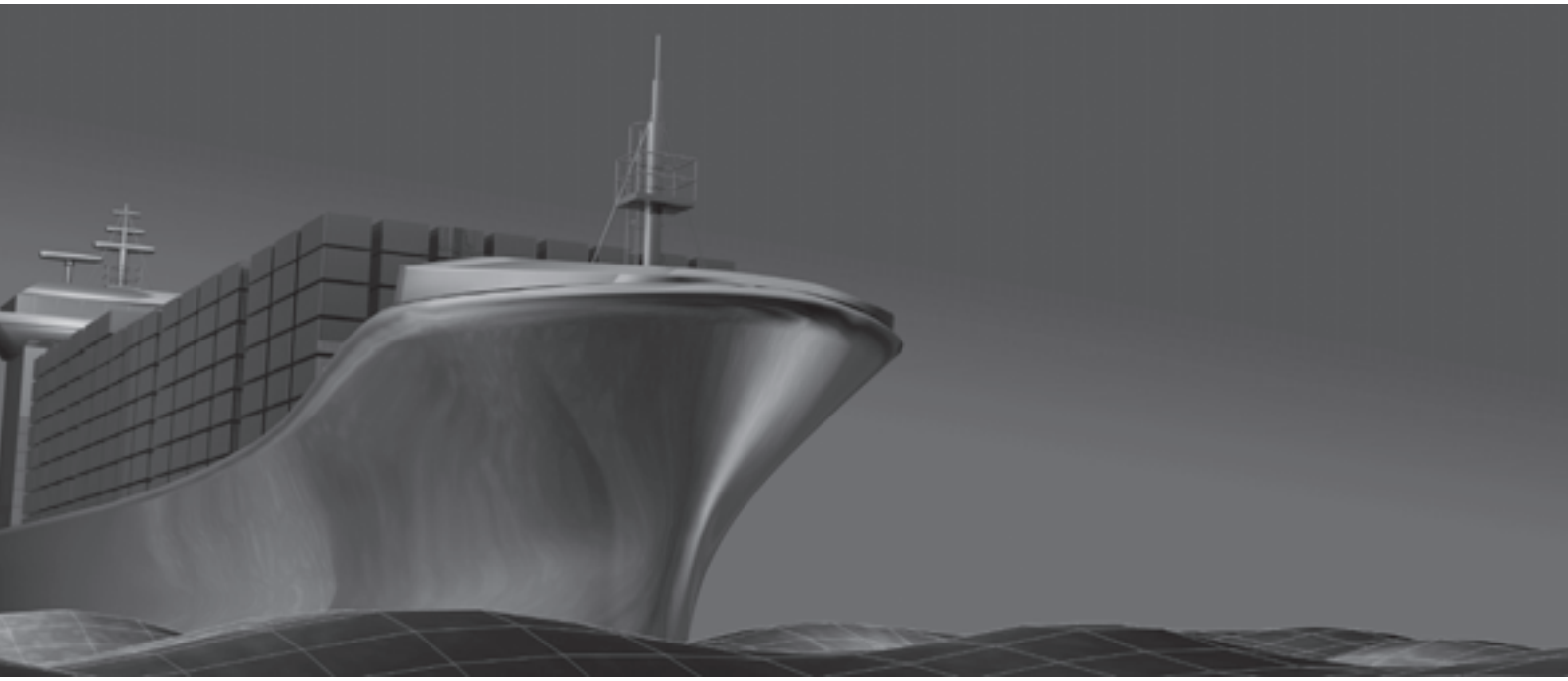
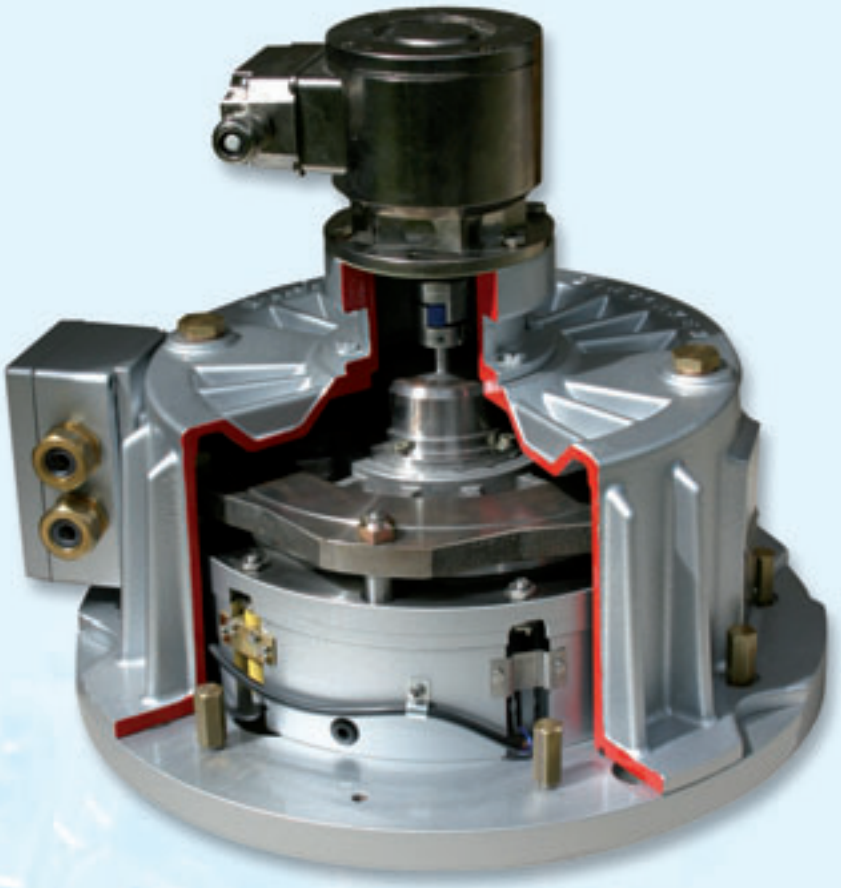


PINTSCH BUBENZER

BRAKE SYSTEMS FOR **SHIPBUILDING**

www.pintschbubenzer.de



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

Reliable

High Performance

Robust

Easy Maintenance

Compact

Tried and Trusted

Description SFB Series

Main Features

- spring applied safety brake
- protection-class IP67
- double wear reserve by single air gap adjustment
- high work capacity
- high wear resistance because of high abrasion resistance
- functional without cover
- screws for manual lifting

Applications

- gantry-, trolley- and hoisting-applications at harbour cranes
- electrical drives for ship- winches and deck machinery
- jack- up systems at offshore systems
- dynamic and static use at general industrial applications

Options

- special brake torque:
  lower brake torque = type SFB
  higher brake torque = type SFB-SH
- holding brake torques available on request
- micro- or proximity switches:
  • function brake on/off
  • maximum air gap (wear-monitoring)
- lateral junction box
- tacho preparation with all mounting parts
- cover bore
- shaft-sealings
- special voltage
- anticondensation heater
- lateral cable-outlet
- special flanges
- special electrical equipment:
- one-way-, bridge-, and switching- rectifier
- overvoltage protection element
- brake control unit = BCU 2001
- brake control and monitoring system = BCMS-4

