



SKD 100 Active Brakes

DELLNER BUBENZER's 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 SKD series could be delivered with two housings each consisting of one or several cylinders or as single acting SA versions. Low pressure and high pressure version with several lining material alternatives are available.

BRAKING FORCE: Up to 129,200 N

MAIN FEATURES:

- Hydraulic Applied, Spring Released
- Brake Pad Wear is automatically compensated
- Robust and easy maintained design with long life cycle
- Dual or Single housing configuration
- Easy adjustment (no special tools)
- Models with primary and secondary cylinder seals

OPTIONS:

- Electric or Hydraulic
- Support/pedestal including piping to one connection point
- Electrical Indicators; ON/OFF, Wear
- Lining material alternatives meeting application specific requirements
- Corrosion protection; surface paint layer thickness and shades and, stainless steel components
- Retraction spring configurations to overcome hydrostatic difficulties

Pressure applied, spring released disc brake

Dellner Bubenzer model SKD 100 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.

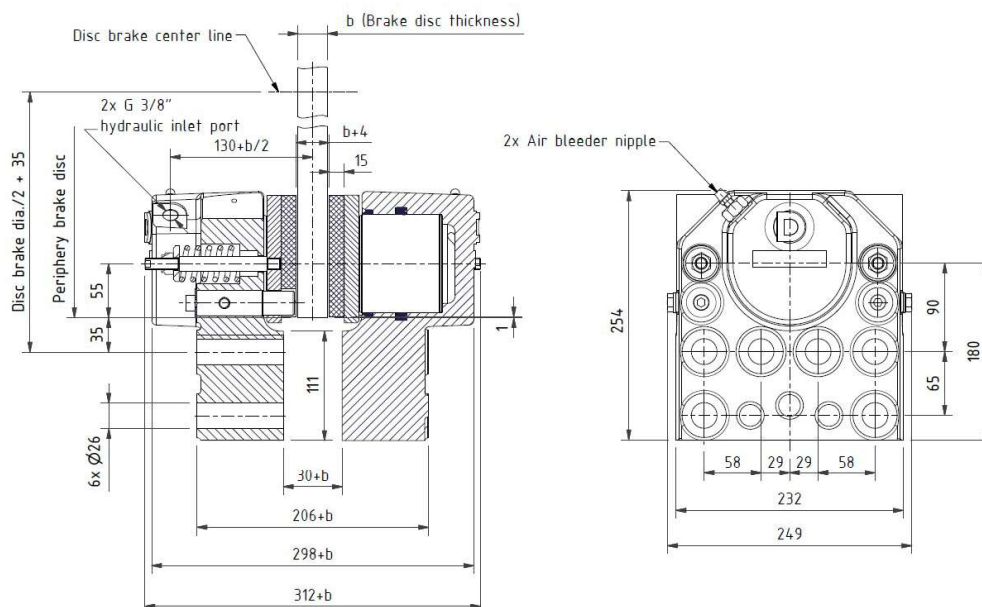
Two springs on each brake half retract the brake pads from the disc when pressure is released. Brake pad wear is automatically compensated for with increased piston stroke.



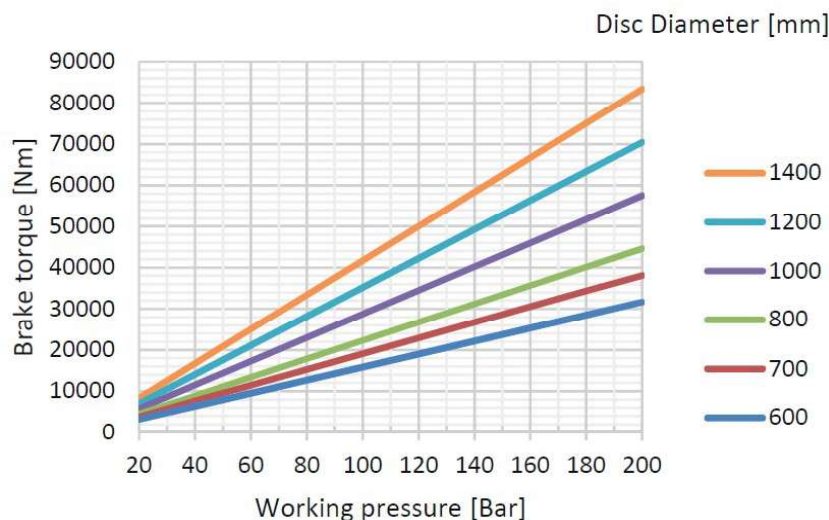
Model	Braking force ¹⁾		Max hydraulic pressure [bar]	Friction area per brake [cm ²]	Max. working oil volume per brake ²⁾ [cm ³]	Piston area per brake half [cm ²]	Weight [kg]
	F _r [N/bar]	F _{max} [N]					
SKD100	646	129200	200	510	236	78,5	75

