Mode of operation

Releasing the brake

If the 2/2 directional seat valve is energized, it is in closed position. The hydraulic pump motor starts working.Thus, the hydraulic pressure is increased up to the value adjusted with pressure switch. When reaching the adjusted pressure, the caliper is fully released.
The caliper release time is approximate 1 s from energizing of hydraulic pump motor and 2/2 directional seat valve.

Brake in released position

The higher order control system switches off the hydraulic pump motor with motor contactor via control signal from pressure switch. The caliper remains in released position due to check valve and the 2/2 directional seat valve is set to closed position (energized).

Loss of pressure

The hydraulic system pressure could drop under the value adjusted on pressure switch due to possible leakage of hydraulic piping. The motor contactor switches on the hydraulic pump motor via control signal from the higher order control system. Thus, the hydraulic pressure is increased up to the value adjusted with pressure switch.

Closing the brake

For closing the brake, the 2/2 directional seat valve and the hydraulic pump motor are disenergized
simultaneuously. Thus the hydraulic pressure returns to the reservoir and the caliper is applied immediately. The closing times of the brakes in data sheet M 1501 259 E are valid after switch off power supply. In case of emergency switch off or power failure the brake closes as discribed above.

Emergency condition

The hand pump is designed for an operating under emergency condition.
For releasing the caliper by hand pump the 2/2 directional seat valve must be closed manually in order to close the return line.

safety drive

It’s necessary to control from the customer control system to switch off the pump motor in every case after approx. 15 s (depends on the system). If the pressure switch don’t react after approx. 15 s there is a system failure. This failure is to report from the customer control system.

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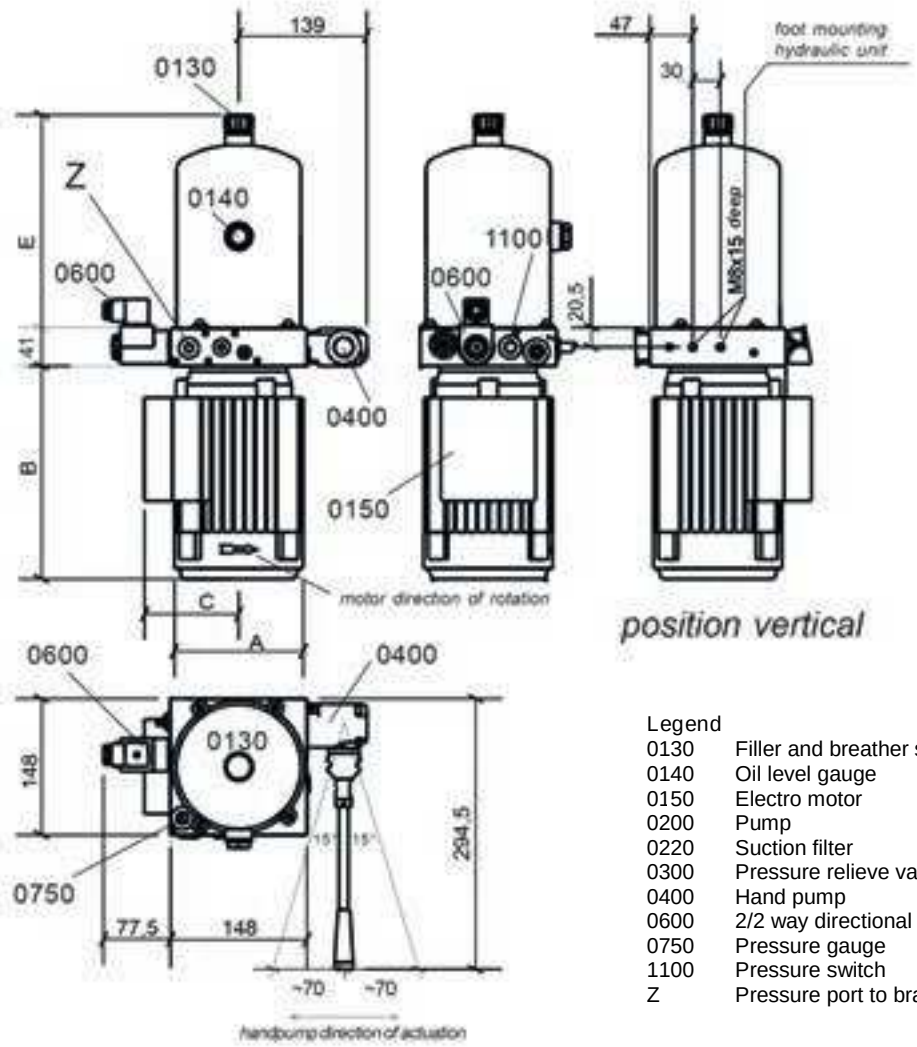


