Steel Ring Gears (Spur Gears)

Specifications

- **Precision grade**: JIS grade N9 (JIS B1702-1:1998)
- **Gear teeth**: Standard full depth
- **Pressure angle**: 20°
- **Material**: S45C
- **Heat Treatment**: —
- **Tooth hardness**: (less than 194HB)
- **Surface treatment**: Black oxide coating

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Module</th>
<th>No. of teeth</th>
<th>Shape</th>
<th>Outside dia. (A)</th>
<th>Pitch dia. (C)</th>
<th>Outside dia. (D)</th>
<th>Face width (E)</th>
<th>Allowable torque (N·m) (Bending strength: 68.8)</th>
<th>Allowable torque (kgf·m) (Surface durability: 7.02)</th>
<th>Backlash (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIR2-120</td>
<td>m2</td>
<td>120</td>
<td>T1</td>
<td>236</td>
<td>396</td>
<td>240</td>
<td>446</td>
<td>413</td>
<td>677</td>
<td>0.17–0.37</td>
<td>2.98</td>
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<tr>
<td>SIR2-200</td>
<td>m2</td>
<td>200</td>
<td></td>
<td>286</td>
<td>400</td>
<td>446</td>
<td>20</td>
<td>68.8</td>
<td>110</td>
<td>0.20–0.41</td>
<td>4.80</td>
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<tr>
<td>SIR2.5-120</td>
<td>m2.5</td>
<td>120</td>
<td></td>
<td>295</td>
<td>495</td>
<td>300</td>
<td>555</td>
<td>807</td>
<td>1320</td>
<td>0.19–0.41</td>
<td>5.55</td>
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<tr>
<td>SIR2.5-200</td>
<td>m2.5</td>
<td>200</td>
<td></td>
<td>500</td>
<td>755</td>
<td>500</td>
<td>555</td>
<td>135</td>
<td>220</td>
<td>0.22–0.46</td>
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<td>SIR3-120</td>
<td>m3</td>
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<td>354</td>
<td>474</td>
<td>360</td>
<td>424</td>
<td>1390</td>
<td>1840</td>
<td>0.22–0.45</td>
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<tr>
<td>SIR3-160</td>
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<td>160</td>
<td></td>
<td>424</td>
<td>544</td>
<td>480</td>
<td>544</td>
<td>142</td>
<td>244</td>
<td>0.22–0.45</td>
<td>12.1</td>
</tr>
</tbody>
</table>

[Caution on Product Characteristics]
1. The backlash values shown in the table are the theoretical values for the normal direction for the internal ring in mesh with a 30 tooth SS spur gear.
2. The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see Page 183 for more details.
3. Please check for the involute interference, trochoid interference and trimming interference prior to using internal gears.

[Caution on Secondary Operations]
1. Please read “Caution on Performing Secondary Operations” (Page 183) when performing modifications and/or secondary operations for safety concerns.
2. KHK Quick-Mod Gears, the KHK system for quick modification of KHK stock gears, is also available.
3. Avoid performing secondary operations that narrow the tooth width, as it affects precision and strength.

Established equipment and technology
Custom gears are also available.
Diameter φ 700mm maximum, Module 6.5 maximum, Cutting Stroke 170 mm

Gear cutting by CNC Gear Shaper