

Back Pressure and Relief Valves

Purpose

BACK PRESSURE VALVES maintain a set pressure at the pump outlet port (discharge) to assure accurate metering and are also used to prevent syphoning. Use of the Back Pressure Valve assures proper metering pump check valve operation when the system pressure against which the pump is injecting fluid is too low.

The Back Pressure Valve is a required accessory when pumping to a low pressure injection point below the tank level or when pumping from a bulk tank with a high head pressure.

RELIEF VALVES protect the piping and system from overpressure. Discharge is piped to tank.

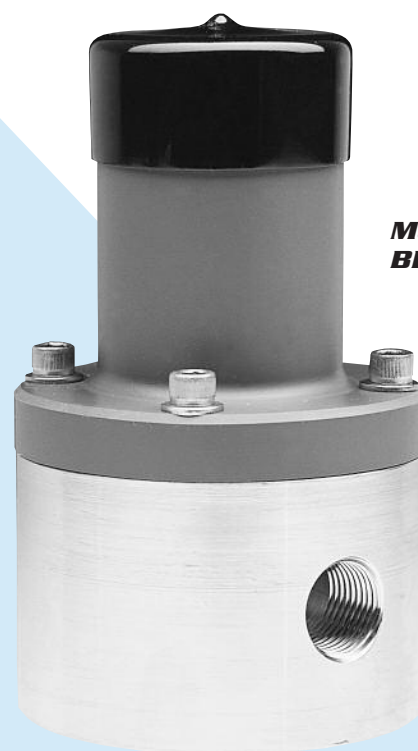
Features

BACK PRESSURE VALVES

- Broad range of valve body materials
- Long life Teflon® diaphragm
- Field adjustable to a maximum back pressure of 50 psi
- Low maintenance

RELIEF VALVES

- Broad range of valve body materials
- Long life Teflon® diaphragm
- Field adjustable to a maximum pressure of 150 psi
- Low maintenance
- Two port design on 1/2" models
- Right angle, three port design on 3/4" and 1" models eliminate the need for a separate "T" fitting in the piping (two port design available only for 1-1/2" units).



**MODEL
BP-55**

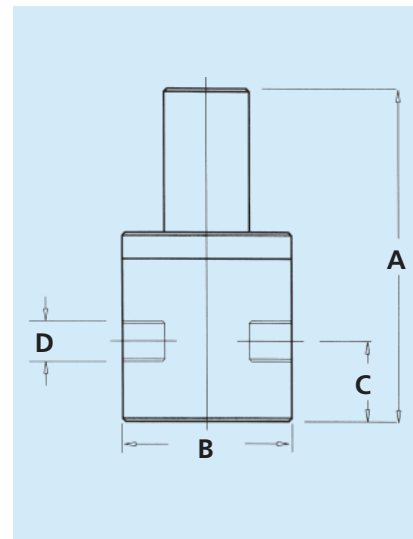


**MODEL
BP-PVC**

Specifications

BACK PRESSURE VALVES

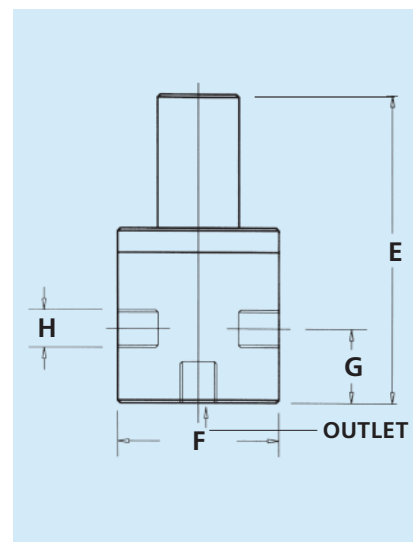
MODEL NUMBER	SIZE	SET PRESS.	MAX. FLOW (GPH) @ 50 PSI	MATERIALS OF CONSTRUC.	DIAPHRAGM	DIMENSIONS			
						A	B	C	D
BP-SS	1/2"	50 psi	100	316SS	TFE	4.600"	2.375"	1.125"	1/2" FNPT
BP-SS-75	3/4"		150			5.500"	3.500"	1.125"	3/4" FNPT
BP-SS-100	1"		250			5.800"	3.500"	1.250"	1" FNPT
BP-SS-150	1 1/2"		800			9.000"	4.500"	2.100"	1 1/2" FNPT
BP-KY	1/2"	50 psi	100	Kynar	TFE	4.600"	2.375"	1.125"	1/2" FNPT
BP-KY-75	3/4"		150			5.500"	3.500"	1.125"	3/4" FNPT
BP-KY-100	1"		250			5.800"	3.500"	1.250"	1" FNPT
BP-KY-150	1 1/2"		800			9.000"	4.500"	2.100"	1 1/2" FNPT
BP-C20	1/2"	50 psi	100	C-20	TFE	4.600"	2.375"	1.125"	1/2" FNPT
BP-C20-75	3/4"		150			5.500"	3.500"	1.125"	3/4" FNPT
BP-C20-100	1"		250			5.800"	3.500"	1.250"	1" FNPT
BP-PVC	1/2"	50 psi	100	PVC	TFE	4.600"	2.375"	1.125"	1/2" FNPT
BP-PVC-75	3/4"		150			5.500"	3.500"	1.125"	3/4" FNPT
BP-PVC-100	1"		250			5.800"	3.500"	1.250"	1" FNPT
BP-PVC-150	1 1/2"		800			9.000"	4.500"	2.100"	1 1/2" FNPT



