

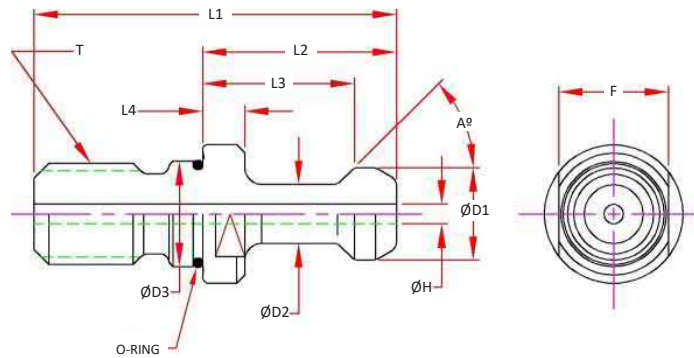
# BT40

## BT40 - High Performance Studs

### Features

- Manufactured to the Industry Standards or machine builders specifications.
- Grind Finish to adhere to machine builder recommendations
- Coolant Knobs include O-ring on the thread side pilot diameter to adhere to builder recommendations

**Note:** It is critical that the correct retention knob is used with each machining center. Please verify all dimensions prior to ordering. Machine specifications will be located in your machine manual or contact the machine manufacturer.



Part Number	A Angle	D1 Head	D2 Neck	D3 Pilot	L1 OAL	L2 Proj.	L3 Pull Loc.	L4 Flange	H Hole	O-Ring	F Flats	T Thread	Socket Wrench	Notes
HPS-B40-MAS-45	45	0.591	0.394	0.669	2.362	1.378	1.102	0.236	-	-	19mm	M16	TWS-M19	MAS P40T-1
HPS-B40-MAS-45-C								0.236	0.157*	Yes I				MAS P40T-1
HPS-806-1	75	0.748	0.551		2.126	1.142	0.906	0.276	0.236	Yes I				JIS B6339
HPS-G51	45	0.740	0.490		1.736	0.752	0.552	0.118	0.276	Yes I				Coolant
HPS-O8	90	0.591	0.394		2.362	1.378	1.102	0.236	-	-				MAS P40T-3

\* O-Ring added to Pilot, adheres to machine company changes, remove O-Ring if not required

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CAT40

CAT50

BT30

**BT 40**

HSK 40E

HSK 63A

HSK 100A

STRAIGHT  
SHANKS

COLLETS

PARTS &  
ACCESS.

SHRINK  
MACHINES

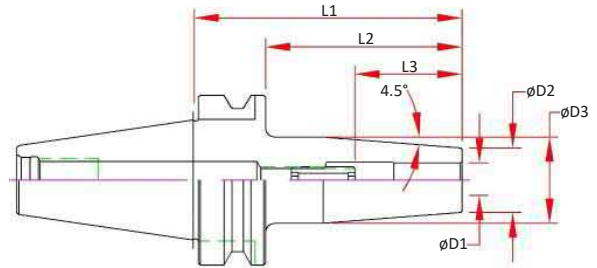
INDEXERS



# BT40 Shrink Fit - Inch

## Features

- 3  $\mu\text{m}$  - 0.0001" Runout Taper to Bore
- Manufactured from ISO-40CrMoV5 (H13) Material, Heat Treated for Optimum Elasticity and Tool Life
- X Jet-Blast Pluggable Coolant Ports
- Tapers are ground better than AT3 for optimal T.I.R.
- Dynamically Balanced for G2.5 @ 25,000 RPM or < 1 gmm
- Preset Screw included for 1/4" & larger for positive stop
- Designed for Carbide Cutting Tools with h6 shank tolerance



## Optional (Order Separately):

- Fine Trim Balance (Sample cutter required for balance compensation)



