



## SHRINK FIT

THE INDUSTRY'S HIGHEST QUALITY SHRINK FIT LINE

CATALOG



... UNMATCHED OFFER & PER

Remotely controlled

- **Compatible with Start.2 & Fi-5**

Air cooling unit

Operating instructions

Inductor rotates 180° to allow easy removal of broken tools

Storage space for chuck holders

Storage space for chuck holders

**Start.2**  
220V - Standard  
440V - Optional

UPGRADABILITY

AFTER SALES-SERVICE

**Fi-5B**  
440V - Standard

Scan here to see our Start 2 video!

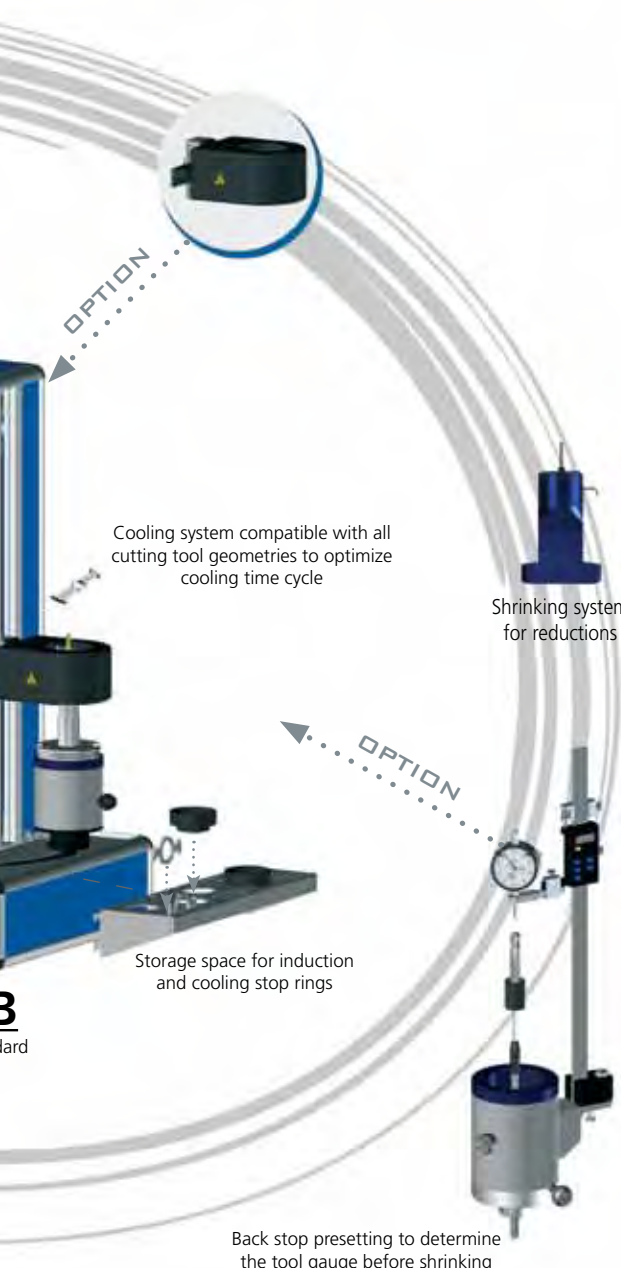
Scan here to see our Fi-5B video!

Removable electronics

- **Compatible with Start.2 & Fi-5B**
- Simplified after-sales service

Registered models – Registered patents  
Subject to change without notice.

PERFORMANCE . . .



- Shrinking and unshrinking of **any type of tools**:
  - Steel, HSS, carbide, heavy metals, powdered metal, shrink fit extensions and reductions, tool shank h6
- Easy to set up shrink sizes by quickly changing induction rings.
- Shrinking **Ø 2 to Ø 40** (.079" - 1.575") with the **same** inductor, upper Ø on request:
  - from Ø 2 (.079") for carbide
  - from Ø 6 (.236") for HSS tools
- Inductor coil auto size detection eliminates manual parameter setting.
- Shrinking time cycle from **2 to 7 seconds**.
- Cooling time cycle from **1 minute 30 seconds to 3 minutes** (depending on the geometry).
- Air **cooling** unit compatible with **any type of external geometries** (3° slope, 4.5° slope, cylindrical...).
- Specially designed ergonomic remote control.
- 200-240V/3 phase/14 kW power required (380-480V optional) - no transformer needed.
- Removable electronics to allow easy, quick and economical after-sales service.

## SHRINKING EQUIPMENT



### START.2 SHRINK FIT UNIT

- The world's easiest shrink machine to operate.
- Provided with accessories for shrinking  $\varnothing 2$  to  $\varnothing 40$ , (.079" - 1.575").
- Compact and Ergonomic Design.
- 1 cooling unit included, multiple cooling units can be connected.
- Shrink machine unit net weight - 19 kg (41.9 lbs.)



### COOLING UNIT

- Rapid Cooling - Tapered internal design allows for even distribution of high pressure air.
- Provided with accessories for cooling  $\varnothing 2$  to  $\varnothing 40$ , (.079" - 1.575").
- Compressed air supply: 70 to 90 psi.
- Equipped with a filter and a pressure-reducing gauge to regulate the pressure and the air flow.
- Weight: 5 kg (11 lbs.)



### FI-5B SHRINK FIT UNIT

- FI-5B - speed and safety in one
  - Speed - multiple cooling units to support high quantity tool assembly
  - Safety - Guide Rail prevents operator from handling hot tools
- The electronic board is cooled to allow high-speed shrinking.
- Provided with accessories for shrinking & cooling  $\varnothing 2$  to  $\varnothing 40$ , (.079"-1.575").
- Dimensions: Length = 785mm (30.9") x Depth = 490mm (19.29") x Height = 855mm (33.66").
- Weight (options excluded): 43 kg (94.8 lbs.)



### PRESETTING UNIT

- For length presetting.
- For Fi-5 shrink fit unit only.
- Accuracy :  $\pm 0,050$ mm.
- Repeatability :  $\pm 0,020$ mm.
- Capability : tool shank  $\varnothing 6$  to 32 (.25"-1.25").



## SPECIFICATIONS & EQUIPMENT

FUNCTIONS	START.2	FI-5B
<b>SPECIFICATIONS</b>	<b>PART NUMBER: SF-START2-UNIT</b>	<b>PART NUMBER: SF-FI5-UNIT</b>
Automatic tool size detection within the range of each inductor ring	■	■
Rapid heating cycle prevents heat transfer damage to the cutting tool and toolholder	■	■
Self regulated heating cycle allows for safe operation	■	■
Automatic or manual shrinking cycle time	■	■
Shrinking Ø 2 to Ø 40mm (.079"-1.575") with the same inductor	■	■
Large 64mm (2.52") inductor diameter provides flexibility for small to large cutting tools	■	■
Remote control pendant for ergonomic operation	■	■
Unique slide out control module allows 1 day service for repair	■	■
Inductor rotates 180 degrees for broken cutter removal	■	■
Cooling system for the electronic board to allow high-speed shrinking		■
Power supply 400-480V/14kW/50-60Hz/3 phase	■	■
Power supply 200-240V/14kW/50-60Hz/3 phase	■	
<b>EQUIPMENT</b>		
1 air cooling unit (70-90 PSI)	■	
2 air cooling units (70-90 PSI)	□	■
Shrinking of cutting diameters larger than shank diameters	□	□
Shrinking system for reductions	□	□
Back stop presetting unit	□	□
Storage space for chuck holders	□	□
Storage space for inductor stop rings and cooling stop rings	□	□
Storage space for cooling stop rings	□	

■ : Standard    □ : Option

## CUSTOMIZE YOUR EQUIPMENT PACKAGE



### ACCESSORIES

	PART NUMBER	Start.2	Fi-5B	
<b>Pot/Chuck holder</b>				
	For HSK 25 chuck	SF-POT-HSK25	<input type="checkbox"/>	<input type="checkbox"/>
	For HSK 32 chuck	SF-POT-HSK32	<input type="checkbox"/>	<input type="checkbox"/>
	For HSK 40 chuck	SF-POT-HSK40	<input type="checkbox"/>	<input type="checkbox"/>
	For HSK 50 chuck	SF-POT-HSK50	<input type="checkbox"/>	<input type="checkbox"/>
	For HSK 63 chuck	SF-POT-HSK63	<input type="checkbox"/>	<input type="checkbox"/>
	For HSK 80 chuck	SF-POT-HSK80	<input type="checkbox"/>	<input type="checkbox"/>
	For HSK 100 chuck	SF-POT-HSK100	<input type="checkbox"/>	<input type="checkbox"/>
	For BT 30 chuck	SF-POT-#30	<input type="checkbox"/>	<input type="checkbox"/>
	For CAT / BT 40 chuck	SF-POT-#40	<input type="checkbox"/>	<input type="checkbox"/>
	For BT 45 chuck	SF-POT-#45	<input type="checkbox"/>	<input type="checkbox"/>
	For CAT / BT 50 chuck	SF-POT-#50	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Heating Ring</b>			
	Ø 2 to Ø 5 (5/64" - 3/16")	SF-HEAT-RING-2-5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Ø 6 to Ø 13 (1/4" - 1/2")	SF-HEAT-RING-6-13	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Ø 14 to Ø 24 (9/16" - 7/8")	SF-HEAT-RING-14-24	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Ø 25 to Ø 32 (1" - 1 1/4")	SF-HEAT-RING-25-32	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Ø 33 to Ø 40 (1 1/4" - 1 1/2")	SF-HEAT-RING-33-40	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Split Heating Ring</b>				
	Ø 2 to Ø 5 (5/64" - 3/16")	SF-HEAT-RING-2-5(SP)	<input type="checkbox"/>	<input type="checkbox"/>
	Ø 6 to Ø 13 (1/4" - 1/2")	SF-HEAT-RING-6-13(SP)	<input type="checkbox"/>	<input type="checkbox"/>
	Ø 14 to Ø 24 (9/16" - 7/8")	SF-HEAT-RING-14-24(SP)	<input type="checkbox"/>	<input type="checkbox"/>
	Ø 25 to Ø 32 (1" - 1 1/4")	SF-HEAT-RING-25-32(SP)	<input type="checkbox"/>	<input type="checkbox"/>
	Ø 33 to Ø 40 (1 1/4" - 1 1/2")	SF-HEAT-RING-33-40(SP)	<input type="checkbox"/>	<input type="checkbox"/>
<b>Additional Cooling Unit</b>				
	Cooling unit for Fi-5B		<input checked="" type="checkbox"/>	
<b>Cooling Brackets</b>				
	Ø 2 to Ø 5 (5/64" - 3/16")	SF-COOL-BRACKET-2-6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> x2
	Ø 6 to Ø 13 (1/4" - 1/2")	SF-COOL-BRACKET-6-14	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> x2
	Ø 14 to Ø 24 (9/16" - 7/8")	SF-COOL-BRACKET-14-25	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> x2
	Ø 25 to Ø 32 (1" - 1 1/4")	SF-COOL-BRACKET-25-33	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> x2
	Ø 33 to Ø 40 (1 1/4" - 1 1/2")	SF-COOL-BRACKET-33-41	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> x2
<b>Shrinking with reductions</b>				
	Set up fixture Reduction Sleeve	SF-REDUCTION-FIXTURE	<input type="checkbox"/>	<input type="checkbox"/>
<b>Various accessories</b>				
	Storage space for tools	SF-RACK-CUTTER		<input type="checkbox"/>
	Storage space for chuck holders	SF-RACK-POT		<input type="checkbox"/>
	Storage space for inductor & cooling stop rings	SF-RACK-HEAT-RING		<input type="checkbox"/>
	Storage space for cooling stop rings	SF-RACK-COOL-STOP	<input type="checkbox"/>	
	A pair of Kevlar gloves	SF-GLOVES	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Plier for gripping small diameters	SF-PLIERS	<input type="checkbox"/>	<input type="checkbox"/>

**Start.2:**  
Choose any 2 Pots

**Fi-5B:**  
Choose any 3 Pots

■ : Standard    □ : Option

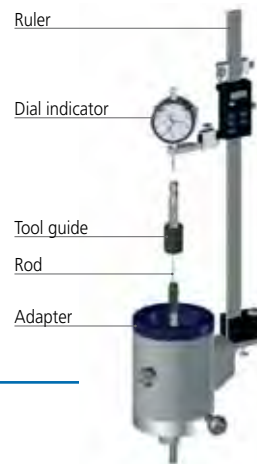
	PART NUMBER	Start.2	Fi-5B
<b>Shrink Fit Cabinet</b>			
Stainless Steel Trolley	SF-CABINET	<input type="checkbox"/>	
<b>Inductor</b>			
Replacement Inductor	SF-INDUCTOR	<input type="checkbox"/>	<input type="checkbox"/>
<b>Electronic board</b>			
Motherboard 380 / 480V	SF-MOTHER-BOARD-380	<input type="checkbox"/>	<input type="checkbox"/>
Motherboard 200 / 240 V	SF-MOTHER-BOARD	<input type="checkbox"/>	<input type="checkbox"/>
<b>Remote control</b>			
Remote control	SF-CONTROL	<input type="checkbox"/>	<input type="checkbox"/>

## PRESETTING

	PART NUMBER	Start.2	Fi-5B
<b>Presetting units</b>			
Presetting unit by back-stop (Accessories : please contact us)	SF-PS-UNIT	<input type="checkbox"/>	
Presetting unit + 3 rods + ruler + indicator + one set of guides and guide holder	SF-PS-KIT		<input type="checkbox"/>
<b>Accessories for presetting units</b>			
Set of tools guides Ø 1/4" , 5/16" , 3/8" , 1/2" , 5/8" , 3/4"	SF-PS-TOOLGUIDE-KIT		<input type="checkbox"/>
Presetting guides holder	SF-PS-GUIDE-HOLDER		<input type="checkbox"/>
Presetting Clip Kit (19 sizes included in 1 kit)	SF-SPRING-CLIP-KIT		<input type="checkbox"/>
Adapter for BT30 presetting	SF-PS-BT30-ADAPTER		<input type="checkbox"/>
Adapter for CAT / BT40 presetting	SF-PS-CT/BT40-ADPTR		<input type="checkbox"/>
Adapter for BT45 presetting	SF-PS-CT/BT45-ADPTR		<input type="checkbox"/>
Adapter for CAT / BT50 presetting	SF-PS-CT/BT50-ADPTR		<input type="checkbox"/>
Tool guide Ø 1/4" *	SF-PS-GUIDE-6M-0250		<input type="checkbox"/>
Tool guide Ø 5/16" *	SF-PS-GUIDE-8M-0312		<input type="checkbox"/>
Tool guide Ø 3/8" *	SF-PS-GUIDE-10M-0375		<input type="checkbox"/>
Tool guide Ø 1/2" *	SF-PS-GUIDE-14M-0500		<input type="checkbox"/>
Tool guide Ø 5/8" *	SF-PS-GUIDE-16M-0625		<input type="checkbox"/>
Tool guide Ø 3/4" *	SF-PS-GUIDE-20M-0750		<input type="checkbox"/>
Tool guide Ø 1" *	SF-PS-GUIDE-25M-1000		<input type="checkbox"/>
Tool guide Ø 1 1/4" *	SF-PS-GUIDE-32M-1250		<input type="checkbox"/>
Compact rod	SF-PS-COMPACT-ROD		<input type="checkbox"/>
Standard & mold range rod	SF-PS-STD-ROD		<input type="checkbox"/>
Rod (length 160 mm)	SF-PS-STD-ROD-LONG		<input type="checkbox"/>
Ruler 300 mm	SF-PS-RULER		<input type="checkbox"/>
Dial indicator	SF-PS-DIAL		<input type="checkbox"/>

\*Metric Available 6-32mm

**Spring Clip Kit - 19 sizes in 1 kit:**  
 MM - 3,4,5,6,8,10,12,16,20,25  
 INCH - 1/8, 3/16, 1/4, 5/16, 3/8,  
 1/2, 5/8, 3/4, 1.0



■ : Standard    □ : Option    ■ : Replacement part

## BALANCING PRINCIPLES

The **static unbalance** (U, g.mm) results in a difference of position (e, mm) between the center of gravity and the axis of rotation of the tool-holder that generates a centrifugal force which has detrimental effect on the machine spindle and cutting tool.

$$U = e \times M \text{ tool-holder} \quad F = U \times \omega^2 \times 10^{-6} \quad (\omega : \text{rotation in rad/s})$$

The unbalance is compensated either by addition of weight or removal of weight.

