

# ER Collet Chucks

NT's ER collet chucks accept the well known DIN standard collet. All ER Collet Chucks are made with NT's symmetrically ground design providing excellent accuracy and smooth operation. An excellent collet chuck for drilling, rigid tapping, milling and reaming applications.

Precision Type  
**ERC**



ER Collets  
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## Features

Ultra slim design: ER8 and ER11S

Chucking range:

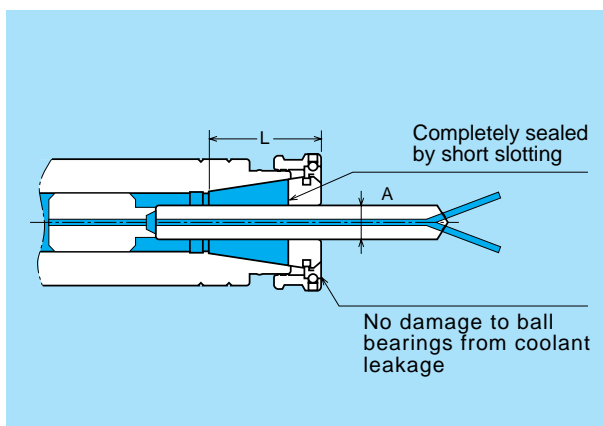
0.020 (ER8) - 1.339 (ER50)

Rigid body design :

ER32 , 40 , 50

Utilizes ER straight ID collets and Tap Collets.

Coolant through the tool can be provided with NT's ER-OH series coolant collets.

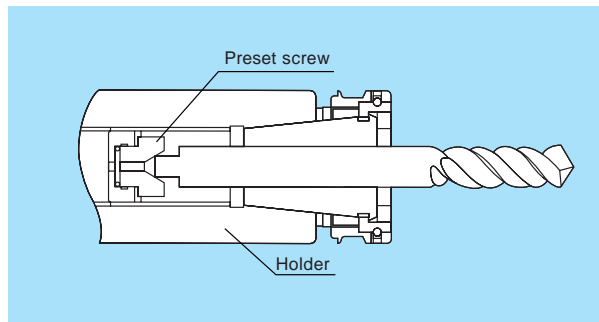


Coolant collets (ER-OH, ER-C) are produced upon request.

## Tool length adjustment

### ERC Type (ERC11 ~ 50)

Preset screw is included in the holder. Press down on the tool shank toward the preset screw and rotate the tool for length adjustment. (Clockwise) Tool length shortened (Counterclockwise) Tool length extended



## Recommended tightening torque for the cap nut

When the desired tool projection length is reached, tighten the nut with a special spanner wrench (sold separately) securely.

Holder size	Spanner size	Recommended torque
8	S-8E	44 ~ 62 lbf-in
11S	S-11E	11 ~ 15 lbf-ft( 133 ~ 177 lbf-in )
11	S-0	89 ~ 133 lbf-in
16	FK0030	26 ~ 30 lbf-ft( 310 ~ 354 lbf-in )
20	FK0034	30 ~ 33 lbf-ft( 354 ~ 398 lbf-in )
25	HS-1-16	41 ~ 44 lbf-ft( 487 ~ 531 lbf-in )
32	HS-2-20	48 ~ 52 lbf-ft( 575 ~ 620 lbf-in )
40	HS-2.5-25	55 ~ 59 lbf-ft( 664 ~ 708 lbf-in )
50	HS-4-42	96 ~ 103 lbf-ft( 1151 ~ 1239 lbf-in )

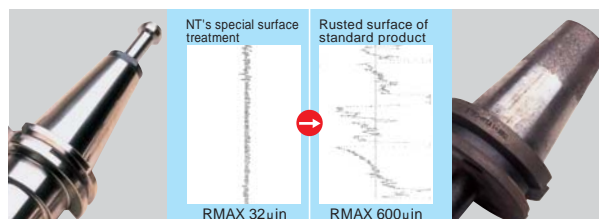
## Special surface treatment

Special coating (Thickness:200 $\mu$ in) prevents spindle from wearing abnormally. Under normal use conditions, our specially treated holders will be rust free .