RELIEF VALVES

MODEL NUMBER	SIZE	SET PRESS.	MAX. FLOW (GPH) @ 50 PSI	MATERIALS OF CONSTRUC.	DIAPHRAGM	DIMENSIONS			
						E	F	G	H
RV-316	1/2"	150 psi	—	316SS	TFE	See Bulletin RV			
RV-316-75	3/4"		150			5.500"	3.500"	1.125"	3/4" FNPT
RV-316-100	1"		250			5.800"	3.500"	1.250"	1" FNPT
RV-316-150	1 1/2"		800			9.000"	4.500"	2.100"	1 1/2" FNPT
RV-KY	1/2"	150 psi	—	Kynar	TFE	4.600"	2.375"	1.125"	1/2" FNPT
RV-KY-75	3/4"		150			5.500"	3.500"	1.125"	3/4" FNPT
RV-KY-100	1"		250			5.800"	3.500"	1.250"	1" FNPT
RV-KY-150	1 1/2"		800			9.000"	4.500"	2.100"	1 1/2" FNPT
RV-C20	1/2"	150 psi	—	C-20	TFE	See Bulletin RV			
RV-C20-75	3/4"		150			5.500"	3.500"	1.125"	3/4" FNPT
RV-C20-100	1"		250			5.800"	3.500"	1.250"	1" FNPT
RV-PVC	1/2"	150 psi	—	PVC	TFE	4.600"	2.375"	1.125"	1/2" FNPT*
RV-PVC-75	3/4"		150			5.500"	3.500"	1.125"	3/4" FNPT
RV-PVC-100	1"		250			5.800"	3.500"	1.250"	1" FNPT
RV-PVC-150	1 1/2"		800			9.000"	4.500"	2.100"	1 1/2" FNPT

* Only one inlet provided on 1/2" PVC and Kynar Relief Valves



REPAIR KITS

Each kit contains a replacement spring, diaphragm, threaded adjuster and support disk.

PART NUMBER	DESCRIPTION
RK001	Fits all 1/2" "BP" back pressure valves above, all materials
RK002	Fits all 3/4" and 1" "BP" back pressure valves and "RV" relief valves above, all materials
RK003	Fits all 1 1/2" "BP" back pressure valves and "RV" relief valves above, all materials



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 Web Site: <http://www.neptune1.com>
 E-mail: pump@neptune1.com

SOLD BY:



Relief Valves

Features

- All wetted parts are 316SS or Carpenter 20
- Pressures from 30 to 2000 psi
- Spring guide for consistent relief capacity
- Easily adjustable relief setting
- Liquid service only

Neptune Relief Valves have two outstanding characteristics:

- economy
- simplicity

Economy. Models RV-316-1, -2, -3 and -4 with all 316SS wetted parts cost no more than other 304SS designs. Carpenter 20 valves are also available as standard.

Simplicity. Neptune's exclusive design uses a self-cleaning ball check and seat. It has a unique spring guide which assures proper spring loading and consistent relief capacity. The relief pressure setting can be easily changed by removing the top cap screw and locking set screw, inserting a proper Allen wrench into the opening, and adjusting the spring to the desired pressure.

Recommended setting: Operating pressure plus 10% or 50 psi whichever is greater.

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SPECIFICATIONS

Inlet/Outlet pipe size: 1/2" NPT

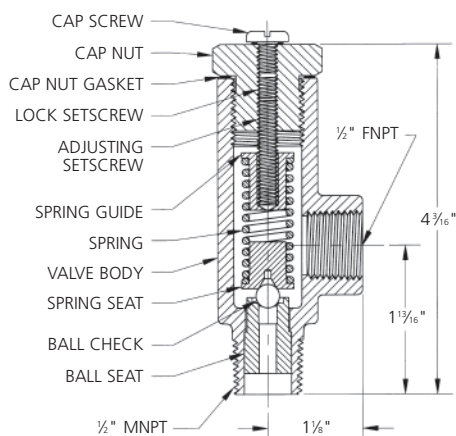
MODEL NUMBER	PRESSURE (PSI)	CAPACITY (GPM)
RV-316-1	100	3.0
RV-C20-1		
RV-316-2	400	4.0
RV-C20-2		
RV-316-3	1000	4.0
RV-316-4	2000	6.0

Quotation and Ordering Information

Please supply the following information:

1. Type of liquid to be handled.
2. Relief pressure range or set point required.

MATERIAL OF CONSTRUCTION	MODEL NUMBER	PRESSURE RANGE (PSI)
Type 316 Stainless Steel	RV-316-1	30 to 100
	RV-316-2	101 to 400
	RV-316-3	401 to 1000
	RV-316-4	1001 to 2000
Carpenter 20	RV-C20-1	30 to 100
	RV-C20-2	101 to 400



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