## SSG-R

### Ground Spur Gears

#### Module 1.5 ~ 6

**Recommended mating rack**

Please see Page 204 for more details.

<table>
<thead>
<tr>
<th>Mounting hole specification</th>
<th>J</th>
<th>Acceptable torque (N·m)</th>
<th>Acceptable torque (kgf·m)</th>
<th>Size (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.0</td>
<td>11.1</td>
<td>19.2</td>
<td>M6×35</td>
<td>58.4</td>
</tr>
<tr>
<td></td>
<td>6.6</td>
<td>12.0</td>
<td>20.8</td>
<td>M6×40</td>
<td>63.5</td>
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<tr>
<td></td>
<td>9.0</td>
<td>15.0</td>
<td>27.0</td>
<td>M6×50</td>
<td>72.0</td>
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<tr>
<td></td>
<td>9.6</td>
<td>18.0</td>
<td>32.0</td>
<td>M6×60</td>
<td>78.0</td>
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<tr>
<td></td>
<td>12.0</td>
<td>21.0</td>
<td>37.0</td>
<td>M6×80</td>
<td>85.0</td>
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<tr>
<td></td>
<td>14.0</td>
<td>24.0</td>
<td>40.0</td>
<td>M6×100</td>
<td>92.0</td>
</tr>
</tbody>
</table>

**SRGF/SGFD Hardened Rack Gears**

- **Black oxide coating**: except for teeth and portions given secondary operation.
- **Oil quenched**: hardened to Rockwell C HRc 40 to 45.
- **Material**: S45C
- **Surface treatment**: black oxide coating except for teeth and portions given secondary operation.

**Score**

- **Surface hardness**: Rockwell C HRc 40 to 45.
- **Surface durability**: 0.12~0.30 N·m
- **Mounting hub dia.**: 20 mm
- **Mounting hole dia.**: 26 mm
- **Length**: 47.6 mm
- **Bending strength**: 268 N·m
- **Drilled hole dia.**: 6.6 mm
- **Bending strength**: 168 N·m
- **Material**: Steel grade S45C
- **Standard full set**: for M5, M6, M8, M10, M12, M16, M20, M24, M30, M32, M36, M42, M48, M56
- **Headfast**: 20°
- **Hardness**: 300 HBR

**Features of R Series**

- Products matching the mounting holes of the corresponding speed reducer series.
- They come with set bolts and can be used immediately.
- As flange mounting types, they have high rigidity and the gear does not bend.
- Ideal for the mating pinion of racks.

**Compatible speed reducers**

<table>
<thead>
<tr>
<th>Manufacturer name</th>
<th>Speed reducer series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmonic Drive Systems Co., Ltd.</td>
<td>HPG</td>
</tr>
<tr>
<td>Nidec Shimpo Corporation</td>
<td>VRG</td>
</tr>
<tr>
<td>Sumitomo Heavy Industries, Ltd.</td>
<td>IB</td>
</tr>
</tbody>
</table>

**Mounting Method and Precautions**

1. Clean the gear mounting surface and flange surface of the speed reducer and make sure that there are no scratches or dents.
2. Set the mounting hub of the gear in the hole at the rotation center of the flange, and temporarily tighten the hexagon socket head cap screws.
3. Tighten the hexagon socket head cap screws on the diagonals while checking the runout of the gear reference face (Fig. 1). (Fig.2)

**Removal Method and Precautions**

1. Turn off the power source (supply) and check that no load is applied to the gear.
2. Loosen the hexagon socket head cap screws and make sure that the gear moves freely.
3. Remove the hexagon socket head cap screws while making sure that there is no danger of falling, etc.