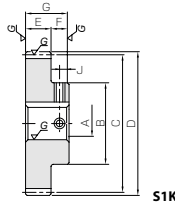


MSCPG CP Hardened Ground Spur Gears

Circular Pitch 5, 10



Specifications	
Precision grade	JIS grade N5 (JIS B1702-1: 1998) JIS grade 1 (JIS B1702: 1976)
Gear teeth	Standard full depth
Pressure angle	20°
Material	SCM415
Heat treatment	Overall carburizing
Tooth hardness	55 ~ 60HRC



S1K

* Designed with positive partial transposition and to have an integral value (mm) for the mounting distance, so both strength and usability are enhanced.

Catalog No.	Pitch mm (Module)	No. of teeth	Profile shift coefficient	Mounting distance	Shape	Bore		Pitch dia.	Outside dia.		Face width	Hub width	Total length
						A _{H7}	B		C	D			
MSCPG5-20A MSCPG5-20B MSCPG5-25A MSCPG5-25B MSCPG5-30A MSCPG5-30B	CP5 (1.5915)	20	+0.425	35	S1K	12	28	31.83	36.37	15	15	30	
													15
		30	+0.451	43		15	40	47.75	52.37				
						20	45	63.66	68.37				
		40	+0.478	51		15	50	63.66	70.73				
20	60				79.58	86.73							
MSCPG10-20A MSCPG10-20B MSCPG10-25A MSCPG10-25B MSCPG10-30A MSCPG10-30B MSCPG10-40A MSCPG10-40B	CP10 (3.1831)	20	+0.111	64	S1K	20	50	63.66	70.73	30	20	50	
													25
		30	+0.137	80		30	70	95.49	102.73				
						40	70	127.32	134.73				
		40	+0.164	96		30	70	127.32	134.73				

- [Caution on Product Characteristics] ① Although the dimensions of the keyway are made to the JIS (JIS9) tolerance, there may be some deviations due to the effects of heat treatment.
 ② The allowable forces shown in the table are the calculated values according to the assumed usage conditions. Please see page 31 for more details.
 ③ The backlash values shown in the table are the theoretical values when these gears and the MRGCPF Racks are in mesh.

MRGCPF · MRGCPFD CP Hardened Ground Racks

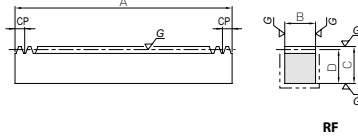
Circular Pitch 5, 10

New! Best Ever Carburized Racks!



Specifications	
Precision grade	KHK R 001 grade 1
Gear teeth	Standard full depth
Pressure angle	20°
Material	SCM415
Heat treatment	
Tooth hardness	55 ~ 60HRC

* The precision grade of J Series products is equivalent to the value shown in the table.



RF

* "The strongest in carburized racks! With the highest positioning accuracy in ground racks! Top quality from KHK's best technology."

Catalog No.	Pitch mm (Module)	No. of teeth	Shape	Total length				Face width		Height	Height to pitch line	Allowable force (N)		Allowable force (kgf)		Weight (kg)
				A	B	C	D	Bending strength	Surface durability			Bending strength	Surface durability			
MRGCPF5-500 MRGCPF10-500	CP5 (1.5915) CP10 (3.1831)	100 50	RF	500	15	20	18.41	5380	5000	548	509	1.08				
					30	35	31.82	21500	20100	2190	2050	3.75				

Catalog No.	Pitch mm (Module)	No. of teeth	Shape	Total length				Face width			Height	Height to pitch line	Mounting hole dimensions			No. of mounting holes	Mounting screw size
				A	B	C	D	E	F	G							
● J Series (Available-on-request) ● MRGCPFD5-500J ● MRGCPFD10-500J	CP5 (1.5915) CP10 (3.1831)	100 50	RD	500	15	20	18.41	5380	5000	548	509	1.08	8	25	150	4	M5 M10

- [Caution on Product Characteristics] ① The allowable forces shown in the table are the calculated values according to the assumed usage conditions. Please see Page 227 for more details.
 ② The backlash of racks differ depending on the size of the mating pinion. Please calculate the backlash from the backlash value of the mating pinion. Also, please refer to the data in the section called 'Backlash of Rack Tooth (Amount of Tooth Thinning)' on Page 191.

- [Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 228) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK's system for quick modification of KHK stock gears is also available.
 ② In the illustration, the area surrounded with --- line is masked during the carburization process and can be modified. However, the end faces on both sides do not have an anti-carburization coating on the taped holes, otherwise they could not be machined.

MSCPG

CP Ground Spur Gears

New

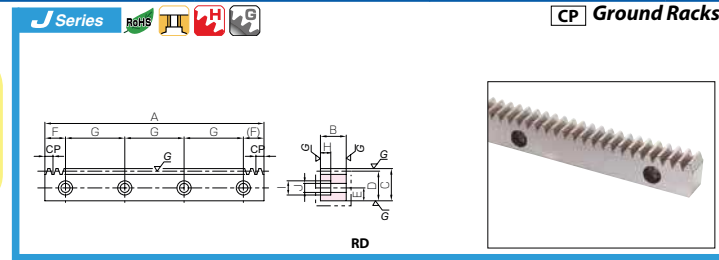
Keyway WidthxDepth	Set Screw		Distance traveled in one turn (mm)	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	Catalog No.
	Size	J		Bending strength	Surface durability	Bending strength	Surface durability			
4x 1.8 5x 2.3	M4		100	70.0	46.7	7.13	4.76	0.04-0.13	0.14 0.13	MSCPG5-20A MSCPG5-20B
5x 2.3 6x 2.8	M4 M5		150	114	119	11.6	12.2	0.04-0.13	0.32 0.29	MSCPG5-30A MSCPG5-30B
6x 2.8 8x 3.3	M5 M6		200	514	375	52.4	38.2	0.06-0.16	0.94 0.87	MSCPG10-20A MSCPG10-20B
8x 3.3 12x 3.3	M6 M8		300	868	960	88.5	97.9	0.06-0.16	2.03 1.80	MSCPG10-30A MSCPG10-30B

- [Caution on Secondary Operations] ① No secondary operations can be performed on these precision finished gears due to applied carburizing process.
 For products which are different in specifications, such as bore size, we accept custom-made gear orders and provide a price quote.

MRGCPF · MRGCPFD

CP Ground Racks

Surface durability;
4 times higher than the SRG
Hardened Ground Racks, 2
times higher than the KRG-H
Hardened Ground Racks.



RD

Counterbore dimensions			Allowable force (N)		Allowable force (kgf)		Weight (kg)	Catalog No. ● J Series (Available-on-request)
H	I	J	Bending strength	Surface durability	Bending strength	Surface durability		
6	10	6	5380	5000	548	509	1.06	● MRGCPFD5-500J ● MRGCPFD10-500J
10.8	17.5	11	21500	20100	2190	2050	3.61	

- [Caution on J series] ① As available-on-request products, requires a lead-time for shipping within 2 working-days (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
 ② Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.