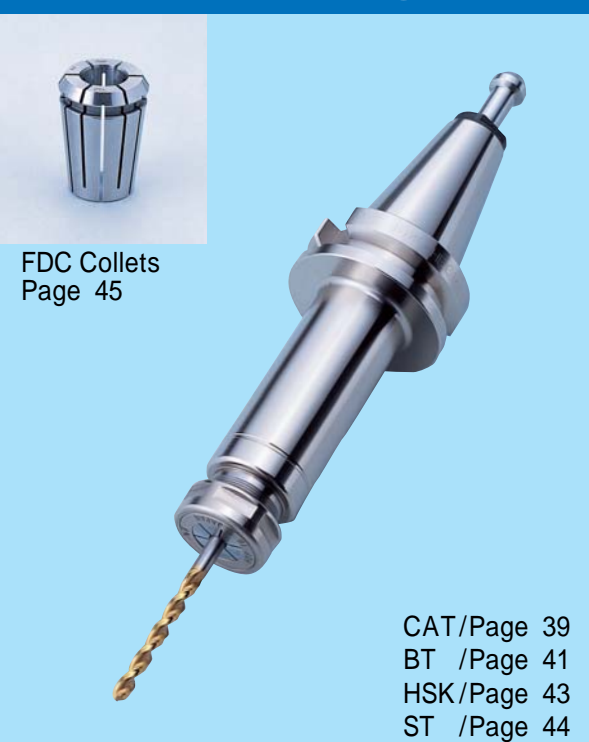


HDC Collet Chucks

NT's HDC collet chucks use a symmetrical ground design to produce the best all-around chuck available. HDC collet chucks' symmetrical design, and wide chucking range (5 different size chucking series) make it rigid enough to mill and drill with. Coolant through the tool applications can also be addressed with the addition of a FDC coolant collet.

High Precision Type
HDC



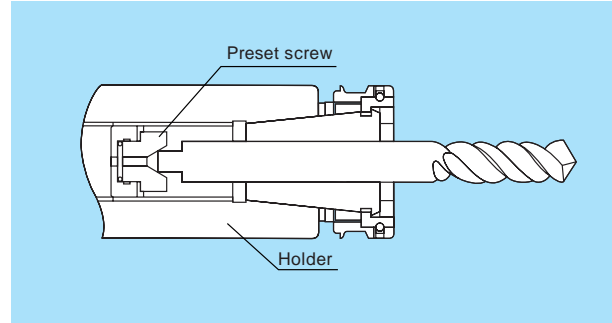
FDC Collets
Page 45

CAT / Page 39
BT / Page 41
HSK / Page 43
ST / Page 44

Tool length adjustment

HDC-A Type

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.

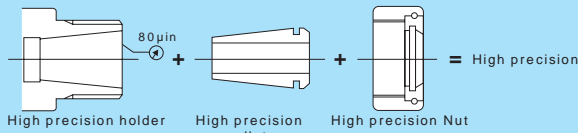
Holder size	Spanner size	Recommended torque
07	S-0	89 ~ 133 lbf-in
09	S-1L	22 ~ 26 lbf-ft (266 ~ 310 lbf-in)
HDC 12	S-3L	26 ~ 30 lbf-ft (310 ~ 354 lbf-in)
16	S-4L	30 ~ 33 lbf-ft (354 ~ 398 lbf-in)
22	S-5L	41 ~ 44 lbf-ft (487 ~ 531 lbf-in)

Coolant supply

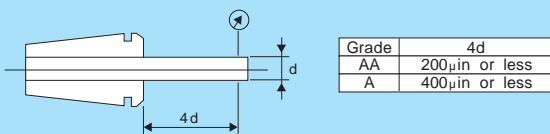
 <p>Cutter with oil hole FDC-OH type R.P.M. 8 000rpm Coolant Pressure 580psi</p>	 <p>Cutter without oil hole FDC-C type R.P.M. 8 000rpm Coolant Pressure 580psi</p>
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Features

High precision trio



High precision collet

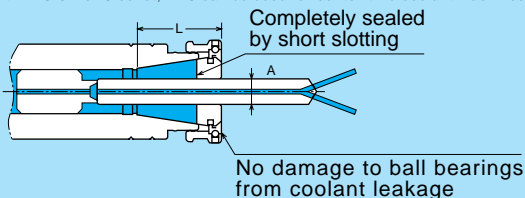


High balance

HDC is designed for high balance quality, high-speed cutting is possible.