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

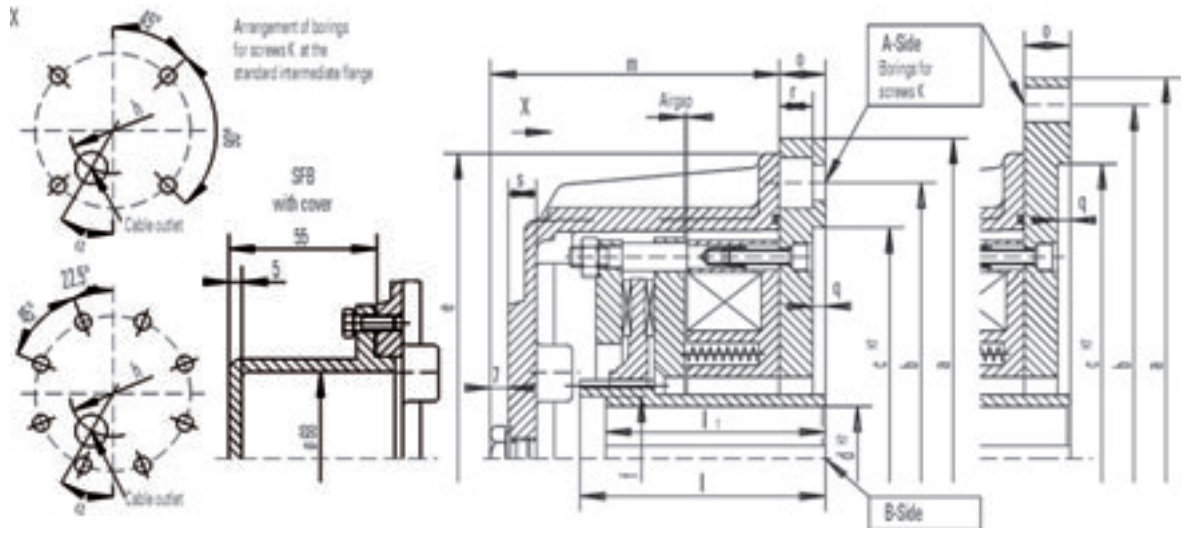
This includes the verification of the brake selection, if required. A detailed questionnaire is provided for this purpose. Installation and commissioning on site is possible by PINTSCH BUBENZER service engineers. Drawings as DWG/DXF files for your engineering department are available upon request.

Spring-Set Brake SFB

Electromagnetic Two-Disc Spring-Set Brake

PINTSCH BUBENZER

Rev. 05-08



Keyways for keys acc. to DIN6885 Bl.1, width accuracy P9. Protection IP67

Alterations reserved without notice

Brake size				SFB 6.3	SFB 10	SFB 16	SFB 25	SFB 40	SFB 63	SFB 100	SFB 160	SFB 250
Brake torque M2 dynamic acc. to DIN VDE 0580			Nm	63	100	160	250	400	630	1000	1600	2500
				54	80	130	210	330	520	830	1300	2100
				45	63	100	180	260	400	660	1050	1650
Mass moment of inertia			kgm²	0.0017	0.0037	0.0048	0.0068	0.0175	0.036	0.050	0.128	0.140
Mass (weight)			kg	19	28	42	55	74	106	168	242	306
max. speed			min⁻¹	6000	6000	6000	5500	4700	4000	3600	3200	2800
Coil b. 20° C	Nominal voltage		V DC	110	110	110	110	110	110	110	110	110
	Nominal power		W	99	128	158	196	220	307	344	435	495
	Nominal current		A	0.90	1.16	1.44	1.78	2.0	2.79	3.13	3.95	4.50
Airgap, brake OFF			min. mm	0.3	0.3	0.3	0.4	0.4	0.4	0.6	0.4	0.4
			max. mm	0.9	1.2	1.2	1.3	1.4	1.8	1.8	2.3	2.5
Diameter mm	B-Side	d	Rough boring	26	26	36	36	36	36	36	46	46
		d^{H7}	Preferential boring	28	28	38	38	48	60	60	65	65
				32	32	42	42	55	65	65	70	70
				38	38	48	48	60	75	75	75	75
						55	55				80	80
											90	90
		d^{H7}	maximal	40	40	55	55	60	75	75	110	110
Lenghts mm		e		238	260	280	318	400	440	446	540	556
		f							95	95	128	128
		h		150	180	202	214	244	292	330	394	440
		l		96	96	117	117	142	148	148	191	191
		l^1		96	96	117	117	142	142	142	171	171
		m		115	118	137	143	169	171	183	211	232
		s		11	11	11	12	14	15	15	15	15
∢		α °		15	15	30	22.5	30	30	30	30	45
Suitable standard Intermediate flange				A250	A300	A300-1	A350	A400-1	A450-1	A450-1	A550-1	A660
				A300	A350	A350	A400	A450	A550	A550	A660	A800
						A400	A450	A550	A660	A660	A800	
						A450						

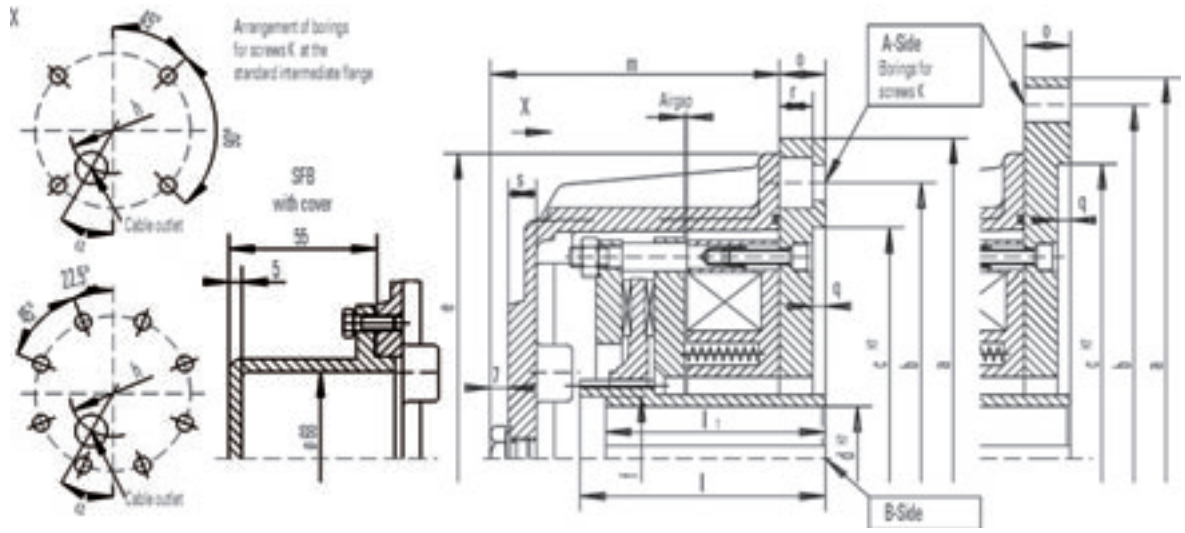
		Dimensions of standard intermediale flanges											
Standard intermediate flange		A250	A300	A300-1	A350	A400	A400-1	A450	A450-1	A550	A550-1	A660	A800
Diameter mm	a	250	300	300	350	400	400	450	450	550	550	660	800
	b	215	265	265	300	350	350	400	400	500	500	600	740
	c^{H7}	180	230	230	250	300	300	350	350	450	450	550	680
Lenghts mm	o	18	18	18	20	22	22	24	24	24	24	30	30
	q	5	5	5	6	6	6	6	6	6	6	7	7
	r	13		13			17.5		17.5		17.5		
Screws	k	4xM12	4xM12	4xM12	4xM16	4xM16	4xM16	4xM12	8xM16	8xM16	8xM16	8xM20	8xM20

