

## Pressure applied, spring released disc brake

Dellner Bubenzer model SKD 140 disc brake is a direct acting, hydraulic applied, spring released unit. The braking force achieved is directly proportional to the applied pressure.

The brakes consist of two symmetrical halves between which the support structure with variable thickness can be installed to accommodate any brake disc thickness.

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.

Four 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.

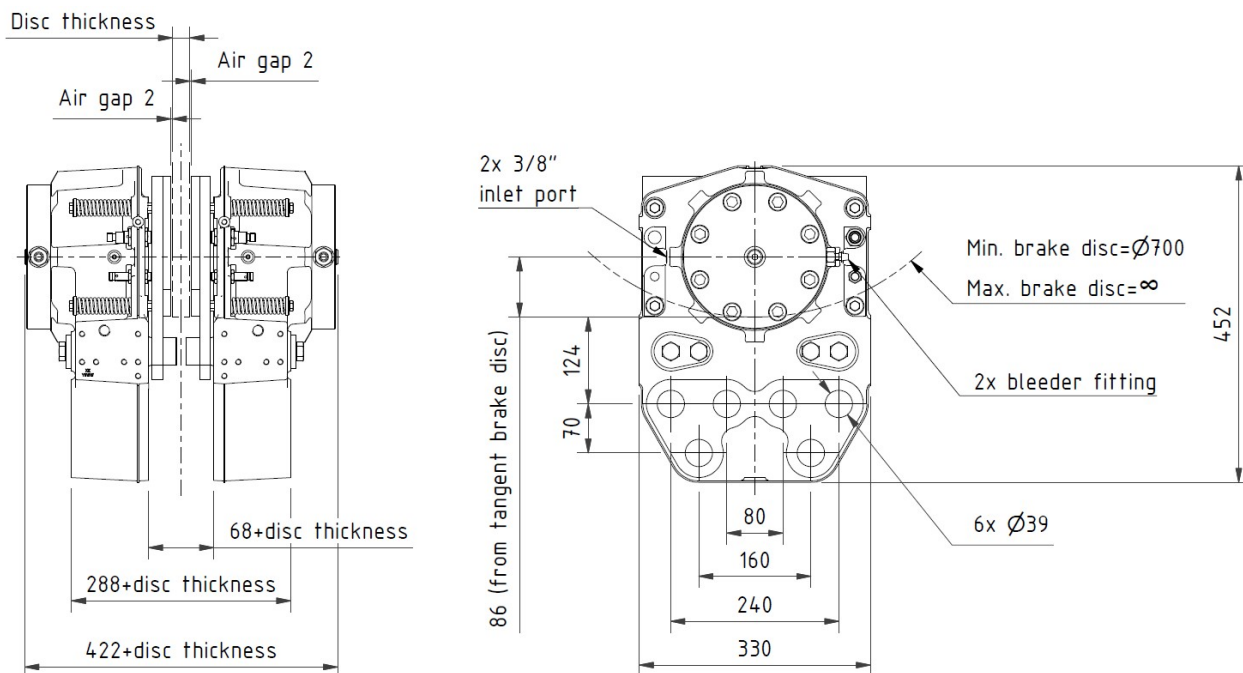


Model	Braking force <sup>1)</sup>		Max hydraulic [bar]	Friction area [cm <sup>2</sup> ]	Max. working oil [cm <sup>3</sup> ]	Piston area [cm <sup>2</sup> ]	Weight [kg]
	F <sub>i</sub> [N/bar]	F <sub>max</sub> [N]					
SKD 140	1293	258600	200	1200	370 / (431)	154	226

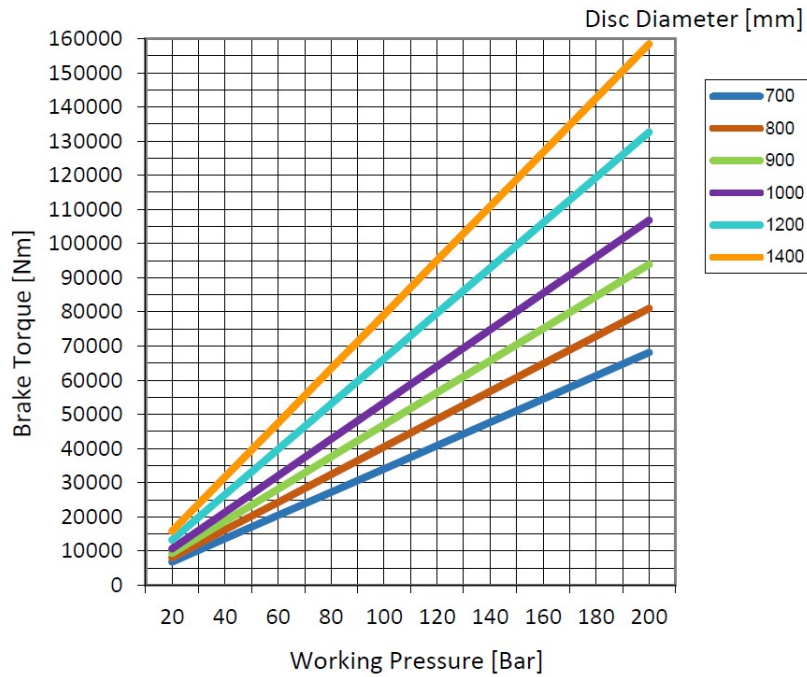
1) Calculated with an average frictional coefficient  $\mu=0,42$ . Consideration has not been taken for external factors.

2) Total allowable wear volume of 1200 cm<sup>3</sup>

3) Volume with air gap 2 mm and max. recommended pad wear / (air gap 2 mm and fully worn pads)



## TORQUES



The braking torque is calculated from the following formula:

$$M_{brake} = \frac{q \times F_1 \times p \times (D_s - 2h)}{2}$$

q = number of brakes

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

p = pressure [bar]

Ds = brake disc diameter [m]

h = distance disc periphery to piston center [m] (SKD 140: 0,086)

## OPTIONS

- Proximity switches for on/off or pad wear indication
- Terminal box for switches.
- Protection cover for indicators.
- Brake pads in alternative materials.
- Seals in alternative materials.
- Supports in different configurations.
- Customer specific colour.

## SUITABLE APPLICATIONS

The Dellner Bubenzer model is suitable wherever safety brakes are needed, for example in the following types of applications:

Propulsion propeller shafts  
Chipping machines

Wind mills  
Amusement rides

Top drives  
Unwinding systems