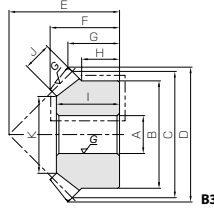




Specifications		A _{H7}	Bore
Precision grade	JIS B 1704:1978 grade 1	B	Hub dia.
Gear teeth	Gleason	C	Pitch dia.
Pressure angle	20°	D	Outside dia.
Helix angle	35°	E	Mounting distance
Material	SCM415	F	Total length
Heat treatment	Carburizing	G	Crown to back
Tooth hardness	55 ~ 60HRC	H	Hub width
Gear ratio	1	I	Length of bore
Screw offset (L)	Half of hub width (H)	J	Face width
	* The precision grade of J Series products is equivalent to the value shown in the table.	K	Holding surface dia.



B3

Catalog No.	No. of teeth	Shape	A _{H7}	B	C	D	E	F	G	H	I	J	K	Allowable torque (N·m)		Allowable torque (kgf·m)		Backlash (mm)	Weight (kg)		
														Bending strength	Surface durability	Bending strength	Surface durability				
MMSG2-20R MMSG2-20L	20	B3	12	35	40	42.7	35	21.98	16.35	12.5	20	9	24.54	17.0	23.5	1.73	2.40	0.04~0.10	0.14		
MMSG2.5-20R MMSG2.5-20L			14	42	50	53.2	45	28.63	21.6	16	26	11	30.89	32.7	46.1	3.33	4.70	0.05~0.11	0.27		
MMSG3-20R MMSG3-20L			16	52	60	63.99	50	30.78	21.99	16	27	14	34.4	58.5	83.7	5.97	8.54	0.06~0.12	0.43		
MMSG3.5-20R MMSG3.5-20L			20	50	70	74.53	55	32.45	22.26	14	29	16	42.75	91.8	133	9.36	13.6	0.07~0.13	0.51		
MMSG4-20R MMSG4-20L			20	55	80	84.99	65	39.13	27.5	17	35	18	49.08	136	199	13.8	20.3	0.09~0.15	0.80		
MMSG2-25R MMSG2-25L			25	B4	12	38	50	52.5	40	23.43	16.25	11	21	11	30.89	27.5	47.0	2.80	4.79	0.04~0.10	0.21
MMSG2.5-25R MMSG2.5-25L		16			45	62.5	65.54	50	29.57	20.27	14	26	14	37.4	54.3	94.5	5.54	9.64	0.05~0.11	0.37	
MMSG3-25R MMSG3-25L		20			55	75	78.78	60	35.6	24.39	17	31	17	43.92	94.5	167	9.64	17.0	0.06~0.12	0.65	
MMSG3.5-25R MMSG3.5-25L		25			65	87.5	91.81	70	41.65	28.41	19	37	20	52.43	151	270	15.4	27.5	0.07~0.13	1.04	
MMSG4-25R MMSG4-25L		28			75	100	104.7	80	47.8	32.35	22	42	23	58.95	216	392	22.1	40.0	0.09~0.15	1.57	
MMSG2-30R MMSG2-30L		30			B4	14	45	60	62.42	50	29.27	21.21	15	26	12	38.06	38.5	78.6	3.93	8.02	0.04~0.10
MMSG2.5-30R MMSG2.5-30L			16			55	75	78.04	60	34.08	24.02	16	30	15	47.57	75.3	156	7.68	16.0	0.05~0.11	0.66
MMSG3-30R MMSG3-30L	20		65			90	93.61	70	40.25	26.8	18	36	20	55.43	139	294	14.2	30.0	0.06~0.12	1.11	
MMSG3.5-30R MMSG3.5-30L	25		80			105	109.21	80	44.4	29.6	20	40	22	67.77	204	436	20.8	44.5	0.07~0.13	1.75	
MMSG4-30R MMSG4-30L	28		90			120	124.7	90	49.27	32.35	22	44	25	77.29	303	657	30.9	67.0	0.09~0.15	2.49	

[Caution on Product Characteristics]

- A sets of miter gears must be identical in module and number of teeth, but opposite in spiral hands.
- 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.
- These gears produce axial thrust forces. See page 254 for more details.

[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 Gears, the KHK's system for quick modification of KHK stock gears is also available.
- In the illustration, the area surrounded with ---- line is masked during the carburization process and can be modified. However, care should be exercised since the hardness is high (approx. HRC40, maximum).

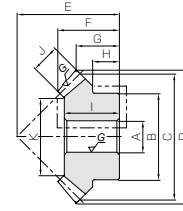
* For products not categorized in our KHK Stock Gear series, custom gear production services with **short lead times** is available. For details see page 8.

J Series

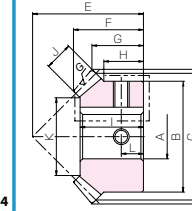


Ground Spiral Miter Gears

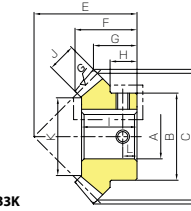
Newly added



B4



B3K



B4K



To order J Series products, please specify; **Catalog No. + J + BORE**

Bore H7	* The product shapes of J Series items are identified by background color.																	
Keyway Js9	12	14	15	16	17	18	19	20	22	25	28	30	32	35	40	45	50	
Screw size	4 x 1.8				5 x 2.3				6 x 2.8				8 x 3.3		10 x 3.3		14 x 3.8	
Catalog No.	M4				M5				M6				M8				M10	
MMSG2-20R J BORE																		
MMSG2-20L J BORE																		
MMSG2.5-20R J BORE																		
MMSG2.5-20L J BORE																		
MMSG3-20R J BORE																		
MMSG3-20L J BORE																		
MMSG3.5-20R J BORE																		
MMSG3.5-20L J BORE																		
MMSG4-20R J BORE																		
MMSG4-20L J BORE																		
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MMSG3.5-30R J BORE																		
MMSG3.5-30L J BORE																		
MMSG4-30R J BORE																		
MMSG4-30L J BORE																		

[Caution on J series]

- As available-on-request products, requires a lead-time for shipping within **2 working-days** (excludes the day ordered), after placing an order. Please allow additional shipping time to get to your local distributor.
- Number of products we can process for one order is **1 to 20 units**. For quantities of 21 or more pieces, we need to quote price and lead time.
- Keyways are made according to JIS B1301 standards, Js9 tolerance.
- Certain products which would otherwise have a very long tapped hole are conterbored to reduce the length of the tap. (Products marked with "*" are tap size).
- For products having a tapped hole, a set screw is included.