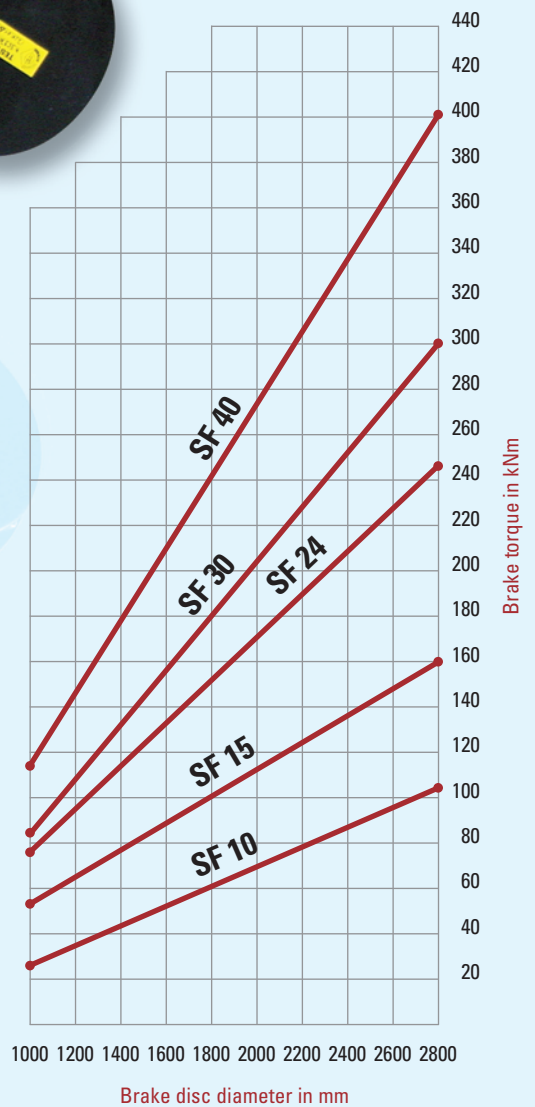
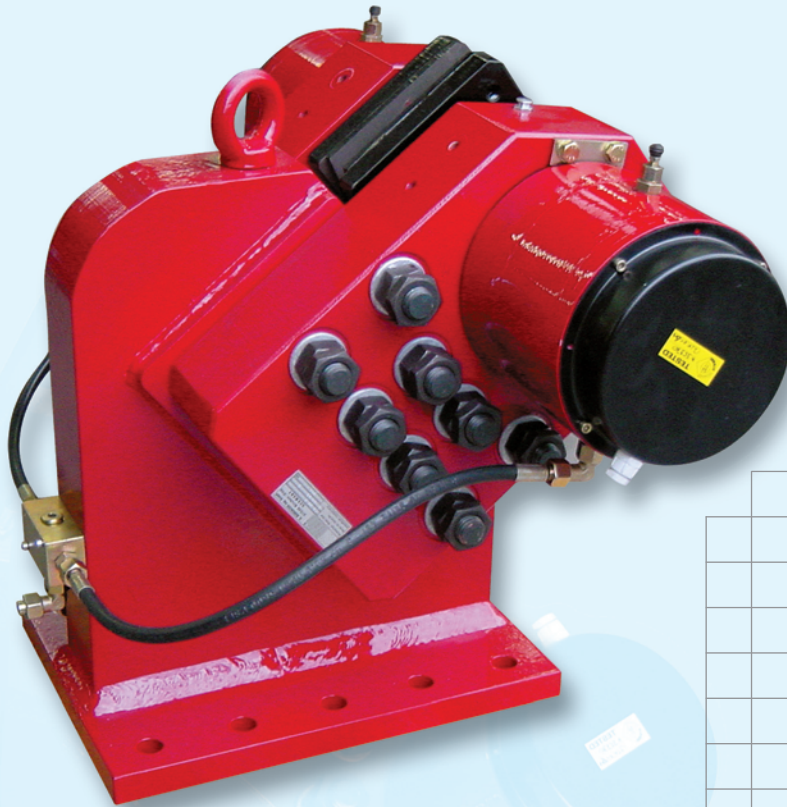


