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# CHEMICAL PUMP ACCESSOIRES



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# BACK PRESSURE VALVES

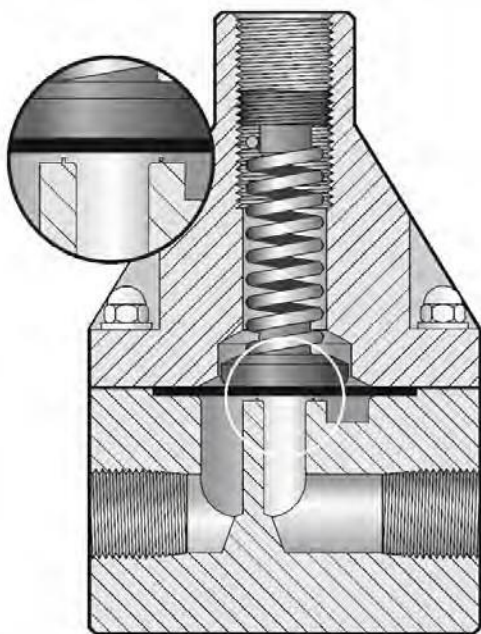
**Griffco M & G-Series** diaphragm back pressure valves are designed to enhance the performance of any chemical feed system by applying a constant pressure to the discharge of the pump. This will ensure positive ball seating in the pump check valve, a positive head differential and a constant minimum 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 1 – 10 bar pressure range
- Optional 17 bar & 25 bar 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 3.5 bar, however they are field adjustable from 1 – 10 bar (optional 17 bar and 25 bar) 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

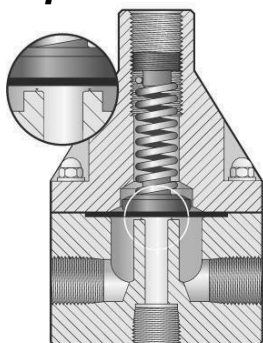
**Griffco M & G-Series** diaphragm pressure valves are designed to protect chemical feed systems from damage caused by excessively high pressure, a result of a blockage in the chemical feed line due to defective equipment accidental valve closure, or plugged injection valves.

## Features:

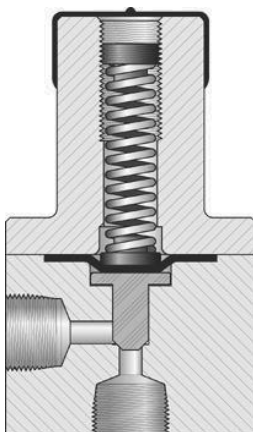
- Robust Construction ensures high reliability in municipal and industrial applications.
- Vulcanized PTFE / EPDM diaphragm
- Adjustable 1 – 10 bar pressure range
- Optional 17 bar, 25 bar, and high pressure rated valves up to 135 bar
- Tamper resistant adjustment screw
- Wide range of liquid handling materials include: PVC, CPVC, PP, PVDF, PTFE, , 316 SS, Alloy 20, Hastelloy C



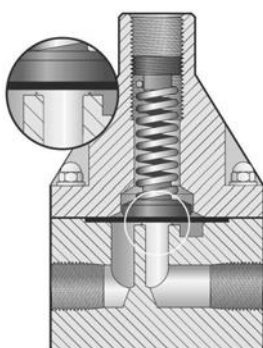
## Operation:



3 port design, DN8 –DN25 valves



2 port design, high pressure valves



2 port design, DN8 – DN100 valves

**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 3.5 bar, however they are field adjustable from 1 – 10 bar, (optional 17 bar, 25 bar, and high pressure rated valves up to 135 bar) via the adjustment screw. The relief valve should be set approximately 1 bar 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 their recommendations.

