

Toolholders & Accessories



NAPGLADU

Delivering Productivity

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AirPRO – Dust Evacuation Nut



balanced to
24,000 RPM at G2.5

- Stop losing time & money on clean-up
- AirPRO removes 85% - 100% of dust
- Easy-to-use, just replace your collet nut

Problem: dust settles in cut



Solution: AirPRO



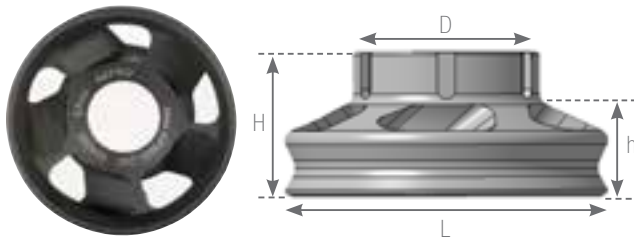
AirPRO removes dust "in the cut" so it works great removing dust from nested cuts and slatwall too!

AirPRO works with your existing cutting tools and toolholders.

AirPRO's turbine action creates a powerful up-draft that evacuates dust into your machine's collection hood before it has a chance to settle on your working surface.

With AirPRO, you'll spend much less time cleaning up and much more time cutting. The AirPRO typically pays for itself in less than 30 days thanks to the increased production and reduced clean-up time.

Additional benefits include less machine maintenance needed because less dust is landing on electrical and pneumatic systems. Your employees will appreciate the cleaner environment, and the risk of dust combustion is greatly reduced.



Always tighten the AirPRO to proper torque specification using a torque wrench and tightening stand.

AirPRO for ER32, ER40 or SYOZ25 Chucks

Part No.	Description	Min RPM	Max RPM	D	L	H	h	Weight
453200	ER32 AirPRO	18,000	24,000	1.97"	3.77"	1.77"	1.24"	1.1 lb
454000	ER40 AirPRO	18,000	24,000	2.48"	4.06"	1.81"	1.13"	1.4 lb
452500	SYOZ25 AirPRO	18,000	24,000	2.36"	3.92"	1.97"	1.13"	1.3 lb

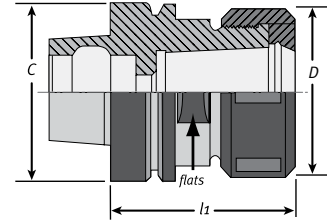
AirPRO Operating Parameters

Part No.	Description	Optimal Gap	Max Chip Load	Wrench	Adapter	Torque
453200	ER32 AirPRO	.070"	.020"	200TH	04604-32	100 lb.ft
454000	ER40 AirPRO	.070"	.020"	200TH	04605-40	130 lb.ft
452500	SYOZ25 AirPRO	.070"	.020"	200TH	03690-25	90 lb.ft

HSK 63F & HSK E Collet Chucks for CNC Routers



- Balanced to 25,000 RPM at G2.5
- Inspection report included for accuracy and balance
- Includes collet nut



Note: Measure the "l1" dimension with the collet in the nut.
Dimensions are in millimeters.

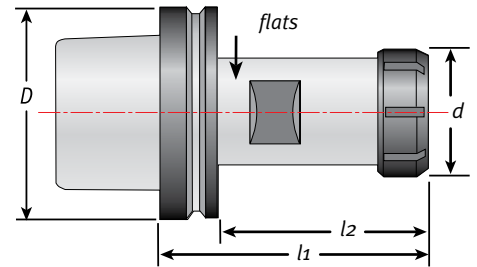
HSK 63F Tool Holders

Part No.	Description	l1	D	C	Collet Nut	Wrench	Flats
RT2301	HSK 63F x ER 16 - 60*	60	32	63	RT2748	RT1611	26
RT2302	HSK 63F x ER 16 - 100*	100	32	63	RT2748	RT1611	26
RT2648	HSK 63F x ER 32 - 70	70	50	63	RT2751	RT1614	36
RT2649	HSK 63F x ER 40 - 76	76	63	63	RT2752	RT1615	46
RT2650	HSK 63F x ER 40 - 90	90	63	63	RT2752	RT1615	46
RT2652	HSK 63F x ER 40 - 125	125	63	63	RT2752	RT1615	46
RT2728	HSK 63F x SYOZ 25 - 80	80	60	63	RT1179	RT1181	38

*Use with DNA ER 16 collets and nuts for best rigidity and accuracy (T.I.R.) when using cutting tools 6mm and smaller. See page 390.



- Balanced to 25,000 RPM at G2.5
- Inspection report included for accuracy and balance
- Includes collet nut



Note: Measure the "l1" dimension with the collet in the nut.
Dimensions are in millimeters.

HSK 32E, 40E, 50E, 63E Tool Holders for HSK E Type Spindle

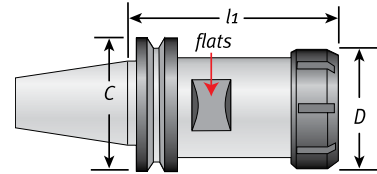
Part No.	Description	D	d	l1	l2	Collet Nut	Wrench	Flats
RT2809	HSK 32E x ER 25	32	32	48	27	46125	04615	22
RT2810	HSK 40E x ER 16 - 65*	40	28	65	45	46116	04613	24
RT2811	HSK 40E x ER 25 - 75	40	42	75	55	46125	04615	27
RT2812	HSK 40E x ER 32 - 100	40	50	100	80	46132	04616	35
RT2813	HSK 50E x ER 32 - 85	50	50	85	59	46132	04616	36
RT2814	HSK 63E x ER 32 - 90	63	50	90	64	46132	04616	none
RT2815	HSK 63E x ER 40 - 120	63	63	120	94	46140	04617	none
RT2785	HSK 63E x ER 40 - 75	63	63	75	49	46140	04617	none

*Use with DNA ER 16 collets and nuts for best rigidity and accuracy (T.I.R.) when using cutting tools 6mm and smaller. See page 390.

ISO & SK Tool Holders for CNC Routers



- *Balanced to 25,000 RPM at G2.5*
- *Inspection report included for accuracy and balance*
- *Includes collet nut*



ISO 20, 30, & 40 Toolholders

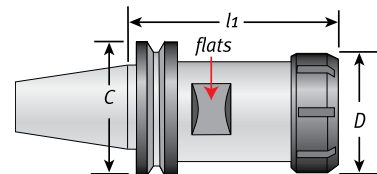
Note: Measure the "l1" dimension with the collet in the nut.
Dimensions are in millimeters.

Part No.	Description	l1	D	C	Collet Nut	Wrench	Flats
RT1803	ISO 20 x ER 16M - 52 w/HS mini nut & stud*	52	22	*30	33116	04622	17
RT1804	ISO 20 x ER 16 - 52 coated HS mini nut & stud*	52	22	30	53116	04622	17
RT1805*	ISO 20 x ER 20 - 52	52	35	30	46120	04614	17
RT2261	ISO 30 x ER 11M - 100	100	16	50	23111	04621	14
RT2252	ISO 30 x ER 32 - CMS	58	50	46	46132	04616	36
RT2254	ISO 30 x ER 32 - 50	50	50	50	46132	04616	47
RT2256	ISO 30 x ER 32 - 63	63	50	50	46132	04616	36
RT2258	ISO 30 x ER 32 - 90	90	50	50	46132	04616	36
RT2259	ISO 30 x ER 40 - 57	57	63	50	46140	04617	47
RT2260	ISO 40 x ER 40 - 70mm	70	63	63.5	46140	04617	46

*Use with DNA ER 16 collets and nuts for best rigidity and accuracy (T.I.R.) when using cutting tools 6mm and smaller. See page 390.



- *Balanced to 25,000 RPM at G2.5*
- *Inspection report included for accuracy and balance*
- *Includes collet nut*



Note: Measure the "l1" dimension with the collet in the nut.
Dimensions are in millimeters.

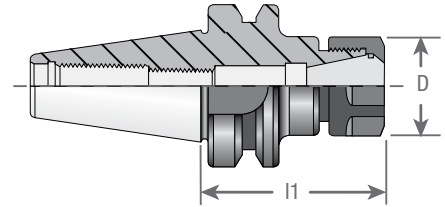
SK Tool Holders for ANDI & Weeke CNC Routers

Part No.	Description	l1	D	C	Collet Nut	Wrench	Flats
RT3004	SK-30 x SYOZ 25 - 70	70	60	50	included	03691	38

BT 30 & 35 Toolholders



- *Balanced to 25,000 RPM at G2.5*
- *Inspection report included for accuracy and balance*



Note: Measure the "l1" dimension with the collet in the nut. Dimensions are in millimeters unless otherwise noted.

BT 30 & 35 Toolholders

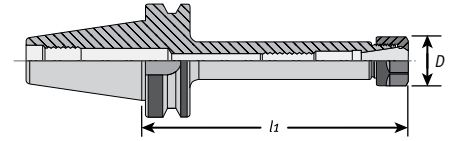
Part No.	Description	l1	D	Collet	Max. Shank	Collet Nut	Wrench
RT1810	BT 30 x ER 16-60	60mm	32	ER16	3/8"	RT2748	RT1609
RT1809	BT 30 x ER 16-70	70mm	32	ER16	3/8"	RT2748	RT1609
RT1811	BT 30 x ER 16-90	90mm	32	ER16	3/8"	RT2748	RT1609
RT1812	BT 30 x ER 16-100	100mm	32	ER16	3/8"	RT2748	RT1609
RT1813	BT 30 x ER 16-120	120mm	32	ER16	3/8"	RT2748	RT1609
RT1816	BT 30 x ER 20-63.5	63.5mm	34	ER20	1/2"	RT2749	RT1610
RT1814	BT 30 x ER 20-70	70mm	34	ER20	1/2"	RT2749	RT1610
RT1815	BT 30 x ER 20-70 w/o slots	70mm	35	ER20	1/2"	RT2749	RT1612
RT1402	BT 30 x ER 20-135	135mm	34	ER20	1/2"	RT2749	RT1610
RT1818	BT 30 x ER 25-60	60mm	42	ER25	5/8"	RT2750	RT1613
RT1817	BT 30 x ER 25-70	70mm	42	ER25	5/8"	RT2750	RT1613
RT1820	BT 30 x ER 25-90	90mm	42	ER25	5/8"	RT2750	RT1613
RT1819	BT 30 x ER 25-135	135mm	42	ER25	5/8"	RT2750	RT1613
RT1821	BT 30 x ER 32-60	60mm	50	ER32	3/4"	RT2751	RT1614
RT1821	BT 30 x ER 32-60 with slots	60mm	50	ER32	3/4"	RT2751	RT1614
RT1823	BT 30 x ER 32-60 w/o slots Komo	60mm	50	ER32	3/4"	RT2816	RT1614
RT1824	BT 30 x ER 32-60 Left Hand	60mm	50	ER32	3/4"	Included	RT1614
RT1822	BT 30 x ER 32-70	70mm	50	ER32	3/4"	RT2751	RT1614
RT1822	BT 30 x ER 32-70 with slots	70mm	50	ER32	3/4"	RT2751	RT1614
RT1825	BT 30 x ER 32-90 w/o slots Komo	90mm	50	ER32		RT2816	RT1614
RT1826	BT 30 x ER 32-100	100mm	50	ER32	3/4"	RT2751	RT1614
RT2068	BT 30 x ER 40-80	80mm	63	ER32	3/4"	RT2751	RT1614
RT1839	BT 35 x ER 32-76	76mm	50	ER32		RT2816	RT1614
RT1806	BT 30 x SYOZ 25-70	70mm	60			included	RT1181
RT1807	BT 30 x SYOZ 25-70 w/o slots	70mm	60			included	RT1181
RT1808	BT 35 x SYOZ 25-76	76mm	60			included	RT1181

