

Super Tite-Lock™

New Generation Milling chucks

Milling Chuck Type **CT•S**

CAT/Page 12
BT /Page 14
HSK/Page 16



Features

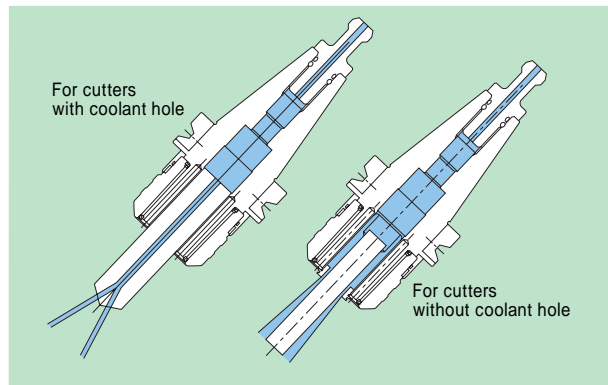
New design offers 2 stage clamping for roughing and finishing applications in one milling chuck.

New patented “T-slot” design minimizes slippage and pull out of end mill.

Improved surface finish and increased tool life.

“Through center coolant” with NT specially designed MC-OH and MC-C collets.

Center-through coolant feeding is possible.



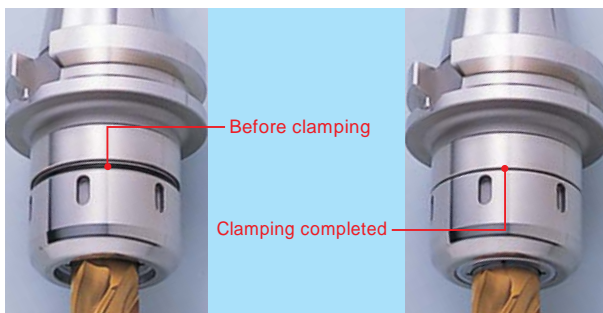
Two-stage tightening

Stage one

Finish milling: Tighten clamping ring until the black area is not visible.

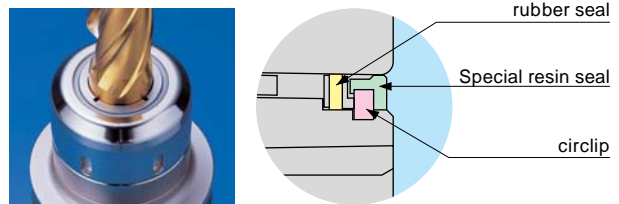
Stage two

Heavy milling: Completely tighten clamping ring to achieve maximum gripping torque.



Improved durability is ensured by our perfect seal mechanism.

New improved seal design reduces contamination and minimizes maintenance.



Special resin seal

Unique retaining ring allows speeds up to 20,000 RPM.
Available in “inch and metric”.

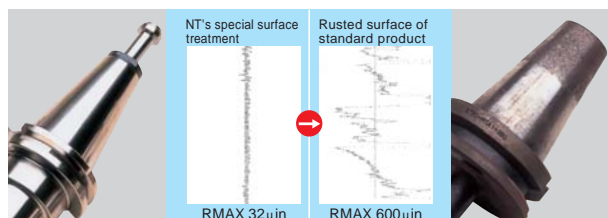
Special surface treatment

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.



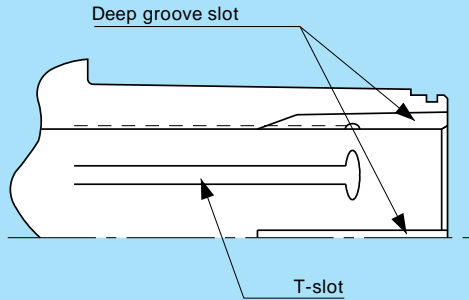
Super Tite-Lock™

New Generation Milling chucks

High rigidity cutting data

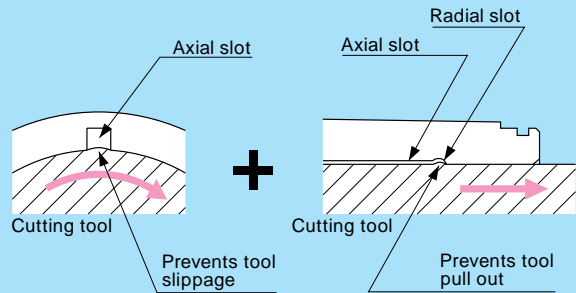
Special design slots in bore.

