Dellner Brakes model SKD disc brakes are direct acting, hydraulic or air pressure applied, spring released units. The braking force achieved is directly proportional to the applied pressure.

The brakes consist of two symmetrical halves that accommodate a standard disc thickness of 12 mm. For use with thicker brake discs, the brakes can be supplied with spacers.

Each brake half has two cylindrical guide pins that transmit the tangential braking force from the brake pad to the brake housing and mounting stand. As a result, the brake pistons are not subject to any radial forces which contributes to longer brake life.

Two springs on each brake half retract the brake pads from the disc when pressure is released. Brake pad wear is automatically compensated for with increased piston stroke.

### Performance Data

<table>
<thead>
<tr>
<th>Model</th>
<th>Braking force F₁ [N/bar]</th>
<th>Fmax [N]</th>
<th>Max hydraulic pressure [bar]</th>
<th>Friction area per brake [cm²]</th>
<th>Max. working oil volume per brake [cm³]</th>
<th>Piston area per brake half [cm²]</th>
<th>Weight [kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKD 35</td>
<td>80</td>
<td>8000</td>
<td>100</td>
<td>94</td>
<td>15.2</td>
<td>9.5</td>
<td>7</td>
</tr>
<tr>
<td>SKD 50</td>
<td>162</td>
<td>16200</td>
<td>100</td>
<td>150</td>
<td>31.2</td>
<td>19.5</td>
<td>10</td>
</tr>
<tr>
<td>SKD 65</td>
<td>273</td>
<td>27300</td>
<td>100</td>
<td>238</td>
<td>52.8</td>
<td>33</td>
<td>18</td>
</tr>
<tr>
<td>SKD 80</td>
<td>414</td>
<td>41400</td>
<td>100</td>
<td>360</td>
<td>80</td>
<td>50</td>
<td>34</td>
</tr>
</tbody>
</table>

1) Calculated with an average frictional coefficient µ=0.42. Consideration has not been taken for external factors.
2) Oil volume required to engage the brake with fully worn friction pads.
The braking torque is calculated from the following formula:

\[ M_{\text{brake}} = \frac{q \times F_1 \times p \times (D_s - H)}{2} \]

- \( q \) = number of brakes
- \( F_1 \) = braking force according to the table on page 1 [N]
- \( p \) = pressure [bar]
- \( D_s \) = brake disc diameter [m]
- \( H \) = brake pad height [m] (see table to the right)

### Options

- Mechanical switches for on/off or pad wear indication.

### Suitable applications

Dellner Brakes models SKD are suitable wherever service, stopping, holding and tensioning brakes are needed, for example in the following types of applications:

- Propulsion propeller shafts
- Wind mills
- Chipping machines
- Amusement rides
- Top drives
- Unwinding systems