Spring-Set Brake SFB

Electromagnetic Two-Disc Spring-Set Brake

PINTSCH BUBENZER

Rev. 05-08



Brake size				SFB 400	SFB 630	SFB 1000
Brake torque M2 dynamic acc. to DIN VDE 0580			Nm	4000	6300	10000
				3350	5250	8500
				2650	4200	7000
Mass moment of inertia			kgm²	0.325	0.375	1.007
Mass (weight)			kg	357	500	750
max. speed			min⁻¹	2500	2200	2000
Coil b. 20° C	Nominal voltage		V DC	110	110	110
	Nominal power		W	553	671	980
	Nominal current		A	5.03	6.10	8.91
Airgap, brake OFF			min. mm	0.4	0.7	0.7
			max. mm	2.5	2.8	3.1
Diameter mm	B-Side	d	Rough boring	46	58	68
		d H7	Preferential boring	65	100	125
				70		
				75		
				80		
				90		
		d H7	maximal	110	125	140
Lenghts mm		e		660	700	795
		f		128	140	155
		h		520	570	620
		l		191	237	282
		l 1		171	210	255
		m		272	310	360
		s		15	15	15
∢		α °		30	30	30
Suitable standard intermediate flange				A660-1	A800	A800-1
				A800		
				Dimensions of standard intermediate flange		
Standard intermediate flange				A660-1	A800	A800-1
Diameter mm		a		600	800	800
		b		600	740	740
		c H7		550	680	680
Lenghts mm		o		30	30	30
		q		7	7	7
		r		21.5		21.5
Screws		k		8xM20	8xM20	8xM20

Keyways for keys acc. to DIN6885 Bl.1, width accuracy P9. Protection IP67

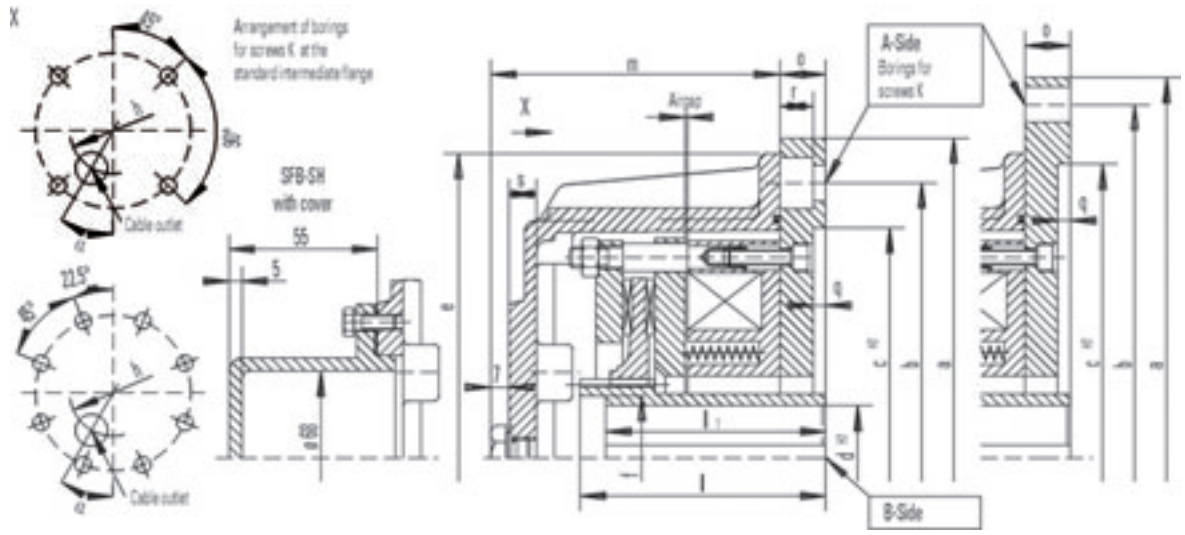
Alterations reserved without notice

Spring-Set Brake SFB-SH

Electromagnetic Two-Disc Spring-Set Brake
Increased brake-torque

PINTSCH BUBENZER

Rev. 05-08



Keyways for keys acc. to DIN6885 Bl.1, width accuracy P9. Protection IP67

Alterations reserved without notice

Brake size				SFB 6.3-SH	SFB 10-SH	SFB 16-SH	SFB 25-SH	SFB 40-SH	SFB 63-SH	SFB 100-SH	SFB 160-SH	SFB 250-SH
Brake torque M2 dynamic acc. to DIN VDE 0580			Nm	80	130	210	350	550	800	1300	2100	3300
				75	120	190	310	490	750	1200	1900	3000
				69	110	180	275	440	690	1100	1750	2750
Mass moment of inertia			kgm²	0.0017	0.0037	0.0048	0.0068	0.0175	0.036	0.050	0.128	0.140
Mass (weight)			kg	19	28	42	55	74	106	168	242	306
max. speed			min⁻¹	6000	6000	6000	5500	4700	4000	3600	3200	2800
Coil b. 20° C	Nominal voltage		V DC	110	110	110	110	110	110	110	110	110
	Nominal power		W	99	128	158	196	220	307	344	435	495
	Nominal current		A	0.90	1.16	1.44	1.78	2.0	2.79	3.13	3.95	4.50
Airgap, brake OFF			min. mm	0.3	0.3	0.3	0.4	0.4	0.4	0.6	0.4	0.4
			max. mm	0.9	1.2	1.2	1.3	1.4	1.8	1.8	2.3	2.5
Diameter mm	B-Side	d	Rough boring	26	26	36	36	36	36	36	46	46
		d^{H7}	Preferential boring	28	28	38	38	48	60	60	65	65
				32	32	42	42	55	65	65	70	70
				38	38	48	48	60	75	75	75	75
						55	55				80	80
											90	90
		d^{H7}	maximal	40	40	55	55	60	75	75	110	110
Lenghts mm		e		238	260	280	318	400	440	446	540	556
		f							95	95	128	128
		h		150	180	202	214	244	292	330	394	440
		l		96	96	117	117	142	148	148	191	191
		l^1		96	96	117	117	142	142	142	171	171
		m		115	118	137	143	169	171	183	211	232
		s		11	11	11	12	14	15	15	15	15
∢		α °		15	15	30	22.5	30	30	30	30	45
Suitable standard intermediate flange				A250	A300	A300-1	A350	A400-1	A450-1	A450-1	A550-1	A660
				A300	A350	A350	A400	A450	A550	A550	A660	A800
						A400	A450	A550	A660	A660	A800	
						A450						

