-7/16			1.08	BWES1-7/16			1.08			7/16					
BWE1-1/2			1.11	BWES1-1/2			1.11			1/2					
BWE1-9/16			1.17	BWES1-9/16			1.17			9/16					
*BWER1-1/8SSPT			1.05	*BWESR1-1/8SSPT			1.05		1/8 PIPE	1/8 S.S.					
**BWER1-1/8LSPT			1.05	**BWESR1-1/8LSPT			1.05			1/8 L.S.					
BWE1-0012			12 pc. set						BWES1-0012	12 pc. set			#1	0-9/16 hand, 2-1/8 pipe	
BWE2-5/16			.43	1.89			1.49		BWES2-5/16	1.34	1.97	1.49	#2	5/16-7/8 HAND	5/16
BWE2-3/8	1.56	BWES2-3/8			1.56	3/8									
BWE2-7/16	1.59	BWES2-7/16			1.59	7/16									
BWE2-1/2	1.62	BWES2-1/2			1.62	1/2									
BWE2-9/16	1.68	BWES2-9/16			1.68	9/16									
BWE2-5/8	1.74	BWES2-5/8			1.74	5/8									
BWE2-11/16	1.81	BWES2-11/16			1.81	11/16									
BWE2-3/4	1.87	BWES2-3/4			1.87	3/4									
BWE2-13/16	1.87	BWES2-13/16			1.87	13/16									
BWE2-7/8	1.93	BWES2-7/8			1.93	7/8									
BWER2-1/4PT	.35				1.18	BWESR2-1/4PT			1.18					1/4-1/2 PIPE	1/4PT
BWER2-3/8PT					1.24	BWESR2-3/8PT			1.24						3/8PT
BWER2-1/2PT					1.37	BWESR2-1/2PT			1.37						1/2PT
BWE2-0013	13 pc. set					BWES2-0013	13 pc. set					#2		5/16-7/8 hand, 1/4-1/2 pipe	
BWE3-13/16	.55	2.76	2.42	BWES3-13/16	1.77	2.83	2.42	#3	13/16 THRU 1-3/8 HAND	13/16					
BWE3-7/8			2.48	BWES3-7/8			2.48			7/8					
BWE3-15/16			2.48	BWES3-15/16			2.48			15/16					
BWE3-1"			2.54	BWES3-1"			2.54			1					
BWE3-1-1/8			2.61	BWES3-1-1/8			2.61			1-1/8					
BWE3-1-1/4			2.73	BWES3-1-1/4			2.73			1-1/4					
BWE3-1-3/8			2.79	BWES3-1-3/8			2.79			1-3/8					
BWER3-3/4PT			.43				1.55		BWESR3-3/4PT	1.65		1.55		3/4 & 1" PIPE	3/4PT
BWER3-1"PT							1.68		BWESR3-1"PT			1.68			1PT
BWE3-0009			9 pc. set						BWES3-0009	9 pc. set			#3	13/16-1-3/8 hand, 3/4-1" pipe	

\* Accepts tap shank dia. .313    \*\* Accepts tap shank dia. .438    Please order by part number.    Tap holders sold separately, pages 81, 82.

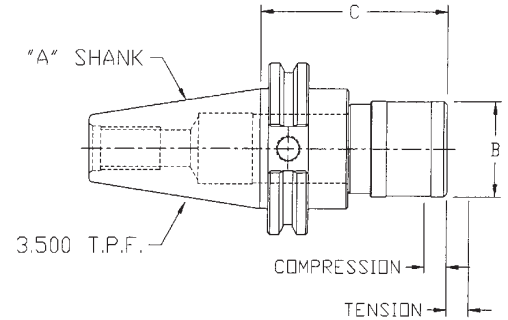
BILZ TAPPING



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C	TENSION	COMP-RESSION
BTC1-V40	#1	V40	0-9/16 hand, 1/8 pipe	1.42	2.955	.300	.300
BTC2-V40	#2	V40	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.855	.490	.490
BTC1-V50	#1	V50	0-9/16 hand, 1/8 pipe	1.42	2.955	.300	.300
BTC2-V50	#2	V50	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.855	.490	.490
BTC3-V50	#3	V50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	5.780	.790	.790

NOTE! All holders are 2 piece modular system. Purchase tap adapters separately, page 83.

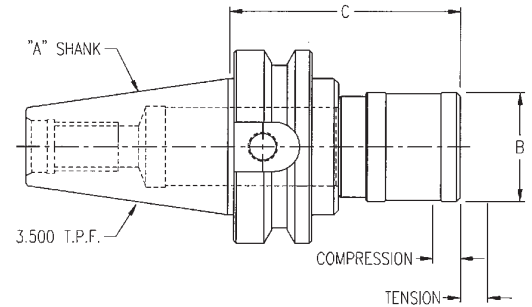
## V FLANGE TAP HOLDERS



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C	TENSION	COMP-RESSION
BTC1-BT30	#1	BT30	0-9/16 hand, 1/8 pipe	1.42	3.580	.300	.300
BTC1-BT40	#1	BT40	0-9/16 hand, 1/8 pipe	1.42	2.642	.300	.300
BTC2-BT40	#2	BT40	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.542	.490	.490
BTC1-BT50	#1	BT50	0-9/16 hand, 1/8 pipe	1.42	3.255	.300	.300
BTC2-BT50	#2	BT50	5/16-7/8 hand, 1/4-1/2 pipe	2.09	4.355	.490	.490
BTC3-BT50	#3	BT50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	5.655	.790	.790

NOTE! All holders are 2 piece modular system. Purchase tap adapters separately, page 83.

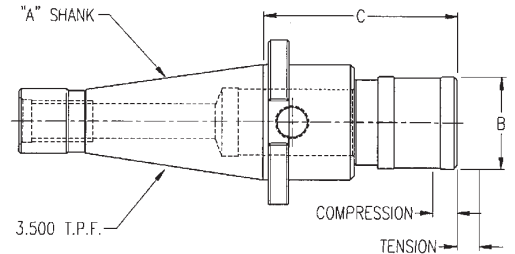
## BT FLANGE TAP HOLDERS



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C	TENSION	COMP-RESSION
BTC1-NMTB40	#1	NMTB40	0-9/16 hand, 1/8-1/4 pipe	1.42	2.96	.300	.300
BTC2-NMTB40	#2	NMTB40	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.86	.490	.490
BTC1-NMTB50	#1	NMTB50	0-9/16 hand, 1/8-1/4 pipe	1.42	2.96	.300	.300
BTC2-NMTB50	#2	NMTB50	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.86	.490	.490
BTC3-NMTB50	#3	NMTB50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	5.16	.790	.790

NOTE! All holders are 2 piece modular system. Purchase tap adapters separately, page 83.

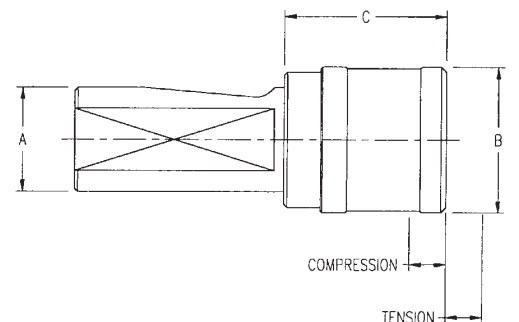
## NMTB FLANGE TAP HOLDERS



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C	TENSION	COMP-RESSION
BTC1-1"SS	#1	1.00	0-9/16 hand, 1/8 pipe	1.42	1.580	.300	.300
BTC2-1"SS	#2	1.00	5/16-7/8 hand, 1/4-1/2 pipe	2.09	2.480	.490	.490
BTC3-1.50"SS	#3	1.50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	3.780	.790	.790

NOTE! All holders are 2 piece modular system. Purchase tap adapters separately, page 83.

## STRAIGHT SHANK TAP HOLDERS

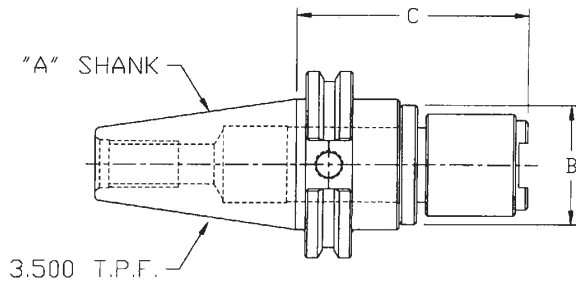


Tapping Head Holders available for all shank sizes on page 84.

# RIGID/SYNCHRONIZED QUICK CHANGE TAPPING SYSTEM

**Briney**  
Tooling Systems

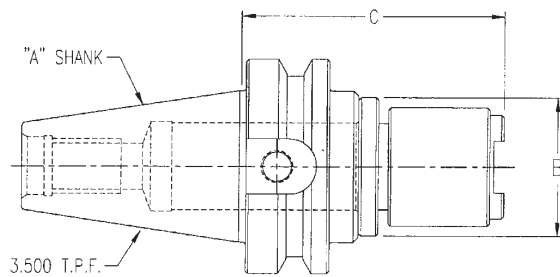
## V FLANGE TAP HOLDERS



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C
BRT1-V40	#1	V40	0-9/16 hand, 1/8 pipe	1.42	2.95
BRT2-V40	#2	V40	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.55
BRT1-V50	#1	V50	0-9/16 hand, 1/8 pipe	1.42	2.95
BRT2-V50	#2	V50	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.55
BRT3-V50	#3	V50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	4.62

NOTE! All holders are 2 piece modular system.  
Purchase tap adapters separately, page 83.

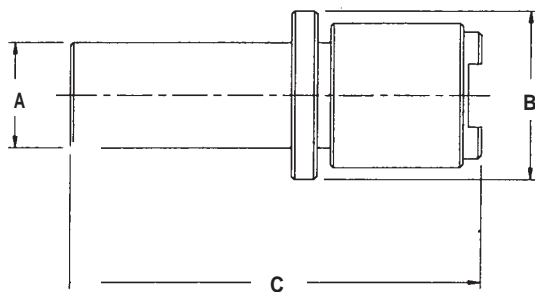
## BT FLANGE TAP HOLDERS



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C
BRT1-BT30	#1	BT30	0-9/16 hand, 1/8 pipe	1.42	3.57
BRT1-BT40	#1	BT40	0-9/16 hand, 1/8 pipe	1.42	2.63
BRT2-BT40	#2	BT40	5/16-7/8 hand, 1/4-1/2 pipe	2.09	3.23
BRT1-BT50	#1	BT50	0-9/16 hand, 1/8 pipe	1.42	3.46
BRT2-BT50	#2	BT50	5/16-7/8 hand, 1/4-1/2 pipe	2.09	4.05
BRT3-BT50	#3	BT50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	5.37

NOTE! All holders are 2 piece modular system.  
Purchase tap adapters separately, page 83.

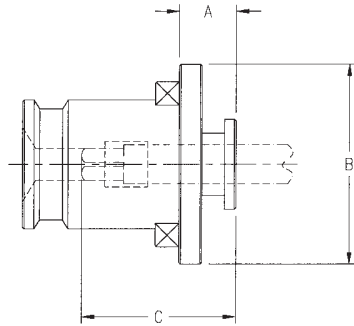
## STRAIGHT SHANK TAP HOLDERS



PART NUMBER	CHUCK SIZE	A SHANK	TAP SIZE RANGE	B	C
BRT1-1"SS	#1	1.00	0-9/16 hand, 1/8 pipe	1.42	1.570
BRT2-1"SS	#2	1.00	5/16-7/8 hand, 1/4-1/2 pipe	2.09	2.16
BRT3-150" SS	#3	1.50	13/16-1-3/8 hand, 3/4-1" pipe	3.07	3.25

NOTE! All holders are 2 piece modular system.  
Purchase tap adapters separately, page 83.

*Tapping Head Holders available for all shank sizes on page 84.*

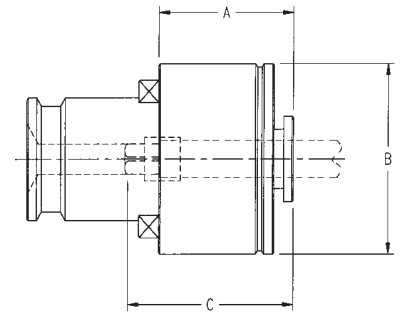


### How to Order:

Select the positive drive **OR** torque control style and order by part number. Adapter size and holder size must match.

**Positive Drive Adapter**, for positive depth control. Quick Change, change taps or tap sizes in 2 seconds, by hand, without the aid of any tools.

**Torque Control Adapter**, with safety clutch, protects against breakage of worn taps and when tap bottoms out. Quick Change, change taps or tap sizes in 2 seconds, by hand, without the aid of any tools.