The **dynamic unbalance** results in a difference of position between the main axis of inertia and the axis of rotation that generates vibrations. So, the defect can be corrected on two planes.

The standard ISO 1940 (rotors balancing) determines the **allowable unbalance** (U, g.mm) depending on class (G) and speed rotation (N, rpm) of the tool-holder

$$U = \frac{9549 \times G \times M \text{ tool-holder}}{N}$$

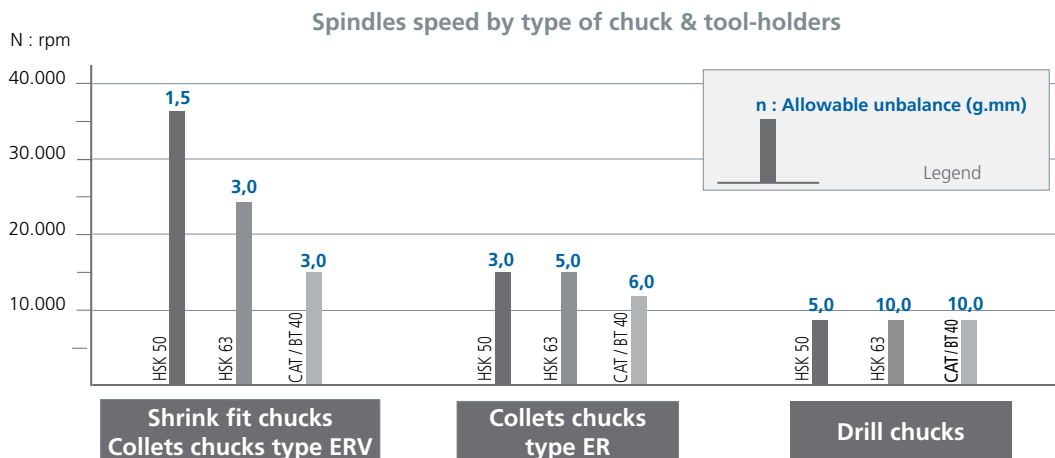
## BALANCING ADVANTAGES

- Reduced **vibrations**.
- Improved **surface finish**.
- Improved **tool life**.
- Optimized **spindle stability**.

## OUR BALANCING SOLUTION

Elco balances all tool holders in relation to their operational RPM and weight to work in conjunction with high RPM spindles.

As seen in the chart below, all tool holders are balanced within a tight allowable unbalance range:



For all specific applications, a more precise balancing can be done on request.



**TOOL-HOLDERS**

**10 - 37**

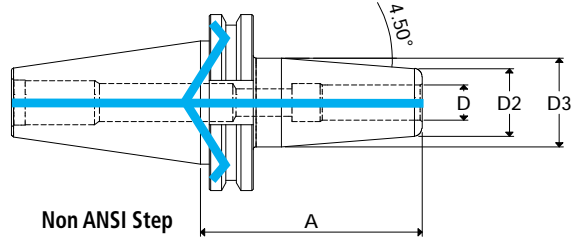
<b>CAT40 SHRINK FIT HOLDERS</b> .....	<b>10</b>
<b>CAT40 SHRINK FIT PACKAGES</b> .....	<b>13</b>
<b>CAT50 SHRINK FIT HOLDERS</b> .....	<b>14</b>
<b>CAT50 SHRINK FIT PACKAGES</b> .....	<b>17</b>
<b>BT30/40 SHRINK FIT HOLDERS</b> .....	<b>18</b>
<b>BT30/40 SHRINK FIT PACKAGES</b> .....	<b>21</b>
<b>BT50 SHRINK FIT HOLDERS</b> .....	<b>22</b>
<b>BT50 SHRINK FIT PACKAGES</b> .....	<b>25</b>
<b>HSK63A SHRINK FIT HOLDERS</b> .....	<b>26</b>
<b>HSK63A SHRINK FIT PACKAGES</b> .....	<b>29</b>
<b>HSK100A SHRINK FIT HOLDERS</b> .....	<b>30</b>
<b>HSK100A SHRINK FIT PACKAGES</b> .....	<b>33</b>
<b>HSK32/40/50E SHRINK FIT HOLDERS</b> .....	<b>34</b>
<b>HSK63/80F SHRINK FIT HOLDERS</b> .....	<b>35</b>
<b>SHRINK FIT EXTENSIONS</b> .....	<b>36</b>
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<b>ACCESSORIES</b> .....	<b>37</b>

Standard: DIN Form B (Plugged)  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .00040" to .00012" at 3 X Diameter of Tool  
 Balancing: <3g.mm at 20,000 RPM (CAT40)  
 <10g.mm at 15,000 RPM (CAT50)  
 Balanceable upon request  
 Cooling: Center-thru or Flange Thru Coolant

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37).**



STANDARD TYPE



Non ANSI Step

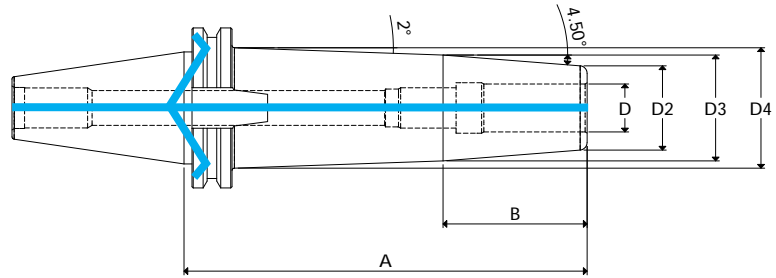
INCH

Part Number	D	A	D2	D3
CAT40-SF0125-3.15	1/8"	3.15"	0.39"	0.71"
CAT40-SF0187-3.15	3/16"	3.15"	0.39"	0.63"
CAT40-SF0250-3.15	1/4"	3.15"	0.83"	1.06"
CAT40-SF0375-3.15	3/8"	3.15"	0.94"	1.26"
CAT40-SF0500-3.15	1/2"	3.15"	0.94"	1.26"
CAT40-SF0625-3.15	5/8"	3.15"	1.06"	1.34"
CAT40-SF0750-3.15	3/4"	3.15"	1.30"	1.65"
CAT40-SF1000-3.94	1"	3.94"	1.73"	2.09"

METRIC

Part Number	D	A	D2	D3
CAT40-SF3-80	3mm	80	10	18
CAT40-SF6-80	6mm	80	21	27
CAT40-SF8-80	8mm	80	21	27
CAT40-SF10-80	10mm	80	24	32
CAT40-SF12-80	12mm	80	24	32
CAT40-SF16-80	16mm	80	27	34
CAT40-SF20-80	20mm	80	33	42
CAT40-SF25-100	25mm	100	44	53

EXTENDED TYPE



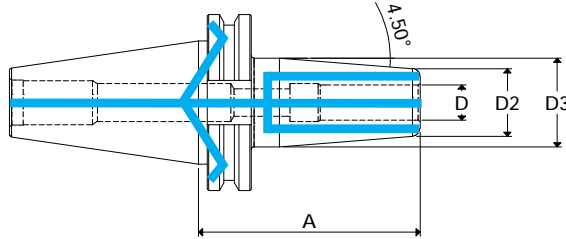
Part Number	D	A	D2	D3	D4	B
CAT40-SF0125-6.30	1/8"	6.30"	0.39"	0.63"	1.26"	1.50"
CAT40-SF0250-5.12	1/4"	5.12"	0.83"	1.06"	1.26"	1.50"
CAT40-SF0250-6.30	1/4"	6.30"	0.83"	1.06"	1.35"	1.50"
CAT40-SF0375-5.12	3/8"	5.12"	0.94"	1.26"	1.43"	2.00"
CAT40-SF0375-6.30	3/8"	6.30"	0.94"	1.26"	1.51"	2.00"
CAT40-SF0500-5.12	1/2"	5.12"	0.94"	1.26"	1.43"	2.00"
CAT40-SF0500-6.30	1/2"	6.30"	0.94"	1.26"	1.51"	2.00"
CAT40-SF0625-5.12	5/8"	5.12"	1.06"	1.34"	1.60"	1.75"
CAT40-SF0625-6.30	5/8"	6.30"	1.06"	1.34"	1.60"	1.75"
CAT40-SF0750-5.12	3/4"	5.12"	1.30"	1.65"	1.80"	2.25"
CAT40-SF0750-6.30	3/4"	6.30"	1.30"	1.65"	1.88"	2.25"
CAT40-SF1000-5.12	1"	5.12"	1.73"	2.09"	2.23"	2.25"
CAT40-SF1000-6.30	1"	6.30"	1.73"	2.09"	2.32"	2.25"

Part Number	D	A	D2	D3	D4	B
CAT40-SF3-160	3mm	160	10	19	34.18	38.12
CAT40-SF6-160	6mm	160	21	27	34.18	38.12
CAT40-SF8-160	8mm	160	21	27	34.18	38.12
CAT40-SF10-160	10mm	160	24	32	38.29	50.83
CAT40-SF12-160	12mm	160	24	32	38.29	50.83
CAT40-SF16-160	16mm	160	27	34	40.73	44.47
CAT40-SF20-160	20mm	160	33	42	47.85	57.38
CAT40-SF25-160	25mm	160	44	53	58.85	57.18



RUNOUT COOLANT BALANCE

COOLANT PORT OPTION



STANDARD TYPE

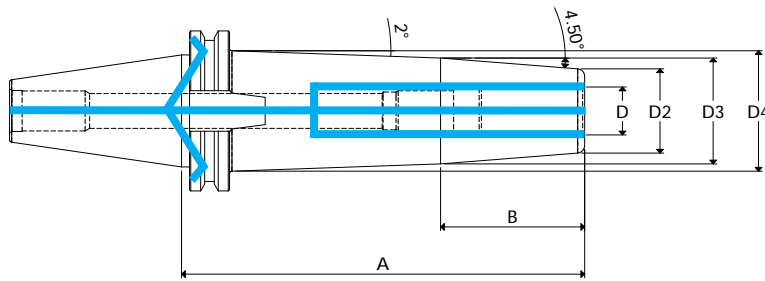


Part Number	D	A	D2	D3
CAT40-SF0250-3.15CP	1/4"	3.15"	0.83"	1.06"
CAT40-SF0375-3.15CP	3/8"	3.15"	0.94"	1.26"
CAT40-SF0500-3.15CP	1/2"	3.15"	0.94"	1.26"
CAT40-SF0625-3.15CP	5/8"	3.15"	1.06"	1.34"
CAT40-SF0750-3.15CP	3/4"	3.15"	1.30"	1.65"
CAT40-SF1000-3.94CP	1"	3.94"	1.73"	2.09"

METRIC

Part Number	D	A	D2	D3
CAT40-SF8-80CP	8mm	80	21	27
CAT40-SF10-80CP	10mm	80	24	32
CAT40-SF12-80CP	12mm	80	24	32
CAT40-SF16-80CP	16mm	80	27	34
CAT40-SF20-80CP	20mm	80	33	42
CAT40-SF25-100CP	25mm	100	44	53

INCH



EXTENDED TYPE



Part Number	D	A	D2	D3	D4	B
CAT40-SF0250-5.12CP	1/4"	5.12"	0.83"	1.06"	1.26"	1.50"
CAT40-SF0250-6.30CP	1/4"	6.30"	0.83"	1.06"	1.35"	1.50"
CAT40-SF0375-5.12CP	3/8"	5.12"	0.94"	1.26"	1.43"	2.00"
CAT40-SF0375-6.30CP	3/8"	6.30"	0.94"	1.26"	1.51"	2.00"
CAT40-SF0500-5.12CP	1/2"	5.12"	0.94"	1.26"	1.43"	2.00"
CAT40-SF0500-6.30CP	1/2"	6.30"	0.94"	1.26"	1.51"	2.00"
CAT40-SF0625-5.12CP	5/8"	5.12"	1.06"	1.34"	1.60"	1.75"
CAT40-SF0625-6.30CP	5/8"	6.30"	1.06"	1.34"	1.60"	1.75"
CAT40-SF0750-5.12CP	3/4"	5.12"	1.30"	1.65"	1.80"	2.25"
CAT40-SF0750-6.30CP	3/4"	6.30"	1.30"	1.65"	1.88"	2.25"
CAT40-SF1000-5.12CP	1"	5.12"	1.73"	2.09"	2.23"	2.25"
CAT40-SF1000-6.30CP	1"	6.30"	1.73"	2.09"	2.32"	2.25"

