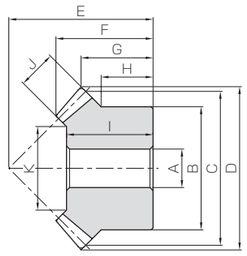
KSMS Spiral Miter Gears

Specifications	
Precision grade	JIS B 1704 : 1978 grade 4
Gear teeth	Gleason
Pressure angle	20°
Helix angle	35°
Material	S45C
Heat treatment	Teeth induction hardened
Tooth hardness	50 ~ 60HRC
Surface treatment	Black oxide coating



B3

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
KSMS1-20R **KSMS1-20L**	1	***m*1**	20	R L	B3	6	16	20	21.3	20	13.84	10.65
KSMS1.5-20R **KSMS1.5-20L**		***m*1.5**	20	R L	B3	8	26	30	31.74	30	21.18	15.87
KSMS2-20R **KSMS2-20L**		***m*2**	20	R L	B3	12	34	40	42.4	37	24.75	18.2
KSMS2.5-20R **KSMS2.5-20L**		***m*2.5**	20	R L	B3	14	42	50	52.94	48	32.42	24.47
KSMS3-20R **KSMS3-20L**		***m*3**	20	R L	B3	16	50	60	63.72	58	39.6	29.86
KSMS3.5-20R **KSMS3.5-20L**		***m*3.5**	20	R L	B3	20	60	70	74.47	65	43.81	32.23
KSMS4-20R **KSMS4-20L**		***m*4**	20	R L	B3	20	64	80	84.88	75	50.51	37.44
KSMS5-20R **KSMS5-20L**		***m*5**	20	R L	B3	25	80	100	105.9	90	60.16	42.95
KSMS6-20R **KSMS6-20L**		***m*6**	20	R L	B3	28	100	120	127.16	104	67.35	47.58
KSMS8-20R **KSMS8-20L**		***m*8**	20	R L	B3	30	130	160	169.94	125	72.6	49.97
KSMS1-25R **KSMS1-25L**	1	***m*1**	25	R L	B3	6	20	25	26.22	23	15.08	11.11
KSMS1.5-25R **KSMS1.5-25L**		***m*1.5**	25	R L	B3	10	30	37.5	39.31	34	22.14	16.16
KSMS2-25R **KSMS2-25L**		***m*2**	25	R L	B3	12	40	50	52.38	40	24.2	16.19
KSMS2.5-25R **KSMS2.5-25L**		***m*2.5**	25	R L	B3	16	50	62.5	65.54	50	30.24	20.27
KSMS3-25R **KSMS3-25L**		***m*3**	25	R L	B3	20	60	75	78.77	60	37.57	24.39
KSMS3.5-25R **KSMS3.5-25L**		***m*3.5**	25	R L	B3	25	70	87.5	91.81	70	42.98	28.41
KSMS4-25R **KSMS4-25L**		***m*4**	25	R L	B3	28	80	100	104.7	80	49.14	32.35
KSMS5-25R **KSMS5-25L**		***m*5**	25	R L	B3	28	100	125	130.86	100	60.59	40.43
KSMS6-25R **KSMS6-25L**		***m*6**	25	R L	B3	28	120	150	157.17	120	71.97	48.58
KSMS1-30R **KSMS1-30L**	1	***m*1**	30	R L	B3	8	24	30	31.26	28	17.61	13.63
KSMS1.5-30R **KSMS1.5-30L**		***m*1.5**	30	R L	B3	10	36	45	46.84	43	28.11	21.42
KSMS2-30R **KSMS2-30L**		***m*2**	30	R L	B3	12	45	60	62.42	50	29.27	21.21
KSMS2.5-30R **KSMS2.5-30L**		***m*2.5**	30	R L	B3	16	60	75	78.04	62	36.08	26.02
KSMS3-30R **KSMS3-30L**		***m*3**	30	R L	B3	20	70	90	93.61	75	45.25	31.8
KSMS3.5-30R **KSMS3.5-30L**		***m*3.5**	30	R L	B3	25	90	105	109.21	85	49.4	34.6
KSMS4-30R **KSMS4-30L**		***m*4**	30	R L	B3	28	100	120	124.71	95	54.28	37.35
KSMS5-30R **KSMS5-30L**		***m*5**	30	R L	B3	28	130	150	155.90	120	68.2	47.95