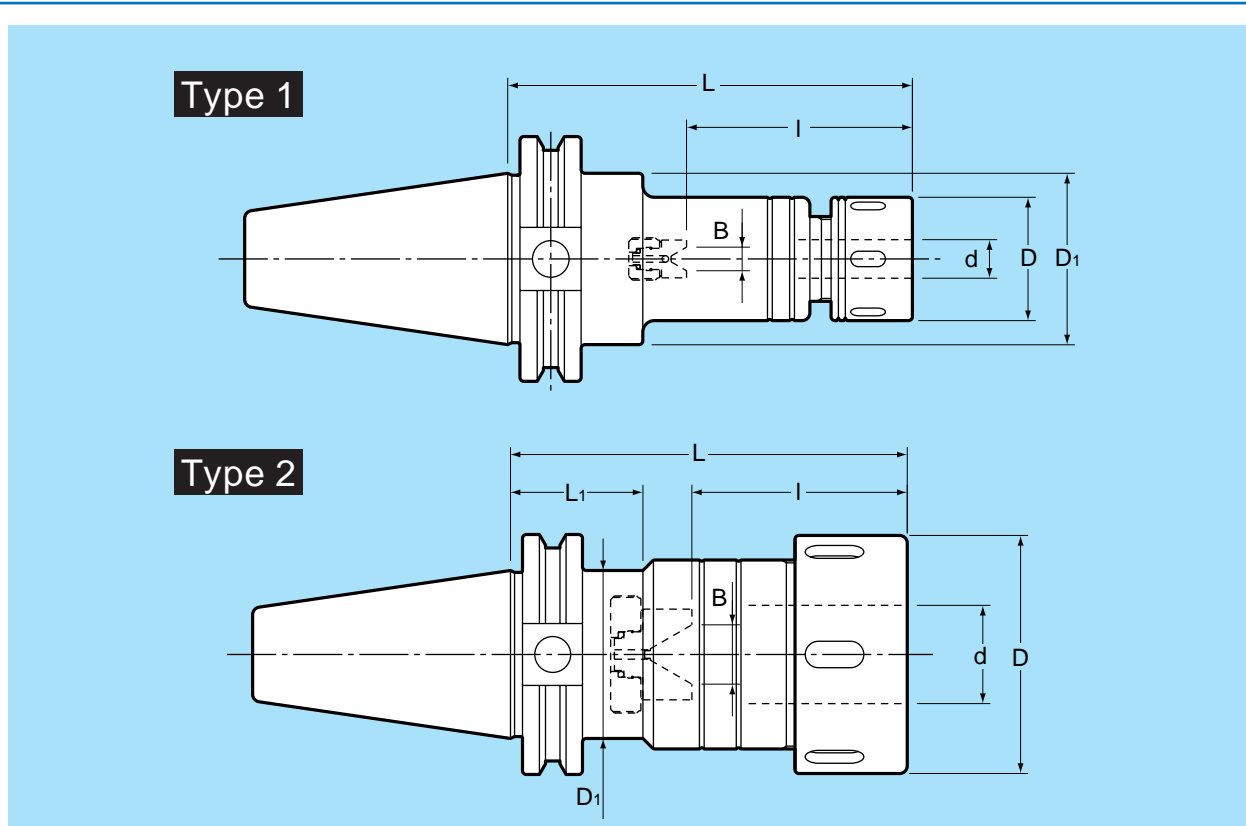
### Ordinary tooling

Without proper maintenance for rust prevention, tool holders will begin to rust after several days' use. This rust has a negative effect on machining and spindle accuracy.

When the taper area gets rusty, the runout accuracy of the tip of a cutting tool will deteriorate by 400-800 $\mu$ in.



