

GDC Collet Chucks

Designed for high speed applications. GDC collet chucks incorporate balancing screws which are adjusted to achieve required balancing grades for high speed applications. Use with compatible balancing machines and NT's FDC collet system.



Balanced Type
G D C

CAT/Page 35
BT /Page 36
HSK/Page 37

GDC Type	Max Imbalance Value
BT30	1.0 gmm
BT40	2.0 gmm
BT50	5.2 gmm
HSK-63-A	2.0 gmm
HSK-100-A	5.2 gmm
CAT40	2.0 gmm
CAT50	5.2 gmm

Features

Truly balanced Holder

Pre balanced holders ready to use straight out of the box.

Machining at High R.P.M.

The NT balanced collet holder (GDC) is designed for use in incredibly high speed (40,000rpm) applications.

Extended Life of Cutting Tool

Balanced tool holders extends the life of cutting tool and produces better surface finishes.

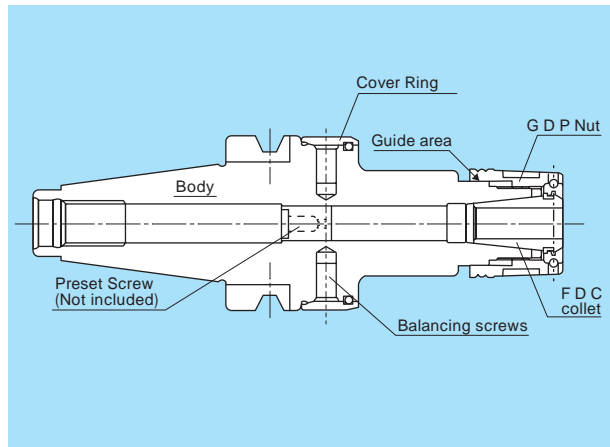
Center-thru Coolant Feed

All 3 types are designed for center-thru coolant feed.

Applications

High R.P.M. machining for drilling, reaming and finish endmilling.

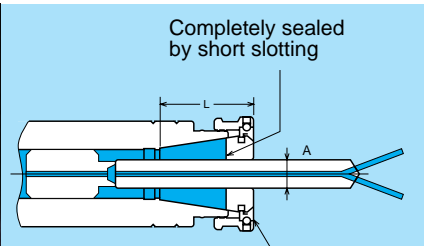
Model no.	Preset screw no.	Clamping torque	Spanner Size
GDC 07	HDS-07	89 ~ 133 lbf-in	S-0
GDC 09	HDS-09	22 ~ 26 lbf-ft (266 ~ 310 lbf-in)	FK0025
GDC 12	HDS-12	26 ~ 30 lbf-ft (310 ~ 354 lbf-in)	FK0030
GDC 16	HDS-16	30 ~ 33 lbf-ft (354 ~ 398 lbf-in)	FK0034
GDC 22	HDS-22	41 ~ 44 lbf-ft (487 ~ 531 lbf-in)	FK0045



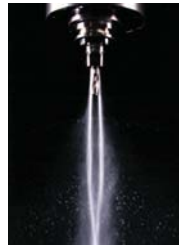
Coolant supply



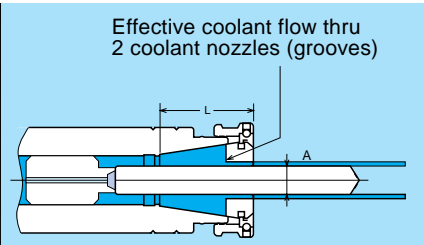
Cutter with oil hole
FDC-OH type
R.P.M. 8 000rpm
Coolant Pressure 580psi



Completely sealed by short slotting
No damage to ball bearings from coolant leakage



Cutter without oil hole
FDC-C type
R.P.M. 8 000rpm
Coolant Pressure 580psi



Effective coolant flow thru 2 coolant nozzles (grooves)