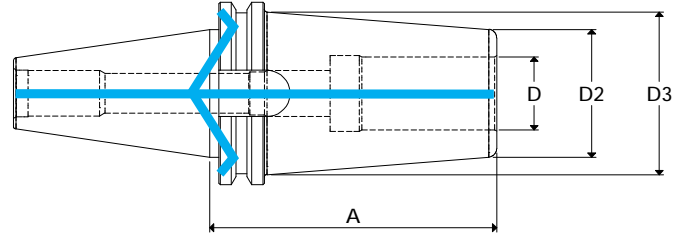
Part Number	D	A	D2	D3	D4	B
CAT40-SF8-160CP	8mm	160	21	27	34.18	38.12
CAT40-SF10-160CP	10mm	160	24	32	38.29	50.83
CAT40-SF12-160CP	12mm	160	24	32	38.29	50.83
CAT40-SF16-160CP	16mm	160	27	34	40.73	44.47
CAT40-SF20-160CP	20mm	160	33	42	47.85	57.38
CAT40-SF25-160CP	25mm	160	44	53	58.85	57.18

Standard: DIN Form B (Plugged)  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .000040" to .00012" at 3 X Diameter of Tool  
 Balancing: <3g.mm at 20,000 RPM (CAT40)  
 <10g.mm at 15,000 RPM (CAT50)  
 Cooling: Center-thru and Flange Thru Coolant (plugged)  
 Face Coolant (CAT40 Standard and Extended only)

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37).**



**RIGIDITY TYPE**

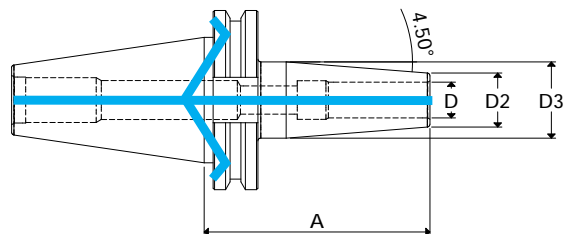


INCH

Part Number	D	A	D2	D3
CAT40-SF0250-2.56RT	1/4"	2.56"	0.79"	1.07"
CAT40-SF0375-2.56RT	3/8"	2.56"	0.94"	1.23"
CAT40-SF0500-2.56RT	1/2"	2.56"	1.06"	1.35"
CAT40-SF0625-2.76RT	5/8"	2.76"	1.30"	1.61"
CAT40-SF0750-2.76RT	3/4"	2.76"	1.30"	2.05"
CAT40-SF1000-2.76RT	1"	2.76"	1.73"	2.13"

\*Backup screws not included or used for rigidity type

**MOLD TYPE**



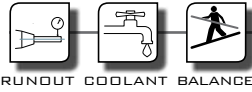
Part Number	D	A	D2	D3
CAT40-SF0125-3.15	1/8"	3.15"	0.39"	0.71"
CAT40-SF0125-6.30MT	1/8"	6.30"	0.35"	0.87"
CAT40-SF0250-3.15MT	1/4"	3.15"	0.47"	0.83"
CAT40-SF0250-6.30MT	1/4"	6.30"	0.47"	1.06"
CAT40-SF0375-3.15MT	3/8"	3.15"	0.63"	0.98"
CAT40-SF0375-6.30MT	3/8"	6.30"	0.63"	1.26"
CAT40-SF0500-3.15MT	1/2"	3.15"	0.71"	1.06"
CAT40-SF0500-6.30MT	1/2"	6.30"	0.71"	1.26"
CAT40-SF0625-3.15MT	5/8"	3.15"	0.95"	1.30"
CAT40-SF0625-6.30MT	5/8"	6.30"	0.95"	1.34"

Part Number	D	A	D2	D3
CAT40-SF3-80*	3mm	80	10	18
CAT40-SF3-160MT*	3mm	160	9	22
CAT40-SF6-80MT*	6mm	80	12	21
CAT40-SF6-160MT*	6mm	160	12	27
CAT40-SF8-80MT*	8mm	80	16	25
CAT40-SF8-160MT*	8mm	160	16	27
CAT40-SF10-80MT*	10mm	80	16	25
CAT40-SF10-160MT*	10mm	160	16	32
CAT40-SF12-80MT*	12mm	80	18	27
CAT40-SF12-160MT*	12mm	160	18	32
CAT40-SF16-80MT*	16mm	80	24	33
CAT40-SF16-160MT*	16mm	160	24	34

\*Pricing on Request



## SHRINK FIT PACKAGES



SHRINK FIT UNIT + 10 SHRINK FIT HOLDERS

### INCLUDES:

### FEATURES

- Shrink and unshrink any type of tools and cutters (HSS, Carbide, Heavy Metal, Powdered Metal, etc.)
- Shrink 2- 40mm (5/64"-1.1/2" inch) shank sizes with same unit
- Inductor coil auto size detection eliminates manual parameter setting
- Easy set up to shrink sizes by quickly changing induction rings
- 200-240V/3 Phase/14 kW power required, no transformer needed
- Unique slide-out Control Module allows One-Day Service



**SHRINKER UNIT**



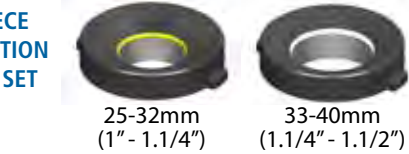
**COOLING UNIT**



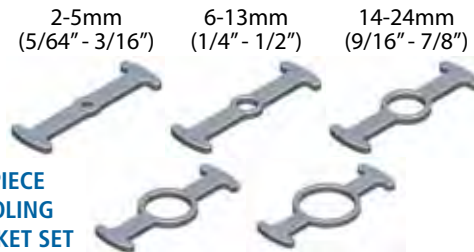
**10 SHRINK FIT HOLDERS**



**5 PIECE INDUCTION RING SET**



**5 PIECE COOLING BRACKET SET**



**CHUCK HOLDERS**



2-5mm  
(5/64" - 3/16")

6-13mm  
(1/4" - 1/2")

14-24mm  
(9/16" - 7/8")

2-5mm  
(5/64" - 3/16")

6-13mm  
(1/4" - 1/2")

14-24mm  
(9/16" - 7/8")

25-32mm  
(1" - 1.1/4")

33-40mm  
(1.1/4" - 1.1/2")

25-32mm  
(1" - 1.1/4")

33-40mm  
(1.1/4" - 1.1/2")

CHOOSE FROM THE TOOL PACKAGES BELOW:

### STANDARD TYPE

INCH

Part Number
CAT40-SF0125-3.15
CAT40-SF0187-3.15
CAT40-SF0250-3.15
CAT40-SF0375-3.15
CAT40-SF0500-3.15
CAT40-SF0625-3.15
CAT40-SF0750-3.15
CAT40-SF1000-3.94

METRIC

Part Number
CAT40-SF3-80
CAT40-SF6-80
CAT40-SF8-80
CAT40-SF10-80
CAT40-SF12-80
CAT40-SF16-80
CAT40-SF20-80
CAT40-SF25-100

### RIGIDITY TYPE

INCH

Part Number
CAT40-SF0250-2.56RT
CAT40-SF0375-2.56RT
CAT40-SF0500-2.56RT
CAT40-SF0625-2.76RT
CAT40-SF0750-2.76RT
CAT40-SF1000-2.76RT

### MOLD TYPE

Part Number
CAT40-SF0125-3.15
CAT40-SF0250-3.15MT
CAT40-SF0375-3.15MT
CAT40-SF0500-3.15MT
CAT40-SF0625-3.15MT

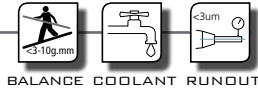
Part Number
CAT40-SF3-80
CAT40-SF6-80MT
CAT40-SF8-80MT
CAT40-SF10-80MT
CAT40-SF12-80MT
CAT40-SF16-80MT



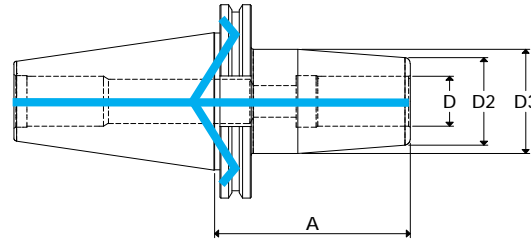
Scan here to see current package pricing.

Standard: DIN Form B (Plugged)  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .00040" to .00012" at 3 X Diameter of Tool  
 Balancing: <3g.mm at 20,000 RPM (CAT40)  
 <10g.mm at 15,000 RPM (CAT50)  
 Cooling: Center-thru and Flange Thru Coolant (plugged)  
 Face Coolant (CAT40 Standard and Extended only)

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37).**



STANDARD TYPE



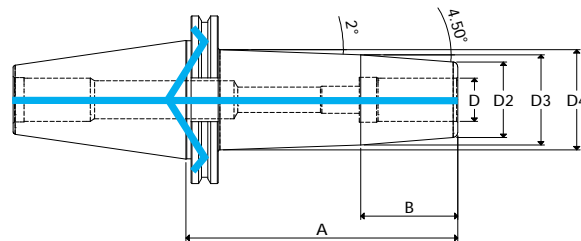
INCH

Part Number	D	A	D2	D3
CAT50-SF0125-3.15	1/8"	3.15"	0.39"	0.71"
CAT50-SF0250-3.15	1/4"	3.15"	0.83"	1.06"
CAT50-SF0375-3.15	3/8"	3.15"	0.94"	1.26"
CAT50-SF0500-3.15	1/2"	3.15"	0.94"	1.26"
CAT50-SF0625-3.15	5/8"	3.15"	1.06"	1.34"
CAT50-SF0750-3.15	3/4"	3.15"	1.30"	1.65"
CAT50-SF1000-3.94	1"	3.94"	1.73"	2.09"
CAT50-SF1250-3.94	1.1/4"	3.94"	1.73"	2.09"

METRIC

Part Number	D	A	D2	D3
CAT50-SF3-80	3mm	80	10	18
CAT50-SF6-80	6mm	80	21	27
CAT50-SF8-80	8mm	80	21	27
CAT50-SF10-80	10mm	80	24	32
CAT50-SF12-80	12mm	80	24	32
CAT50-SF16-80	16mm	80	27	34
CAT50-SF20-80	20mm	80	33	42
CAT50-SF25-100	25mm	100	44	53
CAT50-SF32-100	32mm	100	44	53

EXTENDED TYPE



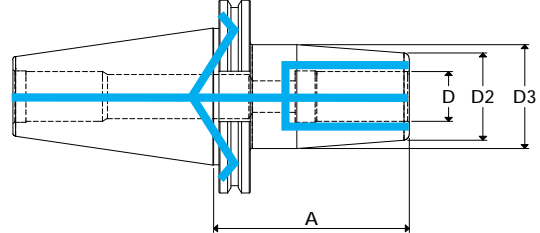
Part Number	D	A	D2	D3	D4	B
CAT50-SF0125-6.30	1/8"	6.30"	0.39"	0.71"	1.32"	1.50"
CAT50-SF0250-5.12	1/4"	5.12"	0.83"	1.06"	1.26"	1.50"
CAT50-SF0250-6.30	1/4"	6.30"	0.83"	1.06"	1.35"	1.50"
CAT50-SF0375-5.12	3/8"	5.12"	0.94"	1.26"	1.43"	2.00"
CAT50-SF0375-6.30	3/8"	6.30"	0.94"	1.26"	1.51"	2.00"
CAT50-SF0500-5.12	1/2"	5.12"	0.94"	1.26"	1.43"	2.00"
CAT50-SF0500-6.30	1/2"	6.30"	0.94"	1.26"	1.51"	2.00"
CAT50-SF0625-5.12	5/8"	5.12"	1.06"	1.34"	1.52"	1.75"
CAT50-SF0625-6.30	5/8"	6.30"	1.06"	1.34"	1.60"	1.75"
CAT50-SF0750-5.12	3/4"	5.12"	1.30"	1.65"	1.80"	2.25"
CAT50-SF0750-6.30	3/4"	6.30"	1.30"	1.65"	1.88"	2.25"
CAT50-SF1000-5.12	1"	5.12"	1.73"	2.09"	2.23"	2.25"
CAT50-SF1000-6.30	1"	6.30"	1.73"	2.09"	2.32"	2.25"
CAT50-SF1250-5.12	1.1/4"	5.12"	1.73"	2.09"	2.23"	2.25"
CAT50-SF1250-6.30	1.1/4"	6.30"	1.73"	2.09"	2.32"	2.25"

Part Number	D	A	D2	D3	D4	B
CAT50-SF3-160	3mm	160	10	18	34.18	38.12
CAT50-SF6-160	6mm	160	21	27	34.18	38.12
CAT50-SF8-160	8mm	160	21	27	34.18	38.12
CAT50-SF10-160	10mm	160	24	32	38.29	50.83
CAT50-SF12-160	12mm	160	24	32	38.29	50.83
CAT50-SF16-160	16mm	160	27	34	40.73	44.47
CAT50-SF20-160	20mm	160	33	42	47.85	57.18
CAT50-SF25-160	25mm	160	44	53	58.85	57.18
CAT50-SF32-160	32mm	160	44	53	58.85	57.18



RUNOUT COOLANT BALANCE

COOLANT PORT OPTION



STANDARD TYPE

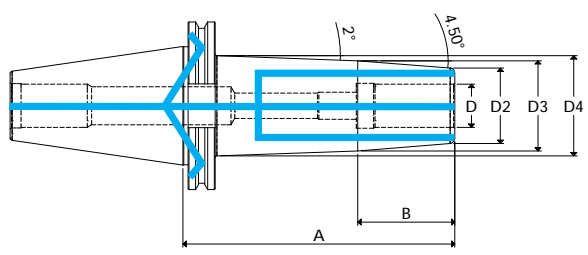


Part Number	D	A	D2	D3
CAT50-SF0250-3.15CP	1/4"	3.15"	0.83"	1.06"
CAT50-SF0375-3.15CP	3/8"	3.15"	0.94"	1.26"
CAT50-SF0500-3.15CP	1/2"	3.15"	0.94"	1.26"
CAT50-SF0625-3.15CP	5/8"	3.15"	1.06"	1.34"
CAT50-SF0750-3.15CP	3/4"	3.15"	1.30"	1.65"
CAT50-SF1000-3.94CP	1"	3.94"	1.73"	2.09"
CAT50-SF1250-3.94CP	1.1/4"	3.94"	1.73"	2.09"

METRIC

Part Number	D	A	D2	D3
CAT50-SF8-80CP	8mm	80	21	27
CAT50-SF10-80CP	10mm	80	24	32
CAT50-SF12-80CP	12mm	80	24	32
CAT50-SF16-80CP	16mm	80	27	34
CAT50-SF20-80CP	20mm	80	33	42
CAT50-SF25-100CP	25mm	100	44	53
CAT50-SF32-100CP	32mm	100	44	53

