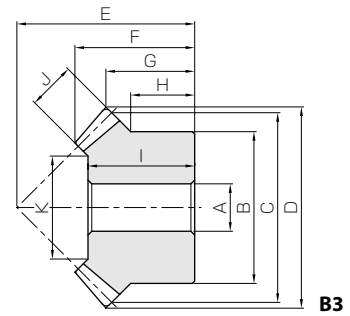




Specifications	
Precision grade	JIS B 1704 grade 4
Gear teeth	Gleason
Pressure angle	20°
Helix angle	35°
Material	S45C
Heat treatment	Teeth induction hardened
Tooth hardness	45 ~ 55HRC



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.	Gear ratio	Module	No. of teeth	Direction of spiral	Shape	Bore		Hub dia.		Pitch dia.		Outside dia.		Mounting distance		Total length		Crown to back length	
						A	B	C	D	E	F	G							
SMS1-20R SMS1-20L	1	m1	20	R L	B3	6	16	20	21.3	20	13.84	10.65							
SMS1.5-20R SMS1.5-20L		m1.5	20	R L	B3	8	26	30	31.74	30	21.18	15.87							
SMS2-20R SMS2-20L		m2	20	R L	B3	12	34	40	42.4	37	24.75	18.2							
SMS2.5-20R SMS2.5-20L		m2.5	20	R L	B3	14	42	50	52.94	48	32.42	24.47							
SMS3-20R SMS3-20L		m3	20	R L	B3	16	50	60	63.72	58	39.6	29.86							
SMS3.5-20R SMS3.5-20L		m3.5	20	R L	B3	20	60	70	74.47	65	43.81	32.23							
SMS4-20R SMS4-20L		m4	20	R L	B3	20	64	80	84.88	75	50.51	37.44							
SMS5-20R SMS5-20L		m5	20	R L	B3	25	80	100	105.9	90	60.16	42.95							
SMS6-20R SMS6-20L		m6	20	R L	B3	28	100	120	127.16	104	67.35	47.58							
SMS8-20R SMS8-20L		m8	20	R L	B3	30	130	160	169.94	125	72.6	49.97							
SMS1-25R SMS1-25L	1	m1	25	R L	B3	6	20	25	26.22	23	15.08	11.11							
SMS1.5-25R SMS1.5-25L		m1.5	25	R L	B3	10	30	37.5	39.3	34	22.14	16.15							
SMS2-25R SMS2-25L		m2	25	R L	B3	12	40	50	52.38	40	24.2	16.19							
SMS2.5-25R SMS2.5-25L		m2.5	25	R L	B3	16	50	62.5	65.54	50	30.24	20.27							
SMS3-25R SMS3-25L		m3	25	R L	B3	20	60	75	78.77	60	37.57	24.39							
SMS3.5-25R SMS3.5-25L		m3.5	25	R L	B3	25	70	87.5	91.81	70	42.98	28.41							
SMS4-25R SMS4-25L		m4	25	R L	B3	28	80	100	104.7	80	49.14	32.35							
SMS5-25R SMS5-25L		m5	25	R L	B3	28	100	125	130.86	100	60.59	40.43							
SMS6-25R SMS6-25L		m6	25	R L	B3	28	120	150	157.17	120	71.97	48.58							
SMS1-30R SMS1-30L		1	m1	30	R L	B3	8	24	30	31.26	28	17.61	13.63						
SMS1.5-30R SMS1.5-30L	m1.5		30	R L	B3	10	36	45	46.84	43	28.11	21.42							
SMS2-30R SMS2-30L	m2		30	R L	B3	12	45	60	62.42	50	29.27	21.21							
SMS2.5-30R SMS2.5-30L	m2.5		30	R L	B3	16	60	75	78.04	62	36.08	26.02							
SMS3-30R SMS3-30L	m3		30	R L	B3	20	70	90	93.61	75	45.25	31.8							
SMS3.5-30R SMS3.5-30L	m3.5		30	R L	B3	25	90	105	109.21	85	49.4	34.6							
SMS4-30R SMS4-30L	m4		30	R L	B3	28	100	120	124.71	95	54.28	37.35							
SMS5-30R SMS5-30L	m5		30	R L	B3	28	130	150	155.90	120	68.2	47.95							

[Caution on Product Characteristics]

- ① A sets of miter gears must be identical in module and number of teeth, but opposite in spiral hands.
- ② The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 421 for more details.
- ③ Dimensions of the outside diameter, the overall length and crown to back length are all theoretical values, and some differences will occur due to the corner chamfering of the gear tips.
- ④ These gears produce axial thrust forces. See page 422 for more details.
- ⑤ Due to heat treating, some deformation of the bore may occur. It may be necessary to ream the bore to bring it to the stated dimensions.