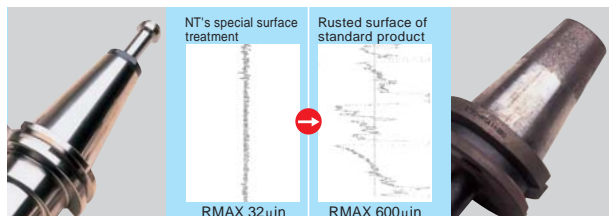
Special surface treatment

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

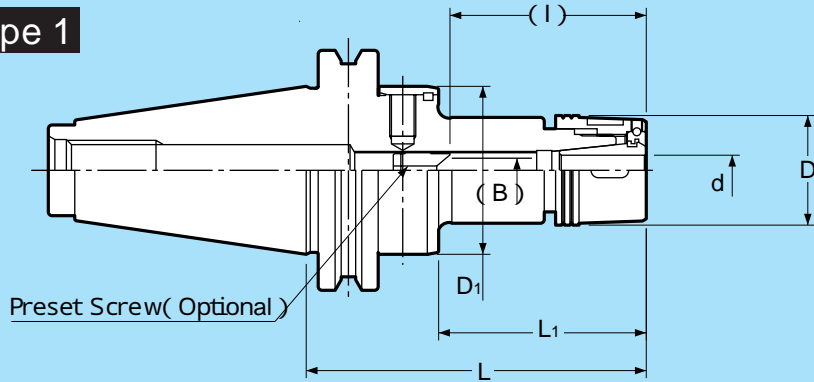
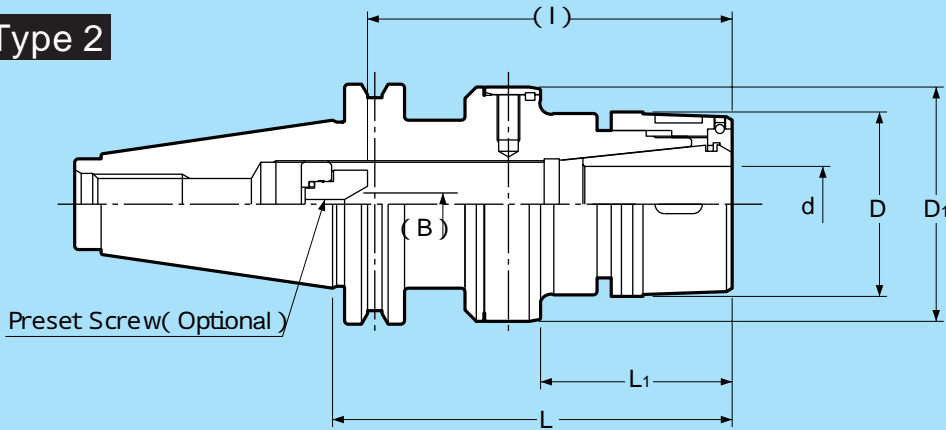
Ordinary tooling

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 / GDC · A

Type 1

Type 2


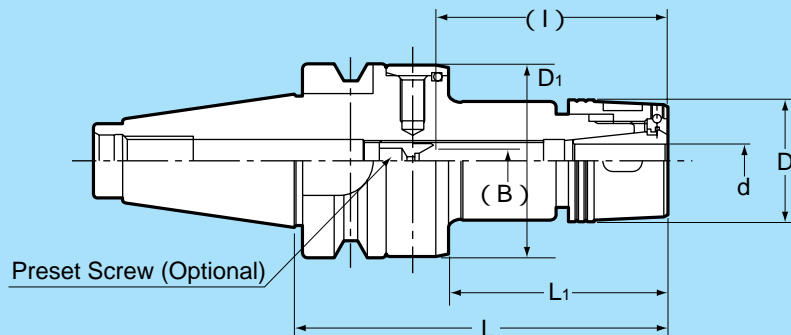
Part Number	Type	d	L	L ₁	(B)	(I)	D	D ₁	Preset Screw	Nut	Collet	Spanner				
CAT 40	-90	-GDC07A	0.020~0.276	3.543	2.165	0.0~0.157	0.866~1.772	0.906	HDS-07	HDP-07	FDC-07AA	S-0				
		-120	4.724	3.346	0.0~0.157	1.063~2.244	1.142									
	-120	-GDC09A	0.098~0.354	3.543	2.165	0.0~0.157	1.063~2.244	1.142					HDS-09	GDP-09	FDC-09AA	FK0025
		-135	4.724	3.346	0.0~0.197	1.299~2.677	1.339									
	-105	-GDC12A	0.098~0.472	4.134	2.756	0.0~0.197	1.299~2.677	1.339					HDS-12	GDP-12	FDC-12AA	FK0030
		-135	5.315	3.937	0.0~0.236	1.496~3.189	1.496									
-105	-GDC16A	0.138~0.630	4.134	2.756	0.0~0.236	1.496~3.189	1.496	HDS-16	GDP-16	FDC-16AA	FK0034					
	-135	5.315	3.937	0.138~0.866	4.134	1.969	1.850~4.055					1.929	2.441	HDS-22	GDP-22	FDC-22AA
CAT 50	-105	-GDC07A	0.020~0.276	4.134	2.756	0.0~0.157	0.866~1.772	0.906	HDS-07	HDP-07	FDC-07AA	S-0				
		-135	5.315	3.937	0.0~0.157	1.063~2.244	1.142									
	-105	-GDC09A	0.098~0.354	4.134	2.756	0.0~0.157	1.063~2.244	1.142					HDS-09	GDP-09	FDC-09AA	FK0025
		-135	5.315	3.937	0.0~0.197	1.299~2.677	1.339	2.750								
	-105	-GDC12A	0.098~0.472	4.134	2.756	0.0~0.197	1.299~2.677	1.339					HDS-12	GDP-12	FDC-12AA	FK0030
		-135	5.315	3.937	0.0~0.236	1.496~3.189	1.496									
-105	-GDC16A	0.138~0.630	4.134	2.756	0.0~0.236	1.496~3.189	1.496	HDS-16	GDP-16	FDC-16AA	FK0034					
	-135	5.315	3.937	0.138~0.866	4.134	2.756	1.850~4.055					1.929				
-105	-GDC22A	0.138~0.866	4.134	2.756	0.0~0.315	1.850~4.055	1.929	HDS-22	GDP-22	FDC-22AA	FK0045					
-135		5.315	3.937													

