Die Mounted Cam Unit  General Description of SKC/SKCA

FOR PIERCE AND FLANGE

- Universal die mounted type.
- Sliding type with highly rigid box guide.
- 52, 65, 100, 150, 200, 250, 300mm to 600mm (at increments of 100 mm) are available for the mounting width.
- For mounting widths from 65 to 150, angles from 0° to 20° are available in increments of 5°. (For mounting surface widths of 52 and 200 or larger, only 0°)

**SKC/SKCA52 to 300 Structure and Assembly / Disassembly**

1) Remove hexagon socket head bolt (2) and stopper (backup) plate (3).
2) Pull and remove cam slider (1) to the rear.

**Assembly method of SKC/SKCA**
1) Assemble components in the reverse order of disassembly.
   - Make sure that there is no foreign matter on the sliding area and assemble components.
   - The clearance between the cam slider and cam holder is controlled. Match the stamped serial number on the holder and slider before assembly.
   - When cam is disassembled and then reassembled, please do not forget to assemble all bolts provided.

Disassembly method of SKC/SKCA
1) Loosen hexagon socket head bolt (2) and remove backup plate (3).
2) Loosen hexagon socket head bolt (2) and remove upper plate (1).
3) Pull and remove cam slide (1) from cam holder (3).

**Assembly method of SKC/SKCA**
1) Assemble components in the reverse order of disassembly.
   - Make sure that there is no foreign matter on the sliding area and assemble components.
   - The clearance between the cam slider and cam holder is controlled. Match the stamped serial number on the holder and slider before assembly.
   - When cam is disassembled and then reassembled, please do not forget to assemble all bolts provided.

**Option of SKC/SKCA**
- Key specification (-K)
  - Key details (1 off with M8 × 15 bolt)
  - SKC/SKCA 400/500/600
  - LKU25-100

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**Die Mounted Cam Unit**

**FOR PIERCE**

**SKCA52 – 00 – 25** (Dowel Pin Hole Finished)
**SKC 52 – 00 – 25** (Dowel Pin Prepared Hole)

![Cam Diagram](image)

- **Tolerance** are from dowel pin finished hole.
- **Clearance 1**
  - Width: 30
  - Thickness: 80

- **Cam Diagram**
  - Clearance:
    - Width: 12
    - Thickness: 30
    - Length: 80

- **Spring Diagram**
  - Stripping Force at punch retraction of 5mm
    - Spring used: TF20-70 (2 pieces)
    - Spring constant: 9.02N/mm (0.92kgf/mm)
    - Guideline of spring durability: 300,000 strokes

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Qty</th>
<th>Material and Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cam Slider</td>
<td>1</td>
<td>FC250 with Graphite</td>
</tr>
<tr>
<td>2</td>
<td>Cam Driver</td>
<td>1</td>
<td>FC250 with Graphite</td>
</tr>
<tr>
<td>3</td>
<td>Cam Holder</td>
<td>1</td>
<td>FC250</td>
</tr>
<tr>
<td>4</td>
<td>Upper Plate</td>
<td>2</td>
<td>S45C Copper Powder Sintered</td>
</tr>
<tr>
<td>5</td>
<td>Stopper Plate</td>
<td>1</td>
<td>SS400(1020)</td>
</tr>
<tr>
<td>6</td>
<td>Positive Return Follower</td>
<td>1</td>
<td>S45C(1045)</td>
</tr>
<tr>
<td>7</td>
<td>Spring Guide Pin</td>
<td>2</td>
<td>110X35</td>
</tr>
<tr>
<td>8</td>
<td>Cam Spring</td>
<td>2</td>
<td>TF20-70</td>
</tr>
</tbody>
</table>

- **Bolts for assembly are not indicated.**

**Table of Components**

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<td>8</td>
<td>Cam Spring</td>
<td>2</td>
<td>TF20-70</td>
</tr>
</tbody>
</table>

**Option**

- Refer to page 559 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finish hole) for retainer.