Unique T-slot design increases gripping force, reducing micro vibration which results in stable heavy cutting.



Our special T-slot prevents the cutting tool from pulling out in heavy cutting.

Our special axial and radial designed T-slots prevent cutting tool slippage and pull-out in heavy cutting applications.

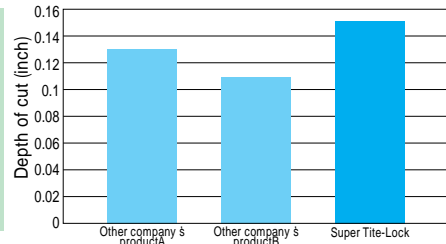
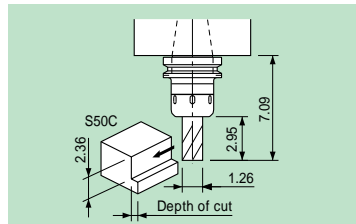


4-flute endmill

Cutting tool : 1.260(32mm) 4-flute endmill

Cutting condition

Speed of rotation	380rpm
Feed rate	5.99in/min (152mm/min)
Work material	carbon steel (S50C) Climb milling
Machine	BT50 vertical machining center
Coolant	water soluble coolant

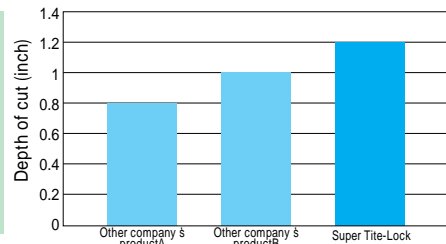
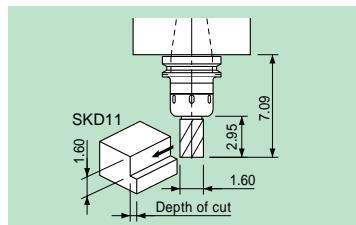


Rough endmill

Cutting tool : 1.60(40mm) 4-flute rough endmill

Cutting condition

Speed of rotation	212rpm
Feed rate	4.18in/min (106mm/min)
Work material	die steel (SKD11) Climb milling
Machine	BT50 vertical machining center
Coolant	water soluble coolant

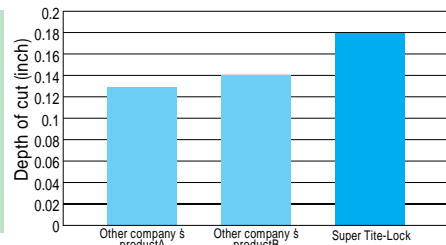
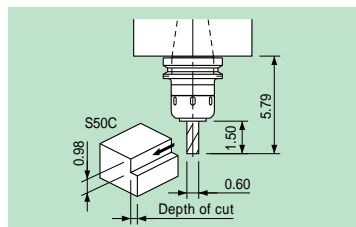


Carbide endmill

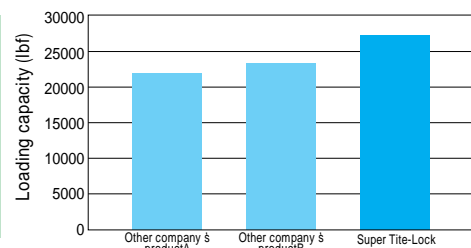
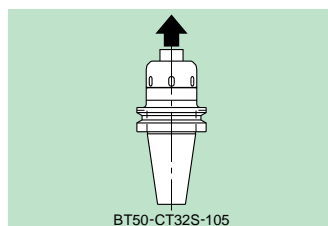
Cutting tool : 0.60(15mm) 4-flute carbide endmill, with MC32-16