Ordering Example CAT40-GDC12A-105

Collet, spanner wrench, and preset screw (page 45 ~ 50) are sold separately.
Use class "AA" collet only.

High-Precision Collet Chucks

BT / GDC • A



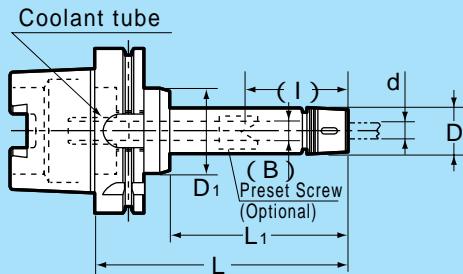
Part Number	d	L	L ₁	(B)	(I)	D	D ₁	Preset Screw	Nut	Collet	Spanner
BT 30	-90 -105	3.543	2.087	0.0 ~ 0.157	0.866 ~ 1.772	0.906	1.811	HDS-07	HDP-07	FDC-07AA	S-0
		4.134	2.677								
	-90 -105	3.543	2.087	0.0 ~ 0.157	1.063 ~ 2.244	1.142		HDS-09	GDP-09	FDC-09AA	FK0025
		4.134	2.677								
	-90 -105	3.543	2.087	0.0 ~ 0.197	1.299 ~ 2.677	1.339		HDS-12	GDP-12	FDC-12AA	FK0030
		4.134	2.677								
	-90 -120	3.543	2.087	0.0 ~ 0.236	1.496 ~ 3.189	1.496		HDS-16	GDP-16	FDC-16AA	FK0034
		4.724	3.268								
BT 40	-90 -120	3.543	1.890	0.0 ~ 0.157	0.866 ~ 1.772	0.906	2.441	HDS-07	HDP-07	FDC-07AA	S-0
		4.724	3.071								
	-90 -120	3.543	1.890	0.0 ~ 0.157	1.063 ~ 2.244	1.142		HDS-09	GDP-09	FDC-09AA	FK0025
		4.724	3.071								
	-90 -120	3.543	1.890	0.0 ~ 0.197	1.299 ~ 2.677	1.339		HDS-12	GDP-12	FDC-12AA	FK0030
		4.724	3.071								
	-90 -120	3.543	1.890	0.0 ~ 0.236	1.496 ~ 3.189	1.496		HDS-16	GDP-16	FDC-16AA	FK0034
		4.724	3.071								
-90 -105 -135	3.543	1.890	0.0 ~ 0.315	1.850 ~ 4.055	1.929	HDS-22	GDP-22	FDC-22AA	FK0045		
	4.134	2.480									
	5.315	3.661									
BT 50	-105 -135	4.134	2.047	0.0 ~ 0.157	0.866 ~ 1.772	0.906	3.307	HDS-07	HDP-07	FDC-07AA	S-0
		5.315	3.228								
	-105 -135	4.134	2.047	0.0 ~ 0.157	1.063 ~ 2.244	1.142		HDS-09	GDP-09	FDC-09AA	FK0025
		5.315	3.228								
	-105 -135	4.134	2.047	0.0 ~ 0.197	1.299 ~ 2.677	1.339		HDS-12	GDP-12	FDC-12AA	FK0030
		5.315	3.228								
	-105 -135	4.134	2.047	0.0 ~ 0.236	1.496 ~ 3.189	1.496		HDS-16	GDP-16	FDC-16AA	FK0034
		5.315	3.228								
-105 -135	4.134	2.047	0.0 ~ 0.315	1.850 ~ 4.055	1.929	HDS-22	GDP-22	FDC-22AA	FK0045		
	5.315	3.228									

Ordering Example BT40-GDC12A-120

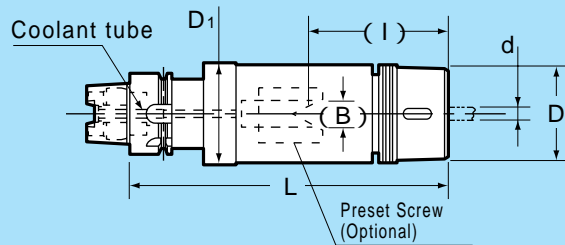
Collet, spanner wrench, and preset screw (page 45 ~ 50) are sold separately.
Use class "AA" collet only.