INCH



EXTENDED TYPE

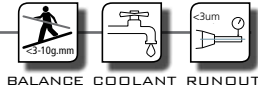


Part Number	D	A	D2	D3	D4	B
CAT50-SF0250-5.12CP	1/4"	5.12"	0.83"	1.06"	1.26"	1.50"
CAT50-SF0250-6.30CP	1/4"	6.30"	0.83"	1.06"	1.35"	1.50"
CAT50-SF0375-5.12CP	3/8"	5.12"	0.94"	1.26"	1.43"	2.00"
CAT50-SF0375-6.30CP	3/8"	6.30"	0.94"	1.26"	1.51"	2.00"
CAT50-SF0500-5.12CP	1/2"	5.12"	0.94"	1.26"	1.43"	2.00"
CAT50-SF0500-6.30CP	1/2"	6.30"	0.94"	1.26"	1.51"	2.00"
CAT50-SF0625-5.12CP	5/8"	5.12"	1.06"	1.34"	1.52"	1.75"
CAT50-SF0625-6.30CP	5/8"	6.30"	1.06"	1.34"	1.60"	1.75"
CAT50-SF0750-5.12CP	3/4"	5.12"	1.30"	1.65"	1.80"	2.25"
CAT50-SF0750-6.30CP	3/4"	6.30"	1.30"	1.65"	1.88"	2.25"
CAT50-SF1000-5.12CP	1"	5.12"	1.73"	2.09"	2.23"	2.25"
CAT50-SF1000-6.30CP	1"	6.30"	1.73"	2.09"	2.32"	2.25"
CAT50-SF1250-5.12CP	1.1/4"	5.12"	1.73"	2.09"	2.23"	2.25"
CAT50-SF1250-6.30CP	1.1/4"	6.30"	1.73"	2.09"	2.32"	2.25"

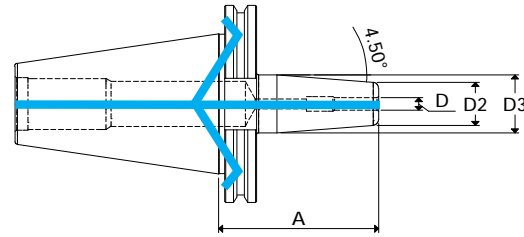
Part Number	D	A	D2	D3	D4	B
CAT50-SF8-160CP	8mm	160	21	27	34.18	38.12
CAT50-SF10-160CP	10mm	160	24	32	38.29	50.83
CAT50-SF12-160CP	12mm	160	24	32	38.29	50.83
CAT50-SF16-160CP	16mm	160	27	34	40.73	44.47
CAT50-SF20-160CP	20mm	160	33	42	47.85	57.18
CAT50-SF25-160CP	25mm	160	44	53	58.85	57.18
CAT50-SF32-160CP	32mm	160	44	53	58.85	57.18

Standard: DIN Form B (Plugged)  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .000040" to .00012" at 3 X Diameter of Tool  
 Balancing: <3g.mm at 20,000 RPM (CAT40)  
 <10g.mm at 15,000 RPM (CAT50)  
 Cooling: Center-thru and Flange Thru Coolant (plugged)  
 Face Coolant (CAT40 Standard and Extended only)

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37).**



MOLD TYPE



INCH

Part Number	D	A	D2	D3
CAT50-SF0125-3.15*	1/8"	3.15"	0.39"	0.71"
CAT50-SF0125-6.30MT*	1/8"	6.30"	0.35"	0.87"
CAT50-SF0250-3.15MT*	1/4"	3.15"	0.47"	0.83"
CAT50-SF0250-6.30MT*	1/4"	6.30"	0.47"	1.06"
CAT50-SF0375-3.15MT*	3/8"	3.15"	0.63"	0.98"
CAT50-SF0375-6.30MT*	3/8"	6.30"	0.63"	1.26"
CAT50-SF0500-3.15MT*	1/2"	3.15"	0.71"	1.06"
CAT50-SF0500-6.30MT*	1/2"	6.30"	0.71"	1.26"
CAT50-SF0625-3.15MT*	5/8"	3.15"	0.95"	1.30"
CAT50-SF0625-6.30MT*	5/8"	6.30"	0.95"	1.34"

**\*Pricing on Request**

METRIC

Part Number	D	A	D2	D3
CAT50-SF3-80	3mm	80	10	18
CAT50-SF3-160MT	3mm	160	9	22
CAT50-SF6-80MT	6mm	80	12	21
CAT50-SF6-160MT	6mm	160	12	27
CAT50-SF8-80MT	8mm	80	16	25
CAT50-SF8-160MT	8mm	160	16	27
CAT50-SF10-80MT	10mm	80	16	25
CAT50-SF10-160MT	10mm	160	16	32
CAT50-SF12-80MT	12mm	80	18	27
CAT50-SF12-160MT	12mm	160	18	32
CAT50-SF16-80MT	16mm	80	24	33
CAT50-SF16-160MT	16mm	160	24	34







## SHRINK FIT PACKAGES



SHRINK FIT UNIT + 10 SHRINK FIT HOLDERS

### INCLUDES:

### FEATURES

- Shrink and unshrink any type of tools and cutters (HSS, Carbide, Heavy Metal, Powdered Metal, etc.)
- Shrink 2- 40mm (5/64"-1.1/2" inch) shank sizes with same unit
- Inductor coil auto size detection eliminates manual parameter setting
- Easy set up to shrink sizes by quickly changing induction rings
- 200-240V/3 Phase/14 kW power required, no transformer needed
- Unique slide-out Control Module allows One-Day Service



**SHRINKER UNIT**



**COOLING UNIT**



**10 SHRINK FIT HOLDERS**



**5 PIECE INDUCTION RING SET**

2-5mm  
(5/64" - 3/16")

6-13mm  
(1/4" - 1/2")

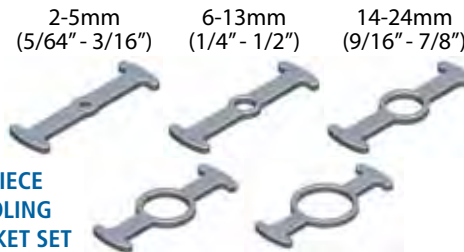
14-24mm  
(9/16" - 7/8")



25-32mm  
(1" - 1.1/4")

33-40mm  
(1.1/4" - 1.1/2")

**5 PIECE COOLING BRACKET SET**



2-5mm  
(5/64" - 3/16")

6-13mm  
(1/4" - 1/2")

14-24mm  
(9/16" - 7/8")

25-32mm  
(1" - 1.1/4")

33-40mm  
(1.1/4" - 1.1/2")



**CHUCK HOLDERS**

CHOOSE FROM THE TOOL PACKAGES BELOW:

### STANDARD TYPE

INCH

Part Number
CAT50-SF0125-3.15
CAT50-SF0250-3.15
CAT50-SF0375-3.15
CAT50-SF0500-3.15
CAT50-SF0625-3.15
CAT50-SF0750-3.15
CAT50-SF1000-3.94
CAT50-SF1250-3.94

METRIC

Part Number
CAT50-SF3-80
CAT50-SF6-80
CAT50-SF8-80
CAT50-SF10-80
CAT50-SF12-80
CAT50-SF16-80
CAT50-SF20-80
CAT50-SF25-100
CAT50-SF32-100

### MOLD TYPE

INCH

Part Number
CAT50-SF0125-3.15
CAT50-SF0250-3.15MT
CAT50-SF0375-3.15MT
CAT50-SF0500-3.15MT
CAT50-SF0625-3.15MT

METRIC

Part Number
CAT50-SF3-80
CAT50-SF6-80MT
CAT50-SF8-80MT
CAT50-SF10-80MT
CAT50-SF12-80MT
CAT50-SF16-80MT



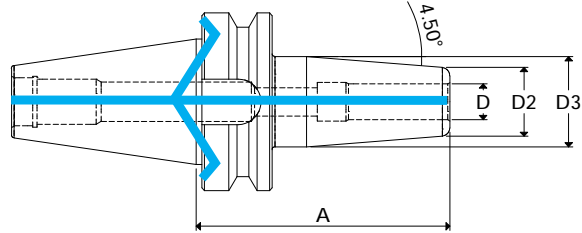
Scan here to see current package pricing.

Standard: JIS B 6339 Form B (Plugged)  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .000040" to .00012" at 3 X Diameter of Tool  
 Balancing: <1.5g.mm at 30,000 RPM (BT30)  
 <3g.mm at 20,000 RPM (BT40)  
 Cooling: Center-thru and Flange Thru Coolant (plugged)  
 Face Coolant (BT40 Standard and Extended only)

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37).**



STANDARD TYPE



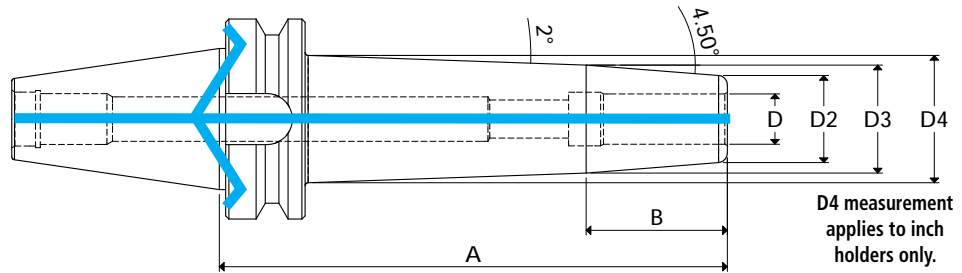
INCH

Part Number	D	A	D2	D3
BT30-SF0125-3.15	1/8"	3.15"	0.39"	0.71"
BT30-SF0250-3.15	1/4"	3.15"	0.83"	1.06"
BT30-SF0375-3.15	3/8"	3.15"	0.94"	1.22"
BT30-SF0500-3.15	1/2"	3.15"	0.94"	1.22"
BT30-SF0625-3.15	5/8"	3.15"	1.06"	1.34"
BT30-SF0750-3.15	3/4"	3.15"	1.30"	1.54"
BT40-SF0125-3.54	1/8"	3.54"	0.39"	0.71"
BT40-SF0250-3.54	1/4"	3.54"	0.79"	1.06"
BT40-SF0375-3.54	3/8"	3.54"	0.94"	1.26"
BT40-SF0500-3.54	1/2"	3.54"	0.94"	1.26"
BT40-SF0625-3.54	5/8"	3.54"	1.06"	1.34"
BT40-SF0750-3.54	3/4"	3.54"	1.30"	1.65"
BT40-SF1000-3.94	1"	3.94"	1.73"	2.09"

METRIC

Part Number	D	A	D2	D3
BT40-SF6-90	6mm	90	20	27
BT40-SF8-90	8mm	90	20	27
BT40-SF10-90	10mm	90	24	32
BT40-SF12-90	12mm	90	24	32
BT40-SF16-90	16mm	90	27	34
BT40-SF20-90	20mm	90	33	42
BT40-SF25-100	25mm	100	44	53

EXTENDED TYPE



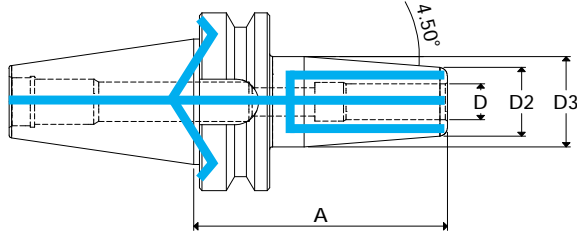
Part Number	D	A	D2	D3	D4	B
BT40-SF0125-6.30	1/8"	6.30"	0.39"	0.71"	1.32"	1.50"
BT40-SF0250-6.30	1/4"	6.30"	0.79"	1.06"	1.32"	1.50"
BT40-SF0375-6.30	3/8"	6.30"	0.94"	1.26"	1.49"	2.00"
BT40-SF0500-6.30	1/2"	6.30"	0.94"	1.26"	1.49"	2.00"
BT40-SF0625-6.30	5/8"	6.30"	1.06"	1.34"	1.58"	1.75"
BT40-SF0750-6.30	3/4"	6.30"	1.30"	1.65"	1.86"	2.25"
BT40-SF1000-6.30	1"	6.30"	1.73"	2.09"	2.30"	2.25"

Part Number	D	A	D2	D3	B
BT40-SF6-160	6mm	160	20	27	38.12
BT40-SF8-160	8mm	160	20	27	38.12
BT40-SF10-160	10mm	160	24	32	50.83
BT40-SF12-160	12mm	160	24	32	50.83
BT40-SF16-160	16mm	160	27	34	44.47
BT40-SF20-160	20mm	160	33	42	57.18
BT40-SF25-160	25mm	160	44	53	57.18



RUNDOUT COOLANT BALANCE

COOLANT PORT OPTION



STANDARD TYPE

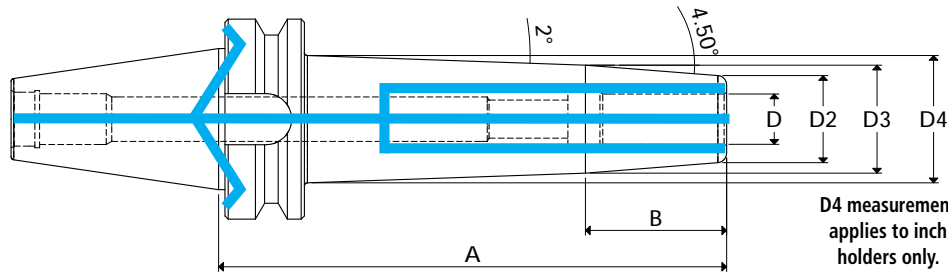


Part Number	D	A	D2	D3
BT40-SF0250-3.54CP	1/4"	3.54"	0.79"	1.06"
BT40-SF0375-3.54CP	3/8"	3.54"	0.94"	1.26"
BT40-SF0500-3.54CP	1/2"	3.54"	0.94"	1.26"
BT40-SF0625-3.54CP	5/8"	3.54"	1.06"	1.34"
BT40-SF0750-3.54CP	3/4"	3.54"	1.30"	1.65"
BT40-SF1000-3.94CP	1"	3.94"	1.73"	2.09"

Part Number	D	A	D2	D3
BT40-SF8-90CP	8mm	90	20	27
BT40-SF10-90CP	10mm	90	24	32
BT40-SF12-90CP	12mm	90	24	32
BT40-SF16-90CP	16mm	90	27	34
BT40-SF20-90CP	20mm	90	33	42
BT40-SF25-100CP	25mm	100	44	53

INCH

METRIC



EXTENDED TYPE



D4 measurement applies to inch holders only.

