

STRAIGHT SHANK



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SX Mini Collet Chuck Extensions

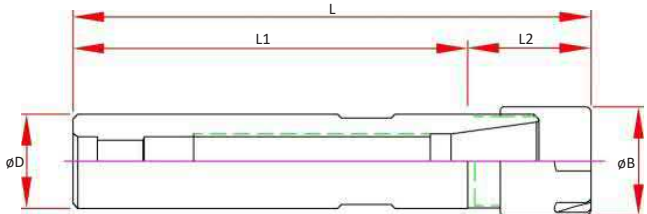


Features

- 3 μm - 0.0001" Runout Taper to Taper
- Coolant Thru Body

Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets
 - 0.005mm (0.0002") Standard
 - 0.003mm (0.0001") Ultra Precision



Part Number	Collet Type	B	D	L	L1	L2	Set Screw	Wrench	Nut Type
S050-SX06M-0552	SX06	0.63	0.500	6.58	5.52	1.07	ASC-SX06-SS	ERW-11M	SX-Mini
S075-SX10M-0640	SX10	0.87	0.750	7.87	6.40	1.47	ASC-ER16-SS	ERW-16M	SX-Mini

MX Straight Shank Extensions

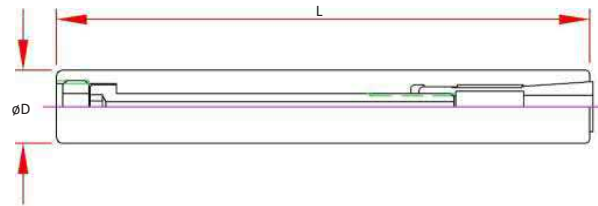


Features

- 3 μm - 0.0001" Runout @ 4X Diameter
- Rear Draw Bolt Locking System
- Coolant Thru

Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets, STD and Jet-Blast



Part Number	Collet Range	D	L	Collet	Wrench	Locking Torque Max.
S050-MX06-0400	0.079 - 0.250	0.5000	4.00	MX06	MXW05	20 ft/lbs
S050-MX06-0600			6.00			
S075-MX08-0600	0.125 - 0.394	0.7500	6.00	MX08		
S100-MX12-0600	0.157 - 0.500	1.0000	6.00	MX12		

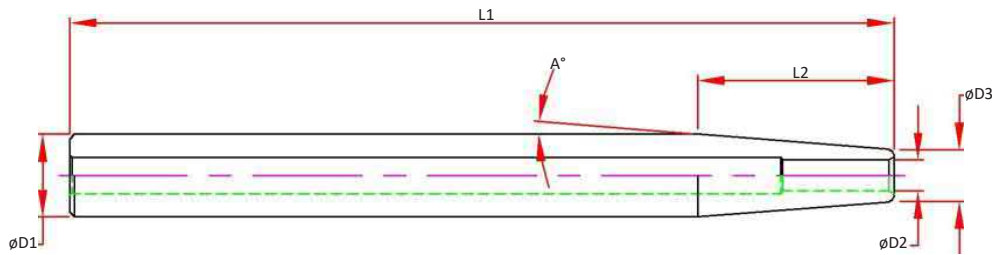
SD - Shrink Fit Extensions - Metric

Features:

- 3 µm - 0.0001" Runout
- Coolant Thru the Center
- Close Center to clear fixtures or part walls
- Manufactured from ISO-40CrMoV5 (H13) Material, Heat Treated for Optimum Elasticity and Tool Life
- Designed for Carbide Cutting Tools with h6 shank tolerance

Optional (Order Separately):

- Jet-Blast Coolant Ports - Add "J"
Note: Due to the thin wall Jet-Blast Ports may be into the bore of the extension.