Hydraulic Caliper Disc Brakes SF Series



B



PINTSCH BUBENZER
is certified according to
DIN EN ISO 9001:2000



Reliable



High Performance



Robust Design



Easy Maintenance

Main Features

Two identical caliper halves, ready for operation, with spring packs set to nominal force and limit switch for release control

Up to 2 mm airgap between brake pad and disc

Easy, manual pad wear compensation

Organic, non-asbestos linings

Options

Limit switch wear control

Sintered linings

Complete piped supports for one or more calipers

Hydraulic power units

Special seals for flame-proof fluids

Cleaning pads

Brake discs

CMB contact force measurement

Applications

The high capacity of these brakes makes them particularly suitable as secondary emergency brakes on hoist gears and on downhill conveyor belts.

Other applications are possible in material handling, requiring power and compact design in either direction of rotation, particularly in replacing band brakes.

Use of the brakes for applications with high duty cycles should be specifically indicated during technical selection procedure.

Operating Restrictions

Brakes of this range are tested both mechanically and hydraulically and are set to nominal force. This setting can only be changed by the manufacturer. Operating conditions other than described in this brochure require the manufacturer's approval and may influence the function of the caliper and its components.



Please Note

We supply a detailed operating manual with every order. Nevertheless, we would point out that brakes are only as safe as the servicing and maintenance performed while they are in operation. The guarantee for the correct functioning of our brakes is therefore only valid if the user adheres to the German DIN standard 15434 part 2 (drum and disc brakes, servicing and maintenance in operation), or to comparable standards in his own country.



PINTSCH BUBENZER Service

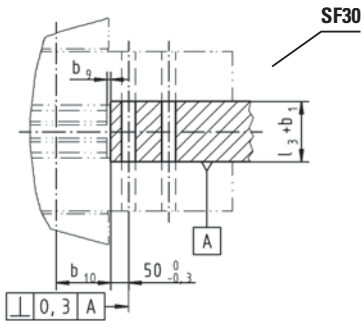
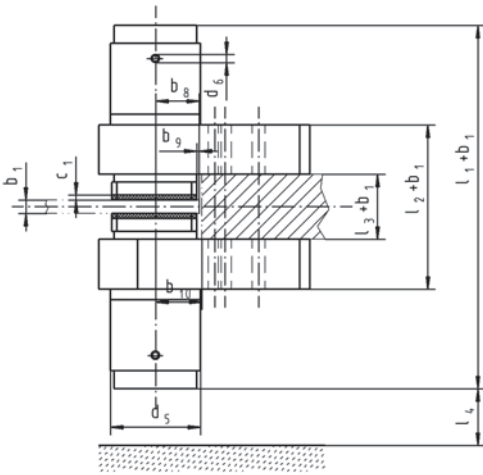
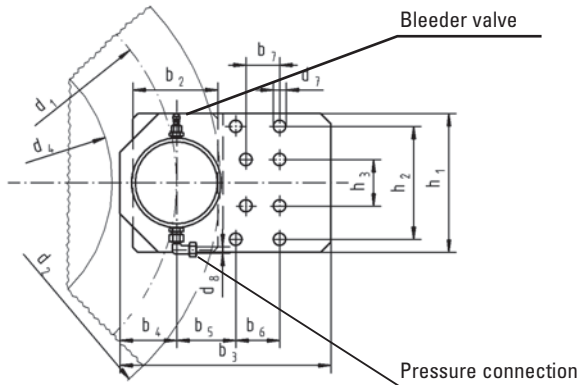
This includes the verification of the brake selection, if required. A detailed questionnaire is provided for this purpose. Installation and commissioning on site is possible by PINTSCH BUBENZER service engineers. Drawings as DWG/DXF files for your engineering department are available upon request.

Disc Brake SF

Dimensions and technical data

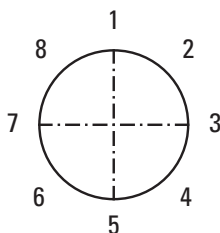


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*) Average friction factor of standard material combination
All dimensions in mm. Alterations reserved without notice.

Brake torque M_{Br} in Nm = F_A (kN) x μ x d_1 (mm)



Please indicate mounting position in case of order.