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

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



TORQUES



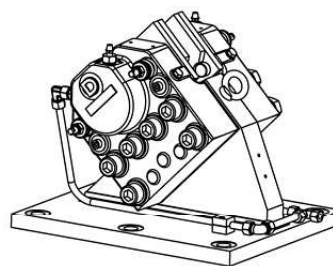
The braking torque is calculated from the following formula:

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

q = number of brakes
 F₁ = braking force according to the table on page 1 [N]
 p = pressure [bar]
 D_s = brake disc diameter [m]
 h = distance disc periphery to piston center [m] (SKD 100: 0,055)

OPTIONS

- Proximity switches for on/off or pad wear indication
- Brake pads in alternative materials.
- Seals in alternative materials.
- Supports in different configurations (see figure).
- Customer specific colour.



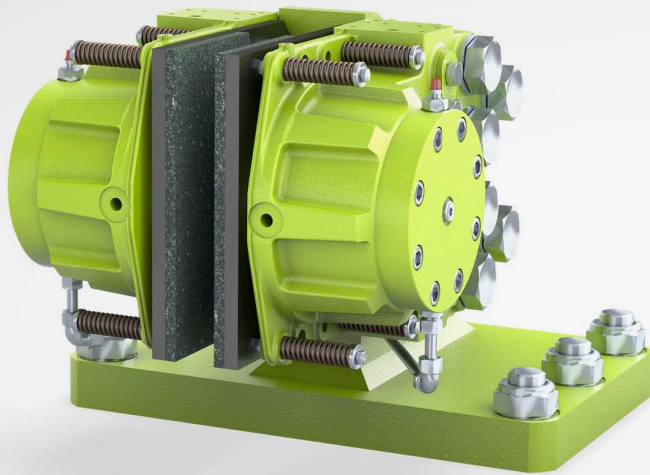
SUITABLE APPLICATIONS

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
 Chipping machines

Wind mills
 Amusement rides

Top drives
 Unwinding systems



SKD 140 Active Brakes

DELLNER BUBENZER's 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 SKD series could be delivered with two housings each consisting of one or several cylinders or as single acting SA versions. Low pressure and high pressure version with several lining material alternatives are available.

BRAKING FORCE: Up to 258,600 N

MAIN FEATURES:

- Hydraulic Applied, Spring Released
- Brake Pad Wear is automatically compensated
- Robust and easy maintained design with long life cycle
- Dual or Single housing configuration
- Easy adjustment (no special tools)
- Models with primary and secondary cylinder seals

OPTIONS:

- Electric or Hydraulic
- Support/pedestal including piping to one connection point
- Electrical Indicators; ON/OFF, Wear
- Lining material alternatives meeting application specific requirements
- Corrosion protection; surface paint layer thickness and shades and, stainless steel components
- Retraction spring configurations to overcome hydrostatic difficulties

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.

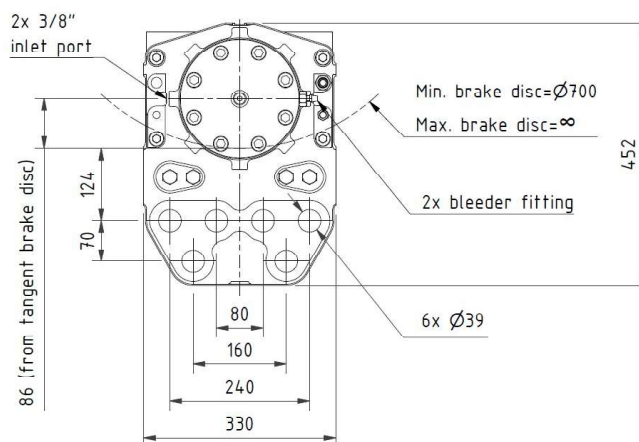
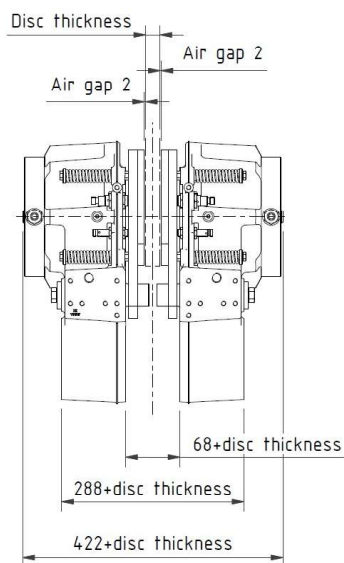


