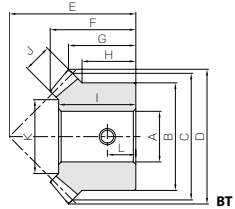
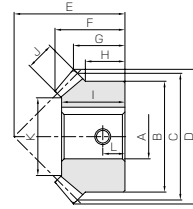




Specifications	
Precision grade	JIS B 1704: 1978 grade 4
Gear teeth	Gleason
Pressure angle	20°
Helix angle	—
Material	S45C
Heat treatment	Teeth induction hardened
Tooth hardness	50 ~ 60HRC



BT



BK

Catalog No.	Gear ratio	Module	No. of teeth	Shape	Bore		Pitch dia.	Outside dia.	Mounting distance	Total length	Crown to back length		Hub width	Length of bore			
					A _{H7}	B					F	G					
SMA1-20 SMB1-20	1	m1	20	BT BK	8	16	20	21.41	20	13.95	10.71	8	12	12.07			
10					26	30	32.12	30	21.24	16.06	13	19	19				
SMA1.5-20 SMB1.5-20		m1.5	20	BT BK	10	26	30	32.12	30	21.24	16.06	13	19	19			
12					34	40	42.83	37	24.89	18.41	14	22	22				
SMA2-20 SMB2-20		m2	20	BK BK	14	34	40	42.83	37	24.89	18.41	14	22	22			
15					42	50	53.54	48	32.54	24.77	19	29	29				
SMA2.5-20 SMB2.5-20		m2.5	20	BK BK	18	42	50	53.54	48	32.54	24.77	19	29	29			
20					50	60	64.24	58	39.84	30.12	23	35	35				
SMA3-20 SMB3-20 SMC3-20		m3	20	BK BK BK	22	50	60	64.24	58	39.84	30.12	23	35	35			
SMA3.5-20 SMB3.5-20					m3.5	20	BK BK	28	60	70	74.95	65	44.13	32.47	25	40	40
30								70	80	85.65	75	50.78	37.83	27	45	45	
SMA4-20 SMB4-20 SMC4-20		m4	20	BK BK BK	30	64	80	85.65	75	50.78	37.83	27	45	45			
SMA4.5-20 SMB4.5-20 SMC4.5-20					m4.5	20	BK BK	32	80	100	107.07	90	60.38	43.54	30	54	54
SMA5-20 SMB5-20 SMC5-20								m5	20	BK BK	40	100	120	128.48	104	67.67	48.24
SMA6-20 SMB6-20 SMC6-20		m6	20	BK BK BK	45	120	150				158.48	120	72.32	49.24	30	61	61
SMA6.5-20 SMB6.5-20 SMC6.5-20					m6.5	20	BK BK	50	125	150	158.48	120	72.32	49.24	30	61	61
SMA8-20								m8	20	BK	60	130	160	171.31	125	73.33	50.66
SMA1-25		m1	25	BT	10	20	25				26.41	23	15.16	11.21	8	14	14
SMA1.5-25					m1.5	25	BK	12	30	37.5	39.62	34	22.25	16.31	11.5	19	19
SMA2-25 SMB2-25		m2	25	BK BK				18	40	50	52.83	40	24.33	16.41	10	20	20
SMA2.5-25 SMB2.5-25					m2.5	25	BK BK	20	50	62.5	66.04	50	30.41	20.52	12.5	26	26
SMA3-25 SMB3-25		m3	25	BK BK				30	60	75	79.24	60	37.81	24.62	15	32	32
SMA3.5-25 SMB3.5-25					m3.5	25	BK BK	32	70	87.5	92.45	70	43.23	28.72	17.5	37	37
SMA4-25 SMB4-25		m4	25	BK BK				35	80	100	105.66	80	49.32	32.83	20	43	43
SMA5-25 SMA6-25	m5				25	BK	50	100	125	132.07	100	60.82	41.04	25	50	50	
SMA1-30		m1	30	BK			12	24	30	31.41	28	17.71	13.71	10	16	16	
SMA1.5-30	m1.5				30	BK	15	36	45	47.12	43	28.24	21.56	16	25	25	
SMA2-30 SMB2-30		m2	30	BK BK			20	45	60	62.83	50	29.42	21.41	12.5	25	25	
SMA2.5-30 SMB2.5-30	m2.5				30	BK BK	25	60	75	78.54	62	36.28	26.27	17	32	32	
SMA3-30 SMB3-30		m3	30	BK BK			32	70	90	94.24	75	45.47	32.12	20	40	40	
SMA3.5-30 SMB3.5-30	m3.5				30	BK BK	35	90	105	109.95	85	49.66	34.97	25	45	45	
SMA4-30 SMB4-30		m4	30	BK BK			40	100	120	125.66	95	54.52	37.83	25	50	50	
SMA5-30	m5				30	BK	55	130	150	157.07	120	68.56	48.54	35	62	62	

- [Caution on Product Characteristics]
- Keyways are made according to JIS B1301 standards and Js 9 tolerances. For products with a tapped hole, a set screw is included as an accessory.
 - The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 253 for more details.
 - 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.
 - The keyway dimensions of items with "*" marks do not conform to JIS Standards.