BT 30 & 40 Precision ER Toolholders



Features

- *Balanced to 25,000 RPM at G2.5*
- *T.I.R. 0.0001" measured from taper to collet pocket*
- *PowerCOAT nut included for 75% more clamping power*
- *A PowerCOAT nut is included with each holder.*



BT30 Precision ER Toolholders

Part No.	Description	l1	D	Max. Shank	Set Screw	Wrench
RT1810	BT30 x ER16 - 60mm, hex nut	60mm	1.08"	.406"	RT2748	RT1609
RT1809	BT30 x ER16 - 70mm, hex nut	70mm	1.08"	.406"	RT2748	RT1609
RT1811	BT30 x ER16 - 90mm, hex nut	90mm	1.08"	.406"	RT2748	RT1609
RT1812	BT30 x ER16 - 100mm, hex nut	100mm	1.08"	.406"	RT2748	RT1609
RT1813	BT30 x ER16 - 120mm, hex nut	120mm	1.08"	.406"	RT2748	RT1609
RT1814	BT30 x ER20 - 70mm, hex nut	70mm	1.34"	.512"	RT2749	RT1610
RT1402	BT30 x ER20 - 135mm, hex nut	135mm	1.34"	.512"	RT2749	RT1610
RT1816	BT30 x ER20 - 63.5mm, hex nut	63.5mm	1.34"	.512"	RT2749	RT1610
RT1817	BT30 x ER25 - 70mm, slotted nut	70mm	1.65"	.63"	RT2750	RT1613
RT1818	BT30 x ER25 - 60mm, slotted nut	60mm	1.65"	.63"	RT2750	RT1613
RT1820	BT30 x ER25 - 90mm, slotted nut	90mm	1.65"	.63"	RT2750	RT1613
RT1819	BT30 x ER25 - 135mm, slotted nut	135mm	1.65"	.63"	RT2750	RT1613
RT1821	BT30 x ER32 - 60mm, slotted nut	60mm	1.97"	.788"	RT2751	RT1614
RT1822	BT30 x ER32 - 70mm, slotted nut	70mm	1.97"	.788"	RT2751	RT1614
RT1826	BT30 x ER32 - 100mm, slotted nut	100mm	1.97"	.788"	RT2751	RT1614
RT2068	BT30 x ER40 - 80mm, slotted nut	80mm	2.48"	1.023"	RT2365	RT1615

BT40 ER Toolholders

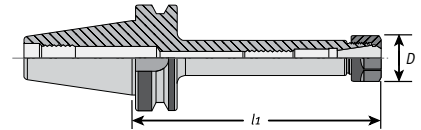
Part No.	Description	l1	D	Max. Shank	Wrench
RT1827	BT40 x ER16 - 70mm, hex nut	70mm	1.08"	.406"	RT1609
RT1828	BT40 x ER16 - 100mm, hex nut	100mm	1.08"	.406"	RT1609
RT1829	BT40 x ER20 - 70mm, hex nut	70mm	1.34"	.512"	RT1610
RT1830	BT40 x ER20 - 100mm, hex nut	100mm	1.34"	.512"	RT1610
RT1831	BT40 x ER20 - 135mm, hex nut	135mm	1.34"	.512"	RT1610
RT1832	BT40 x ER25 - 70mm, slotted nut	70mm	1.65"	.630"	RT1613
RT1833	BT40 x ER32 - 70mm, slotted nut	70mm	1.97"	.788"	RT1614
RT1834	BT40 x ER32 - 100mm, slotted nut	100mm	1.97"	.788"	RT1614
RT1835	BT40 x ER32 - 150mm, slotted nut	150mm	1.97"	.788"	RT1614
RT1836	BT40 x ER40 - 80mm, slotted nut	80mm	2.48"	1.023"	RT1615
RT1837	BT40 x ER40 - 100mm, slotted nut	100mm	2.48"	1.023"	RT1615
RT1838	BT40 x ER40 - 150mm, slotted nut	150mm	2.48"	1.023"	RT1615

BT 50 ER & ISO Toolholders for CNC Routers



Features

- Balanced to 25,000 RPM at G2.5
- T.I.R. 0.0001" measured from taper to collet pocket
- PowerCOAT nut included for 75% more clamping power
- A PowerCOAT nut is included with each holder.



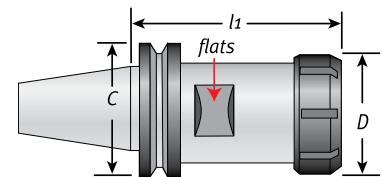
BT50 ER Toolholders

Part No.	Description	l1	D	Max. Shank	Set Screw	Wrench
RT1840	BT50 x ER16 - 70mm, hex nut	70mm	1.08"	.406"	16083	RT1609
RT1841	BT50 x ER20 - 90mm, hex nut	90mm	1.34"	.512"	16087	RT1610
RT1842	BT50 x ER20 - 165mm, hex nut	165mm	1.34"	.512"	16087	RT1610
RT1843	BT50 x ER25 - 105mm, slotted nut	105mm	1.65"	.630"	16089	RT1613
RT1845	BT50 x ER32 - 80mm, slotted nut	80mm	1.97"	.788"	16089	RT1614
RT1846	BT50 x ER32 - 120mm, slotted nut	120mm	1.97"	.788"	16089	RT1614
RT1847	BT50 x ER40 - 80mm, slotted nut	80mm	2.48"	1.023"	16091	RT1615
RT1848	BT50 x ER40 - 135mm, slotted nut	135mm	2.48"	1.023"	16091	RT1615
RT1850	BT50 x ER50 - 90mm, slotted nut	90mm	3.07"	1.338"	16093	RT1681



Features

- Balanced up to 40,000 RPM at G2.5
- T.I.R. 0.0001" or better from taper to collet pocket
- PowerCOAT nut and retention knob included



ISO 20 & ISO 25 Toolholders for CNC Routers

Part No.	Description	l1	C	D	Nut	Wrench	Flats
RT1803*	*ISO 20 x ER16 - 52mm, HS mini nut & pull stud	52mm	30mm	22mm	RT2705	RT1618	17
RT1804*	ISO 20 x ER16 - 52mm, slotted nut & pull stud	52mm	30mm	32mm	RT2748	RT1611	17
RT1805*	ISO 20 x ER20 - 52mm, slotted nut & pull stud	52mm	30mm	35mm	RT2749	RT1612	17
RT1990	ISO 25 x ER25 - 50mm, slotted nut & pull stud	50mm	38mm	42mm	RT2750	RT1613	27
RT2037	ISO 25 x ER25 - 65mm, slotted nut & pull stud	65mm	38mm	42mm	RT2750	RT1613	27

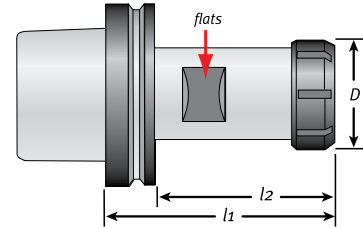
*Balanced to 40,000 RPM. Use for Haas OM-1A, OM-2A Office Mills. Haas is trademark of Haas Automation and used here for identification only.

HSK E & HSK F Precision CNC Router Toolholders



Features

- Balanced to 25,000 RPM at G2.5
- T.I.R. 0.0001" measured from taper to collet pocket
- PowerCOAT nut included for 75% more clamping power



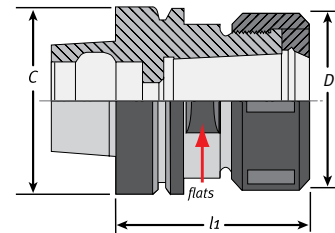
HSK32E, 40E, 50E, 63E Toolholders for HSK E Type Spindle

Part No.	Description	l1	l2	D	Flats
RT2809	HSK32E x ER25 - 60mm, slotted nut	60mm	27mm	42mm	22mm
RT2810	HSK40E x ER16 - 65mm, slotted nut	65mm	45mm	32mm	24mm
RT2811	HSK40E x ER25 - 75mm, slotted nut	75mm	55mm	42mm	27mm
RT2812	HSK40E x ER32 - 100mm, slotted nut	100mm	80mm	50mm	35mm
RT2808	HSK50E x ER16 - 80mm, slotted nut	80mm	60mm	28mm	27mm
RT2813	HSK50E x ER32 - 85mm, slotted nut	85mm	59mm	50mm	36mm
RT2814	HSK63E x ER32 - 90mm, slotted nut	90mm	64mm	50mm	36mm
RT2815	HSK63E x ER40 - 120mm, slotted nut	120mm	94mm	63mm	46mm
RT2785	HSK63E x ER40 - 75mm, slotted nut	75mm	49mm	63mm	46mm



Features

- Balanced to 25,000 RPM at G2.5
- T.I.R. 0.0001" or better from taper to collet pocket
- PowerCOAT nut is included with each holder
- Certified for accuracy and balance
- Each holder comes with a complete lab report



HSK50F, 63F Toolholders for CNC Routers

Part No.	Description	l1	D	Nut	Wrench	Flats
RT2300	HSK50F x ER32 - 80mm, slotted nut	80mm	50mm	RT2751	RT1614	36mm
RT2301	HSK63F x ER16 - 60mm, slotted nut	60mm	32mm	RT2748	RT1611	26mm
RT2302	HSK63F x ER16 - 100mm, slotted nut	100mm	32mm	RT2748	RT1611	26mm
RT2648	HSK63F x ER32 - 70mm, slotted nut	70mm	50mm	RT2751	RT1614	36mm
RT2649	HSK63F x ER40 - 75mm, slotted nut	75mm	63mm	RT2752	RT1615	46mm
RT2644LH	HSK63F x ER40 - 75mm, left-hand thread	75mm	63mm	RT2752	RT1615	46mm
RT2650	HSK63F x ER40 - 90mm, slotted nut	90mm	63mm	RT2752	RT1615	46mm
RT2647	HSK63F x ER40 - 115mm, slotted nut	115mm	63mm	RT2752	RT1615	46mm
RT2652	HSK63F x ER40 - 125mm, slotted nut	125mm	63mm	RT2752	RT1615	46mm
RT2728	HSK63 F x SYOZ 25 - 80mm, slotted nut	80mm	60mm	RT1179	RT1181	38mm

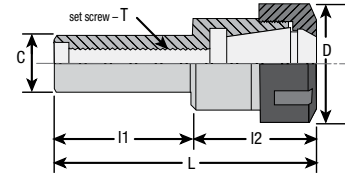
See page 386 for collet offerings. See page 396 for torque wrenches.