Part Number	D1 Shank mm	D2 Bore mm	D3 Nose mm	L1 Length mm	L2 Nose mm	A Angle
S12-SD03-160	12	3	8	160	25.4	4.5°
S12-SD04-160	12	4	8	160	25.4	4.5°
S16-SD03-160	16	3	10	160	38.1	4.5°
S16-SD04-160	16	4	10	160	38.1	4.5°
S16-SD05-160	16	5	10	160	38.1	4.5°
S16-SN06-140	16	6	9	140	67	3°
S16-SD06-160	16	6	10	160	38.1	4.5°
S20-SD06-160	20	6	14	160	38.1	4.5°
S20-SD06-300	20	6	14	300	38.1	4.5°
S20-SD08-160	20	8	14	160	38.1	4.5°
S20-SD08-300	20	8	14	300	38.1	4.5°
S25-SD10-160	25	10	20	160	31.8	4.5°
S25-SD10-300	25	10	20	300	31.8	4.5°
S25-SD12-160	25	12	20	160	31.8	4.5°
S25-SD12-300	25	12	20	300	31.8	4.5°
S25-SD14-160	25	14	20	160	31.8	4.5°
S25-SD16-160	25	16	22	160	19.1	4.5°
S25-SD16-300	25	16	22	300	19.1	4.5°



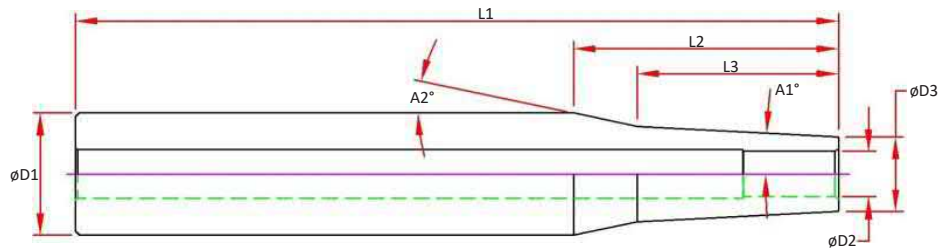
SD - Shrink Fit Extensions

Features:

- 3 μm - 0.0001" Runout
- Coolant Thru the Center
- Close Center to clear fixtures or part walls
- Manufactured from ISO-40CrMoV5 (H13) Material, Heat Treated for Optimum Elasticity and Tool Life
- Designed for Carbide Cutting Tools with h6 shank tolerance

Optional (Order Separately):

- Jet-Blast Coolant Ports - Add "J"
Note: Due to the thin wall Jet-Blast Ports may be into the bore of the extension.



Part Number	D1	D2	D3	L1	L2	L3	A1	A2
S075-SD025-0415	0.7500	0.2500	0.49	4.15	1.38	0.87	3.0°	9.4°
S075-SD031-0415	0.7500	0.3125	0.55	4.15	1.38	0.87	3.0°	6.1°
S075-SD037-0415	0.7500	0.3750	0.61	4.15	-	1.37	3.0°	-
S100-SD025-0800	1.0000	0.2500	0.49	8.00	2.17	1.65	3.0°	17.9°
S100-SD031-0800	1.0000	0.3125	0.55	8.00	2.17	1.65	3.0°	14.9°
S100-SD037-0800	1.0000	0.3750	0.61	8.00	2.17	1.65	3.0°	11.8°
S100-SD050-0800	1.0000	0.5000	0.81	8.00	1.71	1.43	2.5°	6.5°

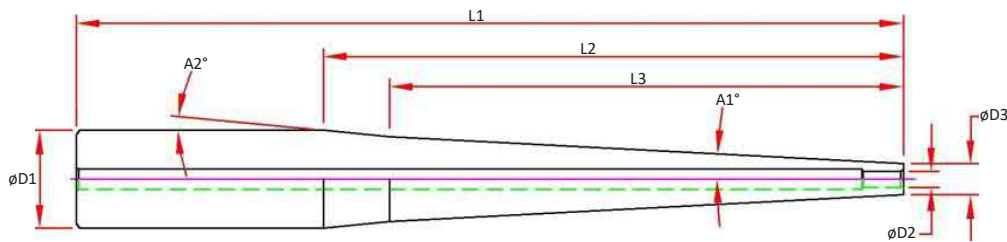
SN - Shrink Fit Slim Nose Extensions

Features:

- 3 μm - 0.0001" Runout
- Coolant Thru the Center
- Close Center to clear fixtures or part walls
- Manufactured from ISO-40CrMoV5 (H13) Material, Heat Treated for Optimum Elasticity and Tool Life
- Designed for Carbide Cutting Tools with h6 shank tolerance

Optional (Order Separately):

- Jet-Blast Coolant Ports - Add "J"
Note: Due to the thin wall Jet-Blast Ports may be into the bore of the extension.