# EQUIPMENT SELECTION GUIDE

## Technical Data:

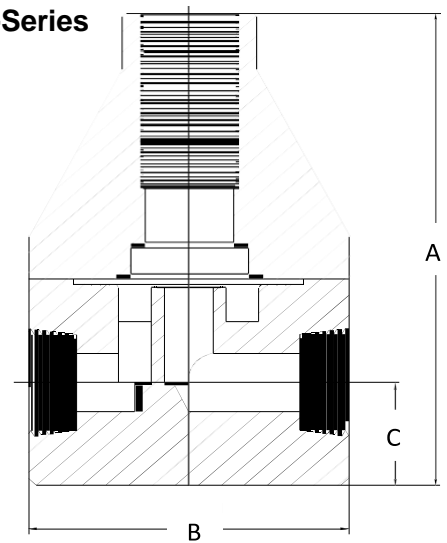
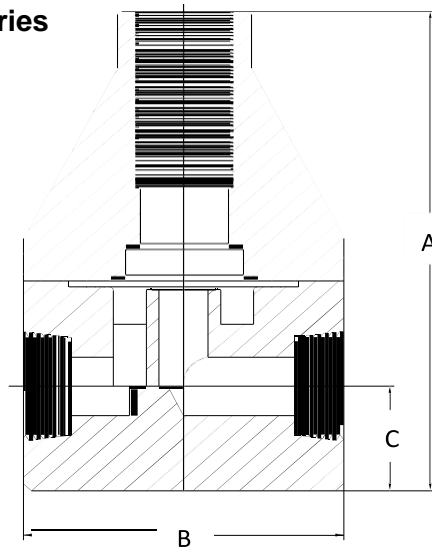
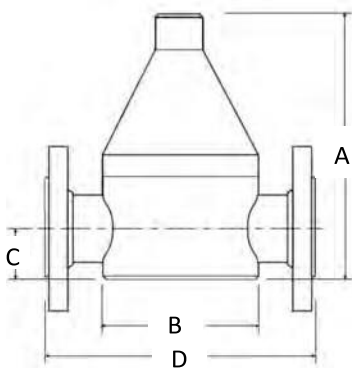
Models PRM, PRG, BPM & BPG Sizes: (DN)		8, 10, 15, 20, 25, 40, 50, 80, 100			
Connections:		ISO Thread, Socket, Union, & Flange			
Pressure Adjustment		Standard: 1–10 bar, Optional: 0–3.5 bar, 1–17 bar, 3.5 – 25 bar *NOTE: Size DN 40 and larger valves; MAX RANGE 1 – 17 bar			
Flow Rates @ 10 bar		Shipping Weight: Kgs			
Size	Pulsating	Continuous	Plastic	Metal / Plastic Top	Metal / Metal Top
DN8	375 l/h	1135 l/h	0,45	1,14	1,36
DN10	757 l/h	2271 l/h	0,45	1,14	1,36
DN15 (M Series)	984 l/h	3400 l/h	0,45	1,36	1,59
DN15 (G Series)	1135 l/h	4770 l/h	1,4	2,5	3,0
DN20	1135 l/h	4770 l/h	1,4	2,5	3,0
DN25	1890 l/h	5905 l/h	1,6	2,7	3,2
DN40	4542 l/h	14.3 m3/h	4,0	8,0	12,5
DN50	8892 l/h	28.4 m3/h	4,0	9,0	13,6
DN80	19.6 m3/h	61.2 m3/h	12,7	31,8	36,3
DN100	19.6 m3/h	61.2 m3/h	13,6	34,0	38,6
Max Temperature: (°C)		PVC: 60° ; CPVC & PP: 90°; PTFE, PVDF, & Metal: 150°, (Peak 200°)			
Max Operating Pressure (bar) @ 21°C		Plastic/Noryl: 25 bar		Metal/Metal: 135 bar	
Materials of Construction:					
Diaphragm		PTFE / EPDM, Optional: Viton, Hypalon & PTFE / Viton			
Valve Top		Standard: Noryl (DN15 – DN50); PVC (DN80 – DN100) Optional: 316 SS			
Valve Body		PVC, CPVC, PP, PTFE, PVDF, Halar, 316 SS, A 20, Hast. C			

## Dimensions:

G-Series

M-Series

Flange Option



Dimensions: All Materials G-Series BPG, BPHF, PRG, PRHF				Flange Option D (mm)
Size	A (mm)	B (mm)	C (mm)	
DN15	141,2	89,0	28,57	226,0
DN20	141,2	89,0	28,57	226,0
DN25	148,8	89,0	31,75	226,0
DN40	212,1	124,5	46,35	266,7
DN50	226,0	124,5	54,61	266,7
DN80	285,8	152,4	76,2	381,0*
DN100	285,8	152,4	76,2	381,0*

Dimensions: All Materials M-Series BPM & PRM				Flange Option D (mm)
Size	A (mm)	B (mm)	C (mm)	
DN8	90,2	59,7	19,0	N/A
DN10	90,2	59,7	19,0	N/A
DN15	108,0	59,7	27,4	161,3