Dual Contact Spindle Part Number	D1 Bore	D2	D3	L1 Projection	L2	L3 Max Tool Enters	Preset Screw
<a href="#">BT40-SD012-090-B-X</a>	0.1250	0.39	0.77	3.54	2.28	4.57	-
<a href="#">BT40-SD012-160-B-X</a>	0.1250	0.39	0.77	6.30	5.43	7.73	-
<a href="#">BT40-SD018-090-B-X</a>	0.1875	0.39	0.77	3.54	2.28	4.57	-
<a href="#">BT40-SD018-160-B-X</a>	0.1875	0.39	0.77	6.30	5.43	7.73	-
<a href="#">BT40-SD025-090-B-X</a>	0.2500	0.83	1.06	3.54	2.28	1.54	SCW-ASC-05-23
<a href="#">BT40-SD025-160-B-X</a>	0.2500	0.83	1.06	6.30	5.43	1.54	SCW-ASC-05-23
<a href="#">BT40-SD031-090-B-X</a>	0.3125	0.83	1.06	3.54	2.28	1.54	SCW-ASC-06-23
<a href="#">BT40-SD031-160-B-X</a>	0.3125	0.83	1.06	6.30	5.43	1.54	SCW-ASC-06-23
<a href="#">BT40-SD037-090-B-X</a>	0.3750	0.94	1.26	3.54	2.28	1.73	SCW-ASC-08-23
<a href="#">BT40-SD037-160-B-X</a>	0.3750	0.94	1.26	6.30	5.43	1.73	SCW-ASC-08-23
<a href="#">BT40-SD050-090-B-X</a>	0.5000	0.94	1.26	3.54	2.28	1.97	SCW-ASC-10-23
<a href="#">BT40-SD050-160-B-X</a>	0.5000	0.94	1.26	6.30	5.43	1.97	SCW-ASC-10-23
<a href="#">BT40-SD062-090-B-X</a>	0.6250	1.06	1.34	3.54	2.28	2.09	SCW-ASC-12-23
<a href="#">BT40-SD062-160-B-X</a>	0.6250	1.06	1.34	6.30	5.43	2.09	SCW-ASC-12-23
<a href="#">BT40-SD075-090-B-X</a>	0.7500	1.30	1.65	3.54	2.28	2.09	SCW-ASC-12-23
<a href="#">BT40-SD075-160-B-X</a>	0.7500	1.30	1.65	6.30	5.43	2.09	SCW-ASC-12-23
<a href="#">BT40-SD100-100-B-X</a>	1.0000	1.73	2.09	3.94	3.07	2.28	SCW-ASC-16-23
<a href="#">BT40-SD100-160-B-X</a>	1.0000	1.73	2.09	6.30	5.43	2.28	SCW-ASC-16-23
<a href="#">BT40-SD125-100-B-X</a>	1.2500	1.73	2.09	3.94	3.07	2.28	SCW-ASC-16-23
<a href="#">BT40-SD125-160-B-X</a>	1.2500	1.73	2.09	6.30	5.43	2.28	SCW-ASC-16-23

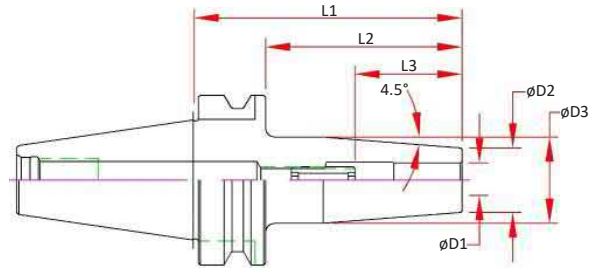
# BT40 Shrink Fit - Metric

## Features

- 3  $\mu\text{m}$  - 0.0001" Runout Taper to Bore
- Manufactured from ISO-40CrMoV5 (H13) Material, Heat Treated for Optimum Elasticity and Tool Life
- Coolant Thru the Center
- Tapers are ground better than AT3 for optimal T.I.R.
- Dynamically Balanced for G2.5 @ 25,000 RPM or < 1 gmm
- Preset Screw included for 1/4" & larger for positive stop
- Designed for Carbide Cutting Tools with h6 shank tolerance

## Optional (Order Separately):

- Jet-Blast Coolant Ports - Add "J"
- DIN-B Coolant - Add "D"
- Fine Trim Balance (Sample cutter required for balance compensation)