# ER Collet Chucks CAT / ERC



Part Number	Type	d	L	L <sub>1</sub>	B	I	D	D <sub>1</sub>	Preset Screw	Nut	Collet	Spanner
-ERC 8	- 75	0.020 ~ 0.197	2.953	-	-	1.299	0.472	-	-	ERP- 8	ER 8	S-8E
	-105		4.134									
-ERC11S	- 75	0.020 ~ 0.276	2.953	-	0.0 ~ 0.157	0.866 ~ 1.654	0.630	-	HDS07A-ES11	ERP-11S	ER11	S-11E
	-105		4.134									
-ERC11	- 75	0.020 ~ 0.276	2.953	-	0.0 ~ 0.157	0.866 ~ 1.654	0.906	-	HDS07A-ES11	HDP-07	ER11	S-0
	- 90		3.543									
	-105		4.134									
	- 90		3.543									
	-105		4.134									
-ERC16	-120	0.020 ~ 0.394	4.724	-	0.0 ~ 0.197	1.299 ~ 2.126	1.260	-	ES16	ERP-16	ER16	FK0030
	-135		5.315									
	-165		6.496									
	- 90		3.543									
	-105		4.134									
-ERC20	-120	0.020 ~ 0.512	4.724	-	0.0 ~ 0.236	1.496 ~ 2.638	1.378	-	HDS12A-ES20	ERP-20	ER20	FK0034
	-135		5.315									
	-165		6.496				1.750					
	-195		7.677									
	- 90		3.543									
	-105		4.134									
-ERC25	-120	0.020 ~ 0.630	4.724	-	0.0 ~ 0.315	1.693 ~ 3.150	1.654	-	HDS16A-ES25	ERP-25	ER25	HS-1-16
	-135		5.315									
	-165		6.496									
	-195		7.677									
	-105		4.134									
	-120		4.724									
-ERC32	-135	0.098 ~ 0.787	5.315	-	0.0 ~ 0.394	1.969 ~ 3.976	1.969	-	HDS22A-ES32	ERP-32	ER32	HS-2-20
	-165		6.496									
	-195		7.677									
	- 75		2.953		-	3.386						
-ERC40	-105	0.118 ~ 1.024	4.134	1.380	0.0	2.362 ~ 3.504	2.480	-	-	ERP-40	ER40	HS-2.5-25
	-150		5.906									
	-165		6.496		0.138 ~ 0.551	2.362 ~ 3.898			ES40			

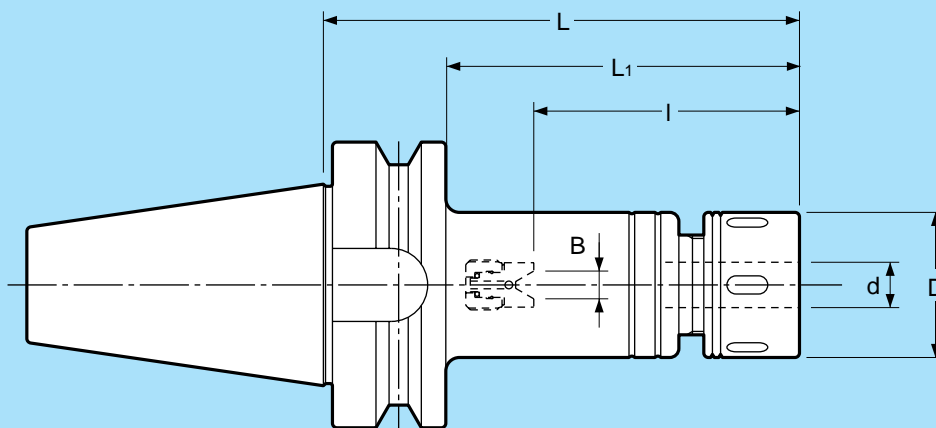
# ER Collet Chucks CAT / ERC

Part Number	Type	d	L	L <sub>1</sub>	B	I	D	D <sub>1</sub>	Preset Screw	Nut	Collet	Spanner	
CAT50	-ERC11	- 90	3.543						HDS07A-ES11	HDP-07	ER11	S-0	
		-105	4.134										
		-120	4.724			0.0 ~ 0.157	0.866 ~ 1.654	0.906					
		-135	5.315										
		-165	6.496										
		-195	7.677										
	-ERC16	- 90	3.543						ES16	ERP-16	ER16	FK0030	
		-105	4.134										
		-120	4.724			0.0 ~ 0.197	1.299 ~ 2.126	1.260					
		-135	5.315										
		-165	6.496										
		-195	7.677										
	-ERC20	- 90	3.543						HDS12A-ES20	ERP-20	ER20	FK0034	
		-105	4.134										
		-120	4.724			0.0 ~ 0.236	1.496 ~ 2.638	1.378					
		-135	5.315										
		-165	6.496										
		-195	7.677										
	-ERC25	- 90	3.543						HDS16A-ES25	ERP-25	ER25	HS-1-16	
		-105	4.134										
-120		4.724			0.0 ~ 0.315	1.693 ~ 3.150	1.654						
-135		5.315											
-165		6.496											
-195		7.677											
-ERC32	- 90	3.543						HDS22A-ES32	ERP-32	ER32	HS-2-20		
	-105	4.134											
	-120	4.724			0.0 ~ 0.394	1.969 ~ 3.976	1.969						
	-135	5.315											
	-150	5.906											
	-165	6.496											
-ERC40	- 75	2.953			0.0	2.362 ~ 3.701		ES40	ERP-40	ER40	HS-2.5-25		
	-105	4.134			0.138 ~ 0.551	2.362 ~ 3.898	2.480						
	-165	6.496											
-ERC50	-105	0.394 ~ 1.339	4.134		0.0	2.913 ~ 3.937	3.071	ES50	ERP-50	ER50	HS-4-42		

