

Spring applied, pressure released disc brake

Dellner Bubenzer Single Acting model SKP 65 SA is a spring applied, hydraulically released caliper disc brake, that offers a reliable and safe method of braking linear or rotary motion.

The Single Acting brake is largely designed with internal parts from Dellner Bubenzer Double Acting brake, the SKP, a well proven concept. The Single Acting brake is self aligning and is thus well suited for applications with axial movements or limited installation space. The brake is adjusted for a 12 mm thick brake disc. Thicker discs require spacer kit.

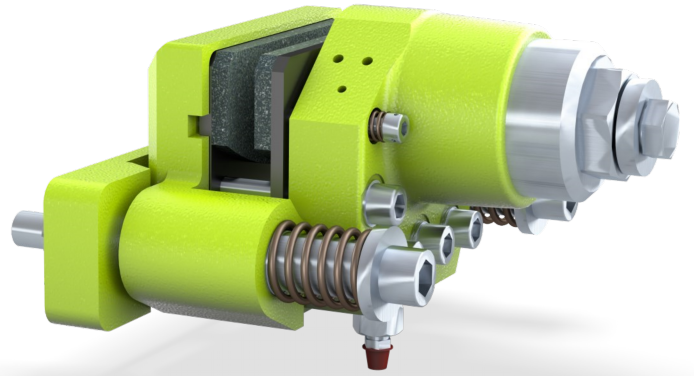
Moreover, it consists of one cylinder half and a robust low friction sliding system that enables self alignment. The SA caliper concept also has a spring retraction system that ensures full brake release and pad retraction from the brake disc, when the brake cylinder is released with hydraulic pressure.

In order to compensate for friction pad wear and to maintain full brake capacity, the spring pack must be adjusted a few times during the life span of the friction pad.

Cylindrical guide pins help direct the tangential force from the brake lining to the brake housing and support. As a result, any radial forces on the brake piston is minimized which contributes to a longer brake life.

The unique, well proven Dellner Bubenzer design, with the brake piston extended through to the adjustment nut gives a visual indication when adjustment is required. The SKP 65 SA is equipped with "Easy Adjustment-arrangement" as standard.

As an option, the brakes can be equipped with proximity switches to indicate brake ON/OFF, PAD WEAR and/or NEED OF ADJUSTMENT. Dellner Bubenzer also offers a variety of different friction and seal materials to fit any application demands.



Model	Tangential braking force F		Releasing pressure [bar] ⁴⁾	Airgap between brake disc and lining [mm]		Estimated life of disc spring pack [no. of strokes]		Friction area per brake [cm ²]	Weight [kg]
	[N] ¹⁾			max. ⁵⁾	min. ⁶⁾	max. ⁷⁾	min. ⁸⁾		
	max. ²⁾	min. ³⁾							
SKP 65-02 SA	2100	2000	15	2x0,5	2x2,0	>2x10 ⁶	>2x10 ⁶	152	17
SKP 65-04 SA	6000	3900	40	2x0,5	2x2,0	>2x10 ⁶	>2x10 ⁶	152	17
SKP 65-06 SA	7700	6000	50	2x0,5	2x2,0	>2x10 ⁶	>2x10 ⁶	152	17
SKP 65-08 SA	12000	7900	80	2x0,5	2x2,0	>2x10 ⁶	>2x10 ⁶	152	17
SKP 65-10 SA	13000	9900	85	2x0,5	2x2,0	>2x10 ⁶	>2x10 ⁶	152	17
SKP 65-11 SA	18200	11300	120	2x0,5	2x2,0	>2x10 ⁶	>2x10 ⁶	152	17

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.