Cutting condition

Speed of rotation	4500rpm
Feed rate	94.56in/min (2400mm/min)
Work material	carbon steel (S50C) Climb milling
Machine	BT50 vertical machining center
Coolant	-



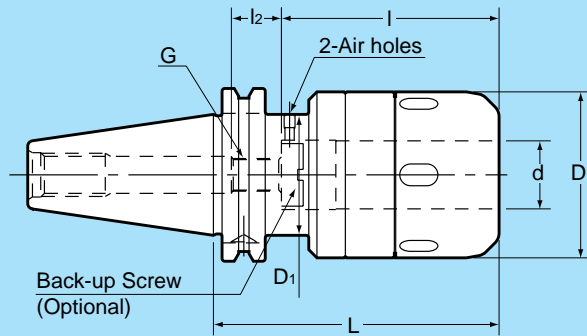
Chucking torque comparison



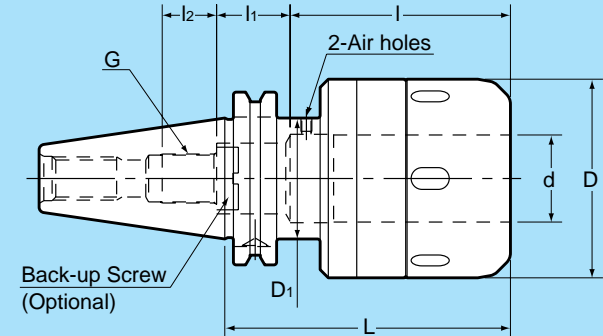
Super Tite-Lock™ Milling Chucks

CAT / CT • S Metric

Type 1



Type 2



Part Number	Type	d (mm)	D	L	l	l ₁	l ₂	G (mm)	D ₁	
CAT 40	1	-CT16S - 90	16	1.772	3.543	2.559	0.787	M10	1.750	
					3.543					
		-CT20S -105	20	2.047	4.134	3.150	-	0.591		M12
					4.724					
	-CT25S -120	25	2.402	4.134	3.150	-	0.591	M12		
				4.724						
	2	-CT25S -135	25	2.402	5.315	3.150	-	0.591		M12
					4.134					
-CT32S -105		32	2.874	4.134	4.724	0.906	0.787	M18		
				4.724						
CAT 50	1	-CT16S - 90	16	1.772	3.543	2.559	0.787	M10	2.750	
					4.134					
		-CT20S - 90	20	2.047	3.543	3.150	-	0.591		M12
					4.134					
		-CT20S -105	20	2.047	5.315	3.150	-	0.591		M12
					4.134					
		-CT25S -135	25	2.402	5.315	3.150	-	0.591		M12
					6.496					
	-CT25S -165	25	2.402	3.740	3.150	-	0.591	M12		
				4.134						
	-CT32S -120	32	2.874	4.134	4.724	-	0.787	M18		
				4.724						
	2	-CT32S -135	32	2.874	5.315	4.724	-	0.787	M18	
					5.906					
-CT32S -150		32	2.874	5.906	4.724	-	0.787	M18		
				6.496						
-CT42S -105		42	3.465	4.134	4.724	-	0.787	M18		
				4.724						
-CT42S -120	42	3.465	4.724	4.724	-	0.787	M18			
			5.315							

Ordering Example CAT40-CT25S-120

When ordering, indicate the number of spanner wrenches required.

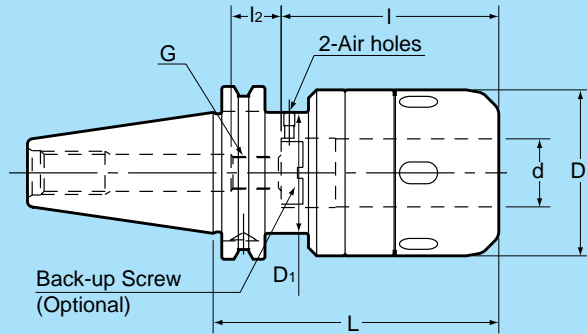
“No charge” spanner wrenches are limited to the number of milling chucks on order.