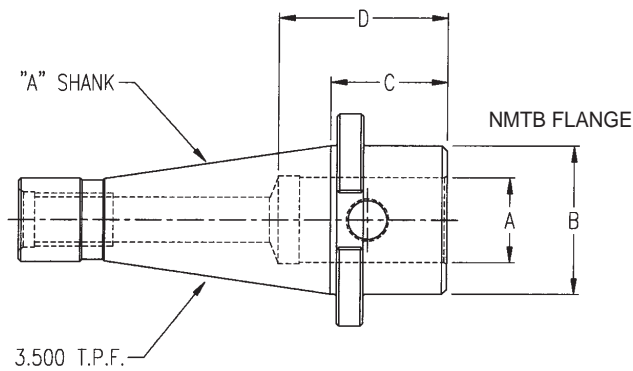
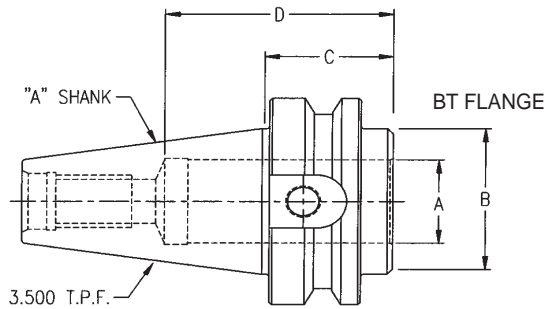
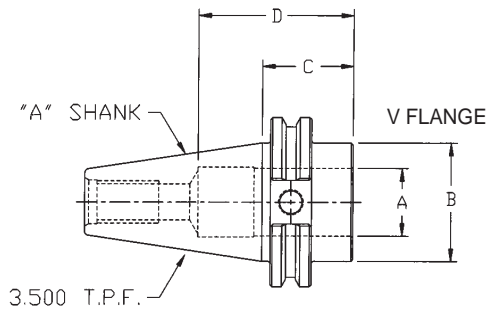


POSITIVE DRIVE				TORQUE CONTROL				ADAPTER SIZE	CHUCK TAP RANGE	ADAPTER TAP SIZE						
PART NUMBER	A	B	C	PART NUMBER	A	B	C									
CWE1-6	.28	1.18	.85	CWES1-6	.98	1.26	.85	#1	0-9/16 HAND	#0-#6						
CWE1-8			.92	CWES1-8			.92			#8						
CWE1-10			.92	CWES1-10			.92			#10						
CWE1-12			.95	CWES1-12			.95			#12						
CWE1-1/4			.95	CWES1-1/4			.95			1/4						
CWE1-5/16			.98	CWES1-5/16			.98			5/16						
CWE1-3/8			1.05	CWES1-3/8			1.05			3/8						
CWE1-7/16			1.08	CWES1-7/16			1.08			7/16						
CWE1-1/2			1.11	CWES1-1/2			1.11			1/2						
CWE1-9/16			1.17	CWES1-9/16			1.17			9/16						
CWER1-1/8SSPT*			1.05	CWESR1-1/8SSPT*			1.05			1/8 PIPE	1/8 S.S.					
CWER1-1/8LSPT**			1.05	CWESR1-1/8LSPT**			1.05				1/8 L.S.					
CWE1-0012	12 pc. set			CWES1-0012	12 pc. set			#1	0-9/16 hand, 2-1/8 pipe							
CWE2-5/16	.43	1.89	1.49	CWES2-5/16	1.34	1.97	1.49	#2	5/16-7/8 HAND	5/16						
CWE2-3/8			1.56	CWES2-3/8			1.56			3/8						
CWE2-7/16			1.59	CWES2-7/16			1.59			7/16						
CWE2-1/2			1.62	CWES2-1/2			1.62			1/2						
CWE2-9/16			1.68	CWES2-9/16			1.68			9/16						
CWE2-5/8			1.74	CWES2-5/8			1.74			5/8						
CWE2-11/16			1.81	CWES2-11/16			1.81			11/16						
CWE2-3/4			1.87	CWES2-3/4			1.87			3/4						
CWE2-13/16			1.87	CWES2-13/16			1.87			13/16						
CWE2-7/8			1.93	CWES2-7/8			1.93			7/8						
CWER2-1/4PT			.35				1.18			CWESR2-1/4PT			1.18		1/4-1/2 PIPE	1/4PT
CWER2-3/8PT							1.24			CWESR2-3/8PT			1.24			3/8PT
CWER2-1/2PT	1.37	CWESR2-1/2PT			1.37	1/2PT										
CWE2-0013	13 pc. set			CWES2-0013	13 pc. set			#2	5/16-7/8 hand, 1/4-1/2 pipe							
CWE3-13/16	.55	2.76	2.42					#3	13/16 THRU 1-3/8 HAND	13/16						
CWE3-7/8			2.48							7/8						
CWE3-15/16			2.48							15/16						
CWE3-1"			2.54							1						
CWE3-1-1/8			2.61							1-1/8						
CWE3-1-1/4			2.73							1-1/4						
CWE3-1-3/8			2.79							1-3/8						
CWER3-3/4PT			.43								1.55					
CWER3-1"PT	1.68	1PT														
CWE3-0009	9 pc. set							#3	13/16-1-3/8 hand, 3/4-1" pipe							

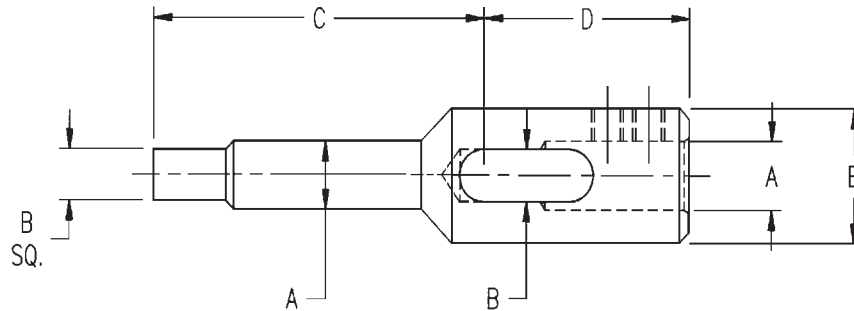
\* Accepts tap shank dia. .313 \*\* Accepts tap shank dia. .438 Please order by part number. Tap holders sold separately, pages 81, 82.

## TAP HOLDER SHANKS

### V FLANGE, BT FLANGE, AND NMTB FLANGE TAPPING HEAD HOLDERS



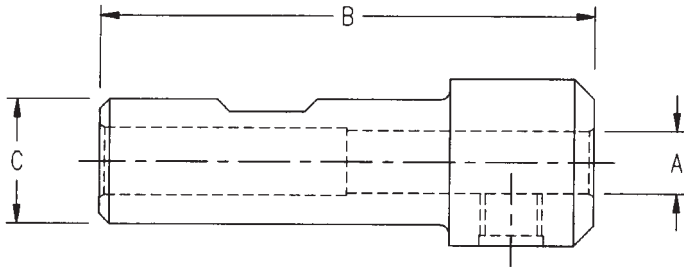
PART NUMBER	A DIA.	B	C	D	SET SCREW	SHANK
V40-THM-075	.750	1.375	2.00	2.40	1/2-20W	V40
V40-THM-100	1.00	1.75	1.38	2.35	1/2-20W	V40
V50-THM-075	.750	2.75	1.38	2.40	1/2-20W	V50
V50-THM-100	1.00	2.75	1.38	2.20	1/2-20W	V50
V50-THM-150	1.50	2.75	1.38	3.50	1/2-20W	V50
BT30-THM-075	.750	2.00	2.00	2.40	1/2-20W	BT30
BT30-THM-100	1.00	2.00	2.33	2.13	1/2-20W	BT30
BT40-THM-075	.750	1.75	1.38	2.40	1/2-20W	BT40
BT40-THM-100	1.00	1.75	1.38	2.20	1/2-20W	BT40
BT50-THM-075	.750	2.75	1.88	2.40	1/2-20W	BT50
BT50-THM-100	1.00	2.75	1.88	2.20	1/2-20W	BT50
BT50-THM-150	1.50	2.75	1.88	3.60	1/2-20W	BT50
NMTB40-THM-100	1.00	1.75	1.38	2.20	1/2-20W	NMTB40
NMTB50-THM-100	1.00	2.75	1.38	2.20	1/2-20W	NMTB50
NMTB50-THM-150	1.50	2.75	1.38	3.60	1/2-20W	NMTB50



PART NUMBER	TAP SIZE	A DIA.	B	C	D	E DIA.
BT0-6-200	#0 - #6	.141	.120	2.00	1.04	.50
BT-8-200	#8	.168	.131	2.00	1.03	.50
BT-10-200	#10	.194	.162	2.00	1.11	.50
BT-250-200	1/4	.255	.201	2.00	1.18	.75
BT-312-200	5/16	.318	.248	2.00	1.14	.75
BT-375-200	3/8	.381	.296	2.00	1.18	.75
BT-437-200	7/16	.323	.252	2.00	1.33	.75
BT-500-200	1/2	.367	.285	2.00	1.28	.75
BT-562-300	9/16	.429	.332	3.00	1.42	.75
BT-625-300	5/8	.480	.370	3.00	1.51	1.12
BT-750-300	3/4	.590	.452	3.00	1.63	1.12
BT-875-300	7/8	.697	.533	3.00	2.15	1.12
BPT125S-200	1/8 pipe SS	.312	.244	2.00	1.15	.75
BPT125L-200	1/8 pipe LS	.437	.338	2.00	1.00	.75
BPT250-200	1/4 pipe	.562	.431	2.00	1.05	1.00
BPT375-300	3/8 pipe	.700	.541	3.00	1.25	1.12
BPT500-300	1/2 pipe	.687	.525	3.00	1.35	1.12

## SS STRAIGHT SHANK

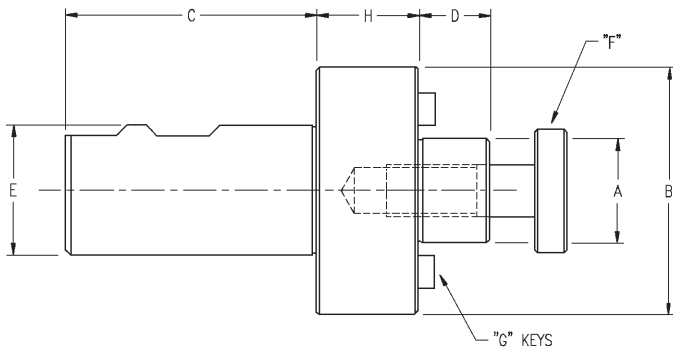
### END MILL ADAPTERS



PART NUMBER	A DIA.	B	C DIA.
SS050E-012-225	.1250	2.25	.5000
SS050E-018-225	.1875	2.25	.5000
SS050E-025-300	.2500	3.00	.5000
SS050E-031-312	.3125	3.12	.5000
SS075E-012-250	.1250	2.50	.7500
SS075E-018-250	.1875	2.50	.7500
SS075E-025-262	.2500	2.62	.7500
SS075E-031-275	.3125	2.75	.7500
SS075E-038-300	.3750	3.00	.7500
SS125E-038-362	.3750	3.62	1.250
SS125E-050-375	.5000	3.75	1.250
SS125E-062-400	.6250	4.00	1.250
SS125E-075-400	.7500	4.00	1.250

### SHELL MILL ADAPTERS

PART NUMBER	A DIA.	B DIA.	C	D	E DIA.	F SCREW	G KEY	H
SS125SM-075	.7500	2.000	2.43	.68	1.250	B5002	.31	.992
SS125SM-100	1.000	2.375	2.43	.68	1.250	B5003	.38	.992



STRAIGHT SHANK

PART NUMBER	COLLET RANGE	COLLET SERIES	A DIA.	B	C DIA.	D	STOP SCREW	COLLET NUT	WRENCH
SS050DA-300-688	.047-.250	DA300	.500	.562	6.88	.500	5/16LH	DANP-300	DANP30W
SS075DA-200-723	.062-.375	DA200	.750	.812	7.23	.687	7/16LH	DANP-200	DANP20W
SS100DA-100-750	.062-.562	DA100	1.000	1.062	7.50	.875	9/16LH	DANP-100	DANP10W
SS125DA-180-741	.062-.750	DA180	1.250	1.437	7.41	1.187	13/16LH	DANP-180	DANP18W

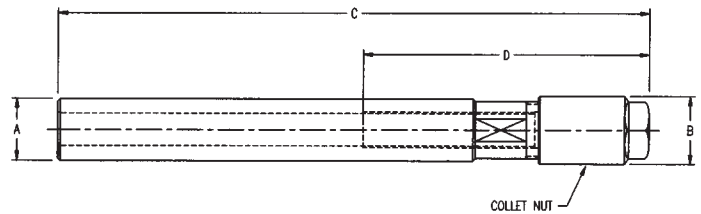
### DOUBLE ANGLE COLLET EXTENSIONS

Purchase collets separately, page 93.