Precision ER Straight Shank Toolholder Extensions



Features

- Collet pocket T.I.R. 0.0001"
- All surfaces precision ground
- PowerCOAT Nut included



ER Straight Shank Extensions

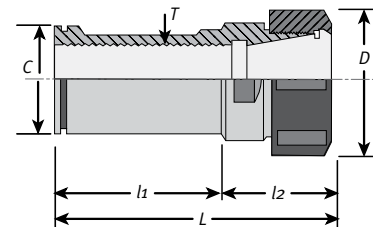
Part No.	Description	C	L	I1	I2	D	Nut Type	Wrench
RT1645	16mm x ER11, - 140mm, hex nut	16mm	174.5mm	140mm	21.6mm	19mm	-	RT1608
RT1178	1/2" x ER11, - 140mm, hex nut	1/2"	174.5mm	140mm	21.6mm	19mm	-	RT1608
RT1647	5/8" x ER11, - 140mm, hex nut	5/8"	174.5mm	140mm	21.6mm	19mm	-	RT1608
RT1636	5/8" x ER16, - 60mm, hex nut	5/8"	95.1mm	60mm	35.1mm	28mm	-	RT1609
RT1637	3/4" x ER16, - 50mm, hex nut	3/4"	85.1mm	50mm	35.1mm	28mm	16083	RT1609
RT1638	3/4" x ER16, - 100mm, hex nut	3/4"	135.1mm	100mm	35.1mm	28mm	16083	RT1609
RT1649	3/4" x ER16, - 140mm, hex nut	3/4"	175.1mm	140mm	35.1mm	28mm	16083	RT1609
RT1639	3/4" x ER20, - 2-1/2", hex nut	3/4"	100mm	2-1/2"	38mm	34mm	16083	T1610
RT1640	1.0" x ER25, - 50mm, slotted nut	1.0"	101mm	50mm	51mm	42mm	16089	RT1613
RT2233	20mm x ER32, - 50mm, slotted nut	20mm	97.1mm	50mm	47mm	50mm	16089	RT1614
RT2235	20mm x ER32, - 100mm, slotted nut	20mm	146.5mm	100mm	47mm	50mm	16083	RT1614
RT1641	1.0" x ER32, - 50mm, slotted nut	1.0"	101.5mm	50mm	51.5mm	50mm	16089	RT1614
RT2243	1.0" x ER32, - 140mm, slotted nut	1.0"	191.5mm	140mm	51.5mm	50mm	16083	RT1614
RT1643	1-1/4" x ER32, - 60mm, slotted nut	1-1/4"	111.5mm	60mm	51.5mm	50mm	16089	RT1614
RT1642	1.0" x ER40, - 50mm, slotted nut	1.0"	115mm	50mm	65mm	63mm	16083	RT1615

For shank sizes 1/8" (3mm) or smaller use our DNA (dead nuts accurate) collets for best results — page 392.



Features

- For coolant up to 1,500 PSI
- Collet pocket T.I.R. 0.0001"
- PowerCOAT nut included



CNC Lathe Straight Shanks

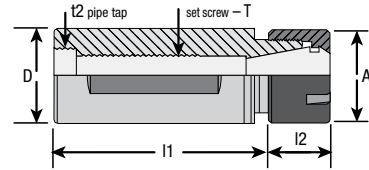
Part No.	Description	C	I1	L	I2	D	T	Wrench
RT1621	1-1/4" x ER25, - 60mm shank	1-1/4"	60mm	97mm	37mm	42mm	M18 x 1.5	RT1613
RT1622	1-1/4" x ER32, - 60mm shank	1-1/4"	60mm	103mm	43mm	50mm	M22 x 1.5	RT1614
RT1624	1-1/2" x ER32, - 80mm shank	1-1/2"	80mm	118mm	38mm	50mm	M22 x 1.5	RT1614
RT1623	1-1/4" x ER40, - 60mm shank	1-1/4"	60mm	120mm	60mm	63mm	M28 x 1.5	RT1615
RT1625	1-1/2" x ER40, - 75mm shank	1-1/2"	75mm	135mm	60mm	63mm	M28 x 1.5	RT1615

Precision ER Straight Shank Toolholder Extensions



Features

- For coolant up to 1,500 PSI
- Collet pocket T.I.R. 0.0001"
- PowerCOAT coolant nut included



Coolant-Thru Straight Shank Extensions

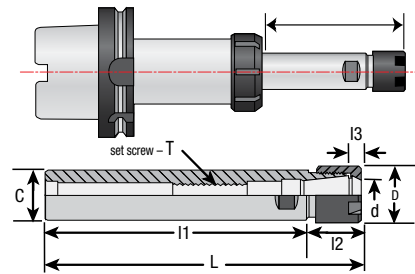
Part No.	Description	l1	l2	D	T	t2	A	Wrench
RT1627	3/4" x ER16, - 2" shank, coolant mini nut	1.65"	.916"	3/4"	m10 x 1.5	1/4" NPT	22mm	RT1618
RT1629	3/4" x ER16, - 3" shank, coolant mini nut	2.44"	.916"	3/4"	m10 x 1.5	1/4" NPT	22mm	RT1618
RT1631	3/4" x ER16, - 4" shank, coolant mini nut	3.42"	.916"	3/4"	m10 x 1.5	1/4" NPT	22mm	RT1618
RT1633	1.0" x ER20, - 3" shank, coolant mini nut	2.01"	1.07"	1.0"	m12 x 1.75	3/8" NPT	1.10"	RT1619
RT1634	1.0" x ER20, - 4" shank, coolant mini nut	3.31"	1.07"	1.0"	m12 x 1.75	3/8" NPT	1.10"	RT1619
RT1635	1.25" x ER32, - 2.36" shank, slotted nut	2.36"	2.16"	1-1/4"	m12 x 1.75	3/8" NPT	1.97"	RT1614



Features

- Collet pocket T.I.R. 0.0001"
- All surfaces precision ground
- PowerCOAT Nut included

Extension length should not exceed a 4 : 1 ratio of length to diameter.
For example, a 1/2" shank should not extend more than 2" in front of the holder.



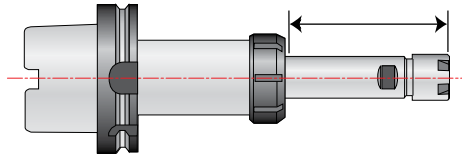
Mini-Nut ER Straight Shank Extensions

Part No.	Description	C	L	l1	l2	D	Wrench
RT1651	3/8" x ER8, - 100mm	3/8"	124mm	100mm	24mm	12mm	RT1616
RT1652	1/2" x ER11, - 140mm	1/2"	166.5mm	140mm	26.5mm	16mm	RT1617
RT1653	5/8" x ER11, - 140mm	5/8"	158.5mm	140mm	18.5mm	16mm	RT1617
RT1654	1/2" x ER16, - 140mm	1/2"	177mm	140mm	37mm	22mm	RT1618
RT1655	3/4" x ER16, - 140mm	3/4"	165mm	140mm	25mm	22mm	RT1618
RT2230	1/2" x ER20, - 140mm	1/2"	180mm	140mm	40mm	28mm	RT1619
RT2231	3/4" x ER20, - 140mm	3/4"	180mm	140mm	40mm	28mm	RT1619
RT1656	1.0" x ER20, - 140mm	1.0"	168mm	140mm	28mm	28mm	RT1619
RT1657	3/4" x ER25, - 100mm	3/4"	149mm	100mm	49mm	35mm	RT1620
RT2232	1.0" x ER25, - 140mm	1.0"	190mm	140mm	50mm	35mm	RT1620

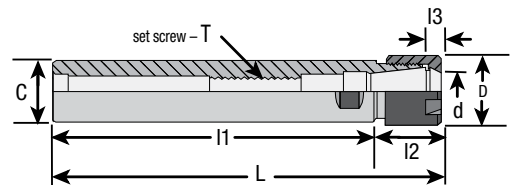
ER Straight Shank Extensions & CMS Toolholder



- Works with any tool holder
- Precision ground pocket
- Includes ER mini nut



For applications where the extension is rotating, extension length should not exceed a 4:1 ratio Example: 1/2" shank should not extend more than 2" in front of the holder.



ER 8, 11, 16, 20, 25 Straight Shank Extensions

Part No.	C	d	I1	L	I2	I3	D	d	Wrench	Nut Type
RT1651	3/8"	ER8M	100mm	124mm	24mm	6mm	12mm	ER8	RT1616	M
RT1652	1/2"	ER11M	140mm	166.5mm	26.5mm	6.6mm	16mm	ER11	RT1617	M
RT1653	5/8"	ER11M	140mm	158.5mm	18.5mm	6.6mm	16mm	ER11	RT1617	M
RT1654	1/2"	ER16M	140mm	177mm	37mm	10.6mm	22mm	ER16	RT1618	M
RT1655	3/4"	ER16M	140mm	165mm	25mm	10.6mm	22mm	ER16	RT1618	M
RT2231	3/4"	ER20M	140mm	180mm	40mm	11.5mm	28mm	ER20	RT1619	M
RT1656	1"	ER20M	140mm	168mm	28mm	11.5mm	28mm	ER20	RT1619	M
RT1657	3/4"	ER25M	100mm	140mm	40mm	12mm	35mm	ER25	RT1620	M
RT2232	1"	ER25M	140mm	190mm	50mm	12mm	35mm	ER25	RT1620	M



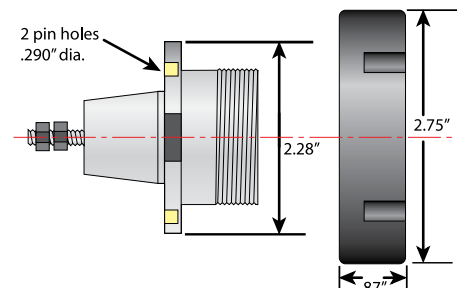
- Works with ER or ETS collets
- 0.0002" T.I.R. (collet pocket runout)
- Taper ground to AT3 specification



CMS Toolholder

Includes turret nut. Order collets and nuts separately.

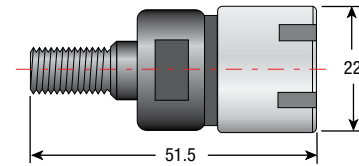
Part No.	Description
RT4001	CMS Toolholder with turret nut



Drill Adapters



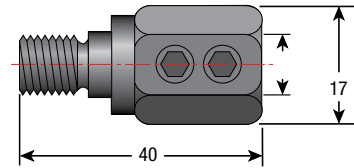
- Eliminate threaded drill bits
- Better rigidity and holding power
- Longer drill life



Drill Adapters

Designed for CNC Routers with Inline Multi-Spindles.

Part No.	Collet Type	Capacity	Thread
RT1001	ER16	3/8" or 10mm	Right
RT1000	ER16	3/8" or 10mm	Left



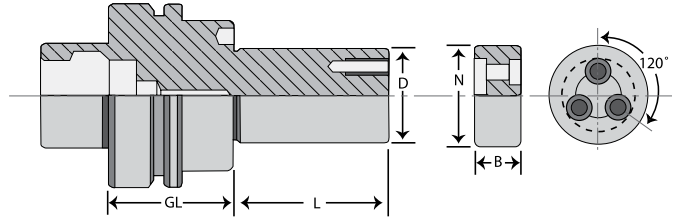
Dimensions are in millimeters unless otherwise indicated.

Part No.	Shank	Thread	I.D.
RT1003	M10x1.05	Right	10mm
RT1002	M10x1.05	Left	10mm

HSK 63F & ISO30 Arbors for CNC Routers



- Special 3 screw design improves safety
- Precision ground taper provides high accuracy
- Balanced 25,000 RPM at G2.5

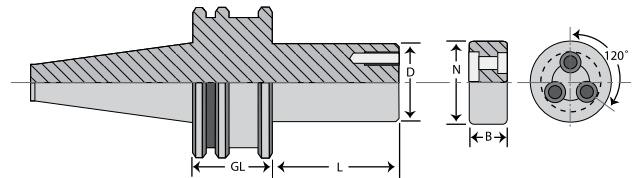


HSK 63F Arbors

Part No.	Description	L	GL	D	B	N
RT2729	HSK 63F 1 1/4" arbor x 55mm	55mm	45	1 1/4"	20mm	42mm
RT2730	HSK 63F 1 1/4" arbor x 80mm	80mm	45	1 1/4"	20mm	42mm
RT2731	HSK 63F 1 1/4" arbor x 100mm	100mm	45	1 1/4"	20mm	42mm
RT2732	HSK 63F 1 1/4" arbor x 112mm	112mm	45	1 1/4"	20mm	42mm



- Special 3 screw design improves safety
- Taper ground to AT3 specification for accuracy
- Balanced 25,000 RPM at G2.5



ISO 30 Arbors

Part No.	Description	L	GL	D	B	N
RT2263	ISO 30 x 1 1/4" x 40mm arbor	40mm	42mm	1 1/4"	20mm	42mm
RT2264	ISO 30 x 1 1/4" x 55mm arbor	55mm	42mm	1 1/4"	20mm	42mm
RT2265	ISO 30 x 1 1/4" x 80mm arbor	80mm	42mm	1 1/4"	20mm	42mm
RT2262	ISO 30 x 1 1/4" x 100mm arbor	100mm	42mm	1 1/4"	20mm	42mm

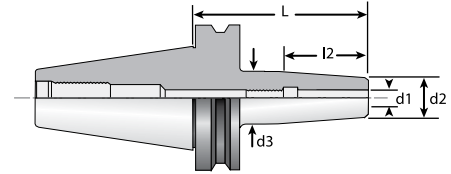
BT30, BT40 ShrinkFIT Toolholders



Features

- Maximum T.I.R. only 0.0001"
- Balanced 25,000 RPM at G2.5
- Highest rigidity – extends cutter life

ShrinkFIT toolholders provide concentric clamping force of 10,000 lbs. or more directly on the cutting tool shank to reduce T.I.R. (runout). This is why operators are able to run faster and cutters last longer too.