Model	Braking force ¹⁾		Max hydraulic	Friction area	Max. working oil	Piston area	Weight
	F _i [N/bar]	F _{max} [N]					
SKD 140	1293	258600	200	1200	370 / (431)	154	226

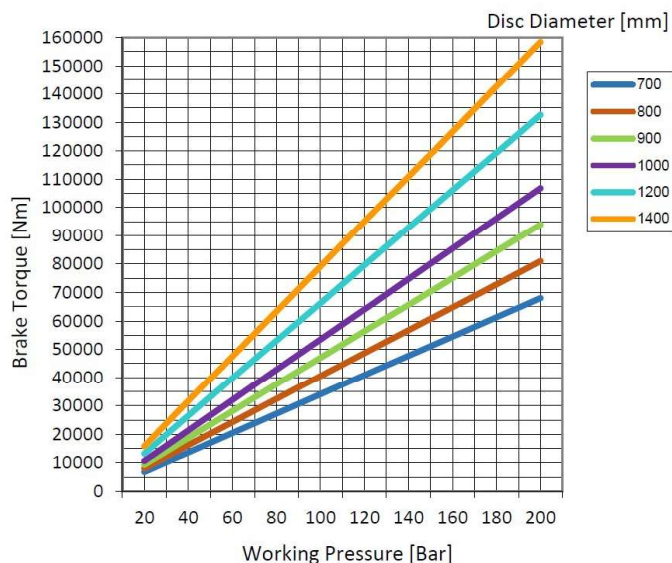
1) Calculated with an average frictional coefficient $\mu=0,42$. Consideration has not been taken for external factors.

2) Total allowable wear volume of 1200 cm³

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]
 D_s = 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



SKD 35-50-65-80 Active Brakes

DELLNER BUBENZER's 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 SKD series could be delivered with two housings each consisting of one or several cylinders or as single acting SA versions. Low pressure and high pressure version with several lining material alternatives are available.

BRAKING FORCE: Up to 41,400 N

MAIN FEATURES:

- Hydraulic Applied, Spring Released
- Brake Pad Wear is automatically compensated
- Robust and easy maintained design with long life cycle
- Dual or Single housing configuration
- Easy adjustment (no special tools)
- Models with primary and secondary cylinder seals

OPTIONS:

- Electric or Hydraulic
- Support/pedestal including piping to one connection point
- Electrical Indicators; ON/OFF, Wear
- Lining material alternatives meeting application specific requirements
- Corrosion protection; surface paint layer thickness and shades and, stainless steel components
- Retraction spring configurations to overcome hydrostatic difficulties

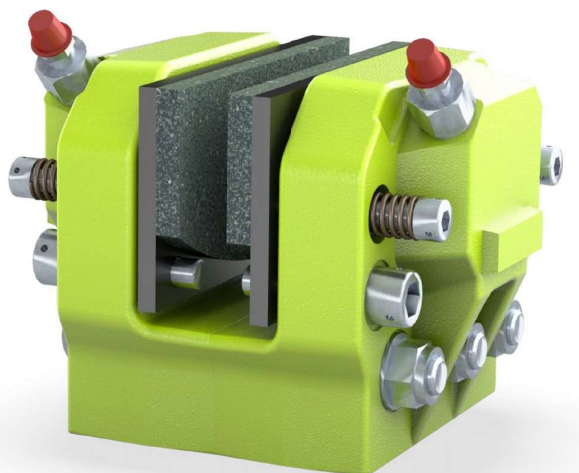
Pressure applied, spring released disc brake

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.