Part Number	D1 Bore	D2	D3	L1 Projection	L2	L3 Max Tool Enters	Preset Screw
BT40-SDM03-090	3.000	0.39	0.75	3.54	2.28	4.57	-
BT40-SDM03-160	3.000	0.39	0.75	6.30	5.43	7.73	-
BT40-SDM04-090	4.000	0.39	0.75	3.54	2.28	4.57	-
BT40-SDM04-160	4.000	0.39	0.75	6.30	5.43	7.73	-
BT40-SDM06-090	6.000	0.83	1.06	3.54	2.28	1.54	SCW-ASC-05-23
BT40-SDM06-160	6.000	0.83	1.06	6.30	5.43	1.54	SCW-ASC-05-23
BT40-SDM08-090	8.000	0.83	1.06	3.54	2.28	1.54	SCW-ASC-06-23
BT40-SDM08-160	8.000	0.83	1.06	6.30	5.43	1.54	SCW-ASC-06-23
BT40-SDM10-090	10.000	0.94	1.26	3.54	2.28	1.73	SCW-ASC-08-23
BT40-SDM10-160	10.000	0.94	1.26	6.30	5.43	1.73	SCW-ASC-08-23
BT40-SDM12-090	12.000	0.94	1.26	3.54	2.28	1.97	SCW-ASC-10-23
BT40-SDM12-160	12.000	0.94	1.26	6.30	5.43	1.97	SCW-ASC-10-23
BT40-SDM16-090	16.000	1.06	1.34	3.54	2.28	1.97	SCW-ASC-12-23
BT40-SDM16-160	16.000	1.06	1.34	6.30	5.43	1.97	SCW-ASC-12-23
BT40-SDM20-090	20.000	1.30	1.65	3.54	2.28	2.17	SCW-ASC-12-23
BT40-SDM20-160	20.000	1.30	1.65	6.30	5.43	2.17	SCW-ASC-12-23

CAT40

CAT50

BT30

**BT 40**

HSK 40E

HSK 63A

HSK 100A

STRAIGHT SHANKS

COLLETS

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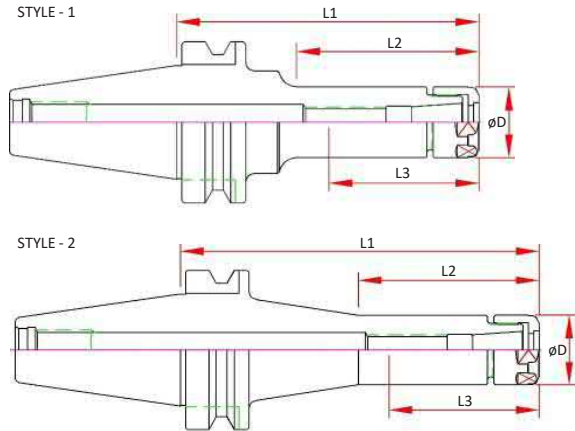
# BT40 SX Collet Chucks

## Features

- 3 µm - 0.0001" Runout Taper to Taper
- Coolant Thru Body
- Dynamically Pre-Balanced G2.5 @ 25,000 RPM or <1gmm
- Tapers are ground better than AT3 for optimal T.I.R.

## Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets
  - 0.005mm (0.0002") Standard
  - 0.003mm (0.0001") Ultra Precision
- DIN-B Coolant
- Fine Trim Balance  
(Sample cutter required for balance compensation)



Dual Contact Spindle Part Number	Style	L2	D	L1 Projection	L3 Max. Preset	Collet	Nut	Wrench
BT40-SX06-090-B	1	2.36		3.54	2.16			
BT40-SX06-120-B	2	2.36	0.77	4.72	2.00	SX06	SXN-06	SXW-06
BT40-SX06-150-B	2	2.36		5.91	2.00			
BT40-SX10-060-B	1	1.18		2.36	2.20			
BT40-SX10-090-B	1	2.36	1.08	3.54	2.76	SX10	SXN-10	SXW-10
BT40-SX10-120-B	2	2.76		4.72	2.56			
BT40-SX10-150-B	2	2.87		5.91	2.76			
BT40-SX16-090-B	1	2.28		3.54	2.92			
BT40-SX16-120-B	1	3.46	1.58	4.72	3.00	SX16	SXN-16	SXW-16
BT40-SX16-150-B	1	4.64		5.91	3.00			
BT40-SX16-180-B	1	5.82		7.09	3.00			
BT40-SX25M-090-B	1	2.40	1.97	3.54	3.16	SX25	SXN-25M	50-55 HOOK
BT40-SX25M-120-B	1	2.40		4.72	3.16			