Part Number	D	A	D2	D3	D4	B
BT40-SF0250-6.30CP	1/4"	6.30"	0.79"	1.06"	1.32"	1.50"
BT40-SF0375-6.30CP	3/8"	6.30"	0.94"	1.26"	1.49"	2.00"
BT40-SF0500-6.30CP	1/2"	6.30"	0.94"	1.26"	1.49"	2.00"
BT40-SF0625-6.30CP	5/8"	6.30"	1.06"	1.34"	1.58"	1.75"
BT40-SF0750-6.30CP	3/4"	6.30"	1.30"	1.65"	1.86"	2.25"
BT40-SF1000-6.30CP	1"	6.30"	1.73"	2.09"	2.30"	2.25"

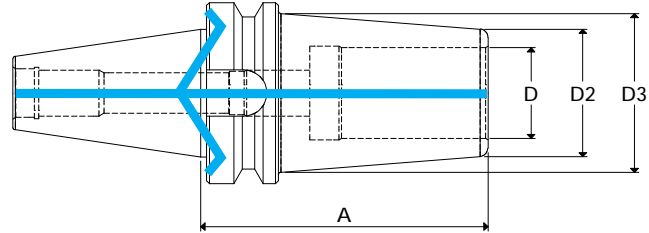
Part Number	D	A	D2	D3	B
BT40-SF8-160CP	8mm	160	20	27	38.12
BT40-SF10-160CP	10mm	160	24	32	50.83
BT40-SF12-160CP	12mm	160	24	32	50.83
BT40-SF16-160CP	16mm	160	27	34	44.47
BT40-SF20-160CP	20mm	160	33	42	57.18
BT40-SF25-160CP	25mm	160	44	53	57.18

Standard: JIS B 6339 Form B (Plugged)  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .000040" to .00012" at 3 X Diameter of Tool  
 Balancing: <1.5g.mm at 30,000 RPM (BT30)  
 <3g.mm at 20,000 RPM (BT40)  
 Cooling: Center-thru and Flange Thru Coolant - plugged (except for Ø ≥ 1inch)  
 Face Coolant (BT40 Standard and Extended only)

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37).**



**RIGIDITY TYPE**

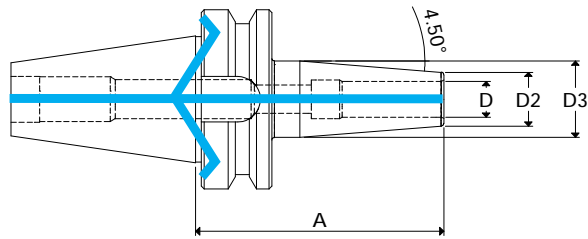


INCH

Part Number	D	A	D2	D3
BT40-SF0250-2.56RT	1/4"	2.56"	0.79"	1.02"
BT40-SF0375-2.56RT	3/8"	2.56"	0.95"	1.18"
BT40-SF0500-2.56RT	1/2"	2.56"	1.06"	1.30"
BT40-SF0625-2.76RT	5/8"	2.76"	1.30"	1.57"
BT40-SF0750-2.76RT	3/4"	2.76"	1.73"	2.00"
BT40-SF1000-2.76RT	1"	2.76"	1.81"	2.08"

\*Backup screws not included or used for rigidity type

**MOLD TYPE**

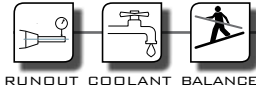


Part Number	D	A	D2	D3
BT40-SF0125-3.54	1/8"	3.54"	0.39"	0.71"
BT40-SF0125-6.30MT	1/8"	6.30"	0.35"	0.87"
BT40-SF0250-3.54MT	1/4"	3.54"	0.47"	0.83"
BT40-SF0250-6.30MT	1/4"	6.30"	0.47"	1.06"
BT40-SF0375-3.54MT	3/8"	3.54"	0.63"	0.98"
BT40-SF0375-6.30MT	3/8"	6.30"	0.63"	1.26"
BT40-SF0500-3.54MT	1/2"	3.54"	0.71"	1.06"
BT40-SF0500-6.30MT	1/2"	6.30"	0.71"	1.26"
BT40-SF0625-3.54MT	5/8"	3.54"	0.95"	1.30"
BT40-SF0625-6.30MT	5/8"	6.30"	0.95"	1.34"

Part Number	D	A	D2	D3
BT40-SF3-90MT	3mm	90	9	18
BT40-SF3-160MT	3mm	160	9	22
BT40-SF4-90MT	4mm	90	10	19
BT40-SF4-160MT	4mm	160	10	22
BT40-SF5-90MT	5mm	90	11	20
BT40-SF5-160MT	5mm	160	11	22
BT40-SF6-90MT	6mm	90	12	21
BT40-SF6-160MT	6mm	160	12	27
BT40-SF8-90MT	8mm	90	16	25
BT40-SF8-160MT	8mm	160	16	27
BT40-SF10-90MT	10mm	90	16	25
BT40-SF10-160MT	10mm	160	16	32
BT40-SF12-90MT	12mm	90	18	27
BT40-SF12-160MT	12mm	160	18	32
BT40-SF16-90MT	16mm	90	24	33
BT40-SF16-160MT	16mm	160	24	34



## SHRINK FIT PACKAGES



SHRINK FIT UNIT + 10 SHRINK FIT HOLDERS

### INCLUDES:

### FEATURES

- Shrink and unshrink any type of tools and cutters (HSS, Carbide, Heavy Metal, Powdered Metal, etc.)
- Shrink 2- 40mm (5/64"-1.1/2" inch) shank sizes with same unit
- Inductor coil auto size detection eliminates manual parameter setting
- Easy set up to shrink sizes by quickly changing induction rings
- 200-240V/3 Phase/14 kW power required, no transformer needed
- Unique slide-out Control Module allows One-Day Service



**SHRINKER UNIT**



**COOLING UNIT**



**10 SHRINK FIT HOLDERS**



**5 PIECE INDUCTION RING SET**

2-5mm  
(5/64" - 3/16")

6-13mm  
(1/4" - 1/2")

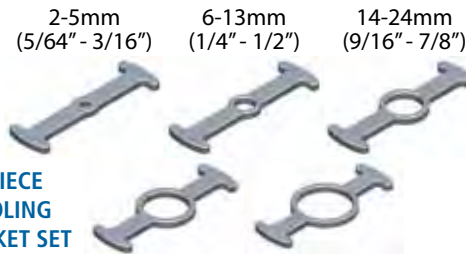
14-24mm  
(9/16" - 7/8")



**5 PIECE COOLING BRACKET SET**

25-32mm  
(1" - 1.1/4")

33-40mm  
(1.1/4" - 1.1/2")



**CHUCK HOLDERS**

25-32mm  
(1" - 1.1/4")

33-40mm  
(1.1/4" - 1.1/2")

CHOOSE FROM THE TOOL PACKAGES BELOW:

### STANDARD TYPE

Part Number
BT30SF-0125-3.15
BT30SF-0250-3.15
BT30SF-0375-3.15
BT30SF-0500-3.15
BT30SF-0625-3.15
BT30SF-0750-3.15
BT40-SF0125-3.54
BT40-SF0250-3.54
BT40-SF0375-3.54
BT40-SF0500-3.54
BT40-SF0625-3.54
BT40-SF0750-3.54
BT40-SF1000-3.94

INCH

METRIC

Part Number
BT40-SF6-90
BT40-SF8-90
BT40-SF10-90
BT40-SF12-90
BT40-SF16-90
BT40-SF20-90
BT40-SF25-100

### RIGIDITY TYPE

Part Number
BT40-SF0250-2.56RT
BT40-SF0375-2.56RT
BT40-SF0500-2.56RT
BT40-SF0625-2.76RT
BT40-SF0750-2.76RT
BT40-SF1000-2.76RT

INCH

### MOLD TYPE

Part Number
BT40-SF0125-3.54
BT40-SF0250-3.54MT
BT40-SF0375-3.54MT
BT40-SF0500-3.54MT
BT40-SF0625-3.54MT

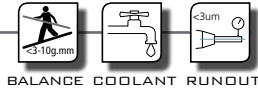
Part Number
BT40-SF3-90MT
BT40-SF6-90MT
BT40-SF8-90MT
BT40-SF10-90MT
BT40-SF12-90MT
BT40-SF16-90MT



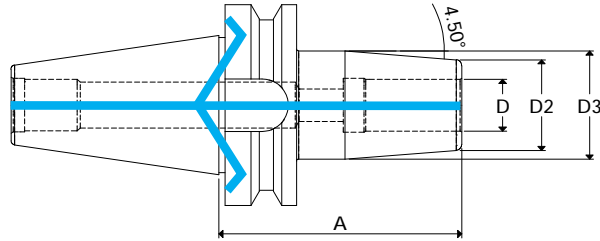
Scan here to see current package pricing.

Standard: JIS B 6339 Form B (Plugged)  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .000040" to .00012" at 3 X Diameter of Tool  
 Balancing: <3g.mm at 20,000 RPM (BT40)  
 <10g.mm at 15,000 RPM (BT50)  
 Cooling: Center-thru and Flange Thru Coolant (plugged)  
 Face Coolant (BT40 Standard and Extended only)

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37).**



STANDARD TYPE



INCH

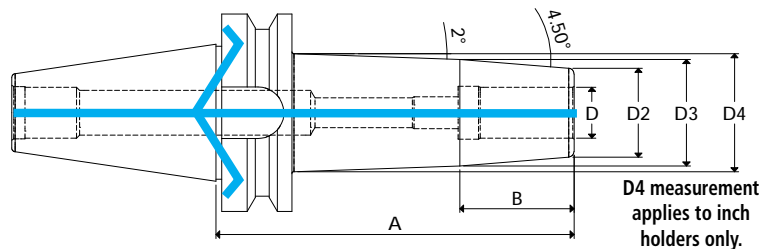
Part Number	D	A	D2	D3
BT50-SF0125-3.94*	1/8"	3.94"	0.39"	0.71"
BT50-SF0250-3.94*	1/4"	3.94"	0.79"	1.06"
BT50-SF0375-3.94*	3/8"	3.94"	0.94"	1.26"
BT50-SF0500-3.94*	1/2"	3.94"	0.94"	1.26"
BT50-SF0625-3.94*	5/8"	3.94"	1.06"	1.34"
BT50-SF0750-3.94*	3/4"	3.94"	1.30"	1.65"
BT50-SF1000-3.94*	1"	3.94"	1.73"	2.09"
BT50-SF1250-3.94*	1.1/4"	3.94"	1.73"	2.09"

METRIC

Part Number	D	A	D2	D3
BT50-SF6-100	6mm	100	20	27
BT50-SF8-100	8mm	100	20	27
BT50-SF10-100	10mm	100	24	32
BT50-SF12-100	12mm	100	24	32
BT50-SF16-100	16mm	100	27	34
BT50-SF20-100	20mm	100	33	42
BT50-SF25-100	25mm	100	44	53
BT50-SF32-100	32mm	100	44	53

\*Pricing on Request

EXTENDED TYPE



INCH

Part Number	D	A	D2	D3	D4	B
BT50-SF0125-6.30*	1/8"	6.30"	0.39"	1.15"	1.32"	1.50"
BT50-SF0250-6.30*	1/4"	6.30"	0.79"	1.06"	1.32"	1.50"
BT50-SF0375-6.30*	3/8"	6.30"	0.94"	1.26"	1.32"	1.50"
BT50-SF0500-6.30*	1/2"	6.30"	0.94"	1.26"	1.49"	2.00"
BT50-SF0625-6.30*	5/8"	6.30"	1.06"	1.34"	1.49"	2.00"
BT50-SF0750-6.30*	3/4"	6.30"	1.30"	1.65"	1.78"	1.75"
BT50-SF1000-6.30*	1"	6.30"	1.73"	2.09"	2.29"	2.25"
BT50-SF1250-6.30*	1.1/4"	6.30"	1.73"	2.09"	2.30"	2.25"

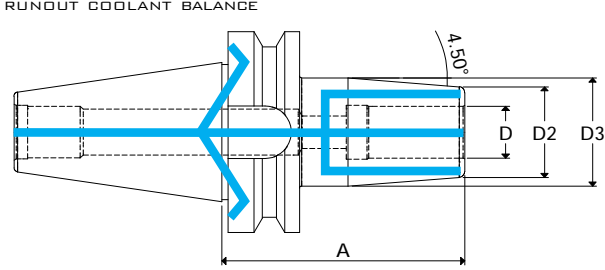
METRIC

Part Number	D	A	D2	D3	B
BT50-SF6-160	6mm	160	20	27	38.12
BT50-SF8-160	8mm	160	20	27	38.12
BT50-SF10-160	10mm	160	24	32	50.83
BT50-SF12-160	12mm	160	24	32	50.83
BT50-SF16-160	16mm	160	27	34	44.47
BT50-SF20-160	20mm	160	33	42	57.18
BT50-SF25-160	25mm	160	44	53	57.18
BT50-SF32-160	32mm	160	44	53	57.18

\*Pricing on Request



COOLANT PORT OPTION



STANDARD TYPE



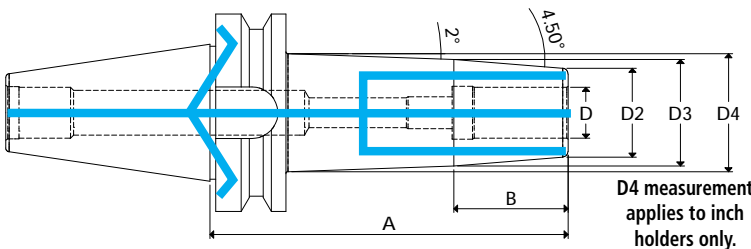
Part Number	D	A	D2	D3
BT50-SF0250-3.94CP*	1/4"	3.94"	0.79"	1.06"
BT50-SF0375-3.94CP*	3/8"	3.94"	0.94"	1.26"
BT50-SF0500-3.94CP*	1/2"	3.94"	0.94"	1.26"
BT50-SF0625-3.94CP*	5/8"	3.94"	1.06"	1.34"
BT50-SF0750-3.94CP*	3/4"	3.94"	1.30"	1.65"
BT50-SF1000-3.94CP*	1"	3.94"	1.73"	2.09"
BT50-SF1250-3.94CP*	1.1/4"	3.94"	1.73"	2.09"

Part Number	D	A	D2	D3
BT50-SF8-100CP*	8mm	100	20	27
BT50-SF10-100CP*	10mm	100	24	32
BT50-SF12-100CP*	12mm	100	24	32
BT50-SF16-100CP*	16mm	100	27	34
BT50-SF20-100CP*	20mm	100	33	42
BT50-SF25-100CP*	25mm	100	44	53
BT50-SF32-100CP*	32mm	100	44	53