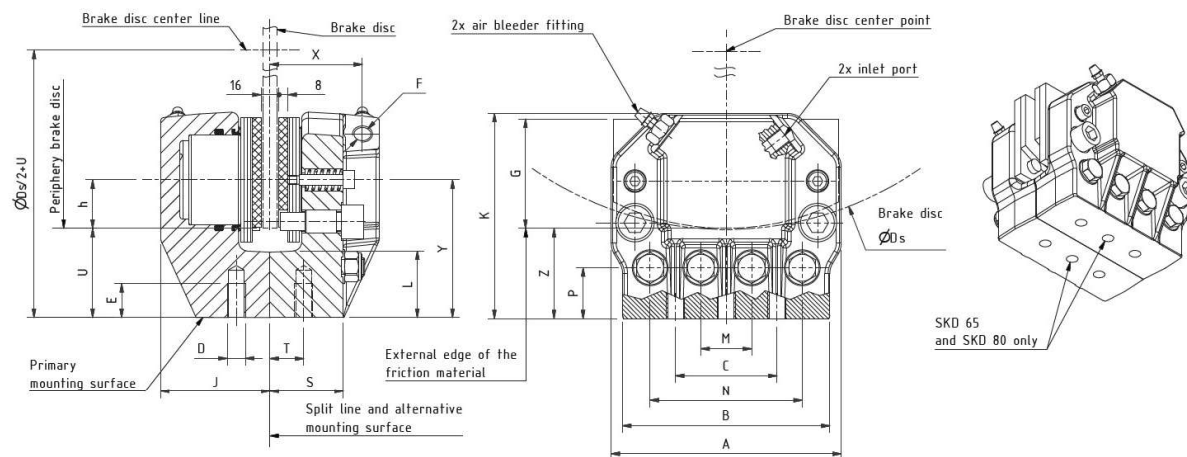
Two springs on each brake half retract the brake pads from the disc when pressure is released. Brake pad wear is automatically compensated for with increased piston stroke.



Model	Braking force ¹⁾		Max hydraulic pressure [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

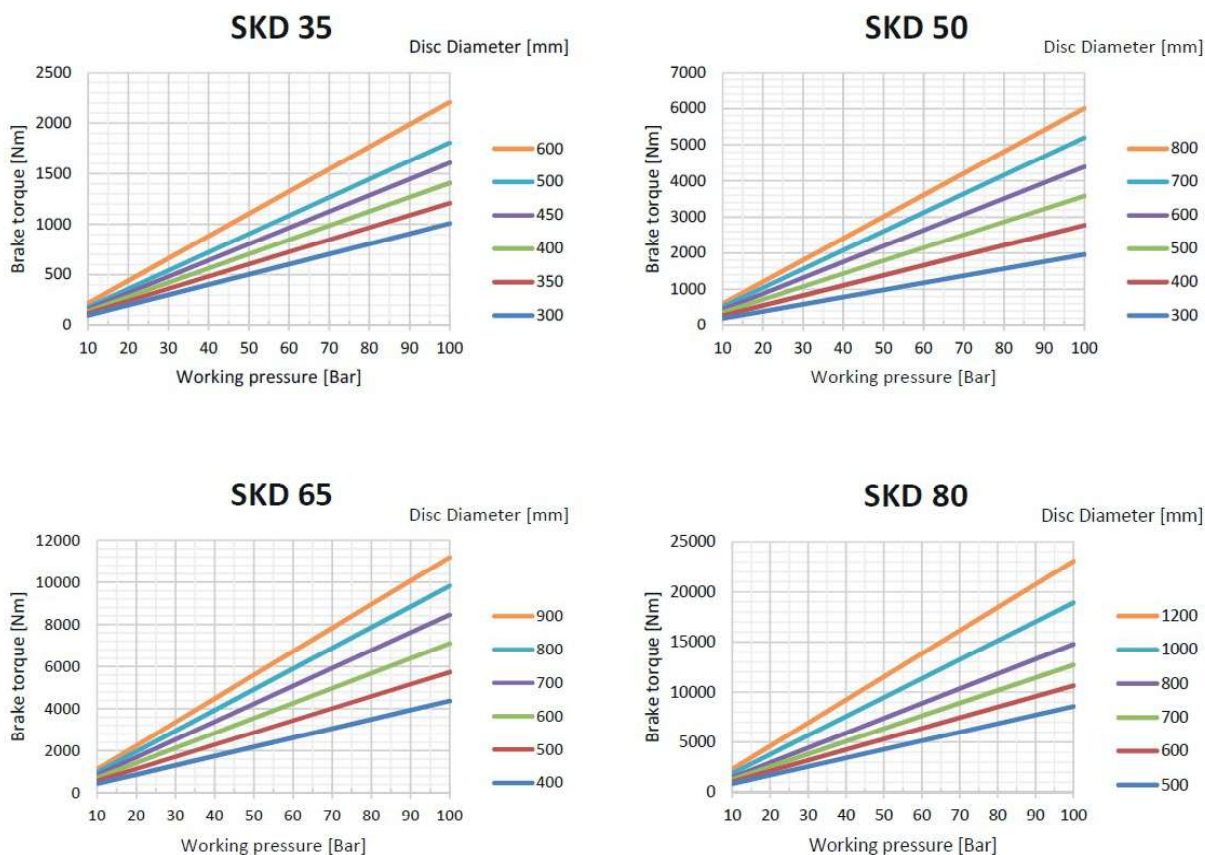
1) Calculated with an average frictional coefficient $\mu=0,42$. Consideration has not been taken for external factors.