Extra spanner wrenches can be purchased separately. (See page 21.)

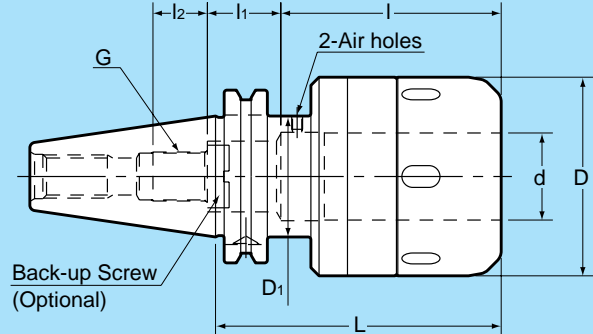
Two M4 × 5(S) hex-head screws are necessary to plug the air holes for coolant through operation.

Super Tite-Lock™ Milling Chucks CAT / CT • S Inch

Type 1



Type 2



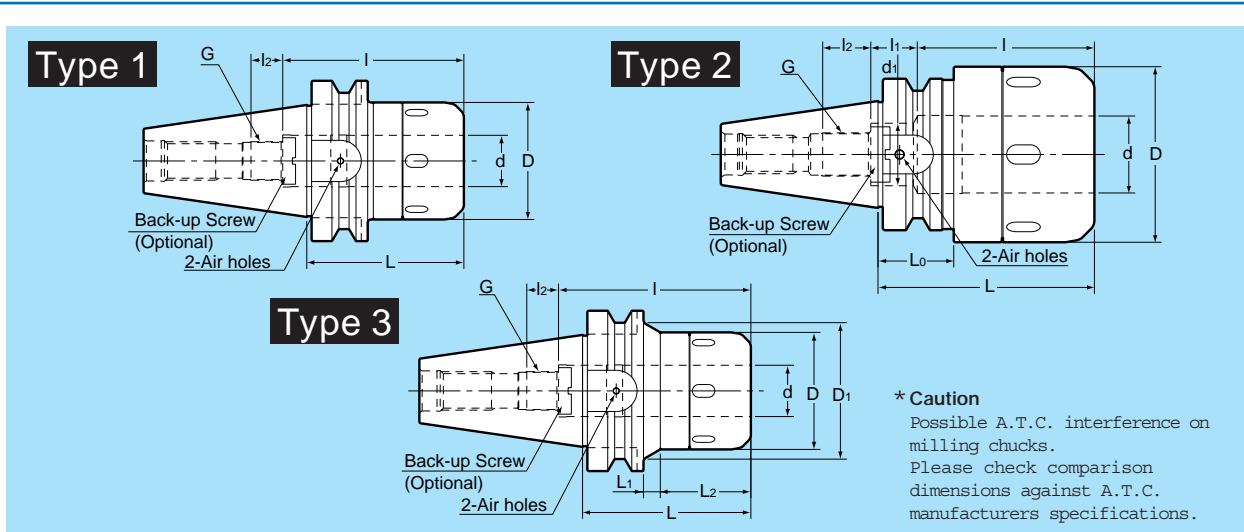
Part Number	Type	d	D	L	l	l ₁	l ₂	G (mm)	D ₁	
CAT 40	1	- 90		3.543						
		-CT0750S -105	0.750	2.047	4.134					
		-120			4.724	3.150	—	0.591	M12	1.750
	-CT1000S -105			4.134						
	-120	1.000	2.402	4.724						
	-135			5.315						
-CT1250S	2	-105		4.134	3.346	0.906				
		-120	1.250	2.874	4.724			0.787	M18	
		-135			5.315	4.724	—			
CAT 50	1	- 90		3.543						
		-CT0750S -105	0.750	2.047	4.134					
		-135			5.315	3.150		0.591	M12	
		-CT1000S -105			4.134					
		-135	1.000	2.402	5.315					
		-165			6.496					
	- 95			3.740						
	-105			4.134						
	-CT1250S -120	1.250	2.874	4.724	4.724	—			2.750	
	-135			5.315						
	-150			5.906						
	-165			6.496				0.787	M18	
-CT2000S	1	-105		4.134						
		-120			4.724					
		-135	2.000	4.134	5.315	3.937				
		-150			5.906					
-165			6.496							