Spiral Miter Gears

Hub width H	Length of bore I	Face width J	Holding surface dia. K	Allowable torque (N-m)		Allowable torque (kgf-m)		Backlash (mm)	Weight (kg)	Catalog No.
				Bending strength	Surface durability	Bending strength	Surface durability			
8	12	5	9.86	1.07	0.65	0.11	0.067	0.03~0.13	0.019	SMS1-20R SMS1-20L
13	19	8	15.37	3.73	2.33	0.38	0.24	0.05~0.15	0.074	SMS1.5-20R SMS1.5-20L
14	22	10	21.72	8.54	5.40	0.87	0.55	0.06~0.16	0.15	SMS2-20R SMS2-20L
19	29	12	28.06	16.3	10.5	1.66	1.07	0.07~0.17	0.30	SMS2.5-20R SMS2.5-20L
23	35	15	31.57	28.8	18.7	2.94	1.91	0.08~0.18	0.52	SMS3-20R SMS3-20L
25	40	18	39.09	46.5	30.4	4.74	3.10	0.10~0.25	0.82	SMS3.5-20R SMS3.5-20L
27	45	20	43.43	68.3	45.0	6.97	4.59	0.12~0.27	1.15	SMS4-20R SMS4-20L
30	54	26	54.46	136	90.9	13.9	9.27	0.14~0.34	2.13	SMS5-20R SMS5-20L
34	60	30	67.15	226	155	23.0	15.8	0.16~0.36	3.65	SMS6-20R SMS6-20L
30	62	35	95	484	344	49.4	35.1	0.20~0.45	7.00	SMS8-20R SMS8-20L
8	14	6	15.03	1.71	1.28	0.17	0.13	0.03~0.13	0.035	SMS1-25R SMS1-25L
11.5	19	9	19.54	5.78	4.42	0.59	0.45	0.05~0.15	0.11	SMS1.5-25R SMS1.5-25L
10	20	12	26.06	13.7	10.7	1.40	1.09	0.06~0.16	0.21	SMS2-25R SMS2-25L
12.5	26	15	34.57	26.8	21.1	2.73	2.15	0.07~0.17	0.42	SMS2.5-25R SMS2.5-25L
15	32	20	37.43	49.1	39.1	5.00	3.98	0.08~0.18	0.74	SMS3-25R SMS3-25L
17.5	37	22	46.77	75.4	60.6	7.69	6.18	0.10~0.25	1.14	SMS3.5-25R SMS3.5-25L
20	43	25	55.29	112	90.7	11.5	9.25	0.12~0.27	1.71	SMS4-25R SMS4-25L
25	50	30	65.15	214	175	21.8	17.8	0.14~0.34	3.39	SMS5-25R SMS5-25L
30	61	35	83	357	300	36.4	30.6	0.16~0.36	5.99	SMS6-25R SMS6-25L
10	16	6	19.03	2.28	2.03	0.23	0.21	0.03~0.13	0.057	SMS1-30R SMS1-30L
16	25	10	25.72	8.22	7.48	0.84	0.76	0.05~0.15	0.21	SMS1.5-30R SMS1.5-30L
12.5	25	12	36.06	18.2	16.9	1.86	1.72	0.06~0.16	0.37	SMS2-30R SMS2-30L
17	32	15	47.57	35.6	33.4	3.63	3.40	0.07~0.17	0.76	SMS2.5-30R SMS2.5-30L
20	40	20	53.43	65.8	62.3	6.71	6.35	0.08~0.18	1.32	SMS3-30R SMS3-30L
25	45	22	67.77	101	96.0	10.3	9.79	0.10~0.25	2.19	SMS3.5-30R SMS3.5-30L
25	50	25	79.29	150	144	15.3	14.7	0.12~0.27	3.07	SMS4-30R SMS4-30L
35	62	30	99.15	284	276	29.0	28.1	0.14~0.34	6.44	SMS5-30R SMS5-30L

[Caution on Secondary Operations]

- ① Please read "Caution on Performing Secondary Operations" (Page 422) when performing modification and/or secondary operations for safety concerns. Haguruma Kobo, the KHK's system for quick modification of KHK stock gears is also available.
- ② Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 1 to 2 mm).