Center-through coolant capable

With FDC-OH or C collet, HDC can be used for center-thru coolant machines.



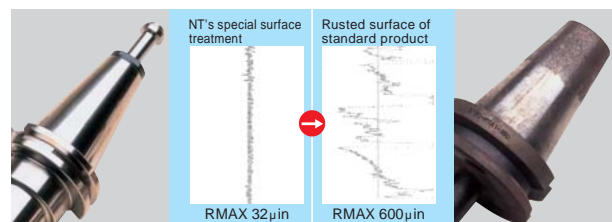
Special surface treatment

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

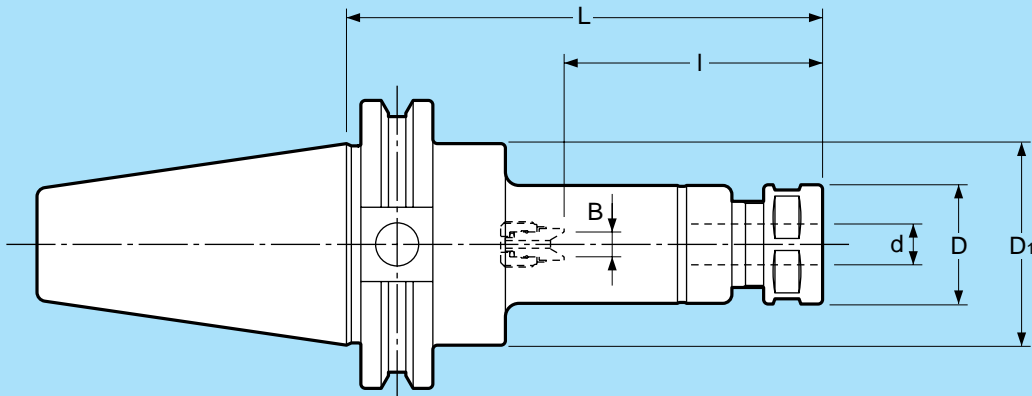
Ordinary tooling

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 400-800µin.



High-Precision Collet Chucks CAT / HDC • A



Part Number	d	L	I	B	D	D ₁	Preset Screw	Nut	Collet	Spanner	
CAT 40	- 75		2.953				HDS07A-ES11	HDP-07	FDC-07	S-0	
	-HDC07A - 90	0.020 ~ 0.276	3.543	0.866 ~ 1.654		0.906					
	-105		4.134								
	- 90		3.543		0.0 ~ 0.157			HDS09	HDP-09	FDC-09	S-1L
	-105		4.134								
	-HDC09A -120	0.098 ~ 0.354	4.724	1.063 ~ 2.126		1.024					
	-135		5.315					HDS12A-ES20	HDP-12	FDC-12	S-3L
	-165		6.496								
	-HDC12A -120	0.098 ~ 0.472	4.724	1.339 ~ 2.598	0.0 ~ 0.236	1.260					
	-135		5.315				1.750	HDS16A-ES25	HDP-16	FDC-16	S-4L
	-165		6.496								
	-195		7.677								
	- 90		3.543					HDS16A-ES25	HDP-16	FDC-16	S-4L
	-105		4.134								
	-HDC16A -120	0.138 ~ 0.630	4.724	1.575 ~ 3.071	0.0 ~ 0.315	1.417					
	-135		5.315					HDS22A-ES32	HDP-22	FDC-22	S-5L
	-165		6.496								
	-195		7.677								
	-105		4.134					HDS22A-ES32	HDP-22	FDC-22	S-5L
	-120		4.724								
-HDC22A -135	0.138 ~ 0.866	5.315	1.929 ~ 3.898	0.0 ~ 0.394	1.811						
-165		6.496									
-195		7.677									

