



**Griffco Valve Inc.**

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# FPD Series Fusion Dampeners



Griffco fusion dampeners are designed to enhance the performance of chemical feed systems by providing a smooth, continuous flow of chemical, simplifying installation and reducing process connections. Available in 1/4", 3/8" and 1/2" connections. Materials of construction are PVC, CPVC, PP and PVDF. Volumetric sizes are 6 & 10 in<sup>3</sup>.

## Features:

- Combines Back Pressure Function With Pulse Dampening
- Space Saving Design
- 3 Connection Sizes Available
- 2 Volumetric Sizes Available
- Multiple Diaphragm Materials
- Pressures Up To 150 psi
- Available in PVC, CPVC and PVDF
- Proven Griffco Reliability

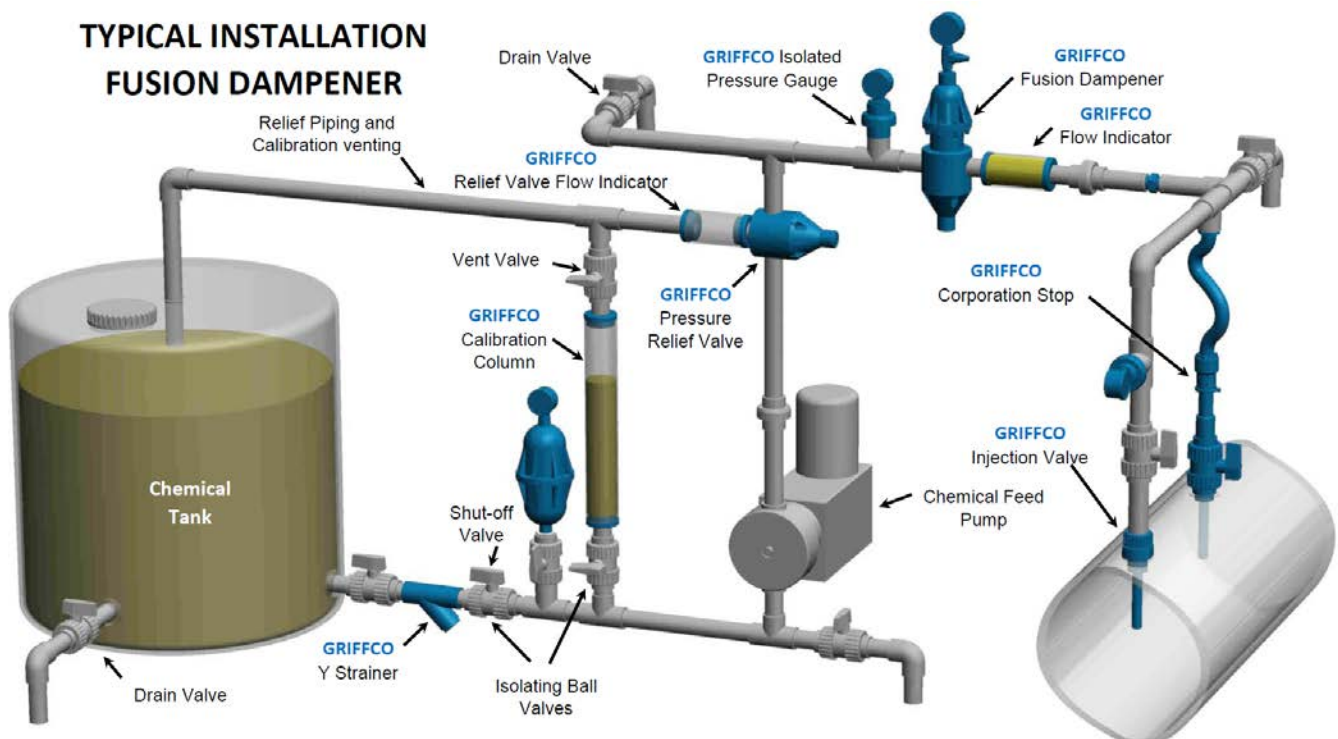
## Information needed to size a dampener:

- 1 – Type of pump. (K factor)  
Simplex: Single Acting = .60; Double Acting = .25  
Duplex: Single Acting = .25; Double Acting = .15  
Triplex: Single Acting = .25; Double Acting = .15
- 2 – Volume/Stroke of dosing pump in cubic in (V)
- 3 – System mean operation pressure (P)
- 4 – Min and max operating pressure (Pmax & Pmin)
- 5 – Compressed charge in dampener (n)  
Compressed Air = 1.0; Nitrogen = .714

## Required Dampener Capacity (C) Calculation:

$$C \text{ (cubic inches)} = \frac{(V) \times (K) \times (P/P_{min})^n}{1 - (P/P_{max})^n}$$

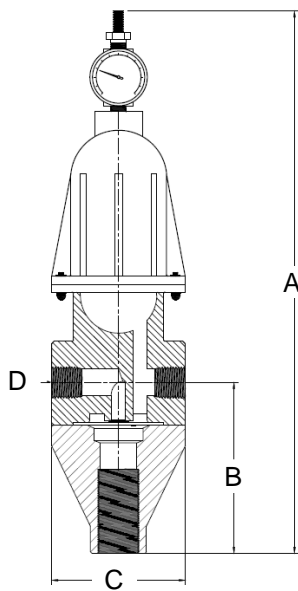
## TYPICAL INSTALLATION FUSION DAMPENER



# TECHNICAL DATA:

Materials of Construction:	Body: PVC, CPVC, PP and PVDF
Connection Sizes:	1/4", 3/8" and 1/2"
Connections:	NPT, BSPT Socket, Union
Gauge Port Size	1/8"
Max Recommended Temperature: (°F)	PVC: 140° ; CPVC & PP: 195°; PVDF: 300°
Max Operating Pressure (psi) @ 70 Deg. F	150 psi
Diaphragm Material	Std: EPDM. Optional: Viton®, Hypalon and PTFE
Gauge and Charging Valve Materials	Std.: Brass, Optional: 316 SS
Dampening Effect	± 2.5%
Optional Gauges	Std: 0 – 160 PSI; Optional: 0 – 60 PSI, 0 – 100 psi, 0 – 200 psi

## DIMENSIONS:



Model	Size NPT / in <sup>3</sup>	A (in)	B (in)	C (in)	D (in)
FPD025S	1/4"/ 6	11.125	1.125	3.500	1/4
FPD038S	3/8"/ 6	11.125	1.125	3.500	3/8
FPD050S	1/2"/ 6	11.125	1.125	3.500	1/2
FPD025L	1/4"/ 10	12.500	1.125	3.500	1/4
FPD038L	3/8"/ 10	12.500	1.125	3.500	3/8
FPD050L	1/2"/ 10	12.500	1.125	3.500	1/2

## Product Codes for Ordering:

**FPD**          

**1**                      **2**    **3**    **4**    **5**    **6**

**1 = Size**  
Connection/Vol

**2 = Housing**  
Material

**3 = Bladder**  
Material

**4 = Gauge**  
Options

**5 = Range**  
Options

**6 = Other**  
Options

025S - 1/4"/6 in<sup>3</sup>

P - PVC

E – EPDM

0 – Brass Hardware & Gauge

1 – 160 psi

B – BSPT Connection

025L - 1/4"/10 in<sup>3</sup>

CP - CPVC

H - Hypalon

1 – Brass / Brass & SS Gauge

2 – 60 psi

S – Soc Connection

038S - 3/8"/6 in<sup>3</sup>

PP - Polypro

V - Viton

2 – SS Hardware & Gauge

3 – 100 psi

U – Union Connection

038L - 3/8"/10 in<sup>3</sup>

K - PVDF

T - PTFE

4 – 200 psi

V – Viton Diaphragm

050S - 1/2"/6 in<sup>3</sup>

050L - 1/2"/10 in<sup>3</sup>