### Ordering Example CAT40-ERC20-105

Collet and spanner wrench (page 60 ~ 63) are sold separately.

# ER Collet Chucks BT / ERC



Part Number	d	L	L <sub>1</sub>	B	I	D	Preset Screw	Nut	Collet	Spanner	
BT 30	-ERC 8 0.020 ~ 0.197	- 45	1.772	0.906	-	1.299	0.472	-	ERP- 8	ER 8	S-8E
		- 60	2.362	1.496							
		- 75	2.953	2.087							
		- 90	3.543	2.677							
		-105	4.134	3.268							
	-135	5.315	4.449								
	-ERC11S 0.020 ~ 0.276	- 45	1.772	0.906	0.0 ~ 0.157	0.866 ~ 1.457	0.630	HDS07A-ES11	ERP-11S	ER11	S-11E
		- 60	2.362	1.496							
		- 75	2.953	2.087							
		- 90	3.543	2.677							
		-105	4.134	3.268							
	-135	5.315	4.449								
	-ERC11 0.020 ~ 0.394	- 45	1.772	0.906	0.0 ~ 0.197	0.866 ~ 1.457	0.906	HDS12A-ES20	HDP-07	ER11	S-0
		- 60	2.362	1.496							
		- 75	2.953	2.087							
- 90		3.543	2.677								
-105		4.134	3.268								
-135	5.315	4.449									
-ERC16 0.020 ~ 0.512	- 60	2.362	1.496	0.0 ~ 0.236	1.496 ~ 2.047	1.260	HDS16A-ES25	ERP-16	ER16	FK0030	
	- 75	2.953	2.087								
	- 90	3.543	2.677								
	-105	4.134	3.268								
	-135	5.315	4.449								
-ERC20 0.020 ~ 0.630	- 60	2.362	1.496	0.0 ~ 0.315	1.693 ~ 2.165	1.378	HDS22A-ES32	ERP-20	ER20	FK0034	
	- 75	2.953	2.087								
	- 90	3.543	2.677								
	-105	4.134	3.268								
	-135	5.315	4.449								
-ERC25 0.020 ~ 0.787	- 90	3.543	2.677	-	2.323	1.969	-	ERP-25	ER25	HS-1-16	
	-105	4.134	3.268								
	-120	4.724	3.858								
	- 60	2.362	1.496								
	- 75	2.953	2.087								
-ERC32 0.098 ~ 0.394	- 90	3.543	2.677	0.0 ~ 0.394	2.913	1.969	HDS22A-ES32	ERP-32	ER32	HS-2-20	
	-105	4.134	3.268								
	-135	5.315	4.449								
	- 60	2.362	1.299								
	- 75	2.953	2.087								
BT 40	-ERC 8 0.020 ~ 0.197	- 60	2.362	1.299	-	1.299	0.472	-	ERP- 8	ER 8	S-8E
		- 75	2.953	1.890							
		- 90	3.543	2.480							
		-105	4.134	3.071							
		-135	5.315	4.252							
	-ERC11S 0.020 ~ 0.276	- 60	2.362	1.299	0.0 ~ 0.157	0.866 ~ 1.654	0.630	HDS07A-ES11	ERP-11S	ER11	S-11E
		- 75	2.953	1.890							
		- 90	3.543	2.480							
		-105	4.134	3.071							
		-135	5.315	4.252							
-ERC11 0.020 ~ 0.394	- 75	2.953	1.890	0.0 ~ 0.394	2.323	0.906	-	HDP-07	ER11	S-0	
	- 90	3.543	2.480								
	-105	4.134	3.071								
	-135	5.315	4.252								
	-105	4.134	3.071								