Ordering Example CAT40-CT1000S-120

When ordering, indicate the number of spanner wrenches required.
 “No charge” spanner wrenches are limited to the number of milling chucks on order.
 Extra spanner wrenches can be purchased separately. (See page 21.)
 Two M4 x 5(S) hex-head screws are necessary to plug the air holes for coolant through operation.

Super Tite-Lock™ Milling Chucks

BT / CT · S Metric



Part Number	Type	d (mm)	D	D ₁	L	L ₁	L ₂	l	l ₁	l ₂	d ₁	L ₀	G (mm)	
BT 3 0	-CT16S	- 75	16	1.772	2.953			2.559					M10	
		- 90			3.543									
	-CT20S	- 75	20	2.047	2.953						0.591		1.063	M12
		- 90			3.543					1.654				
		-105			4.134			3.150		2.244				
		- 90			3.543					1.142				
-CT25S	- 90	25	2.402	3.543								1.142		
	-105			4.134					1.732					
BT 4 0	-CT16S	- 75	16	1.772	2.953			2.559					M10	
		- 90			3.543									
	-CT20S	- 75	20	2.047	2.953			2.953						M12
		- 90			3.543	0.709								
		-105			4.134	1.299	1.772							
	-CT25S	- 90	25	2.402	3.543			3.150			0.591			M12
		-120			4.724	1.890								
	-CT32S	- 90	32	2.874	3.543			2.992	1.260				1.220	M18
					-105	4.134					0.906	0.669		
		-120	4.724			3.346	0.906		2.402					
			-135	5.315			4.724		2.992					
		BT 5 0	-CT16S	- 90	16	1.772	2.283	3.543	0.276	2.559		0.787		
-105				2.756			4.134	0.866						
-CT20S	- 90		20	2.047	2.559	3.543	0.276	1.772					M12	
	-105				2.677	4.134	0.866							
	-135				3.150	5.315	2.047		3.150	0.591				
-CT25S	-105		25	2.402	3.228	4.134	0.433	3.150		0.591			M12	
	-135				3.268	5.315	1.614		2.205					
-CT32S	-165		32	2.874	3.386	6.496	2.795	4.724		0.787			M18	
					- 95	3.740								
	-105		3.386	4.134	0.433									
			-120	3.425	4.724	1.024								
	-150		3.386	5.315	1.614	2.205								
		-165	3.465	5.906	2.205									
-CT42S	- 95	42	3.465	3.740			4.724		0.787			M18		
				-105	4.134									
	-120	4.724												
		-135	5.315											
	-150	5.906												
		-165	6.496											

Ordering Example

BT40-CT25S-120

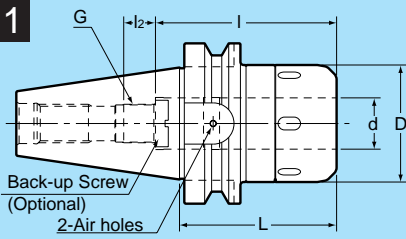
When ordering, indicate the number of spanner wrenches required. "No charge" spanner wrenches are limited to the number of milling chucks on order.

Extra spanner wrenches can be purchased separately. (See page 21.)

