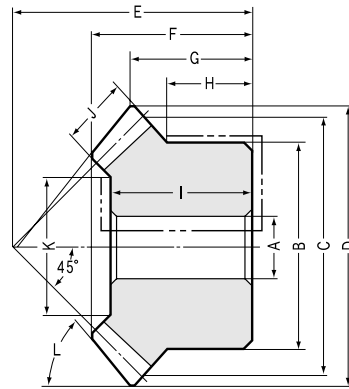




MMS Spiral Miter Gears Modules 2~5



B3 Shape

20 Tooth Miter Gears Modules 2~5

Catalog No.	Direction of Spiral	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
		<i>m</i>	<i>z</i>	AH7	B	C	D	E	F	G	H	I	J
MMS2 -20R MMS2 -20L	R L	2	20	12	34	40	42.31	35	22.14	16.15	12	20	9
MMS2.5-20R MMS2.5-20L	R L	2.5	20	15	42	50	53.2	45	28.63	21.6	16	26	11
MMS3 -20R MMS3 -20L	R L	3	20	16	52	60	63	50	30.78	21.99	16	27	14
MMS4 -20R MMS4 -20L	R L	4	20	20	65	80	84.99	65	39.13	27.5	17.5	35	18
MMS5 -20R MMS5 -20L	R L	5	20	25	85	100	106.25	75	42.99	28.13	17.5	38	23

25 Tooth Miter Gears Modules 2~5

MMS2 -25R MMS2 -25L	R L	2	25	12	45	50	52.4	40	24.19	16.2	12.5	21	12
MMS2.5-25R MMS2.5-25L	R L	2.5	25	16	55	62.5	65.54	50	30.24	20.27	15	27	15
MMS3 -25R MMS3 -25L	R L	3	25	20	65	75	78.77	60	37.57	24.39	17.5	33	20
MMS4 -25R MMS4 -25L	R L	4	25	25	85	100	104.7	80	49.14	32.35	22.5	44	25
MMS5 -25R MMS5 -25L	R L	5	25	28	100	125	130.86	100	60.59	40.43	25	50	30

CAUTION: A set of miter gears must be identical in module and number of teeth, but opposite in spiral hands.

CAUTION: 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.

Miter Gears

MMS



Specifications

Precision grade	JIS B 1704 grade 4	Tooth hardness	55~60HRC
Gear teeth	Gleason	Surface treatment	---
Pressure angle	20°	Tooth surface finish	Cut
Helix angle	35°	Datum reference surface for gear cutting	Bore
Material	SCM415	Secondary Operations	Possible where masking for carburizing
Heat treatment	Carburizing <small>NOTE 1</small>		

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.

Holding surface dia.	Tip angle	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			
K	L								
24.54	48°21'	B3	17	17.26	(1.734)	(1.76)	0.06 ~ 0.16	0.13	MMS2 -20R MMS2 -20L
30.89	50°28'	B3	32.7	33.74	(3.34)	(3.441)	0.07 ~ 0.17	0.26	MMS2.5-20R MMS2.5-20L
34.4	51°24'	B3	58.7	61.09	(5.98)	(6.23)	0.08 ~ 0.18	0.43	MMS3 -20R MMS3 -20L
49.08	49°54'	B3	136	144	(13.87)	(14.68)	0.12 ~ 0.27	0.97	MMS4 -20R MMS4 -20L
60.95	49°56'	B3	269	288.2	(27.5)	(29.39)	0.14 ~ 0.34	1.7	MMS5 -20R MMS5 -20L

Pitch Angle 45°

28.06	48°22'	B3	29.1	36.27	(2.96)	(3.699)	0.06 ~ 0.16	0.22	MMS2 -25R MMS2 -25L
36.57	48°26'	B3	56.7	71.8	(5.79)	(7.322)	0.07 ~ 0.17	0.42	MMS2.5-25R MMS2.5-25L
39.43	48°52'	B3	104.1	132.9	(10.61)	(13.55)	0.08 ~ 0.18	0.81	MMS3 -25R MMS3 -25L
57.29	47°52'	B3	238	308.7	(24.3)	(31.48)	0.12 ~ 0.27	1.9	MMS4 -25R MMS4 -25L
65.15	47°50'	B3	454	595.3	(46.3)	(60.7)	0.14 ~ 0.34	3.4	MMS5 -25R MMS5 -25L

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°