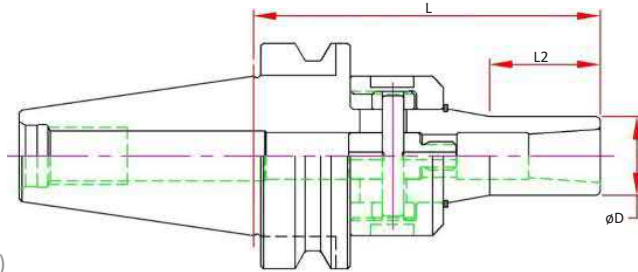
# BT40 VX - Mini Chuck

### Features

- 3 μm - 0.0001" Runout @ 4X Diameter
- Front Locking System
- Coolant Thru
- Dynamically Pre-Balanced G2.5 @ 25,000 RPM or < 1gmm
- Tapers are ground better than AT3 for optimal T.I.R.

### Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets
- DIN-B Flange Coolant
- Fine Trim Balance  
(Sample cutter required for balance compensation)



Dual Contact Spindle Part Number	Collet Range	D	L1 Projection	L2	Collet	Wrench	Locking Torque Max.
BT40-VX06-100-B	0.079 - 0.250	0.50	3.94	1.48	MX06		
BT40-VX06-150-B			5.91				
BT40-VX08-100-B	0.125 - 0.394	0.787	3.94	1.21	MX08	45-48 PIN	30 ft/lbs
BT40-VX08-150-B			5.91				
BT40-VX12-110-B	0.157 - 0.500	1.00	4.33	2.03	MX12		
BT40-VX12-150-B			5.91				



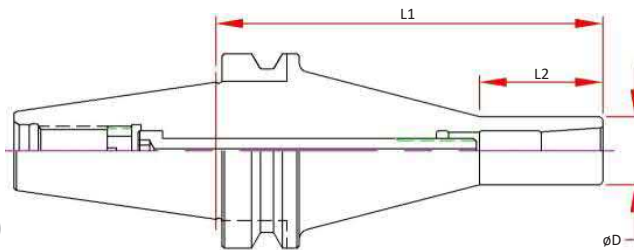
# BT40 MX - Mini Chuck

### Features

- 3 μm - 0.0001" Runout @ 4X Diameter
- Rear Draw Bolt Locking System
- Coolant Thru
- Dynamically Pre-Balanced G2.5 @ 25,000 RPM or < 1gmm
- Tapers are ground better than AT3 for optimal T.I.R.

### Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets, STD and Jet-Blast
- DIN-B Flange Coolant
- Fine Trim Balance  
(Sample cutter required for balance compensation)



Dual Contact Spindle Part Number	Collet Range	D	L1 Projection	L2	Collet	Wrench	Locking Torque Max.
BT40-MX06-085-B	0.079 - 0.250	0.500	3.35	1.42	MX06		
BT40-MX06-150-B			5.91				
BT40-MX08-085-B	0.125 - 0.394	0.787	3.35	1.42	MX08	MXW05	20 ft/lbs
BT40-MX12-090-B			3.54				