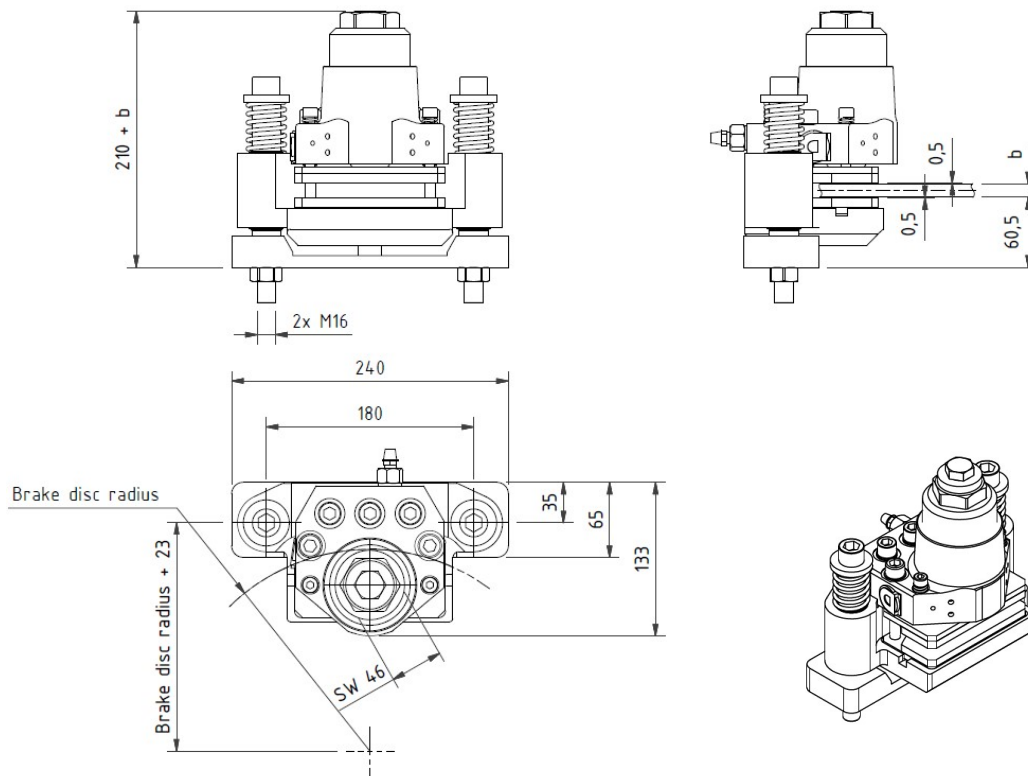
4) Pressure to fully release brake.

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.



TORQUES

The braking torque is calculated from the following formula:

$$M_{brake} = \frac{F \times (D_s - 2h)}{2}$$

q = number of brakes

F1 = braking force according to the table on page 1 [N]

p = pressure [bar]

D_s = brake disc diameter [m]

h = distance disc periphery to piston center [m] (SKP 65 SA: 0,031)

Model	Tangential braking force F [N] ¹⁾		Disc diameter D _s [mm]							
	max. ²⁾	min. ³⁾	ø300	ø350	ø400	ø450	ø500	ø600	ø700	ø800
SKP 65-02 SA	2100	2000	235 245	285 300	335 350	385 405	435 455	535 560	635 665	735 770
SKP 65-04 SA	6000	3900	460 710	560 860	655 1010	755 1160	850 1310	1045 1610	1240 1910	1435 2210
SKP 65-06 SA	7700	6000	710 915	860 1105	1010 1300	1160 1490	1310 1685	1610 2070	1910 2455	2210 2840
SKP 65-08 SA	12000	7900	940 1425	1135 1725	1335 2025	1530 2325	1730 2625	2125 3225	2520 3825	2915 4425
SKP 65-10 SA	13000	9900	1175 1545	1425 1870	1670 2195	1920 2520	2165 2845	2660 3495	3155 4145	3650 4795
SKP 65-11 SA	18200	11300	1340 2165	1625 2620	1905 3075	2190 3530	2470 3985	3035 4895	3600 5805	4165 6715

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

- Proximity or mechanical switches for on/off, pad wear or "time to adjust" indication.
- Customer specific colour.

SUITABLE APPLICATIONS

Dellner Bubenzer models SKP are suitable wherever safety brakes are needed, for example in the following types of applications:

Cranes
Winches

Conveyors
Wind mills

Emergency stops
Parking applications

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