

Check valves and pre-fill valves type F

The check and pre-fill valves type F utilize a spring pre-loaded valve head.

The check valves type F enable free flow in one direction and block the flow in the opposite direction.

This valve is used as a high flow valve (check valve with hydraulic release) in top ram presses for quickly draining and replenishing press cylinders during opening and closing in rapid traverse mode.

The smaller sizes may be equipped with a pre-relief device as an option to prevent pressure surges during decompression (high volume and high pressure surge).



Nomenclature: Check valve
Check valve with hydraulic release (pre-fill valve)

Design: Intermediate section between pipe flanges

Actuation: Hydraulic

p_{max} : 400 bar

Q_{max} : 100...7000 lpm

Basic types and general parameters

Basic type and size		Flow	Oper. pressure	Release ratio	Symbol
Check valve	Pre-fill valve	Q_{max} (lpm)	p_{max} (bar)	p_A / p_Z	
F 25	F 25-12	100	400	4.3	Pre-fill valve
F 32	F 32-16	160	400	3.6	
F 40	F 40-20	250	400	3.9	Check valve
F 50	F 50-25	400	400	4.2	
F 63	F 63(B)-30 ¹⁾	630	400	4.2	
F 80	F 80(B)-36 ¹⁾	1000	400	4.5	
F 100	F 100(B)-45 ¹⁾	1600	400	4.3	
F 125	F 125(B)-60 ¹⁾	2500	400	4.3	
F 160	F 160-76	4000	400	4.3	
F 200	F 200-100	7000	350	4.0	

¹⁾ Pre-fill valve type F.B-... = Version with mounting holes at the outer rim

Additional versions

- Pre-fill valves with pre-reliefs (size 25 to 80)
- Pre-fill valves providing a hole pattern for the mounting screws in the flange
- Servo-suction and return control valves type N used as simple check valves or as check valves with hydraulic release (response pressure may be lower or higher than in the main duct) for bottom ram presses

Order examples

F 100 B - 45

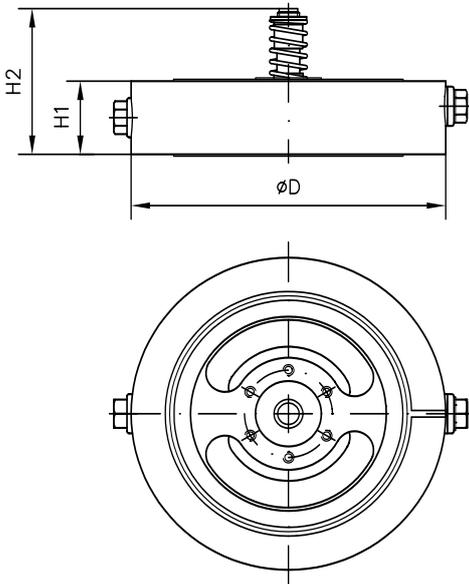
Pre-fill valve size 100 with holes in the mounting flange

F 100

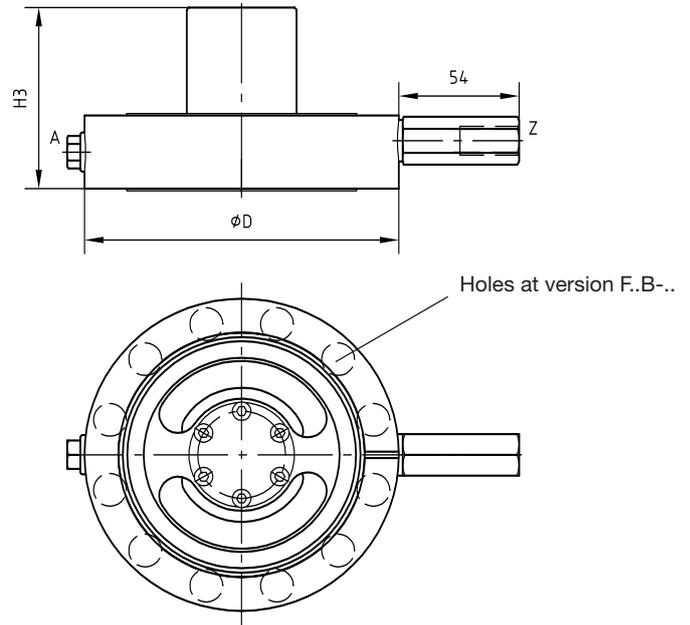
Check valve size 100

Dimensions

Check valve



Pre-fill valve



Basic type	D	H1	H2	H3	m (kg)	
F 25 F 25-12	83	26	36	43	1	1.1
F 32 F 32-16	93	27	45	55	1	1.2
F 40 F 40-20	108	28	48.5	60	1.4	1.7
F 50 F 50-25	128	29	59	72	2	2.4
F 63 F 63(B)-30	143	33.5	69	83	2.8	3.4
F 80 F 80(B)-36	169	38.5	83	97.5	4.4	5.2
F 100 F 100(B)-45	212	44	97	118	9.9	11.7
F 125 F 125(B)-60	248	51	127	155	15.8	19.6
F 160 F 160-76	310	70	182	233	43	50
F 200 F 200-100	420	150	250	300	114	120

All dimensions in mm, subject to change without notice!

Further information

- Check valves and pre-fill valves type F D 6960
- Servo-suction and return control valves type N D 4416

- See also section "Devices for special applications" (Press controls)

For page and section of the devices additionally listed, see type index