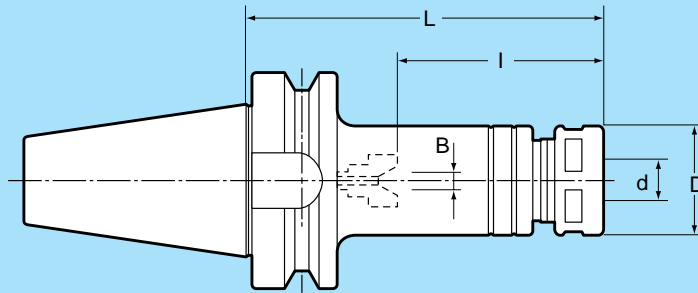
High-Precision Collet Chucks CAT / HDC • A

Part Number	d	L	I	B	D	D ₁	Preset Screw	Nut	Collet	Spanner				
CAT50	- 90	3.543					HDS07A-ES11	HDP-07	FDC-07	S-0				
	-105	4.134												
	-HDC07A -120	4.724	0.020 ~ 0.276	0.866 ~ 1.654		0.906								
	-135	5.315												
	-165	6.496												
	-195	7.677												
	- 90	3.543			0.0 ~ 0.157						HDS09	HDP-09	FDC-09	S-1L
	-105	4.134												
	-120	4.724												
	-HDC09A -135	5.315	0.098 ~ 0.354	1.063 ~ 2.126		1.024								
	-165	6.496												
	-195	7.677												
	-225	8.858												
	-255	10.039												
	- 90	3.543												
-105	4.134													
-120	4.724													
-HDC12A -135	5.315	0.098 ~ 0.472	1.339 ~ 2.598	0.0 ~ 0.236	1.260									
-165	6.496													
-195	7.677													
-225	8.858													
-255	10.039													
- 90	3.543					HDS16A-ES25	HDP-16	FDC-16	S-4L					
-105	4.134													
-120	4.724													
-HDC16A -135	5.315	0.138 ~ 0.630	1.575 ~ 3.071	0.0 ~ 0.315	1.417									
-165	6.496													
-195	7.677													
-225	8.858													
-255	10.039													
-105	4.134									HDS22A-ES32	HDP-22	FDC-22	S-5L	
-120	4.724													
-135	5.315													
-HDC22A -150	5.906	0.138 ~ 0.866	1.929 ~ 3.898	0.0 ~ 0.394	1.811									
-165	6.496													
-195	7.677													
-225	8.858													
-255	10.039													

Ordering Example CAT40-HDC12A-120

Collet and spanner wrench (page 45 ~ 50) are sold separately.

High-Precision Collet Chucks BT / HDC • A



Part Number	d	L	B	I	D	Preset Screw	Nut	Collet	Spanner	
BT 3 0	-HDC07A	- 45	1.772		0.866 ~ 1.457	0.906	HDS07A-ES11	HDP-07	FDC-07	S-0
		- 60	2.362							
		- 75	2.953		0.866 ~ 1.654					
		- 90	3.543							
		- 105	4.134	0.0 ~ 0.157						
	-HDC09A	- 45	1.772		1.063 ~ 1.417	1.024	HDS-09	HDP-09	FDC-09	S-1L
		- 75	2.953							
		- 90	3.543		1.063 ~ 2.126					
	-HDC12A	- 45	1.772	-	2.205	1.260	HDS12A-ES20	HDP-12	FDC-12	S-3L
		- 75	2.953							
		- 90	3.543	0.0 ~ 0.236	1.339 ~ 2.598					
		- 105	4.134							
-HDC16A	- 45	1.772	-	2.205	1.417	HDS16A-ES25	HDP-16	FDC-16	S-4L	
	- 90	3.543								
	- 105	4.134	0.0 ~ 0.315	1.575 ~ 3.071						
	- 120	4.724								
-HDC22A	- 45	1.772	-	2.087	1.811	HDS22A-ES32	HDP-22	FDC-22	S-5L	
	- 60	2.362		2.677						
	- 75	2.953		1.929 ~ 2.362						
	- 90	3.543	0.0 ~ 0.394	1.929 ~ 2.953						
	- 105	4.134		1.929 ~ 3.543						
BT 4 0	-HDC07A	- 75	2.953			0.906	HDS07A-ES11	HDP-07	FDC-07	S-0
		- 90	3.543		0.866 ~ 1.654					
		- 105	4.134							
	-HDC09A	- 90	3.543			1.024	HDS-09	HDP-09	FDC-09	S-1L
		- 105	4.134	0.0 ~ 0.157						
		- 120	4.724		1.063 ~ 2.126					
		- 135	5.315							
		- 165	6.496							
	-HDC12A	- 90	3.543			1.260	HDS12A-ES20	HDP-12	FDC-12	S-3L
		- 105	4.134							
		- 120	4.724	0.0 ~ 0.236	1.339 ~ 2.598					
		- 135	5.315							
		- 165	6.496							
		- 195	7.677							
	-HDC16A	- 90	3.543			1.417	HDS16A-ES25	HDP-16	FDC-16	S-4L
		- 105	4.134							
		- 120	4.724	0.0 ~ 0.315	1.575 ~ 3.071					
		- 135	5.315							
- 165		6.496								
-HDC22A	- 105	4.134			1.811	HDS22A-ES32	HDP-22	FDC-22	S-5L	
	- 120	4.724								
	- 135	5.315	0.0 ~ 0.394	1.929 ~ 3.898						
	- 165	6.496								
	- 195	7.677								