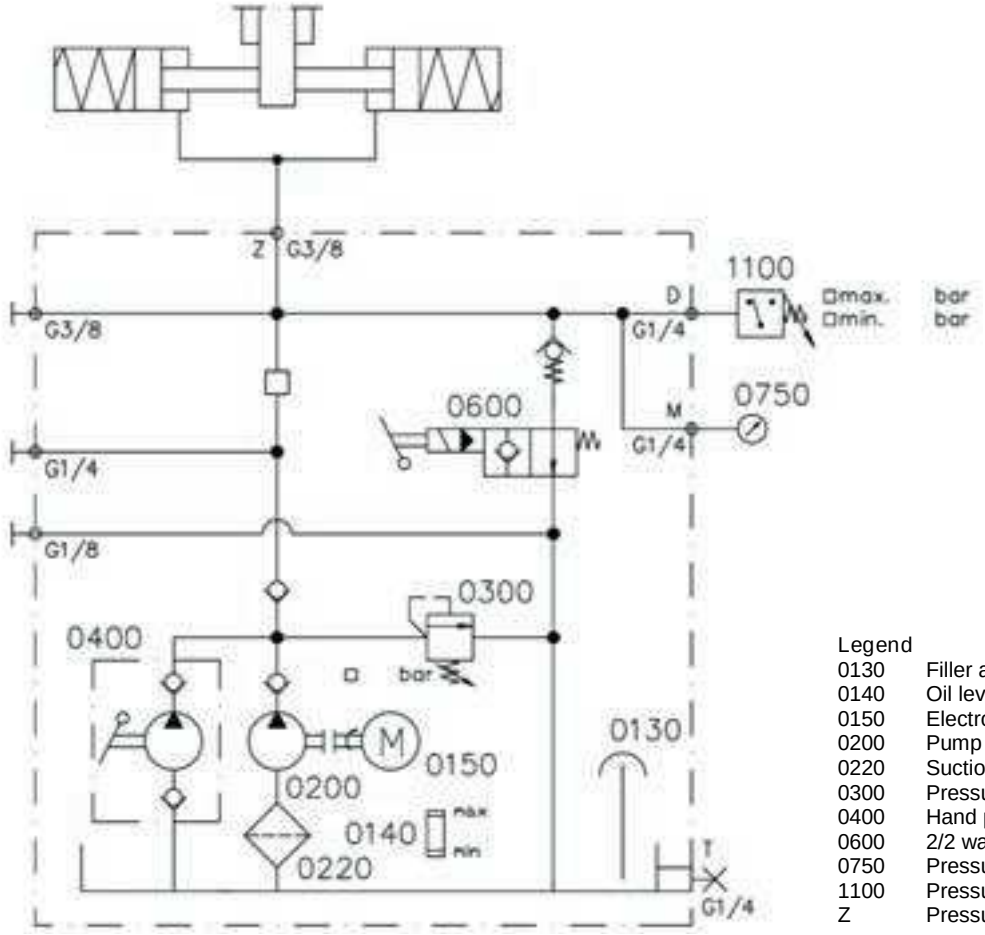
Legend

0130	Filler and breather screw
0140	Oil level gauge
0150	Electro motor
0200	Pump
0220	Suction filter
0300	Pressure relieve valve
0400	Hand pump
0600	2/2 way directional seat valve
0750	Pressure gauge
1100	Pressure switch
Z	Pressure port to brake G3/8“