BT30 ShrinkFIT Toolholders

Part No.	Description	d1	d2	d3	I1	I2
RT3250	BT 30 x 1/4" I.D. - 3"	1/4"	.71"	1.06"	3"	1.42"
RT3251	BT 30 x 3/8" I.D. - 3"	3/8"	.78"	1.06"	3"	1.42"
RT3252	BT 30 x 1/2" I.D. - 3"	1/2"	1.10"	1.34"	3"	1.85"
RT3253	BT 30 x 5/8" I.D. - 3"	5/8"	1.26"	1.34"	3"	1.97"
RT3254	BT 30 x 3/4" I.D. - 3"	3/4"	1.42"	1.15"	3"	2.04"

BT40 ShrinkFIT Toolholders

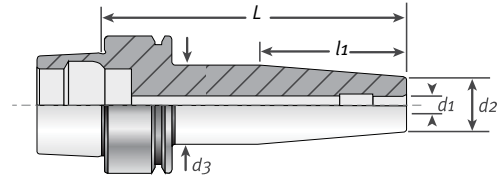
Part No.	Description	d1	d2	d3	I1	I2
RT2722	BT 40 x 3/16" x 3.54	3/16"	.63"	.87"	3.54"	.79"
RT2723	BT 40 x 1/4" x 3.54	1/4"	.71"	1.06"	3.54"	1.42"
RT2724	BT 40 x 3/8" x 3.54	3/8"	.78"	1.06"	3.54"	1.42"
RT2725	BT 40 x 1/2" x 3.54	1/2"	1.10"	1.34"	3.54"	1.85"
RT2726	BT 40 x 3/4" x 3.54	3/4"	1.42"	1.65"	3.54"	2.04"
RT2727	BT 40 x 1" x 3.54	1"	1.81"	2.09"	3.54"	2.28"

HSK40E, HSK50E ShrinkFIT Toolholders



Features

- Maximum T.I.R. only 0.0001"
- Balanced 25,000 RPM at G2.5
- Highest rigidity – extends cutter life



HSK40E ShrinkFIT Toolholders

Part No.	Description	d1	d2	d3	l1	l2
RT3255	HSK 40E x 1/8" I.D. - 3.54"	1/8"	.63"	.87"	3.54"	.79"
RT3256	HSK 40E x 3/16" I.D. - 3.54"	3/16"	.63"	.87"	3.54"	.79"
RT3257	HSK 40E x 1/4" I.D. - 3.54"	1/4"	.71"	1.06"	3.54"	1.42"
RT3258	HSK 40E x 5/16" I.D. - 3.54"	5/16"	.79"	1.06"	3.54"	1.42"
RT3259	HSK 40E x 3/8" I.D. - 3.54"	3/8"	.94"	1.26"	3.54"	1.53"

HSK40E ShrinkFIT Toolholders Metric

Part No.	Description	d1	d2	d3	l1	l2
RT3260	HSK 40E x 3mm I.D. - 80mm	3mm	10mm	18mm	80mm	18mm
RT3261	HSK 40E x 4mm I.D. - 80mm	4mm	14mm	22mm	80mm	20mm
RT3262	HSK 40E x 6mm I.D. - 80mm	6mm	21mm	27mm	80mm	36mm
RT3263	HSK 40E x 8mm I.D. - 80mm	8mm	21mm	27mm	80mm	36mm
RT3264	HSK 40E x 10mm I.D. - 80mm	10mm	24mm	32mm	85mm	42mm

HSK50E ShrinkFIT Toolholders

Part No.	Description	d1	d2	d3	l1	l2
RT3265	HSK 50E x 3/16" I.D. - 3.54"	3/16"	.63"	.87"	3.54"	.79"
RT3266	HSK 50E x 1/4" I.D. - 3.54"	1/4"	.71"	1.06"	3.54"	1.42"
RT3267	HSK 50E x 5/16" I.D. - 3.54"	5/16"	.79"	1.06"	3.54"	1.42"
RT3268	HSK 50E x 3/8" I.D. - 3.54"	3/8"	.94"	1.26"	3.54"	1.53"
RT3269	HSK 50E x 1/2" I.D. - 3.54"	1/2"	1.10"	1.34"	3.54"	1.85"

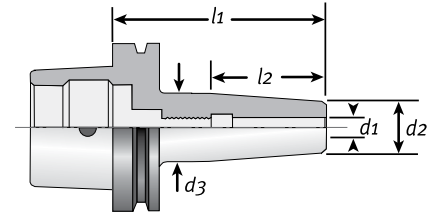
HSK 63F & ISO 30 ShrinkFIT Toolholders for CNC Routers



Features

- Maximum T.I.R. only 0.0001"
- Balanced 25,000 RPM at G2.5
- Highest rigidity – extends cutter life

Shrink-fit toolholders provide concentric clamping force of 10,000 lbs or more directly on the tool shank. This is why T.I.R. is so low and operators are able to run faster and cutters last longer too.



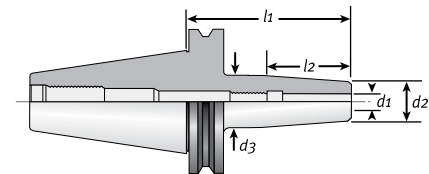
HSK 63F ShrinkFIT Toolholders

Part No.	Description	d1	d2	d3	l1	l2	l3
RT2308	HSK 63F x SF 20 - 100mm	20mm	33mm	42mm	100mm	52mm	10mm
RT2309	HSK 63F x SF 25 - 115mm	25mm	44mm	53mm	115mm	63mm	10mm
RT2310	HSK 63F x SF 1/4" - 80mm	1/4"	21mm	27mm	80mm	36mm	10mm
RT2311	HSK 63F x SF 3/8" - 95mm	3/8"	24mm	32mm	95mm	42mm	10mm
RT2312	HSK 63F x SF 1/2" - 95mm	1/2"	24mm	32mm	95mm	47mm	10mm
RT2313	HSK 63F x SF 3/4" - 100mm	3/4"	33mm	42mm	100mm	52mm	10mm
RT2314	HSK 63F x SF 1" - 115mm	1"	44mm	53mm	115mm	53mm	10mm



Features

- Maximum T.I.R. only 0.0001"
- Balanced 25,000 RPM at G2.5
- Highest rigidity – extends cutter life



ISO 30 ShrinkFIT Toolholders

Part No.	Description	d1	d2	d3	l1	l2
RT2795	ISO 30 x 1/4" I.D. - 3.15"	1/4"	.71"	1.06"	3.15"	1.42"
RT2796	ISO 30 x 3/8" I.D. - 3.15"	3/8"	.78"	1.06"	3.15"	1.42"
RT2797	ISO 30 x 1/2" I.D. - 3.15"	1/2"	1.10"	1.34"	3.15"	1.85"
RT2799	ISO 30 x 5/8" I.D. - 3.15"	5/8"	1.26"	1.34"	3.15"	1.97"
RT2798	ISO 30 x 3/4" I.D. - 3.15"	3/4"	1.42"	1.65"	3.15"	2.04"

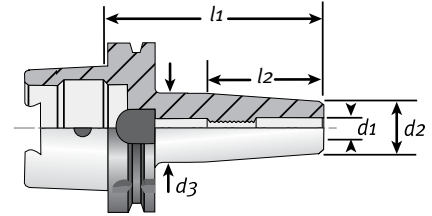
100A ShrinkFIT Toolholders



Features

- Maximum T.I.R. only 0.0001"
- Balanced 25,000 RPM at G2.5
- Comes with coolant-thru set screw installed

ShrinkFIT toolholders provide concentric clamping force of 10,000 lbs. or more directly on the cutting tool shank to reduce T.I.R. (runout). This is why operators are able to run faster and cutters last longer too.



HSK100A ShrinkFIT Toolholders

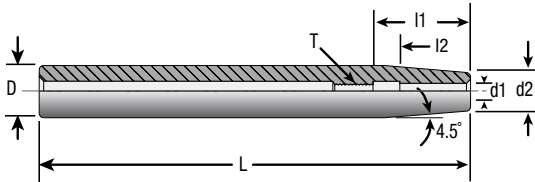
Part No.	Description	d1	d2	d3	l1	l2
RT2902	HSK 100A x 1/8" I.D. - 3.54"	1/8"	.63"	.87"	3.54"	.79"
RT2917	HSK 100A x 1/4" I.D. - 3.54"	1/4"	.71"	1.06"	3.54"	1.42"
RT2924	HSK 100A x 5/16" I.D. - 3.35"	5/16"	.79"	1.06"	3.35"	1.42"
RT2918	HSK 100A x 3/8" I.D. - 3.54"	3/8"	.94"	1.26"	3.54"	1.53"
RT2903	HSK 100A x 3/8" I.D. - 6"	3/8"	.94"	1.26"	6"	1.53"
RT2905	HSK 100A x 7/16" I.D. - 3.74"	7/16"	.94"	1.26"	3.74"	1.85"
RT2919	HSK 100A x 1/2" I.D. - 3.74"	1/2"	1.10"	1.34"	3.74"	1.85"
RT2907	HSK 100A x 1/2" I.D. - 6"	1/2"	1.10"	1.34"	6"	1.85"
RT2928	HSK 100A x 5/8" I.D. - 3.94"	5/8"	1.26"	1.34"	3.94"	1.97"
RT2926	HSK 100A x 5/8" I.D. - 6"	5/8"	1.26"	1.34"	6"	1.97"
RT2921	HSK 100A x 3/4" I.D. - 4.13"	3/4"	1.42"	1.65"	4.13"	2.04"
RT2925	HSK 100A x 3/4" I.D. - 6"	3/4"	1.42"	1.65"	6"	2.04"
RT2922	HSK 100A x 1" I.D. - 4.53"	1"	1.81"	2.09"	4.53"	2.28"
RT2929	HSK 100A x 1" I.D. - 6.3"	1"	1.81"	2.09"	6.3"	2.28"
RT2923	HSK 100A x 1-1/4" I.D. - 4.72"	1-1/4"	1.81"	2.09"	4.72"	2.28"
RT2930	HSK 100A x 1-1/4" I.D. - 6.3"	1-1/4"	1.81"	2.09"	6.3"	2.28"

ShrinkFIT Universal Toolholder Extensions & Machine Parts



Features

- Extend the reach of your existing holders
- Better rigidity and T.I.R. extends tool life
- Works with a variety of toolholders