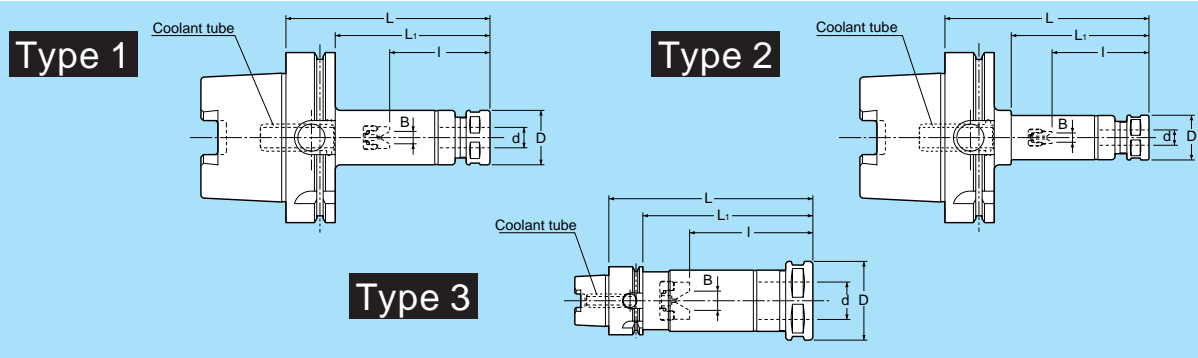
High-Precision Collet Chucks BT / HDC • A

Part Number	d	L	B	I	D	Preset Screw	Nut	Collet	Spanner	
BT 50 -HDC07A	- 90	3.543	0.020 ~ 0.276	0.866 ~ 1.654	0.906	HDS07A-ES11	HDP-07	FDC-07	S-0	
	-105	4.134								
	-120	4.724								
	-135	5.315								
	-165	6.496								
	-195	7.677								
-HDC09A	- 90	3.543	0.098 ~ 0.354	0.0 ~ 0.157	1.063 ~ 2.126	1.024	HDS-09	HDP-09	FDC-09	S-1L
	-105	4.134								
	-120	4.724								
	-135	5.315								
	-165	6.496								
	-195	7.677								
	-225	8.858								
-255	10.039									
-HDC12A	- 90	3.543	0.098 ~ 0.472	0.0 ~ 0.236	1.339 ~ 2.598	1.260	HDS12A-ES20	HDP-12	FDC-12	S-3L
	-105	4.134								
	-120	4.724								
	-135	5.315								
	-165	6.496								
	-195	7.677								
	-225	8.858								
-255	10.039									
-HDC16A	- 90	3.543	0.138 ~ 0.630	0.0 ~ 0.315	1.575 ~ 3.071	1.417	HDS16A-ES25	HDP-16	FDC-16	S-4L
	-105	4.134								
	-120	4.724								
	-135	5.315								
	-165	6.496								
	-195	7.677								
-HDC22A	-105	4.134	0.138 ~ 0.866	0.0 ~ 0.394	1.929 ~ 3.898	1.811	HDS22A-ES32	HDP-22	FDC-22	S-5L
	-120	4.724								
	-135	5.315								
	-150	5.906								
	-165	6.496								
	-195	7.677								
	-225	8.858								
-255	10.039									

Ordering Example BT40-HDC12A-120

Collet and spanner wrench (page 45 ~ 50) are sold separately.