Technical Data

• Weight without oil-filling	approx.. 15 kg
• Tank volume	4 ltr.
• Ambient temperature ranges	-15℃ … +40℃ in standa rd version others upon request
• humidity	≤ 90%
• recommended operating fluid	HLP Hydraulic oil acc DIN51524-T2 - for standard version: HLP Synth 32 - others version: upon request
• protection class	IP55
• max. no. of operating cycles per hour	50
• motor supply voltage range	rotating clockwise when looking at ventilator: 50 Hz / 380-420 V 60 Hz / 440-480 V
• valve voltages	P = 24 V DC (Standard) V = 115 V AC ; 50/60 Hz (optional) W = 230 V AC ; 50/60 Hz (optional) (others upon request)
• valve capacity per valve	35 l/min at Δp 10 bar
• mounting position of HPU	vertical

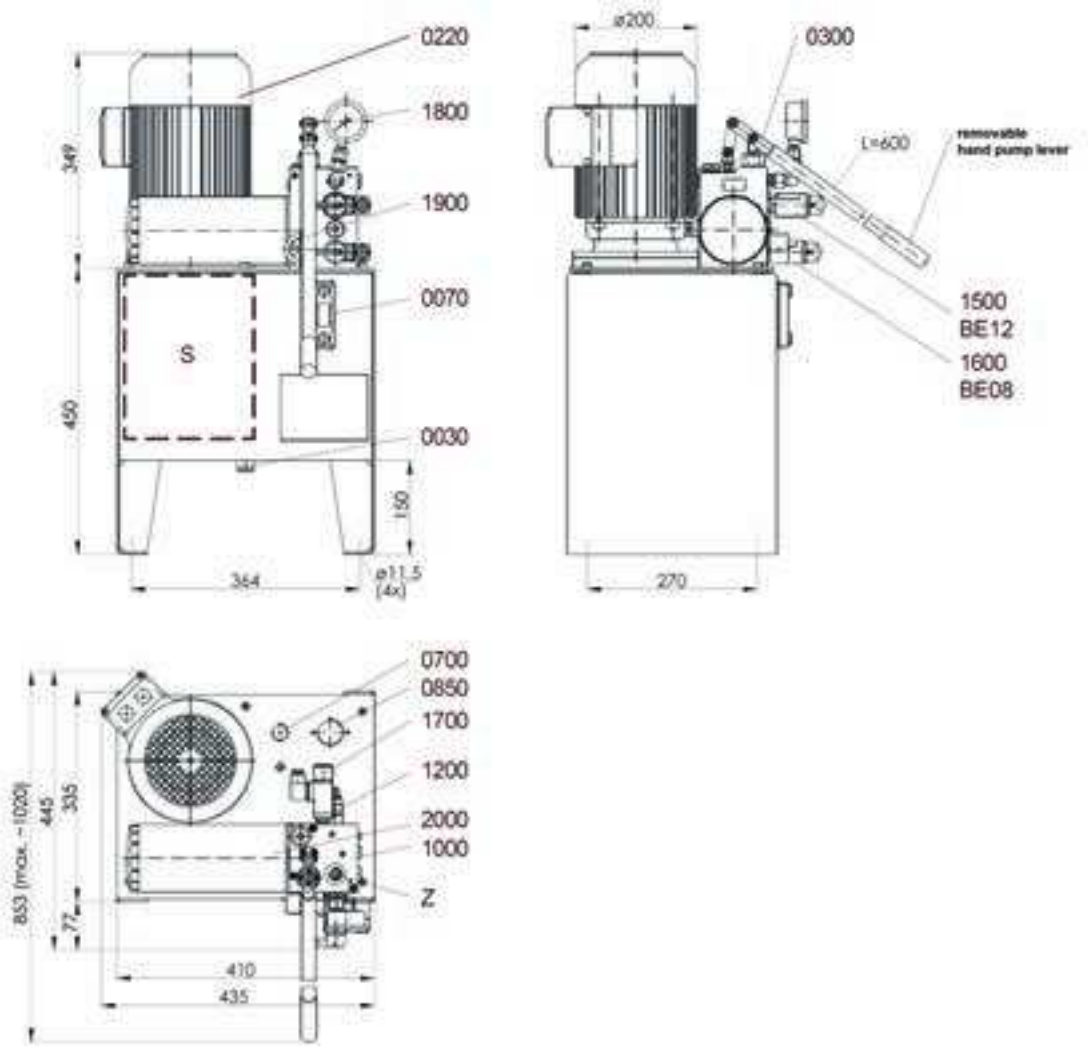
Type	Pressure switch		Pressure relieve valve setting (DBV)	Release pressure	Pump capacity	Motor power
	min	max				
	bar		bar	bar	l/min	kW
V2.1-E	55	70	85	55	9,0	1,5
V2.1-A	80	95	110	80	9,0	1,5
V2.1-B	120	135	150	120	7,2	1,5
V2.1-D	145	160	175	145	5,8	1,5
V2.1-C	175	190	205	175	5,8	1,5