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CAT50

BT30

**BT 40**

HSK 40E

HSK 63A

HSK 100A

STRAIGHT SHANKS

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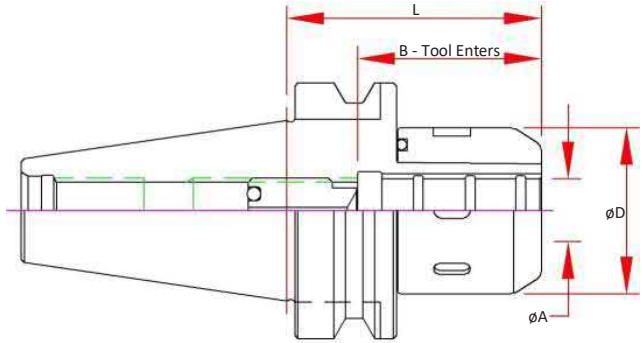
# BT40 Mill Chucks

## Features

- 5  $\mu\text{m}$  - 0.0002" Runout @ 4 x Cutter Shank Dia.
- Designed for Tool Shanks w/ ISO h6 Class Tolerance
- Tapers are ground better than AT3 for optimal T.I.R.
- Pre-Balanced for use @ 20,000 RPM

## Optional (Order Separately):

- Wrench
- Nylon Screw Seal for short tool shanks
- DIN-B Flange Coolant
- Fine Trim Balance (Sample cutter required for balance compensation)



Part Number	A Bore	B Max. Tool Enters	D	L Projection	Preset Screw	Collet	Wrench
BT40-MC075-0295	0.7500	2.76	2.09	2.95	ASC-16-40	MC075	50-55 HOOK
BT40-MC075-0472				4.72			
BT40-MC100-0315	1.0000	2.91	2.44	3.15	ASC-16-40	MC100	58-65 HOOK
BT40-MC100-0335				3.35			
BT40-MC100-0472				4.72			
BT40-MC125-0335	1.2500	3.07	2.76	3.35	ASC-16-40	MC125	65-70 HOOK
BT40-MC125-0354				3.54			
BT40-MC125-0472				4.72			

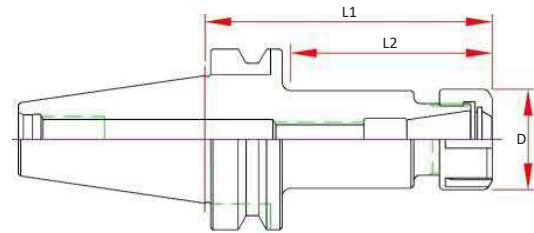
# BT40 ER Collet Chucks

## Features

- 3 µm - 0.0001" Runout Taper to Taper
- Coolant Thru Body
- Dynamically Pre-Balanced G6.3 @ 20,000 RPM or <1gmm
- Tapers are ground better than AT3 for optimal T.I.R.

## Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets
  - 0.010mm (0.0004") Standard
  - 0.005mm (0.0002") Ultra Precision
  - Sealed (Select Sizes)
  - Jet-Blast (Select Sizes)
- DIN-B Coolant (Select models)
- Fine Trim Balance (Sample cutter required for balance compensation)



Dual Contact Spindle Part Number	Standard Spindle Part Number	Range	D	L1 Projection	L2	Screw	Nut	Wrench
	BT40-ER11H-060	.019-.276	0.74	2.36	1.18	ASC-ER11	ERN-11H	ERW-11H
	BT40-ER11H-100			3.94	2.75			
	BT40-ER11H-150			5.91	1.57			
	BT40-ER16H-060	.019-.394	1.10	2.36	1.18	ASC-ER16	ERN-16H	ERW-16H
BT40-ER16H-100-B	BT40-ER16H-100			3.94	2.75			
	BT40-ER16H-160			6.30	5.11			
	BT40-ER20H-070	.019-.512	1.33	2.76	1.57	ASC-ER20	ERN-20H	ERW-20H
	BT40-ER20H-100			3.94	2.75			
	BT40-ER20H-160			6.30	5.11			
	BT40-ER25-060	.019-.630	1.65	2.36	1.26	ASC-ER25	ERN-25	ERW-25E
	BT40-ER25-100			3.94	2.83			
				2.36	1.30			
	BT40-ER32-075	.039-.787	1.96	2.95	1.88	ASC-ER32	ERN-32	ERW-32E
	BT40-ER32-100			3.94	2.87			
	BT40-ER32-160			6.30	5.23			
	BT40-ER40-080	.079-1.024	2.48	3.15	2.04	ASC-ER40	ERN-40	ERW-40E
	BT40-ER40-160			6.30	4.40			