NOTE! Do not exceed the following torque recommendations:

DA300 - 20 ft/lbs. DA200 - 25 ft/lbs. DA100 - 35 ft/lbs. DA180 - 45 ft/lbs.

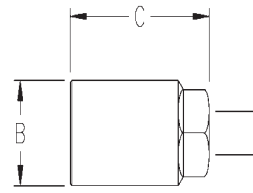
NOTE! Nose Piece nut (NP) thread size different from standard nuts (CN).



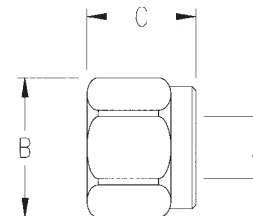
PART NUMBER	A COLLET SERIES	B	C	THREAD SIZE
NP TYPE				
DANP-300	DA300	.560	1.00	9/16" - 18
DANP-200	DA200	.810	1.35	3/4" - 16
DANP-100	DA100	1.060	1.50	1" - 14
DANP-180	DA180	1.440	1.60	1-1/4" - 12
CN TYPE				
DACN-300	DA300	.860	.700	9/16" - 18
DACN-200	DA200	1.125	.875	3/4" - 16
DACN-100	DA100	1.390	.910	1" - 14
DACN-180	DA180	1.700	.875	1-1/4" - 12

### DOUBLE ANGLE COLLET NUTS

NP TYPE

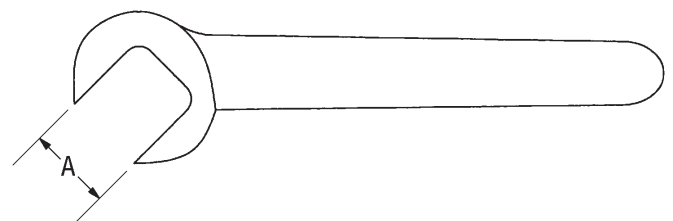


CN TYPE



PART NUMBER	COLLET NUT	A
DANP-30-W	DANP-300	1/2
DANP-20-W	DANP-200	11/16
DANP-10-W	DANP-100	7/8
DANP-18-W	DANP-180	1-3/16
DA-30-W	DACN-300	3/4
DA-20-W	DACN-200	1"
DA-10-W	DACN-100	1-1/4
DA-18-W	DACN-180	1-1/2

### DOUBLE ANGLE WRENCHES



## SS STRAIGHT SHANK

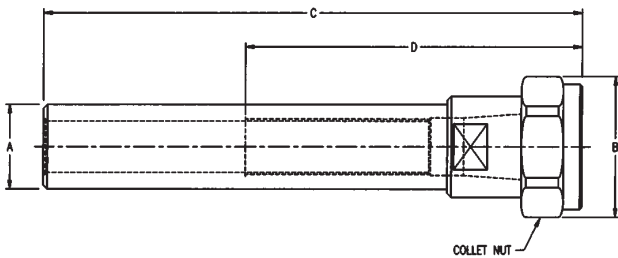
### TG COLLET EXTENSIONS

PART NUMBER	COLLET SERIES	COLLET RANGE	A DIA.	B DIA.	C	D	COLLET NUT	STOP SCREW	WRENCH
SS125CH-075-800	TG075	.062-.750	1.250	1.87	8.00	4.00	BTGCN-075	13/16LH	BTG075HW
SS150CH-100-975	TG100	.093-1.000	1.500	2.245	9.75	6.00	BTGCN-100	1-1/8LH	BTG100HW
SS200CH-150-100	TG150	.500-1.500	2.000	3.25	10.00	6.00	BTGCN-150	1-5/8LH	BTG150SW

Purchase collets separately, page 94.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

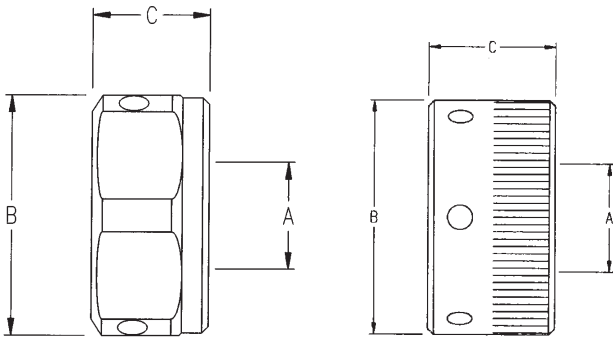
NOTE! Do not exceed the following torque recommendations: BTG75 - 60 ft/lbs. BTG100 - 75 ft/lbs. BTG150 - 90 ft/lbs.



### TG COLLET NUTS

PART NUMBER	A COLLET SERIES	B	C	STYLE	THREAD SIZE
BTGCN-075	TG075	1.87	.910	A	1-1/2" - 12
* BTGCN-100	TG100	2.245	1.10	A	1-7/8" - 12
BTGCN-150	TG150	3.25	1.75	B	2-5/8" - 12

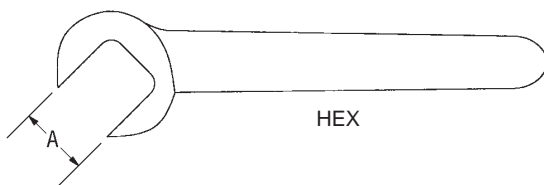
\* Hex or Spanner wrenches will work



STYLE A

STYLE B

### TG WRENCHES



HEX



SPANNER

PART NUMBER	COLLET NUT	A	STYLE
BTG075HW	BTGCN-075	1.88	HEX
BTG100HW	BTGCN-100	2.25	HEX
BTG100SW	BTGCN-100	2.44	SPANNER
BTG150SW	BTGCN-150	3.25	SPANNER



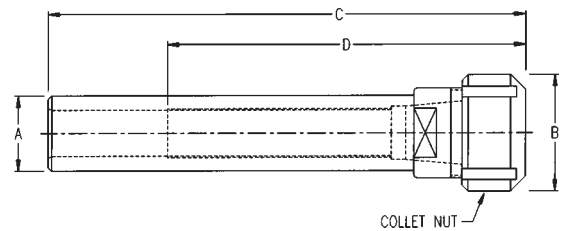
### BRINEY FLEX COLLET EXTENSIONS

PART NUMBER	COLLET SERIES	COLLET RANGE	A DIA.	B DIA.	C	D	COLLET NUT	STOP SCREW	WRENCH
SS100BF-050-750	BF50	.109-.500	1.00	1.43	7.50	5.50	BFCN-50	9/16 LH	BFG50HW
SS125BF-075-800	BF75	.109-.750	1.25	1.94	8.00	6.00	BFCN-75	13/16 LH	BFG75SW
SS150BF-100-975	BF100	.218-1.000	1.50	2.50	9.75	6.75	BFCN-100	1-1/8 LH	BFG100SW

Purchase collets separately, page 95.

NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

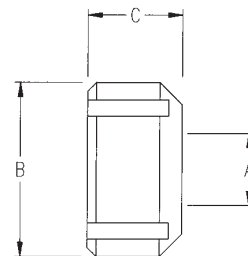
NOTE! Do not exceed the following torque recommendations: BF050 - 40 ft/lbs. BF075 - 60 ft/lbs. BF100 - 75 ft/lbs.



### BRINEY FLEX COLLET NUTS

PART NUMBER	A COLLET SERIES	B	C	STYLE	THREAD SIZE
BFCN-50	BF50	1.43	.69	HEX	1" - 12
BFCN-75	BF75	1.94	1.06	SPANNER	1-1/2" - 12
BFCN-100	BF100	2.50	1.19	SPANNER	2" - 12

NOTE! Interchangeable with Universal Accura-flex™ nuts.

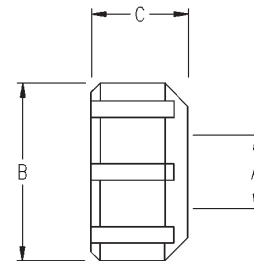


### COLLET NUTS

### BRINEY GRIP COLLET NUTS

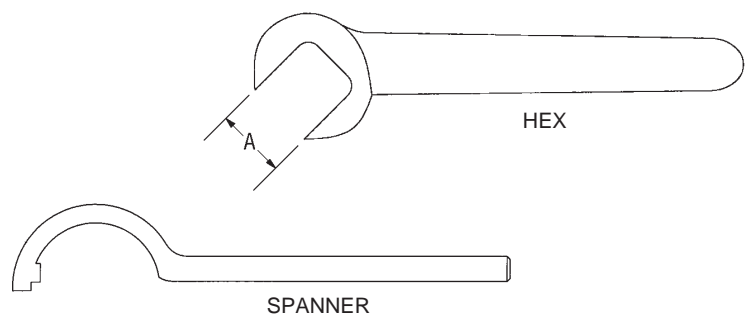
PART NUMBER	A COLLET SERIES	B	C	STYLE	THREAD SIZE
BGCN-50	BG50	1.25	.88	HEX	1" - 12
BGCN-75	BG75	1.94	1.06	SPANNER	1-1/2" - 12
BGCN-100	BG100	2.50	1.25	SPANNER	2" - 12

NOTE! Interchangeable with Universal Accura-grip™ nuts.



PART NUMBER	COLLET NUT	A	STYLE
BFG50HW	BF/BGCN-50	1.25	HEX
BFG75SW	BF/BGCN-75	1.94	SPANNER
BFG100SW	BF/BGCN-100	2.50	SPANNER

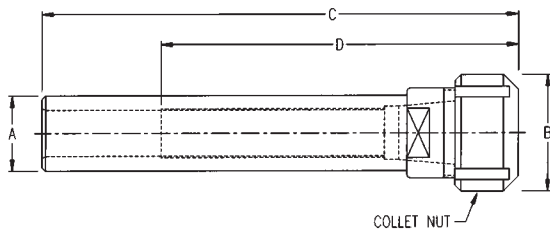
### WRENCHES



# SS STRAIGHT SHANK

## ULTRA PRECISION COLLET EXTENSIONS

PART NUMBER	COLLET SERIES	COLLET RANGE	A DIA.	B	C DIA.	D	COLLET NUT	STOP SCREW	WRENCH
SS050BR-11-660	BR11	.019-.276	.500	.64	6.60	3.50	BRCN-11M	5/16LH	BR11MW
SS075BR-16-700	BR16	.019-.393	.750	.870	7.00	4.00	BRCN-16M	7/16LH	BR16MW
SS100BR-20-700	BR20	.039-.511	1.00	1.10	7.00	4.00	BRCN-20M	9/16LH	BR20MW
SS100BR-25-700	BR25	.039-.630	1.00	1.61	7.00	4.00	BRCN-25	5/8LH	BR25SW
SS125BR-32-750	BR32	.078-.787	1.25	1.97	7.50	4.00	BRCN-32	7/8LH	BR32SW



Purchase collets separately, pages 96 and 97.

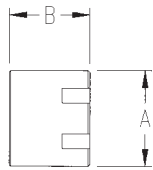
NOTE! Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

NOTE! Do not exceed the following torque recommendations:

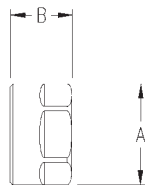
BR11 - 25 ft/lbs. BR16 - 40 ft/lbs. BR20 - 70 ft/lbs. BR32 - 80 ft/lbs. BR40 - 90 ft/lbs.