Legend

0130	Filler and breather screw
0140	Oil level gauge
0150	Electro motor
0200	Pump
0220	Suction filter
0300	Pressure relieve valve
0400	Hand pump
0600	2/2 way directional seat valve
0750	Pressure gauge
1100	Pressure switch
Z	Pressure port to brake G3/8“

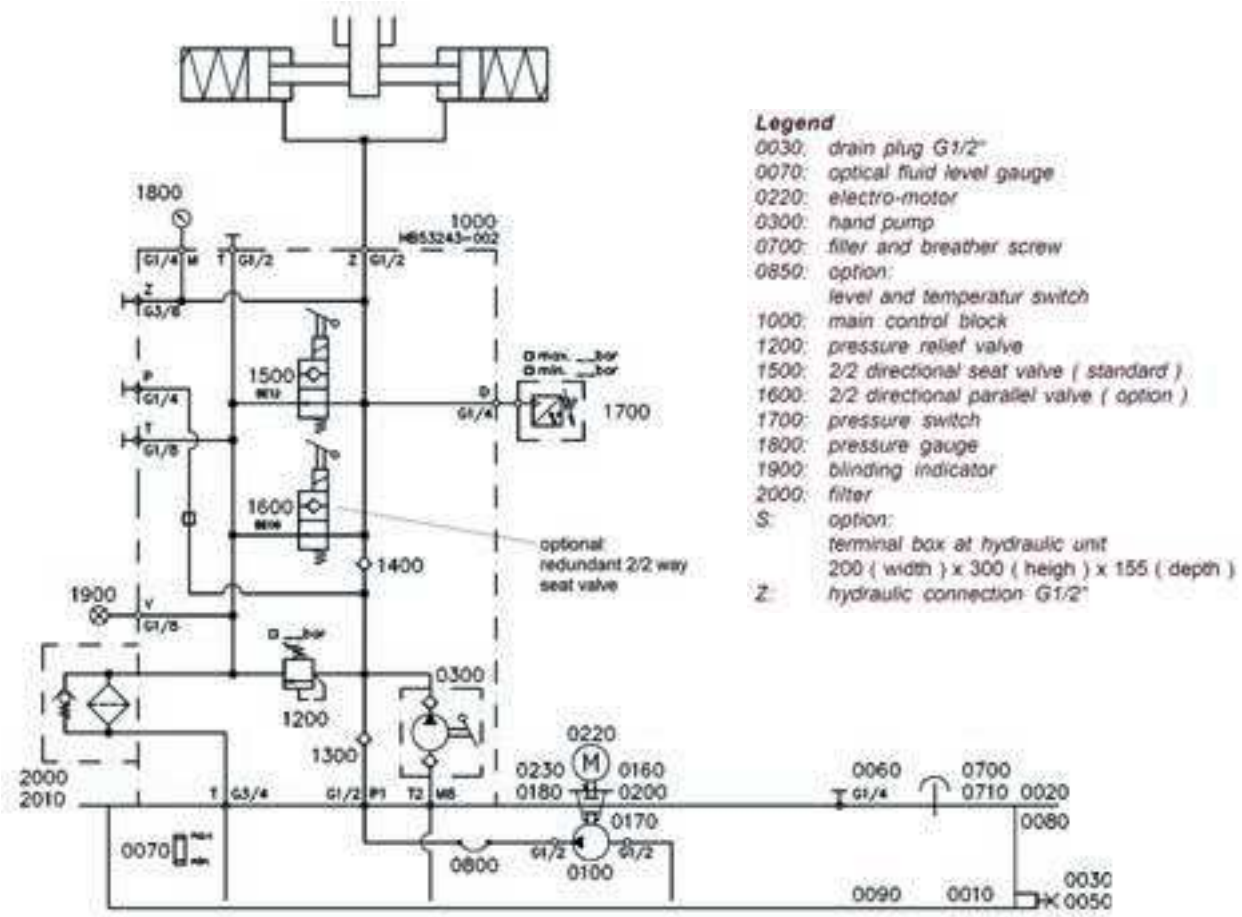
Type	Suitable for					
V2.1-E	SHI 102	SHI 101	SHI 75-2	SHI 75-1	SHI 52	SHI 51
V2.1-A	SHI 104	SHI 103	SHI 75-4	SHI 75-3		
V2.1-B	SHI 251	SHI 201	SHI 105	SHI 75-5	SHI 53	
V2.1-D	SHI 252	SHI 231	SHI 106	SHI 75-6		
V2.1-C	SHI 232	SHI 202	SHI 107	SHI 54		
	CB8-H					



