PROCHEM SERVICES LTD

Series 1100 Pressure Relief & Loading valves



Our high quality, cost effective Series 1100 valves are designed for dosing pumps and skids, but are equally suited to other loading or relief functions. The valves are available in a breadth of sizes with standard options for all applications.

Manufactured in a wide variety of materials, the Series 1100 valves can be configured for all liquid types and are able to deal with large capacity flow rates. Spare kits are available for the whole series and valves can have factory pre-set pressures at no extra cost.

To choose the valve for your application use the valve specifier overleaf or contact our technical team for assistance.

- 2D dimensional drawings and 3D CAD models available for download from Technical Data Page on website
- 3.1 for metal valves and test certificates are available
- 1100 valves comply with PED 2014/68/EU & UKCA

Bonnet Material	Max operating temperature (based on bonnet construction)
PVC	60°C
Polypropylene	90°C
Stainless steel	90°C with EPDM diaphragms
Stainless steel	120°C with FPM or PTFE diaphragms

	# Max allowable pressure @ 20°C
Plastic bonnet	[with plastic or metal body]
⅜" - 1½"	16 Bar
2"	12 Bar
Metal bonnet	24 Bar (with metal body only)

Sizes			Pulsed flow rate	Damped /smooth flow rate	Adjustment range			
					Std relief	Std loading	HP relief *	HP loading
OD (mm)	DN	NB	L/Hr	L/Hr	BarG	BarG	BarG	BarG
16	10	⅜"	200	400	0 - 10	0 - 3	0 - 26	0 - 7
20	15	½"	375	750	0 - 10	0 - 3	0 - 26	0 - 7
25	20	¾"	625	1250	0 - 10	0 - 3	0 - 26	0 - 7
32	25	1"	1000	2000	0 - 10	0 - 3	0 - 28	0 - 7
40	32	1 ¼"	1500	3000	0 - 10	0 - 3	0 - 22	0 - 6
50	40	1 ½"	2000	4000	0 - 10	0 - 3	0 - 22	0 - 5
63	50	2"	3000	6000	0 - 10	0 - 3	0 - 16	0 - 5
63 duplex	50 duplex	2" duplex	6000	12000	0 - 10	0 - 3	0 - 16	0 - 5

* This is the range acheivable with the high pressure spring fitted and when the adjuster screw is screwed fully down, the valve will not gag. Valve should not be set to exceed maximum allowable pressure as above #.

PROCHEM SERVICES LTD

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HOW TO SPECIFY YOUR VALVE:

SPARES KITS:

VALVE SIZE (INCH NB OR MM OD)

VALVE TYPE (1100 SERIES)

VALVE OPTIONS
0 = BASIC VALVE
1 = MANUAL LIFT
2 = SECURITY LOCK & PRESSURE SWITCH
3 = MAN. LIFT & PRESSURE SWITCH
4 = SECURITY LOCK
5 = MANUAL LIFT & SECURITY LOCK
6 = PRESSURE SWITCH (SPECIFY)#
7 = OTHER COMBINATIONS (SPECIFY)

CONNECTION TYPE
0 = SOLVENT/FUSION/SOCKET WELD
1 = SCREWED
2 = WELD UNION
3 = SCREWED UNION
4 = FLANGED (SPECIFY FLANGE. RATING)*
5 = WAFER TYPE (SPECIFY FLANGE. RATING)*
6 = BUTTWELD
7 = TRI-CLAMP [SPECIFY TYPE]
8 = IR WELD PVC UNION (IR-63 Plus & IR-110 A)

BODY MATERIAL
0 = PVC-U
1 = POLYPROP
2 = PVDF
3 = 316L STAINLESS STEEL
4 = HASTELLOY C276
5 = TITANIUM GRADE 2
6 = ALLOY 20
7 = ABS
8 = OTHER MATERIAL. (SPECIFY)

DIAPHRAGM MATERIAL
0 = EPDM
2 = FPM
3 = PTFE

x - 11 x x - x x - xx - xxx - xxxx

x -11 x 0 - x - SK

DUP
Duplex Valve

DTX
DTX Solvent Weld
(uPVC only)

DIN #
DIN Pressure Switch

NC
Normally Closed
Pressure Switch

NO
Normally Open
Pressure Switch

NPT
NPT Connections

PPC
Protective Port Caps

150 *
Ansi 150 lb flange

300
Ansi 300 lb flange

PN16
EN1902-1 PN16,
PN25,PN40 flange

BRPP
Polyprop Coated Backing Rings

MH
Mounting holes for switched version only

CPS
Stainless Steel Cap

PDB
PVDF Bonnet

PPB
Polypropylene Bonnet

SB4
304L Stainless Steel Bonnet

SB6
316L Stainless Steel Bonnet

AJM
Mild Steel Adjuster Screw

AJPE
PTFE Adjuster Screw

AJPP
Polypropylene Adjuster Screw

AJS
316L Stainless Steel Adjuster Screw

PPH
Hastelloy
Pressure Pad

PPS
316 Stainless Steel Pressure Pad

PPT
Titanium Pressure Pad

PPP
PTFE Pressure Pad

HP
Higher Pressure Spring

HPS
Higher Pressure Silver Plated Spring

EXAMPLE VALVES:

1"- 1104-33-150-SB4 – 1" 1100 SERIES BASIC VALVE, FLANGED 150lb CONNECTION, 316 L S/STL BODY, PTFE COATED DIAPHRAGM, 304 STAINLESS STEEL BONNET

20-1102-02-NC – 20MM 1100 SERIES BASIC VALVE, PLAIN SOCKET WELD UNION CONNECTION, PVC BODY, FPM DIAPHRAGM, NORMALLY CLOSED PRESSURE SWITCH

EXAMPLE SPARES KITS:

1"-1100-2-SK 1100 SERIES BASIC VALVE SPARES KIT WITH FPM DI-APRHRAGM FOR SIZE 1"/32mm

1/2"-1160-0-SK 1100 SERIES BASIC VALVE SPARES KIT INCLUDING BOTH MAIN & SWITCH DIAPHRAGM IN EPDM FOR SIZE 1/2"/20mm & 3/8"/16mm

1100 VALVES HAVE THE FOLLOWING COMPONENTS AS STANDARD:

3/8" & ½" – Polyprop bonnet, adjuster screw & pressure pad, 302 stainless spring.
¾" – 2" – PVC-U bonnet & adjuster screw, steel pressure pad & carbon steel spring.
Plastic flanged valves are stub flanged with 316L stainless steel backing rings.

SUBJECT TO CHANGE WITHOUT NOTICE