Part Number	D1	D2	D3	L1	L2	L3	A1	A2
S037-SN012-0315	0.3750	0.1250	0.24				2.8°	
S037-SN018-0315		0.1875	0.31	3.15	1.40	-	1.5°	-
S050-SN025-0315	0.5000	0.2500	0.37				2.8°	
S075-SN012-0800	0.7500	0.1250	0.24	8.00	4.46	3.95	3.0°	5.4°
S075-SN018-0800		0.1875	0.31	8.00	4.46	-	2.9°	-
S075-SN025-0433		0.2500	0.37	4.33	1.38	25.6	3.0°	20.2°
S075-SN025-0800		0.2500	0.37	8.00	4.46	-	2.5°	-
S075-SN031-0433		0.3125	0.43	4.33	1.38	1.00	3.0°	16.1°
S075-SN037-0433		0.3750	0.49	4.33	1.38	1.00	3.0°	11.8°
S100-SN037-0800		0.3750	0.49	8.00	4.33	3.82	3.0°	6.0°
S100-SN050-0610	1.0000	0.5000	0.62	6.10	2.00	1.63	2.9°	16.1°
S100-SN050-0800		0.5000	0.62	8.00	4.33	3.82	2.0°	6.0°

Part Number	D1 mm	D2 mm	D3 mm	L1 mm	L2	L3	A1	A2
S10-SN04-080	10	4	8	80	-	35	1.5°	-
S16-SN06-140	16	6	9	140	-	67	3°	-
S20-SN06-200	20	6	10	200	-	113	2.5°	-

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Mill ER Mini Nut Straight Shank

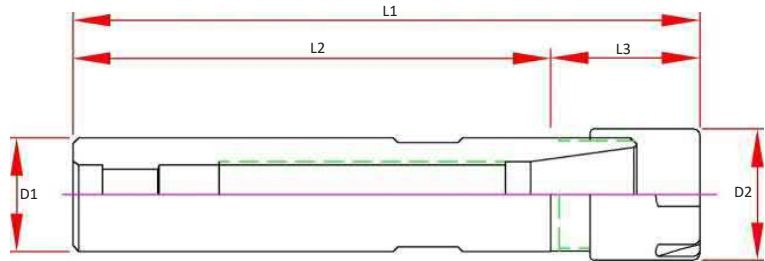


Features

- 3 μm - 0.0001" Runout Taper to Taper
- Coolant Thru Body (see chart)

Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets



Part Number	Collet Type	D1	D2	L1	L2	L3	Preset Screw	Max Tool Dia.	Wrench	Nut Type	Coolant Thru	Optional 1/8 Hole
S037-ER08M-0394	ER8	0.3750	0.47	4.88	3.94	0.94	N/A	0.19	ERW-08M	Mini	N	-C
S050-ER11M-0552	ER11	0.5000	0.63	6.56	5.51	1.04	N/A	0.29	ERW-11M	Mini	Y	
S050-ER16M-0552	ER16	0.5000	0.87	6.97	5.51	1.46	N/A	0.26	ERW-16M	Mini	Y	
S062-ER11M-0552	ER11	0.6250	0.63	6.24	5.51	0.73	N/A	0.29	ERW-11M	Mini	N	-C
S075-ER16M-0552	ER16	0.7500	0.87	6.50	5.51	0.98	ASC-ER16	0.38	ERW-16M	Mini	Y	
S100-ER20M-0552	ER20	1.0000	1.10	6.61	5.51	1.10	ASC-ER20	0.50	ERW-20M	Mini	Y	

Mill ER Standard Nut Straight Shank

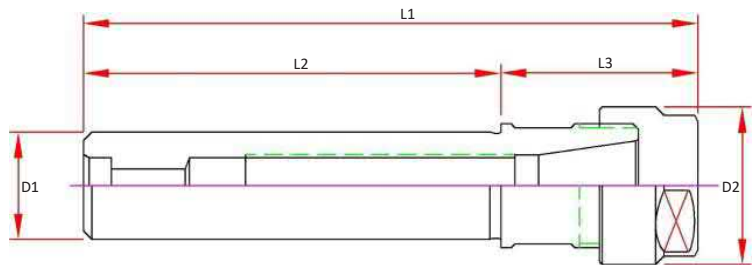


Features

- 3 μm - 0.0001" Runout Taper to Taper
- Coolant Thru Body (see chart)

Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets



Part Number	Collet Type	D1	D2	L1	L2	L3	Preset Screw	Max Tool Dia.	Wrench	Nut Type	Coolant Thru	Optional 1/8 Hole
S050-ER11H-0552	ER11	0.5000	0.75	6.87	5.51	0.85	N/A	0.28	ERW-11H	Hex	N	-C
S062-ER16H-0236	ER16	0.6250	1.10	3.74	2.36	1.38	N/A	0.28	ERW-16H	Hex	N	-C
S075-ER16H-0197	ER16	0.7500	1.10	3.35	1.97	1.38	ASC-ER16	0.38	ERW-16H	Hex	Y	
S075-ER16H-0394	ER16	0.7500	1.10	5.32	3.94	1.38	ASC-ER16	0.38	ERW-16H	Hex	Y	
S075-ER16H-0552	ER16	0.7500	1.10	6.89	5.51	1.38	ASC-ER16	0.38	ERW-16H	Hex	Y	
S075-ER20H-0250	ER20	0.7500	1.34	3.94	2.50	1.50	ASC-ER16	0.38	ERW-20H	Hex	Y	
S100-ER20H-0552	ER20	1.0000	1.34	7.11	5.51	1.59	ASC-ER20	0.50	ERW-20H	Hex	Y	
S100-ER25-0197	ER25	1.0000	1.65	3.98	1.97	2.01	ASC-ER25	0.63	ERW-25E	Spanner	Y	
S100-ER32-0197	ER32	1.0000	1.97	4.00	1.97	2.03	ASC-ER25	0.63	ERW-32E	Spanner	Y	
S125-ER32-0236	ER32	1.2500	1.97	4.39	2.36	2.03	ASC-ER32	0.75	ERW-32E	Spanner	Y	
S125-ER32-0552	ER32	1.2500	1.97	7.54	5.51	2.03	ASC-ER32	0.75	ERW-32E	Spanner	Y	
S100-ER40-0197	ER40	1.0000	2.48	4.53	1.97	2.56	ASC-ER16	0.38	ERW-40E	Spanner	Y	

Lathe Coolant Thru Straight Shank

Features

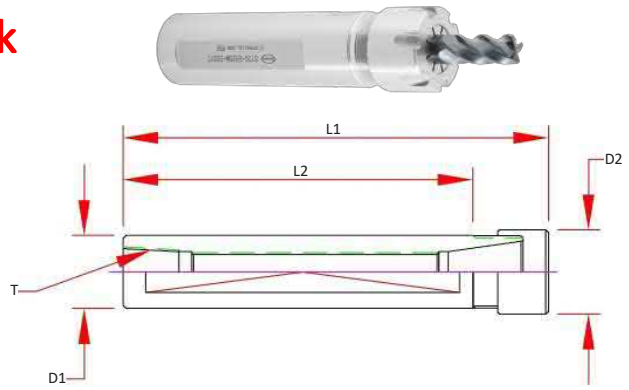
- 3 μm - 0.0001" Runout Taper to Taper
- Coolant Thru Body (see chart)
- Includes 1/4" Pipe Threads

Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets



Part Number	Collet Type	D1	D2	L1	L2	T-Thread	Set Screw	Max Tool Dia.	Wrench	Nut Type
S075-ER16M-0342C	ER16	0.7500	0.87	4.34	3.42		ASC-ER16	0.38	ERW-16M	Mini
S100-ER20M-0331C	ER20	1.0000	1.10	4.38	3.31	1/4" NPT	ASC-ER20	0.50	ERW-20M	Mini
S125-ER32-0236C	ER32	1.2500	1.97	4.52	2.36		ASC-ER32	0.75	ERW-32E	E-Spanner



Lathe ER Straight Shank

Features

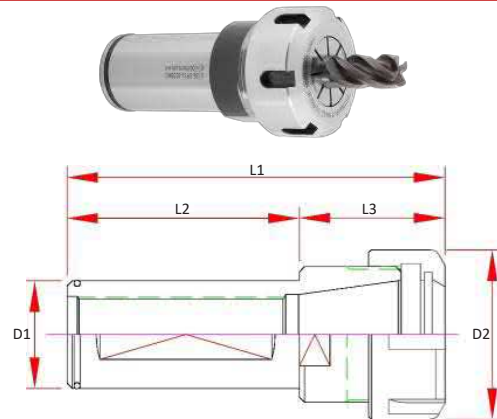
- 3 μm - 0.0001" Runout Taper to Taper
- Coolant Thru Body (see chart)
- Includes O-Ring Shank Seal

Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets



Part Number	Collet Type	D1	D2	L1	L2	L3	ID Thread	Wrench	Nut Type	O-Ring Shank Seal
S125-ER25-0236NC	ER25	1.2500	1.65	3.82	2.36	1.46	11/16-16	ERW-25E	E-Spanner	AS-024
S125-ER32-0236NC	ER32	1.2500	1.97	4.06	2.36	1.69	15/16-16	ERW-32E	E-Spanner	AS-024
S125-ER40-0236NC	ER40	1.2500	2.48	4.72	2.36	2.36	15/16-16	ERW-40E	E-Spanner	AS-024
S150-ER32-0315NC	ER32	1.5000	1.97	4.65	3.15	1.50	15/16-16	ERW-32E	E-Spanner	AS-028
S150-ER40-0295NC	ER40	1.5000	2.48	5.31	2.95	2.36	1 1/8-16	ERW-40E	E-Spanner	AS-028



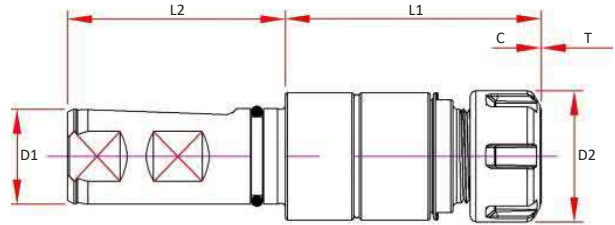
Precision Sync Tapping ER Straight Shank

Features

- Coolant Thru, for use up to 1,500 PSI
- Compensates for synchronization errors in the tap cycle
- Minimal length compensation in both Tension and Compression compensates for small pitch differences between the spindle and tap reducing friction on the tap flanks

Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets



Part Number	Collet Type	D1	D2	L1	L2	C	T	Wrench
S100-PT20-0268	ER20	1.00	1.34	2.79	2.28	0.02	0.02	ERW-20H
S100-PT32-0325	ER32	1.00	1.97	3.25	2.28	0.02	0.02	ERW-32E

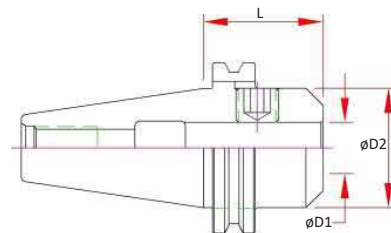
Modular Taper Assembly

Features

- Coolant Thru, for use up to 1,500 PSI
DIN B flange coolant available in some models
- For Total Projection:
Add "L" from chart below with "L1" from chart above
- Longer projections available see EM section of the catalog

Optional (Order Separately):

- Wrench
- Torque Wrench
- Collets



Dual Contact Spindle Part Number	Standard Spindle Part Number	D1	D2	L
BT30-EM100-0275-B	BT30-EM100-0275	1.000	2.00	2.75
BT40-EM100-0200-B	BT40-EM100-0200		2.00	2.00
CAT40-EM100-0175-B	CAT40-EM100-0175		1.75	1.75
CAT50-EM100-0162-B	CAT50-EM100-0162		2.75	1.62
	HSK 63A-EM100-0400		2.00	4.00
	HSK100A-EM100-0400		2.00	4.00

Straight Shank End Mill Adapters

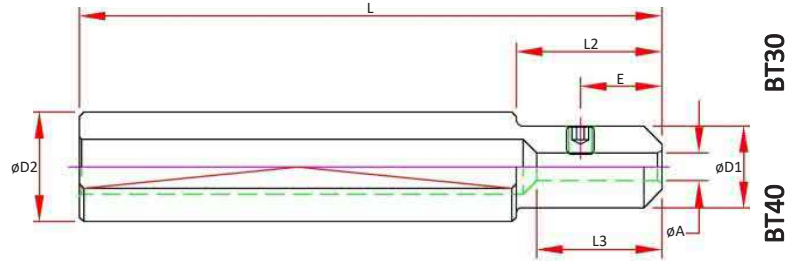


Features

- 3 μm - 0.0001" Bore Runout
- H5 Bore Tolerance or better
- Coolant Thru

Optional (Order Separately):

- Jet-Blast (add "J" to the part number)