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

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]
 D_s = 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
 Chipping machines

Wind mills
 Amusement rides

Top drives
 Unwinding systems



SKD 4x125 Active Brakes

DELLNER BUBENZER's 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 SKD series could be delivered with two housings each consisting of one or several cylinders or as single acting SA versions. Low pressure and high pressure version with several lining material alternatives are available.

BRAKING FORCE: Up to 404,200 N

MAIN FEATURES:

- Hydraulic Applied, Spring Released
- Brake Pad Wear is automatically compensated
- Robust and easy maintained design with long life cycle
- Dual or Single housing configuration
- Easy adjustment (no special tools)
- Models with primary and secondary cylinder seals

OPTIONS:

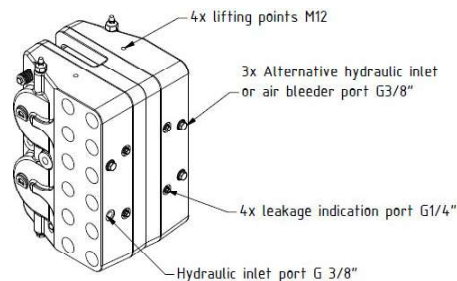
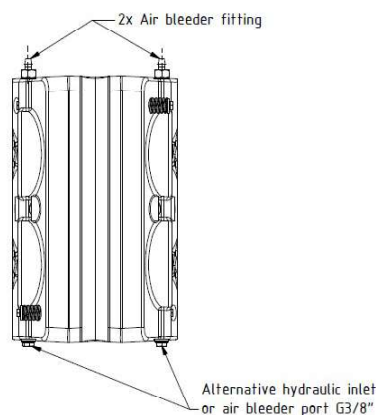
- Electric or Hydraulic
- Support/pedestal including piping to one connection point
- Electrical Indicators; ON/OFF, Wear
- Lining material alternatives meeting application specific requirements
- Corrosion protection; surface paint layer thickness and shades and, stainless steel components
- Retraction spring configurations to overcome hydrostatic difficulties

Dellner Bubenzer model SKD 4x125 disc brake is a direct acting, hydraulic applied, spring released unit. The braking force achieved is directly proportional to the applied pressure.

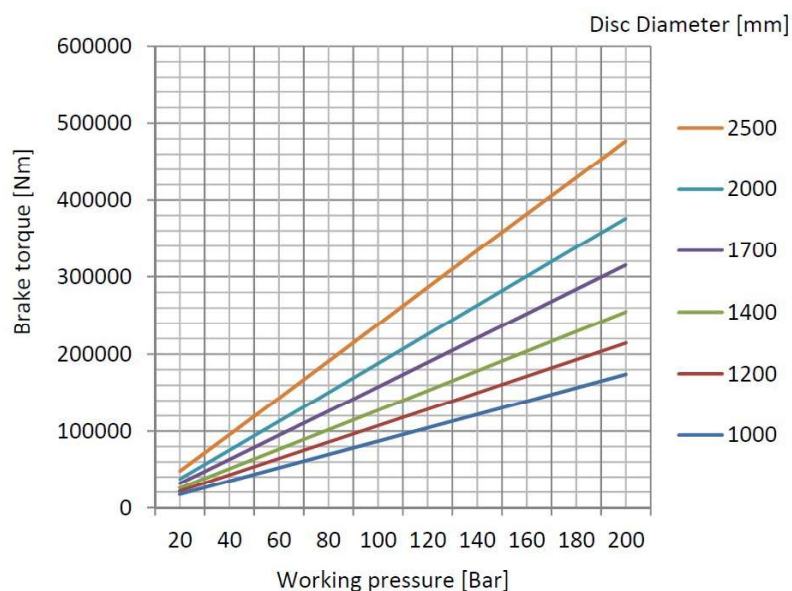
The tangential braking force is directly transmitted to the brake housing. As a result, the brake pistons are not subject to any radial forces, which contributes to longer brake life.



- 1) Calculated with an average frictional coefficient $\mu=0,42$. Consideration has not been taken for external factors.
- 2) Oil volume required to engage the brake with fully worn friction pads.



TORQUES



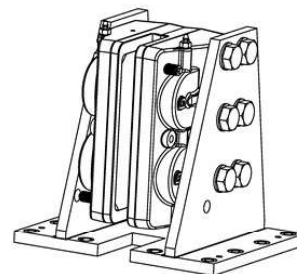
The braking torque is calculated from the following formula:

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

q = number of brakes
 F₁ = braking force according to the table on page 1 [N]
 p = pressure [bar]
 D_s = brake disc diameter [m]
 h = distance disc periphery to piston center [m] (SKD 4x125: 0,072)

OPTIONS

- Proximity switches for on/off or pad wear indication
- Brake pads in alternative materials.
- Return springs and screws
- Supports in different configurations (see figure).
- Customer specific colour.



