KSP
Ground Spiral Bevel Gears

Catalog Number of NISSEI Spiral Bevel Gears

The catalog number systems of KSP Ground Spiral Bevel Gears differs from other miter and bevel gears.

KSP 031 001 G F L

Hand of Spiral (L)

Products Shape (Finished Shape)

Surface finish (Ground)

Gear Ratio (1)

OD of the Larger gear (31 mm)

Type (Spiral Miter Gears)

Catalog Number of NISSEI Spiral Bevel Gears

The catalog number systems of KSP Ground Spiral Bevel Gears differs from other miter and bevel gears.

KSP 031 001 G F L

Hand of Spiral (L)

Products Shape (Finished Shape)

Surface finish (Ground)

Gear Ratio (1)

OD of the Larger gear (31 mm)

Type (Spiral Miter Gears)

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KSP 031 001 G F L

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Surface finish (Ground)

Gear Ratio (1)

OD of the Larger gear (31 mm)

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KSP 031 001 G F L

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Surface finish (Ground)

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KSP 031 001 G F L

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Surface finish (Ground)

Gear Ratio (1)

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Type (Spiral Miter Gears)
Nissei Ground Spiral Miter Gears

**Module 1.5 ~ 6**

<table>
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<th>Catalog No.</th>
<th>Gear ratio</th>
<th>Module No.</th>
<th>Overall carburizing (ba)</th>
<th>Pressure grade</th>
<th>Gear teeth</th>
<th>Pressure angle</th>
<th>Material</th>
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**Specifications**
- Gear teeth: G2
- Pressure angle: 20°
- Material: SCM415
- Heat treatment: Overall carburizing
- Backlash: 0.05~0.10

**Notes**
- The allowable torque is calculated by converting the output torque (600 rpm) on Page 137 to kgf·m, according to assumed usage conditions.
- These gears produce axial thrust forces. See Page 254 for more details.

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KSP Ground Spiral Miter Gears

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**Specifications**
- Gear teeth: G2
- Pressure angle: 20°
- Material: SCM415
- Heat treatment: Overall carburizing
- Backlash: 0.05~0.10

**Notes**
- The allowable torque is calculated by converting the output torque (600 rpm) on Page 137 to kgf·m, according to assumed usage conditions.
- These gears produce axial thrust forces. See Page 254 for more details.
## Nissei Ground Spiral Bevel Gears

### Module 2 ~ 5

#### Specifications

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#### Notes on Product Characteristics

1. The allowable torque is calculated by converting the output torque (600 rpm) on Page 317 to kgf-m, according to assumed usage conditions.
2. These gears produce axial thrust forces. See Page 284 for more details.

### Module 2 ~ 5

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#### Notes on Product Characteristics

1. The allowable torque is calculated by converting the output torque (600 rpm) on Page 317 to kgf-m, according to assumed usage conditions.
2. These gears produce axial thrust forces. See Page 284 for more details.

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**Inquiries are now being accepted on our website.**
### Nissei Ground Spiral Bevel Gears

**Specifications**

- **Module**: 1.5 ~ 4.5
- **Pressure angle**: 20°
- **Material**: SCM415

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Gear ratio</th>
<th>Module</th>
<th>No. of teeth</th>
<th>Distance of spiral (mm)</th>
<th>Pitch dia.</th>
<th>Face width</th>
<th>Shape</th>
<th>Outside dia. of mating surface dia.</th>
<th>Bore</th>
<th>Holes dia.</th>
<th>Length of hundred</th>
<th>Notes</th>
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</tr>
</tbody>
</table>

(Notes on Product Characteristics)

- The allowable torque is calculated by converting the output torque (600 rpm) on page 317 to kGf/m, according to assumed usage conditions.
- These gears produce axial thrust forces. See page 284 for more details.
### Adjusting Tooth Contact

**< Centering tooth contact >**

1. When assembled correctly, the contact will occur in the middle of the tooth flank.
2. The contact area along the tooth face should be in the center of the tooth, but somewhat closer to the toe is ideal.

When the gears are assembled in to the gearbox and the backlash is adjusted, adjust the gearbox to obtain the tooth contact as shown below. Inaccurate assembly will lead to irregular noise and uneven wear.

**1. When there is an angular error of the shafts**

![Diagram showing tooth contact with angular error of shafts]

**2. When the pinion shaft is offset**

![Diagram showing tooth contact with offset pinion shaft]

**3. When the mounting distance of the pinion is incorrect**

![Diagram showing tooth contact with incorrect mounting distance]