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CAT50

BT30

**BT 40**

HSK 40E

HSK 63A

HSK 100A

STRAIGHT SHANKS

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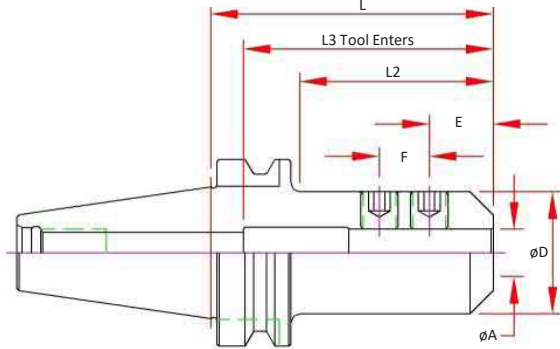
# BT40 End Mill Adapters

## Features

- 3 µm - 0.0001" Bore Runout
- H5 Bore Tolerance or better
- Tapers are ground better than AT3 for optimal T.I.R.
- Coolant Thru
- Pre-Balanced for use @ 20,000 RPM

## Optional (Order Separately):

- Jet-Blast (add "J" to the part number)
- DIN-B Coolant (Select models)



	Dual Contact Spindle Part Number	Standard Spindle Part Number	A Bore	D	E	F	L Projection	L2	L3 Max. Tool Enters	Screw Number		
1/8		BT40-EM012-0250	0.1250	0.69	0.19	-	2.50	1.31	3.89	3		
		BT40-EM012-0400					4.00	1.00	5.39			
3/16		BT40-EM018-0250	0.1875	0.69	0.44	-	2.50	1.31	3.89	4		
		BT40-EM018-0400					4.00	2.81	5.39			
		BT40-EM025-0250					2.50	1.31	3.89			
1/4		BT40-EM025-0400	0.2500	0.78	0.44	-	4.00	2.81	5.39	4		
		BT40-EM025-0600					6.00	2.50	7.39			
		BT40-EM031-0250					2.50	1.31	3.89			
5/16		BT40-EM031-0400	0.3125	0.88	0.44	-	4.00	2.81	5.41	4		
		BT40-EM037-0250					2.50	1.31	3.89			
		BT40-EM037-0400					4.00	2.81	5.39			
3/8		BT40-EM037-0600	0.3750	1.00	0.75	-	6.00	2.50	7.39	5		
		BT40-EM050-0250-B					2.50	1.31	2.56			
		BT40-EM050-0400-B					4.00	2.81	2.56			
1/2		BT40-EM050-0600	0.5000	1.25	0.88	-	6.00	2.50	2.56	6		
		BT40-EM062-0250					2.50	1.31	3.50			
		BT40-EM062-0400					4.00	2.81	3.50			
5/8		BT40-EM075-0250-B	0.6250	1.50	0.94	-	2.50	1.31	2.38	7		
		BT40-EM075-0400					4.00	2.81	3.94			
		BT40-EM075-0600					6.00	4.81	3.94			
3/4		BT40-EM100-0200-B	0.7500	1.75	1.00	-	-	2.00	2.38	10		
		BT40-EM100-0300					3.00	1.97	3.15			
		BT40-EM100-0400-B					4.00	2.97	4.44		(2) 10	
1		BT40-EM125-0200	1.0000	2.00	1.12	-	-	2.00	0.97	9		
		BT40-EM125-0356					1.00	3.56	2.57		3.54	(2) 11
		BT40-EM150-0433					1.00	4.33	3.34		2.52	(2) 11

