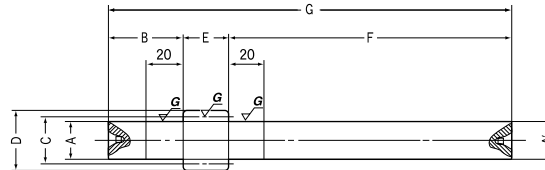


S1 Shape



S7 Shape

CP5 Ground Pinion Shafts

Catalog No.	Pitch mm (m)	No. of teeth	Coefficient of profile shift NOTE 1	Shaft dia.	Shaft length (L)		Pitch dia.	Outside dia.	Face width	Shaft length (R)		Total length	Distance traveled in one turn NOTE 2
		z		A	B	C	D	E	F	G			
SSCPG5-15	CP5 (1.5915)	15	0	19.2	25	23.87	27.06	15	100	140	75		
SSCPG5-20	CP5 (1.5915)	20	0	27.2	25	31.83	35.01	15	100	140	100		
SSCPG5-25	CP5 (1.5915)	25	0	30.2	25	39.79	42.97	15	100	140	125		

CP10 Ground Pinion Shafts

SSCPG10-10	CP10 (3.1831)	10	+0.5	25.2	40	31.83	41.05	30	150	220	100
SSCPG10-15	CP10 (3.1831)	15	0	35.2	40	47.75	54.11	30	150	220	150
SSCPG10-20	CP10 (3.1831)	20	0	40.2	40	63.66	70.03	30	150	220	200

NOTE 1: Please see the SSGS ground Spur gears section for the center distance table of profile shifted gears.

CP5 Ground Spur Gears

Catalog No.	Pitch mm (m)	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width	Hub width	Total length	Distance traveled in one turn NOTE 2
		z	AH7	B	C	D	E	F	G	
SSCPG5-20	CP5 (1.5915)	20	8	25	31.83	35.01	15	15	30	100
SSCPG5-25	CP5 (1.5915)	25	10	32	39.79	42.97	15	15	30	125
SSCPG5-30	CP5 (1.5915)	30	10	38	47.74	50.93	15	15	30	150
SSCPG5-40	CP5 (1.5915)	40	12	50	63.66	66.84	15	15	30	200

CP10 Ground Spur Gears

SSCPG10-20	CP10 (3.1831)	20	15	50	63.66	70.03	30	20	50	200
SSCPG10-25	CP10 (3.1831)	25	20	60	79.57	85.94	30	20	50	250
SSCPG10-30	CP10 (3.1831)	30	20	75	95.49	101.86	30	20	50	300
SSCPG10-40	CP10 (3.1831)	40	25	80	127.32	133.69	30	20	50	400

NOTE 2: The amount denotes the distance in mm the CP spur gear travels on the rack in one revolution.

CP5~10 Ground Racks

Catalog No.	Pitch mm (m)	Total length	Face width	Height	Height to pitch Line		Effective No. of teeth	Shape	Allowable force (N) NOTE 5		Allowable force (kgf)	
					A	D			Bending strength	Surface durability	Bending strength	Surface durability
					KRGCP 5-100	CP 5 (1.5915)			98	15	20	18.41
KRGCP10-100	CP10 (3.1831)	98	30	35	31.82	10	R1	14640	6228	( 1493 )	( 635.1 )	
KRGCP 5-500	CP 5 (1.5915)	505	15	20	18.41	101	R1	3660	1557	( 373.2 )	( 158.8 )	
KRGCP10-500	CP10 (3.1831)	505	30	35	31.82	50	R1	14640	6228	( 1493 )	( 635.1 )	

NOTE 3: These racks may be used as the joining gauges for the ground racks with machined ends.

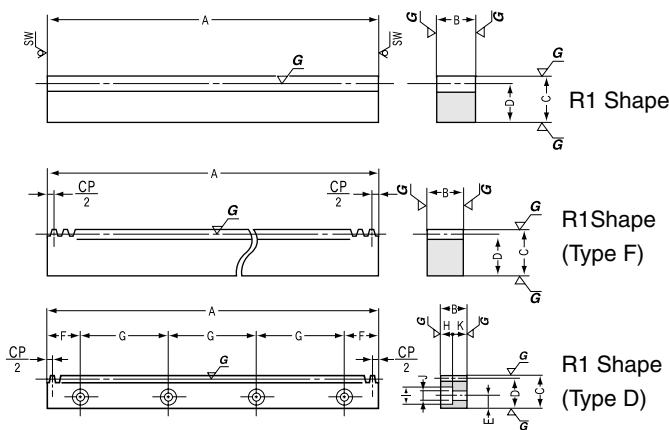
CP5~10 Ground Racks Type F

KRGCPF 5-1000	CP 5 (1.5915)	1000	15	20	18.41	200	R1	3660	1557	( 373.2 )	( 158.8 )
KRGCPF10-1000	CP10 (3.1831)	1000	30	35	31.82	100	R1	14640	6228	( 1493 )	( 635.1 )

CP5~10 Ground Racks Type D

Catalog No.	Pitch mm (m)	Total length	Face width	Height	Height to pitch Line		Effective No. of teeth	Mounting hole dimension NOTE 4			No. of mounting holes	Mounting screw size
					A	D		E	F	G		
					KRGCPD 5-500	CP 5 (1.5915)		500	15	20		
KRGCPD10-500	CP10 (3.1831)	500	30	35	31.82	50	14	40	140	4	M10	

NOTE 4: The dimensions "E" and "F" have the general tolerance.