Technical Data

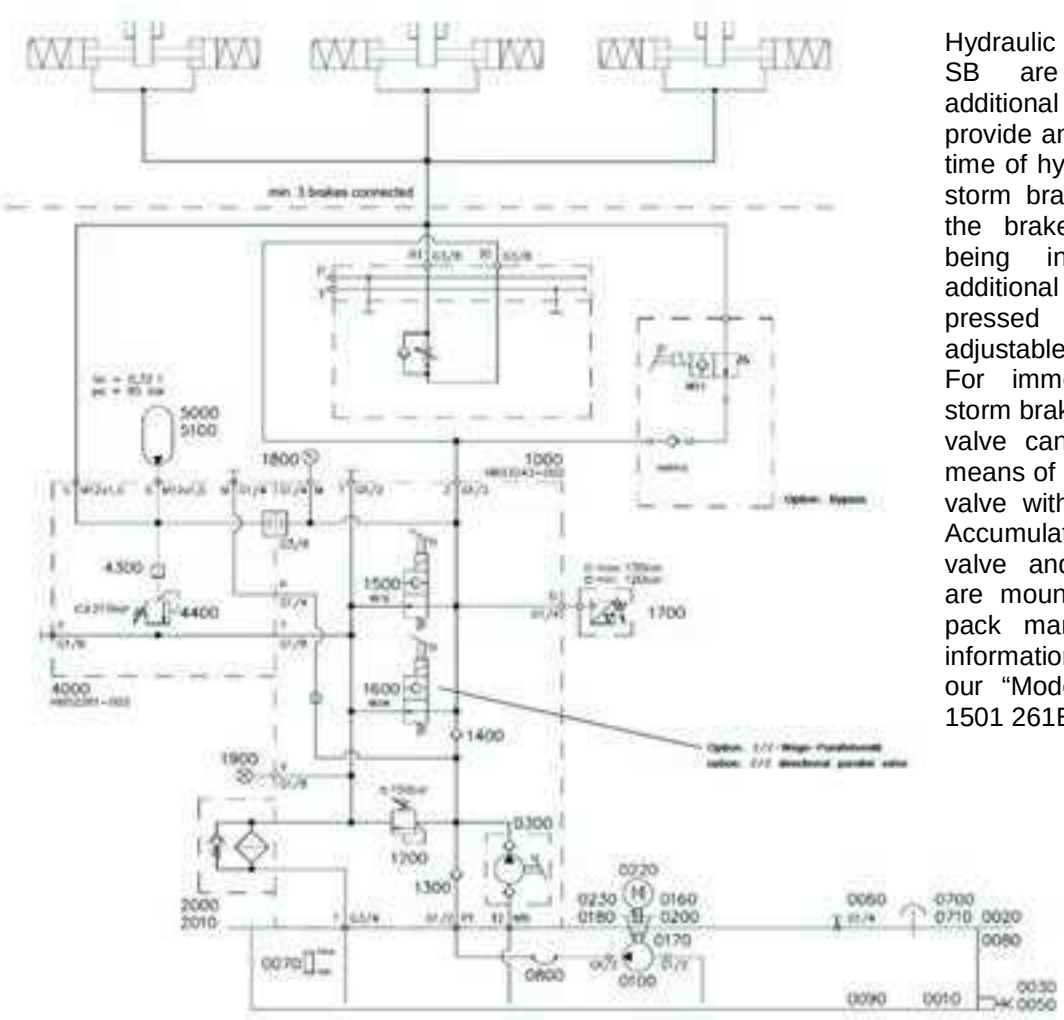
• Weight without oil-filling	approx.. 60 kg
• Tank volume	30 ltr.
• Ambient temperature ranges	-15℃ … +50℃ in standa rd version -40℃ … +40℃ in low temperature version -15℃ … +75℃ in high temperature version
• humidity	≤ 90%
• recommended operating fluid	HLP Hydraulic oil acc DIN51524-T2 - for standard version: HLP Synth 32 - others version: upon request
• protection class	IP55
• max. no. of operating cycles per hour	50
• motor supply voltage range	rotating clockwise when looking at ventilator: 50 Hz / 380-420 V 60 Hz / 440-480 V
• valve voltages	P = 24 V DC (Standard) V = 115 V AC ; 50/60 Hz (optional) W = 230 V AC ; 50/60 Hz (optional) (others upon request)
• valve capacity per valve BE12 valve capacity per redundant valve BE08	100 l/min at Δp 10 bar 35 l/min at Δp 10 bar
• mounting position of HPU	horizontal

