

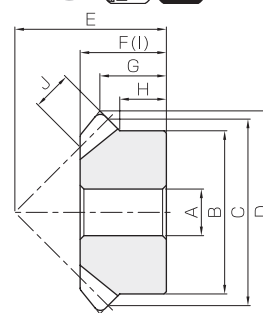


SM Steel Miter Gears



Specifications	
Precision grade	JIS B 1704 grade 3
Gear teeth	Gleason
Pressure angle	20°
Material	S45C
Heat treatment	—
Tooth hardness	less than 194HB

Module 1 ~ 8

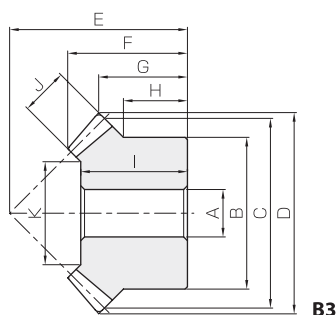


B2

Catalog No.	Gear ratio	Module	No. of teeth	Shape	Bore	Hub dia.	Pitch dia.	Outside dia.	Mounting distance	Total length	Crown to back length	Hub width	
					A _{H7}	B	C	D	E	F	G	H	
SM2-16	1	m2	16	B2	10	27	32	34.83	30	19	15.41	11.5	
SM2.5-16		m2.5	16	B2	12	34	40	43.53	35	21	16.77	12	
SM3-16		m3	16	B2	14	42	48	52.24	40	23	18.12	13	
SM4-16		m4	16	B2	16	55	64	69.66	50	28	20.83	13.5	
SM5-16		m5	16	B2	20	70	80	87.07	65	37	28.54	20	
SM1-20	1	m1	20	B3	6	16	20	21.41	20	13.94	10.71	8	
SM1.25-20		m1.25	20	B3	8	22	25	26.77	23	15.27	11.38	9	
SM1.5-20		m1.5	20	B3	8	26	30	32.12	30	21.24	16.06	13	
SM2-20		m2	20	B3	12	34	40	42.83	37	24.89	18.41	14	
SM2.5-20		m2.5	20	B3	14	42	50	53.54	48	32.54	24.77	19	
SM3-20		m3	20	B3	16	50	60	64.24	58	39.84	30.12	23	
SM3.5-20		m3.5	20	B3	20	60	70	74.95	65	44.13	32.47	25	
SM4-20		m4	20	B3	20	64	80	85.65	75	50.78	37.83	27	
SM5-20		m5	20	B3	25	80	100	107.07	90	60.38	43.54	30	
SM6-20		m6	20	B3	28	100	120	128.48	104	67.67	48.24	34	
SM8-20		m8	20	B3	30	130	160	171.31	125	73.33	50.66	30	
SM1-25		1	m1	25	B3	6	20	25	26.41	23	15.16	11.21	8
SM1.25-25			m1.25	25	B3	8	25	31.25	33.02	28	17.88	13.26	9.25
SM1.5-25	m1.5		25	B3	10	30	37.5	39.62	34	22.25	16.31	11.5	
SM2-25	m2		25	B3	12	40	50	52.83	40	24.33	16.41	10	
SM2.5-25	m2.5		25	B3	16	50	62.5	66.04	50	30.41	20.52	12.5	
SM3-25	m3		25	B3	20	60	75	79.24	60	37.81	24.62	15	
SM3.5-25	m3.5		25	B3	25	70	87.5	92.45	70	43.23	28.72	17.5	
SM4-25	m4		25	B3	28	80	100	105.66	80	49.32	32.83	20	
SM5-25	m5		25	B3	28	100	125	132.07	100	60.82	41.04	25	
SM6-25	m6		25	B3	28	120	150	158.48	120	72.32	49.24	30	
SM1-30	1		m1	30	B3	8	24	30	31.41	28	17.71	13.71	10
SM1.25-30			m1.25	30	B3	10	30	37.5	39.27	36	23.47	18.13	13.5
SM1.5-30			m1.5	30	B3	10	36	45	47.12	43	28.24	21.56	16
SM2-30			m2	30	B3	12	45	60	62.83	50	29.42	21.41	12.5
SM2.5-30		m2.5	30	B3	16	60	75	78.54	62	36.28	26.27	17	
SM3-30		m3	30	B3	20	70	90	94.24	75	45.47	32.12	20	
SM3.5-30		m3.5	30	B3	25	90	105	109.95	85	49.66	34.97	25	
SM4-30		m4	30	B3	28	100	120	125.66	95	54.52	37.83	25	
SM5-30		m5	30	B3	28	130	150	157.07	120	68.56	48.54	35	

[Caution on Product Characteristics]

- ① The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 421 for more details.
- ② 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.