Type SF	10	15	24	30	40
b ₂	165	165	195	280	300
b ₃	410	410	480	640	720
b ₄	110	110	130	155	175
b ₅	115	115	130	200	220
b ₆	85	85	100	110	125
b ₇	60	60	70	110	125
b ₈	85	85	100	140	160
b ₉	5	5	5	5	10
b ₁₀	90	90	105	150	170
c ₁	10	10	10	10	10
d ₅	175	175	225	290	310
d ₆	3/8"	3/8"	3/8"	3/8"	3/8"
d ₇	25	25	31	38	50
d ₈	12	12	12	12	12
h ₁	270	270	300	400	480
h ₂	220	220	230	300	375
h ₃	90	90	70	100	125
l ₁	685	750	810	940	981
l ₂	292	292	342	402	502
l ₃	100	100	110	130	110
l _{4min}	40	110	130	180	200
Bolt \varnothing	M24	M24	M30	M36	M48
Bolt material	10.9	10.9	10.9	10.9	10.9
Tighten. torque, Nm	1050	1050	2100	3500	6400
Contact force F_A kN	100	150	240	300	400
Op. pressure bar	140	180	180	210	210
Max. pressure bar	200	200	200	240	240
Release stroke mm	2	2	2	2	2
Oil volume l	0,023	0,023	0,035	0,050	0,052
Pad surface cm ²	427	427	570	1050	1360
Theor. friction μ^*	0,40	0,40	0,40	0,40	0,40
Weight (kg)	200	210	368	760	1180

Data per caliper half

Brake disc data					
	SF10	SF15	SF24	SF30	SF40
d ₁ =	d ₂ -170 mm	d ₂ -170 mm	d ₂ -200 mm	d ₂ -290 mm	d ₂ -320 mm
d ₄ =	d ₂ -420 mm	d ₂ -420 mm	d ₂ -490 mm	d ₂ -620 mm	d ₂ -700 mm

d₂ = Brake disc diameter in mm
d₁ = Friction diameter in mm
d₄ = Max. permissible drum or hub diameter in mm
b₁ = Disc thickness in mm (min. 30)

