DISC BRAKES – MODEL SKD 35, 50, 65, 80

PRESSURE APPLIED, SPRING RELEASED DISC BRAKES

Dellner Brakes model SKD disc brakes are direct acting, hydraulic or air pressure applied, spring released units. The braking force achieved is directly proportional to the applied pressure.

The brakes consist of two symmetrical halves that accommodate a standard disc thickness of 12 mm. For use with thicker brake 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 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.

Two 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 [1]		Max hydraulic pressure [bar]	Friction area per brake [cm^2]	Max. working oil volume per brake[2] [cm^3]	Piston area per brake half [cm^2]	Weight [kg]
	F_1 [N/bar]	F_{max} [N]					
SKD 35	80	8000	100	94	15,2	9,5	7
SKD 50	162	16200	100	150	31,2	19,5	10
SKD 65	273	27300	100	238	52,8	33	18
SKD 80	414	41400	100	360	80	50	34

1) Calculated with an average frictional coefficient μ=0,42. Consideration has not been taken for external factors.
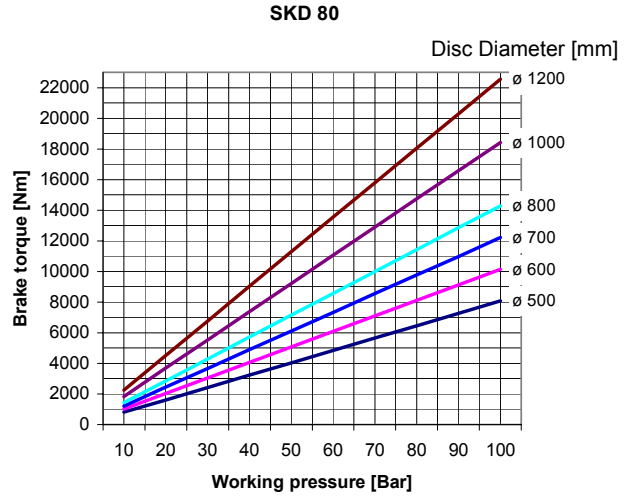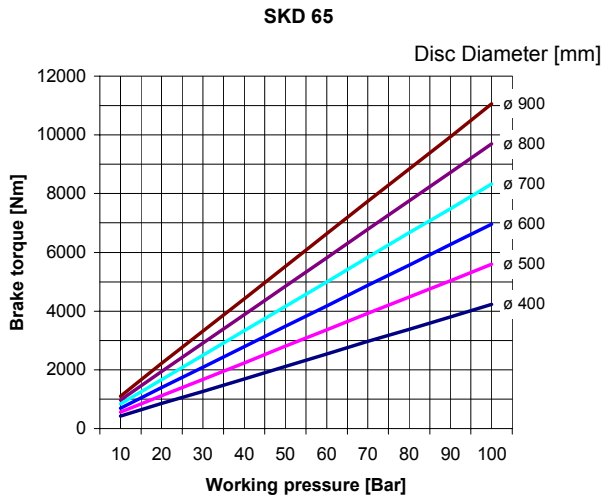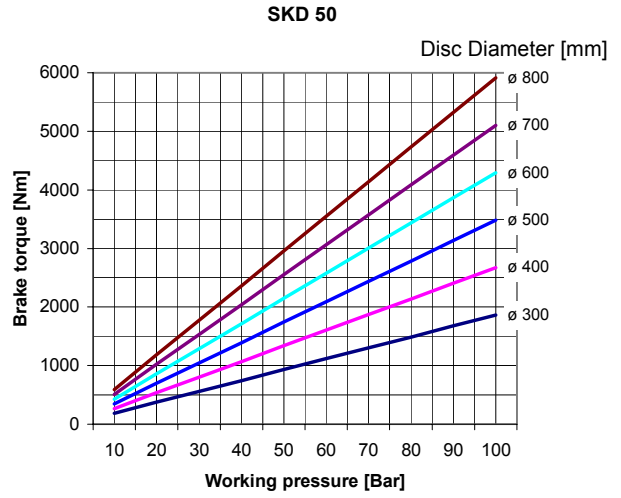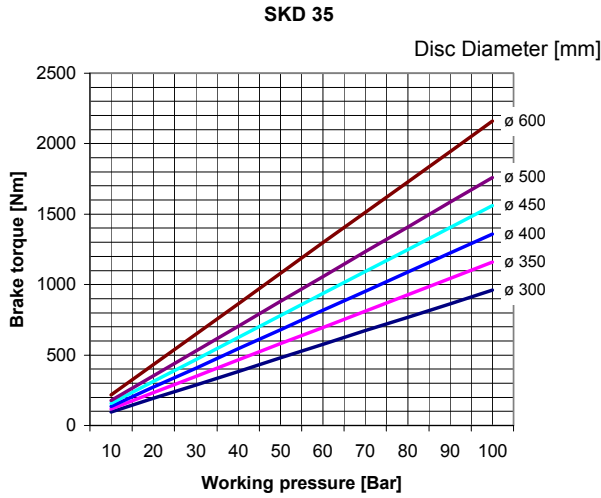2) Oil volume required to engage the brake with fully worn friction pads.