Part No.	Description	D	d1	d2	L	I1	I2	T
RT3436	5/8" O.D., x 1/8" I.D. - 6.3" length	5/8"	1/8"	.394"	6.3"	-	.39"	-
RT3437	5/8" O.D., x 3/16" I.D. - 6.3" length	5/8"	3/16"	.394"	6.3"	-	.39"	-
RT3438	5/8" O.D., x 1/4" I.D. - 6.3" length	5/8"	1/4"	.394"	6.3"	1.42	1.02"	M6x1.0
RT3439	3/4" O.D., x 1/4" I.D. - 6.3" length	3/4"	1/4"	.551"	6.3"	1.42	1.02"	M6x1.0
RT3440	3/4" O.D., x 3/8" I.D. - 6.3" length	3/4"	3/8"	.551"	6.3"	1.65	1.26"	M8x1.25
RT3441	1.0" O.D., x 3/8" I.D. - 6.3" length	1.0"	3/8"	.79"	6.3"	1.65	1.26"	M8x1.25
RT3442	1.0" O.D., x 1/2" I.D. - 6.3" length	1.0"	1/2"	.79"	6.3"	1.85	1.46"	M10x1.5
RT3443	1.0" O.D., x 5/8" I.D. - 6.3" length	1.0"	5/8"	.87"	6.3"	1.97	1.57"	M12x1.75

ShrinkFIT Machine Replacement Parts (for products on the following page)

Part No.	Description
RT3446	Induction Stop Ring for 3mm - 5mm (.12" - .20") shanks
RT3447	Induction Stop Ring for 6mm - 12mm (.24" - .47") shanks
RT3448	Induction Stop Ring for 14mm - 20mm (.55" - .79") shanks
RT3449	Induction Stop Ring for 25mm - 32mm (.98" - 1.26") shanks
RT3450	Tool holder adapter for any 30 taper
RT3451	Tool holder adapter for any 40 taper
RT3452	Tool holder adapter for any 50 taper
RT3453	Tool holder adapter for HSK 32
RT3454	Tool holder adapter for HSK 40
RT3455	Tool holder adapter for HSK 50
RT3456	Tool holder adapter for HSK 63



ShrinkSTATION & ShrinkPRO – ShrinkFIT Machines



Features

- Changes tools in 30 seconds
- Automatic cooling using shop air
- For carbide tools from 1/8" to 1-1/4" (works best with h6 shanks)
- All controls are computerized
- Our smallest footprint

Part No.	Description	Tool Change	Rating	L x D x H	Wt.
RT3444	ShrinkSTATION	30 seconds	1 phase, 220V, 20A	17"x 18"x 31"	42 lbs

For replacement parts, see the previous page.

ShrinkSTATION Includes:

- 1 small induction head (3-16mm)
- 1 large induction head (20-32mm)
- 1 induction stop ring (3-5mm)
- 1 induction stop ring (6-12mm)
- 1 induction stop ring (14-20mm)
- 1 induction stop ring (25-32mm)
- 1 toolholder adapter - 30 taper
- 1 toolholder adapter - 40 taper
- 1 toolholder adapter - 50 taper
- 1 toolholder adapter - HSK40
- 1 toolholder adapter - HSK50
- 1 toolholder adapter - HSK63
- 1 toolholder sleeve
- 1 thermal insulated glove

small footprint
17" wide x 18" deep x 31" tall



Features

- Change 1/8" shanks in 2 seconds. 1" in 6 seconds
- Flexible power requirements – Operates on 208V up to 480V
- Automatic cooling cycle by compressed air

ShrinkPRO includes:

- 1 toolholder adapter - 30 taper
- 1 toolholder adapter - 40 taper
- 1 toolholder adapter - 50 taper
- 1 toolholder adapter - HSK40
- 1 toolholder adapter - HSK50
- 1 toolholder adapter - HSK63/100
- 1 thermal insulated glove

Features & Flexibility

This machine truly has it all; touch-screen simplicity, state-of-the-art induction heating for fast tool changes, and automatic cooling cycle using your shop air.

20" wide x 20" deep x 37" tall



Part No.	Description	Tool Change	Rating	L x D x H	Ship Wt.
RT3445	ShrinkPRO machine	2–6 seconds	3 phase, 480V, 20A	20"x 20"x 37"	84 lbs

For replacement parts, see the previous page.

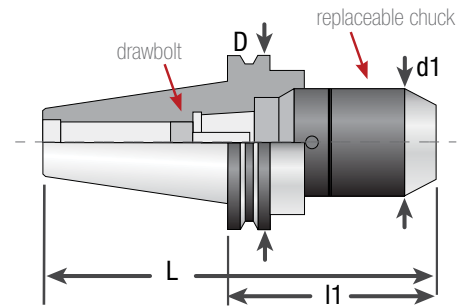
CAT & BT Replaceable Keyless Drill Chucks



Features

- 3 times more holding power than other chucks
- Holds non-standard shank sizes up to 1/2"
- Replaceable chuck is held by a drawbolt

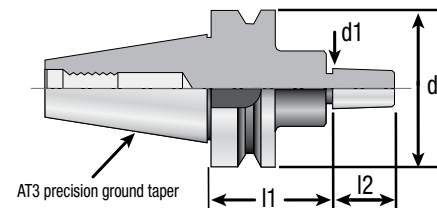
Order Part No. RT1144 replaceable chuck



BT Replaceable Drill Chucks

Part No.	Description	I1	L	D	d1
RT1854	BT30 x SPU 13mm - 110mm (no slots)	110mm	170.4mm	46mm	50mm
RT1851	BT30 x SPU 13mm - 110mm	110mm	170.4mm	46mm	50mm
RT2286	BT40 x SPU 13mm - 100mm	100mm	177.4mm	63mm	50mm
RT1852	BT50 x SPU 13mm - 100mm	100mm	213.8mm	100mm	50mm
RT1144	SPU drill chuck (replacement)				
RT1004	SPU drill chuck wrench (replacement)				

Wrench included.



BT Toolholders For Jacobs Taper Drill Chucks

Part No.	Description	I1	I2	d1
RT1857	BT30 x JT2 - 45mm	45mm	20mm	14.199
RT1858	BT30 x JT33 - 45mm	45mm	24mm	15.850
RT1859	BT30 x JT6 - 45mm	45mm	24mm	17.170
RT1860	BT40 x JT2 - 45mm	45mm	20mm	14.199
RT1861	BT40 x JT33 - 45mm	45mm	24mm	15.850
RT1862	BT40 x JT6 - 45mm	45mm	24mm	17.170

Precision Keyless Jacobs Drill Chucks



- Industrial design especially for milling machines and drilling machines.
- All hardened parts ensure long life and safety while in operation.

Type H Jacobs Taper Drill Chucks

Part No.	Description	Length Closed	Other Diameter	Clamping Capacity
RT1134	08H x JT1	76mm	38mm	0-5/16"
RT1135	10H x JT2	92mm	43mm	0-3/8"
RT1136	13H x JT6	102mm	49mm	0-1/2"
RT1137	16H x JT6	110mm	55mm	1/8-5/8"
RT1138	16H x JT3	110mm	55mm	1/8-5/8"



Features

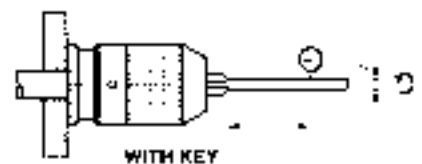
- For milling machines & drilling machines
- All hardened parts for long life and safety
- Use with CAT or BT holders

Keyless Jacobs Taper Drill Chucks

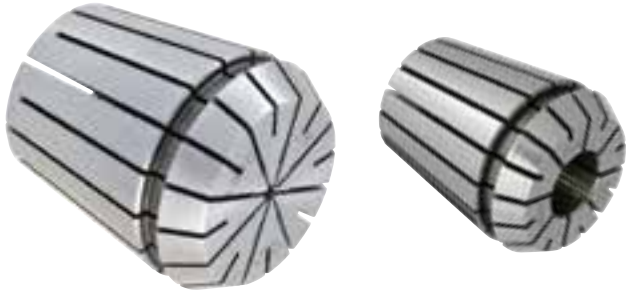
Part No.	Description	Length Closed	Outer Diameter	Range
RT1139	08S x JT1	76mm	38mm	0 - 5/16"
RT1142	13S x JT6	102mm	49mm	0 - 1/2"
RT1141	10S x JT33	92mm	43mm	0 - 3/8"
RT1143	13S x JT33	102mm	49mm	0 - 1/2"

Dimensions

L	D	Concentricity
55mm	5mm	0.04mm-.0015"
55mm	10mm	0.04mm-.0015"
75mm	13mm	0.04mm-.0015"



Precision ER Collet Sets



Inch Size ER Collet Features

- Average .0002" T.I.R.
- Collapse range: .039"
- Use with PowerCOAT nut for best holding power and cutting tool life.



ER Inch Size Collet Sets

Part No.	Size	Range	Pieces	Capacity
RT1394	ER11	1/32-1/4"	7	1/16-1/4" by 32nds
RT1406	ER16	1/16-3/8"	10	3/32-3/8" by 32nds
RT1407	ER20	1/8-1/2"	12	5/32-1/2" by 32nds
RT1408	ER25	1/8-5/8"	16	5/32-5/8" by 32nds
RT1429	ER32	3/16-3/4"	18	7/32-3/4" by 32nds
RT1430	ER40	1/8-1"	13	1/8-1.0" by 16ths

ER Metric Size Collet Sets

Part No.	Size	Range	Pieces	Capacity
RT1386	ER8	0.5-5mm	9	1-5 by 0.5mm
RT1387	ER11	0.5-7mm	13	1-7 by 0.5mm
RT1388	ER16	0.5-10mm	10	1-10 by 1mm
RT1389	ER20	1-13mm	12	2-13 by 1mm
RT1390	ER25	1-16mm	15	2-16 by 1mm
RT1391	ER32	2-20mm	18	3-20 by 1mm
RT1392	ER40	3-26mm	23	4-26 by 1mm
RT1393	ER50	5-34mm	17	6-34 by 2 mm

Precision Inch ER Collets

ER11, ER16, ER20

ER11	ER16	ER20	Range	Drill Shank
RT1422	RT1440		.043-.062"	1/16"
RT1426	RT1447	RT1472	.054-.093"	3/32"
RT1424	RT1442	RT1463	.086-.125"	1/8"
RT1427	RT1450	RT1475	.117-.156"	5/32"
RT1425	RT1446	RT1471	.148-.187"	3/16"
RT1428	RT1451	RT1477	.179-.218"	7/32"
RT1423	RT1441	RT1462	.211-.250"	1/4"
	RT1452	RT1478	.242-.281"	9/32"
	RT1449	RT1474	.273-.312"	5/16"
	RT1444	RT1466	.304-.343"	11/32"
	RT1448	RT1473	.336-.375"	3/8"
	RT1445	RT1469	.367-.406"	13/32"
		RT1476	.398-.437"	7/16"
		RT1470	.429-.468"	15/32"
		RT1461	.461-.500"	1/2"

ER25, ER32, ER40

ER25	ER32	ER40	Range	Drill Shank
RT1503	RT1541		.054-.093"	3/32"
RT1489	RT1520	RT1557	.086-.125"	1/8"
RT1506	RT1543	RT1593	.117-.156"	5/32"
RT1502	RT1540	RT1588	.148-.187"	3/16"
RT1509	RT1545	RT1596	.179-.218"	7/32"
RT1488	RT1519	RT1556	.211-.250"	1/4"
RT1511	RT1547	RT1599	.242-.281"	9/32"
RT1505	RT1542	RT1592	.273-.312"	5/16"
RT1492	RT1524	RT1561	.304-.343"	11/32"
RT1504	RT1564Q	RT1590Q	.336-.375"	3/8"
RT1495	RT1527	RT1565	.367-.406"	13/32"
RT1508	RT1544	RT1595	.398-.437"	7/16"
RT1498	RT1530	RT1569	.429-.468"	15/32"
RT1487Q	RT1568Q	RT1555Q	.461-.500"	1/2"
RT1500	RT1533	RT1572	.492-.531"	17/32"
RT1510	RT1546	RT1598	.523-.562"	9/16"
RT1501	RT1536	RT1575	.554-.593"	19/32"
RT1507	RT1584Q	RT1594	.586-.625"	5/8"
	RT1538	RT1578	.617-.656"	21/32"
	RT1523	RT1560	.648-.687"	11/16"
	RT1539	RT1581	.679-.718"	23/32"
	RT1586Q	RT1589Q	.711-.750"	3/4"
		RT1597	.836-.875"	7/8"
		RT1554	.961-1.00"	1"