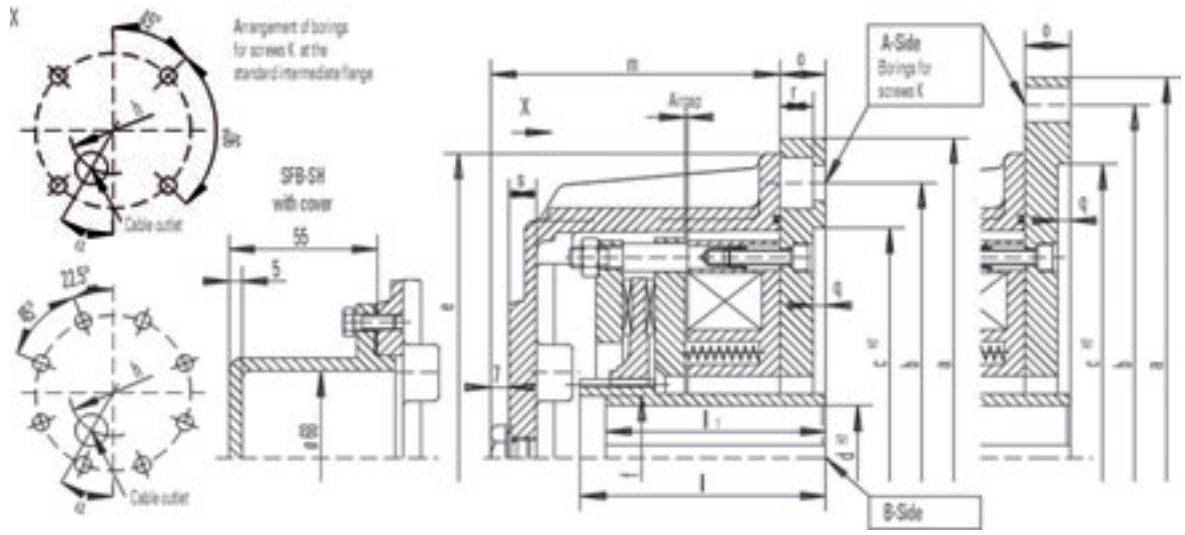
		Dimensions of standard intermediate flange											
Standard intermediate flange		A250	A300	A300-1	A350	A400	A400-1	A450	A450-1	A550	A550-1	A660	A800
Durchmesser mm	a	250	300	300	350	400	400	450	450	550	550	660	800
	b	215	265	265	300	350	350	400	400	500	500	600	740
	c^{H7}	180	230	230	250	300	300	350	350	450	450	550	680
Länge mm	o	18	18	18	20	22	22	24	24	24	24	30	30
	q	5	5	5	6	6	6	6	6	6	6	7	7
	r	13		13			17.5		17.5		17.5		
Screws	k	4xM12	4xM12	4xM12	4xM16	4xM16	4xM16	8xM16	8xM16	8xM16	8xM16	8xM20	8xM20

Spring-Set Brake SFB-SH

Electromagnetic Two-Disc Spring-Set Brake
Increased brake-torque

PINTSCH BUBENZER

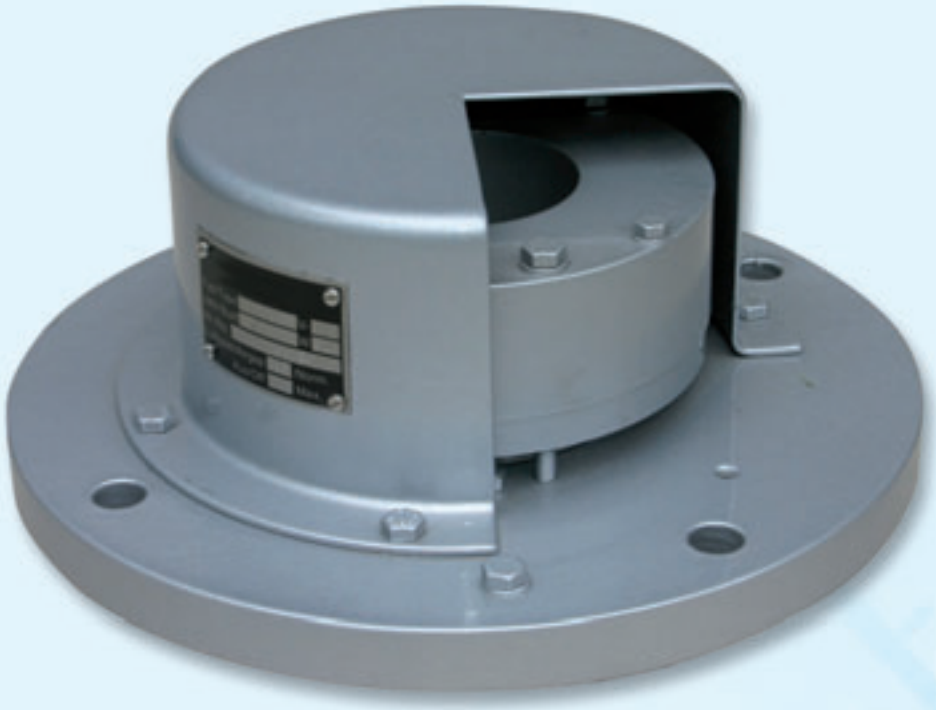
Rev. 05-08



Brake size				SFB 400-SH	SFB 630-SH	SFB 1000-SH
Brake torque M2 dynamic acc. to DIN VDE 0580			Nm	5200	8000	13000
				4800	7500	
				4400	6900	
Mass moment of inertia			kgm²	0.325	0.375	1.007
Mass (weight)			kg	357	500	750
max. speed			min⁻¹	2500	2200	2000
Spule b. 20° C	Nominal voltage		V DC	110	110	110
	Nominal power		W	553	671	980
	Nominal current		A	5.03	6.10	8.91
Airgap, brake OFF			min. mm	0.4	0.7	0.7
			max. mm	2.5	2.8	3.1
Diameter mm	B-Side	d	Rough boring	46	58	68
		d H7	Preferential boring	65	100	125
				70		
				75		
				80		
				90		
		d H7	maximal	110	125	140
Lenghts mm		e		660	700	795
		f		128	140	155
		h		520	570	620
		l		191	237	282
		l 1		171	210	255
		m		272	310	360
		s		15	15	15
∢		α °		30	30	30
Suitable standard intermediate flange				A660-1	A800	A800-1
				A800		
				Dimensions of standard intermediate flange		
Standard intermediate flange				A660-1	A800	A800-1
Durchmesser mm	a			600	800	800
	b			600	740	740
	c H7			550	680	680
Länge mm	o			30	30	30
	q			7	7	7
	r			21.5		21.5
Screws	k			8xM20	8xM20	8xM20

Keyways for keys acc. to DIN6885 Bl.1, width accuracy P9. Protection IP67

Alterations reserved without notice



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

Reliable

High Performance

Robust

Easy Maintenance

Compact

Tried and Trusted

Description MFB

Main Features

- spring applied safety brake
- electromagnetic lifting
- protection-class IP56
- small construction at high work capacity
- high wear reserve caused by high abrasion resistance
- manual lifting

Options

- cast iron cover (IP67)
- special voltage
- cover bore
- tacho preparation
- special electrical equipment:
- one-way-, bridge-, and switching- rectifier
- overvoltage protection element

Applications

- predominant in static uses at shipbuilding industry as holding- or safety- brake.
- industrial application with requirements of small dimensions at heavy duty applications.

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

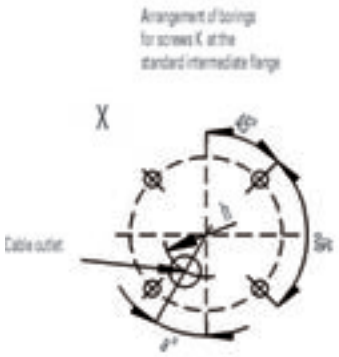
This includes the verification of the brake selection, if required. A detailed questionnaire is provided for this purpose. Installation and commissioning on site is possible by PINTSCH BUBENZER service engineers. Drawings as DWG/DXF files for your engineering department are available upon request.