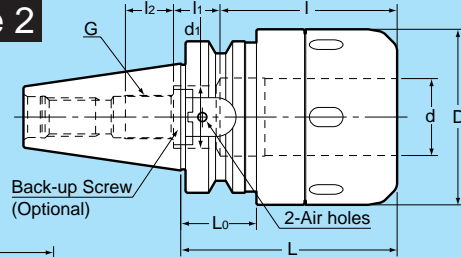
Super Tite-Lock™ Milling Chucks

BT / CT • S Inch

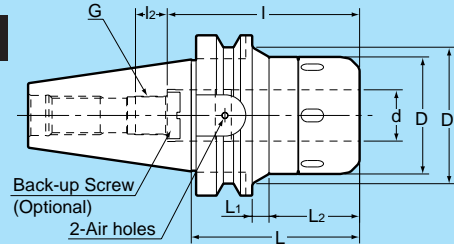
Type 1



Type 2



Type 3



*** Caution**

Possible A.T.C. interference on milling chucks.
Please check comparison dimensions against A.T.C. manufacturers specifications.

Part Number	Type	d	D	D ₁	L	L ₁	L ₂	l	l ₁	l ₂	d ₁	L ₀	G (mm)			
BT 30	- 75	0.750	2.047		2.953			3.150		0.591			1.063			
	-CT0750S - 90				3.543								1.654			
	- 105				4.134								2.244			
	-CT1000S - 90				3.543								1.142			
	- 105				4.134								1.732			
BT 40	- 75	0.750	2.047	2.283	2.953	0.709	1.772	3.150		0.591			M12			
	-CT0750S - 90				3.543									1.299		
	- 105				4.134									1.890		
	- 120				4.724											
	- 90				3.543											
	-CT1000S - 105				4.134											
	- 120				4.724											
	- 135				5.315											
	- 90				3.543									2.992	1.260	1.220
	-CT1250S - 105				4.134									3.346	0.906	0.669
- 120	4.724	3.346	0.906	2.402												
- 135	5.315	4.724	2.992													
BT 50	- 90	0.750	2.047	2.677	2.559	3.543	0.276	3.150		0.591			M12			
	-CT0750S - 105				2.677	4.134	0.866							1.772		
	- 135				3.150	5.315	2.047									
	- 105				3.228	4.134	0.433									
	-CT1000S - 135				3.268	5.315	1.614							2.205		
	- 165				3.386	6.496	2.795									
	- 95				3.740											
	- 105				3.386	4.134	0.433									
	-CT1250S - 120				3.425	4.724	1.024							4.724		
	- 135				3.386	5.315	1.614							2.205		
	- 150				3.465	5.906	2.205									
	- 165				3.465	6.496	2.795									
	- 105				4.134									0.787		
-CT2000S - 120	4.724					1.654										
- 135	5.315			3.937		2.244										
- 150	5.906					2.835										
- 165	6.496					3.425										
						4.016										