Precision Metric ER Collets

ER8 & ER11 Precision Collets

ER8	ER11	Inch	Range	in./mm
RT1395	RT1409	1/32"	.019-.039"	0.5-1.0
RT1397	RT1410	3/64"	.039-.059"	1.0-1.5
RT1398	RT1411	1/16"	.059-.079"	1.5-2.0
RT1399	RT1412	3/32"	.079-.098"	2.0-2.5
RT1400	RT1413	7/64"	.098-.118"	2.5-3.0
RT1401	RT1414	1/8"	.118-.138"	3.0-3.5
RT1403	RT1415	5/32"	.138-.157"	3.5-4.0
RT1404	RT1416	11/64"	.157-.177"	4.0-4.5
RT1405	RT1417	3/16"	.177-.197"	4.5-5.0
	RT1418	13/64"	.197-.217"	5.0-5.5
	RT1419	7/32"	.217-.236"	5.5-6.0
	RT1420	1/4"	.236-.256"	6.0-6.5
	RT1421	17/64"	.256-.276"	6.5-7.0

ER16 & ER20 Precision Collets

ER16	ER20	Inch	Range	in./mm
RT1431		1/32"	.019-.039"	0.5-1
RT1432	RT1453	1/16"	.039-.079"	1-2
RT1433	RT1454	7/64"	.079-.118"	2-3
RT1434	RT1455	1/8"	.118-.157"	3-4
RT1435	RT1456	3/16"	.157-.197"	4-5
RT1436	RT1457	7/32"	.197-.236"	5-6
RT1437	RT1458	1/4"	.236-.276"	6-7
RT1438	RT1459	5/16"	.276-.315"	7-8
RT1439	RT1460	11/32"	.315-.354"	8-9
RT1443	RT1464	3/8"	.354-.394"	9-10
	RT1465	13/32"	.394-.433"	10-11
	RT1467	7/16"	.433-.472"	11-12
	RT1468	1/2"	.472-.512"	12-13

Precision Metric ER Collets

ER25, ER32 & ER 40 Precision Collets

ER25	ER32	ER40	Inch	Range	in./mm
RT1479			1/16"	.039-.079"	2-Jan
RT1480	RT1512		7/64"	.079-.118"	3-Feb
RT1481	RT1513	RT1548	1/8"	.118-.157"	4-Mar
RT1482	RT1514	RT1549	3/16"	.157-.197"	5-Apr
RT1483	RT1515	RT1550	7/32"	.197-.236"	6-May
RT1484	RT1516	RT1551	1/4"	.236-.276"	7-Jun
RT1485	RT1517	RT1552	5/16"	.276-.315"	8-Jul
RT1486	RT1518	RT1553	11/32"	.315-.354"	9-Aug
RT1490	RT1521	RT1558	3/8"	.354-.394"	10-Sep
RT1491	RT1522	RT1559	13/32"	.394-.433"	11-Oct
RT1493	RT1525	RT1562	7/16"	.433-.472"	12-Nov
RT1494	RT1526	RT1563	1/2"	.472-.512"	13-Dec
RT1496	RT1528	RT1566	17/32"	.512-.551"	13-14
RT1497	RT1529	RT1567	9/16"	.551-.591"	14-15
RT1499	RT1531	RT1570	5/8"	.591-.630"	15-16
	RT1532	RT1571	21/32"	.630-.669"	16-17
	RT1534	RT1573	11/16"	.669-.709"	17-18
	RT1535	RT1574	3/4"	.709-.748"	18-19
	RT1537	RT1576	25/32"	.748-.787"	19-20
		RT1577	13/16"	.787-.827"	20-21
		RT1579	27/32"	.827-.866"	21-22
		RT1580	7/8"	.866-.906"	22-23
		RT1582	15/16"	.906-.945"	23-24
		RT1583	31/32"	.945-.984"	24-25
		RT1585	1"	.984-1.024"	25-26

Ultra Precision DNA Collets for Small Diameters

DNA Collets (Dead Nuts Accurate!)

Reduce your costs! DNA collets extend the life of small diameter carbide drills. Use DNA collets with standard ER collet chucks.

Problem:

Short tool life and poor performance of 6mm and smaller carbide tools. This occurs because ER collets 6mm and smaller fail to provide consistent T.I.R. and high rigidity. This increases tool wear and drives up cost.

Reasons:

1. ER collets 6mm and smaller allow 40% of the collet to extend out of the collet pocket. This means 40% of the jaws surface area does not properly collapse on the tool shank because they are unsupported by the walls of the pocket.
2. Because so much of the collet is out of the pocket, when the ER nut contacts the shoulder of the collet, friction causes it to twist the jaws of the collet during tightening. This distorts the collet axis in the pocket contributing to inconsistent T.I.R. Refer to the diagram and see how the DNA nut does not contact the collet shoulder.
3. On ER collets 6mm diameter and smaller, the small jaws do not provide the holding force and rigidity on the shank necessary to produce acceptable T.I.R.

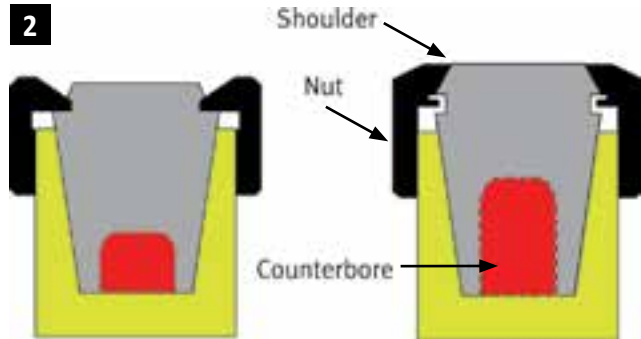
Solution:

Use DNA collets for consistent T.I.R. and to extend tool life on all diameters under 6mm. DNA collets provide more shank support deeper into the pocket and greater rigidity than small diameter ER collet nuts.



DNA Collet

ER Collet



DNA Collet

ER Collet

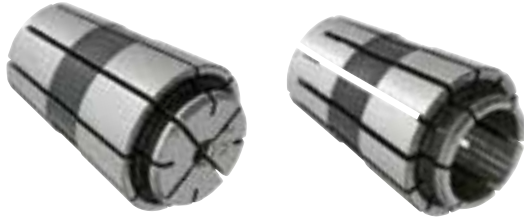


DNA Collet
(6 large jaws)

ER Collet
(8 small jaws)



Ultra Precision DNA Collets



DNA Collets Features

- .0002" T.I.R. extends cutting tool life!
- Best collet for tools 1/8" (6mm) and smaller
- More rigid and more accurate than ER, but works with your ER holders

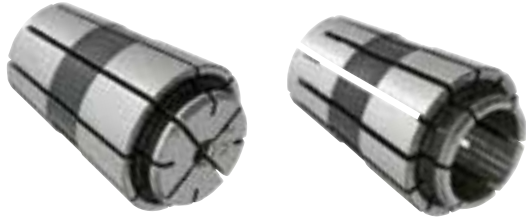
DNA 11 Dead Nut Accurate Collets

Part No.	Description	I.D. Capacity	Range
RT2348	DNA 11 x 1/8"	.105"-.125"	.5mm
RT2349	DNA 11 x 3/16"	.167"-.187"	.5mm
RT2350	DNA 11 x 1/4"	.230"-.250"	.5mm
RT2351	DNA 11 x 3mm	.098"-.118"	.5mm
RT2352	DNA 11 x 3.5mm	.118"-.138"	.5mm
RT2353	DNA 11 x 4mm	.138"-.157"	.5mm
RT2354	DNA 11 x 5mm	.177"-.197"	.5mm
RT2355	DNA 11 x 6mm	.216"-.236"	.5mm
RT2356	DNA 11 nut M14 x .75"		
RT2357	DNA 11 coolant nut for 1/8" & 3mm		
RT1608	ER11 - A Wrench		
RT2359	DNA 11 torque wrench adapter		

DNA 16 Dead Nuts Accurate Collets

Part No.	Description	I.D. Capacity	Range
RT2234	DNA 16 x 1/8"	.105"-.125"	.50mm
RT2360	DNA 16 x 3/16"	.147"-.187"	1.0mm
RT2361	DNA 16 x 1/4"	.210"-.25"	1.0mm
RT2362	DFNA 16 x 3/8"	.335"-.375"	1.0mm
RT2224	DNA 16 x .3 - .2mm	.007"-.011"	.10mm
RT2363	DNA 16 x .4 - .3mm	.011"-.015"	.10mm
RT2225	DNA 16 x .5 - .4mm	.015"-.019"	.10mm
RT2226	DNA 16 x .6 - .5mm	.019"-.023"	.10mm
RT2227	DNA 16 x .8 - .7mm	.027"-.031"	.10mm
RT2228	DNA 16 x 1.0 - .9mm	.035"-.039"	.10mm
RT2229	DNA 16 x 1.2 - 1.1mm	.043"-.047"	.10mm
RT2236	DNA 16 x 1.25 - 1.0mm	.039"-.049"	.25mm
RT2237	DNA 16 x 1.5 - 1.25mm	.049"-.059"	.25mm
RT2238	DNA 16 x 1.75 - 1.5mm	.059"-.068"	.25mm
RT2239	DNA 16 x 2 - 1.75mm	.068"-.078"	.25mm
RT2240	DNA 16 x 2.25 - 2mm	.078"-.088"	.25mm
RT2241	DNA 16 x 2.5 - 2.25mm	.088"-.098"	.25mm
RT2242	DNA 16 x 3 - 2.5mm	.098"-.118"	.50mm
RT2244	DNA 16 x 3.5 - 3mm	.118"-.138"	.50mm
RT2245	DNA 16 x 4 - 3.5mm	.137"-.157"	.50mm
RT2364	DNA 16 x 4.5 - 4mm	.157"-.177"	.50mm
RT2246	DNA 16 x 5 - 4mm	.157"-.197"	1.0mm
RT2247	DNA 16 x 6 - 5mm	.196"-.236"	1.0mm
RT2248	DNA 16 x 7 - 6mm	.236"-.275"	1.0mm
RT2249	DNA 16 x 8 - 7mm	.275"-.314"	1.0mm
RT2250	DNA 16 x 9 - 8mm	.314"-.354"	1.0mm
RT2251	DNA 16 x 10 - 9mm	.354"-.392"	1.0mm
RT2368	DNA 16 M19 x 1 Mini Nut	-	-
RT2638	M 22 x 1.5 Nut, O.D. 27mm	-	-
RT2639	M 22 x 1.5 Nut, 1/8" o-ring	-	-
RT2942	DNA 16 Collet Wrench	-	-

Ultra Precision DNA Collets



DNA Collets Features

- .0002" T.I.R. extends cutting tool life!
- Best collet for tools 1/8" (6mm) and smaller
- More rigid and more accurate than ER, but works with your ER holders