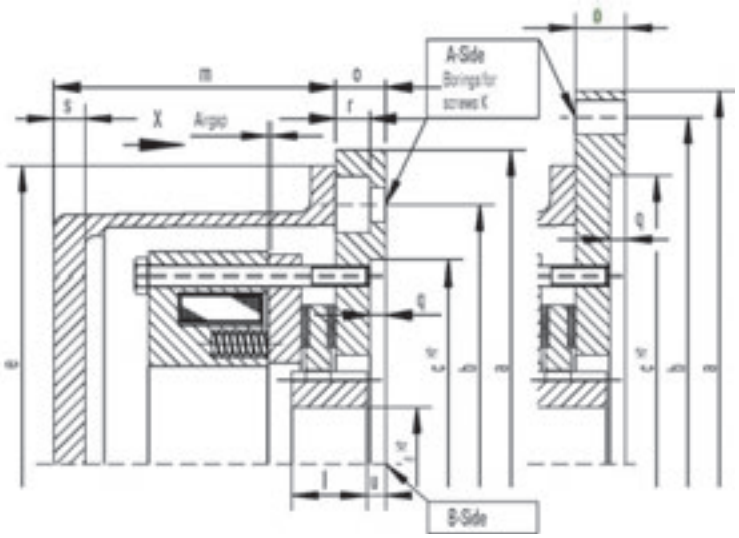
Spring-Set Brake MFB

Electromagnetic Two-Disc Spring-Set Brake

PINTSCH BUBENZER

Rev. 05-08





Keyways for keys to DIN 6885 T1, width accuracy P9

Brake torque acc. to DIN VDE 0580
Protection IP56

Alterations reserved without notice

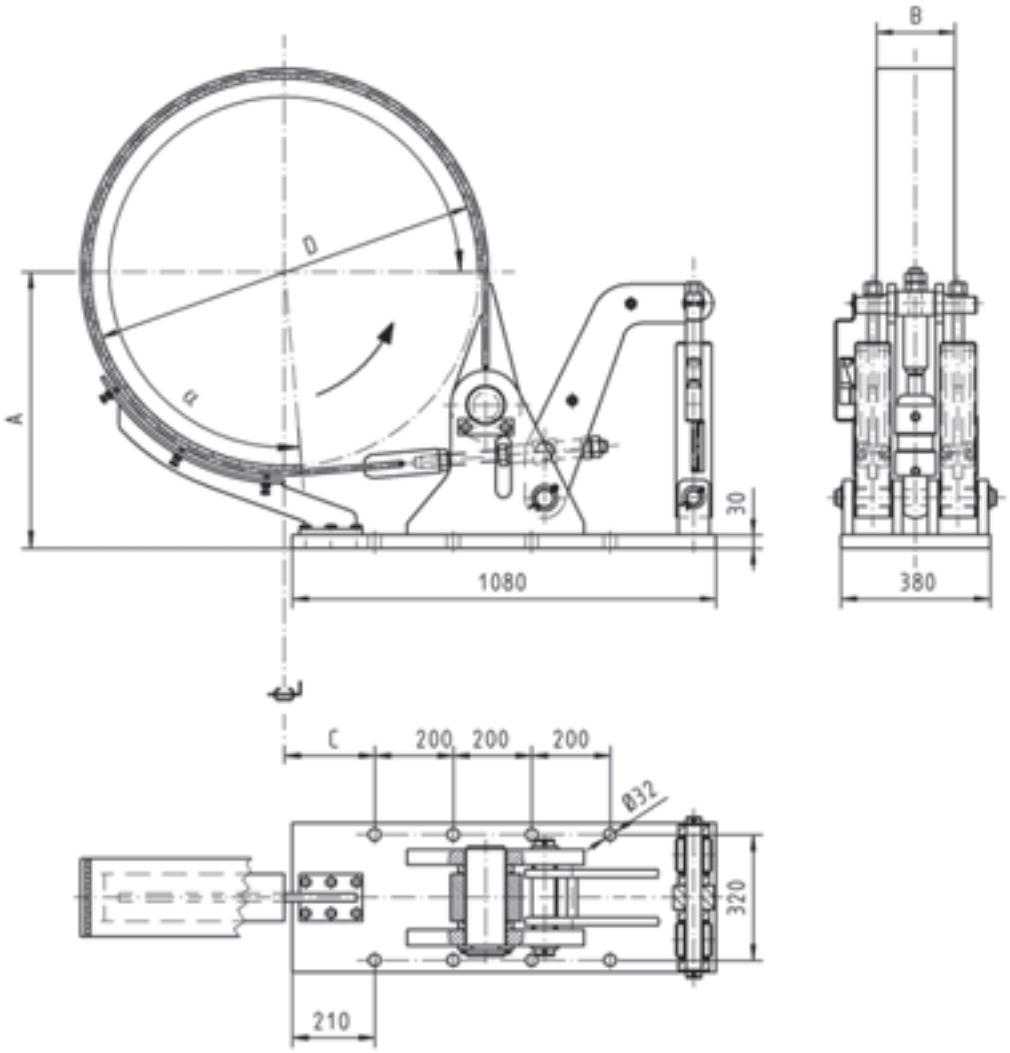
Brake size				MFB 1	MFB 2.5	MFB 5	MFB 10	MFB 16
Brake torque			Nm	10	25	50	100	160
Moment of inertia			kgm²	0.000145	0.0005	0.0012	0.0020	0.0048
Mass (weight)			kg	9	10	15	21	24
max. speed			min⁻¹	5500	4500	4000	3500	3000
Coil b. 20° C	Nominal voltage		V –	110	110	110	110	110
	Nominal power		W	31	52	76	94	125
	Nominal current		A	0.28	0.47	0.69	0.85	1.14
Airgap, OFF			norm. mm	0.2	0.2	0.3	0-3	0.3
			max. mm	0.5	0.6	0.8	0.8	1.1
Diameter mm	B-Seite	d	Rough boring	10	10	15	15	26
		d H7	Preferential boring	22	24	24		
						28	28	
		d H7	maximal	22	35	45	55	60
		e		190	190	238	260	300
Lenghts mm		l		20.5	24	26.5	30	40
		m		81.5	81.5	101.5	111.5	102
		s		1.5	1.5	1.5	1.5	1.5
		u		8	6	6	6	6
∢		α °		15	15	15	15	15
Suitable standard intermediate flange				A200	A200	A250-1	A300	A300-2
				A250-2	A250	A300-1	A350	A350-1

		Dimensions of intermediate flanges								
Standard intermediate flange		A200	A250	A250-1	A250-2	A300	A300-1	A300-2	A350	A350-1
Diameter mm	a	200	250	250	250	300	300	300	350	350
	b	165	215	215	215	265	265	265	300	300
	c H7	130	180	180	180	230	230	230	250	250
	h	114	144	162	114	200	170	208	200	208
Lenghts mm	o	16	18	18	18	18	18	18	20	22
	q	5	5	5	5	5	5	5	6	6
	r	11		13		13		13		17.5
Screws	k	4xM10	4xM12	4xM112	4xM12	4xM12	4xM12	4xM12	4xM16	4xM16