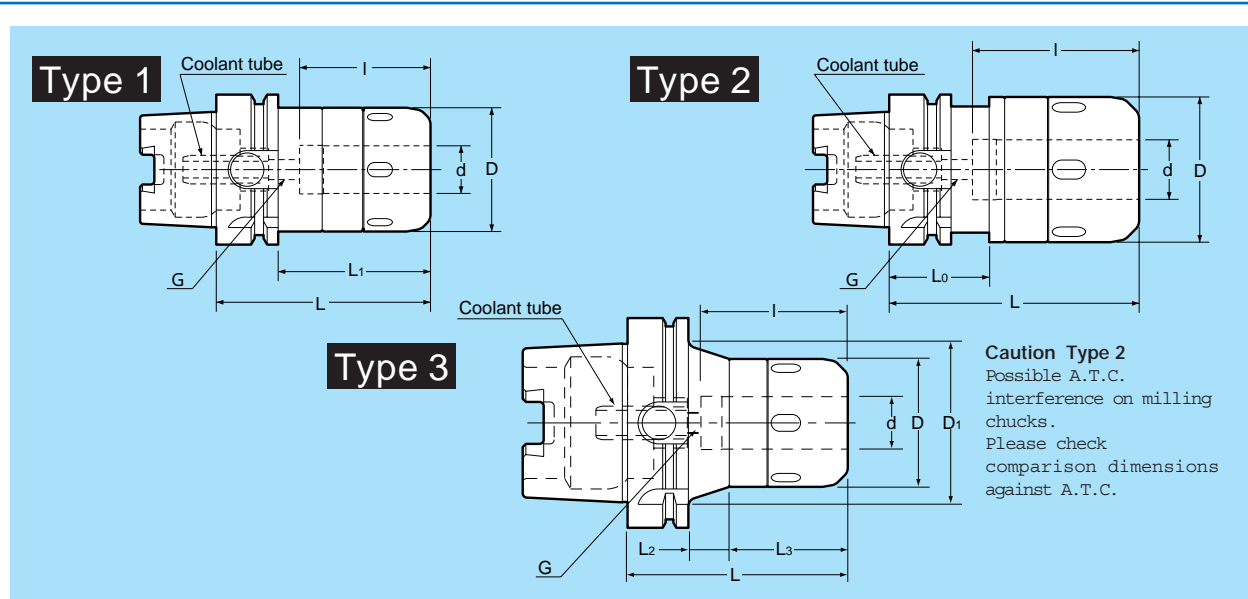
Ordering Example BT40-CT1000S-120

When ordering, indicate the number of spanner wrenches required.
 "No charge" spanner wrenches are limited to the number of milling chucks on order.
 Extra spanner wrenches can be purchased separately. (See page 21.)
 Two M4 x 5(S) hex-head screws are necessary to plug the air holes for coolant through operation.

Super Tite-Lock™ Milling Chucks

HSK / CT • S Metric

Super Tite-Lock™ Milling Chucks HSK/CT•S



Part Number	Type	d (mm)	D	D ₁	L	L ₁	L ₂	L ₃	I	L ₀	G (mm)		
HSK 40 A	2	16	1.772	-	2.953				1.969	1.024	M5		
					3.543								
		20	2.047	-	3.543				2.362	1.378			
					4.134								
-CT25S -105		25	2.402		4.134								
HSK 63 A	1	20	2.047	-	2.953	1.929			1.850		M8		
					3.543	2.520			2.362				
					3.543	2.520			2.953				
					4.134	3.110			2.953				
	-CT25S -135	2	25	2.402	-	4.134				3.150			
						4.724				2.953		1.654	
	-CT32S -120	2	32	2.874	-	5.315				3.150			
						4.134				2.953			
	HSK100 A	3	20	2.047	2.913	3.543		0.630		2.165			M10
						4.134		1.220		2.756			
5.315							2.402	1.772	2.756				
5.906							2.992		3.150				
-CT20S -135		1	25	2.402	-	3.543	2.402			2.165			
						4.134		0.787		2.756			
-CT25S -135		3	25	2.402	2.913	5.315		1.969	2.205	3.150			
						5.906		2.559					
-CT42S -150		2	42	3.465	-	3.543	2.402			2.165			
						4.134	2.992			2.756			
	4.724					3.583			3.346				
	5.315					4.173			3.937				
	5.906					4.764			4.528				
	6.496								4.724				

Ordering Example

HSK63A-CT25S-105

HSK63A-H-CT25S-105 (HSK Type A with manual clamping hole.)