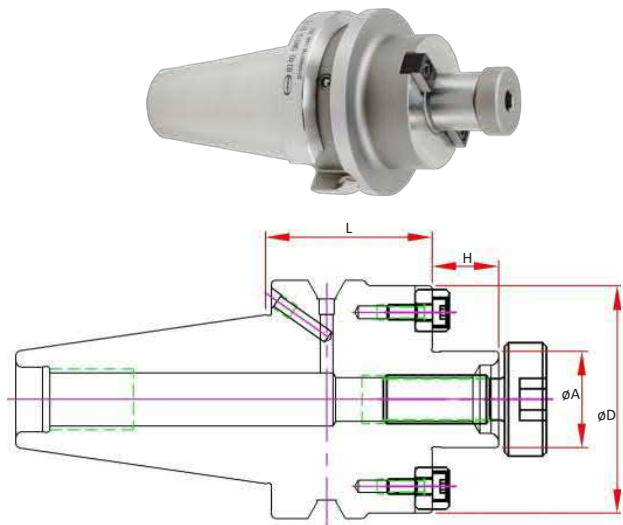
# BT40 Shell Mill Adapters

## Features

- 3  $\mu\text{m}$  - 0.0001" Bore Runout
- H5 Bore Tolerance or better
- Tapers are ground better than AT3 for optimal T.I.R.
- Coolant Thru Body
- Pre-Balanced for use @ 20,000 RPM

## Optional (Order Separately):

- FX Coolant (add "F" to the part number)
- DIN-B Coolant (Select models)



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Standard Spindle Part Number	A Pilot	D	H	L Projection	Drive Key Size	Drive Key Number	Mounting Screw Thread	Mounting Screw#
BT40-SM075-0175	0.75	1.75	0.69	1.75	0.312	DK-SM075	3/8-24	SCW-SM075
BT40-SM075-0400				4.00				
BT40-SM100-0175	1.00	1.97	0.69	1.75	0.375	DK-SM100	1/2-20	SCW-SM100
BT40-SM100-0400				4.00				
BT40-SM150-0200	1.50	3.82	0.94	2.00	0.625	DK-SM150	3/4-16	SCW-SM150



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HSK 40E

HSK 63A

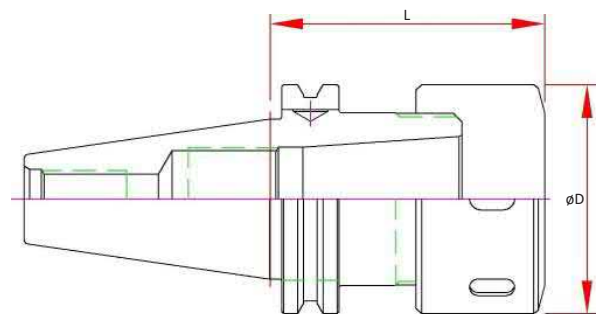
# TG - Collet Chuck

## Features

- 3  $\mu\text{m}$  - 0.0001" Runout Taper to Taper
- Coolant Thru Body
- Dynamically Pre-Balanced @ 20,000 RPM (CAT50 @ 15,000 RPM)
- Tapers are ground better than AT3 for optimal T.I.R.

## Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets
- DIN-B Coolant (Select models)



HSK 100A

STRAIGHT SHANKS

COLLETS

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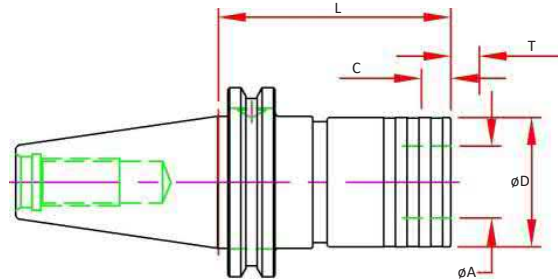
Part Number	Range	D	L Projection	Collet	Screw	Nut	Wrench
BT40 BT40-TG100-0300	.094 - 1.00	2.48	3.00	TG100	ASC-ER40	TGN100	58-65 HOOK



## TC - Tension & Compression Holders

### Features

- Tension and Compression Stroke for improved tap life
- Pressure Point Mechanism to increase the cutting pressure and ensure a positive start
- Size 3 includes pull to release system to prevent damage from over stroke
- TC Holders are not designed for Coolant Thru
- For use with both RA and TC adapters
  - TC for machines with limited "Z" control
- 2 Piece Design is assembled Straight Shank Tap Holder with End Mill Adapter
- Tapers are ground better than AT3 for optimal T.I.R.