**Order**

- **Catalog No.** SKCA
  - **W**
    - **(00)**
    - **25**

- **Option**
  - **Catalog No.** SKC
    - **W**
      - **(00)**
      - **25**

**Spring Force N(kgf)**

<table>
<thead>
<tr>
<th>Working Force kN(tonf)</th>
<th>Spring Force N(kgf)</th>
<th>Total Weight kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.7 (1.5)</td>
<td>29.4 (3.0)</td>
<td>144.3 (14.7)</td>
</tr>
<tr>
<td></td>
<td>595.3 (60.7)</td>
<td>8.0</td>
</tr>
</tbody>
</table>

**Spring Diagram**

- Stripping Force at punch retraction of 5mm
- Spring used: TF20-70 (2 pieces)
- Spring constant: 9.02N/mm (0.92kgf/mm)
- Guideline of spring durability: 300,000 strokes

- **Travel S**
  - **Distance of spring when the punch returns by 5 mm**

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**Die Mounted Cam Unit**

FOR PIERCE

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<td>1</td>
<td>FC260 with Graphite</td>
</tr>
<tr>
<td>3</td>
<td>Cam Holder</td>
<td>1</td>
<td>FC250</td>
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<tr>
<td>4</td>
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<td>2</td>
<td>S45C Copper Powder Sintered</td>
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<td>5</td>
<td>Stopper Plate</td>
<td>1</td>
<td>SS400(1020)</td>
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<td>6</td>
<td>Positive Return Follower</td>
<td>1</td>
<td>S45C(1045)</td>
</tr>
<tr>
<td>7</td>
<td>Spring Guide Pin</td>
<td>2</td>
<td>1/10 X 35</td>
</tr>
<tr>
<td>8</td>
<td>Coil Spring</td>
<td>2</td>
<td>TF20-100</td>
</tr>
</tbody>
</table>

**Spring Diagram**

- Stripping Force at punch retraction of 5mm
- Spring constant 6.31N/mm(0.64kgf/mm)
- Guideline of spring durability 300,000 strokes

**Space for removing**

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**CAD FILE**

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Die Mounted Cam Unit

FOR PIERCE

Die Mounted Cam Unit

SKC52 – 00 – 60 (Dowel Pin Hole Finished)
SKC 52 – 00 – 60 (Dowel Pin Prepared Hole)

Tolerance are from dowel pin finished hole.

Space for removing Cam Unit

Tolerance are from dowel pin finished hole.

Bolts for assembly are not indicated.

Bolts for assembly are not indicated.

Option Refer to page 559 for detailed specifications of tapped holes and dowel pin holes (prepared hole, finish hole) for retainer.

Spring Diagram (Stripping Force at punch retraction of 5mm)

Spring Diagram (Stripping Force at punch retraction of 5mm)

FC250 with Graphite

SS400(1020)

FC250

S45C

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<td>Spring Guide Pin</td>
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<td>110X35</td>
</tr>
<tr>
<td>8</td>
<td>Coil Spring</td>
<td>2</td>
<td>TF20-150</td>
</tr>
</tbody>
</table>

Spring Diagram

Final Load

614.7 (62.8)

Spring constant 4.21N/mm (0.43kgf/mm)

Guideline of spring durability 300,000 strokes

Stripping Force at punch retraction of 5mm

Return distance of spring when the punch returns by 5 mm

Initial Load

109.5 (11.2)

Catalog No.

SKCA

SKC

Working Force kN(tonf) | Spring Force N(kgf) | Total Weight kg |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Working Force (one million strokes)</td>
<td>Accumulated Working Force (300,000 strokes)</td>
<td>Final Load</td>
</tr>
<tr>
<td>14.7 (1.5)</td>
<td>29.4 (3.0)</td>
<td>109.5 (11.2)</td>
</tr>
<tr>
<td>Initial Load</td>
<td>Final Load</td>
<td>14.0</td>
</tr>
</tbody>
</table>

Order

Catalog No. (W) – (Φ) – (S) – SKCA

110x35

52 – 00 – 60

Travel S

Free length 150

Initial deflection 13

Length at initial load 137

a = 5.0

(62.8)

z

: Stripping Force at punch retraction of 5mm

: Return distance of spring when the punch returns by 5 mm

Bolts for assembly are not indicated.

Bolts for assembly are not indicated.