INCH

METRIC

\*Pricing on Request



EXTENDED TYPE



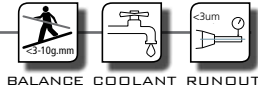
Part Number	D	A	D2	D3	D4	B
BT50-SF0250-6.30CP*	1/4"	6.30"	0.79"	1.06"	1.32"	1.50"
BT50-SF0375-6.30CP*	3/8"	6.30"	0.94"	1.26"	1.32"	1.50"
BT50-SF0500-6.30CP*	1/2"	6.30"	0.94"	1.26"	1.49"	2.00"
BT50-SF0625-6.30CP*	5/8"	6.30"	1.06"	1.34"	1.49"	2.00"
BT50-SF0750-6.30CP*	3/4"	6.30"	1.30"	1.65"	1.78"	1.75"
BT50-SF1000-6.30CP*	1"	6.30"	1.73"	2.09"	2.29"	2.25"
BT50-SF1250-6.30CP*	1.1/4"	6.30"	1.73"	2.09"	2.30"	2.25"

Part Number	D	A	D2	D3	B
BT50-SF8-160CP*	8mm	160	20	27	38.12
BT50-SF10-160CP*	10mm	160	24	32	50.83
BT50-SF12-160CP*	12mm	160	24	32	50.83
BT50-SF16-160CP*	16mm	160	27	34	44.47
BT50-SF20-160CP*	20mm	160	33	42	57.18
BT50-SF25-160CP*	25mm	160	44	53	57.18
BT50-SF32-160CP*	32mm	160	44	53	57.18

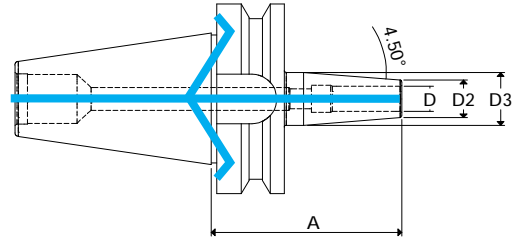
\*Pricing on Request

Standard: JIS B 6339 Form B (Plugged)  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .000040" to .00012" at 3 X Diameter of Tool  
 Balancing: <3g.mm at 20,000 RPM (BT40)  
 <10g.mm at 15,000 RPM (BT50)  
 Cooling: Center-thru and Flange Thru Coolant (plugged)  
 Face Coolant (BT40 Standard and Extended only)

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37).**



MOLD TYPE



INCH

Part Number	D	A	D2	D3
BT50-SF0125-3.94*	1/8"	3.94"	0.39"	0.71"
BT50-SF0250-3.94MT*	1/4"	3.94"	0.47"	0.79"
BT50-SF0250-6.30MT*	1/4"	6.30"	0.47"	1.06"
BT50-SF0312-3.94MT*	5/16"	3.94"	0.63"	0.94"
BT50-SF0312-6.30MT*	5/16"	6.30"	0.63"	1.06"
BT50-SF0375-3.94MT*	3/8"	3.94"	0.63"	0.94"
BT50-SF0375-6.30MT*	3/8"	6.30"	0.63"	1.26"
BT50-SF0500-3.94MT*	1/2"	3.94"	0.71"	1.02"
BT50-SF0500-6.30MT*	1/2"	6.30"	0.71"	1.26"
BT50-SF0625-3.94MT*	5/8"	3.94"	0.94"	1.26"
BT50-SF0625-6.30MT*	5/8"	6.30"	0.94"	1.34"

\*Pricing on Request

METRIC

Part Number	D	A	D2	D3
BT50-SF3-100MT	3mm	100	9	17
BT50-SF3-160MT	3mm	160	9	22
BT50-SF6-100MT	6mm	100	12	20
BT50-SF6-160MT	6mm	160	12	27
BT50-SF8-100MT	8mm	100	16	24
BT50-SF8-160MT	8mm	160	16	27
BT50-SF10-100MT	10mm	100	16	24
BT50-SF10-160MT	10mm	160	16	32
BT50-SF12-100MT	12mm	100	18	26
BT50-SF12-160MT	12mm	160	18	32
BT50-SF16-100MT	16mm	100	24	32
BT50-SF16-160MT	16mm	160	24	34







# SHRINK FIT PACKAGES



RUNOUT COOLANT BALANCE

SHRINK FIT UNIT + 10 SHRINK FIT HOLDERS

## INCLUDES:

## FEATURES

- Shrink and unshrink any type of tools and cutters (HSS, Carbide, Heavy Metal, Powdered Metal, etc.)
- Shrink 2- 40mm (5/64"-1.1/2" inch) shank sizes with same unit
- Inductor coil auto size detection eliminates manual parameter setting
- Easy set up to shrink sizes by quickly changing induction rings
- 200-240V/3 Phase/14 kW power required, no transformer needed
- Unique slide-out Control Module allows One-Day Service



SHRINKER UNIT



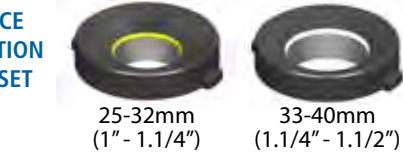
COOLING UNIT



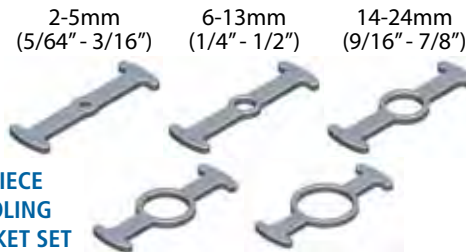
10 SHRINK FIT HOLDERS



5 PIECE INDUCTION RING SET



5 PIECE COOLING BRACKET SET



CHUCK HOLDERS

2-5mm  
(5/64" - 3/16")

6-13mm  
(1/4" - 1/2")

14-24mm  
(9/16" - 7/8")

2-5mm  
(5/64" - 3/16")

6-13mm  
(1/4" - 1/2")

14-24mm  
(9/16" - 7/8")

25-32mm  
(1" - 1.1/4")

33-40mm  
(1.1/4" - 1.1/2")

25-32mm  
(1" - 1.1/4")

33-40mm  
(1.1/4" - 1.1/2")

CHOOSE FROM THE TOOL PACKAGES BELOW:

### STANDARD TYPE

INCH

Part Number
BT50-SF0125-3.94
BT50-SF0250-3.94
BT50-SF0375-3.94
BT50-SF0500-3.94
BT50-SF0625-3.94
BT50-SF0750-3.94
BT50-SF1000-3.94
BT50-SF1250-3.94

METRIC

Part Number
BT50-SF3-100
BT50-SF6-100
BT50-SF8-100
BT50-SF10-100
BT50-SF12-100
BT50-SF16-100
BT50-SF20-100
BT50-SF25-100
BT50-SF32-100

### MOLD TYPE

INCH

Part Number
BT50-SF0125-3.94
BT50-SF0250-3.94MT
BT50-SF0312-3.94MT
BT50-SF0375-3.94MT
BT50-SF0500-3.94MT
BT50-SF0625-3.94MT

METRIC

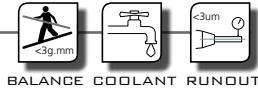
Part Number
BT50-SF3-100MT
BT50-SF6-100MT
BT50-SF8-100MT
BT50-SF10-100MT
BT50-SF12-100MT
BT50-SF16-100MT



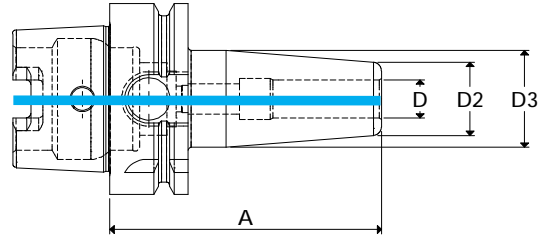
Scan here to see current package pricing.

Standard: DIN69893A/ DIN 69882-8  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .000040" to .00012" at 3 X Diameter of Tool  
 Balancing: <3g.mm at 24,000 RPM (HSK63A)  
 Cooling: Center-thru and Face Coolant (HSK63A Standard and Extended only)

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37). HSK63A Coolant Tube and wrench (not included, see page 37 to order).**



STANDARD TYPE



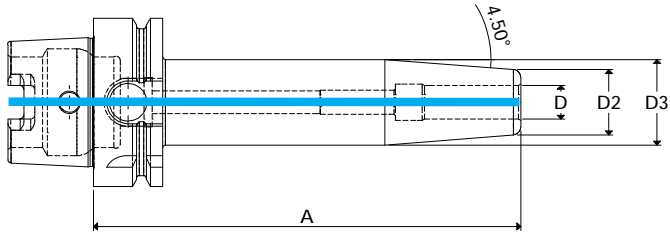
INCH

Part Number	D	A	D2	D3
H63A-SF0250-3.15	1/4"	3.15"	0.79"	1.06"
H63A-SF0312-3.15	5/16"	3.15"	0.79"	1.06"
H63A-SF0375-3.35	3/8"	3.35"	0.94"	1.26"
H63A-SF0500-3.54	1/2"	3.54"	0.94"	1.26"
H63A-SF0625-3.74	5/8"	3.74"	1.06"	1.34"
H63A-SF0750-3.94	3/4"	3.94"	1.30"	1.65"
H63A-SF1000-4.53	1"	4.53"	1.73"	2.09"

METRIC

Part Number	D	A	D2	D3
H63A-SF6-80	6mm	80	20	27
H63A-SF8-80	8mm	80	20	27
H63A-SF10-85	10mm	85	24	32
H63A-SF12-90	12mm	90	24	32
H63A-SF16-95	16mm	95	27	34
H63A-SF20-100	20mm	100	33	42
H63A-SF25-115	25mm	115	44	53

EXTENDED TYPE

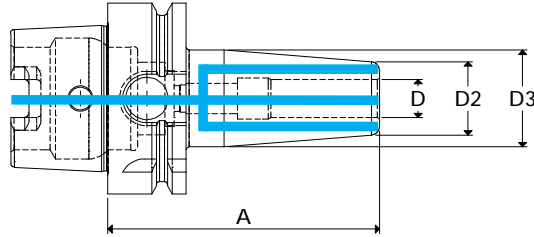


Part Number	D	A	D2	D3
H63A-SF0250-4.72	1/4"	4.72"	0.79"	1.06"
H63A-SF0250-6.30	1/4"	6.30"	0.79"	1.06"
H63A-SF0312-4.72	5/16"	4.72"	0.79"	1.06"
H63A-SF0312-6.30	5/16"	6.30"	0.79"	1.06"
H63A-SF0375-4.72	3/8"	4.72"	0.95"	1.26"
H63A-SF0375-6.30	3/8"	6.30"	0.95"	1.26"
H63A-SF0500-4.72	1/2"	4.72"	0.95"	1.26"
H63A-SF0500-6.30	1/2"	6.30"	0.95"	1.26"
H63A-SF0625-4.72	5/8"	4.72"	1.06"	1.34"
H63A-SF0625-6.30	5/8"	6.30"	1.06"	1.34"
H63A-SF0750-6.30	3/4"	6.30"	1.30"	1.65"
H63A-SF1000-6.30	1"	6.30"	1.73"	2.07"

Part Number	D	A	D2	D3
H63A-SF6-120	6mm	120	20	27
H63A-SF6-160	6mm	160	20	27
H63A-SF8-120	8mm	120	20	27
H63A-SF8-160	8mm	160	20	27
H63A-SF10-120	10mm	120	24	32
H63A-SF10-160	10mm	160	24	32
H63A-SF12-120	12mm	120	24	32
H63A-SF12-160	12mm	160	24	32
H63A-SF16-120	16mm	120	27	34
H63A-SF16-160	16mm	160	27	34
H63A-SF20-160	20mm	160	33	42
H63A-SF25-160	25mm	160	44	52.6



COOLANT PORT OPTION



STANDARD TYPE

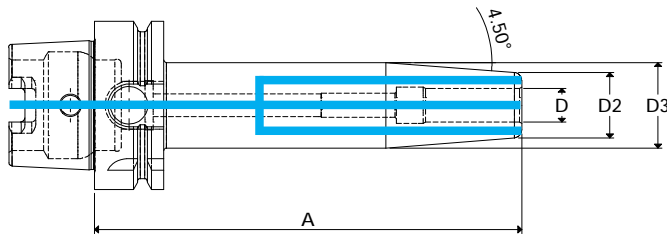


Part Number	D	A	D2	D3
H63A-SF0250-3.15CP	1/4"	3.15"	0.79"	1.06"
H63A-SF0312-3.15CP	5/16"	3.15"	0.79"	1.06"
H63A-SF0375-3.15CP	3/8"	3.35"	0.94"	1.26"
H63A-SF0500-3.54CP	1/2"	3.54"	0.94"	1.26"
H63A-SF0625-3.74CP	5/8"	3.74"	1.06"	1.34"
H63A-SF0750-3.94CP	3/4"	3.94"	1.30"	1.65"
H63A-SF1000-4.53CP	1"	4.53"	1.73"	2.09"

METRIC

Part Number	D	A	D2	D3
H63A-SF8-80CP	8mm	80	20	27
H63A-SF10-85CP	10mm	85	24	32
H63A-SF12-90CP	12mm	90	24	32
H63A-SF16-95CP	16mm	95	27	34
H63A-SF20-100CP	20mm	100	33	42
H63A-SF25-115CP	25mm	115	44	53

INCH



EXTENDED TYPE



Part Number	D	A	D2	D3
H63A-SF0250-4.72CP	1/4"	4.72"	0.79"	1.06"
H63A-SF0250-6.30CP	1/4"	6.30"	0.79"	1.06"
H63A-SF0312-4.72CP	5/16"	4.72"	0.79"	1.06"
H63A-SF0312-6.30CP	5/16"	6.30"	0.79"	1.06"
H63A-SF0375-4.72CP	3/8"	4.72"	0.95"	1.26"
H63A-SF0375-6.30CP	3/8"	6.30"	0.95"	1.26"
H63A-SF0500-4.72CP	1/2"	4.72"	0.95"	1.26"
H63A-SF0500-6.30CP	1/2"	6.30"	0.95"	1.26"
H63A-SF0625-4.72CP	5/8"	4.72"	1.06"	1.34"
H63A-SF0625-6.30CP	5/8"	6.30"	1.06"	1.34"
H63A-SF0750-6.30CP	3/4"	6.30"	1.30"	1.65"
H63A-SF1000-6.30CP	1"	6.30"	1.73"	2.07"

