

KTSCP Tapered Pinion CP5

Catalog No.	Pitch mm (m)	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia. (major)	Outside dia. (minor)	Face width	Hub width	Total length	Distance traveled in one turn <small>Note 1</small>
		z	AH7	B	C	D	D'	E	F	G	
KTSCP5 -20	CP5 (1.5915)	20	8	25	31.83	36.06	33.97	18	15	33	100
KTSCP5 -25	CP5 (1.5915)	25	10	32	39.79	44.02	41.92	18	15	33	125
KTSCP5 -30	CP5 (1.5915)	30	10	38	47.75	51.98	49.88	18	15	33	150
KTSCP5 -40	CP5 (1.5915)	40	12	45	63.66	67.89	65.8	18	15	33	200

KTSCP Tapered Pinion CP10

KTSCP10-20	CP10 (3.1831)	20	15	50	63.66	72.13	67.93	36	20	56	200
KTSCP10-25	CP10 (3.1831)	25	20	60	79.58	88.04	83.85	36	20	56	250
KTSCP10-30	CP10 (3.1831)	30	20	75	95.49	103.96	99.76	36	20	56	300
KTSCP10-40	CP10 (3.1831)	40	20	80	127.32	135.79	131.59	36	20	56	400

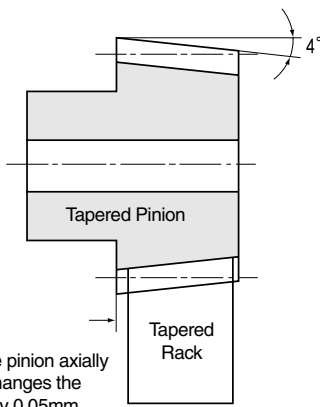
NOTE 1: The amount denotes the distance in mm tapered pinion travels on the racks in one revolution.

STRCPF Tapered Rack

Catalog No.	Pitch mm (m)	Total length	Face width	Height (major)	Height (minor)	Reference mating height	Reference position	Effective No. of teeth
		A	B	C	C'	D	E	
STRCPF 5-1000	5 (1.5915)	1000	15	19.5	18.45	17.38	7.5	200
STRCPF10-1000	10 (3.1831)	1000	30	34.5	32.4	30.27	15	100

Adjustable backlash:

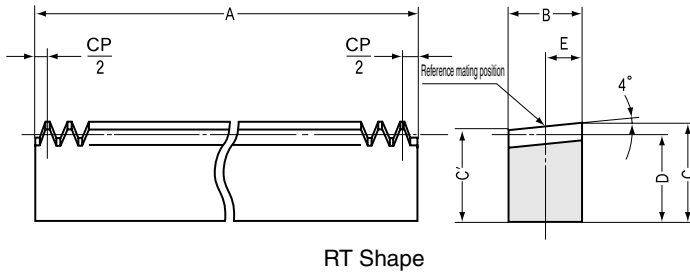
Moving the pinion axially by 1mm changes the backlash by 0.05mm



For example

- SRCP5-1000 & SSCP5-30 Backlash value → 0.1~0.2
- STRCPF5-1000 & KTSCP5-30 Backlash value → 0.05 or less.

- * **NOTE:** The above backlash values are the theoretical values.
- * **NOTE:** Tapered rack& pinion are not interchangeable with KHK stock CP racks and pinions.
- * **NOTE:** Different modules, number of teeth, ground gear versions and custom-made items are available as special orders.



KTSCP Specifications			
Precision grade	JIS N8 grade (JIS B1702-1: 1998) OLD JIS 4 grade (JIS B1702: 1976)	Tooth hardness	225~260HB
Gear teeth		Surface treatment	Black oxide
Pressure angle		Tooth surface finish	Cut
Material		Datum reference surface for gear cutting	Bore
Heat treatment	Thermal refining only	Secondary Operations	Possible

STRCPF Specifications			
Precision grade	KHK R 001 grade 4	Tooth hardness	89~95HRB
Gear teeth	Standard full depth	Surface treatment	Black oxide
Pressure angle	20°	Tooth surface finish	Cut
Material	S45C-D	Datum reference surface for gear cutting	Bottom surface
Heat treatment	Stress relief annealing	Secondary Operations	Possible

Reference face width	Adjustable width	Reference position	Shape	Allowable torque (N·m) <small>NOTE 2</small>		Allowable torque (kgf·m)		Backlash (mm) <small>Note 3</small>	Weight (kgf)	Catalog No.
				Bending strength	Surface durability	Bending strength	Surface durability			
H	I	J								
15	3	10.5	ST	39.3	3.57	(4.01)	(0.364)	0 ~ 0.11	0.16	KTSCP5 -20 KTSCP5 -25 KTSCP5 -30 KTSCP5 -40
15	3	10.5	ST	54.1	5.89	(5.52)	(0.6)	0 ~ 0.11	0.26	
15	3	10.5	ST	69.4	8.76	(7.07)	(0.893)	0 ~ 0.11	0.36	
15	3	10.5	ST	100.8	16.02	(10.28)	(1.634)	0 ~ 0.11	0.6	

30	6	21	ST	315	30.8	(32.1)	(3.14)	0 ~ 0.12	1.16	KTSCP10-20 KTSCP10-25 KTSCP10-30 KTSCP10-40
30	6	21	ST	433	50.6	(44.1)	(5.16)	0 ~ 0.12	1.74	
30	6	21	ST	555	75.3	(56.6)	(7.68)	0 ~ 0.12	2.6	
30	6	21	ST	807	138.6	(82.3)	(14.13)	0 ~ 0.12	4.28	

NOTE 2: The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 181 for more details.

NOTE 3: The backlash values shown in the table are the theoretical values when these gears and the STRCP Tapered Racks are in mesh.

Shape	Allowable force (N) <small>NOTE 4</small>		Allowable force (kgf)		Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability		
RT	2290	468	(233)	(46.7)	2.06	STRCPF 5-1000 STRCPF10-1000
RT	9150	1870	(933)	(190)	7.1	

NOTE4: The allowable forces shown in the table are the calculated values according to the assumed usage conditions. Please see page 181 for more details.