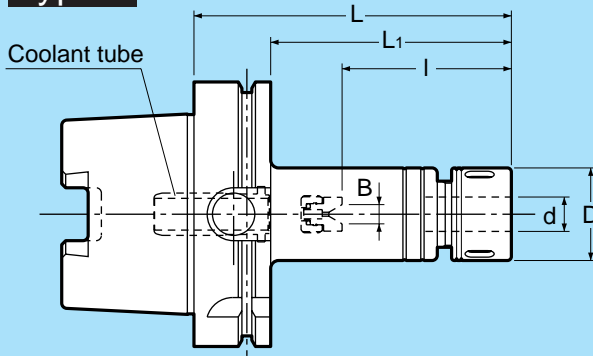
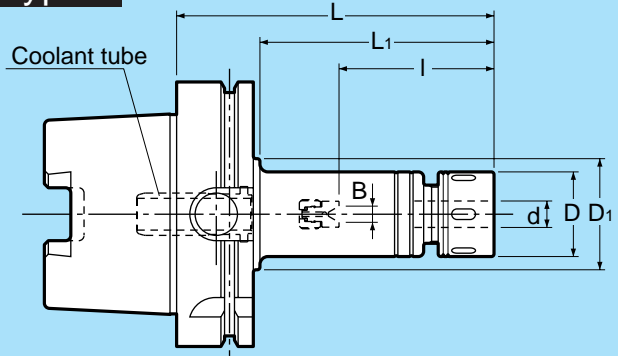
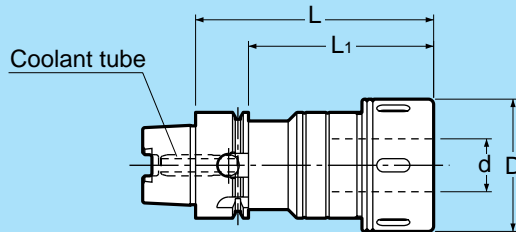
# ER Collet Chucks BT / ERC

Part Number	d	L	L <sub>1</sub>	B	I	D	Preset Screw	Nut	Collet	Spanner	
BT 40	-ERC16	-60	2.362	1.299	0.0 ~ 0.197	1.299 ~ 2.126	1.260	ES16	ERP-16	ER16	FK0030
		-90	3.543	2.480							
		-105	4.134	3.071							
		-120	4.724	3.661							
		-135	5.315	4.252							
		-165	6.496	5.433							
	-ERC20	-60	2.362	1.299	0.0 ~ 0.236	1.496 ~ 2.638	1.378	HDS12A-ES20	ERP-20	ER20	FK0034
		-90	3.543	2.480							
		-105	4.134	3.071							
		-120	4.724	3.661							
		-135	5.315	4.252							
		-165	6.496	5.433							
	-ERC25	-60	2.362	1.299	0.0 ~ 0.315	1.693 ~ 3.150	1.654	HDS16A-ES25	ERP-25	ER25	HS-1-16
		-90	3.543	2.480							
		-105	4.134	3.071							
-120		4.724	3.661								
-135		5.315	4.252								
-165		6.496	5.433								
-ERC32	-60	2.362	1.299	0.0 ~ 0.394	1.969 ~ 3.976	1.969	HDS22A-ES32	ERP-32	ER32	HS-2-20	
	-90	3.543	2.480								
	-105	4.134	3.071								
	-120	4.724	3.661								
	-135	5.315	4.252								
	-165	6.496	5.433								
-ERC40	-75	2.953	1.890	0.0	3.386	2.480	-	ERP-40	ER40	HS-2.5-25	
	-105	4.134	3.071								
	-150	5.906	4.843								
BT 50	-ERC11	-60	2.362	1.299	0.0 ~ 0.157	0.866 ~ 1.654	0.906	HDS07A-ES11	HDP-07	ER11	S-0
		-90	3.543	2.047							
		-105	4.134	2.638							
		-120	4.724	3.228							
		-135	5.315	3.819							
		-165	6.496	5.000							
	-ERC16	-60	2.362	1.299	0.0 ~ 0.197	1.299 ~ 2.126	1.260	ES16	ERP-16	ER16	FK0030
		-90	3.543	2.047							
		-105	4.134	2.638							
		-120	4.724	3.228							
		-135	5.315	3.819							
		-165	6.496	5.000							
	-ERC20	-60	2.362	1.299	0.0 ~ 0.236	1.496 ~ 2.638	1.378	HDS12A-ES20	ERP-20	ER20	FK0034
		-90	3.543	2.047							
		-105	4.134	2.638							
-120		4.724	3.228								
-135		5.315	3.819								
-165		6.496	5.000								
-ERC25	-60	2.362	1.299	0.0 ~ 0.315	1.693 ~ 3.150	1.654	HDS16A-ES25	ERP-25	ER25	HS-1-16	
	-90	3.543	2.047								
	-105	4.134	2.638								
	-120	4.724	3.228								
	-135	5.315	3.819								
	-165	6.496	5.000								
-ERC32	-60	2.362	1.299	0.0 ~ 0.394	1.969 ~ 3.976	1.969	HDS22A-ES32	ERP-32	ER32	HS-2-20	
	-90	3.543	2.047								
	-105	4.134	2.638								
	-120	4.724	3.228								
	-135	5.315	3.819								
	-165	6.496	5.000								
-ERC40	-75	2.953	1.890	0.0	2.362 ~ 3.898	2.480	ES40	ERP-40	ER40	HS-2.5-25	
	-105	4.134	2.638								
	-165	6.496	5.000								
-ERC50	-105	0.394 ~ 1.339	4.134	2.638	0.0	2.913 ~ 3.937	3.071	ES50	ERP-50	ER50	HS-4-42

