Circular Pitch 2.5, 5, 10

### SROCP Round Racks

**Specifications**
- **Precision grade**: KHK R 001 grade 4
- **Gear teeth**: Standard full depth
- **Pressure angle**: $20^\circ$
- **Material**: S45C
- **Heat treatment**: 
- **Tooth hardness**: (less than 95HRB)

### Catalog No. Pitch mm (Module) Effective no. of teeth Total length Outside dia. Height to pitch line Allowable force (N) Allowable force (kgf) Weight (kg)

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Pitch mm (Module)</th>
<th>Effective no. of teeth</th>
<th>Total length</th>
<th>Outside dia.</th>
<th>Height to pitch line</th>
<th>Allowable force (N)</th>
<th>Allowable force (kgf)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SROCP2.5-500</td>
<td>CP2.5 (0.7958)</td>
<td>200</td>
<td>R2</td>
<td>505</td>
<td>10</td>
<td>9.2</td>
<td>474</td>
<td>91.8</td>
</tr>
<tr>
<td>SROCP5-500</td>
<td>CP5 (1.5915)</td>
<td>99</td>
<td>R2</td>
<td>505</td>
<td>15</td>
<td>13.41</td>
<td>1650</td>
<td>324</td>
</tr>
<tr>
<td>SROCP10-1000</td>
<td>CP10 (3.1831)</td>
<td>99</td>
<td>R2</td>
<td>1010</td>
<td>30</td>
<td>26.82</td>
<td>6610</td>
<td>1300</td>
</tr>
</tbody>
</table>

**Notes:**
- The allowable forces shown in the table are the calculated values according to the assumed usage conditions. Please see Page 227 for more details.
- Backlash of racks vary depending on mating pinions. Please calculate the backlash in accordance with the backlash of the mating pinion and values in the table "Backlash of Rack Tooth (Amount of Tooth-Thinning)" (Page 191).

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### FRCP Metal Flexible Racks

**Specifications**
- **Precision grade**: KHK R 001 grade 8
- **Gear teeth**: Standard full depth
- **Pressure angle**: $20^\circ$
- **Material**: SS400
- **Heat treatment**: 
- **Tooth hardness**: (less than 187HB)

### Catalog No. Pitch mm (Module) Effective no. of teeth Total length Outside dia. Height to pitch line Allowable force (N) Allowable force (kgf) Weight (kg)

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Pitch mm (Module)</th>
<th>Effective no. of teeth</th>
<th>Total length</th>
<th>Outside dia.</th>
<th>Height to pitch line</th>
<th>Allowable force (N)</th>
<th>Allowable force (kgf)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRCP5-2000</td>
<td>CP5 (1.5915)</td>
<td>R3</td>
<td>2000</td>
<td>10</td>
<td>6</td>
<td>4.41</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>FRCP5-3000</td>
<td>R3</td>
<td>3000</td>
<td>10</td>
<td>6</td>
<td>4.41</td>
<td>2</td>
<td>17</td>
<td>801</td>
</tr>
<tr>
<td>FRCP5-4000</td>
<td>R3</td>
<td>4000</td>
<td>10</td>
<td>6</td>
<td>4.41</td>
<td>2</td>
<td>17</td>
<td>801</td>
</tr>
</tbody>
</table>

**Notes:**
- The allowable forces shown in the table are the calculated values according to the assumed usage conditions. Please see Page 227 for more details.
- In cases of using a molded flexible rack in an arc shape, proper meshing cannot be obtained as the pitch error and the tooth profile error increases. Be sure and adjust the center distance so that the pinion turns without any problem.
- Metal Flexible racks are not suitable for use when positioning accuracy is required.

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**Example: Fastening of FRCP Metal Flexible Racks**

- Fastening with flat head screws
- Spot welding

*(Overhead view of Flexible Racks)*