\*Available In Flange Only

# PRODUCT CODES

## Back Pressure Valves:

Product Codes for Ordering M-Series Valves

**BPM**

**1**                      **2**      **3**      **4**

**1 = Size**

D008 – DN8  
D010 – DN10  
D015 – DN15

**2 = Material**

P - PVC  
CP - CPVC  
PP - Polypro  
T – PTFE  
K - PVDF  
H - Halar  
S - 316 SS  
A - Alloy 20  
C - Hastelloy

**3 = Spring Opt**

1- 0 – 3,5 bar  
2 - 1 – 17 bar

**4 = Options**

V - Viton Diaphragm  
S - Socket Connection  
F - Flange Connection  
U - Union Connection  
OSS - 316 SS Top  
MSS – 3,5 – 25 bar  
AR - Priming Valve  
90 - 90° Configuration

Product Codes for Ordering G-Series Valves

**BPG**

(High Flow) **BPHF**

**1**                      **2**      **3**      **4**

**1 = Size**

D015 – DN15  
D020 – DN20  
D025 – DN25  
D040 – DN40  
D050 – DN50  
D080 – DN80  
D100 – DN100

**2 = Material**

P - PVC  
CP - CPVC  
PP - Polypro  
T – PTFE  
K - PVDF  
H - Halar  
S - 316 SS  
A - Alloy 20  
C - Hastelloy

**3 = Spring Opt**

1 - 0 – 3,5 bar  
2 - 1 – 17 bar

**4 = Options**

V - Viton Diaphragm  
S - Socket Connection  
F - Flange Connection  
U - Union Connection  
OSS - 316 SS Top  
MSS – 3,5 – 25 bar  
AR - Priming Valve  
90 - 90° Configuration

## Pressure Relief Valves:

Product Codes for Ordering M-Series Valves

**PRM**

**1**                      **2**      **3**      **4**

**1 = Size**

D008 – DN8  
D010 – DN10  
D015 – DN15

**2 = Material**

P - PVC  
CP - CPVC  
PP - Polypro  
T – PTFE  
K - PVDF  
H - Halar  
S - 316 SS  
A - Alloy 20  
C - Hastelloy

**3 = Spring Opt**

1 - 0 – 3,5 bar  
2 - 1 – 17 bar

**4 = Options**

V - Viton Diaphragm  
S - Socket Connection  
F - Flange Connection  
U - Union Connection  
OSS - 316 SS Top  
MSS – 3,5 – 25 bar  
AR - Priming Valve  
90 - 90° Configuration

Product Codes for Ordering G-Series Valves

**PRG**

(High Flow) **PRHF**  
(High Pressure) **PRHP**

**1**                      **2**      **3**      **4**

**1 = Size**

D015 – DN15  
D020 – DN20  
D025 – DN25  
D040 – DN40  
D050 – DN50  
D080 – DN80  
D100 – DN100

**2 = Material**

P - PVC  
CP - CPVC  
PP - Polypro  
T – PTFE  
K - PVDF  
H - Halar  
S - 316 SS  
A - Alloy 20  
C - Hastelloy

**3 = Spring Opt**

1 - 0 – 3,5 bar  
2 - 1 – 17 bar

**4 = Options**

V - Viton Diaphragm  
S - Socket Connection  
F - Flange Connection  
U - Union Connection  
OSS - 316 SS Top  
MSS – 3,5 – 25 bar  
AR - Priming Valve  
90 - 90° Configuration

# 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:

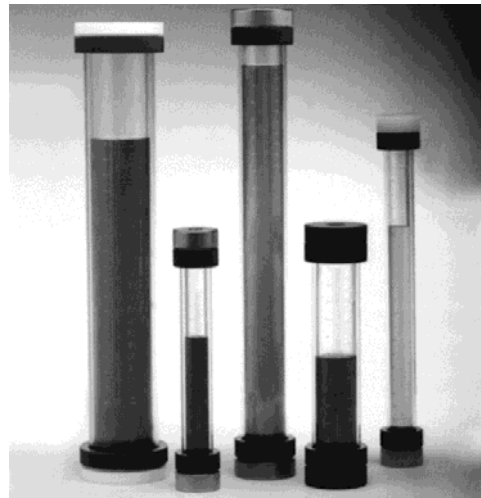
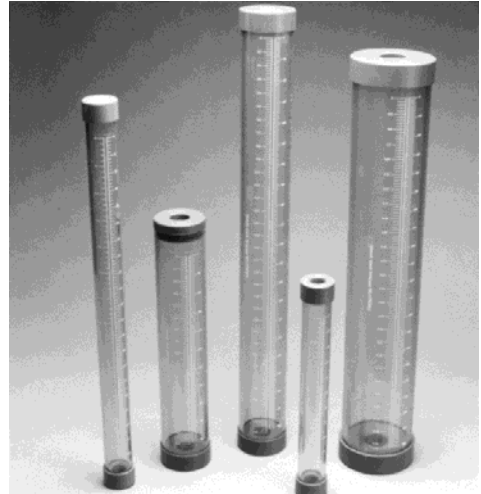
**Griffco** calibration cylinders are installed in the suction line to the chemical pump. Two isolating valves, (not supplied) must be installed in the suction line as per the typical installation drawing. The top of the cylinder should be vented back to the storage tank or to drain.