Type	Pressure switch		Pressure relieve valve setting (DBV)	Release pressure	Pump capacity	Motor power
	min	max				
	bar		bar	bar	l/min	kW
V3 E	55	70	85	55	20	3.0
V3 A	80	95	110	80	20	3,0
V3 B	120	135	150	120	13	3.0
V3 D	145	160	175	145	9	3,0
V3 C	175	190	205	175	9	3.0



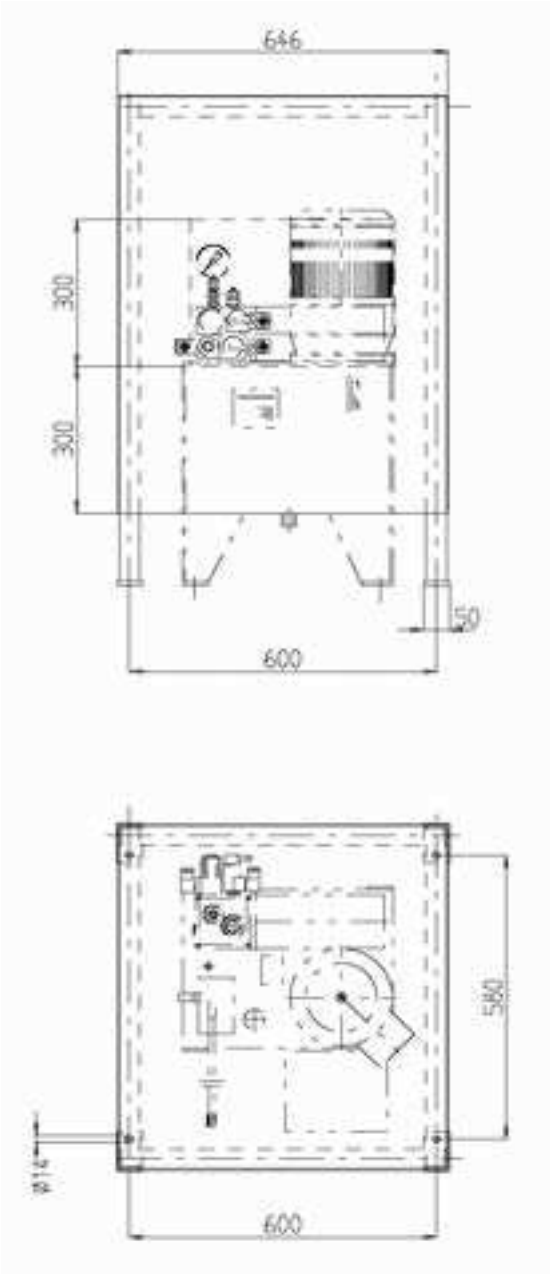
Type	Suitable for					
V3 E	SHI 102	SHI 101	SHI 75-2	SHI 75-1	SHI 52	SHI 51
	RHI 102	RHI 101				
V3 A	SHI 104	SHI 103	SHI 75-4	SHI 75-3		
	RHI 104	RHI 103				
V3 B	SHI 251	SHI 201	SHI 105	SHI 75-5	SHI 53	
	RHI 105	RHI 70	RHI 56	RHI 30		
	RPS 200					
V3 D	SHI 252	SHI 231	SHI 106	SHI 75-6		
	RPS 450					
V3 C	SHI 232	SHI 202	SHI 107	SHI 54		
	RPS 600	RPS 300				
	CB8-H					

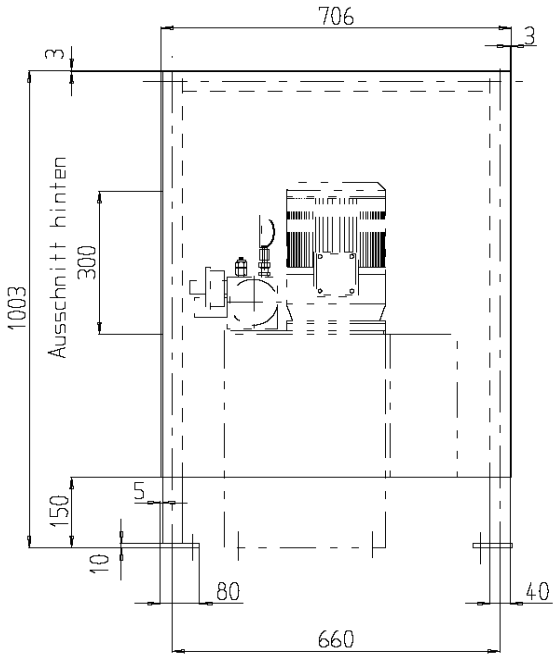
Type	Pressure switch		Pressure relieve valve setting (DBV)	Release pressure	Pump capacity	Motor power
	min	max				
	bar		bar	bar	l/min	kW
V3-SB E	55	70	85	55	20	3.0
V3-SB A	80	95	110	80	20	3,0
V3-SB B	120	135	150	120	13	3.0
V3-SB D	145	160	175	145	9	3,0
V3-SB C	175	190	205	175	9	3.0



Hydraulic power packs V3-SB are equipped with additional components to provide an adjustable closing time of hydraulically released storm brakes. When closing the brakes the oil-volume, being increased by an additional accumulator, is pressed through an adjustable flow control valve. For immediate closing of storm brakes, the flow control valve can be bypassed by means of an optional 2/2 port valve with non-return valve. Accumulator, flow control valve and optional bypass are mounted on the power pack manifold. For further information please refer to our “Mode of Operation M 1501 261E”.