## ULTRA PRECISION COLLET NUTS

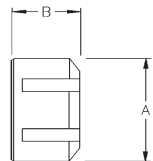
STYLE A  
MINI



STYLE B  
HEX



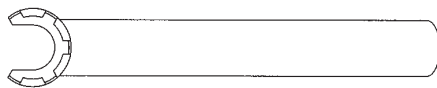
STYLE C  
SPANNER



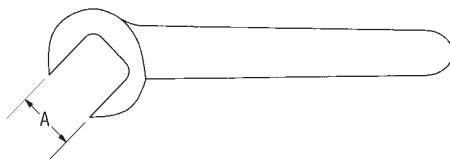
PART NUMBER	COLLET NUT	A	B	STYLE	WRENCH	THREAD SIZE
BRCN-11M	BR11	.64	.43	A	BR11MW	M13 x .75
BRCN-11	BR11	.74	.43	B	BR11HW	M14 x .75
BRCN-16M	BR16	.870	.670	A	BR16MW	M19 x 1.0
BRCN-16	BR16	1.10	.670	B	BR16HW	M22 x 1.5
BRCN-20M	BR20	1.10	.750	A	BR20MW	M24 x 1.0
BRCN-20	BR20	1.34	.750	B	BR20HW	M25 x 1.5
BRCN-25	BR25	1.61	.790	C	BR25SW	M32 x 1.5
BRCN-32	BR32	1.97	.870	C	BR32SW	M40 x 1.5
BRCN-40	BR40	2.46	1.12	C	BR40SW	M50 x 1.5
BRCN-50	BR50	3.10	1.39	C	BR50SW	M64 x 2.0

## ULTRA PRECISION WRENCHES

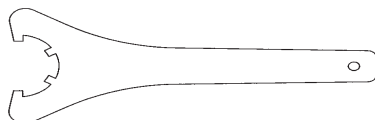
STYLE A  
MINI



STYLE B  
HEX



STYLE C  
SPANNER



PART NUMBER	COLLET NUT	A	STYLE
BR11MW	BRCN-11M	.630	A
BR11HW	BRCN-11	.670	B
BR16MW	BRCN-16M	.870	A
BR16HW	BRCN-16	1.00	B
BR20MW	BRCN-20M	1.10	A
BR20HW	BRCN-20	1.18	B
BR25SW	BRCN-25	1.65	C
BR32SW	BRCN-32	1.97	C
BR40SW	BRCN-40	2.46	C
BR50SW	BRCN-50	3.10	C

STRAIGHT SHANK

PART NO.	MODEL NO.	CAPACITY RANGE				MOUNT JACOBS	KEY NO.	DIMENSIONS					
		MINIMUM		MAXIMUM				CLOSED LENGTH		OPEN LENGTH		SLEEVE DIA.	
		IN	MM	IN	MM			IN	MM	IN	MM	IN	MM
6223	3A	0.125	3	0.625	16	3 JT	K3	3.81	96.8	2.87	72.9	2.30	58.4
6228	3KD(2)	0.125	3	0.625	16	3 JT	K3	4.06	103.1	3.12	79.2	2.29	58.2
6230	3PD(3)	0.125	3	0.625	16	3 JT	K3	4.06	103.1	3.12	79.2	2.29	58.2
14442	34-02	0(1)	0	0.500	13	2 JT	K3	3.52	89.4	2.74	69.6	2.04	51.8
6295	34-06	0(1)	0	0.500	13	6 JT	K3	3.52	89.4	2.74	69.6	2.04	51.8
14445	34-33	0(1)	0	0.500	13	33 JT	K3	3.52	89.4	2.74	69.6	2.04	51.8
14451	34-33C(4)	0(1)	0	0.500	13	33 JT	K3C	3.71	94.2	2.93	74.4	2.00	50.8
6309	36	0.180	0	0.800	20.3	3 JT	K4	4.06	103.1	3.14	79.8	2.54	64.5
14865	36KD(2)	0.180	5	0.800	20.3	3 JT	K4	4.25	108.0	3.42	86.9	2.54	64.5
14866	36PD(3)	0.180	5	0.800	20.3	3 JT	K4	4.25	108.0	3.42	86.9	2.54	64.5

(1) Minimum capacity will hold a No. 70 (.028in/.71 1mm) drill. (2) Equipped with positive drive slot.  
 (3) Equipped with pin-type positive drive. (4) Equipped with locking collar.

### Features

- Heavy and Medium Duty models for threaded or taper mounting.
- Jaws center-ground for absolute straightness and alignment.
- Jaws specially treated to ensure extended thread life and high gripping surface hardness.
- One-piece sleeve eliminates crack between driving teeth often found in other designs.
- Through-hardened sleeve teeth, plus hardened nose and keyholes provide outstanding wear resistance.
- Each chuck 100% inspected for performance and precision.



Made in U.S.A.

PART NO.	MODEL NO.	CAPACITY RANGE				MOUNT JACOBS	KEY NO.	DIMENSIONS					
		MINIMUM		MAXIMUM				CLOSED LENGTH		OPEN LENGTH		SLEEVE DIA.	
		IN	MM	IN	MM			IN	MM	IN	MM	IN	MM
30209	8-1/2N	0(1)	0	0.250	6.4	*2JT	K30	2.41	61.2	1.95	49.5	1.56	39.7
30215	11N	0(1)	0	0.375	10	2JT	K32	2.88	73.2	2.26	57.4	1.93	49.1
30221	14N	0(1)	0	0.500	13	3JT	K3	3.88	98.6	2.97	75.4	2.44	62.1
30227	16N	0.125	3	0.625	16	3JT	K4	4.31	109.5	3.26	82.8	2.63	66.9
30233	18N	0.125	3	0.750	19	4JT	K4	5.12	130.0	3.95	100.3	3.01	76.4
30239	20N	0.375	10	1.00	25.4	5JT	K5	5.50	139.7	4.23	107.4	3.65	92.6

\* Short Style

(1) Minimum capacity will hold a No. 7 (.028in/.71 1mm) drill.

### Features

- Ball bearing construction maximizes gripping force and drilling accuracy.
- Jaws center-ground for absolute straightness and alignment.
- Jaws specially treated to ensure extended thread life and high gripping surface hardness.
- One-piece sleeve eliminates crack between driving teeth often found in other designs.
- Through-hardened sleeve teeth, plus hardened nose and keyholes provide outstanding wear resistance.
- Fluted sleeve standard.
- Each chuck 100% inspected for performance and precision.



Made in U.S.A.

## BALL BEARING SUPER CHUCKS

Designed for close tolerance, production drilling on precision equipment.

**INDUSTRIAL KEYLESS CHUCKS  
HIGH PRECISION MODEL**

Precision design combines keyless operation with the ultimate in drill chuck accuracy.

- Certified for maximum .0016" T.I.R.
- For general machining applications.



PART NO.	MODEL NO.	CAPACITY RANGE (1)				MOUNT JACOBS	DIMENSIONS					
		MINIMUM		MAXIMUM			CLOSED LENGTH		OPEN LENGTH		SLEEVE DIA.	
		IN	MM	IN	MM		IN	MM	IN	MM	IN	MM
9679	80-J2S	0	0	0.315	8	J2S	2.91	74	2.64	.67	1.46	37
9681	100-J2	0	0	0.394	10	J2	3.50	89	3.19	81	1.61	41
9680	100-J33	0	0	0.394	10	J33	3.50	89	3.19	81	1.61	41
9683	130-J2	0.039	1	0.512	13	J2	3.90	99	3.46	88	1.81	46
9682	130-J33	0.039	1	0.512	13	J33	3.90	99	3.46	88	1.81	46
9684	130-J6	0.039	1	0.512	13	J6	3.90	99	3.46	88	1.81	46
9685	160-J6	0.118	3	0.630	16	J6	4.21	107	3.74	95	2.17	55

**Features**

- Certified and guaranteed in writing to .0016" T.I.R. or better.
- Each chuck precision tested and furnished with an individualized certification number identifying its specific performance characteristics.
- Self-tightening feature automatically increases gripping force proportional to increased torque to prevent tool shank slippage.
- All components exposed to wear are completely hardened to maintain accuracy and extend chuck life.
- Jacobs taper mount permits use on a wide range of high accuracy drill presses, jig borers, milling machines and production drilling equipment.

**HIGH TORQUE /  
HIGH PRECISION MODEL**



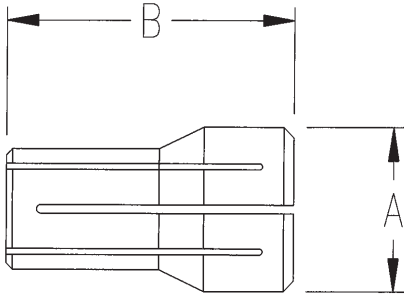
PART NO.	MODEL NO.	CAPACITY RANGE (1)				MOUNT JACOBS	DIMENSIONS					
		MINIMUM		MAXIMUM			CLOSED LENGTH		OPEN LENGTH		SLEEVE DIA.	
		IN	MM	IN	MM		IN	MM	IN	MM	IN	MM
30526	80-J2S	0	0	0.315	8	J2S	2.91	74	2.64	67	1.46	37
30527	130-J2	0.039	1	0.512	13	J2	3.90	99	3.46	88	1.81	46
30528	130-J33	0.039	1	0.512	13	J33	3.90	99	3.46	88	1.81	46
30529	130-J6	0.039	1	0.512	13	J6	3.90	99	3.46	88	1.81	46
30530	160-J6	0.118	3	0.630	16	J6	4.21	107	3.74	95	2.17	55

(1) Minimum capacities – Models JKP and JKT

<b>Capacity:</b> 0-8mm	<b>Drill Size:</b> .012in
0-10mm	.020in
1-13mm	.033in
3-16mm	.114in

**Features**

- Certified and guaranteed in writing to .0016" T.I.R. or better.
- For use on CNC machining centers in drilling, boring, counterboring and milling operations requiring heavy penetration.
- Furnished with milled wrench flats and spanner wrench to allow the application of supplementary gripping torque. Light tightening increases gripping torque up to 3 times higher than hand tightening.
- Resists tool loosening on high speed machines with right hand rotation and instant spindle stop.



SERIES	A DIA.	B
DA-300	.375	1.000
DA-200	.539	1.187
DA-100	.769	1.437
DA-180	1.025	1.639

**NOTE!** When ordering sealed collets specify (Sealed) after part number. Sealed collets are exact size only.

All standard collets have a 1/64 collapsibility.

### COLLET SETS

PART NO.	COLLET SERIES	COLLETS IN SET	SET RANGE
DA-300-7	300	7	1/16-1/4x1/32
DA-300-14	300	14	3/64-1/4x1/64
DA-200-9	200	9	1/8-3/8x1/32
DA-200-11	200	11	1/16-3/8x1/32
DA-200-21	200	21	1/16-3/8x1/64
DA-100-15	100	15	1/8-9/16x1/32
DA-100-29	100	29	1/8-9/16x1/64
DA-180-17	180	17	1/4-3/4x1/32
DA-180-33	180	33	1/4-3/4x1/64

**NOTE!** When ordering sealed collets specify (Sealed) after part number. Sealed collets are exact size only.

All standard collets have a 1/64 collapsibility.

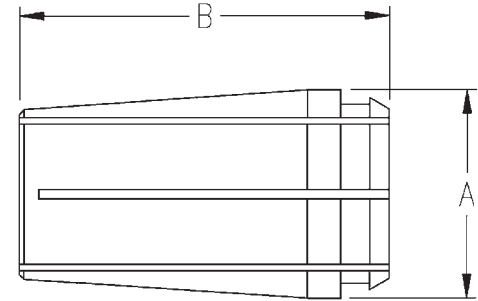
DOUBLE ANGLE 300	DOUBLE ANGLE 200	DOUBLE ANGLE 100	DOUBLE ANGLE 180	I.D.	DECIMAL
DA-300-1/32				1/32	0.0313
DA-300-3/64	DA-200-3/64	DA-100-3/64	DA-180-3/64	3/64	0.0469
DA-300-1/16	DA-200-1/16	DA-100-1/16	DA-180-1/16	1/16	0.0625
DA-300-5/64	DA-200-5/64	DA-100-5/64	DA-180-5/64	5/64	0.0781
DA-300-3/32	DA-200-3/32	DA-100-3/32	DA-180-3/32	3/32	0.0938
DA-300-7/64	DA-200-7/64	DA-100-7/64	DA-180-7/64	7/64	0.1094
DA-300-1/8	DA-200-1/8	DA-100-1/8	DA-180-1/8	1/8	0.1250
DA-300-9/64	DA-200-9/64	DA-100-9/64	DA-180-9/64	9/64	0.1406
DA-300-5/32	DA-200-5/32	DA-100-5/32	DA-180-5/32	5/32	0.1563
DA-300-11/64	DA-200-11/64	DA-100-11/64	DA-180-11/64	11/64	0.1719
DA-300-3/16	DA-200-3/16	DA-100-3/16	DA-180-3/16	3/16	0.1875
DA-300-13/64	DA-200-13/64	DA-100-13/64	DA-180-13/64	13/64	0.2031
DA-300-7/32	DA-200-7/32	DA-100-7/32	DA-180-7/32	7/32	0.2188
DA-300-15/64	DA-200-15/64	DA-100-15/64	DA-180-15/64	15/64	0.2344
DA-300-1/4	DA-200-1/4	DA-100-1/4	DA-180-1/4	1/4	0.2500
	DA-200-17/64	DA-100-17/64	DA-180-17/64	17/64	0.2656
	DA-200-9/32	DA-100-9/32	DA-180-9/32	9/32	0.2813
	DA-200-19/64	DA-100-19/64	DA-180-19/64	19/64	0.2969
	DA-200-5/16	DA-100-5/16	DA-180-5/16	5/16	0.3125
	DA-200-21/64	DA-100-21/64	DA-180-21/64	21/64	0.3281
	DA-200-11/32	DA-100-11/32	DA-180-11/32	11/32	0.3437
	DA-200-23/64	DA-100-23/64	DA-180-23/64	23/64	0.3593
	DA-200-3/8	DA-100-3/8	DA-180-3/8	3/8	0.3750
	DA-200-25/64	DA-100-25/64	DA-180-25/64	25/64	0.3906
		DA-100-13/32	DA-180-13/32	13/32	0.4063
		DA-100-27/64	DA-180-27/64	27/64	0.4219
		DA-100-7/16	DA-180-7/16	7/16	0.4375
		DA-100-29/64	DA-180-29/64	29/64	0.4531
		DA-100-15/32	DA-180-15/32	15/32	0.4688
		DA-100-31/64	DA-180-31/64	31/64	0.4844
		DA-100-1/2	DA-180-1/2	1/2	0.5000
		DA-100-33/64	DA-180-33/64	33/64	0.5156
		DA-100-17/32	DA-180-17/32	17/32	0.5313
		DA-100-35/64	DA-180-35/64	35/64	0.5469
		DA-100-9/16	DA-180-9/16	9/16	0.5625
			DA-180-37/64	37/64	0.5781
			DA-180-19/32	19/32	0.5938
			DA-180-39/64	39/64	0.6094
			DA-180-5/8	5/8	0.6250
			DA-180-41/64	41/64	0.6406
			DA-180-21/32	21/32	0.6563
			DA-180-43/64	43/64	0.6719
			DA-180-11/16	11/16	0.6875
			DA-180-45/64	45/64	0.7031
			DA-180-23/32	23/32	0.7188
			DA-180-47/64	47/64	0.7344
			DA-180-3/4	3/4	0.7500