Band Brake Type BHB

Dimensions and technical data

Rev. 11-04

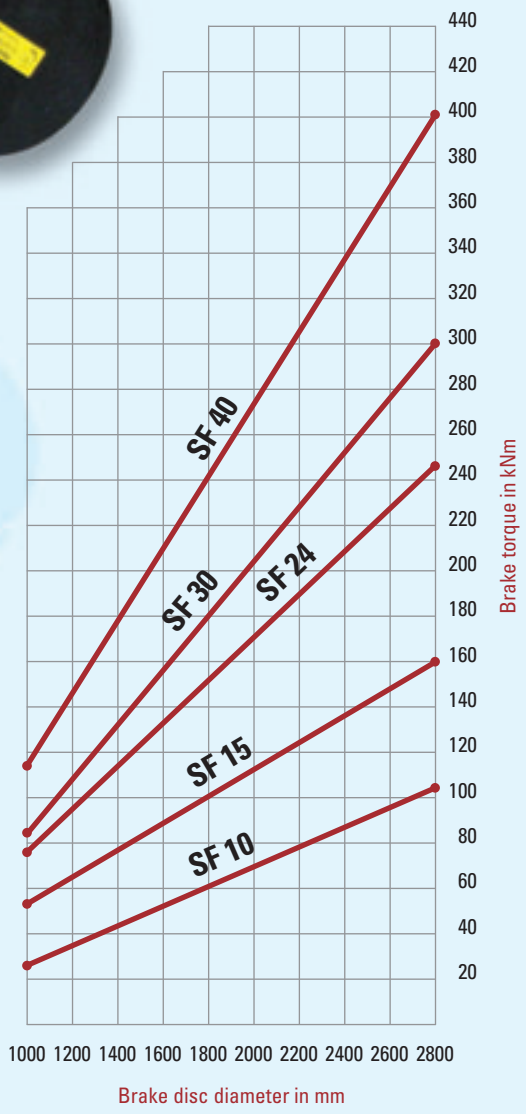


Other diameters and release by thruster upon request.

*) Average friction factor of standard material combination

All dimensions in mm
Alterations reserved without notice

Brake type	A	D	C	E	M_{Br} (kNm) μ=0,4*	Band width (B)
BHB 990-80/60	700	990	20	230	min. 60	
					<100	120
					<160	160
					max. 203	200
BHB 1110-80/60	760	1110	80	290	min. 70	
					<140	120
					<180	160
					max. 230	200
BHB 1240-80/60	825	1240	145	355	min. 60	
					<160	120
					<200	160
					max. 253	200
BHB 790-80/60 (Wrap angle 265° !)	600	790	-30	180	min. 60	120
					<100	160
					max. 130	200



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

Reliable | **High Performance** | **Robust Design** | **Easy Maintenance**

Description SF

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

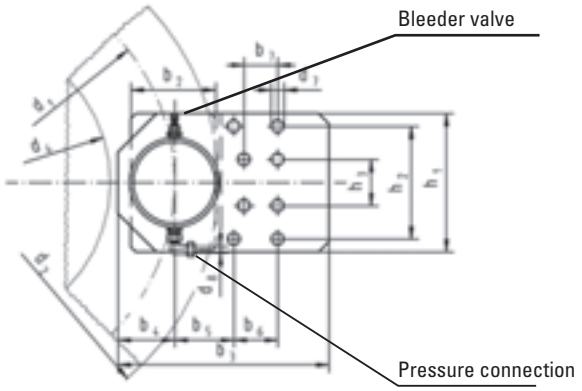
This includes the verification of the brake selection, if required. A detailed questionnaire is provided for this purpose. Installation and commissioning on site is possible by PINTSCH BUBENZER service engineers. Drawings as DWG/DXF files for your engineering department are available upon request.

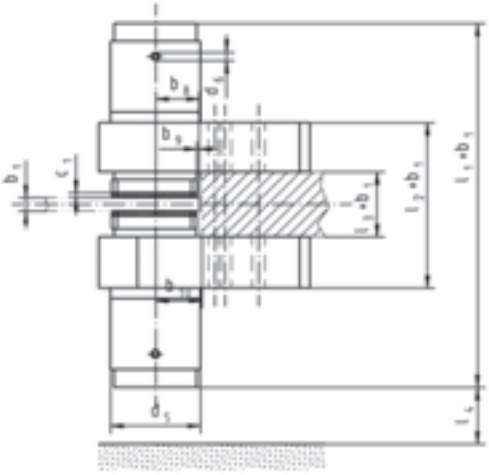
Disc Brake SF

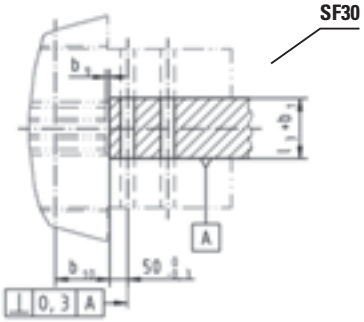
Dimensions and technical data

PINTSCH BUBENZER

Rev. 12-06





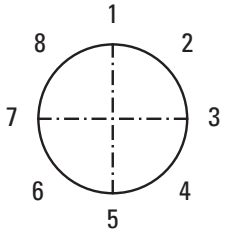


*) Average friction factor of standard material combination

All dimensions in mm. Alterations reserved without notice.

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	ø	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
Data per caliper half: 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

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



Please indicate mounting position in case of order.

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

d_2 = Brake disc diameter in mm
d_1 = Friction diameter in mm
d_4 = Max. permissible drum or hub diameter in mm
b_1 = Disc thickness in mm (min. 30)

