Dellner Brakes model SKP 50 spring applied, hydraulically released disc brake offers a reliable and safe method of braking linear or rotary motion.

The brake consists of two symmetrical halves and can be supplied with or without a support. The brakes supplied with a support are adjusted for a 12 mm thick brake disc. When used with thicker 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 lining to the brake housing and support. As a result, any radial forces on the brake pistons are minimized which contributes to longer brake life.

Two springs on each brake half retract the brake pads from the disc when pressure is applied.

The disc spring pack must be adjusted to compensate for brake lining wear and to maintain full brake capacity. An extension of the brake piston through the adjustment nut gives an easy visual way to tell when adjustment is needed.

As an option, the brakes can be equipped with proximity or mechanical switches to indicate brake ON/OFF and/or NEED OF ADJUSTMENT.

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<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>max 2)</td>
<td>min 3)</td>
<td>min 5)</td>
<td>max 6)</td>
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<td>&gt;2x10⁶</td>
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<td>9200</td>
<td>110</td>
<td>2x1.0, 2x2.5</td>
<td>&gt;3x10⁴</td>
<td>&gt;2x10⁵</td>
</tr>
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</table>

1) Calculated with an average frictional coefficient μ=0.42. Consideration has not been taken for external factors.
2) Braking force with correctly adjusted disc spring pack.
3) Braking force with maximum recommended air gap before adjustment is needed.
4) Pressure to fully release brake.
5) Air gap for correctly adjusted brake.
6) Maximum recommended air gap before adjustment is needed.
7) Valid for minimum spring pack compression.
8) Valid for maximum spring pack compression.
SKP 50 with optional support

Torque table

The braking torque is calculated from the following formula:

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

- \(M_{brake}\) = braking torque
- \(q\) = number of brakes
- \(F\) = braking force according to the table below [N]
- \(D_s\) = brake disc diameter [m]
- \(H\) = brake pad height [m] (SKP 50 = 0,075)

<table>
<thead>
<tr>
<th>Brake model</th>
<th>Tangential braking force (F) [N](^1)</th>
<th>Disc diameter (D_s) [mm]</th>
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<tr>
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<td>max.(^2)</td>
<td>min.(^3)</td>
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1) Calculated with an average frictional coefficient \(\mu=0.42\). Consideration has not been taken for external factors.
2) Braking force with correctly adjusted disc spring pack.
3) Braking force with maximum recommended air gap before adjustment is needed.

Options

- Support
- Proximity or mechanical switches for indicating on/off, pad wear or “time to adjust”.
- Tube connection set (connects the two cylinders to one connection point)

Suitable applications

Dellner Brakes model SKP 50 is suitable wherever safety brakes are needed, for example in the following types of applications:

- Cranes
- Conveyors
- Winches
- Emergency stops
- Wind mills
- Parking applications