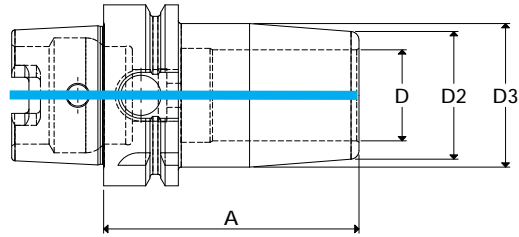
Part Number	D	A	D2	D3
H63A-SF8-120CP	8mm	120	20	27
H63A-SF8-160CP	8mm	160	20	27
H63A-SF10-120CP	10mm	120	24	32
H63A-SF10-160CP	10mm	160	24	32
H63A-SF12-120CP	12mm	120	24	32
H63A-SF12-160CP	12mm	160	24	32
H63A-SF16-120CP	16mm	120	27	34
H63A-SF16-160CP	16mm	160	27	34
H63A-SF20-160CP	20mm	160	33	42
H63A-SF25-160CP	25mm	160	44	52.6

Standard: DIN69893A  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .000040" to .00012" at 3 X Diameter of Tool  
 Balancing: <3g.mm at 24,000 RPM (HSK63A)  
 <3g.mm at 33,000 RPM (HSK80F)  
 <5g.mm at 15,000 RPM (HSK100A)  
 Cooling: Center-thru and Face Coolant (HSK63A Standard and Extended only)

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37). HSK63A Coolant Tube and wrench (not included, see page 37 to order).**



**RIGIDITY TYPE**

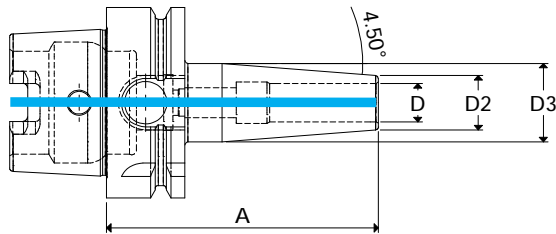


INCH

Part Number	D	A	D2	D3
H63A-SF0250-2.56RT	1/4"	2.56"	0.79"	1.03"
H63A-SF0375-2.56RT	3/8"	2.56"	0.95"	1.19"
H63A-SF0500-2.95RT	1/2"	2.95"	1.06"	1.37"
H63A-SF0625-2.95RT	5/8"	2.95"	1.30"	1.60"
H63A-SF0750-2.95RT	3/4"	2.95"	1.73"	2.04"
H63A-SF1000-3.35RT	1"	3.35"	1.81"	2.18"

\*Backup screws not included or used for rigidity type

**MOLD TYPE**

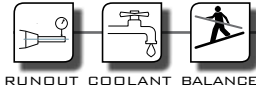


Part Number	D	A	D2	D3
H63A-SF0125-3.15MT	1/8"	3.15"	0.35"	0.63"
H63A-SF0125-6.30MT	1/8"	6.30"	0.35"	0.87"
H63A-SF0250-3.15MT	1/4"	3.15"	0.47"	0.75"
H63A-SF0250-6.30MT	1/4"	6.30"	0.47"	1.06"
H63A-SF0375-3.15MT	3/8"	3.15"	0.63"	0.91"
H63A-SF0375-6.30MT	3/8"	6.30"	0.63"	1.26"
H63A-SF0500-3.15MT	1/2"	3.15"	0.71"	1.02"
H63A-SF0500-6.30MT	1/2"	6.30"	0.71"	1.26"
H63A-SF0625-3.15MT	5/8"	3.15"	0.95"	1.30"
H63A-SF0625-6.30MT	5/8"	6.30"	0.95"	1.34"

Part Number	D	A	D2	D3
H63A-SF3-80MT	3mm	80	9	16
H63A-SF3-160MT	3mm	160	9	22
H63A-SF6-80MT	6mm	80	12	19
H63A-SF6-160MT	6mm	160	12	27
H63A-SF10-85MT	10mm	85	16	23
H63A-SF10-160MT	10mm	160	16	32
H63A-SF12-90MT	12mm	90	18	26
H63A-SF12-160MT	12mm	160	18	32
H63A-SF16-95MT	16mm	95	24	33
H63A-SF16-160MT	16mm	160	24	34



## SHRINK FIT PACKAGES



SHRINK FIT UNIT + 10 SHRINK FIT HOLDERS

### INCLUDES:

### FEATURES

- Shrink and unshrink any type of tools and cutters (HSS, Carbide, Heavy Metal, Powdered Metal, etc.)
- Shrink 2- 40mm (5/64"-1.1/2" inch) shank sizes with same unit
- Inductor coil auto size detection eliminates manual parameter setting
- Easy set up to shrink sizes by quickly changing induction rings
- 200-240V/3 Phase/14 kW power required, no transformer needed
- Unique slide-out Control Module allows One-Day Service



**SHRINKER UNIT**



**COOLING UNIT**



**10 SHRINK FIT HOLDERS**



**5 PIECE INDUCTION RING SET**

2-5mm  
(5/64" - 3/16")

6-13mm  
(1/4" - 1/2")

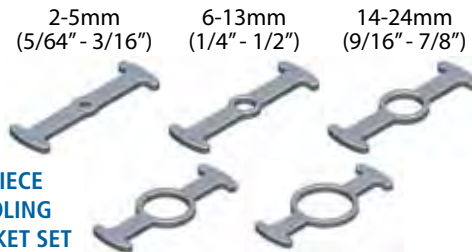
14-24mm  
(9/16" - 7/8")



**5 PIECE COOLING BRACKET SET**

25-32mm  
(1" - 1.1/4")

33-40mm  
(1.1/4" - 1.1/2")



**CHUCK HOLDERS**

25-32mm  
(1" - 1.1/4")

33-40mm  
(1.1/4" - 1.1/2")

CHOOSE FROM THE TOOL PACKAGES BELOW:

### STANDARD TYPE

INCH

Part Number
H63A-SF0250-3.15
H63A-SF0375-3.35
H63A-SF0500-3.54
H63A-SF0625-3.74
H63A-SF0750-3.94
H63A-SF1000-4.53

METRIC

Part Number
H63A-SF6-80
H63A-SF10-85
H63A-SF12-90
H63A-SF16-95
H63A-SF20-100
H63A-SF25-115

### RIGIDITY TYPE

INCH

Part Number
H63A-SF0250-2.56RT
H63A-SF0375-2.56RT
H63A-SF0500-2.95RT
H63A-SF0625-2.95RT
H63A-SF0750-2.95RT
H63A-SF1000-3.35RT

### MOLD TYPE

Part Number
H63A-SF0125-3.15MT
H63A-SF0250-3.15MT
H63A-SF0375-3.15MT
H63A-SF0500-3.15MT
H63A-SF0625-3.15MT

Part Number
H63A-SF3-80MT
H63A-SF6-80MT
H63A-SF10-85MT
H63A-SF12-90MT
H63A-SF16-95MT



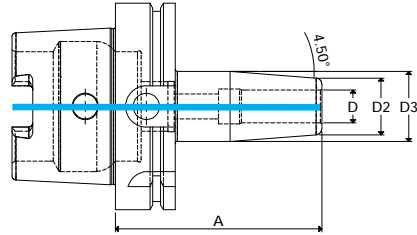
Scan here to see current package pricing.

Standard: DIN69893A/ DIN 69882-8  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .000040" to .00012" at 3 X Diameter of Tool  
 Balancing: <5g.mm at 15,000 RPM (HSK100A)  
 Cooling: Center-thru and Face Coolant (HSK100A Standard and Extended only)

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37). HSK100A Coolant Tube and wrench (not included, see page 37 to order).**



STANDARD TYPE



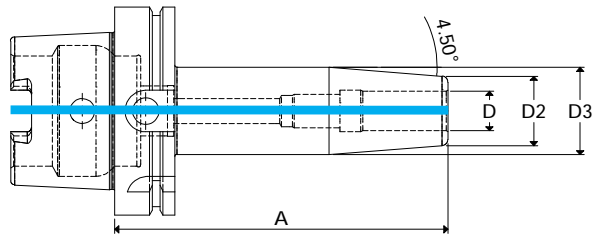
INCH

Part Number	D	A	D2	D3
H100A-SF0250-3.54	1/4"	3.54"	0.83"	1.14"
H100A-SF0375-3.54	3/8"	3.54"	0.94"	1.26"
H100A-SF0500-3.74	1/2"	3.74"	0.94"	1.26"
H100A-SF0625-3.94	5/8"	3.94"	1.06"	1.34"
H100A-SF0750-4.13	3/4"	4.13"	1.30"	1.65"
H100A-SF1000-4.53	1"	4.53"	1.73"	2.09"
H100A-SF1250-4.72	1.1/4"	4.72"	1.73"	2.09"

METRIC

Part Number	D	A	D2	D3
H100A-SF6-85	6mm	85	21	27
H100A-SF10-90	10mm	90	24	32
H100A-SF12-95	12mm	95	24	32
H100A-SF16-100	16mm	100	27	34
H100A-SF20-105	20mm	105	33	42
H100A-SF25-115	25mm	115	44	53
H100A-SF32-120	32mm	120	44	53

EXTENDED TYPE



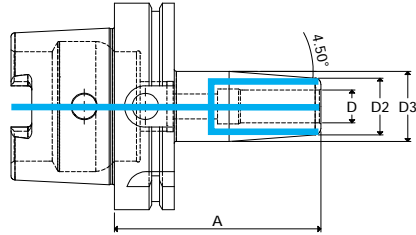
Part Number	D	A	D2	D3
H100A-SF0250-6.30	1/4"	6.30"	0.83"	1.06"
H100A-SF0375-6.30	3/8"	6.30"	0.94"	1.26"
H100A-SF0500-6.30	1/2"	6.30"	0.94"	1.26"
H100A-SF0625-6.30	5/8"	6.30"	1.06"	1.34"
H100A-SF0750-6.30	3/4"	6.30"	1.30"	1.65"
H100A-SF1000-6.30	1"	6.30"	1.73"	2.09"
H100A-SF1250-6.30	1.1/4"	6.30"	1.73"	2.09"

Part Number	D	A	D2	D3
H100A-SF6-160	6mm	160	21	27
H100A-SF10-160	10mm	160	24	32
H100A-SF12-160	12mm	160	24	32
H100A-SF16-160	16mm	160	27	34
H100A-SF20-160	20mm	160	33	42
H100A-SF25-160	25mm	160	44	53
H100A-SF32-160	32mm	160	44	53



RUNOUT COOLANT BALANCE

COOLANT PORT OPTION



STANDARD TYPE

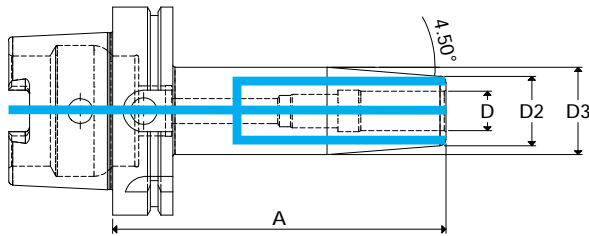


Part Number	D	A	D2	D3
H100A-SF0250-3.54CP	1/4"	3.54"	0.83"	1.14"
H100A-SF0375-3.54CP	3/8"	3.54"	0.94"	1.26"
H100A-SF0500-3.74CP	1/2"	3.74"	0.94"	1.26"
H100A-SF0625-3.94CP	5/8"	3.94"	1.06"	1.34"
H100A-SF0750-4.13CP	3/4"	4.13"	1.30"	1.65"
H100A-SF1000-4.53CP	1"	4.53"	1.73"	2.09"
H100A-SF1250-4.72CP	1.1/4"	4.72"	1.73"	2.09"

Part Number	D	A	D2	D3
H100A-SF10-90CP	10mm	90	24	32
H100A-SF12-95CP	12mm	95	24	32
H100A-SF16-100CP	16mm	100	27	34
H100A-SF20-105CP	20mm	105	33	42
H100A-SF25-115CP	25mm	115	44	53
H100A-SF32-120CP	32mm	120	44	53

INCH

METRIC



EXTENDED TYPE



Part Number	D	A	D2	D3
H100A-SF0250-6.30CP	1/4"	6.30"	0.83"	1.06"
H100A-SF0375-6.30CP	3/8"	6.30"	0.94"	1.26"
H100A-SF0500-6.30CP	1/2"	6.30"	0.94"	1.26"
H100A-SF0625-6.30CP	5/8"	6.30"	1.06"	1.34"
H100A-SF0750-6.30CP	3/4"	6.30"	1.30"	1.65"
H100A-SF1000-6.30CP	1"	6.30"	1.73"	2.09"
H100A-SF1250-6.30CP	1.1/4"	6.30"	1.73"	2.09"

Part Number	D	A	D2	D3
H100A-SF10-160CP	10mm	160	24	32
H100A-SF12-160CP	12mm	160	24	32
H100A-SF16-160CP	16mm	160	27	34
H100A-SF20-160CP	20mm	160	33	42
H100A-SF25-160CP	25mm	160	44	53
H100A-SF32-160CP	32mm	160	44	53

Standard: DIN69893A  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .000040" to .00012" at 3 X Diameter of Tool  
 Balancing: <5g.mm at 15,000 RPM (HSK100A)  
 Cooling: Center-thru and Face Coolant (HSK100A Standard and Extended only)

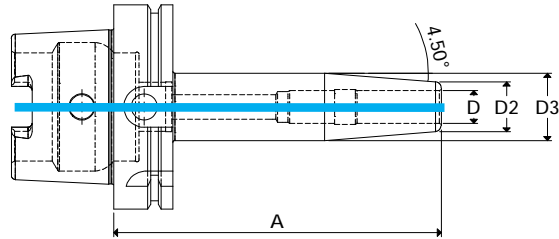
Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37). HSK100A Coolant Tube and wrench (not included, see page 37 to order).**



MOLD TYPE



INCH



Part Number	D	A	D2	D3
H100A-SF0250-3.35MT	1/4"	3.35"	0.47"	0.75"
H100A-SF0375-3.54MT	3/8"	3.54"	0.63"	0.91"
H100A-SF0500-3.74MT	1/2"	3.74"	0.71"	1.02"
H100A-SF0625-3.94MT	5/8"	3.94"	0.95"	1.30"

METRIC

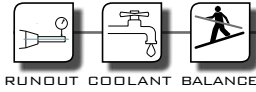
Part Number	D	A	D2	D3
H100A-SF6-85MT	6mm	85	12	19
H100A-SF10-90MT	10mm	90	16	23
H100A-SF12-95MT	12mm	95	18	26
H100A-SF16-100MT	16mm	100	24	33