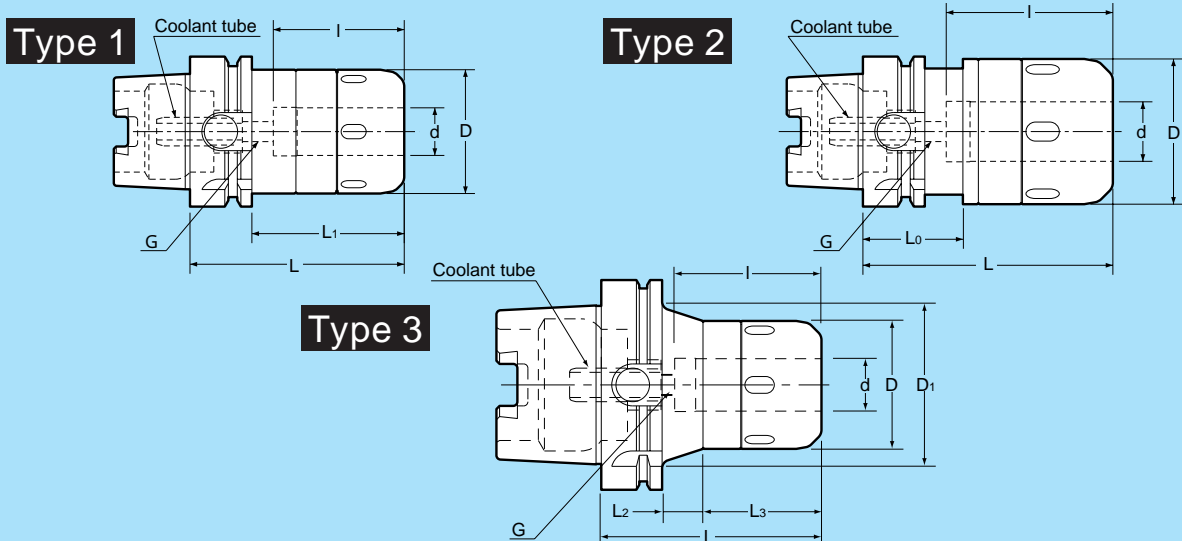
MC Collet can not be used.

Coolant tube built-in.

When ordering, indicate the number of spanner wrenches required.

“No charge” spanner wrenches are limited to the number of milling chucks on order.

Super Tite-Lock™ Milling Chucks H S K / C T • S Inch



Part Number	Type	d	D	D ₁	L	L ₁	L ₂	L ₃	I	L ₀	G	
HSK40A	-CT0750S - 90	2	0.750	2.047	—	3.543	—	—	—	2.362	1.378	M5
	-CT1000S -105		1.000	2.402	—	4.134	—	—	—	—	—	—
HSK63A	- 90	1	0.750	2.047	—	3.543	2.520	—	—	2.362	—	M8
	-CT0750S -105					4.134	3.110	—	—	2.953	—	
	-135					5.315	4.291	—	—	3.150	—	
	-105	2	1.000	2.402	—	4.134	—	—	—	2.953	—	1.654
	-CT1000S -120					4.724	—	—	—	3.150	—	
	-135					5.315	—	—	—	2.953	—	
	-105	2	1.250	2.874	—	4.134	—	—	—	2.953	—	M8
	-CT1250S -120					4.724	—	—	—	3.543	—	
-150	5.906					—	—	—	4.724	—		
HSK100A	- 90	3	0.750	2.047	2.913	3.543	—	0.630	—	2.165	—	M10
	-CT0750S -105					4.134	—	1.220	—	2.756	—	
	-135					5.315	—	2.402	1.772	3.150	—	
	-150	3	1.000	2.402	2.913	5.906	—	2.992	—	3.150	—	M10
	- 90					3.543	2.402	—	—	2.165	—	
	-105					4.134	2.992	—	—	2.756	—	
	-135	1	1.250	2.874	—	5.315	3.583	—	—	3.346	—	M10
	-CT1250S -120					4.724	4.173	—	—	3.937	—	
	-135					5.315	4.764	—	—	4.528	—	
	-150	2	2.000	4.134	—	4.331	—	—	—	2.756	—	1.772
	-110					5.315	—	—	—	3.937	—	
	-CT2000S -135					5.906	—	—	—	4.331	—	
	-150	2	2.000	4.134	—	6.496	—	—	—	4.724	—	M10
	-165					—	—	—	—	—	—	

Ordering Example HSK63A-CT1000S-105
 HSK63A-H-CT1000S-105 (HSK Type A with manual clamping hole.)

MC Collet can not be used.

Coolant tube built-in.

When ordering, indicate the number of spanner wrenches required.

“No charge” spanner wrenches are limited to the number of milling chucks on order.

Extra spanner wrenches can be purchased separately. (See page 21.)