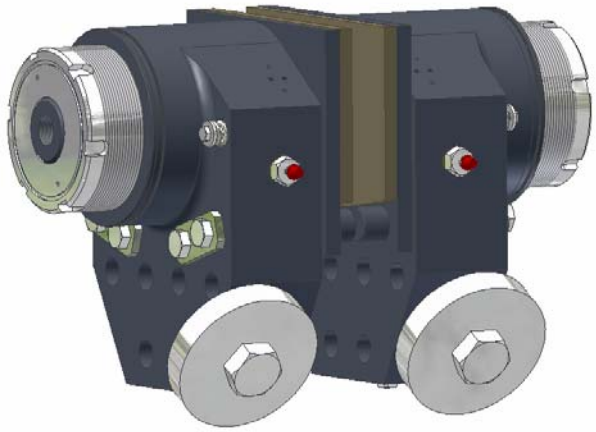
DISC BRAKE – MODEL SKP 140

SPRING APPLIED, HYDRAULIC PRESSURE RELEASED DISC BRAKE

Dellner Brakes model SKP 140 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 - 30 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. The SKP 140 is equipped with "Easy Adjustment-arrangement" as standard.

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

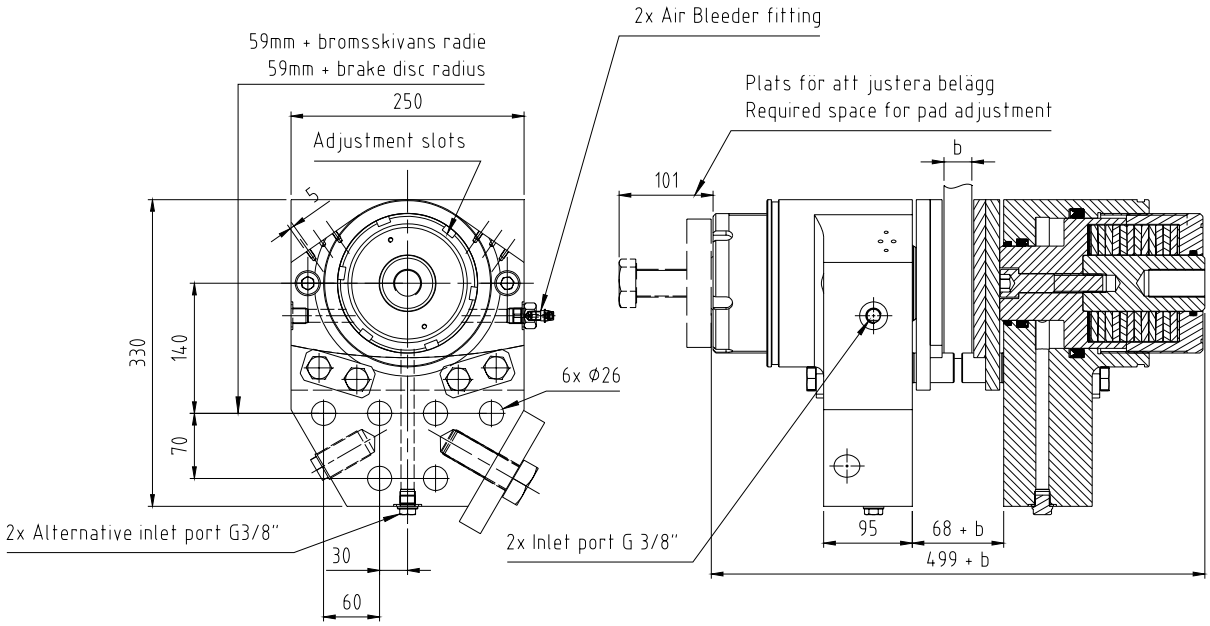
Model	Tangential braking force F [N][1]		Releasing pressure [bar][4]	Air gap between brake disc and lining [mm]		Estimated life of disc spring pack [no. Of strokes]		Friction area per brake[9] [cm^2]	Weight [kg]
	max.[2]	min.[3]		min.[5]	max.[6]	min.[7]	max.[8]		
SKP 140-26	32800	26200	50	2x2,0	2x4,0	>2x10^6	>2x10^6	828	150
SKP 140-42	46400	41900	65	2x2,0	2x4,0	>2x10^6	>2x10^6	828	150
SKP 140-53	62900	53200	90	2x2,0	2x4,0	>2x10^6	>2x10^6	828	150
SKP 140-63	72100	62900	100	2x2,0	2x4,0	>2x10^6	>2x10^6	828	150
SKP 140-71	90600	71200	135	2x2,0	2x4,0	≤1,12x10^6	≤1,12x10^6	828	150
SKP 140-86	104600	85900	150	2x2,0	2x4,0	≤3,97 x10^5	≤3,97 x10^5	828	150
SKP 140-95	113600	95300	160	2x2,0	2x4,0	≤1,38 x10^5	≤1,38 x10^5	828	150

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.
9) With optional extended brake pads the friction area per brake is 1194 cm^2

DELLNER BRAKES
www.dellner-brakes.com
Dellner Brakes AB, Skyfallsvägen 2, SE-791 77 Falun, Sweden. Phone +46 23 78 30 50. Fax +46 23 77 06 90. E-mail info@dellner-brakes.com

Issue 2

SKP 140



Torque table

The braking torque is calculated from the following formula:

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

q = number of brakes
F = braking force according to the table below [N]
D_s = brake disc diameter [m]
h = constant for effective radius [m] (SKP 140 = 0,08)

Brake model	Tangential braking force F [N][1]		Disc diameter D [mm]							
	max.[2]	min.[3]	ø700	ø800	ø900	ø1000	ø1200	ø1400	ø1600	ø1800
SKP 140-26	32800	26200	7070 8855	8380 10495	9690 12135	11000 13775	13620 17055	16240 20335	18860 23615	21480 26895
SKP 140-42	46400	41900	11310 12525	13405 14845	15500 17165	17595 19485	21785 24125	25985 28765	30165 33405	34355 38045
SKP 140-53	62900	53200	14360 16980	17020 20125	19680 23270	22340 26415	27660 32705	32980 38995	38300 45285	43620 51575
SKP 140-63	72100	62900	16980 19465	20125 23070	23270 26675	26415 30280	32705 37490	38995 44700	45285 51910	51575 59120
SKP 140-71	90600	71200	19220 24460	22780 28990	26340 33520	29900 38050	37020 47110	44140 56170	51260 65230	58380 74290
SKP 140-86	104600	85900	23190 28240	27485 33470	31780 38700	36075 43930	44665 54390	53255 64850	61845 75310	70435 85770
SKP 140-95	113600	95300	25730 30670	30495 36350	35260 42030	40026 47712	49555 59070	59085 70430	68615 81790	78145 93150

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.

Options

- Brake pads with extended area
- 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)
- Adjustment nut protection cover

Suitable applications

Dellner Brakes model SKP 140 is suitable wherever safety brakes are needed, for example in the following types of applications:

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

Issue 2

Dellner Brakes AB
Skyfallsvägen 2
SE-791 77 FALUN
SWEDEN
Tel: +46 23 783050 • Fax: +46 23 770690