Disc Brake SF

Hydraulic power unit for one or more calipers

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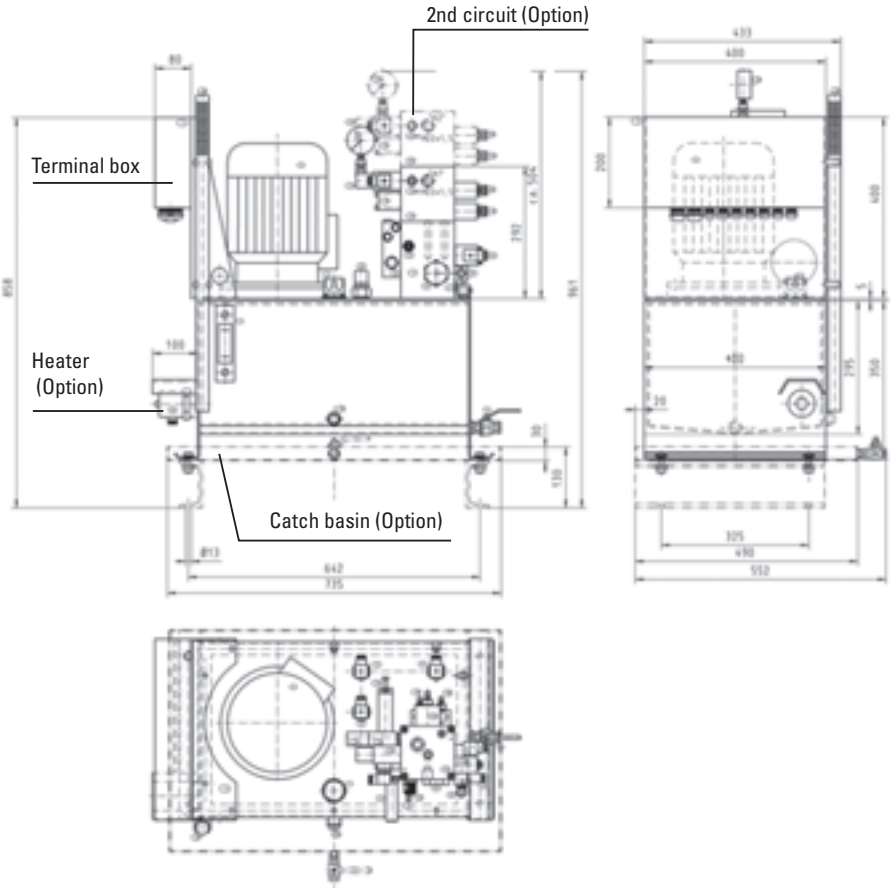
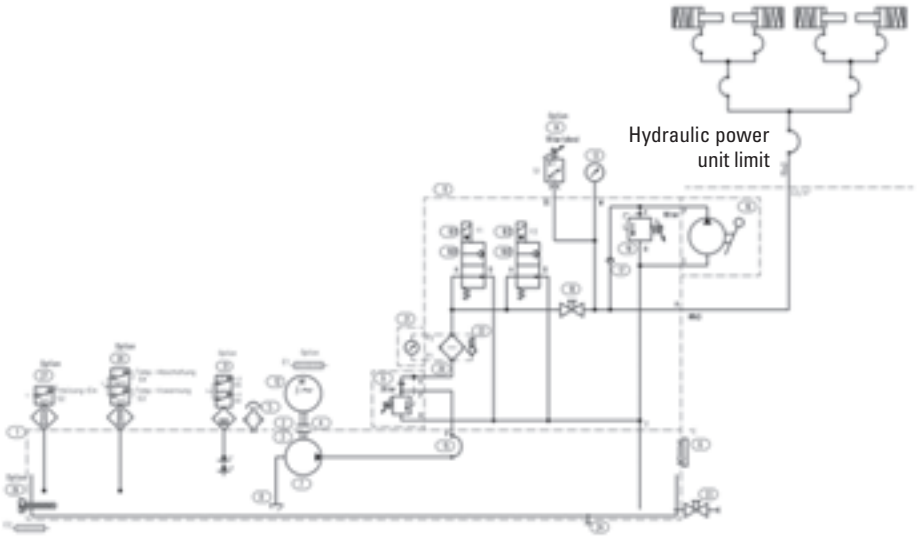
Rev. 12-06





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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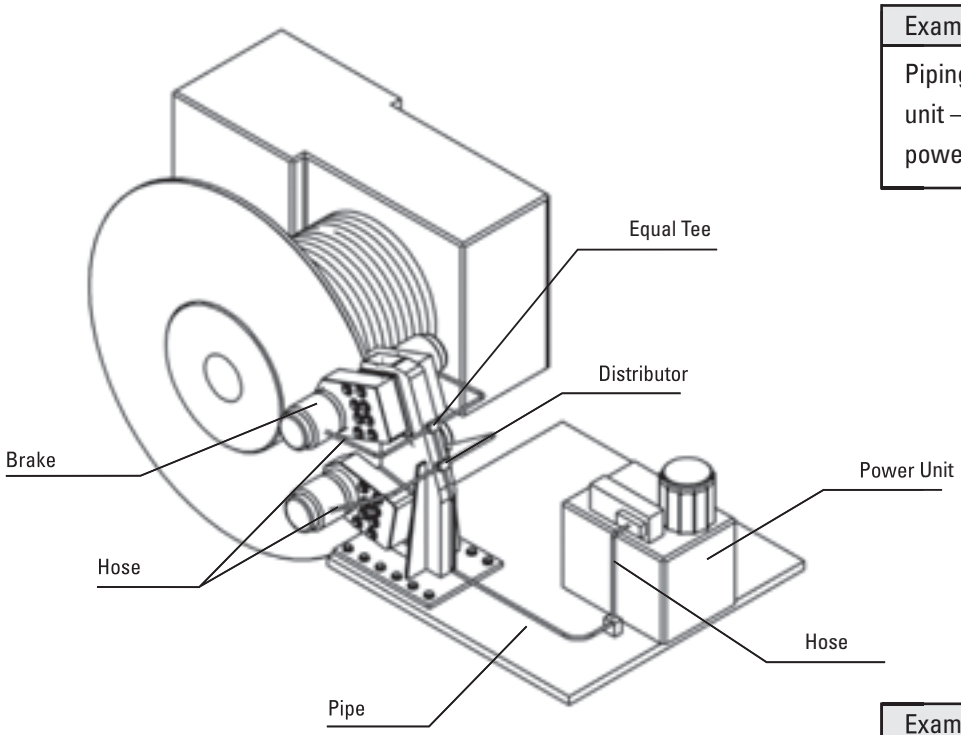
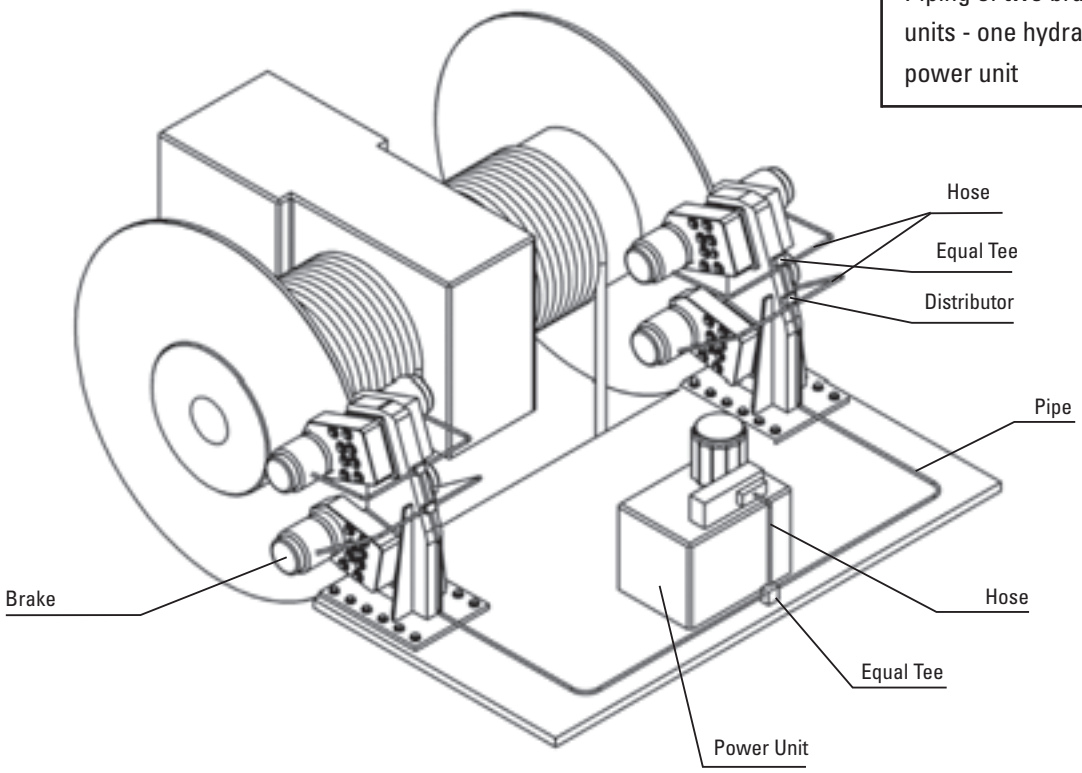
Example:

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).