\*SW is saw blade finish.

Specifications			
Catalog No.	SSCPG	SSCPGS	KRGCP(F)(D)
Precision grade	JIS N7 grade (JIS B1702-1: 1998) OLD JIS 3 grade (JIS B1702: 1976)	JIS N7 grade (JIS B1702-1: 1998) OLD JIS 3 grade (JIS B1702: 1976)	KHK R 001 grade 1
Gear teeth	Standard full depth	Standard full depth	Standard full depth
Pressure angle	20°	20°	20°
Material	S45C	S45C	SCM440
Heat treatment	Induction hardened teeth	Tooth induction hardened after thermal refining	Thermal refining only
Tooth hardness	48~53HRC	48~53HRC	250~285HB
Surface treatment	Black oxide except ground surfaces	Black oxide except ground surfaces	—
Tooth surface finish	Ground	Ground	Ground
Datum reference surface for gear grinding	Bore	Shaft (Ground portion)	Bottom surface
Secondary Operations	Possible except tooth area	Possible except tooth area	Possible

Shape	Allowable torque (N·m) NOTE 5		Allowable torque (kgf·m)		Backlash (mm) NOTE 6	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
S7	18.47	5.997	(1.883)	(0.6115)	0.04 ~ 0.13	0.34	<b>SSCPG5-20</b> <b>SSCPG5-25</b> <b>SSCPG5-30</b> <b>SSCPG5-40</b>
S7	28.72	11.28	(2.929)	(1.15 )	0.04 ~ 0.13	0.66	
S7	32.95	15.23	(3.36 )	(1.553 )	0.04 ~ 0.13	0.85	

S7	90.57	27.69	( 9.236)	(2.824)	0.05 ~ 0.15	0.97	<b>SSCPGS10-10</b> <b>SSCPGS10-15</b> <b>SSCPGS10-20</b>
S7	123.2	42.13	(12.56 )	(4.296 )	0.05 ~ 0.15	1.87	
S7	191.5	79.72	(19.53 )	(8.129 )	0.06 ~ 0.16	2.64	

Shape	Allowable torque (N·m) NOTE 5		Allowable torque (kgf·m)		Backlash (mm) NOTE 6	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
S1	24.13	9.323	(2.461)	(0.9507)	0.04 ~ 0.13	0.16	<b>SSCPG5-20</b> <b>SSCPG5-25</b> <b>SSCPG5-30</b> <b>SSCPG5-40</b>
S1	27.67	12.58	(2.822)	(1.283 )	0.04 ~ 0.13	0.22	
S1	35.48	18.4	(3.618)	(1.876 )	0.04 ~ 0.13	0.4	
S1	51.58	33.53	(5.26 )	(3.419 )	0.05 ~ 0.14	0.58	

S1	160.9	65.89	(16.41)	(6.719)	0.06 ~ 0.16	1.1	<b>SSCPG10-20</b> <b>SSCPG10-25</b> <b>SSCPG10-30</b> <b>SSCPG10-40</b>
S1	221.3	107	(22.57)	(10.91)	0.06 ~ 0.16	1.7	
S1	283.9	156.8	(28.95)	(15.99)	0.06 ~ 0.16	2.5	
S1	380.9	265.7	(38.84)	(27.09)	0.07 ~ 0.17	3.59	

NOTE 5: The allowable torque values shown in the table are the calculated values according to the assumed usage conditions.

NOTE 6: The backlash values shown in the table are the theoretical values when these gears are meshed with KRGCP racks.

Weight (kgf)	Catalog No.
0.22	<b>KRGCP 5-100</b> <b>KRGCP10-100</b>
0.75	
1.1	<b>KRGCP 5-500</b> <b>KRGCP10-500</b>
3.8	

2.2	<b>KRGCPF 5-1000</b> <b>KRGCPF10-1000</b>
7.5	

Counterbore and hole dimensions				Shape	Allowable force (N) NOTE 7		Allowable force (kgf)		Weight (kgf)	Catalog No.
H	I	J	K		Bending strength	Surface durability	Bending strength	Surface durability		
6	10	6	9	R1	3660	1557	( 373.2)	(158.8)	1	<b>KRGCPD 5-500</b> <b>KRGCPD10-500</b>
11	17.5	11	19	R1	14640	6228	(1493 )	(635.1)	3.6	

NOTE 7: The allowable forces shown in the table are the calculated values according to the assumed usage conditions. Please see page 181 for more details.