## SHRINK FIT PACKAGES



RUNOUT COOLANT BALANCE

SHRINK FIT UNIT + 10 SHRINK FIT HOLDERS

### INCLUDES:

### FEATURES

- Shrink and unshrink any type of tools and cutters (HSS, Carbide, Heavy Metal, Powdered Metal, etc.)
- Shrink 2- 40mm (5/64"-1.1/2" inch) shank sizes with same unit
- Inductor coil auto size detection eliminates manual parameter setting
- Easy set up to shrink sizes by quickly changing induction rings
- 200-240V/3 Phase/14 kW power required, no transformer needed
- Unique slide-out Control Module allows One-Day Service



**SHRINKER UNIT**



**COOLING UNIT**



**10 SHRINK FIT HOLDERS**

2-5mm (5/64" - 3/16")    6-13mm (1/4" - 1/2")    14-24mm (9/16" - 7/8")



**5 PIECE INDUCTION RING SET**



25-32mm (1" - 1.1/4")    33-40mm (1.1/4" - 1.1/2")

**5 PIECE COOLING BRACKET SET**

2-5mm (5/64" - 3/16")    6-13mm (1/4" - 1/2")    14-24mm (9/16" - 7/8")



25-32mm (1" - 1.1/4")    33-40mm (1.1/4" - 1.1/2")



**CHUCK HOLDERS**

CHOOSE FROM THE TOOL PACKAGES BELOW:

### STANDARD TYPE

INCH

Part Number
H100A-SF0250-3.54
H100A-SF0375-3.54
H100A-SF0500-3.74
H100A-SF0625-3.94
H100A-SF0750-4.13
H100A-SF1000-4.53
H100A-SF1250-4.72

METRIC

Part Number
H100A-SF6-85
H100A-SF10-90
H100A-SF12-95
H100A-SF16-100
H100A-SF20-105
H100A-SF25-115
H100A-SF32-120

### MOLD TYPE

INCH

Part Number
H100A-SF0250-3.35MT
H100A-SF0375-3.54MT
H100A-SF0500-3.74MT
H100A-SF0625-3.94MT

METRIC

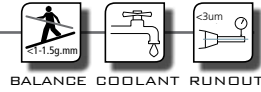
Part Number
H100A-SF6-85MT
H100A-SF10-90MT
H100A-SF12-95MT
H100A-SF16-100MT



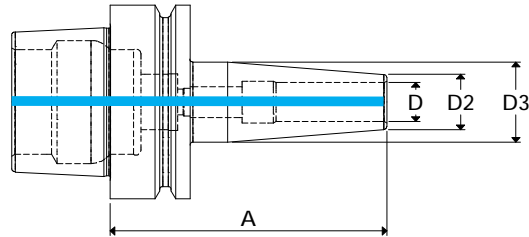
Scan here to see current package pricing.

Standard: DIN69893 HSK E  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .000040" to .00012" at 3 X Diameter of Tool  
 Balancing: <1g.mm (HSK32E and 40E) - <1.5g (HSK50E) at 42,000 RPM  
 Cooling: Center-thru

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37). HSK32/40/50E Coolant Tube and wrench (not included, see page 37 to order).**



STANDARD TYPE



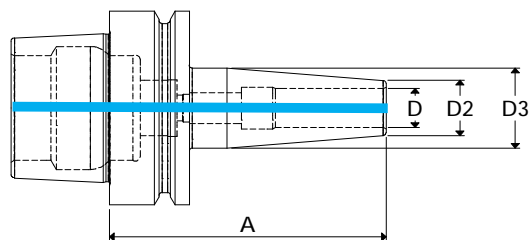
INCH

Part Number	D	A	D2	D3
H32E-SF0125-2.76	1/8"	2.76"	0.35"	-
H32E-SF0250-2.76	1/4"	2.76"	0.79"	1.06"
H32E-SF0375-2.95	3/8"	2.95"	0.95"	1.26"
H40E-SF0250-3.15	1/4"	3.15"	0.79"	1.06"
H40E-SF0375-3.15	3/8"	3.15"	0.95"	1.26"
H40E-SF0500-3.54	1/2"	3.54"	0.95"	1.26"
H40E-SF0625-3.54	5/8"	3.54"	1.06"	1.34"
H50E-SF0250-3.15	1/4"	3.15"	0.79"	1.06"
H50E-SF0375-3.35	3/8"	3.35"	0.95"	1.26"
H50E-SF0500-3.54	1/2"	3.54"	0.95"	1.26"
H50E-SF0625-3.54	5/8"	3.54"	1.06"	1.34"

METRIC

Part Number	D	A	D2	D3
H32E-SF3-70	3mm	70	9	-
H32E-SF6-70	6mm	70	20	27
H32E-SF10-75	10mm	75	24	32
H40E-SF4-70	4mm	70	10	-
H40E-SF6-80	6mm	80	20	27
H40E-SF10-80	10mm	80	24	32
H40E-SF12-90	12mm	90	24	32
H40E-SF16-90	16mm	90	27	34
H50E-SF4-80	4mm	80	10	22
H50E-SF6-80	6mm	80	20	27
H50E-SF10-85	10mm	85	24	32
H50E-SF12-90	12mm	90	24	32
H50E-SF16-90	16mm	90	27	34

MOLD TYPE

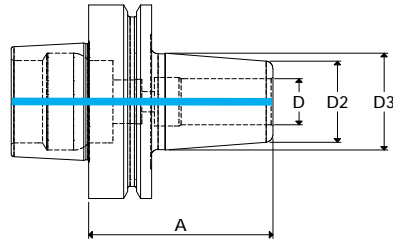
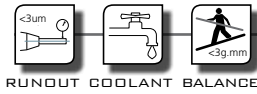


Part Number	D	A	D2	D3
H50E-SF0125-6.30MT	1/8"	6.30"	0.35"	0.87"
H50E-SF0250-6.30MT	1/4"	6.30"	0.47"	1.06"
H50E-SF0375-6.30MT	3/8"	6.30"	0.63"	1.26"
H50E-SF0500-6.30MT	1/2"	6.30"	0.71"	1.26"
H50E-SF0625-6.30MT	5/8"	6.30"	0.95"	1.34"

Part Number	D	A	D2	D3
H50E-SF3-160MT	3mm	160	9	22
H50E-SF6-160MT	6mm	160	12	27
H50E-SF10-160MT	10mm	160	16	32
H50E-SF12-160MT	12mm	160	18	32
H50E-SF16-160MT	16mm	160	24	34

Standard: DIN69893A/ DIN 69882-8  
 Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Runout: .000040" to .00012" at 3 X Diameter of Tool  
 Balancing: <3g.mm at 24,000 RPM (HSK63F)  
 <3g.mm at 25,000 RPM (HSK80F)  
 Cooling: Center-thru and Face Coolant (HSK63F/80F Standard only)

Features: All shrink fit holders 6 mm (1/4") and above include a backup screw.  
 Application: Compatible with h6 tolerance Steel, HSS, Carbide  
 Accessories: **Compatible with Part# RE011 shrink fit reductions and shrink fit extensions (see pages 36-37). Replacement Backup Screw (see page 37). HSK63F/83F Coolant Tube and wrench (not included, see page 37 to order).**



**STANDARD TYPE**



INCH

Part Number	D	A	D2	D3
H63F-SF0125-3.15	1/8"	3.15"	0.35"	0.63"
H63F-SF0250-3.15	1/4"	3.15"	0.79"	1.06"
H63F-SF0375-3.15	3/8"	3.15"	0.94"	1.26"
H63F-SF0500-3.54	1/2"	3.54"	0.94"	1.26"
H63F-SF0625-3.74	5/8"	3.74"	1.06"	1.34"
H63F-SF0750-3.94	3/4"	3.94"	1.30"	1.65"

METRIC

Part Number	D	A	D2	D3
H63F-SF3-80	3mm	80	9	16
H63F-SF6-80	6mm	80	20	27
H63F-SF10-85	10mm	85	24	32
H63F-SF12-90	12mm	90	24	32
H63F-SF16-95	16mm	95	27	34
H63F-SF20-100	20mm	100	33	42

HSK80F

Part Number	D	A	D2	D3
H80F-SF0125-3.00B	1/8"	3.00"	0.39"	0.63"
H80F-SF0125-6.00B	1/8"	6.00"	0.39"	0.75"
H80F-SF0250-3.00B	1/4"	3.00"	0.83"	1.06"
H80F-SF0250-6.00B	1/4"	6.00"	0.83"	1.06"
H80F-SF0375-3.00B	3/8"	3.00"	0.94"	1.18"
H80F-SF0375-6.00B	3/8"	6.00"	0.94"	1.26"
H80F-SF0500-3.00B	1/2"	3.00"	0.94"	1.18"
H80F-SF0500-6.00B	1/2"	6.00"	0.94"	1.26"
H80F-SF0625-3.00B	5/8"	3.00"	1.06"	1.30"
H80F-SF0625-6.00B	5/8"	6.00"	1.06"	1.34"
H80F-SF0750-3.00B	3/4"	3.00"	1.30"	1.61"
H80F-SF0750-6.00B	3/4"	6.00"	1.30"	1.65"
H80F-SF1000-4.00B	1"	4.00"	1.73"	2.09"
H80F-SF1000-6.00B	1"	6.00"	1.73"	2.09"

- All HSK80F holders are balanceable as standard with tapped holes.
- All HSK80F holders come with drive pins compatible with Makino MAG machines (pins can be removed to be used as a standard HSK80F holder).

**STUB LENGTH HOLDERS**

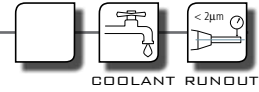
Part Number	D	A	D2	D3
H80F-SF0250-2.36B	1/4"	2.36"	0.83"	0.98"
H80F-SF0375-2.56B	3/8"	2.56"	0.94"	1.14"
H80F-SF0500-2.95B	1/2"	2.95"	0.94"	1.18"
H80F-SF0625-3.15B	5/8"	3.15"	1.06"	1.34"
H80F-SF0750-3.15B	3/4"	3.15"	1.30"	1.57"
H80F-SF1000-2.75B	1"	2.75"	1.73"	1.97"

- Finer balancing can be achieved by request.



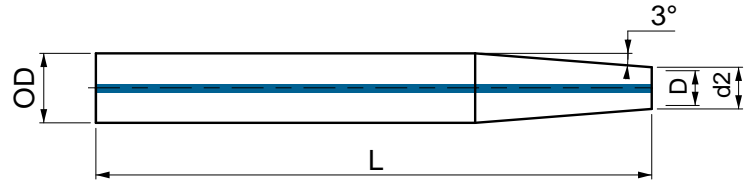
HSK63/80F

Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Concentricity: 1 to 2  $\mu\text{m}$  between the internal and external diameter  
 Cooling: Central  
 Features: h6 tolerance on all the extension cylindrical length  
 Application: Small-sized for difficult machining access  
 Supplied without stop screws



COOLANT RUNOUT

**3° SLIM STYLE (LIGHT DUTY)**



INCH

Part Number	OD	D	d2	L
ST62-SF0125-6.30	5/8"	1/8"	0.31"	6.30"
ST62-SF0187-6.30	5/8"	3/16"	0.31"	6.30"
ST62-SF0250-6.30	5/8"	1/4"	0.47"	6.30"
ST75-SF0250-6.30	3/4"	1/4"	0.47"	6.30"
ST75-SF0312-6.30	3/4"	5/16"	0.63"	6.30"
ST75-SF0375-6.30	3/4"	3/8"	0.63"	6.30"
ST75-SF0500-6.30	3/4"	1/2"	0.71"	6.30"

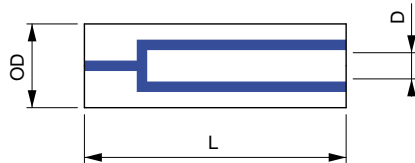
METRIC

Part Number	OD	D	d2	L
ST16-SF3-160	16	3	8	160
ST16-SF4-160	16	4	8	160
ST16-SF5-160	16	5	9	160
ST16-SF6-160	16	6	12	160
ST20-SF6-160	20	6	12	160
ST20-SF8-160	20	8	16	160
ST20-SF10-160	20	10	16	160
ST20-SF12-160	20	12	18	160

Material: H11 High Alloy Steel  
 Hardness: 52 HRC tempered  
 Concentricity: 1 to 2 µm between the internal and external diameter  
 Cooling: In front - RE011

Application: Allows shrinking of several diameters with one size shrink fit holder.  
 Specific diameter upon request.  
 Keeps the "A" length of the basic chuck after assembling.

**ONLY COMPATIBLE WITH ELCO'S SHRINK FIT UNITS**




**RE011**





RE011

INCH

Part Number	OD	D	L
SF-RE011-0500-1250	1/2"	0.13"	1.65"
SF-RE011-0500-1875	1/2"	0.19"	1.85"
SF-RE011-0500-0250	1/2"	0.25"	1.85"
SF-RE011-0750-0312	3/4"	0.31"	1.97"
SF-RE011-0750-0375	3/4"	0.38"	1.97"
SF-RE011-0750-0500	3/4"	0.50"	1.97"

REPLACEMENT BACKUP SCREW	
<i>Applies for all Standard, Extended &amp; Mold Types</i>	
	
D	Code
<6mm	no screw
6mm (1/4")	SF-STOP-SCREW-6
8mm (5/16")	SF-STOP-SCREW-8
10mm (3/8")	SF-STOP-SCREW-10
12-14mm (1/2")	SF-STOP-SCREW-12-14
16-18mm (5/8")	SF-STOP-SCREW-16-18
20-32mm (3/4"-1 1/4")	SF-STOP-SCREW-20-32

COOLANT TUBE	
	
Part Number	Description
HSK32-TUBE	Coolant tube for HSK32 Holders
HSK40-TUBE	Coolant tube for HSK40 Holders
HSK50-TUBE	Coolant tube for HSK50 Holders
HSK63-TUBE	Coolant tube for HSK63 Holders
HSK100-TUBE	Coolant tube for HSK100 Holders

COOLANT TUBE WRENCH	
	
Part Number	Description
HSK32-WRENCH	Coolant wrench for HSK32 Coolant Tube
HSK40-WRENCH	Coolant wrench for HSK40 Coolant Tube
HSK50-WRENCH	Coolant wrench for HSK50 Coolant Tube
HSK63-WRENCH	Coolant wrench for HSK63 Coolant Tube
HSK100-WRENCH	Coolant wrench for HSK100 Coolant Tube

**LYNDEX  
NIKKEN**



ADT



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to find out more about our products,  
services and all we have to offer!

This customer-friendly site provides a  
complete overview of our product line,  
and features technical data, videos,  
CAD drawings, catalogs and more.



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**CAT2012-SHRINK**