DELLNER BUBENZER

Pressure applied, spring released disc brake

Dellner Bubenzer 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.
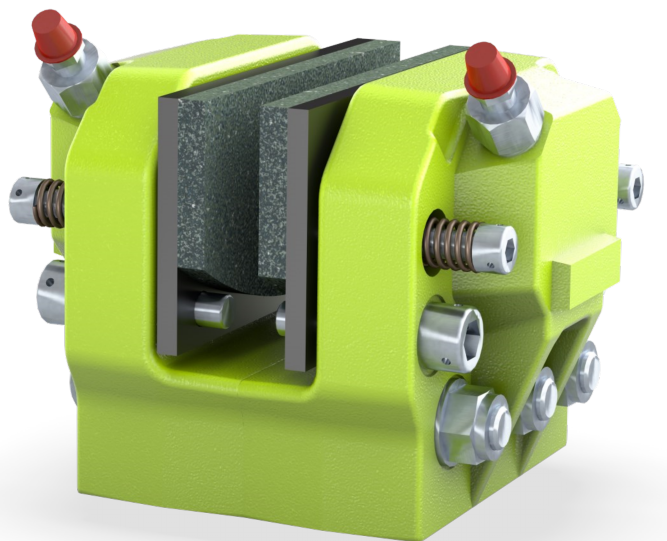
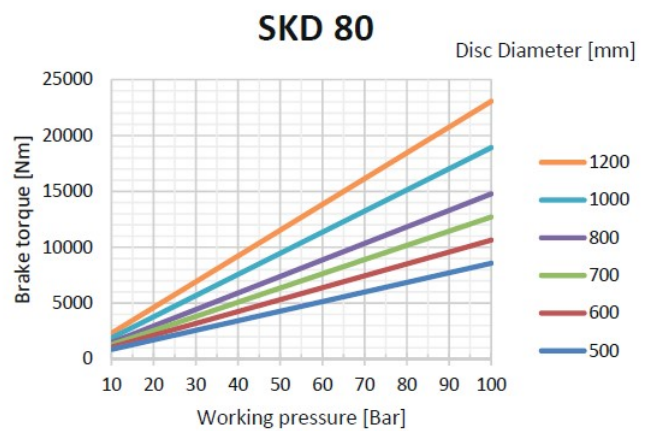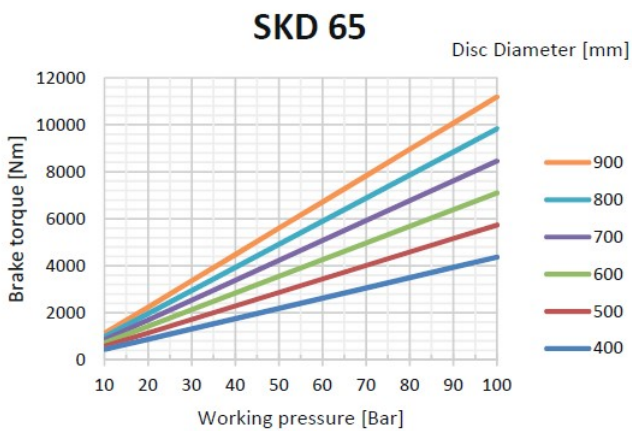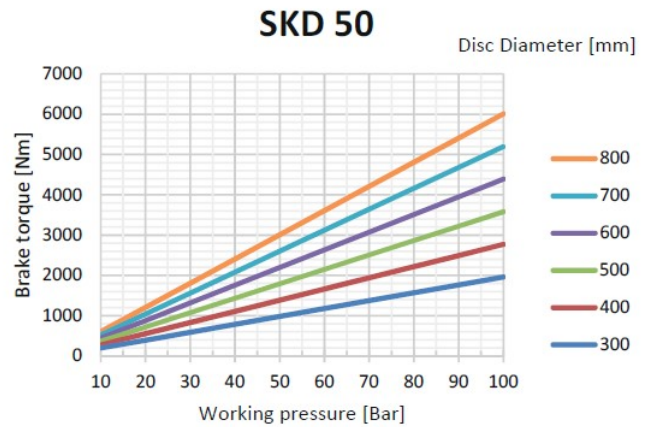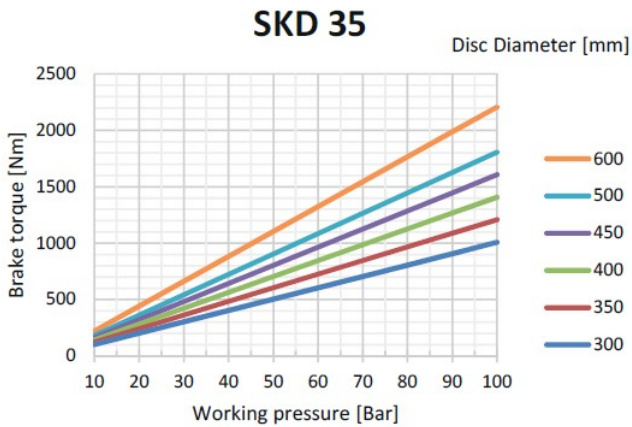| Model	Braking force [1]		Max hydraulic pressure	Friction area per brake	Max. working oil volume per brake [2]	Piston area per brake half	Weight
	F_1 [N/bar]	F_{max} [N]	[bar]	[cm²]	[cm³]	[cm²]	[kg]
SKD 35	80	8000	100	94	15,2	9,5	7
SKD 50	162	16200	100	150	31,2	19,5	10
SKD 65	273	27300	100	238	52,8	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.
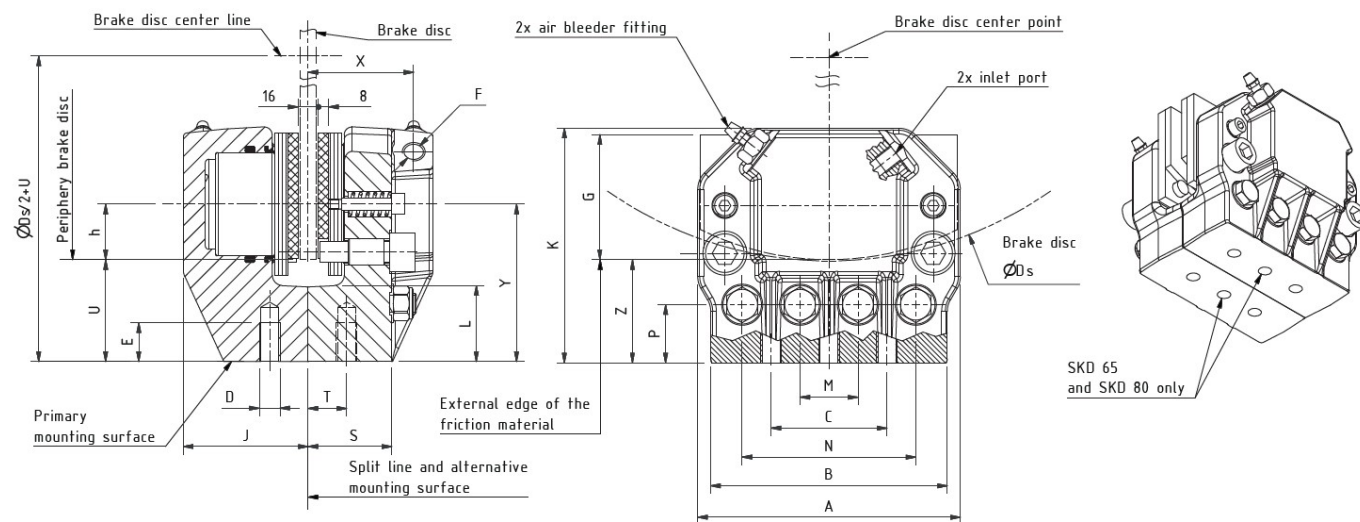
Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	S	T	U	X	Y	Z
SKD 35	108	90	68	2x M8	12	G1/8	51	24	69	100	35	-	50	24	52	20	46	56	70	47
SKD 50	130	117	92	2x M10	15	G1/8	63	29	77	119	40	-	70	28	53	25	51	64	80	52
SKD 65	163	145	115	3x M10	15	G1/4	82	40	88	144	45	-	90	30	58	25	55	68	95	56
SKD 80	208	187	90	6x M16	30	G3/8	97	43	103	184	62	45	135	45	65	30	79	82	122	80

DS-010-02E

TORQUES

SKD 35

Disc Diameter [mm]

Legend: 600, 500, 450, 400, 350, 300

SKD 50

Disc Diameter [mm]

Legend: 800, 700, 600, 500, 400, 300

SKD 65

Disc Diameter [mm]

Legend: 900, 800, 700, 600, 500, 400

SKD 80

Disc Diameter [mm]

Legend: 1200, 1000, 800, 700, 600, 500

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]
(see table to the right)

Model	h [m]
SKD 35	0,026
SKD 50	0,029
SKD 65	0,040
SKD 80	0,043

OPTIONS

• Switches for on/off or pad wear indication (mechanical and proximity).
• Brake pads in alternative materials.
• Seals in alternative materials.
• Supports in different configurations.
• Customer specific color.

SUITABLE APPLICATIONS

Dellner Bubenzer 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

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