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
 Chipping machines

Wind mills
 Amusement rides

Top drives
 Unwinding systems



SKD 90 Active Brakes

DELLNER BUBENZER's 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 SKD series could be delivered with two housings each consisting of one or several cylinders or as single acting SA versions. Low pressure and high pressure version with several lining material alternatives are available.

BRAKING FORCE: Up to 104,800 N

MAIN FEATURES:

- Hydraulic Applied, Spring Released
- Brake Pad Wear is automatically compensated
- Robust and easy maintained design with long life cycle
- Dual or Single housing configuration
- Easy adjustment (no special tools)
- Models with primary and secondary cylinder seals

OPTIONS:

- Electric or Hydraulic
- Support/pedestal including piping to one connection point
- Electrical Indicators; ON/OFF, Wear
- Lining material alternatives meeting application specific requirements
- Corrosion protection; surface paint layer thickness and shades and, stainless steel components
- Retraction spring configurations to overcome hydrostatic difficulties

Pressure applied, spring released disc brake

Dellner Bubenzer model SKD 90 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.

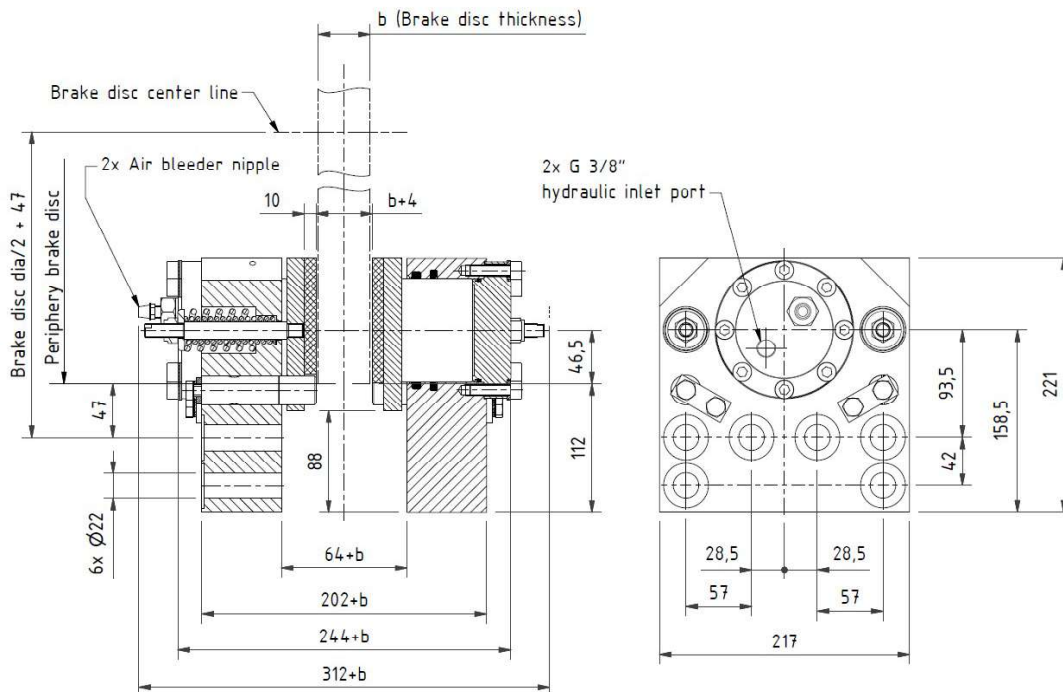
Two springs on each brake half retract the brake pads from the disc when pressure is released. Brake pad wear is automatically compensated for with increased piston stroke.