DNA 20 Dead Nut Accurate Collets

Part No.	Description	I.D. Capacity	Range
RT3270	DNA 20 x 1/8"	.105"-.125"	.5mm
RT3271	DNA 20 x 3/16"	.147"-.187"	1.0mm
RT3272	DNA 20 x 1/4"	.210"-.250"	1.0mm
RT3273	DNA 20 x 3/8"	.335"-.375"	1.0mm
RT3274	DNA 20 x 3mm	.098"-.118"	.5mm
RT3275	DNA 20 x 3.5mm	.118"-.138"	.5mm
RT3276	DNA 20 x 4mm	.137"-.157"	.5mm
RT3277	DNA 20 x 5mm	.157"-.197"	1.0mm
RT3278	DNA 20 x 6mm	.197"-.236"	1.0mm
RT3279	DNA 20 nut M25 x 1.5"		
RT3280	DNA 20 coolant nut for 1/8" & 3mm		
RT3281	DNA 20 collet wrench		
RT3282	DNA 20 torque wrench adapter		

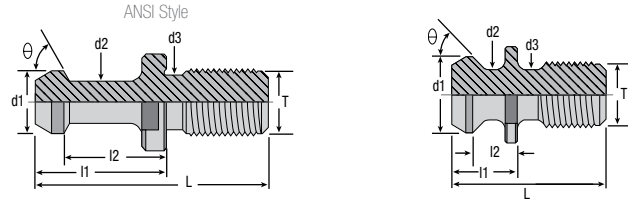
DNA 32 Dead Nut Accurate Collets

Part No.	Description	I.D. Capacity	Range
RT3283	DNA 32 x 1/8"	.105"-.125"	.5mm
RT3284	DNA 32 x 3/16"	.147"-.187"	1.0mm
RT3285	DNA 32 x 1/4"	.210"-.250"	1.0mm
RT3286	DNA 32 x 3/8"	.335"-.375"	1.0mm
RT3287	DNA 32 x 3mm	.098"-.118"	.5mm
RT3288	DNA 32 x 3.5mm	.118"-.138"	.5mm
RT3289	DNA 32 x 4mm	.137"-.157"	.5mm
RT3290	DNA 32 x 5mm	.177"-.197"	.5mm
RT3291	DNA 32 x 6mm	.197"-.236"	1.0mm
RT3292	DNA 32 nut M40 x 1.5"		
RT3293	DNA 32 coolant nut for 1/8" & 3mm		
RT1614	ER 32-E Wrench		
RT1606	ER 32 Spanner		

CNC Router Retention Knobs



- Our pull studs are manufactured with the best steel available to ensure minimum wear.
- They feature a tough inner core that is made to withstand the stresses of modern machining processes.



CNC Router Retention Knobs

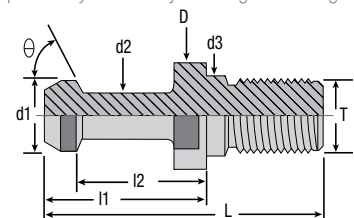
Part No.	Type	D	d1	d2	d3	L	I1	I2	q	T
RT2804	KOMO 30-A 12.5	17mm	13mm	9mm	12.5mm	44mm	23.4mm	18.2mm	15°	M12
RT2271	DAT 30- A	17mm	13mm	9mm	13mm	44mm	24mm	19mm	15°	M12
RT2272	Colombo 30- Ball	17mm	12.8mm	9mm	13mm	44mm	24mm	19mm	45°	M12
RT2279	HSD ISO 30	17mm	12mm	8mm	13mm	44mm	23.9mm	-	radius	M12
RT1924	BT 30-45°	16.5mm	11mm	7mm	12.5mm	43mm	23mm	-	45°	M12
RT1927	BT 30-60°	16.5mm	11mm	7mm	12.5mm	43mm	23mm	-	60°	M12
RT2746	BT 35- Heian	20mm	13mm	8.5mm	12.5mm	43mm	28mm	22.5mm	-	M12
RT2273	DAT 40 – A	23mm	19mm	14mm	17mm	54mm	26mm	20mm	15°	M16

- RT2271 Colombo Spindles (Billet spindle)
- RT2272 Colombo spindle clamping by balls (RS spindle)
- RT2804 KOMO router for BT 30 tool holder
- RT2279 HSD spindles

Please make sure that the pull stud you order is the exact pull stud your machine uses. Improper choice of a pull stud can cause damage to your machine spindle, the tool holder, and can cause a safety hazard. Pull studs make the connection between the spindle and the toolholder. Please carefully select the pull stud you need by referring to the diagram.



- All mating surfaces precision ground
- Manufactured to the highest standards for maximum safety and long life
- Hardened for maximum longevity



BT Shank Retention Knobs

Part No.	Type	D	d1	d2	d3	L	I1	I2	T
RT1924	BT30-45°	16.5mm	11mm	7mm	12.5mm	43mm	23mm	18mm	M12
RT1925	BT40-45°	23mm	15mm	10mm	17mm	60mm	35mm	28mm	M16
RT2946	BT40-45°	23mm	15mm	10mm	-	60mm	35mm	28mm	M16
RT2947	BT40, ANSI	23mm	18.8mm	12.5mm	12.4mm	38mm	16mm	11mm	M16
RT1926	BT50-45°	38mm	23mm	17mm	25mm	85mm	45mm	35mm	M24
RT1927	BT30-60°	16.5mm	11mm	7mm	12.5mm	43mm	23mm	18mm	M12
RT1928	BT40-60°	23mm	15mm	10mm	17mm	60mm	35mm	28mm	M16
RT1929	BT50-60°	38mm	23mm	17mm	25mm	85mm	45mm	35mm	M24
RT1930	BT30-90°	16.5mm	11mm	7mm	12.5mm	43mm	23mm	8mm	M12
RT1931	BT40-90°	23mm	15mm	10mm	17mm	60mm	35mm	28mm	M16
RT2948	BT50-90°	38mm	23mm	17mm	25mm	85mm	45mm	35mm	M24

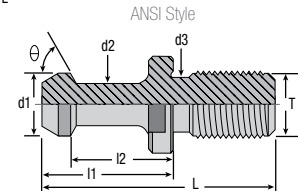
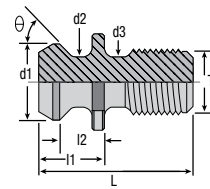
CAT Retention Knobs



Techniks Retention Knobs

- All mating surfaces precision ground
- Manufactured to the highest standards for maximum safety and long life
- Hardened for maximum longevity

Please make sure that the Retention Knob you order is the correct one for your machine. Using the wrong Retention Knob can cause damage to your machine spindle, the toolholder, and may create a safety hazard.



CAT Retention Knobs

Part No.	Type	Ø	d1	d2	d3	L	l1	l2	T
RT2869	CAT 40-DIN	15°	0.75"	0.55"	0.640"	1.88"	1.024"	.787"	5/8-11"
RT2839	CAT 40-DIN	15°	0.75"	0.55"	-	1.89"	1.028"	.792"	5/8-11"
RT2371	CAT 40-ANSI	45°	0.740"	0.490"	0.490"	1.50"	0.640"	.440"	5/8-11"
RT2372	CAT 40-MAS-I	45°	0.590"	0.394"	0.512"	2.25"	1.266"	.990"	5/8-11"
RT2374	CAT 40-MAS-II	60°	0.590"	0.394"	0.512"	2.25"	1.266"	.990"	5/8-11"
RT2376	CAT 40-MAS-III	90°	0.590"	0.394"	0.512"	2.25"	1.266"	.990"	5/8-11"
RT2380	CAT 50-MAS-I	45°	0.906"	0.669"	0.827"	3.346"	1.772"	1.378"	1-8"
RT2382	CAT 50-MAS-II	60°	0.906"	0.669"	0.827"	3.346"	1.772"	1.378"	1-8"
RT2384	CAT 50-MAS-III	90°	0.906"	0.669"	0.827"	3.346"	1.772"	1.378"	1-8"
RT2840	CAT 50-DIN	15°	1.101"	0.825"	-	2.640"	1.338"	.984"	1-8"
RT2379	CAT 50-ANSI	45°	1.140"	0.820"	0.820"	2.30"	1.00"	.700"	1-8"

CAT Coolant Thru Retention Knobs

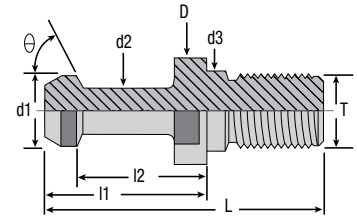
Part No.	Type	Ø	d1	d2	d3	L	l1	l2	T
RT2841	CAT 40-DIN Coolant	15°	.75"	0.55"	0.640"	1.88"	1.024"	.787"	5/8-11"
RT2842	CAT 40-DIN Coolant	15°	.75"	0.55"	-	1.89"	1.028"	.792"	5/8-11"
RT2378	CAT 40-ANSI-C	45°	0.740"	0.490"	0.490"	1.50"	0.640"	.440"	5/8-11"
RT2373	CAT 40-Coolant-I	45°	0.590"	0.394"	0.512"	2.25"	1.266"	.990"	5/8-11"
RT2375	CAT 40-Coolant-II	60°	0.590"	0.394"	0.512"	2.25"	1.266"	.990"	5/8-11"
RT2377	CAT 40-Coolant-III	90°	0.590"	0.394"	0.512"	2.25"	1.266"	.990"	5/8-11"
RT2390	CAT 40-Coolant-I Slim Fit	45°	0.590"	0.394"	0.512"	2.25"	1.266"	.990"	5/8-11"
RT2391	CAT 40-Coolant-II Slim Fit	60°	0.590"	0.394"	0.512"	2.25"	1.266"	.990"	5/8-11"
RT2392	CAT 40-Coolant-III Slim Fit	90°	0.590"	0.394"	0.512"	2.25"	1.266"	.990"	5/8-11"
RT2381	CAT 50-Coolant-I	45°	0.906"	0.669"	0.827"	3.346"	1.772"	1.378"	1-8"
RT2383	CAT 50-Coolant-II	60°	0.906"	0.669"	0.827"	3.346"	1.772"	1.378"	1-8"
RT2385	CAT 50-Coolant-III	90°	0.906"	0.669"	0.827"	3.346"	1.772"	1.378"	1-8"
RT2389	CAT 50-DIN Coolant	15°	1.101"	0.825"	-	2.640"	1.338"	.984"	1-8"
RT2386	CAT 50-ANSI-C	45°	1.140"	0.820"	0.820"	2.30"	1.00"	.700"	1-8"

C = Coolant hole in the pull stud. See page 96 for retention knob sockets.

BT & DIN 69871 A & B Retention Knobs



- Our pull studs are manufactured with the best steel available to ensure minimum wear.
- They feature a tough inner core that is made to withstand the stresses of modern machining processes.



Style BT Shank Retention Knobs

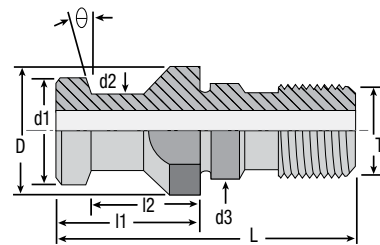
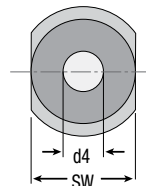
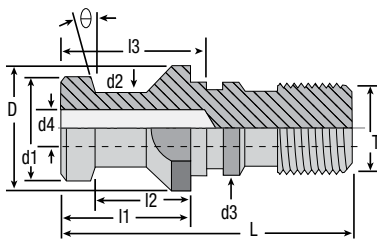
Part No.	Type	θ	D	d1	d2	d3	d4	L	l1	l2	T
RT2387	BT40, ANSI, metric, Coolant	45°	-	18.8	12.5	12.5	6.8	38	16	11	M16
RT2316	BT40-45° Coolant	45°	23mm	15mm	10mm	17mm	4mm	60mm	35mm	28mm	M16
RT2317	BT40-60° Coolant	60°	23mm	15mm	10mm	17mm	4mm	60mm	35mm	28mm	M16
RT2318	BT40-90° Coolant	90°	23mm	15mm	10mm	17mm	4mm	60mm	35mm	28mm	M16
RT2319	BT50-45° Coolant	45°	38mm	23mm	17mm	25mm	5mm	85mm	45mm	35mm	M24
RT2320	BT50-60° Coolant	60°	38mm	23mm	17mm	25mm	5mm	85mm	45mm	35mm	M24
RT2321	BT50-90° Coolant	90°	38mm	23mm	17mm	25mm	5mm	85mm	45mm	35mm	M24

Please make sure that the Retention Knob you order is the correct one for your machine. Using the wrong Retention Knob can cause damage to your machine spindle, the toolholder, and may create a safety hazard.