**EXAMPLE:** To order single collet DA-300-1/4 = 1/4" collet. All collets have a 1/64 collapsibility.

## TG STYLE COLLETS

# Briney

Tooling Systems



SERIES	A DIA.	B
BTG075	1.062	1.844
BTG100	1.379	2.375
BTG150	2.00	3.00

## COLLET SETS

PART NO.	COLLET SERIES	COLLET RANGE	COLLETS IN SET	SET RANGE
BTG075-11	75	1/8-3/4	11	1/8-3/4x1/16
BTG075-21	75	1/8-3/4	21	1/8-3/4x1/32
BTG075-41	75	1/8-3/4	41	1/8-3/4x1/64
BTG100-15	100	1/8-1	15	1/8-1x1/16
BTG100-21	100	3/8-1	21	3/8-1x1/32
BTG100-30	100	3/32-1	30	3/32-1x1/32
BTG100-59	100	3/32-1	59	3/32-1x1/64

**NOTE!** When ordering sealed collets specify (Sealed) after part number.  
Sealed collets are exact size only.

All standard collets have a 1/64 collapsibility.

## COLLET SETS

PART NO.	COLLET SERIES	COLLET RANGE	COLLETS IN SET	SET RANGE
BTG150-33	150	1/2-1-1/2	33	1/2-1-1/2x1/32
BTG150-65	150	1/2-1-1/2	65	1/2-1-1/2x1/64

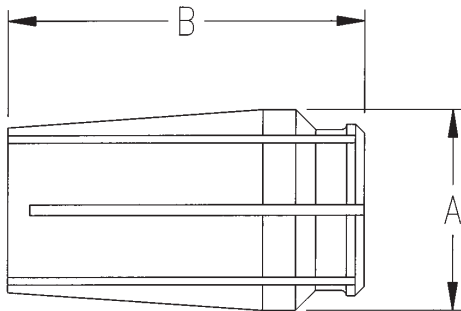
**NOTE!** When ordering sealed collets specify (Sealed) after part number.  
Sealed collets are exact size only.

All standard collets have 1/64 collapsibility.

**NOTE!** Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

PART NO.	PART NO.	I.D.	DEC.	PART NO.	I.D.	DEC.
BTG075-3/32	BTG100-3/32	3/32	.0937	BTG150-1/2	1/2	.5000
BTG075-7/64	BTG100-7/64	7/64	.1093	BTG150-33/64	33/64	.5156
BTG075-1/8	BTG100-1/8	1/8	.1250	BTG150-17/32	17/32	.5312
BTG075-9/64	BTG100-9/64	9/64	.1406	BTG150-35/64	35/64	.5469
BTG075-5/32	BTG100-5/32	5/32	.1562	BTG150-9/16	9/16	.5625
BTG075-11/64	BTG100-11/64	11/64	.1718	BTG150-37/64	37/64	.5781
BTG075-3/16	BTG100-3/16	3/16	.1875	BTG150-19/32	19/32	.5938
BTG075-13/64	BTG100-13/64	13/64	.2031	BTG150-39/64	39/64	.6094
BTG075-7/32	BTG100-7/32	7/32	.2187	BTG150-5/8	5/8	.6250
BTG075-15/64	BTG100-15/64	15/64	.2343	BTG150-41/64	41/64	.6406
BTG075-1/4	BTG100-1/4	1/4	.2500	BTG150-21/32	21/32	.6562
BTG075-17/64	BTG100-17/64	17/64	.2656	BTG150-43/64	43/64	.6719
BTG075-9/32	BTG100-9/32	9/32	.2812	BTG150-11/16	11/16	.6875
BTG075-19/64	BTG100-19/64	19/64	.2998	BTG150-45/64	45/64	.7031
BTG075-5/16	BTG100-5/16	5/16	.3125	BTG150-23/32	23/32	.7188
BTG075-21/64	BTG100-21/64	21/64	.3281	BTG150-47/64	47/64	.7344
BTG075-11/32	BTG100-11/32	11/32	.3437	BTG150-3/4	3/4	.7500
BTG075-23/64	BTG100-23/64	23/64	.3593	BTG150-49/64	49/64	.7656
BTG075-3/8	BTG100-3/8	3/8	.3750	BTG150-25/32	25/32	.7812
BTG075-25/64	BTG100-25/64	25/64	.3906	BTG150-51/64	51/64	.7969
BTG075-13/32	BTG100-13/32	13/32	.4062	BTG150-13/16	13/16	.8125
BTG075-27/64	BTG100-27/64	27/64	.4218	BTG150-53/64	53/64	.8281
BTG075-7/16	BTG100-7/16	7/16	.4375	BTG150-27/32	27/32	.8438
BTG075-29/64	BTG100-29/64	29/64	.4531	BTG150-55/64	55/64	.8594
BTG075-15/32	BTG100-15/32	15/32	.4687	BTG150-7/8	7/8	.8750
BTG075-31/64	BTG100-31/64	31/64	.4843	BTG150-57/64	57/64	.8906
BTG075-1/2	BTG100-1/2	1/2	.5000	BTG150-29/32	29/32	.9062
BTG075-33/64	BTG100-33/64	33/64	.5156	BTG150-59/64	59/64	.9219
BTG075-17/32	BTG100-17/32	17/32	.5312	BTG150-15/16	15/16	.9375
BTG075-35/64	BTG100-35/64	35/64	.5468	BTG150-51/64	51/64	.9531
BTG075-9/16	BTG100-9/16	9/16	.5625	BTG150-31/32	31/32	.9688
BTG075-37/64	BTG100-37/64	37/64	.5781	BTG150-63/64	63/64	.9844
BTG075-19/32	BTG100-19/32	19/32	.5937	BTG150-1	1"	1.000
BTG075-39/64	BTG100-39/64	39/64	.6093	BTG150-1-1/64	1-1/64	1.0156
BTG075-5/8	BTG100-5/8	5/8	.6250	BTG150-1/32	1-1/32	1.0312
BTG075-41/64	BTG100-41/64	41/64	.6406	BTG150-1-3/64	1-3/64	1.0469
BTG075-21/32	BTG100-21/32	21/32	.6562	BTG150-1-1/16	1-1/16	1.0625
BTG075-43/64	BTG100-43/64	43/64	.6718	BTG150-1-5/64	1-5/64	1.0781
BTG075-11/16	BTG100-11/16	11/16	.6875	BTG150-1-3/32	1-3/32	1.0937
BTG075-45/64	BTG100-45/64	45/64	.7031	BTG150-1-7/64	1-7/64	1.1094
BTG075-23/32	BTG100-23/32	23/32	.7187	BTG150-1-1/8	1-1/8	1.1250
BTG075-47/64	BTG100-47/64	47/64	.7343	BTG150-1-9/64	1-9/64	1.1406
BTG075-3/4	BTG100-3/4	3/4	.7500	BTG150-1-5/32	1-5/32	1.1562
	BTG100-49/64	49/64	.7656	BTG150-1-11/64	1-11/64	1.1719
	BTG100-25/32	25/32	.7812	BTG150-1-3/16	1-3/16	1.1875
	BTG100-51/64	51/64	.7968	BTG150-1-13/64	1-13/64	1.2031
	BTG100-13/16	13/16	.8125	BTG150-1-7/32	1-7/32	1.2188
	BTG100-53/64	53/64	.8281	BTG150-1-15/64	1-15/64	1.2344
	BTG100-27/32	27/32	.8438	BTG150-1-1/4	1-1/4	1.2500
	BTG100-55/64	55/64	.8437	BTG150-1-17/64	1-17/64	1.2656
	BTG100-7/8	7/8	.8593	BTG150-1-9/32	1-9/32	1.2812
	BTG100-57/64	57/64	.8906	BTG150-1-19/64	1-19/64	1.2969
	BTG100-29/32	29/32	.9062	BTG150-1-5/16	1-5/16	1.3125
	BTG100-59/64	59/64	.9218	BTG150-1-21/64	1-21/64	1.3281
	BTG100-15/16	15/16	.9375	BTG150-1-11/32	1-11/32	1.3438
	BTG100-61/64	61/64	.9531	BTG150-1-23/64	1-23/64	1.3594
	BTG100-31/32	31/32	.9687	BTG150-1-3/8	1-3/8	1.3750
	BTG100-63/64	63/64	.9843	BTG150-1-25/64	1-25/64	1.3906
	BTG100-1	1"	1.000	BTG150-1-13/32	1-13/32	1.4062
				BTG150-1-27/64	1-27/64	1.4219
				BTG150-1-7/16	1-7/16	1.4375
				BTG150-1-29/64	1-29/64	1.4531
				BTG150-1-15/32	1-15/32	1.4688
				BTG150-1-31/64	1-31/64	1.4844
				BTG150-1-1/2	1-1/2	1.5000

PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	I.D.	DEC.
BF025-5/64	BF038-5/64				5/64	.0781
BF025-3/32	BF038-3/32				3/32	.0937
BF025-7/64	BF038-7/64	BF050-7/64	BF075-7/64		7/64	.1093
BF025-1/8	BF038-1/8	BF050-1/8	BF075-1/8		1/8	.1250
BF025-9/64	BF038-9/64	BF050-9/64	BF075-9/64		9/64	.1406
BF025-5/32	BF038-5/32	BF050-5/32	BF075-5/32		5/32	.1562
BF025-11/64	BF038-11/64	BF050-11/64	BF075-11/64		11/64	.1718
BF025-3/16	BF038-3/16	BF050-3/16	BF075-3/16		3/16	.1875
BF025-13/64	BF038-13/64	BF050-13/64	BF075-13/64		13/64	.2031
BF025-7/32	BF038-7/32	BF050-7/32	BF075-7/32	BF100-7/32	7/32	.2187
BF025-15/64	BF038-15/64	BF050-15/64	BF075-15/64	BF100-15/64	15/64	.2343
BF025-1/4	BF038-1/4	BF050-1/4	BF075-1/4	BF100-1/4	1/4	.2500



SERIES	A DIA.	B
BF025	.438	1.000
BF038	.563	1.030
BF050	.720	1.160
BF075	1.131	2.020
BF100	1.446	2.500

**NOTE!** Sealed Flex Collets not available.

All collets have 1/64 collapsibility.