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 use this formula:

$$\text{LPH} = (\text{volume} \div \text{draw time}) \times 3,6$$

**Note: Maximum cylinder pressure is 1 bar**



## 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, 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: DN15 – DN50



## 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:

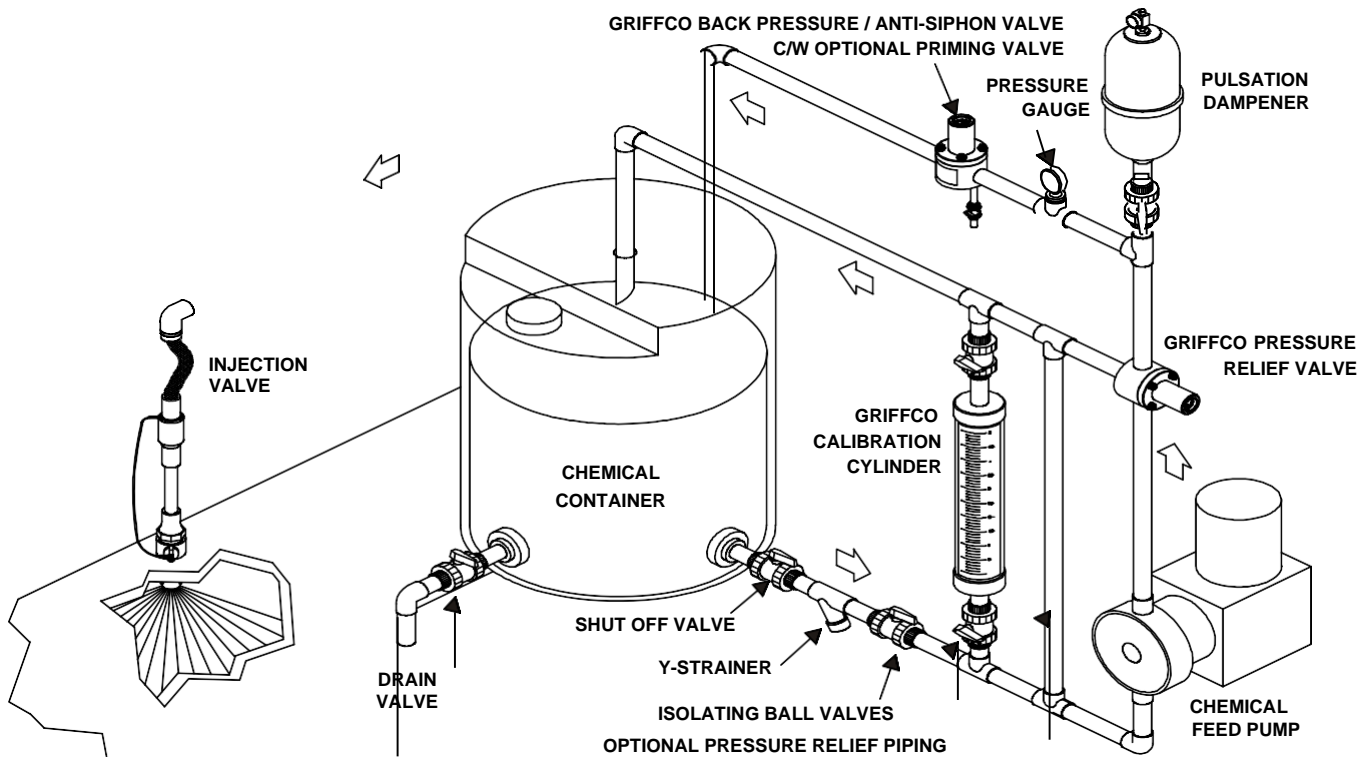
To facilitate mounting the back pressure and pressure relief valves.

### Calibration Cylinder Stands & Accessories:

- Floor Stands
- Ball Valves



# TYPICAL INSTALLATION



# chemfeed

official exclusive Griffco Valve distributor

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