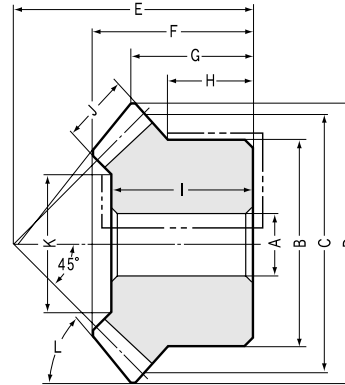




MM Carburized & Hardened Miter Gears Modules 2~5



B3 Shape

20 Tooth Miter Gears Modules 2~5

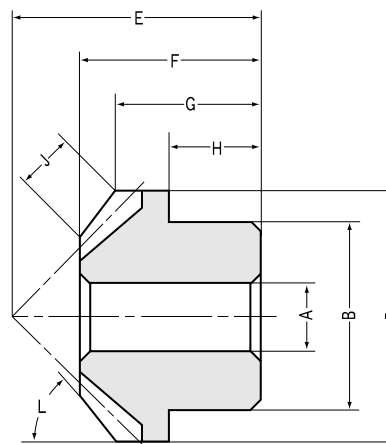
Catalog No.	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Mounting distance	Total length	Crown to back length	Hub width	Length of bore	Face width	Holding surface dia.	Tip angle
	<i>m</i>	<i>z</i>	AH7	B	C	D	E	F	G	H	I	J	K	L
MM2 -20	2	20	12	34	40	42.83	35	22.24	16.41	12	20	9	24.54	49°48'
MM2.5-20	2.5	20	15	42	50	53.54	45	28.89	21.77	16	26	11	30.89	49°48'
MM3 -20	3	20	16	52	60	64.24	50	31.19	22.12	16	27	14	34.4	49°48'
MM4 -20	4	20	20	65	80	85.66	65	39.49	27.83	17.5	35	18	49.09	49°48'
MM5 -20	5	20	25	80	100	107.07	90	60.38	43.54	30	54	26	54.46	49°48'

25 Tooth Miter Gears Modules 2~5

MM2 -25	2	25	12	45	50	52.83	40	24.33	16.41	12.5	21	12	28.06	48°51'
MM2.5-25	2.5	25	16	55	62.5	66.03	50	30.41	20.52	15	27	15	36.57	48°51'
MM3 -25	3	25	20	65	75	79.24	60	37.81	24.62	17.5	33	20	39.43	48°51'
MM4 -25	4	25	25	85	100	105.66	80	49.32	32.83	22.5	44	25	57.29	48°51'
MM5 -25	5	25	28	100	125	132.07	100	60.82	41.04	25	50	30	65.15	48°51'



LM Sintered Metal Miter Gears Modules 0.8~1.5



B1Shape

20 Tooth Miter Gears Modules 0.8~1.5

Catalog No.	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Mounting distance	Total length	Crown to back length	Hub width	Length of bore	Face width	Holding surface dia.	Tip angle
	<i>m</i>	<i>z</i>	AH7	B	C	D	E	F	G	H	I	J	K	L
LM0.8 -20	0.8	20	4	12	16	17.13	16	11	8.57	5.5	11	4.24	—	49°48'
LM1 -20	1	20	5	16	20	21.41	20	13.5	10.71	6	13.5	4.95	—	49°48'
LM1.25-20	1.25	20	6	22	25	26.77	23	15	11.38	6	15	6.36	—	49°48'
LM1.5 -20	1.5	20	6	26	30	32.12	30	21	16.06	9	21	8.48	—	49°48'

CAUTION: Although the sintering process allows for the inclusion of oil to maintain lubricity, these gears have not been oil impregnated.

CAUTION: The rust prevention process involves treating the gears with steam (in effect, creating the surface oxidation). The black oxide treatment cannot be applied to these gears.



Carburized & Hardened Miter Gears

Specifications

Precision grade	JIS B 1704 grade 4	Tooth hardness	55~60HRC
Gear teeth	Gleason	Surface treatment	—
Pressure angle	20°	Tooth surface finish	Cut
Material	SCM415	Datum reference surface for gear cutting	Bore
Heat treatment	Carburizing <small>NOTE 1</small>	Secondary Operations	Possible where masking for carburizing

NOTE 1: The areas marked with ---- on the diagram are masked during the carburizing and can be modified, even though the hardness is somewhat higher.

Shape	Allowable torque (N·m) <small>NOTE 2</small>		Allowable torque (kgf·m)		Backlash (mm)	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
B3	15.06	9.74	(1.536)	(0.9932)	0.06 ~ 0.16	0.13	MM2 -20
B3	29	19.03	(2.96)	(1.941)	0.07 ~ 0.17	0.26	MM2.5-20
B3	52	34.47	(5.3)	(3.515)	0.08 ~ 0.18	0.43	MM3 -20
B3	120.5	81.24	(12.29)	(8.284)	0.12 ~ 0.27	0.97	MM4 -20
B3	256	174.5	(26.1)	(17.79)	0.14 ~ 0.34	2.1	MM5 -20

Pitch Angle 45°

B3	26.0	20.05	(2.7)	(2.045)	0.06 ~ 0.16	0.22	MM2 -25
B3	51.6	39.71	(5.27)	(4.049)	0.07 ~ 0.17	0.41	MM2.5-25
B3	94.7	73.47	(9.66)	(7.492)	0.08 ~ 0.18	0.81	MM3 -25
B3	217	170.7	(22.1)	(17.41)	0.12 ~ 0.27	1.9	MM4 -25
B3	413	329.2	(42.1)	(33.57)	0.14 ~ 0.34	3.4	MM5 -25

NOTE 2: The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 196 for more details.

Pitch Angle 45°



Sintered Metal Miter Gears

Specifications

Precision grade	JIS B 1704 grade 5	Tooth hardness	70~95HRB
Gear teeth	Gleason	Surface treatment	Steam treatment
Pressure angle	20°	Tooth surface finish	Sintered
Material	SMF5040	Datum reference surface for gear cutting	Bore
Heat treatment	—	Secondary Operations	Possible

Shape	Allowable torque (N·m) <small>NOTE 1</small>		Allowable torque (kgf·m)		Backlash (mm)	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
B1	0.2167	0.0265	(0.0221)	(0.0027)	0 ~ 0.16	0.01	LM0.8 -20
B1	0.408	0.05	(0.0416)	(0.0051)	0 ~ 0.18	0.022	LM1 -20
B1	0.81	0.099	(0.0826)	(0.0101)	0 ~ 0.2	0.037	LM1.25-20
B1	1.48	0.1853	(0.1509)	(0.0189)	0 ~ 0.22	0.07	LM1.5 -20

NOTE 1: The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 196 for more details.

Pitch Angle 45°