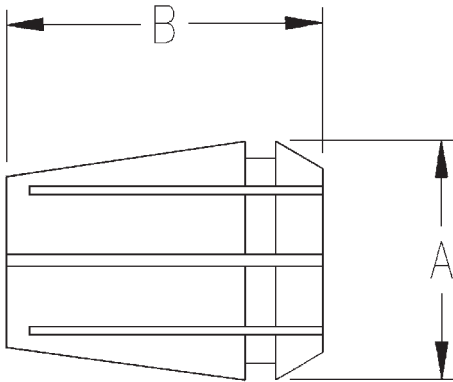
### COLLET SETS

PART NO.	COLLET SERIES	COLLET RANGE	COLLETS IN SET	SET RANGE
BF025-12	25	5/64-1/4	12	5/64-1/4x1/64
BF038-10	38	3/32-3/8	10	3/32-3/8x1/32
BF038-20	38	5/64-3/8	20	5/64-3/8x1/64
BF050-13	50	1/8-1/2	13	1/8-1/2x1/32
BF050-25	50	1/8-1/2	25	1/8-1/2x1/64
BF075-21	75	1/8-3/4	21	1/8-3/4x1/32
BF075-41	75	1/8-3/4	41	1/8-3/4x1/64
BF100-21	100	3/8-1	21	3/8-1x1/32
BF100-41	100	3/8-1	41	3/8-1x1/64

**NOTE!** Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

BF038-17/64	BF050-17/64	BF075-17/64	BF100-17/64	17/64	.2656
BF038-9/32	BF050-9/32	BF075-9/32	BF100-9/32	9/32	.2812
BF038-19/64	BF050-19/64	BF075-19/64	BF100-19/64	19/64	.2968
BF038-5/16	BF050-5/16	BF075-5/16	BF100-5/16	5/16	.3125
BF038-21/64	BF050-21/64	BF075-21/64	BF100-21/64	21/64	.3281
BF038-11/32	BF050-11/32	BF075-11/32	BF100-11/32	11/32	.3437
BF038-23/64	BF050-23/64	BF075-23/64	BF100-23/64	23/64	.3593
BF038-3/8	BF050-3/8	BF075-3/8	BF100-3/8	3/8	.3750
BF050-25/64	BF075-25/64	BF100-25/64		25/64	.3906
BF050-13/32	BF075-13/32	BF100-13/32		13/32	.4062
BF050-27/64	BF075-27/64	BF100-27/64		27/64	.4218
BF050-7/16	BF075-7/16	BF100-7/16		7/16	.4375
BF050-29/64	BF075-29/64	BF100-29/64		29/64	.4531
BF050-15/32	BF075-15/32	BF100-15/32		15/32	.4687
BF050-31/64	BF075-31/64	BF100-31/64		31/64	.4843
BF050-1/2	BF075-1/2	BF100-1/2		1/2	.5000
BF075-33/64		BF100-33/64		33/64	.5156
BF075-17/32		BF100-17/32		17/32	.5312
BF075-35/64		BF100-35/64		35/64	.5468
BF075-9/16		BF100-9/16		9/16	.5625
BF075-37/64		BF100-37/64		37/64	.5781
BF075-19/32		BF100-19/32		19/32	.5937
BF075-39/64		BF100-39/64		39/64	.6093
BF075-5/8		BF100-5/8		5/8	.6250
BF075-41/64		BF100-41/64		41/64	.6406
BF075-21/32		BF100-21/32		21/32	.6562
BF075-43/64		BF100-43/64		43/64	.6718
BF075-11/16		BF100-11/16		11/16	.6875
BF075-45/64		BF100-45/64		45/64	.7031
BF075-23/32		BF100-23/32		23/32	.7187
BF075-47/64		BF100-47/64		47/64	.7383
BF075-3/4		BF100-3/4		3/4	.7500
		BF100-49/64		49/64	.7656
		BF100-25/32		25/32	.7812
		BF100-51/64		51/64	.7968
		BF100-13/16		13/16	.8125
		BF100-53/64		53/64	.8281
		BF100-27/32		27/32	.8437
		BF100-55/64		55/64	.8593
		BF100-7/8		7/8	.8750
		BF100-57/64		57/64	.8906
		BF100-29/32		29/32	.9062
		BF100-59/64		59/64	.9218
		BF100-15/16		15/16	.9375
		BF100-61/64		61/64	.9531
		BF100-31/32		31/32	.9688
		BF100-63/64		63/64	.984
		BF100-1		1"	1.000

# FRACTIONAL SIZES ULTRA PRECISION COLLETS



## FRACTIONAL COLLETS

PART NO.	A DIA.	B
BR11	.453	.709
BR16	.669	1.063
BR20	.827	1.220
BR25	1.024	1.378
BR32	1.299	1.575
BR40	1.614	1.811

**NOTE!** When ordering sealed collets specify (Sealed) after part number.  
Sealed collets are exact size only

BR11	BR16	BR20	BR25	BR32	BR40	FRACTION	DEC.
BR11-1/16	BR16-1/16	BR20-1/16	BR25-1/16			1/16	.0625
BR11-3/32	BR16-3/32	BR20-3/32	BR25-3/32	BR32-3/32		3/32	.0937
BR11-1/8	BR16-1/8	BR20-1/8	BR25-1/8	BR32-1/8	BR40-1/8	1/8	.0125
BR11-5/32	BR16-5/32	BR20-5/32	BR25-5/32	BR32-5/32	BR40-5/32	5/32	.1562
BR11-3/16	BR16-3/16	BR20-3/16	BR25-3/16	BR32-3/16	BR40-3/16	3/16	.1875
BR11-7/32	BR16-7/32	BR20-7/32	BR25-7/32	BR32-7/32	BR40-7/32	7/32	.2187
BR11-1/4	BR16-1/4	BR20-1/4	BR25-1/4	BR32-1/4	BR40-1/4	1/4	.2500
	BR16-9/32	BR20-9/32	BR25-9/32	BR32-9/32	BR40-9/32	9/32	.2812
	BR16-5/16	BR20-5/16	BR25-5/16	BR32-5/16	BR40-5/16	5/16	.3125
	BR16-11/32	BR20-11/32	BR25-11/32	BR32-11/32	BR40-11/32	11/32	.3437
	BR16-3/8	BR20-3/8	BR25-3/8	BR32-3/8	BR40-3/8	3/8	.3750
	BR16-13/32	BR20-13/32	BR25-13/32	BR32-13/32	BR40-13/32	13/32	.4062
	BR20-7/16	BR25-7/16	BR32-7/16	BR40-7/16		7/16	.4375
	BR20-15/32	BR25-15/32	BR32-15/32	BR40-15/32		15/32	.4687
	BR20-1/2	BR25-1/2	BR32-1/2	BR40-1/2		1/2	.5000
		BR25-17/32	BR32-17/32	BR40-17/32		17/32	.5312
		BR25-9/16	BR32-9/16	BR40-9/16		9/16	.5625
		BR25-19/32	BR32-19/32	BR40-19/32		19/32	.5937
		BR25-5/8	BR32-5/8	BR40-5/8		5/8	.6250
			BR32-21/32	BR40-21/32		21/32	.6562
			BR32-11/16	BR40-11/16		11/16	.6875
			BR32-23/32	BR40-23/32		23/32	.7187
			BR32-3/4	BR40-3/4		3/4	.7500
				BR40-25/32		25/32	.7812
				BR40-13/16		13/16	.8125
				BR40-27/32		27/32	.8437
				BR40-7/8		7/8	.8750
				BR40-29/32		29/32	.9062
				BR40-15/16		15/16	.9375
				BR40-31/32		31/32	.9688
				BR40-1"		1"	1.000

## COLLET SETS

PART NO.	COLLET SERIES	RANGE INCHES	COLLETS IN SET	RANGE OF COLLET SET
BR11-00 INCH	11	.063-.250	7	1/16-1/4x1/32
BR16-00 INCH	16	.063-.402	12	1/16-13/32x1/32
BR20-00 INCH	20	.063-.500	15	1/16-1/2-x1/32
BR25-00 INCH	25	.063-.625	19	1/16-5/8x1/32
BR32-00 INCH	32	.094-.750	22	3/32-3/4x1/32
BR40-00 INCH	40	.125-1.00	29	1/8-1x1/32

**NOTE!** BR11 collets have .02 collapsibility - all other collets have 1mm collapsibility.  
Metric sizes available page 97.

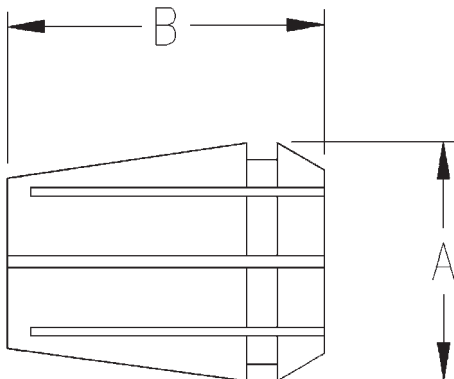
**NOTE!** Collet must be assembled into collet nut before inserting tool or assembling onto chuck.



### METRIC COLLETS

PART NO.	A DIA.	B
BR11	.453	.709
BR16	.669	1.063
BR20	.827	1.220
BR25	1.024	1.378
BR32	1.299	1.575
BR40	1.614	1.811
BR50	2.047	2.362

**NOTE!** When ordering sealed collets specify (Sealed) after part number. Sealed collets are exact size only.



BR11	BR16	BR20	BR25	BR32	BR40	BR50	DECIMAL	MILLIMETER
BR11-01	BR16-01						.019-.039	.50-1.00
BR11-02	BR16-02	BR20-01	BR25-01				.039-.059	1.00-1.50
BR11-03								.059-.079
BR11-04	BR16-03	BR20-02	BR25-02	BR32-02			.079-.098	2.00-2.50
BR11-05								
BR11-06	BR16-04	BR20-03	BR25-03	BR32-03	BR40-01		.118-.138	3.00-3.50
BR11-07								
BR11-08	BR16-05	BR20-04	BR25-04	BR32-04	BR40-02		.157-.177	4.00-4.50
BR11-09								
BR11-10	BR16-06	BR20-05	BR25-05	BR32-05	BR40-03		.197-.217	5.00-5.50
BR11-11								
BR11-12	BR16-07	BR20-06	BR25-06	BR32-06	BR40-04		.236-.256	6.00-6.50
BR11-13								
	BR16-08	BR20-07	BR25-07	BR32-07	BR40-05		.276-.315	7.00-8.00
	BR16-09	BR20-08	BR25-08	BR32-08	BR40-06		.315-.354	8.00-9.00
	BR16-10	BR20-09	BR25-09	BR32-09	BR40-07		.354-.394	9.00-10.00
		BR20-10	BR25-10	BR32-10	BR40-08	BR50-01	.394-.433	10.00-11.00
		BR20-11	BR25-11	BR32-11	BR40-09		.433-.472	11.00-12.00
		BR20-12	BR25-12	BR32-12	BR40-10	BR50-02	.472-.512	12.00-13.00
			BR25-13	BR32-13	BR40-11		.512-.551	13.00-14.00
			BR25-14	BR32-14	BR40-12	BR50-03	.551-.591	14.00-15.00
			BR25-15	BR32-15	BR40-13		.591-.630	15.00-16.00
				BR32-16	BR40-14	BR50-04	.630-.669	16.00-17.00
				BR32-17	BR40-15		.669-.709	17.00-18.00
				BR32-18	BR40-16	BR50-05	.709-.748	18.00-19.00
				BR32-19	BR40-17		.748-.787	19.00-20.00
					BR40-18	BR50-06	.787-.827	20.00-21.00
					BR40-19		.827-.866	21.00-22.00
					BR40-20	BR50-07	.866-.906	22.00-23.00
					BR40-21		.906-.945	23.00-24.00
					BR40-22	BR50-08	.945-.984	24.00-25.00
					BR40-23		.984-1.024	25.00-26.00
						BR50-09	1.024-1.062	26.00-27.00
							1.062-1.102	27.00-28.00
						BR50-10	1.102-1.142	28.00-29.00
							1.142-1.181	29.00-30.00
						BR50-11	1.181-1.220	30.00-31.00
							1.220-1.260	31.00-32.00
						BR50-12	1.260-1.299	32.00-33.00
							1.299-1.339	33.00-34.00

### COLLET SETS

PART NO.	COLLET SERIES	RANGE METRIC	COLLETS IN SET	RANGE OF COLLET SET
BR11-00	11	.50-7.0	13	.50-7.0x.50mm
BR16-00	16	.50-10.0	10	.50-10.0x1.0mm
BR20-00	20	1.0-13.0	12	1.0-13.0x1.0mm
BR25-00	25	1.0-16.0	15	1.0-16x1.0mm
BR32-00	32	2.0-20	18	2.0-20x1.0mm
BR40-00	40	3.0-26	23	3-26x1.0mm
BR50-00	50	10-34	12	10-34x2.0mm

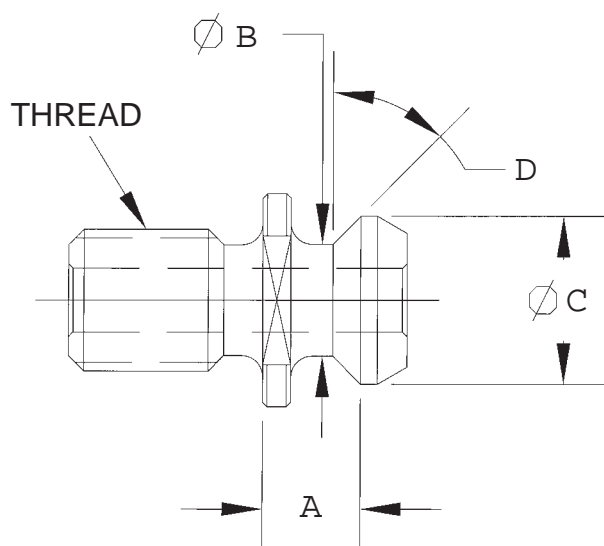
NOTE! Effective collet range per size. Inch sizes available page 96.