**Ordering Example** BT40-ERC20-105

Collet and spanner wrench (page 60 ~ 63) are sold separately.

# ER Collet Chucks H S K / E R C

**Type 1**

**Type 2**

**Type 3**


Part Number	Type	d	L	L <sub>1</sub>	B	I	D	D <sub>1</sub>	Preset Screw	Nut	Collet	Spanner		
HSK 40A	1	-ERC 8 - 60 - 75 - 90	2.362 1.575		-	1.299	0.472	-	-	ERP- 8	ER 8	S-8E		
			0.020 ~ 0.197 2.953 2.165											
			3.543 2.756											
		-ERC11S - 60 - 75 - 90	2.362 1.575		1.417		0.0 ~ 0.157	0.866 ~ 1.378	0.630	HDS07A-ES11	ERP-11S	ER11	S-11E	
			0.020 ~ 0.276 2.953 2.165											
			3.543 2.756											
		-ERC11 - 90 - 120	2.953 2.165		0.866 ~ 1.378		0.0 ~ 0.197	1.299 ~ 1.772	1.260	-	ES16	ERP-16	ER16	FK0030
			0.020 ~ 0.394 3.543 2.756											
			4.724 3.937											
		-ERC16 - 90 - 120	2.953 2.165		2.362		0.0 ~ 0.236	1.496 ~ 2.638	1.378	-	HDS12A-ES20	ERP-20	ER20	FK0034
			0.020 ~ 0.512 3.543 2.756											
			4.724 3.937											
		-ERC20 - 90 - 120	2.953 2.165		2.323		0.0 ~ 0.315	1.693 ~ 2.795	1.654	-	HDS16A-ES25	ERP-25	ER25	HS-1-16
			0.020 ~ 0.630 3.543 2.756											
			4.724 3.937											
-ERC25	- 90	2.953 2.165		2.441		1.969		-	ERP-32	ER32	HS-2-20			
-ERC32	- 90	3.543 2.756		-		-		-	-	-	-			
HSK 63A	1	-ERC 8 - 75 - 105	2.953 1.929		-	1.299	0.472	-	-	ERP- 8	ER 8	S-8E		
			0.020 ~ 0.197 4.134 3.110											
			2.953 1.929											
		-ERC11S - 75 - 105	2.953 1.929		0.866 ~ 1.260		0.0 ~ 0.157	0.866 ~ 1.654	0.630	HDS07A-ES11	ERP-11S	ER11	S-11E	
			0.020 ~ 0.276 4.134 3.110											
			2.953 1.929											
		-ERC11 - 90 - 120	3.543 2.520		0.866 ~ 1.654		0.0 ~ 0.197	1.299 ~ 1.575	1.260	-	ES16	ERP-16	ER16	FK0030
			0.020 ~ 0.394 4.134 3.110											
			4.724 3.701											
		-ERC16 - 90 - 120 - 165	2.953 1.929		2.165		0.0 ~ 0.236	1.496 ~ 2.559	1.378	-	-	ERP-20	ER20	FK0034
			0.020 ~ 0.512 3.543 2.520											
			4.724 3.701											
-ERC20 - 120 - 150	2.953 1.929		1.496 ~ 2.638		-	-	-	HDS12A-ES20	ERP-20	ER20	FK0034			
	0.020 ~ 0.512 4.724 3.701													
	5.906 4.882													