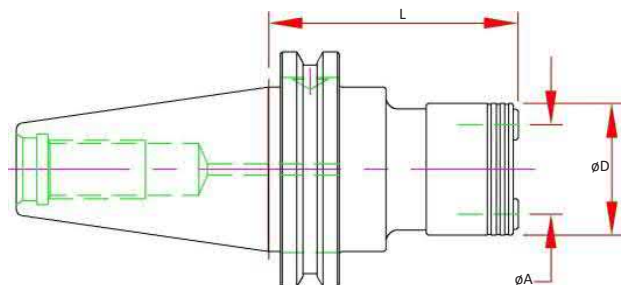


Size	Dual Contact Spindle Part Number	Standard Spindle Part Number	2 Piece Design	Capacity	A	D	L	T Tension	C Comp.
1		BT40-TC1-67		#6-9/16	0.75	1.42	2.64	0.30	0.30
1	BT40-TC1-0358-B	BT40-TC1-0358	Y	#6-9/16	0.75	1.42	3.58	0.30	0.30
2		BT40-TC2-94		5/16-7/8	1.22	2.09	3.70	0.49	0.49
2	BT40-TC2-0436-B	BT40-TC2-0436	Y	5/16-7/8	1.22	2.09	4.36	0.49	0.49

## RT - Rigid QC Tap Holders

### Features

- Body - Coolant Thru Center
- Tapers are ground better than AT3 for optimal T.I.R.
- **For use with RA Adapters Only!**

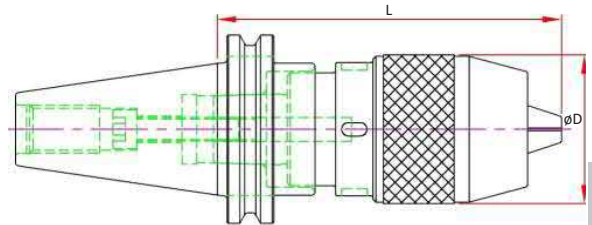


Size	Dual Contact Spindle Part Number	Standard Spindle Part Number	2 Piece Design	Capacity	A	D	L Projection
1		BT40-RT1-72		#6-9/16	0.75	1.34	2.83
1	BT40-RT1-0357-B	BT40-RT1-0357	Y	#6-9/16	0.75	1.34	3.57
2		BT40-RT2-91		5/16-7/8	1.22	1.93	3.58
2	BT40-RT2-0436-B	BT40-RT2-0436	Y	5/16-7/8	1.22	1.93	4.36

# DC - Drill Chuck

## Features:

- Non Coolant
- Keyless w/ slots for spanner wrench (sold separately)



Part Number	Range	D	L Projection	Wrench
BT40-DC13-110	0.04 - 0.50	1.96	4.33	DCW13

CAT40

CAT50

BT30

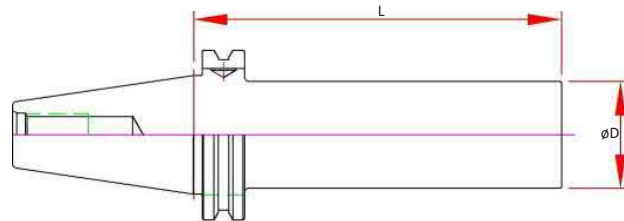
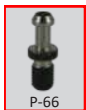
**BT 40**

HSK 40E

# TB - Test Bar

## Features

- Concentric to Taper within 3µm (0.0001") TIR
- Tapers are ground better than AT3 for optimal T.I.R.
- Hardened & Normalized for consistency
- 100% Individually inspected with Certification Sheet included
- Wood Box Included
- Laser Marked with Actual Diameter and Length



Part Number	Spindle	D	L Projection
BT40-TB40-300-B	STD & Dual Contact BT40	40mm	300mm

HSK 63A

HSK 100A

STRAIGHT SHANKS

COLLETS

PARTS & ACCESS.

SHRINK MACHINES

INDEXERS