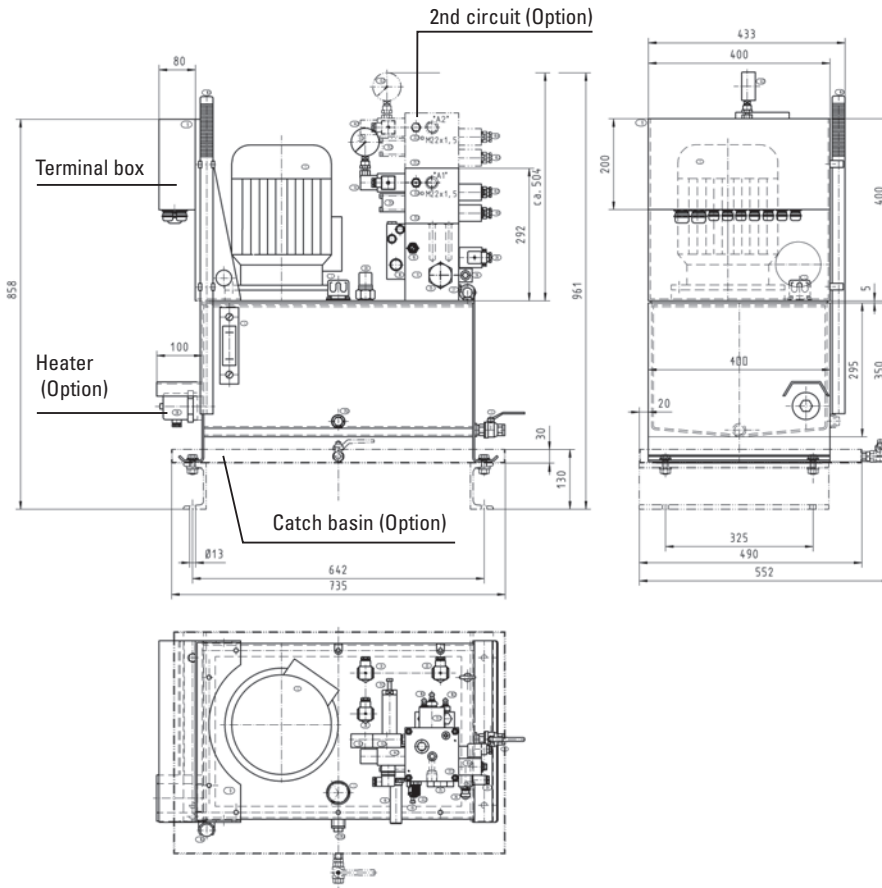


Disc Brake SF

Hydraulic power unit for one or more calipers



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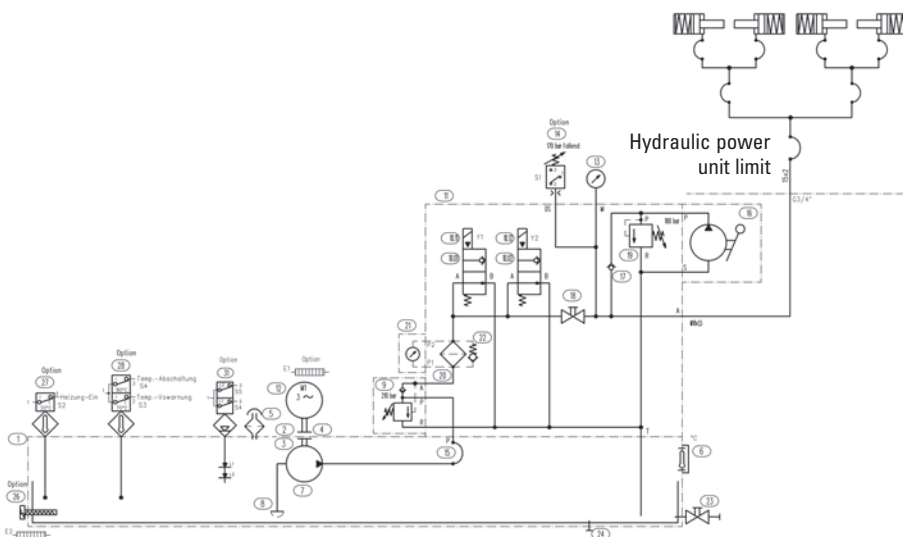
Example:	
Standard configuration	
up to 4	SF10/SF15
up to 2	SF24
Motor:	3 kW
Pump:	7,9 l/min
Pressure:	210 bar
Tank:	40 l
Weight:	85 kg

The flow diagram shows the general arrangement of the hydraulic power unit, including handpump for emergency manual release of the brakes.

The two solenoid valves are switched in parallel (redundancy). After the nominal pressure is reached, the idler valve switches into idle running. The motor is continuously energized.

Pressure switch, temperature switch, heaters, level switch, stainless steel version and other accessories are available options.

Hydraulic power units are also available as two-circuit power units, e.g. to operate main hoist and boom hoist brakes with one power unit only.



All dimensions in mm
Alterations reserved without notice



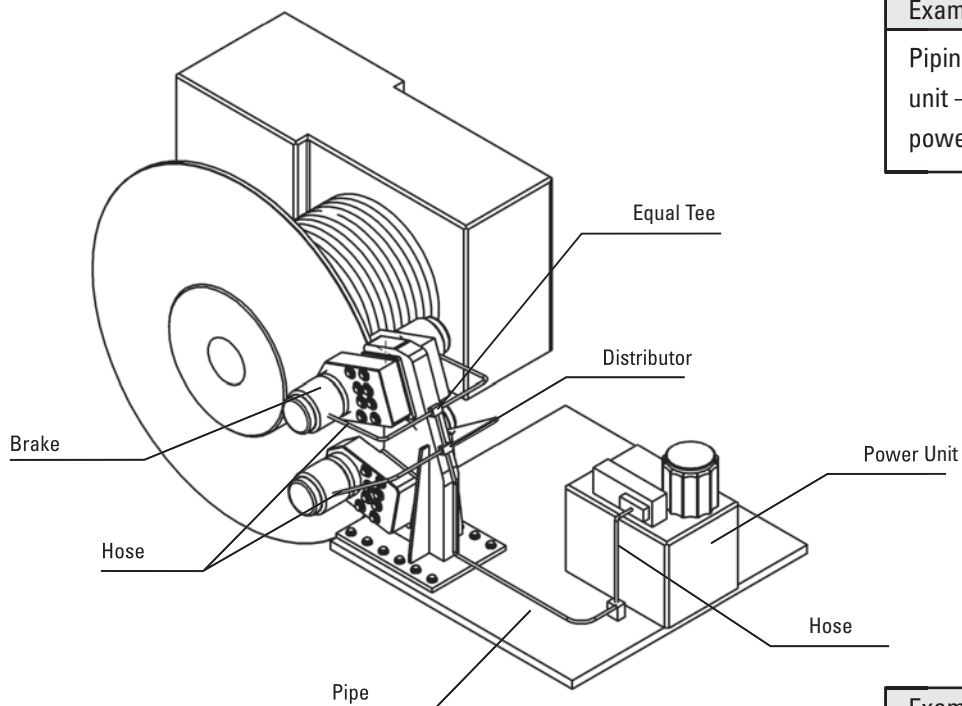
With every order we supply a complete hydraulic and electric diagram according to the order specification.