High-Precision Collet Chucks H S K / H D C • A



Part Number	Type	d	L	L ₁	B	r	D	Preset Screw	Nut	Collet	Spanner	
HSK40A	1	-75 -90 -120	0.020 ~ 0.276	2.953	2.165	0.0 ~ 0.157	0.866 ~ 1.378	0.906	HDS07A-ES11	HDP-07	FDC-07	S-0
				4.724	3.937		0.866 ~ 1.811					
				4.724	3.937		0.866 ~ 1.811					
		-75 -90 -120	0.098 ~ 0.354	2.953	2.165	0.0 ~ 0.236	1.063 ~ 1.260	1.024	HDS09	HDP-09	FDC-09	S-1L
				3.543	2.756		1.063 ~ 1.693					
				4.724	3.937		1.063 ~ 2.283					
	-90 -120 -150	0.098 ~ 0.472	3.543	2.756	0.0 ~ 0.315	1.339 ~ 1.890	1.260	HDS12A-ES20	HDP-12	FDC-12	S-3L	
			4.724	3.937		1.339 ~ 2.795						
			5.906	5.118		1.339 ~ 2.795						
	-90 -120 -150	0.138 ~ 0.630	3.543	2.756	0.0 ~ 0.394	1.575 ~ 1.969	1.417	HDS16A-ES25	HDP-16	FDC-16	S-4L	
			4.724	3.937		1.575 ~ 2.677						
			5.906	5.118		1.575 ~ 3.228						
-90 -120 -150	0.138 ~ 0.866	3.543	2.756	0.0 ~ 0.394	2.441	1.811	HDS22A-ES32	HDP-22	FDC-22	S-5L		
		4.724	3.937		1.929 ~ 2.717							
		5.906	5.118		1.929 ~ 3.898							
HSK63A	1	-75 -90 -120	0.020 ~ 0.276	2.953	1.929	0.0 ~ 0.157	0.866 ~ 1.260	0.906	HDS07A-ES11	HDP-07	FDC-07	S-0
				4.724	3.701		0.866 ~ 1.654					
				4.724	3.701		0.866 ~ 1.654					
		-75 -90 -120	0.098 ~ 0.354	2.953	1.929	0.0 ~ 0.236	1.063 ~ 1.220	1.024	HDS09	HDP-09	FDC-09	S-1L
				3.543	2.520		1.063 ~ 1.535					
				4.724	3.701		1.063 ~ 2.126					
	-90 -120 -150	0.098 ~ 0.472	3.543	2.520	0.0 ~ 0.315	1.339 ~ 1.732	1.260	HDS12A-ES20	HDP-12	FDC-12	S-3L	
			4.724	3.701		1.339 ~ 2.598						
			5.906	4.882		1.339 ~ 2.598						
	-90 -120 -150	0.138 ~ 0.630	3.543	2.520	0.0 ~ 0.394	1.575 ~ 1.732	1.417	HDS16A-ES25	HDP-16	FDC-16	S-4L	
			4.724	3.701		1.575 ~ 2.283						
			5.906	4.882		1.575 ~ 3.071						
-90 -120 -150	0.138 ~ 0.866	3.543	2.520	0.0 ~ 0.394	2.362	1.811	HDS22A-ES32	HDP-22	FDC-22	S-5L		
		4.724	3.701		1.929 ~ 2.323							
		5.906	4.882		1.929 ~ 3.504							
HSK100A	1	-75 -90 -120	0.020 ~ 0.276	2.953	1.417	0.0 ~ 0.157	0.866 ~ 1.654	0.906	HDS07A-ES11	HDP-07	FDC-07	S-0
				4.724	3.189		0.866 ~ 1.654					
				4.724	3.189		0.866 ~ 1.654					
		-75 -90 -120	0.098 ~ 0.354	2.953	1.417	0.0 ~ 0.157	1.535	1.024	HDS09	HDP-09	FDC-09	S-1L
				3.543	2.008		1.063 ~ 1.535					
				4.724	3.189		1.063 ~ 2.126					
	-90 -120 -150	0.098 ~ 0.472	3.543	2.402	0.0 ~ 0.236	1.339 ~ 1.496	1.260	HDS12A-ES20	HDP-12	FDC-12	S-3L	
			4.724	3.583		1.339 ~ 2.205						
			5.906	4.764		1.339 ~ 2.598						
	-90 -120 -150	0.138 ~ 0.630	3.543	2.402	0.0 ~ 0.315	2.126	1.417	HDS16A-ES25	HDP-16	FDC-16	S-4L	
			4.724	3.583		1.575 ~ 2.283						
			5.906	4.764		1.575 ~ 3.071						
-90 -120 -150	0.138 ~ 0.866	3.543	2.402	0.0 ~ 0.394	2.126	1.811	HDS22A-ES32	HDP-22	FDC-22	S-5L		
		4.724	3.583		1.929 ~ 2.165							
		5.906	4.764		1.929 ~ 3.110							