	Part Number	A	D1	D2	E	L Length	L2	L3 Max. Tool Enters	Screw Number
1/8	S075-EM012-0600	0.1250	0.50	0.7500	0.19	6.00	2.00	6.00	1
3/16	S075-EM018-0600	0.1875	0.56		0.44		2.00		2
1/4	S075-EM025-0600	0.2500	0.75		0.59		-		4
5/16	S075-EM031-0600	0.3125	0.75	1.0000	0.44	-	-	4	
3/8	S100-EM037-0600	0.3750	1.00		0.75			5	
1/2	S100-EM050-0600	0.5000	1.00		0.39 & 0.98			-	(2) 4

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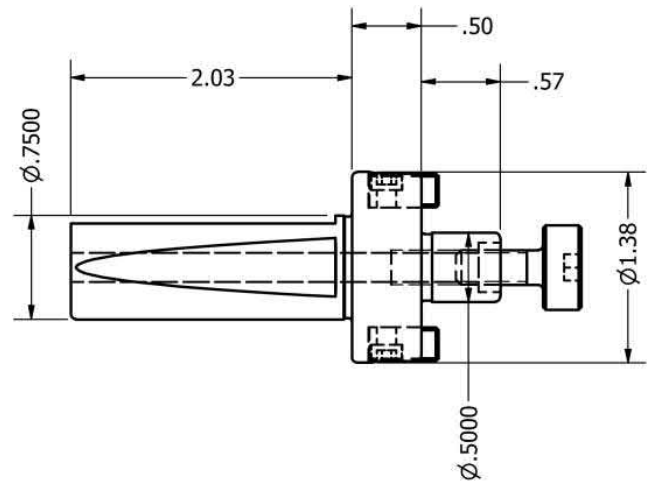
Straight Shank Shell Mill Adapters

Features

- Coolant Thru Body

Optional (Order Separately):

- FX Coolant (add "F" to the part number)

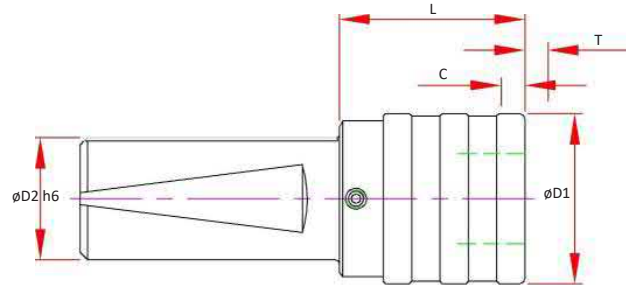


Standard Spindle Part Number	A Pilot	D	H	L Projection	L2	Drive Key Size	Drive Key Number	Mounting Screw Thread	Mounting Screw#
S075-SM050-0050	0.50	1.38	0.57	0.50	2.03	0.250	DK-SM050	1/4-28	SCW-SM050

TC - Straight Shank

Features:

- Non Coolant
- Flats for Lathe Applications
- Compatible with industry standards
- TC Holders are not designed for Coolant Thru

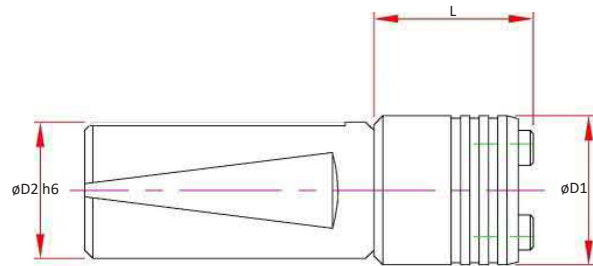


Size	Part Number	Capacity	D1	D2	L	T TENSION	C COMP.
1	S100-TC1-0158	#6 - 9/16	1.42	1.000	1.58	0.30	0.30
2	S100-TC2-0256	5/16 - 7/8	2.09	1.000	2.36	0.49	0.49
3	S125-TC3-0504	9/16 - 1-3/8	3.07	1.250	3.94	0.79	0.79

RT - Straight Shank

Features:

- Flats for Lathe Applications
- Compatible with industry standards



Size	Part Number	Capacity	D1	D2	L
1	S100-RT1-0158	#6 - 9/16	1.34	1.000	1.57
2	S100-RT2-0237	5/16 - 7/8	1.93	1.000	2.36
3	S125-RT3-0375	9/16 - 1-3/8	2.89	1.250	3.74

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