**NOTE!** Collet must be assembled into collet nut before inserting tool or assembling onto chuck.

# ACCESSORIES — RETENTION KNOBS

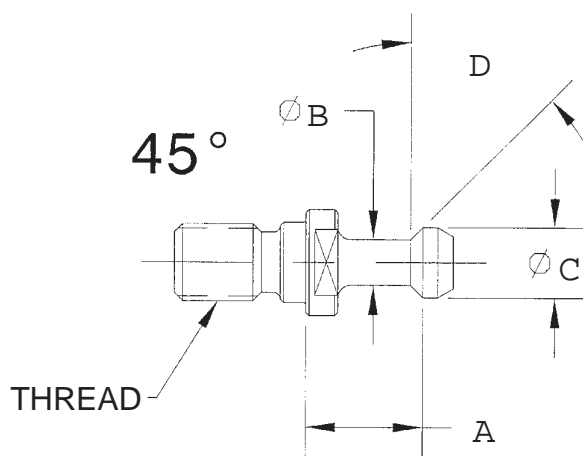
## ANSI STANDARD

PART NUMBER	TAPER SIZE	A	B DIA.	C DIA.	D	THREAD	HOLE
B111-11	V30	.320	.385	.520	45°	1/2-13	Y
B111-22	V40	.440	.490	.740	45°	5/8-11	Y
B111-23	V40	.440	.490	.740	45°	5/8-11	N
B111-26	BT40	.552	.490	.740	45°	M16X2.0	N
B111-33	V45	.580	.605	.940	45°	3/4-10	Y
B111-44	V50	.700	.820	1.140	45°	1-8	Y
B111-46	V50	.700	.820	1.140	45°	1-8	N
B111-55	V60	1.080	1.045	1.460	45°	1-1/4-7	Y



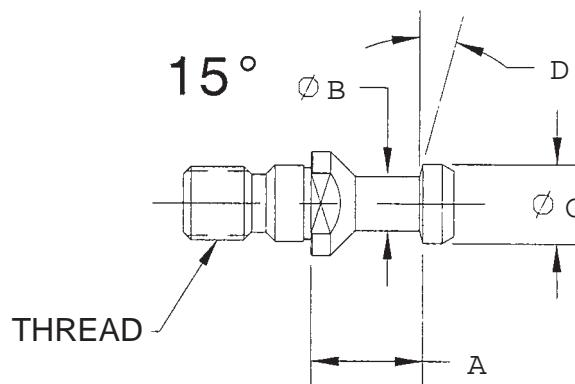
## CINCINNATI STYLE

PART NUMBER	TAPER SIZE	A	B DIA.	C DIA.	D	THREAD	HOLE
B171-22	V40	.1.139	.406	.594	45°	5/8-11	N
B171-22C	V40	1.139	.406	.594	45°	5/8-11	Y
B171-44	V50	.700	.820	1.140	45°	1-8	Y



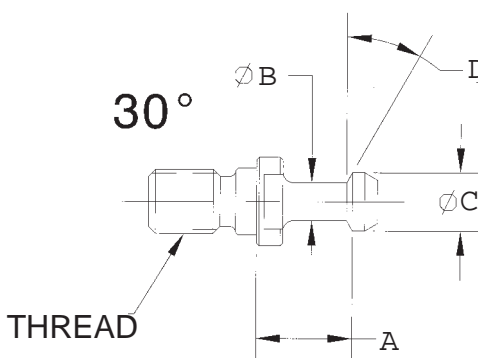
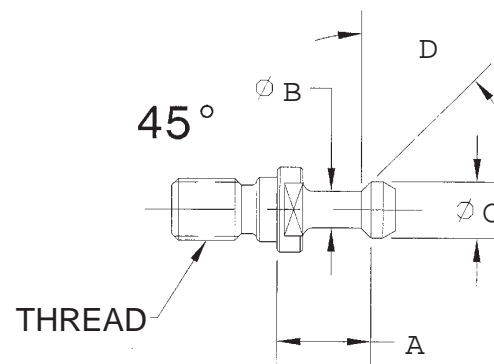
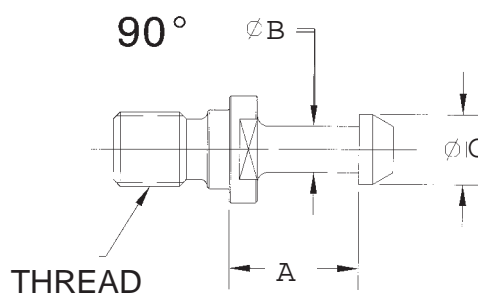
PART NUMBER	TAPER SIZE	A	B DIA.	C DIA.	D	THREAD	HOLE
B711-23	V40	.788	.549	.747	15°	5/8-11	Y

### ISO STYLE



PART NUMBER	TAPER SIZE	A	B DIA.	C DIA.	D	THREAD	HOLE
B311-09	BT30	.707	.274	.431	45°	M12X1.75	N
B311-09A	BT30	.707	.274	.431	60°	M12X1.75	N
B311-10	V30	.740	.280	.430	45°	1/2-13	N
B311-10A	V30	.740	.280	.430	30°	1/2-13	N
B311-11	BT35	.790	.330	.510	45°	M12X1.75	N
B311-11A	BT35	.880	.350	.540	30°	M12X1.75	N
B311-11B	BT35	.886	.310	.550	90°	M12X1.75	N
B311-13	BT40	1.100	.392	.589	45°	M16X2.0	N
B311-13A	BT40	1.100	.392	.589	60°	M16X2.0	N
B311-13B	BT40	1.100	.392	.589	90°	M16X2.0	N
B311-14	V40	.988	.392	.589	45°	5/8-11	N
B311-14A	V40	.988	.392	.589	60°	5/8-11	N
B311-14B	V40	.988	.392	.589	90°	5/8-11	N
B311-14C	V40	.988	.392	.589	45°	5/8-11	Y
B311-15	BT45	1.218	.549	.746	45°	M20X2.5	N
B311-15A	BT45	1.218	.549	.746	60°	M20X2.5	N
B311-15B	BT45	1.218	.549	.746	90°	M20X2.5	N
B311-16	V45	1.228	.549	.746	45°	3/4-10	N
B311-16A	V45	1.228	.549	.746	60°	3/4-10	N
B311-16B	V45	1.228	.549	.746	90°	3/4-10	N
B311-17	BT50	1.376	.668	.903	45°	M24X3.0	N
B311-17A	BT50	1.376	.668	.903	60°	M24X3.0	N
B311-17B	BT50	1.376	.668	.903	90°	M24X3.0	N
B311-18	V50	1.384	.668	.903	45°	1"-8	N
B311-18A	V50	1.384	.668	.903	60°	1"-8	N
B311-18A-C	V50	1.384	.668	.903	60°	1"-8	Y
B311-18B	V50	1.384	.668	.903	90°	1"-8	N
B311-18B-C	V50	1.384	.668	.930	90°	1"-8	Y
B311-18C	V50	1.384	.668	.903	45°	1"-8	Y
B312-46	V50	.700	.820	1.140	45°	1"-8	Y
B316-47	V50	1.384	.668	.903	45°	1"-8	Y
B321-14	V40	.988	.392	.588	45°	5/8-11	N
B324-20B	V50	.904	.706	.942	90°	1"-8	Y

### JMTBA STYLE



Specify machine make and model # when ordering.  
Refer to pages 100, 101 and 102 for more information.

## RETENTION KNOBS

# Briney

Tooling Systems

MACHINE BUILDER	TAPER	DESCRIPTION	PART #
ACROLOC-BAYER	40-V	3000V	B111-23
AMURA-SEIKI	50-V	MCV-1020, MCV-1350	B311-18
ARBOGA	40-BT	COMBIMATIC 640	B311-13
BRIDGEPORT	40-BT	INTERACT 412, 520, 550H, 720, BPC-380H, BPC-320H	B311-13
BURGMASER	50-V	HTC-330L	B111-44
CARMAN	40-V	TMC-403V	B111-22
CHIRON	40-V	FZ-18W, FZ-22L, FZ-22W	B111-22
CINCINNATI MILICRON	40-V	CIN #3373552, HIGH PERFORMANCE M/C 20,000 RPM	B111-22
CINCINNATI MILICRON	40-V	CIN#2675891, 5VC-750, 5V-750	B171-22
CINCINNATI MILICRON	50-V	CIN #3337989	B111-44
COMET	40-BT	VMC-560, VMC-1000	B311-13
COMET	40-V	VMC-560, VMC-1000	B311-14
COMPUMACHINE	40-V	COMPUMILL	B312-22
DAEWOO	40-V	DMC-400V	B311-14
DAH LIH	40-BT	MCV520, MCV610, MCV700, MCV760, MCV1000, MCV1020, MCV40	B311-13
DAH LIH	40-V	MCV520, MCV610, MCV700, MCV760, MCV1000, MCV1020, MCV40	B311-14
DAH LIH	50-V	MCV1200, MCV1350	B311-18
DAVIS TOOL	50-V		B111-44
DEVLIEG	50-V	4W72-JIB MILL, JMC-430R	B111-44
DO ALL	40-BT	VMC-3417	B311-13
ENSHU	40-BT	VMC-330	B311-13
ENSHU	40-V	VMC-330	B311-14
ENSHU	40-BT	VMC-400	B311-13A
ENSHU	40-V	VMC-400	B311-14A
ENSHU	50-V	VMC-610, HMC-500, VMC-530	B316-45
ENSHU	50-V	VMC-650	B311-18A
EXCELLO	50-V	208, 408, 508, 608	B111-44
FADAL	40-V	VMC-40, VMC-4020	B111-22
FADAL	40-V	SAME AS B111-23, NO COOLANT	B111-23
FADAL	40-BT	VMC-40, VMC-4020	B111-26
FOREST LINE	50-V	DRWG. 2.212.00020	B111-44
FRITZ-WERNER	50-V	DRWG. 386614	B111-44
GIDDINGS & LEWIS	50-V		B111-44
HAAS	40-BT	VF-00, VF-0, VF-1, VF-2, VF-3, VF-4	B311-13
HAAS	40-V	VF-11, VF-0, VF-1, VF-2, VF-3, VF-4	B311-14
HAMAI	40-V	MC-3VS, MC-3VA, MC-3VA-8B/2, EM-3	B321-14
HAMAI	40-BT	MC-3VS, MC-3VA, MC-3VA-8B/2. EM-3	B311-13
HAMAI	50-V	MC-5VA, MC-6VA, MC-8VA	B311-18
HITACHI-SEIKI	40-BT	VA-35, VA-40, VA-45, HC-400-40, HC-800, HC-800-1600/2500, V	
		VK-45, VM-40 MINIMATIC-500, 630, MG-500V, 630V, 500, 630, 800	B311-13
HITACHI-SEIKI	40-BT	MACMATIC-36V, 48V, 48VD, 48VGB, 414V, 425VHB	B311-13A
HITACHI-SEIKI	40-V	VA-35, VA-40, VA-45, HC-400-40, HC-800, HC-800-1600/2500,	
		VK-45, VM-40, MINIMATIC-500, 630, MG-500V, 630V, 500, 630, 800	B321-14
HITACHI-SEIKI	40-V	VA-55, VA-65, HB-630, HC-500, HC-630, VA-85-3150, HC-800, VK-55	B311-18B
HITACHI-SEIKI	40-V	MACMATIC-36V, 48V, 48VD, 48VGB, 414V, 425, VHB	B311-14A
HITACHI-SEIKI	50-V	MBN-700	B311-18A
HOWA KOGYO	40-BT	MCV-80D	B311-13A
HOWA KOGYO	40-V	MCV-80D	B311-14
HURCO	40"	TM-5, BMC10, BMC40	B111-23
IKEGAI	40-BT	MX-3, TV-4	B311-13
IKEGAI	40-V	MX-3, TV-4	B311-14
IKEGAI	50-V	AMC-100	B311-18
KASHAHARA	40-BT	KVM-2	B311-13
KASHAHARA	40-V	KVM-2	B311-14
KEARNY-TRECKER	40-BT	MH-12	B311-13
KEARNY-TRECKER	40-V	MH-12	B311-14
KIA	40-BT	VA-40, KM-40HA	B311-13
KIA	40-V	VA-40, KM-40HA	B311-14
KIA	40-BT	KIAMASTER, KV-40A	B311-13B
KIA	40-V	KIAMASTER, KV-40A	B311-14B
KIRA	40-BT	KV500, KV-3MC, KV-5MC, KV-7MC	B311-13A
KIRA	40-V	KV500, KV-3MC, KV-5MC, KV-7MC	B311-14A
KITAMURA	40-BT	MYCENTER 3, 4, H300, H300B, JIB CENTER 7	B311-13
KITAMURA	40-V	MYCENTER 3, 4, H300, H300B, JIB CENTER 7	B311-14
KITAMURA	50-V	MYCENTER 5, 6, H500, H600, H800, BRIDGE CENTER 8	B311-18
KIWA	40-BT	EXCEL CENTER 4	B311-13

Other knobs are available from Briney. Please include make and model of machine when requesting a knob not listed.

