# DISC BRAKE – MODEL SKD 90
PRESSURE APPLIED, SPRING RELEASED DISC BRAKE

Dellner Brakes model SKD 90 disc brake is a direct acting, hydraulic pressure applied, spring released unit. The braking force achieved is directly proportional to the applied pressure.

The brake consists of two symmetrical halves between which the support structure with variable thicknesses can be mounted to accommodate any brake disc thickness.
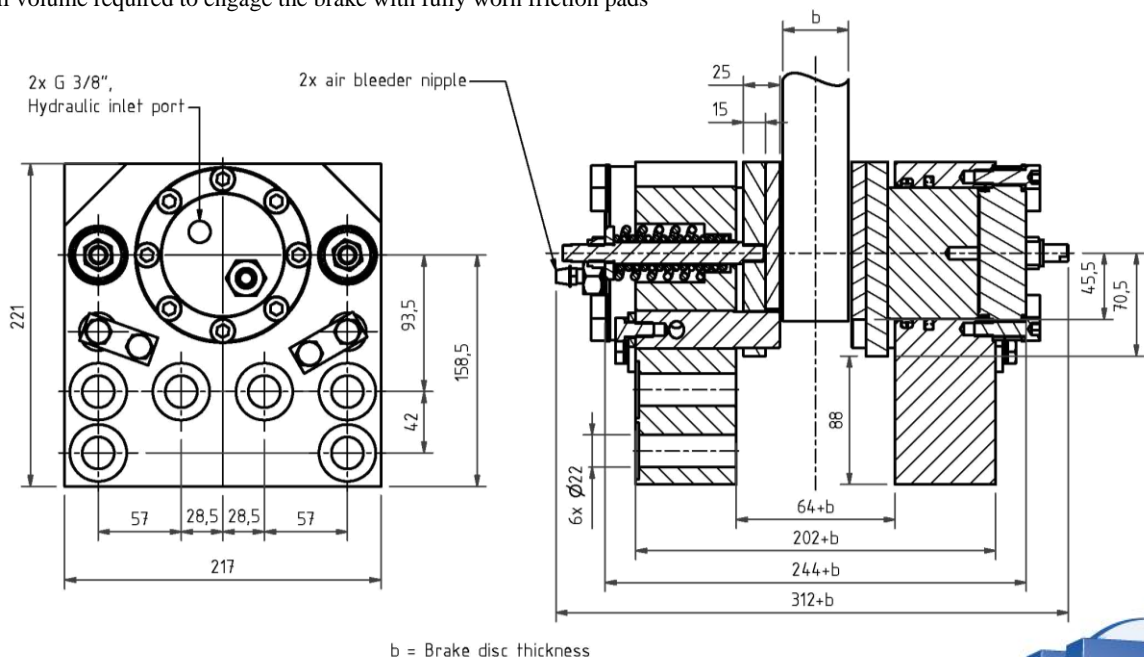
Each brake half has two cylindrical guide pins that transmit the tangential braking force from the brake lining to the brake housing and mounting stand. As a result, the brake pistons are not subject to any radial forces which contribute to longer brake life.
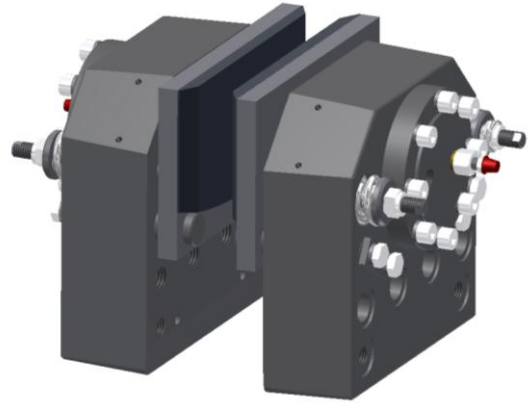
Two springs on each brake half retract the brake pads from the disc when pressure is released. Brake lining wear is automatically compensated for with increased piston stroke.
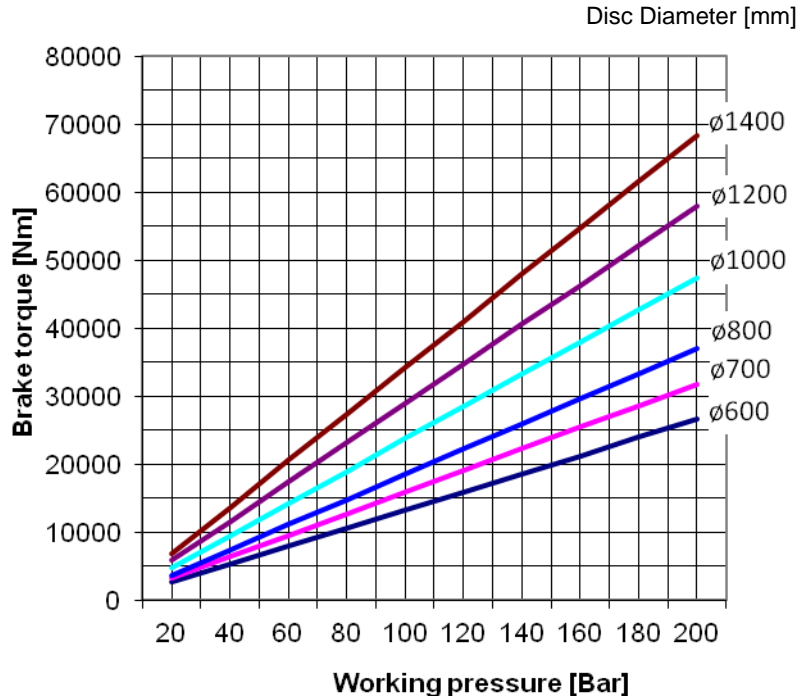
Braking force [1]		Max hydraulic pressure	Friction area per brake	Max. working oil volume per brake [2]	Piston area per brake half	Weight
F_1 [N/bar]	F_{max} [N]	[bar]	[cm^2]	[cm^3]	[cm^2]	[kg]
524	104800	200	452	128	64	59

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

2) Oil volume required to engage the brake with fully worn friction pads

2x G 3/8", Hydraulic inlet port
2x air bleeder nipple

b

25
15

221
93,5
158,5
42

57 28,5 28,5 57
217

6x Ø22
64+b
202+b
244+b
312+b

45,5
70,5
88

b = Brake disc thickness

DELLNER BRAKES

Torque table

SKD 90

Disc Diameter [mm]

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
F_1 = braking force according to the table on page 1 [N]
p   = pressure [bar]
D_s = brake disc diameter [m]
h   = constant for effective radius [m] (SKD 90: 0,046)

Options

+ Proximity switches for on/off or pad wear indication.

Suitable applications

Dellner Brakes model SKD 90 is suitable wherever service, stopping, holding and tensioning brakes are needed, for example in the following types of applications:

+ Propulsion propeller shafts
+ Chipping machines

+ Wind mills
+ Water turbines

+ Test rigs
+ Unwinding systems