Ordering Example HSK63A-HDC12A-120

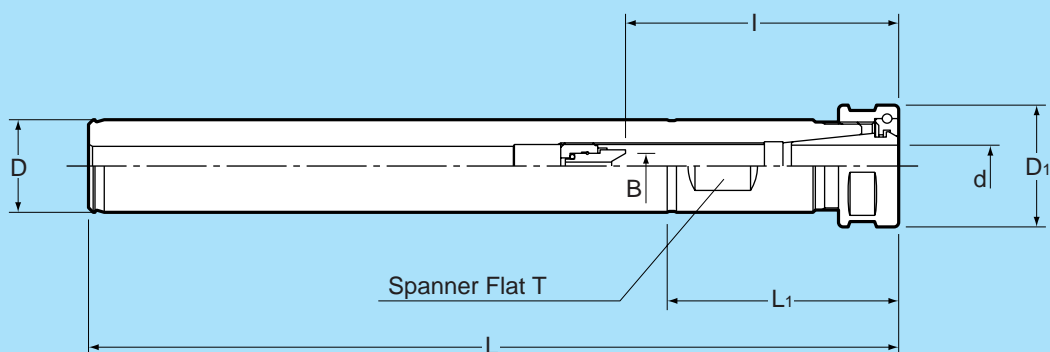
HSK63A-H-HDC12A-120 (HSK Type A with manual clamping hole.)

Collet and spanner wrench (page 45 ~ 50) are sold separately.

Coolant tube built-in.

High-Precision Collet Chucks

S T / H D C Straight Shank Type



Metric

Part Number	d	D	D ₁	L	L ₁	B	I	T	Preset Screw	Nut	Collet	Spanner
ST20-HDC09A -175	0.098 ~ 0.354	0.787 (20mm)	1.024	6.890	1.969	0.0 ~ 0.157	1.063 ~ 2.126	0.669 (17mm)	HDS-09	HDP-09	FDC-09	S-1L
ST32-HDC12A -185 -235	0.098 ~ 0.472	1.260 (32mm)	1.260	$\frac{7.283}{9.252}$	2.008	0.0 ~ 0.236	1.338 ~ 2.598	1.142 (29mm)	HDS12A- ES20	HDP-12	FDC-12	S-3L

Inch

Part Number	d	D	D ₁	L	L ₁	B	I	T	Preset Screw	Nut	Collet	Spanner
ST0750-HDC09A -175	0.098 ~ 0.354	0.750	1.024	6.890	1.969	0.0 ~ 0.157	1.063 ~ 2.126	0.669 (17mm)	HDS-09	HDP-09	FDC-09	S-1L
ST1250-HDC12A -185 -235	0.098 ~ 0.472	1.250	1.260	$\frac{7.283}{9.252}$	2.008	0.0 ~ 0.236	1.338 ~ 2.598	1.142 (29mm)	HDS12A- ES20	HDP-12	FDC-12	S-3L

Ordering Example ST0750-HDC09A-175

Collet and spanner wrench (page 45 ~ 50) are sold separately.