Type	Suitable for					
V3-SB E	RHI 102	RHI 101				
V3-SB A	RHI 104	RHI 103				
V3-SB B	RHI 105	RHI 70	RHI 56	RHI 30		
V3-SB D	SHI 252	SHI 231	SHI 106	SHI 75-6		
V3-SB C	RPS 600	RPS 450	RPS 300	RPS 200		





Cover for Hyd. Power Packs V3 with removable front plate and rear-side inspection window

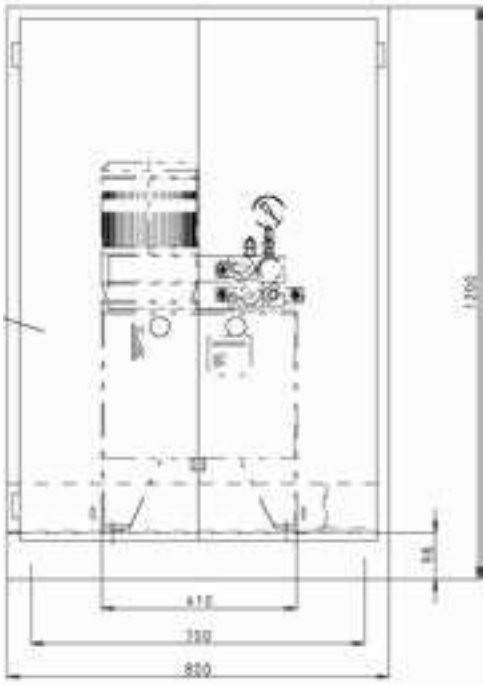
- robust welded steel structure with bolted cover plates
- available in powder coated steel version (version A) or completely made of stainless steel (version B)

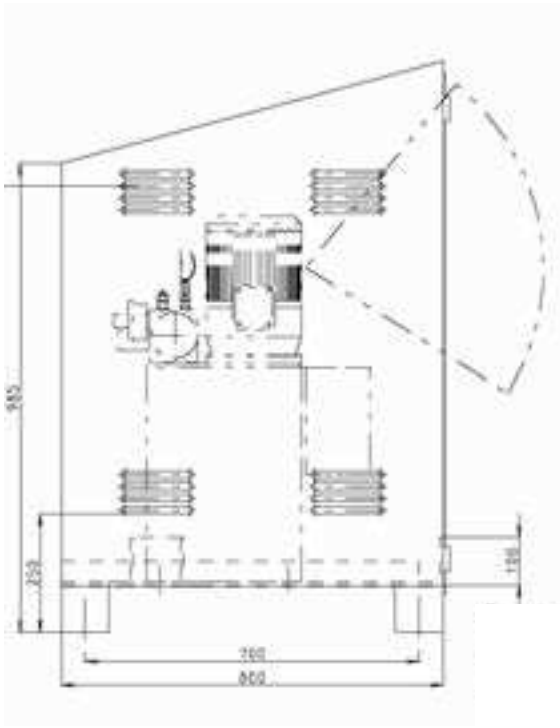
Ordering Instructions

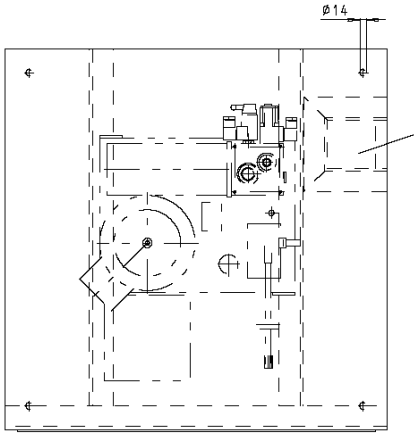
When ordering please advise:

Cover for Hydr. Power Pack V3

- acc. to data sheet M 1501 311 E
- version A (powder coated)
- version B (stainless steel)







Housing for Hydr. Power Packs Version V3
- with two big-size doors for easy access for operating and maintenance
- housing bottom built as oil tray for up to 30 ltr. of oil
- available in powder coated steel version (version A) or completely made of stainless steel (version B)

Ordering Instructions

When ordering please advise:
Housing for Hydr. Power Pack V3
- acc. to data sheet M 1501 312 E
- version A (powder coated)
- version B (stainless steel)