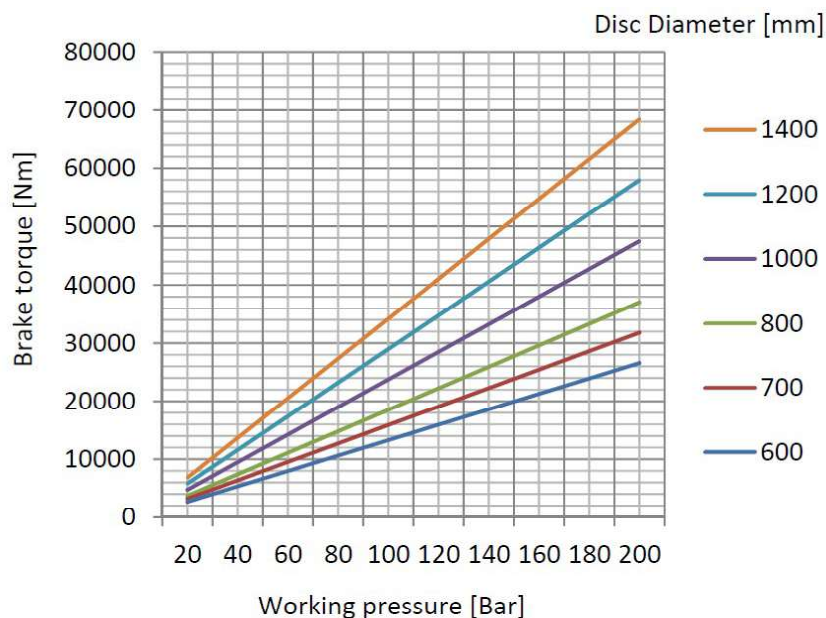
Model	Braking force ¹⁾		Max hydraulic pressure	Friction area per brake	Max. working oil volume per brake ²⁾	Piston area per brake half	Weight
	F_1 [N/bar]	F_{max} [N]					
SKD 90	524	104800	200	452	128	64	59

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

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



TORQUES



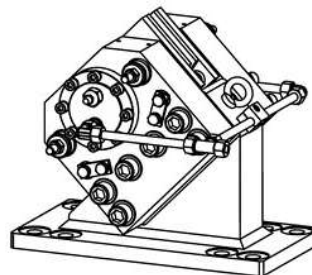
The braking torque is calculated from the following formula:

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

q = number of brakes
 F1 = braking force according to the table on page 1 [N]
 p = pressure [bar]
 D_s = brake disc diameter [m]
 h = distance disc periphery to piston center [m] (SKD 90: 0,047)

OPTIONS

- Proximity switches for on/off or pad wear indication
- Brake pads in alternative materials.
- Seals in alternative materials.
- Supports in different configurations (see figure).
- Customer specific colour.



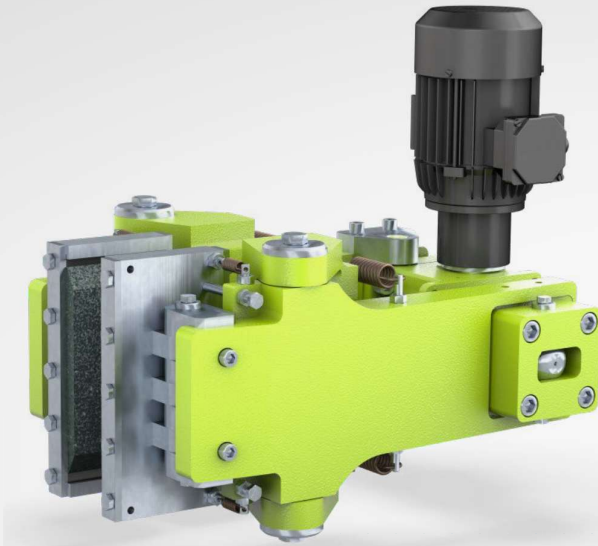
SUITABLE APPLICATIONS

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
 Chipping machines

Wind mills
 Amusement rides

Top drives
 Unwinding systems



SKD(E) 100 Electric Active Brakes

DELLNER BUBENZER's model SKDe disc brakes are direct acting electric applied, spring released units. The braking force achieved is directly proportional to the applied pressure. The SKD sere could be delivered with two hosing's each consisting of one or several cylinders or as single acting SA versions. Low pressure and high pressure version with several lining material alternatives are available.

MAIN FEATURES:

- Hydraulic Applied, Spring Released
- Brake Pad Wear is automatically compensated
- Robust and easy maintained design with long life cycle
- Dual or Single housing configuration
- Easy adjustment (no special tools)
- Models with primary and secondary cylinder seals

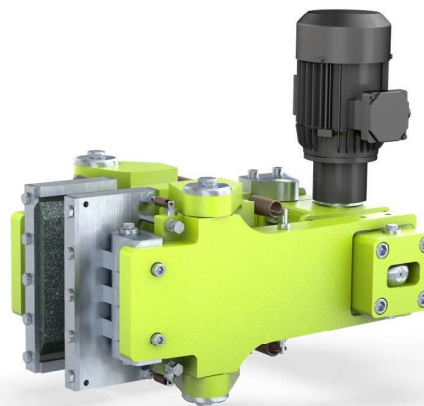
OPTIONS:

- Electric
- Support/pedestal including piping to one connection point
- Electrical Indicators; ON/OFF, Wear
- Lining material alternatives meeting application specific requirements
- Corrosion protection; surface paint layer thickness and shades and, stainless steel components
- Retraction spring configurations to overcome hydrostatic difficulties

Electro-mechanical applied disc brake

Dellner Brakes model SKDe 100 is an electro-mechanical, direct acting, pliers type of brake. The brake consists of two lever arms with electrically powered engagement and disengagement. The lever arms generate the brake force at a ratio of 1:3,2.