Piping Samples

Disc brakes SF and BSC

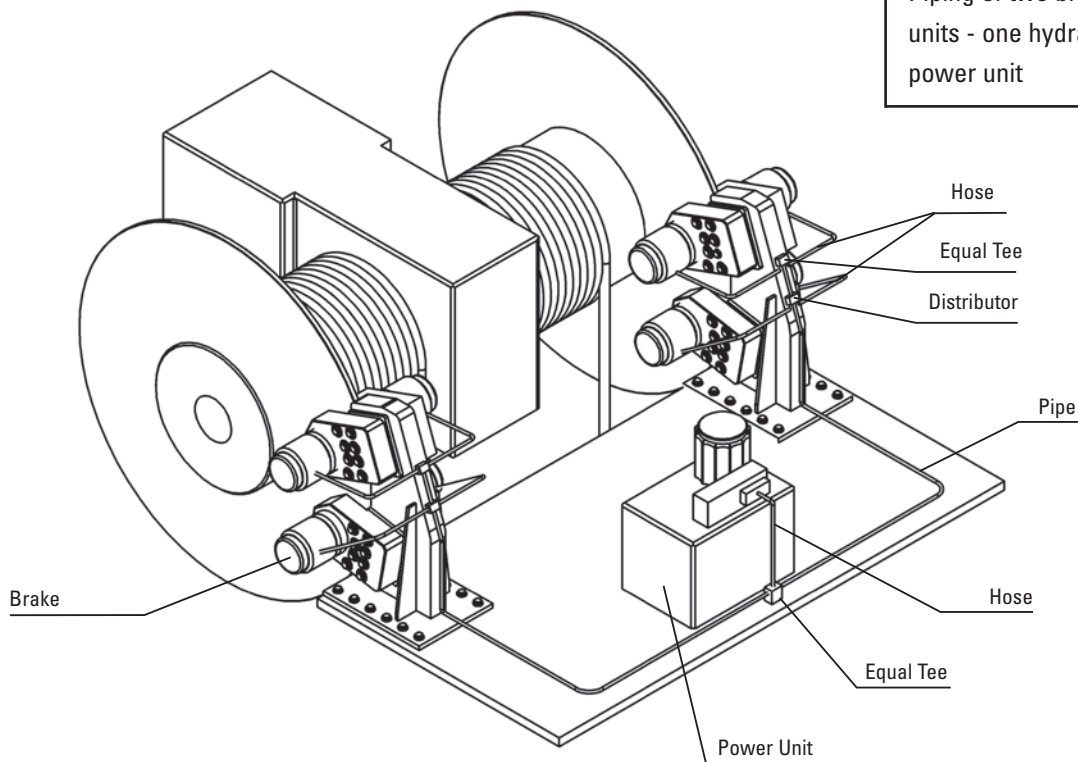


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Example:

Piping of one brake unit – one hydraulic power unit



Example:

Piping of two brake units - one hydraulic power unit



Attention: For operating two brake units with one power unit please note, that the power unit should be installed in the middle between the brakes to get almost equal pipe length on both sides (equal apply time of brakes).

B