

# DISC BRAKE – MODEL SKP 220 SA

SPRING APPLIED, HYDRAULIC PRESSURE RELEASED  
SINGLE ACTING DISC BRAKE

The Dellner Brakes Single Acting model SKP220-SA is a spring applied, hydraulically released caliper disc brake, which offers a reliable and safe method of braking linear or rotary motion.

The Single Acting brake is largely designed with internal parts from Dellner Brakes 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. Moreover, it consists of one cylinder housing and a robust low friction sliding system that enables self alignment.



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. The unique, well proven Dellner Brakes design, with an extension of the brake piston through the cylinder provides an easy visual way to tell when adjustment is needed.

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

Dellner Brakes also offers a Standard and Off-shore version as well as a variety of different friction and seal materials to fit any application demands.

Brake Model	Tangential braking force F		Releasing pressure	Air gap between brake disc and brake pad		Estimated life of spring pack		Friction area per brake	Weight [kg]
	[N] <sup>1)</sup>			[mm]	[no. of strokes]				
	max. <sup>2)</sup>	min. <sup>3)</sup>			min. <sup>5)</sup>	max. <sup>6)</sup>	min. <sup>7)</sup>		
SKP 220-98	111500	98700	70	2x1,0	2x2,0	> 2x10 <sup>6</sup>	> 2x10 <sup>6</sup>	1814	980
SKP 220-123	135900	123800	80	2x1,0	2x2,0	> 2x10 <sup>6</sup>	> 2x10 <sup>6</sup>	1814	980
SKP 220-160	209100	163400	130	2x1,0	2x2,0	9,45x10 <sup>5</sup>	> 2x10 <sup>6</sup>	1814	980
SKP 220-205	252600	209100	150	2x1,0	2x2,0	9,45x10 <sup>4</sup>	1,26x10 <sup>6</sup>	1814	980
SKP 220-248	294400	252600	170	2x1,0	2x2,0	1x10 <sup>4</sup>	2x10 <sup>5</sup>	1814	980

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.



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[www.dellner-brakes.com](http://www.dellner-brakes.com)

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## Torque table

Brake torques listed in table below are in Nm.

$$(M_{\text{brake}} = \text{no. of brakes} * F[\text{N}] * (D[\text{m}]-H[\text{m}]) / 2)$$

Brake model	Tangential braking force F [N] <sup>1)</sup>		H [m]	Disc diameter D [mm]							
	max. <sup>2)</sup>	min. <sup>3)</sup>		ø1000	ø1200	ø1400	ø1600	ø1800	ø2000	ø2200	ø2500
SKP 220-98	111500	98700	0,26	36500	46300	56200	66100	75900	85800	95700	110500
				41200	52400	63500	74700	85800	97000	108100	124800
SKP 220-123	135900	123800	0,26	45800	58100	70500	82900	95300	107700	120000	138600
				50200	63800	77400	91000	104600	118200	131800	152200
SKP 220-160	209100	163400	0,26	60400	76700	93100	109400	125800	142100	158400	183000
				77300	98200	119100	140000	161000	181900	202800	234100
SKP 220-205	252600	209100	0,26	77300	98200	119100	140000	161000	181900	202800	234100
				93400	118700	143900	169200	194500	219700	245000	282900
SKP 220-248	294400	252600	0,26	93400	118700	143900	169200	194500	219700	245000	282900
				108900	138300	167800	197200	226600	256100	285500	329700

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.

## Others

The SKP220 SA type of brake is available in two different versions, one with the brake calliper housing on Left Hand side and one with Brake calliper housing on Right Hand side.



See also drawing no. 319764 (Left Hand design) and drawing no. 319765 (Right Hand design)

## Suitable applications

Dellner Brakes model SKP 220 SA is suitable wherever safety brakes are needed, for example in the following types of applications:

 Cranes  
 Winches

 Conveyors  
 Wind mills

 Draglines  
 Draw works