MACHINE BUILDER	TAPER	DESCRIPTION	PART #
KIWA	40-V	PALLETMASTER 4, EXCEL CENTER 4, EXCEL 510	B321-14
KURAKI	40-BT	KV-700, HM-400	B311-13
KURAKI	40-BT	KV-1200	B311-13A
KURAKI	50-V	BORING MILL H-1325P, KH50	B311-18
LEADWELL	40-BT	MCV-550S/D, MCV-760XL, MCH-500, MCV-0, MCV-550E, MCV-610S, V-350, V-410, MCH-350, MCV-OP	B311-13
LeBLOND MAKINO	40-V	BRWG. #T13M-0564 D, MODEL A55	B316-16
LeBLOND MAKINO	40-V	MODEL A55 -- COOLANT	B316-17
LeBLOND MAKINO	50-V	FNC-100A, 106, 128, 178, 208, MC-60, 86, 100, 108, 156, VNC & HNC SERIES, MCH-500, HBNC-2213	B311-18
LeBLOND MAKINO	50-V	SAME AS B311-18 -- WITH .312 COOLANT	B316-45
LYONS	50-V	FUTURE MILL BMC-200J-3M	B111-44
MAHO	40-BT	MH-500C, 600C, 700C, 700C/A	B311-13
MAHO	40-V	MC-50, MH-600S, MAHOMAT	B111-22
MAHO	40-V	MH-800C	B111-23
MAHO	50-V	MH-1000, 1000C/K, MH-700S, MH-800C	B111-44
MASCO	40-V	Z SERIES	B111-22
MASCO	50-V	MH SERIES	B111-44
MATSURA	40-BT	MC-760V, MC-710, MC-760V-DC, 400H, 600H, MC-1000VS, MC-800V, MC-560V, FX5/PC-2, RA-2, MC450, MC510, VX1100	B311-13A
MATSURA	40-BT	MC400H, MC600H, MC400H-30-PCH	B111-22A
MATSURA	40-BT	600VF, 800VF, 1000VF, MAM600HF	
MATSURA	40-V	MC-760V, MC-710, MC760V-DC, 400H, 600H, MC-1000-VS, MC-800V, MC-560V, FX5/PC2, RA-2, MC450, MC510V, VX1100	B311-14A
MATSURA	40-V	WHEN COOLANT HOLE IS REQUIRED	
MATSURA	50-V	MC-400H, MC-600H, MC-400H-30-PC11	B111-22
MATSURA	50-V	MC-900H-63-PC2S, MC-700H	B111-44A
MATZAK	50-V	MC-1250V	B311-18A
MAZAK	40-V	V5, V7.5, H10, H12, V10N, VQC-20/40, VQM-20/40, VQC-15/40A, 15/40B, -738	B312-22
MAZAK	50-V	V-15, V20, V20E, DRWG. 10635	B311-18B
MAZAK	50-V	V10, V12, V15N, H15, H20, H22, H25, H15A, H25Q, HQC-20/50, DRWG. 10756	B312-44
MAZAK	40-V	ALL MACHINES AFTER JAN. 1984	B111-22
MAZAK	40-V	-- NO COOLANT	B111-23
MAZAK	50-V	ALL MACHINES AFTER 1984	B111-44
MAZAK	50-V	-- NO COOLANT	B111-46
MAZAK	50-V	-- WITH O-RING	B111-44S
MILLPORT	40-BT	VMC-1000, VMC-560	B311-13
MILLPORT	40-V	VMC-1000, VMC-560	B311-14
MITSUBISHI	40-BT	MHP-A22, B22, H30	B311-13A
MITSUBISHI	40-V	MHP-A22, B22, H30	B311-14A
MITSUBISHI	50-V	MPA-V55, MPA-V65, MH-50C	B311-18A
MIYANO	40-BT	KSV-31, KSV-35, MSV-41	B311-13
MIYANO	40-V	KSV-31, KSV-35, MSV-41	B311-14
MOOG	40-BT	A22, B48, H30	B311-13A
MORI SEIKI	40-BT	MV-JR, MV35/40, MV45/40, MH40, M-300A, MV-40B, MV-40A, MG-40	B311-13B
MORI SEIKI	40-V	MV-JR, MV35/40, MV45/40, MH40, M-300A, MV-40B, MV-40A, MG-40	B311-14B
MORI SEIKI	50-V	MV-55, MV-65, MV-80, MH-63, MH-80, MH-50, MV80B, MC-65, MH-6380, MV-55/50, MV-55A/50	B311-18B
NIIGATA	40-BT	VN-400 H.S., PN-40 H.S.	B311-13A
NIIGATA	50-V	HN-50, HN-50A, HN-63A, HN-70, HN-80A, HN-100	B311-18A
NISHIJIMA TEKKOSHO	40-BT	NMS-15H, NMS-15V, NMS-10H, NMS-10V	B311-13
NOMURA	40-V	B-85	B311-14A
OKUMA	40-BT	MC-4VA, MC-40H, MC-3V, MC-3A, MC-30VA	B311-13A
OKUMA	40-V	MC-4VA, MC-40H, MC-3V, MC-3A, MC-30VA	B311-14A
OKUMA	50-V	MC-4VB, MC-5V, MC-6V, MC-5H, MC-6H, MC-50H, MC-60H, MC-80H, MC-500H	B311-18A
OKUMA HOWA	40-BT	MILLAC 3-VA, 4-VA, MILLAC 4-H	B311-13
OKUMA HOWA	40-V	MILLAC 3-VA, 4-VA, MILLAC 4-H	B311-14
OKUMA HOWA	50-V	MILLAC 5-VA, MILLAC 5-H	B311-18A
OOYA	40-V	RE-OM	B311-14
OOYA	40-BT	RE-OM	B311-13
OOYA	50-V	RE-2M, 2MH, 2ML	B311-18
OOYA	50-V	RE-3M, 6M	B311-18B
OOYA	50-V	SAX2300	B111-44

Other knobs are available from Briney. Please include make and model of machine when requesting a knob not listed.

## RETENTION KNOBS

MACHINE BUILDER	TAPER	DESCRIPTION	PART #
OSAKA KIKO (OKK)	40-BT	MCV-300HS, PCH-500, 410-NS, MCH-450HS	B311-13B
OSAKA KIKO (OKK)	40-V	MCV-300HS, PCH-500, 410-NS, MCH-450HS	B311-14B
OSAKA KIKO (OKK)	40-BT	PCV-40, PCV-50	B311-13
OSAKA KIKO (OKK)	40-V	PCV-40, PCV-50	B311-14
OSAKA KIKO (OKK)	50-V	MCV-500, 520, 630, 800, 820, MCH-560, 630, 700, 800, 1000, OCV-520-20L, PCH-600	B311-18B
PRATT & WHITNEY	40-V	TRIMAC V	B321-14
PRATT & WHITNEY	40-V	HORIZON-5	B111-22
PRATT & WHITNEY	50-V	TRIMAC XV	B311-18
ROKU-ROKU	40-BT	P40T-1	B311-13A
ROKU-ROKU	40-BT	VERTIMACK, 0, 1X, 1XW, RM-2H, RM-4V	B311-13
ROKU-ROKU	40-V	VERTIMACK, 0, 1X, 1XW, RM-2H, RM-4V	B311-14
SAEILO	40-BG	TNV-40, TNV-50, TNV-70, TNV-80	B311-13
SAEILO	40-V	TNV-40, TNV-50, TNV-70, TNV-80	B311-14
SAKAZAKI	40-BT	VNC-90, SMC-100	B311-13
SAKAZAKI	40-V	VNC-90, SMC-100	B311-14
SAKAZAKI	40-BT	SACO-720	B311-13A
SAKAZAKI	40-V	SACO-720	B311-14A
SAKAZAKI	50-V	TSC-50	B311-18
SANYO	50-V	JIG CENTER, SJC-100-1`500, SJC-100-1800	B311-18A
SHARONA	40-BT	SDC-20, SDC-30, SDC-40, SD-900/5	B311-13
SHARONA	40-V	SDC-20, SDC-30, SDC-40, SD-900/5	B311-14
SHARONA	50-V	SDC-50D	B311-18
SHIN NIPPON (SNK)	50-V	FSP100V, GANTRY PM-8A	B111-46
SHIZUOKA	40-BT	B-3V, B-5V, B-5VHS	B311-13
SHIZUOKA	40-V	B-3V, B-5V, B-5VHS	B311-14
SHIZUOKA	50-V	B-7V, B-10V, B-15V, B-10V500, V-15V750	B311-18B
SHODA	40-BT	NC-145, MCG-192, MCV-331	B311-13
SHODA	40-V	NC-145, MCG-192, MCV-331	B311-14
STAMA	40-VT	MC-010	B311-13
STAMA	40-V	MC-018, MC-540 S	B111-22
SUNSTRAND	50-V	OMN-1, OM-2A	B111-44
TAKISAWA	40-BT	MAC-V2, MAC-V3, MAC-V4, MAC-V1E, H-400, H500	B311-13
TAKISAWA	40-V	MAC-V2, MAC-V3, MAC-V4, MAC-V1E, H-400, H500	B311-14
TAKISAWA	50-V	MAC-V5	B311-18
TOSHIBA	40-V	VMC-4, BMC-40, BMC-50, VMC-45, BMC-4B, VMC-6, VMC-8	B321-14
TOSHIBA	50-V	VMC-65, VMC-85, BMC-63, BMC-80, BMC-100, BMC-100W, BMC-125W	B311-18
TOYAMA	40-BT	TMC-40V, TMC-4	B311-13
TOYAMA	40-V	TMC-40V, TMC-4	B311-14
TOYAMA	50-V	TMC-50V	B111-44
TOYKO	40-BT	TMC-H40	B311-13
TOYKO	40-V	TMC-H40	B311-14
TOYKO	50-V	TMC-H60	B311-18
TOYODA	40-BT	FV-45, FH-45, FVN-40, FHN-40	B311-13
TOYODA	40-V	FV-45, FVN-40, FHN-40, VERIFY DIM.	B311-14
TOYODA	50-V	FVN-50, FVN-50A, FV-65, FHN-50, FHN-60, FHN-80T, FHN-100T, FV-80, FH-55	B311-18
TOYODA	50-V	SAME AS B311-18 -- WITH .312 COOLANT	B316-45
TSUGAMI	40-BT	LIGHTENING FLEX 10, MA-3H	B311-13A
ULTRAMILL	40-V	MODEL 5000	B311-14
URAWA	40-BT	UB-75, UB-75-2SP, UB-710, UB-710H, UB-710SR, UB-710-2SP	B311-13
URAWA	40-V	UB-75, UB-75-2SP, UB-710, UB-710H, UB-710SR, UB-710-2SP	B311-14
VICTOR	40-BT	V CENTER 4	B311-13B
VULCAN	40-V	DELTA 20V	B311-14
WASINO	40-BT	SMC-3, WMC-14, LV-24M4A	B311-13
WHITE-SUNDSTRAND	50-V	OMNI SERIES 20, 20V, 30, OM1/OM2A, 60, 80	B111-44
YAM (YANG)	40-BT	CNC-3A, MV-3A	B311-13B
YAM (YANG)	40-V	CNC-3A, MV-3A	B311-14B
YAM (YANG)	50-V	HSMC-650, CNC-5A	B311-18B
YASDA	40-BT	YPC-30, YPC-45	B311-13
YASDA	40-V	YPC-30, YPC-45	B311-14
YASDA	50-V	YBN-70N, YBN-90N	B311-18
YCI	40-BT	MAX 3: YCM-VMC-60A, 72A SERIES	B311-13
YCI	40-V	MAX 3: YCM-VMC-60A, 72A SERIES	B311-14
YCI	50-V	YCM-VMC-86A, 105-A, 135-A, 165, YMC-180-HVA	B311-18

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**RECORD YOUR MACHINING CENTERS FOR FUTURE REFERENCE**

Machine Make & Model # \_\_\_\_\_ Machine Make & Model # \_\_\_\_\_

Retention Knob Part # \_\_\_\_\_ Retention Knob Part # \_\_\_\_\_

Machine Make & Model # \_\_\_\_\_ Machine Make & Model # \_\_\_\_\_

Retention Knob Part # \_\_\_\_\_ Retention Knob Part # \_\_\_\_\_

**NOTES**

Horizontal lines for notes

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## THINK SAFETY . . .

In today's machining industry, modern machines operate at higher speeds. Hot chips may be projected from the workpiece and may cause serious injury if not properly guarded. These tools may also break and fragment if they are over-stressed or accidentally impacted into the workpiece. Proper protection for the operator and proper guards on the machine must be in place at all times to ensure operator safety. With today's carbide cutting tools pushing maximum speeds and feeds, safety must be a consideration.

BRINEY has no control over the use of its products after purchase. BRINEY recommends that all guidelines for operation of metal cutting equipment and cutting tools be strictly adhered to. Following these guidelines will ensure safe metal cutting operation on all your machine tools. BRINEY is not responsible for injuries caused by misuse of tools or improperly guarded equipment and operators. For more information, contact:

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