

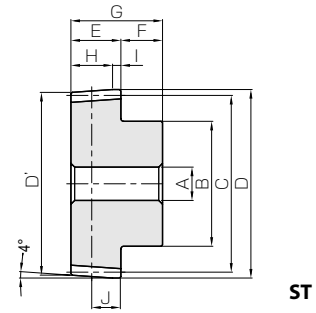


# KTSCP CP Tapered Pinions

Circular Pitch 5, 10



Specifications	
Precision grade	JIS grade N8 (JIS B1702-1: 1998) JIS grade 4 (JIS B1702: 1976)
Gear teeth	Standard full depth
Pressure angle	20°
Material	SCM440
Heat treatment	Thermal refining only
Tooth hardness	225 ~ 260HB



Spur Gears

Helical Gears

Internal Gears

Racks

CP Racks & Pinions

Miter Gears

Bevel Gears

Screw Gears

Worm Gear Pair

Bevel Gearboxes

Other Products

Catalog No.	Pitch mm (Module)	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia. (major)	Outside dia. (minor)	Face width	Hub width	Total length
				A <sub>H7</sub>	B	C	D	D'	E	F	G
KTSCP5-20	CP5 (1.5915)	20	ST	8	25	31.83	36.06	33.97	18	15	33
KTSCP5-25		25		10	32	39.79	44.02	41.92			
KTSCP5-30		30		10	38	47.75	51.98	49.88			
KTSCP5-40		40		12	45	63.66	67.89	65.8			
KTSCP10-20	CP10 (3.1831)	20	ST	15	50	63.66	72.13	67.93	36	20	56
KTSCP10-25		25		20	60	79.58	88.04	83.85			
KTSCP10-30		30		20	75	95.49	103.96	99.76			
KTSCP10-40		40		20	80	127.32	135.79	131.59			

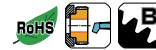
[Caution on Product Characteristics]

- The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 401 for more details.
- The backlash values shown in the table are the theoretical values when these gears and STRCP Tapered Racks are in mesh.

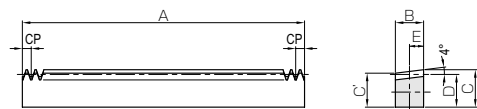


# STRCPF · STRCPFD CP Tapered Racks

Circular Pitch 5, 10



Specifications	
Precision grade	KHK R 001 grade 4
Gear teeth	Standard full depth
Pressure angle	20°
Material	S45C
Heat treatment	Stress relief annealing
Tooth hardness	less than 95HRB



RF

Catalog No.	Pitch mm (Module)	No. of teeth	Shape	Total length	Face width	Height (major)	Height (minor)	Height to pitch line	Reference position
				A	B	C	C'	D	E
STRCPF5-1000	CP5 (1.5915)	200	RF	1000	15	19.5	18.45	17.38	7.5
STRCPF10-1000	CP10 (3.1831)	100	RF	1000	30	34.5	32.4	30.27	15

Catalog No.	Pitch mm (Module)	No. of teeth	Shape	Total length	Face width	Height (major)	Height (minor)	Height to pitch line	Reference position	Mounting hole dimensions				No. of mounting holes	Mounting screw size
				A	B	C	C'	D	E	F	G	H			
STRCPFD5-1000	CP5 (1.5915)	200	RD	1000	15	19.5	18.45	17.38	7.5	8	50	180	6	M5	
STRCPFD10-1000	CP10 (3.1831)	100	RD	1000	30	34.5	32.4	30.27	15	14	50	180	6	M10	

[Caution on Product Characteristics]

- The allowable forces shown in the table are the calculated values according to the assumed usage conditions. Please see page 401 for more details.
- The backlash of the CP Tapered Racks equates to the value of the mating gear shown in the table.
- After attaching the racks to the base, please fasten with dowel pins. Clamping only with mounting screws could possibly cause the screws to be broken, due to a heavy load.

Tapered Spur Gears



Reference face width H	Adjustable width I	Reference position J	Distance traveled in one turn (mm)	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	Catalog No.
				Bending strength	Surface durability	Bending strength	Surface durability			
15	3	10.5	100	41.2	8.13	4.20	0.83	0~0.11	0.16	KTSCP5-20
			125	55.6	14.0	5.67	1.43	0~0.11	0.25	KTSCP5-25
			150	70.3	21.9	7.16	2.23	0~0.11	0.37	KTSCP5-30
			200	100	43.3	10.2	4.41	0~0.11	0.61	KTSCP5-40
30	6	21	200	329	71.2	33.6	7.26	0~0.12	1.13	KTSCP10-20
			250	445	122	45.3	12.4	0~0.12	1.71	KTSCP10-25
			300	562	189	57.3	19.2	0~0.12	2.58	KTSCP10-30
			400	801	371	81.7	37.8	0~0.12	4.25	KTSCP10-40

[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 402) when performing modifications and/or secondary operations for safety concerns. Haguruma Kobo, the KHK's system for quick modification of KHK stock gears is also available.  
 ② Avoid performing secondary operations that narrow the tooth width as it affects precision and strength.

Spur Gears

Helical Gears

Internal Gears

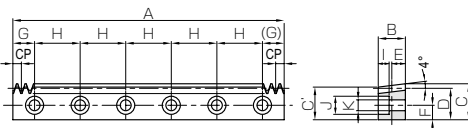
Racks

CP Racks & Pinions

Miter Gears

STRCPF · STRCPFD

Tapered Racks



RD

Allowable force (N)		Allowable force (kgf)		Weight (kg)	Catalog No.
Bending strength	Surface durability	Bending strength	Surface durability		
2290	468	233	47.7	2.05	STRCPF5-1000
9150	1870	933	191	7.13	STRCPF10-1000

Counterbore dimensions			Allowable force (N)		Allowable force (kgf)		Weight (kg)	Catalog No.
H	I	J	Bending strength	Surface durability	Bending strength	Surface durability		
6	10	6	2290	468	233	47.7	2.01	STRCPFD5-1000
10.8	17.5	11	9150	1870	933	191	6.92	STRCPFD10-1000

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 ② If gear tooth hardening, or thermal refining, is applied, the decarburization layer (approx. 0.5 mm thickness) on the rectangular surfaces cannot have the hardness you designate.  
 ③ Avoid hardening Racks with bolt holes, due to deformation occurring at the mounting hole and the difficulty of straightening the rack after hardening.

Bevel Gears

Screw Gears

Worm Gear Pair

Bevel Gearboxes

Other Products