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

Type 1



Type 2



Part Number	Type	d	L	L ₁	(B)	(I)	D	D ₁	Preset Screw	Nut	Collet	Spanner							
HSK40A	1	-75	2.953	1.575		0.866 ~ 1.142			1.339	HDS-07	HDP-07	FDC-07AA	S-0						
		-90	0.020 ~ 0.276	3.543	2.165	0.0 ~ 0.157	0.866 ~ 1.732	0.906											
		-120	4.724	3.346		0.866 ~ 1.772													
		-75	2.953	1.575		1.063													
		-90	0.098 ~ 0.354	3.543	2.165	0.0 ~ 0.157	1.063 ~ 1.575	1.142											
		-120	4.724	3.346		1.063 ~ 2.244													
	2	-90	3.543			1.614			1.535	HDS-12	GDP-12	FDC-12AA	FK0030						
		-GDC12A -120	0.098 ~ 0.472	4.724		0.0 ~ 0.197	1.299 ~ 1.811	1.339											
		-150	5.906			1.299 ~ 3.031													
		-90	3.543			1.575													
		-GDC16A -120	0.138 ~ 0.630	4.724		0.0 ~ 0.236	1.496 ~ 1.772	1.496											
		-150	5.906			1.496 ~ 2.874													
-GDC22A	-120	0.138 ~ 0.866	4.724		2.677			1.929	HDS-22	GDP-22	FDC-22AA	FK0045							
	-150	5.906			1.850 ~ 2.953														
	HSK63A	1	-75	2.953	1.339		0.866 ~ 1.339								1.339	HDS-07	HDP-07	FDC-07AA	S-0
			-90	0.020 ~ 0.276	3.543	1.929	0.0 ~ 0.157						0.866 ~ 1.772	0.906					
			-120	4.724	3.110		0.866 ~ 1.772												
			-75	2.953	1.339		1.063 ~ 1.339												
-90			0.098 ~ 0.354	3.543	1.929	0.0 ~ 0.157	1.063 ~ 1.654	1.142											
-120			4.724	3.110		1.063 ~ 2.244													
2		-90	3.543	1.929		2.047			2.047	HDS-12	GDP-12	FDC-12AA	FK0030						
		-GDC12A -120	0.098 ~ 0.472	4.724	3.110	0.0 ~ 0.197	1.299 ~ 2.323	1.339											
		-150	5.906	4.291		1.299 ~ 3.031													
		-90	3.543	1.929		2.362													
		-GDC16A -120	0.138 ~ 0.630	4.724	3.110	0.0 ~ 0.236	1.496 ~ 2.283	1.496											
		-150	5.906	4.291		1.496 ~ 3.189													
-GDC22A	-90	3.543	1.929		2.480			1.929	HDS-22	GDP-22	FDC-22AA	FK0045							
	-120	0.138 ~ 0.866	4.724	3.110	0.0 ~ 0.315	1.850 ~ 2.204	1.929												
	-150	5.906	4.291		1.850 ~ 3.385														
	HSK100A	1	-75	2.953	1.220		0.866 ~ 1.024								1.339	HDS-07	HDP-07	FDC-07AA	S-0
			-90	0.020 ~ 0.276	3.543	1.811	0.0 ~ 0.157						0.866 ~ 1.772	0.906					
			-120	4.724	2.992		0.866 ~ 1.772												
-75			2.953	1.220		1.063													
-90			0.098 ~ 0.354	3.543	1.811	0.0 ~ 0.157	1.063 ~ 1.654	1.142											
-120			4.724	2.992		1.063 ~ 2.244													
2		-90	3.543	1.811		2.047			3.307	HDS-12	GDP-12	FDC-12AA	FK0030						
		-GDC12A -120	0.098 ~ 0.472	4.724	2.992	0.0 ~ 0.197	1.299 ~ 2.323	1.339											
		-150	5.906	4.173		1.299 ~ 3.031													
		-90	3.543	1.811		1.496 ~ 1.575													
		-GDC16A -120	0.138 ~ 0.630	4.724	2.992	0.0 ~ 0.236	1.496 ~ 2.402	1.496											
		-150	5.906	4.173		1.496 ~ 3.189													
-GDC22A	-90	3.543	1.811		2.244			1.929	HDS-22	GDP-22	FDC-22AA	FK0045							
	-120	0.138 ~ 0.866	4.724	2.992	0.0 ~ 0.315	1.850 ~ 2.244	1.929												
	-150	5.906	4.173		1.850 ~ 3.268														

Ordering Example

HSK63A-GDC12A-120

HSK63A-H-GDC12A-120 (HSK Type A with manual clamping hole.)

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

Use class "AA" collet only.