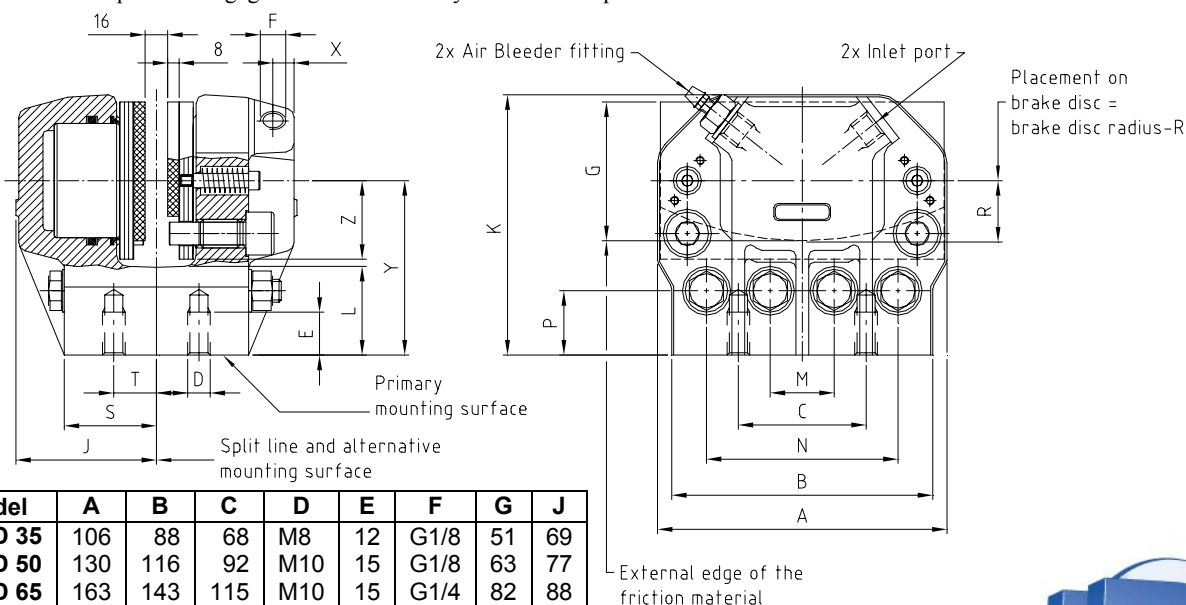
Model	A	B	C	D	E	F	G	J
SKD 35	106	88	68	M8	12	G1/8	51	69
SKD 50	130	116	92	M10	15	G1/8	63	77
SKD 65	163	143	115	M10	15	G1/4	82	88
SKD 80	204	184	90	M16	30	G3/8	97	99

Model	K	L	M	N	P	R	S	T	X	Y	Z
SKD 35	100	35	-	50	24	24	52	20	11	70	32
SKD 50	119	40	-	70	28	29	52	25	10	80	35
SKD 65	141	45	-	90	30	40	58	25	16	95	47
SKD 80	182	62	45	135	45	43	65	30	15	122	55

DELLNER BRAKES

Torque tables

SKD 35

Disc Diameter [mm]

SKD 50

Disc Diameter [mm]

SKD 65

Disc Diameter [mm]

SKD 80

Disc Diameter [mm]

The braking torque is calculated from the following formula:

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

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 = brake pad height [m] (see table to the right)

Model	H [m]
SKD 35	0,06
SKD 50	0,07
SKD 65	0,09
SKD 80	0,11

Options

🞧 Mechanical switches for on/off or pad wear indication.

Suitable applications

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

🞧 Propulsion propeller shafts   🞧 Wind mills   🞧 Top drives
🞧 Chipping machines   🞧 Amusement rides   🞧 Unwinding systems