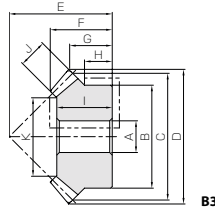




| Specifications | |
|-----------------|---------------------------|
| Precision grade | JIS B 1704 : 1978 grade 4 |
| Gear teeth | Gleason |
| Pressure angle | 20° |
| Helix angle | 35° |
| Material | SCM415 |
| Heat treatment | Carburizing |
| Tooth hardness | 55 ~ 60HRC |



B3

| Catalog No. | Gear ratio | Module | No. of teeth | Direction of spiral | Shape | Bore | | Pitch dia. | Outside dia. | Mounting distance | Total length | Crown to back length |
|--------------------------|------------|--------|--------------|---------------------|-------|-----------------|-----|------------|--------------|-------------------|--------------|----------------------|
| | | | | | | A _{H7} | B | | | | | |
| MMS2-20R MMS2-20L | 1 | m2 | 20 | R L | B3 | 12 | 34 | 40 | 42.31 | 35 | 22.14 | 16.15 |
| MMS2.5-20R MMS2.5-20L | | m2.5 | 20 | R L | B3 | 15 | 42 | 50 | 53.2 | 45 | 28.63 | 21.6 |
| MMS3-20R MMS3-20L | | m3 | 20 | R L | B3 | 16 | 52 | 60 | 63.99 | 50 | 30.78 | 21.99 |
| MMS4-20R MMS4-20L | | m4 | 20 | R L | B3 | 20 | 65 | 80 | 84.99 | 65 | 39.13 | 27.5 |
| MMS5-20R MMS5-20L | | m5 | 20 | R L | B3 | 25 | 85 | 100 | 106.25 | 75 | 42.99 | 28.13 |
| MMS2-25R MMS2-25L | 1 | m2 | 25 | R L | B3 | 12 | 45 | 50 | 52.4 | 40 | 24.19 | 16.2 |
| MMS2.5-25R MMS2.5-25L | | m2.5 | 25 | R L | B3 | 16 | 55 | 62.5 | 65.54 | 50 | 30.24 | 20.27 |
| MMS3-25R MMS3-25L | | m3 | 25 | R L | B3 | 20 | 65 | 75 | 78.77 | 60 | 37.57 | 24.39 |
| MMS4-25R MMS4-25L | | m4 | 25 | R L | B3 | 25 | 85 | 100 | 104.7 | 80 | 49.14 | 32.35 |
| MMS5-25R MMS5-25L | | m5 | 25 | R L | B3 | 28 | 100 | 125 | 130.86 | 100 | 60.59 | 40.43 |
| MMS2-30R MMS2-30L | 1 | m2 | 30 | R L | B3 | 12 | 45 | 60 | 62.42 | 50 | 29.27 | 21.21 |
| MMS2.5-30R MMS2.5-30L | | m2.5 | 30 | R L | B3 | 16 | 60 | 75 | 78.04 | 62 | 36.08 | 26.02 |
| MMS3-30R MMS3-30L | | m3 | 30 | R L | B3 | 20 | 70 | 90 | 93.61 | 75 | 45.25 | 31.8 |
| MMS4-30R MMS4-30L | | m4 | 30 | R L | B3 | 28 | 100 | 120 | 124.71 | 95 | 54.28 | 37.35 |
| MMS5-30R MMS5-30L | | m5 | 30 | R L | B3 | 28 | 130 | 150 | 155.9 | 120 | 68.2 | 47.95 |

- [Caution on Product Characteristics]
- ① A sets of miter gears must be identical in module and number of teeth, but opposite in spiral hands.
 - ② The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see page 253 for more details.
 - ③ 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.
 - ④ These gears produce axial thrust forces. See page 254 for more details.

* 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.

| Hub width | Length of bore | Face width | Holding surface dia. | Allowable torque (N·m) | | Allowable torque (kgf·m) | | Backlash (mm) | Weight (kg) | Catalog No. |
|-----------|----------------|------------|----------------------|------------------------|--------------------|--------------------------|--------------------|---------------|-------------|--------------------------|
| | | | | Bending strength | Surface durability | Bending strength | Surface durability | | | |
| H | I | J | K | | | | | | | |
| 12 | 20 | 9 | 24.54 | 17.0 | 17.3 | 1.73 | 1.76 | 0.06~0.16 | 0.13 | MMS2-20R MMS2-20L |
| 16 | 26 | 11 | 30.89 | 32.7 | 33.7 | 3.34 | 3.44 | 0.07~0.17 | 0.26 | MMS2.5-20R MMS2.5-20L |
| 16 | 27 | 14 | 34.4 | 58.7 | 61.1 | 5.98 | 6.23 | 0.08~0.18 | 0.43 | MMS3-20R MMS3-20L |
| 17.5 | 35 | 18 | 49.08 | 136 | 144 | 13.9 | 14.7 | 0.12~0.27 | 0.92 | MMS4-20R MMS4-20L |
| 17.5 | 38 | 23 | 60.95 | 269 | 288 | 27.5 | 29.4 | 0.14~0.34 | 1.65 | MMS5-20R MMS5-20L |
| 12.5 | 21 | 12 | 28.06 | 29.1 | 36.3 | 2.96 | 3.70 | 0.06~0.16 | 0.25 | MMS2-25R MMS2-25L |
| 15 | 27 | 15 | 36.57 | 56.7 | 71.8 | 5.79 | 7.32 | 0.07~0.17 | 0.47 | MMS2.5-25R MMS2.5-25L |
| 17.5 | 33 | 20 | 39.43 | 104 | 133 | 10.6 | 13.6 | 0.08~0.18 | 0.81 | MMS3-25R MMS3-25L |
| 22.5 | 44 | 25 | 57.29 | 238 | 309 | 24.3 | 31.5 | 0.12~0.27 | 1.88 | MMS4-25R MMS4-25L |
| 25 | 50 | 30 | 65.15 | 454 | 595 | 46.3 | 60.7 | 0.14~0.34 | 3.39 | MMS5-25R MMS5-25L |
| 12.5 | 25 | 12 | 36.06 | 42.4 | 57.1 | 4.32 | 5.82 | 0.06~0.16 | 0.37 | MMS2-30R MMS2-30L |
| 17 | 32 | 15 | 47.57 | 82.8 | 113 | 8.44 | 11.5 | 0.07~0.17 | 0.76 | MMS2.5-30R MMS2.5-30L |
| 20 | 40 | 20 | 53.43 | 153 | 211 | 15.6 | 21.5 | 0.08~0.18 | 1.32 | MMS3-30R MMS3-30L |
| 25 | 50 | 25 | 79.29 | 348 | 488 | 35.5 | 49.8 | 0.12~0.27 | 3.07 | MMS4-30R MMS4-30L |
| 35 | 62 | 30 | 99.15 | 662 | 941 | 67.5 | 96.0 | 0.14~0.34 | 6.44 | MMS5-30R MMS5-30L |

- [Caution on Secondary Operations]
- ① 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.
 - ② 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).

GCU-M Miter Gear Kit



Installation : Intersecting axes gears
 Gear Type : Miter Gears
 Gears : SM2-25
 PM2-25
 Gear Ratio : 1
 Weight : Approx. 1kg

Use of bevel gears allows the changing of the shaft angle by 90 degrees. Applications include the changing of the direction of power.