Techniks Retention Knobs

- All mating surfaces precision ground
- Manufactured to the highest standards for maximum safety and long life
- Hardened for maximum longevity



DIN 69871A & 69871B Shank Retention Knobs

Part No.	Type	D	d1	d2	d3	d4	L	l1	l2	l3	SW	T
RT2271	DAT30-A	17mm	13mm	9mm	13mm	-	44mm	24mm	19mm	-	14mm	M12
RT2273	DAT40-A	23mm	19mm	14mm	17mm	7	54mm	26mm	20mm	-	19mm	M16
RT2275	DAT50-A	36mm	28mm	21mm	25mm	11.5mm	74mm	34mm	25mm	-	30mm	M24
RT2276	DAT30-B	17mm	13mm	9mm	13mm	-	44mm	24mm	19mm	-	14mm	M12
RT2277	DAT40-B	23mm	19mm	14mm	17mm	7mm	54mm	26mm	20mm	-	19mm	M16
RT2278	DAT50-B	36mm	28mm	21mm	25mm	11.5mm	74mm	34mm	25mm	-	30mm	M24

Torque Wrenches & Accessories



Universal Torque Wrench

Part No.	Description	Torque Range	Length	Weight	Spigot
RT1874	Torque Wrench	5-45 ft/lbs	12"	1 lb.	16mm round
RT2367	Torque Wrench	30-150 ft/lbs	16.5"	1.75 lbs.	16mm round
RT2653	Torque Wrench	45-228 ft/lbs	21.5"	2.5 lbs.	16mm round

Pre-set wrenches are available on request.

Collet Keys



Part No.	Collet Nut Size	Wrench Type	Max. Torque*
RT3034	Fits all SS-22 Collet Nuts	Hex	50 ft/lbs
RT3000	Fits all SS-22 Extended Nuts	Hex	50 ft/lbs
RT2584	ER 11 M	Mini	14 ft/lbs
RT2587	ER 16 M	Mini	22 ft/lbs
RT2589	ER 20 M	Mini	25 ft/lbs
RT1602	ER 25 M	Castle	25 ft/lbs
RT1600	ER 16	Slotted	50 ft/lbs
RT1603	ER 16 Hex	Hex	50 ft/lbs
RT1601	ER 20	Slotted	75 ft/lbs
RT1604	ER 20 Hex	Hex	75 ft/lbs
RT1605	ER 25 Spanner	Slotted	95 ft/lbs
RT1606	ER 32 Spanner	Slotted	125 ft/lbs
RT1607	ER 40 Spanner	Slotted	140 ft/lbs
RT1180	SYOZ 25/TG 100	Hook	100 ft/lbs
RT2591	TG 75 Hook	Hook	100 ft/lbs
RT2606	DNA 16	Slotted	50 ft/lbs
RT2608	ER 32 Slotted	Slotted/Closed	125 ft/lbs
RT2843	SYOZ-20	Hook	45 ft/lbs

TG hook wrench



ER Hex



ER Slotted

*Recommended Torque is 80-90% of the value given

Retention Knob Sockets

Part No.	Taper or Holder	Wrench Flats	Square Drive	Max. Torque*
RT3006	BT 30 Taper Retention Knobs	0.535"	1/4"	40 ft/lbs
RT3007	ISO 30 Taper Retention Knobs	0.535"	3/8"	40 ft/lbs
RT2844	All 40 Taper Retention Knobs	0.750"	3/8"	85 ft/lbs
RT2846	CAT 50 Taper Retention Knobs	1.250"	1/2"	110 ft/lbs



Fixed Head Square Drives

Part No.	Description	Square Drive
RT2646	3/8" Square Drive	3/8"
RT2645	1/2" Square Drive	1/2"



Spindle & Nut Wrenches



Hook-Type



M-Type



E-Type

Type A, UM, RU & M Wrenches

Part No.	Description	Nut Type	Length (mm)	Width (mm)
RT1608	ER 11-A Wrench	A (Hex)	120mm	40mm
RT1609	ER 16-A Wrench	A (Hex)	140mm	53mm
RT1610	ER 20-A Wrench	A (Hex)	160mm	60mm
RT1611	ER 16-E Wrench	E	160	55
RT1612	ER 20-E Wrench	E	180	60
RT1613	ER 25-E Wrench	E	206	65
RT1614	ER 32-E Wrench	E	253	75
RT1615	ER 40-E Wrench	E	289	90
RT1681	ER 50-E Wrench	E	351	110
RT1616	ER 8-M Wrench	M	75	13
RT1617	ER 11-M Wrench	M	95	17
RT1618	ER 16-M Wrench	M	117	22.5
RT1619	ER 20-M Wrench	M	129	28.5
RT1620	ER 25-M Wrench	M	142.5	35.5
RT1375	TG 75 Wrench	Hook Type	253	46
RT1181	TG 100 Wrench	Hook Type	260	46



Spindle Wrench

Spindle & Tool Holder Flat Wrenches

Part No.	Description	A	Length
RT2818	Spindle Wrench - 24mm	24mm	215mm
RT2819	Spindle Wrench - 27mm	27mm	240mm
RT2820	Spindle Wrench - 36mm	36mm	305mm
RT2821	Spindle Wrench - 38mm	38mm	305mm
RT2822	Spindle Wrench - 41mm	41mm	345mm
RT2823	HSK Wrench - 46mm	46mm	368mm

Tightening Fixtures and Spindle Wipers



NTS Side Mount Fixtures

- For CAT, BT, HSK, ISO spindles
- Change knobs from bottom
- Bolts right to workbench

A large set-screw engages the drive slot in BT and CAT holders. A sliding collar engages the wrench flats on HSK and toolholders without drive slots.



Side Mount Tightening Fixtures

Part No.	Description
RT2986	Any CAT 40 or BT 40 taper
RT2987	BT 30 taper - 38mm flats
RT2988	BT 30 taper - 41mm flats
RT2989	BT 30 for tools with drive slots
RT2990	ISO 20 - 17mm flats
RT2991	ISO 20 - 22mm flats
RT2992	ISO 25 - 27mm flats
RT2993	ISO 30 - 36mm flats

Side Mount Tightening Fixtures

Part No.	Description
RT2994	ISO 30 - 38mm flats
RT2995	ISO 30 - 47mm flats
RT2996	HSK 63A - no flats
RT2997	HSK 63F - 36mm flats
RT2998	HSK 63F - 38mm flats
RT2999	HSK 63F - 41mm flats
RT3008	HSK 63F - 46mm flats

Benchttop Mount Tightening Fixture

Part No.	Type	L	I1	I2	I3	H
RT1932	BT30	210mm	95mm	10mm	15mm	130mm
RT1933	BT40	210mm	95mm	10mm	15mm	130mm
RT1934	BT50	275mm	113mm	20mm	24mm	20mm
RT1935	CAT 40	210mm	95mm	10mm	15mm	13mm
RT1936	CAT 50	275mm	113mm	20mm	24mm	200mm



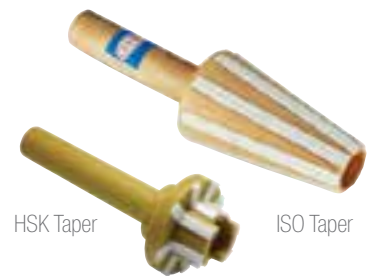
Top or Side Mount Tightening Fixture

Part No.	Type
RT2322	BT 30, CAT 30
RT2323	BT 40, CAT 40
RT2325	BT 50, CAT 50
RT2324	HSK 63A, 63B, 63D



BT, CAT style

HSK style



HSK Taper

ISO Taper

CAT, BT, HSK, ISO Spindle Taper Wipers

Part No.	Taper	Total Length	Taper Length	Handle Diameter	Taper Maximum Diameter
RT1919	30	170mm	60mm	24mm	32mm
RT1920	40	188mm	78mm	24mm	45mm
RT1921	50	240mm	120mm	30mm	70mm
RT1922	HSK 63A	165mm	31mm	22mm	-
RT1923	HSK 63F	165mm	31mm	22mm	-

Use with any type of machine with a taper of 7/24 CAT, BT or DIN 69871

Analog Preset Gauge & ZOP-50 Touch Lamp Gauge

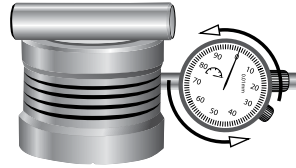


Analog Axial Preset Gauge

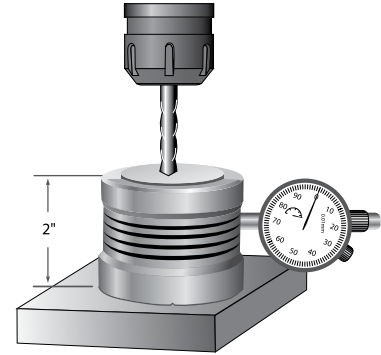
Part No.	Description
RT1902	ZSI-50 preset gauge

Analog Axial Preset Gauge Features

- Accuracy 0.0002"
- Easy to measure tool depth
- Height 50mm



1. Use the gauge pin included to press down on the spring-loaded center piece as illustrated. Please be sure the gauge pin is placed on the shiny surface.
2. Turn the indicator to read "0", then remove the gauge pin.



3. Put the unit on the workpiece and carefully jog the tool down to make contact with the gauge face. When the gauge reads "0" the tool is 2" above the workpiece.

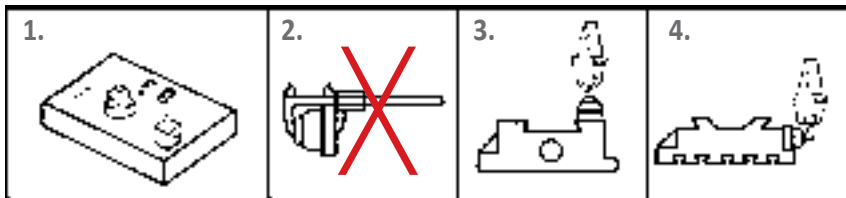
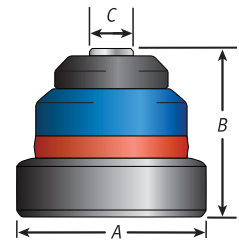


Instructions

1. Check height of unit with a gauge block and dial indicator. Turn allen screw on the side of the unit if adjustment is needed.
2. Do not use calipers for presetting unit, only use gauge block.
3. Move the cutting tool tip towards the sensor button until the unit lights up, then reverse direction until the light goes off.
4. When presetting diameter, rotate tool slowly for higher precision.

Touch Lamp Axial Preset Gauge Features

- Accuracy .0002"
- 360° red lamp lights up when touched
- Height 2" (50mm)
- Magnetic base (use vertically or horizontally)



Touch Lamp Axial Preset Gauge

Part No.	Description	A	B	C
RT1937	ZOP-50 Gauge	56mm	50mm or 2"	13.5mm