Face width	J	K	Width×Depth	Size	L	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)	Catalog No.
						Bending strength	Surface durability	Bending strength	Surface durability			
5	9.86	10	—	M4	4	0.90	0.37	0.091	0.038	0.03~0.13	0.016	SMA1-20 SMB1-20
8	15.37	15.37	4 x 1.8	M4 M5	6.5	3.13	1.31	0.32	0.13	0.05~0.15	0.069	SMA1.5-20 SMB1.5-20
10	21.72	21.72	5 x 2.3	M5 M5	7	7.17	3.05	0.73	0.31	0.06~0.16	0.14	SMA2-20 SMB2-20
12	28.06	28.06	5 x 2.3*	M6 M6	9.5	13.7	5.90	1.39	0.60	0.07~0.17	0.27	SMA2.5-20 SMB2.5-20
15	31.57	31.57	7 x 3*	M6 M8 M6	11.5	24.2	10.5	2.47	1.08	0.08~0.18	0.47	SMA3-20 SMB3-20 SMC3-20
18	39.09	39.09	7 x 3*	M8 M8	12.5	39.0	17.2	3.98	1.75	0.10~0.25	0.71	SMA3.5-20 SMB3.5-20
20	43.43	43.43	7 x 3*	M8 M8 M8	13.5	57.3	25.4	5.85	2.59	0.12~0.27	1.00	SMA4-20 SMB4-20 SMC4-20
26	54.46	54.46	10 x 3.3*	M8 M8 M8	15	114	51.3	11.7	5.23	0.14~0.34	1.80	SMA5-20 SMB5-20 SMC5-20
30	67.15	67.15	12 x 3.3*	M8 M8 M8	17	190	87.5	19.3	8.92	0.16~0.36	3.19	SMA6-20 SMB6-20 SMC6-20
35	95	95	18 x 4.4	M10	15	406	194	41.4	19.8	0.20~0.45	5.96	SMA8-20
6	15.03	—	—	M4	4	1.48	0.71	0.15	0.072	0.03~0.13	0.029	SMA1-25
9	19.54	4 x 1.8	M5	5.75	4.98	2.44	0.51	0.25	0.05~0.15	0.10	0.19	SMA1.5-25
12	26.06	6 x 2.8	M6 M5	5	11.8	5.90	1.20	0.60	0.06~0.16	0.19	0.20	SMA2-25 SMB2-25
15	34.57	5 x 2.3*	M6 M6	6	23.1	11.7	2.35	1.19	0.07~0.17	0.39	0.40	SMA2.5-25 SMB2.5-25
20	37.43	7 x 3*	M8 M8	7.5	42.3	21.6	4.31	2.20	0.08~0.18	0.63	0.69	SMA3-25 SMB3-25
22	46.77	10 x 3.3	M8 M8	8.5	65.0	33.5	6.63	3.42	0.10~0.25	1.04	1.09	SMA3.5-25 SMB3.5-25
25	55.29	10 x 3.3	M8 M8	10	96.8	50.2	9.87	5.12	0.12~0.27	1.59	1.68	SMA4-25 SMB4-25
30	65.15	12 x 3.3*	M8	12.5	185	96.8	18.8	9.87	0.14~0.34	2.86	2.86	SMA5-25
35	83	16 x 4.3	M10	15	307	166	31.3	16.9	0.16~0.36	5.13	5.13	SMA6-25
6	19.03	4 x 1.8	M5	5	2.00	1.11	0.20	0.11	0.03~0.13	0.047	0.047	SMA1-30
10	25.71	5 x 2.3	M5	8	7.22	4.08	0.74	0.42	0.05~0.15	0.19	0.19	SMA1.5-30
12	36.06	6 x 2.8	M6 M5	6.25	16.0	9.20	1.63	0.94	0.06~0.16	0.32	0.35	SMA2-30 SMB2-30
15	47.57	8 x 3.3	M8 M6	8.5	31.2	18.2	3.19	1.86	0.07~0.17	0.68	0.73	SMA2.5-30 SMB2.5-30
20	53.43	10 x 3.3	M8 M8	10	57.8	34.0	5.89	3.46	0.08~0.18	1.15	1.25	SMA3-30 SMB3-30
22	67.77	10 x 3.3	M8 M8	12.5	88.4	52.3	9.01	5.34	0.10~0.25	2.01	2.10	SMA3.5-30 SMB3.5-30
25	79.29	12 x 3.3	M8 M8	12.5	131	78.3	13.4	7.99	0.12~0.27	2.81	3.03	SMA4-30 SMB4-30
30	99.15	16 x 4.3	M10	17.5	250	150	25.5	15.3	0.14~0.34	5.56	5.56	SMA5-30

- [Caution on Secondary Operations]
- Please read "Caution on Performing Secondary Operations" (Page 254) when performing modification and/or secondary operations for safety concerns. KHK Quick-Mod Gear, the KHK's system for quick modification of KHK stock gears is also available.
 - 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).