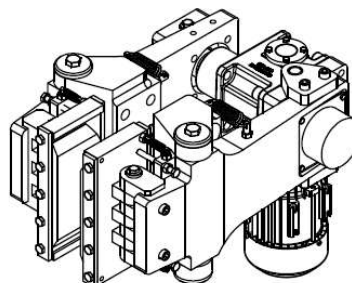
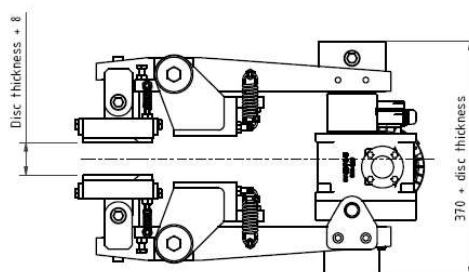
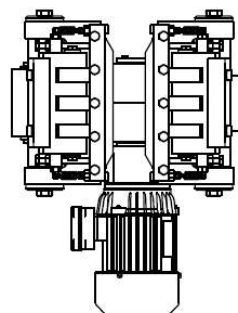
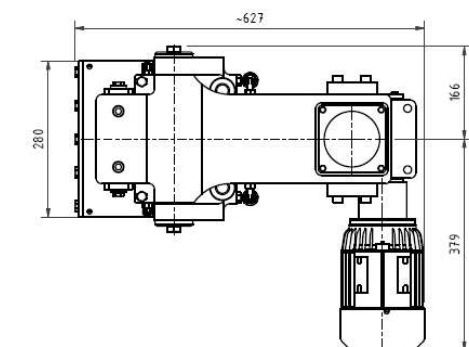
The standard disc thickness is 30 mm. For use with thicker brake discs, the brakes can be supplied with spacers.

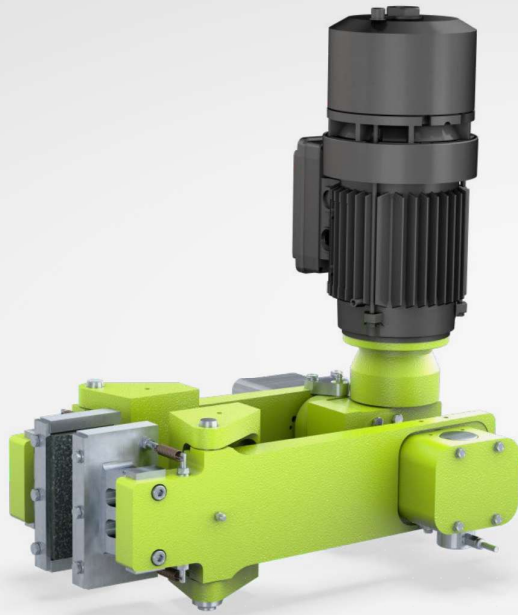


Model	Braking force ¹⁾	Engaging time ²⁾	Friction area per brake	Electrical power [440VAC]	Weight
	F_{max} [N]	[s]	[cm ²]	[kW]	[kg]
SKD e100	129200	4,5	510	1,4	200

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

2) Time to engage the brake to full braking force with air gap 4+4mm and new friction pads.





SKD(E) 50 Electric Active Brakes

DELLNER BUBENZER's model SKDe disc brakes are direct acting electric applied, spring released units. The braking force achieved is directly proportional to the applied pressure. The SKD sere could be delivered with two hosing's each consisting of one or several cylinders or as single acting SA versions. Low pressure and high pressure version with several lining material alternatives are available.

BRAKING FORCE: Up to 129.2 Kn

MAIN FEATURES:

- Hydraulic Applied, Spring Released
- Brake Pad Wear is automatically compensated
- Robust and easy maintained design with long life cycle
- Dual or Single housing configuration
- Easy adjustment (no special tools)
- Models with primary and secondary cylinder seals

OPTIONS:

- Electric
- Support/pedestal including piping to one connection point
- Electrical Indicators; ON/OFF, Wear
- Lining material alternatives meeting application specific requirements
- orrosion protection; surface paint layer thickness and shades and, stainless steel components
- Retraction spring configurations to overcome hydrostatic difficulties