Hub width	Length of bore	Face width	Holding surface dia.	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash	Weight	Catalog No.
H	I	J	K	Bending strength	Surface durability	Bending strength	Surface durability	(mm)	(kg)	
8	12	5	9.86	1.07	0.65	0.11	0.067	0.03~0.13	0.019	**KSMS1-20R** **KSMS1-20L**
13	19	8	15.37	3.73	2.33	0.38	0.24	0.05~0.15	0.074	**KSMS1.5-20R** **KSMS1.5-20L**
14	22	10	21.72	8.54	5.40	0.87	0.55	0.06~0.16	0.15	**KSMS2-20R** **KSMS2-20L**
19	29	12	28.06	16.3	10.5	1.66	1.07	0.07~0.17	0.30	**KSMS2.5-20R** **KSMS2.5-20L**
23	35	15	31.57	28.8	18.7	2.94	1.91	0.08~0.18	0.52	**KSMS3-20R** **KSMS3-20L**
25	40	18	39.09	46.5	30.4	4.74	3.10	0.10~0.25	0.82	**KSMS3.5-20R** **KSMS3.5-20L**
27	45	20	43.43	68.3	45.0	6.97	4.59	0.12~0.27	1.15	**KSMS4-20R** **KSMS4-20L**
30	54	26	54.46	136	90.9	13.9	9.27	0.14~0.34	2.13	**KSMS5-20R** **KSMS5-20L**
34	60	30	67.15	226	155	23.0	15.8	0.16~0.36	3.65	**KSMS6-20R** **KSMS6-20L**
30	62	35	95	484	344	49.4	35.1	0.20~0.45	7.00	**KSMS8-20R** **KSMS8-20L**
8	14	6	15.03	1.71	1.28	0.17	0.13	0.03~0.13	0.035	**KSMS1-25R** **KSMS1-25L**
11.5	19	9	19.54	5.78	4.42	0.59	0.45	0.05~0.15	0.11	**KSMS1.5-25R** **KSMS1.5-25L**
10	20	12	26.06	13.7	10.7	1.40	1.09	0.06~0.16	0.21	**KSMS2-25R** **KSMS2-25L**
12.5	26	15	34.57	26.8	21.1	2.73	2.15	0.07~0.17	0.42	**KSMS2.5-25R** **KSMS2.5-25L**
15	32	20	37.43	49.1	39.1	5.00	3.98	0.08~0.18	0.74	**KSMS3-25R** **KSMS3-25L**
17.5	37	22	46.77	75.4	60.6	7.69	6.18	0.10~0.25	1.14	**KSMS3.5-25R** **KSMS3.5-25L**
20	43	25	55.29	112	90.7	11.5	9.25	0.12~0.27	1.71	**KSMS4-25R** **KSMS4-25L**
25	50	30	65.15	214	175	21.8	17.8	0.14~0.34	3.39	**KSMS5-25R** **KSMS5-25L**
30	61	35	83	357	300	36.4	30.6	0.16~0.36	5.99	**KSMS6-25R** **KSMS6-25L**
10	16	6	19.03	2.28	2.03	0.23	0.21	0.03~0.13	0.057	**KSMS1-30R** **KSMS1-30L**
16	25	10	25.72	8.22	7.48	0.84	0.76	0.05~0.15	0.21	**KSMS1.5-30R** **KSMS1.5-30L**
12.5	25	12	36.06	18.2	16.9	1.86	1.72	0.06~0.16	0.37	**KSMS2-30R** **KSMS2-30L**
17	32	15	47.57	35.6	33.4	3.63	3.40	0.07~0.17	0.76	**KSMS2.5-30R** **KSMS2.5-30L**
20	40	20	53.43	65.8	62.3	6.71	6.35	0.08~0.18	1.32	**KSMS3-30R** **KSMS3-30L**
25	45	22	67.77	101	96.0	10.3	9.79	0.10~0.25	2.19	**KSMS3.5-30R** **KSMS3.5-30L**
25	50	25	79.29	150	144	15.3	14.7	0.12~0.27	3.07	**KSMS4-30R** **KSMS4-30L**
35	62	30	99.15	284	276	29.0	28.1	0.14~0.34	6.44	**KSMS5-30R** **KSMS5-30L**

[Caution on Product Characteristics]
① A set 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 272 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 274 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.

[Caution on Secondary Operations]
① Please read "Caution on Performing Secondary Operations" (Page 274) when performing modification and/or secondary operations for safety concerns.
② Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm).