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CHEMICAL PUMP ACCESSORIES

CALL 1 - 800 - GRIFFCO

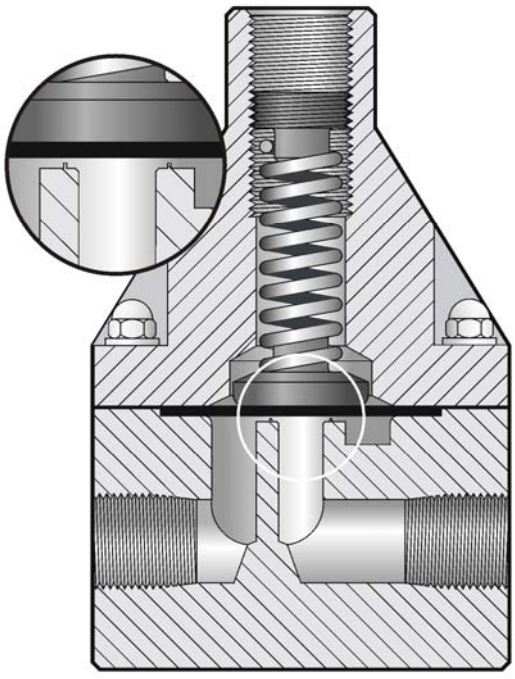
BACK PRESSURE VALVES

Griffco M & G-Series diaphragm back pressure valves are designed to enhance the performance of any chemical feed system by applying a constant pressure to the discharge of the pump. This will ensure positive ball seating in the pump check valve, a positive head differential and a constant minimum discharge head. The valve also acts as an anti-siphon valve.

Features:

- Robust Construction ensures high reliability in municipal and industrial applications.
- Vulcanized PTFE / EPDM diaphragm
- Adjustable 10 – 150 psi pressure range
- Optional 250 psi & 350 psi rated valves
- Anti-Siphon Function
- Optional built in priming valve
- Tamper resistant adjustment screw
- Wide range of liquid handling materials include: PVC, CPVC, PP, PVDF, PTFE 316 SS, Alloy 20, Hastelloy C

Operation:



Griffco diaphragm back pressure valves apply positive discharge pressure to a metering pump system to prevent siphoning and eliminate varying dosage rates caused by fluctuating downstream pressure. The diaphragm is held against the valve seat by an internal spring. When the preset pressure is exceeded, the diaphragm is forced up and chemical flows through the valve to the injection point. The valves are preset for 50 psi, however they are field adjustable from 10 - 150 psi (optional 250 psi and 350 psi) via the adjustment screw. Installation should be as close to the injection point as possible to prevent chemical line drainage, and it is most important that all chemical system equipment such as pulsation dampeners and pressure gauges are between the pump and back pressure valve.

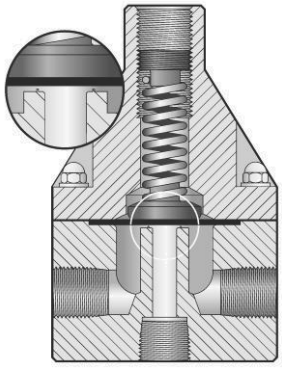
PRESSURE RELIEF VALVES

Griffco M & G-Series diaphragm pressure relief valves are designed to protect chemical feed systems from damage caused by excessively high pressure, a result of a blockage in the chemical feed line due to defective equipment, accidental valve closure, or plugged injection valves.

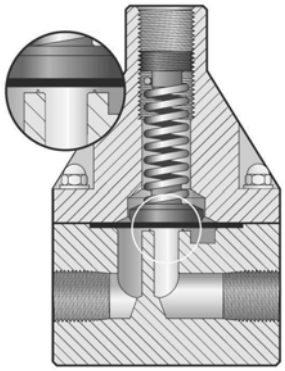
Features:

- Robust Construction ensures high reliability in municipal and industrial applications.
- Vulcanized PTFE / EPDM diaphragm
- Adjustable 10 – 150 psi pressure range
- Optional 250 psi, 350 psi, and high pressure models up to 2000psi rated valves
- Tamper resistant adjustment screw
- Wide range of liquid handling materials include: PVC, CPVC, PP, PVDF, PTFE 316 SS, Alloy 20, Hastelloy C

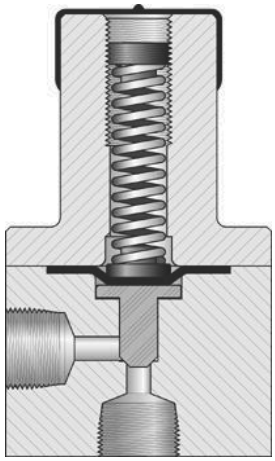
Operation:



3 port design, ¼" – 1" valves



2 design ¼" – 4" valves



2 port design, high pressure valve

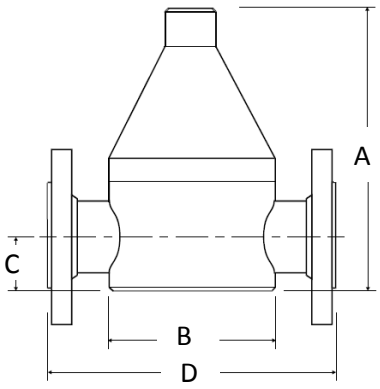
Griffco diaphragm pressure relief valves operate when the pressure in the chemical system exceeds the preset pressure of the valve. The diaphragm is held against the valve seat by an internal spring. When the preset pressure is exceeded the diaphragm is forced up and the chemical flows out the relief port, back to the chemical tank or to the suction side of the pump. The valves are pre-set at 50 psi, however they are field adjustable from 10 - 150psi, (optional 250psi, 350psi, and high pressure models up to 2000psi) via the adjustment screw. The relief valve should be set approximately 15 psi higher than the system pressure. Installation should be made as close to the pump as possible, without any valves or accessories between the relief valve and the pump. Consult your pump manufacturer for his recommendations.

EQUIPMENT SELECTION GUIDE

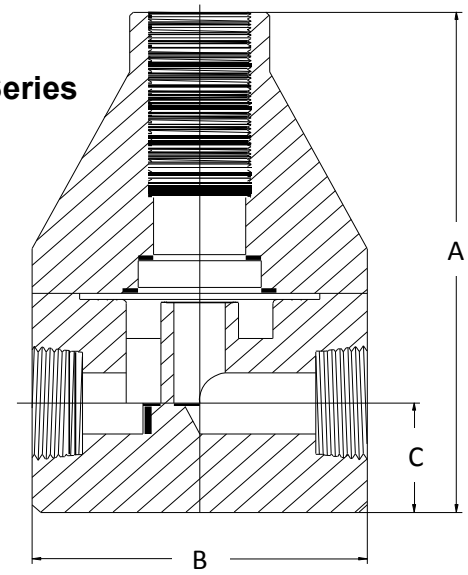
Technical Data:

Sizes:			1/4", 3/8", 1/2", 3/4", 1", 1 1/2", 2", 3", 4"		
Connections:			NPT, Socket, Union, Flange		
Pressure Adjustment			Standard: 10 - 150 psi; Optional: 0 – 50 psi, 10 – 250 psi, 50 - 350 psi *NOTE: Size 1 ½" and larger valves; MAX RANGE 10 – 250 psi		
Flow Rates @ 150 psi			Shipping Weight: lbs		
Size	**Pulsating**	**Continuous**	**Plastic**	**Metal / Plastic Top**	**Metal / Metal Top**
1/4"	100 USGPH	5 USGPM	1.0	2.5	3.0
3/8"	200 USGPH	10 USGPM	1.0	2.5	3.0
1/2" (M-Series)	260 USGPH	15 USGPM	1.0	3.0	3.5
1/2" (G-Series)	300 USGPH	21 USGPM	3.0	5.5	6.5
3/4"	300 USGPH	21 USGPM	3.0	5.5	6.5
1"	500 USGPH	26 USGPM	3.5	6.0	7.0
1 1/2"	1200 USGPH	63 USGPM	9.0	18.5	26.0
2"	2350 USGPH	120 USGPM	9.0	20.0	30.0
3"	5200 USGPH	270 USGPM	28.0	70.0	80.0
4"	5200 USGPH	270 USGPM	30.0	75.0	85.0
Max Temperature: (°F)			PVC: 140°; CPVC & PP: 195°; PVDF, PTFE & Metal: 300°, (Peak 390°)		
Max Operating Pressure (psi) @ 70°F			Plastic/Noryl: 375 psi Metal/Metal: 2000 psi		
Materials of Construction:					
Diaphragm			PTFE / EPDM, Optional: Viton, Hypalon & PTFE / Viton		
Valve Top			Standard: 1/4" - 2" Noryl, 3" & 4" PVC, Optional: 316 SS		
Valve Body			PVC, CPVC, PP, PTFE, PVDF, Halar, 316 SS, A 20, Hast. C		

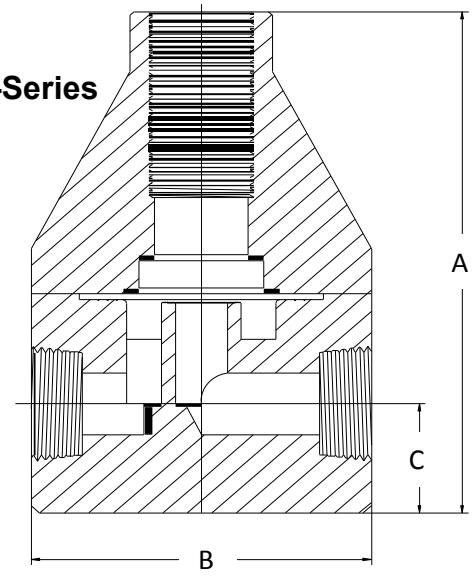
Dimensions



G-Series



M-Series



Dimensions: All Materials G-Series BPG, BPHF, PRG, PRHF				Flange Option
Size	**A (in)**	**B (in)**	**C (in)**	**D (in)**
1/2"	5.560	3.500	1.125	7.500
3/4"	5.560	3.500	1.125	7.500
1"	5.860	3.500	1.250	7.500
1 ½"	8.350	4.900	1.825	10.50
2"	8.900	4.900	2.150	10.50
3"	11.25	6.00	3.00	15.00*
4"	11.25	6.00	3.00	15.00*

Dimensions: All Materials M-Series BPM & PRM				Flange Option
Size	**A (in)**	**B (in)**	**C (in)**	**D (in)**
1/4"	3.550	2.350	0.750	N/A
3/8"	3.550	2.350	0.750	N/A
1/2"	4.250	2.350	1.080	6.350

*Available In Flange Only

PRODUCT CODES

Back Pressure Valves:

Product Codes for Ordering M-Series Valves

BPM ☐☐☐ ☐ ☐ ☐

1 2 3 4

1 = Size	2 = Material	3 = Spring Opt	4 = Options
025 - 1/4”	P - PVC	1 - 0 - 50 psi	V - Viton Diaphragm
038 - 3/8”	CP - CPVC	2 - 10 - 250 psi	S - Socket Connection
050 - 1/2"	PP - Polypro		F - Flange Connection
	T - PTFE		U - Union Connection
	K - PVDF		OSS - 316 SS Top
	H - Halar		MSS - 50 – 350 psi
	S - 316 SS		AR - Priming Valve
	A - Alloy 20		90 - 90° Configuration
	C - Hastelloy		

Product Codes for Ordering G-Series Valves

BPG ☐☐☐ ☐ ☐ ☐

(High Flow) **BPHF** **1 2 3 4**

1 = Size	2 = Material	3 = Spring Opt	4 = Options
050 - 1/2”	P - PVC	1 – 0 - 50 psi	V - Viton Diaphragm
075 - 3/4”	CP - CPVC	2 – 10 - 250 psi	S - Socket Connection
100 - 1”	PP - Polypro		F - Flange Connection
155 - 1 1/2”	T - PTFE		U - Union Connection
200 - 2”	K - PVDF		OSS - 316 SS Top
300 - 3”	H - Halar		MSS - 50 - 350 psi
400 - 4”	S - 316 SS		AR - Priming Valve
	A - Alloy 20		90 - 90° Configuration
	C - Hastelloy		

Pressure Relief Valves:

Product Codes for Ordering M-Series Valves

PRM ☐☐☐ ☐ ☐ ☐

1 2 3 4

1 = Size	2 = Material	3 = Spring Opt	4 = Options
025 - 1/4”	P - PVC	1 - 0 - 50 psi	V - Viton Diaphragm
038 - 3/8”	CP - CPVC	2 - 10 - 250 psi	S - Socket Connection
050 - 1/2"	PP - Polypro		F - Flange Connection
	T - PTFE		U - Union Connection
	K - PVDF		OSS - 316 SS Top
	H - Halar		MSS - 50 – 350 psi
	S - 316 SS		AR - Priming Valve
	A - Alloy 20		90 - 90° Configuration
	C - Hastelloy		

Product Codes for Ordering G-Series Valves

PRG

(High Flow) **PRHF** ☐☐☐☐ ☐ ☐ ☐

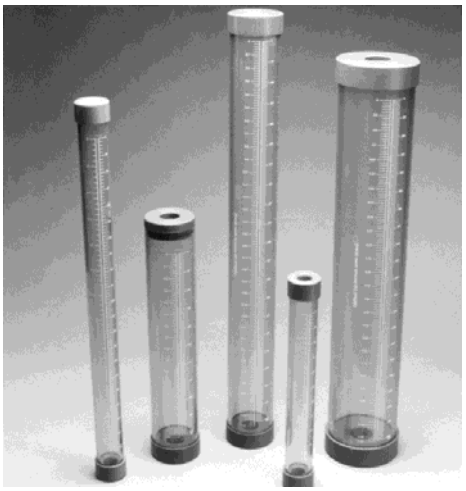
(High Pressure) **PRHP**

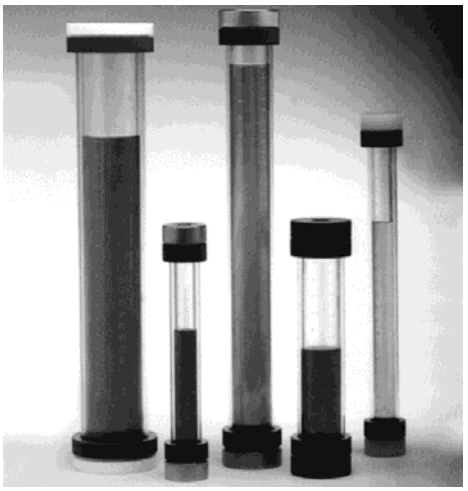
1 2 3 4

1 = Size	2 = Material	3 = Spring Opt	4 = Options
050 - 1/2”	P - PVC	1 – 0 - 50 psi	V - Viton Diaphragm
075 - 3/4”	CP - CPVC	2 – 10 - 250 psi	S - Socket Connection
100 - 1”	PP - Polypro		F - Flange Connection
155 - 1 1/2”	T - PTFE		U - Union Connection
200 - 2”	K - PVDF		OSS - 316 SS Top
300 - 3”	H - Halar		MSS - 50 - 350 psi
400 - 4”	S - 316 SS		AR - Priming Valve
	A - Alloy 20		90 - 90° Configuration
	C - Hastelloy		

CALIBRATION CYLINDERS

Griffco PVC & Borosilicate Glass Calibration Cylinders are designed to enhance the performance of a chemical feed system by providing a verification of the flow rate of the chemical feed pump.





Features: PVC Cylinders

- High Reliability / Low Cost
- High Contrast Graduation Markings
- Clear Easy-View Tube
- Robust Construction
- Direct GPH and mL Readout
- Sealed Top with Overflow Connection
- Optional EZ-Clean Model
- Optional Open Top with Dust Cap

Features: Glass Cylinders

- High Reliability / Low Cost
- Borosilicate Glass Tube
- 7 End Cap Materials
- Easy Disassembly For Cleaning
- Protective Outer Shield (Except 10K & 20K)
- High Contrast Graduation Markings
- US, Metric & GPH Scales
- Sealed Top with Overflow Connection

Operation:

Griffco calibration cylinders are installed in the suction line to the chemical pump. Two isolating valves, (not supplied) must be installed in the suction line as per the typical installation drawing. The top of the cylinder should be vented back to the storage tank or to drain.

Fill the cylinder to the top mark then close the valve from the chemical tank. Switch on the chemical feed pump and draw down the chemical in the cylinder for 30 seconds. Switch the pump off. The reading on the right side of the cylinder is a direct readout of US gph. Alternatively, observe the volume withdrawn on the ml scale. To convert to LPH or GPH use this formula:

LPH = (volume÷draw time) x 3.6

GPH = (volume÷draw time) x 0.952

Note: Maximum cylinder pressure is 15 psi

Product Codes:

For PVC CC ☐ ☐ ☐ ☐ ☐ - ☐

For Glass CCG ☐ ☐ ☐ ☐ ☐ - ☐

1 **2**

1=Size

0030 – 30 mL *
0100 – 100 mL
0200 – 200 mL
0300 – 300 mL**
0500 – 500mL
1000 – 1000 mL
2000 – 2000 mL
4000 – 4000 mL
5000 – 5000 mL
7000 – 7000 mL
10000 – 10000 mL
15000 – 15000 mL**
20000 – 20000 mL
30000 – 30000 mL
40000 – 40000 mL

2=End Caps/Material

Ends for PVC:

S = Sealed c/w Vent
L = Dust Cover
EZ = Easy Clean

Ends for Glass:

P = PVC
CP = CPVC
PP = Polypro
K = PVDF
T = Teflon
M = 316 SS
A = Alloy 20

** 30mL-Glass Only* *** 300 & 15000-PVC Only*

INJECTION QUILLS & ACCESSORIES

INJECTION QUILLS:

Griffco injection check valves are designed to ensure chemical feed systems feed chemical into the center of the process stream for better mixing and to prevent corrosion along the edge of the process pipe. The ball check prevents the process fluid from going back up the chemical line.

Features:

- High Reliability / Low Cost
- Robust Machined Construction
- Comes Complete with Union
- Hastelloy C Spring
- Integrated Quill
- Optional Chemical Line Drain
- Wide Range of Materials
- Various Sizes: ½" – 2"

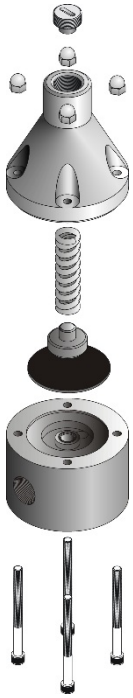
ACCESSORIES:

Integrated Priming Valve

Griffco diaphragm backpressure valves are designed to enhance the performance of chemical feed systems. The addition of a priming valve to the backpressure valve enables the manual priming of the pump.

Features:

- Manual Pump Priming
- Manual Pump Head Degassing
- Optional Automatic Degassing
- Available in PVC, PP, PVDF, 316 SS



Spare Parts Kits:

Kits include:

- Diaphragm
- Spring
- Threaded adjustment screw
- Diaphragm support disc

Connector Sets:

To connect flexible tubing to the valve

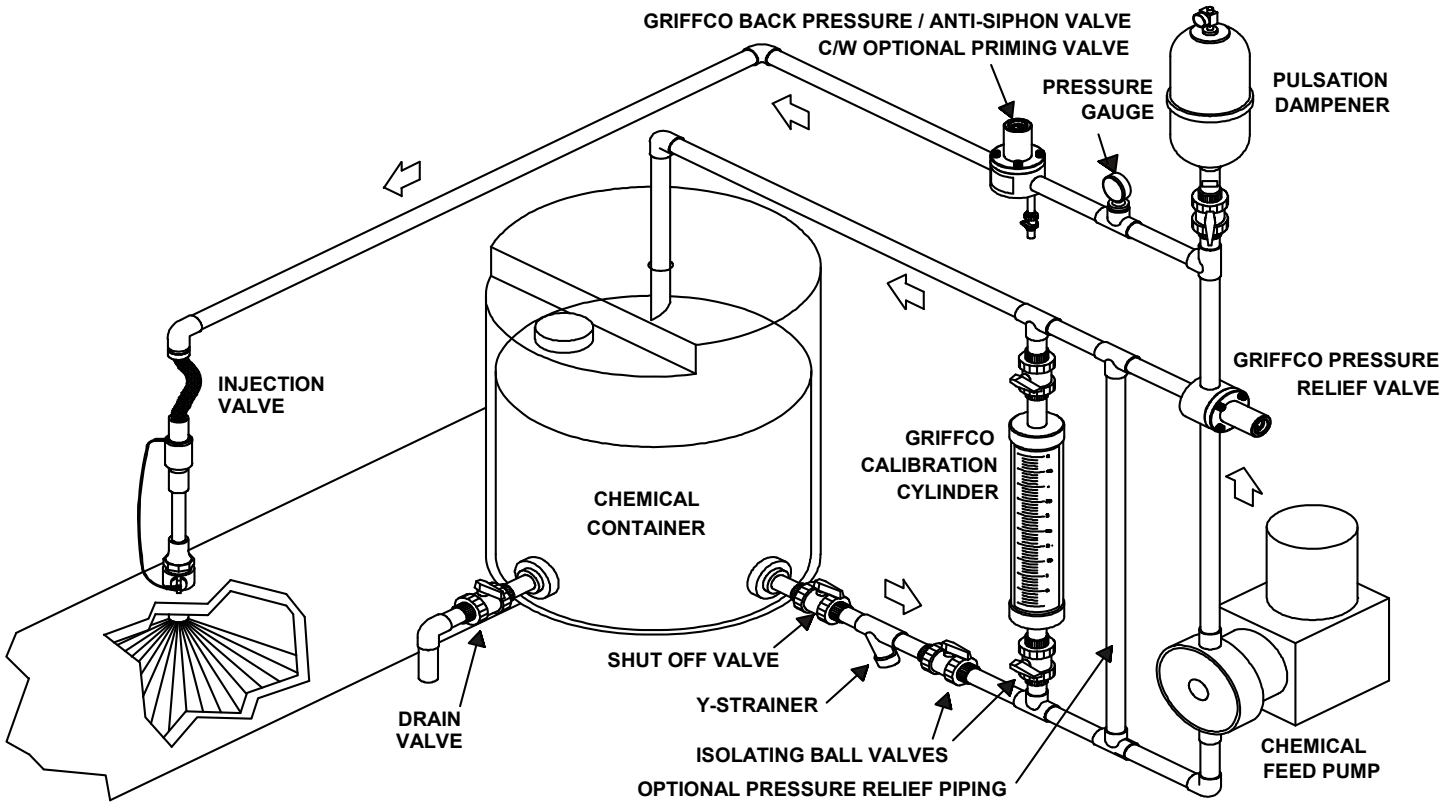
Wall Brackets:

To facilitate mounting the back pressure and pressure relief valves.

Calibration Cylinder Stands & Accessories:

- Floor Stands
- Ball Valves

TYPICAL INSTALLATION



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