### SRT2-3-50

- **Bore**: 10, 12, 14, 15, 16, 17, 18, 19, 20, 22, 25, 30, 32, 35, 40, 45, 50
- **Outside Dia. D**: 20
- **Center distance b**: ~
- **Bending strength**: ~

### SRT2/3-90

- **Ratchets**: SRT2-C
- **Material**: S45C
- **Tooth hardness**: 50 ~ 60HRC

### Features of Pawls and Ratchets

- **Application**: ratchets used to restrict the rotational direction in one way.
- **The tips of pawls and the teeth of ratchets are induction hardened and therefore have superior durability.**

#### Table of Specifications

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Shape</th>
<th>K</th>
<th>(L)</th>
<th>M</th>
<th>(N)</th>
<th>P</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRT2-C</td>
<td>5</td>
<td>10</td>
<td>30</td>
<td>(38)</td>
<td>6</td>
<td>0.020</td>
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<tr>
<td>SRT2-C</td>
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<td>(28)</td>
<td>90</td>
<td>15</td>
<td>0.032</td>
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<tr>
<td>SRT2-C</td>
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<td>(12.5)</td>
<td>90</td>
<td>20</td>
<td>0.13</td>
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<tr>
<td>SRT2-C</td>
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<td>15</td>
<td>(18)</td>
<td>90</td>
<td>20</td>
<td>0.38</td>
<td></td>
</tr>
</tbody>
</table>

### Bending Strength of Ratchets

The allowable transmission force $F_b$ (N) of ratchets is the value calculated by the following formula.

$$ F_b = \frac{m \cdot \alpha}{r} \cdot \frac{1}{r} $$

Where:
- $m$: Bending stress ~ Assumed 225.5MPa (23kgf/mm²)
- $\alpha$: Face width mm ~ Dimension Table ratchet face width $E$
- $r$: Root length mm
- $\alpha_r$: Safety factor ~ Assumed 2

Also, the SRT Ratchet’s allowable torque (TN - m) for bending strength is calculated by the following formula:

$$ T = F_b \cdot r $$

Please see our web site for corrections on KHK Catalogs.
Features of Pawls and Ratchets

- A simple structure used to restrict the rotational direction in one way.
- The tips of pawls and the teeth of ratchets are induction hardened and therefore have superior durability.

Caution on Product Characteristics

- Areas of products which have been re-worked will not be black oxide coated.
- For products having a tapped hole, a set screw is included.
- For quantities of 21 or more pieces, we need to quote price and lead time.
- Screw size and keyway size are designated for information only, not as a basis for purchase.
- Areas of products which have been re-worked will not be black oxide coated.

Features of J Series

- The product shapes of J Series items are identified by background color.

Caution on J series

- Due to the gear tooth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm).
- Products are not suitable for use as driving ratchets or driving rotation.
- SRT2/3-C is manufactured using a lost wax casting method.

Bending Strength of Ratchets

The allowable bending force, $F_b$ (N) of ratchets is the value calculated by the following formula.

$$F_b = \frac{r_t \times N}{r_1}$$

Also, the SRT Ratchet’s allowable torque (TN - m) for bending strength is calculated by the following formula.

$$T = F_b \times \frac{l}{r_1}$$

Where

- $m$ : Bending stress ~ Assumed 255.5MPa (236kgf/mm²)
- $b$ : Face width mm - Dimension Table ratchet face width E
- $d$ : Root length mm
- $S_r$ : Tooth root radius mm
- $S_r$ : Outside dia. \( \neq 12 \cdot 26 \)

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