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

Reliable **High Performance** **Robust** **Compact**

Description BSC

Main Features

- Two identical caliper halves, ready for operation, with spring packs set to nominal force
- Up to 1 mm airgap between brake pad and disc
- Easy, manual pad wear compensation
- Organic, non-asbestos linings

Options

- Limit switch release control
- 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

Applications

The high capacity of these brakes makes them particularly suitable as service- or secondary emergency brakes e.g. on hoists, slew drives and conveyor belts.

Other applications are possible in material handling, mechanical engineering and wind turbine industry requiring power and compact design in either direction of rotation.

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 BSC

Dimensions and technical data

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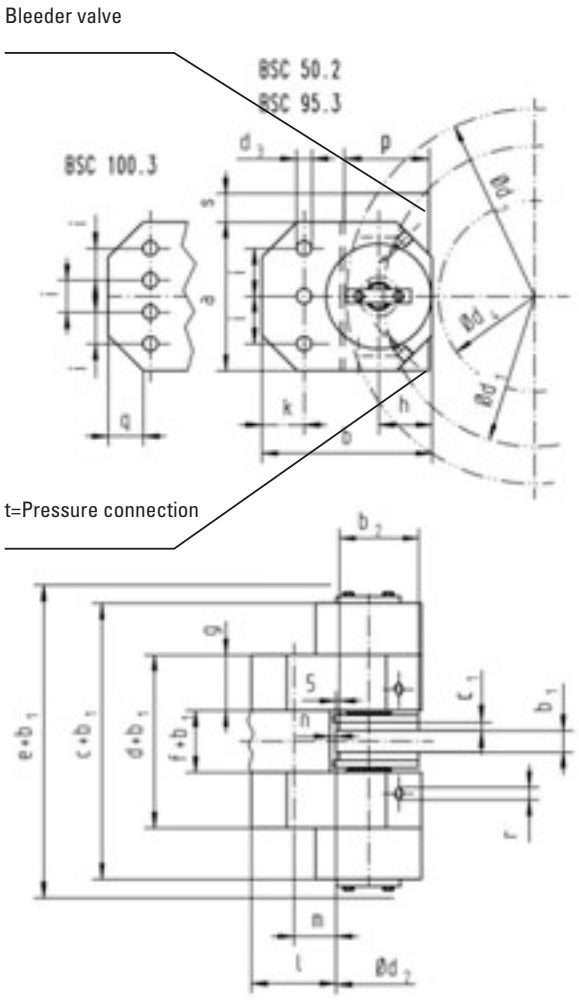
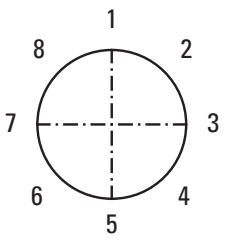


Type BSC		50.2	95.5	100.5
a		130	220	210
b		128	213	240
b_2		63	112	112
c		224	380	360
c_1		6	12	12
d		108	137	215
d_3		14	21	22
e		302	435	412
f		38	57	57
g		35	40	79
h		42	75	75
i		35	47,5	45
k		24	32	60
l		53	78	119
m		29	46	59
n		7	8	8
p		70	120	120
q		30x30°	25x45°	50x45°
r		1/4"	3/8"	3/8"
s		30	34	40
t		ø10	ø12	ø12
Bolt	ø	M12	M20	M20
Bolt material		8.8	8.8	10.9
Tighten. torque,	Nm	86	410	560
Data per caliper half: Contact force F_A	kN	7	20	35 / 50
Op. pressure	bar	60	60	100 / 160
Max. pressure	bar	90	100	180
Release stroke	mm	1	1	1
Oil volume	l	0,002	0,004	0,005
Pad surface	cm^2	73	195	195
Theor. friction	µ*	0,40	0,40	0,40
Weight	(kg)	12	30	40

*) 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.

Brake disc data			
	BSC 50.2	BSC 95.5	BSC 100.5
d_1 =	d_2-70 mm d_2-	105 mm	d_2-105 mm
d_4 =	d_2-170 mm	d_2-284 mm	d_2-260 mm

d_2 = Brake disc diameter in mm
d_1 = Friction diameter in mm
d_4 = Max. permissible drum or hub diameter in mm
b_1 = Disc thickness in mm (min. 30)

Disc Brake BSC

Hydraulic power unit for one or more calipers

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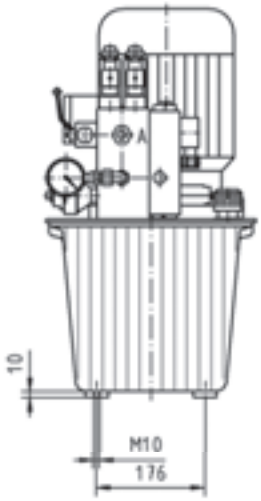
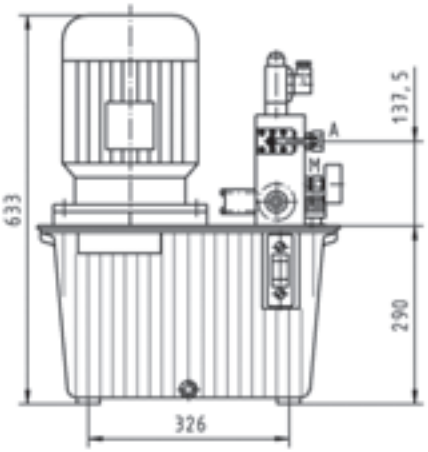
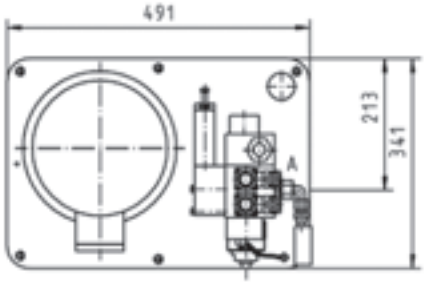
Rev. 09-02







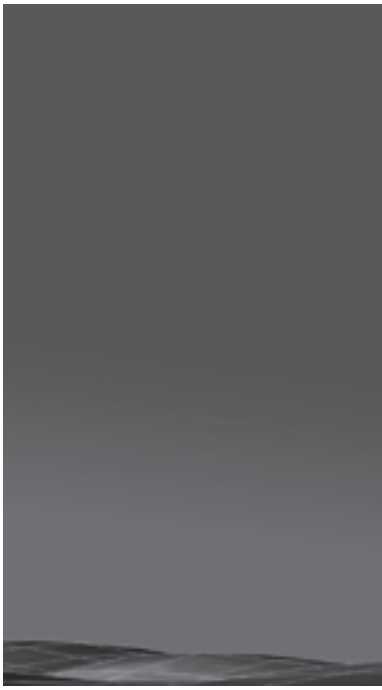
Example:		
Standard configuration up to 4 BSC 100.3		
Motor:	3	kW
Pump:	9	l/min
Pressure:	180	bar
Tank:	30	l

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, space heater and other accessories are available options.

All dimensions in mm
Alterations reserved without notice

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



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