B3

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			
19	7	—	3.84	0.33	0.39	0.034	0.06~0.16	0.076	SM2-16
21	9	—	7.63	0.68	0.78	0.069	0.07~0.17	0.14	SM2.5-16
23	11	—	13.3	1.21	1.36	0.12	0.08~0.18	0.22	SM3-16
28	14	—	30.7	2.87	3.13	0.29	0.12~0.27	0.49	SM4-16
37	17	—	58.9	5.62	6.00	0.57	0.14~0.34	1.03	SM5-16
12	5	9.86	0.89	0.084	0.091	0.0086	0.03~0.13	0.019	SM1-20
13	6	13.03	1.70	0.16	0.17	0.017	0.04~0.14	0.036	SM1.25-20
19	8	15.37	3.12	0.30	0.32	0.031	0.05~0.15	0.074	SM1.5-20
22	10	21.72	7.13	0.72	0.73	0.073	0.06~0.16	0.15	SM2-20
29	12	28.06	13.6	1.41	1.39	0.14	0.07~0.17	0.30	SM2.5-20
35	15	31.57	24.1	2.54	2.45	0.26	0.08~0.18	0.53	SM3-20
40	18	39.09	38.8	4.15	3.96	0.42	0.10~0.25	0.82	SM3.5-20
45	20	43.43	57.0	6.19	5.82	0.63	0.12~0.27	1.15	SM4-20
54	26	54.46	114	12.6	11.6	1.29	0.14~0.34	2.15	SM5-20
60	30	67.15	191	21.8	19.4	2.22	0.16~0.36	3.68	SM6-20
62	35	95	413	49.6	42.1	5.06	0.20~0.45	7.05	SM8-20
14	6	15.03	1.47	0.16	0.15	0.017	0.03~0.13	0.035	SM1-25
16	7	18.7	2.75	0.31	0.28	0.032	0.04~0.14	0.063	SM1.25-25
19	9	19.54	4.96	0.57	0.51	0.059	0.05~0.15	0.11	SM1.5-25
20	12	26.06	11.8	1.41	1.20	0.14	0.06~0.16	0.22	SM2-25
26	15	34.57	23.0	2.81	2.34	0.29	0.07~0.17	0.42	SM2.5-25
32	20	37.43	42.1	5.24	4.29	0.53	0.08~0.18	0.74	SM3-25
37	22	46.77	64.7	8.19	6.60	0.83	0.10~0.25	1.15	SM3.5-25
43	25	55.29	96.3	12.4	9.82	1.26	0.12~0.27	1.73	SM4-25
50	30	65.15	184	24.2	18.7	2.47	0.14~0.34	3.41	SM5-25
61	35	83	309	42.1	31.5	4.29	0.16~0.36	6.03	SM6-25
16	6	19.03	1.99	0.26	0.20	0.026	0.03~0.13	0.057	SM1-30
21	8	22.37	4.05	0.54	0.41	0.055	0.04~0.14	0.12	SM1.25-30
25	10	25.71	7.19	0.97	0.73	0.099	0.05~0.15	0.21	SM1.5-30
25	12	36.06	15.9	2.22	1.62	0.23	0.06~0.16	0.37	SM2-30
32	15	47.57	31.1	4.43	3.17	0.45	0.07~0.17	0.76	SM2.5-30
40	20	53.43	57.5	8.33	5.87	0.85	0.08~0.18	1.32	SM3-30
45	22	67.77	88.0	13.0	8.97	1.32	0.10~0.25	2.20	SM3.5-30
50	25	79.29	131	19.6	13.3	2.00	0.12~0.27	3.09	SM4-30
62	30	99.15	249	38.3	25.4	3.91	0.14~0.34	6.47	SM5-30

[Caution on Secondary Operations] ① Please read "Caution on Performing Secondary Operations" (Page 422) when performing modifications and/or secondary operations for safety concerns. Haguruma Kobo, the KHK's system for quick modification of KHK stock gears is also available.