# ER Collet Chucks H S K / E R C

Part Number	Type	d	L	L <sub>1</sub>	B	I	D	D <sub>1</sub>	Preset Screw	Nut	Collet	Spanner														
HSK 63A	1	- 75 -ERC25 -120 -150	0.020 ~ 0.630	2.953	1.929	—	1.732	1.654	—	—	ERP-25	ER25	HS-1-16													
				3.543	2.520	—	2.323																			
				4.724	3.701	0.0 ~ 0.315	1.693 ~ 2.598																			
		- 90 -ERC32 -105 -120 -150	0.079 ~ 0.787	5.906	4.882	—	2.244	1.969	—	—	—	ERP-32	ER32	HS-2-20												
				4.134	3.110	—	2.638																			
				4.724	3.701	0.0 ~ 0.394	1.969 ~ 2.323																			
	-ERC40 -120	2	0.118 ~ 1.024	4.724	3.701	—	3.150	2.480	—	—	ERP-40	ER40	HS-2.5-25													
														- 75 -ERC11 - 90 -120	0.020 ~ 0.276	2.953	1.417	—	1.496	0.906	1.260	—	HDS07A-ES11	HDP-07	ER11	S-0
																3.543	2.008	0.0 ~ 0.157	0.866 ~ 1.654							
																4.724	3.189	—	—							
HSK100A	1	- 75 -ERC16 - 90 -120	0.020 ~ 0.394	2.953	1.693	—	1.654	1.260	1.654	—	ERP-16	ER16	FK0030													
				3.543	2.283	0.0 ~ 0.197	1.299 ~ 1.457																			
				4.724	3.465	—	1.299 ~ 2.126																			
		- 90 -ERC20 -120 -150	0.020 ~ 0.512	3.543	2.402	—	2.087	1.378	—	—	—	ERP-20	ER20	FK0034												
				4.724	3.583	0.0 ~ 0.236	1.496 ~ 2.323																			
				5.906	4.764	—	1.496 ~ 2.638																			
	-ERC25 -120 -150 - 90 -ERC32 -105 -120 -150	2	0.020 ~ 0.630	4.724	3.583	0.0 ~ 0.315	1.693 ~ 2.362	1.654	—	—	ERP-25	ER25	HS-1-16													
														5.906	4.764	—	2.008									
														3.543	2.402	—	2.087									
														4.724	3.583	0.0 ~ 0.394	1.693 ~ 3.150									
-ERC40 -120 -ERC50 -135	1	0.098 ~ 0.787	4.134	2.992	—	2.598	1.969	—	—	ERP-32	ER32	HS-2-20														
													4.724	3.583	0.0 ~ 0.394	1.969 ~ 2.126										
													5.906	4.764	—	1.969 ~ 3.307										
													0.118 ~ 1.024	4.724	3.583	—	2.913	2.480	—	—	ERP-40	ER40	HS-2.5-25			
0.394 ~ 1.339	5.315	4.173	—	3.307	3.071	—	—	ERP-50	ER50	HS-4-42																

### Ordering Example

HSK63A-ERC20-120

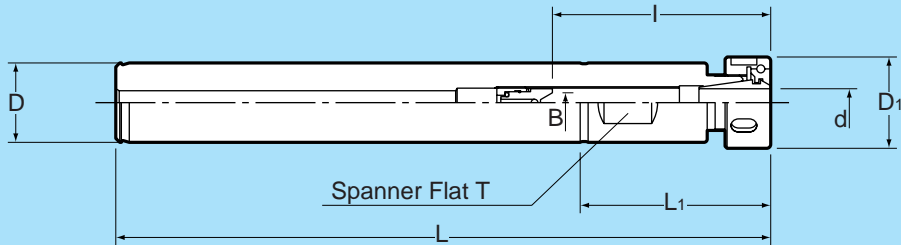
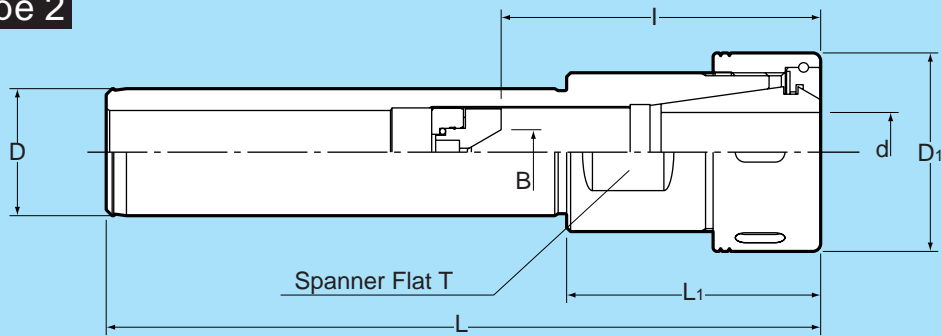
HSK63A-H-ERC20-120 (HSK Type A with manual clamping hole.)

Collet and spanner wrench (page 60 ~ 63) are sold separately.

Coolant tube built-in.

# ER Collet Chucks

## ST / ERC Straight Shank Type

**Type 1**

**Type 2**

**Metric**

Part Number	Type	d	D	D <sub>1</sub>	L	L <sub>1</sub>	B	I	T	Preset Screw	Nut	Collet	Spanner	
ST 20	ERC11-165	1	0.020 ~ 0.276	0.787	0.906	6.496	1.890	0.0 ~ 0.157	0.866 ~ 1.654	0.669 (17mm)	HDS07A-ES11	HDP-07	ER11	S-0
	ERC16-165	2	0.020 ~ 0.394 (20mm)	1.260	2.008		0.0 ~ 0.197	1.299 ~ 2.126	0.748 (19mm)	ES16	ERP-16	ER16	FK0030	
ST 32	ERC25-180	1	0.020 ~ 0.630	1.260	1.654	7.087	2.323	0.0 ~ 0.315	1.693 ~ 3.150	1.142 (29mm)	HDS16A-ES25	ERP-25	ER25	HS-1-16
	ERC32-180	2	0.079 ~ 0.787 (32mm)	1.969	2.520		0.0 ~ 0.394	1.969 ~ 3.976	1.417 (36mm)	HDS22A-ES32	ERP-32	ER32	HS-2-20	

**Inch**

Part Number	Type	d	D	D <sub>1</sub>	L	L <sub>1</sub>	B	I	T	Preset Screw	Nut	Collet	Spanner
ST0750	ERC11-165	1	0.020 ~ 0.276	0.906	6.496	1.890	0.0 ~ 0.157	0.866 ~ 1.654	0.669 (17mm)	HDS07A-ES11	HDP-07	ER11	S-0
	ERC16-165	2	0.020 ~ 0.394	1.260		2.008	0.0 ~ 0.197	1.299 ~ 2.126	0.748 (19mm)	ES16	ERP-16	ER16	FK0030
ST1250	ERC25-180	1	0.020 ~ 0.630	1.654	7.087	2.323	0.0 ~ 0.315	1.693 ~ 3.150	1.142 (29mm)	HDS16A-ES25	ERP-25	ER25	HS-1-16
	ERC32-180	2	0.079 ~ 0.787	1.969		2.520	0.0 ~ 0.394	1.969 ~ 3.976	1.417 (36mm)	HDS22A-ES32	ERP-32	ER32	HS-2-20

**Ordering Example** ST0750-ERC16-165

Collet and spanner wrench (page 60 ~ 63) are sold separately.

## Slim Chucks (ER Type)



Available in CAT,BT & HSK Tapers.

Slim symmetrical body design for hard to reach applications.

For use with standard ER8 & ER11 collets.

R-Zero Type available upon request.