

OUR PRODUCTS

Designed for use with hydraulic and pneumatic systems.

Chemiquip offers a range of pressure snubbers, pressure limiting valves and flow check valves to solve challenging applications

Chemiquip Instrumentation Protection Products

CHEMIQUIP PRODUCTS CO., INC.

www.chemiquipproducts.com

Standard Pressure Snubbers

Data Sheet



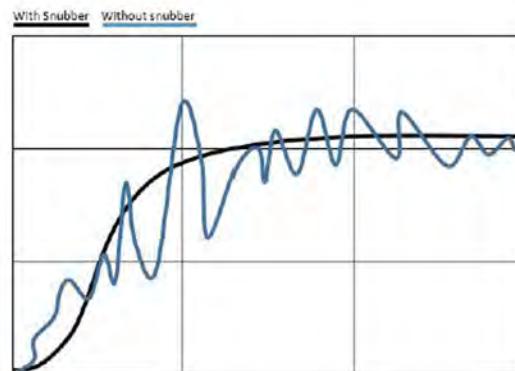
INSTRUMENTATION SOLUTIONS

Ordering Data: (Example: 25BC)

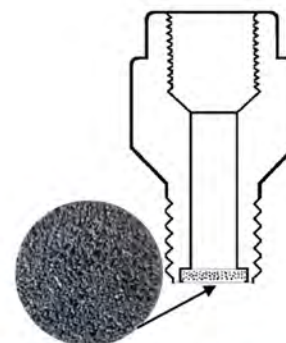
1. Size – Connection		
Male x Female		
12	1/4" NPT x 1/4" NPT	
25	1/2" NPT x 1/4" NPT	
50	1/2" NPT x 1/2" NPT	
1M2	1/4" NPT x 1/4" NPT	
5M2	1/2" NPT x 1/4" NPT	
2M5	1/4" NPT x 1/2" NPT	
40	3/4" NPT x 3/8" NPT (Special)	
75	3/4" NPT x 3/8" NPT (Special)	
90	Other configurations (Please Specify)	
High Pressure 20,000psi		
2025	1/4" NPT Male x 1/4" NPT Female	
2050	1/2" NPT Male x 1/2" NPT Female	
Male x Male		
MxM	Add MxM to catalog number (Example: 50MxM)	
Female x Female		
F	add F to catalog number (Example: F50)	
2. Material		
B	Brass	
S	Stainless Steel (303)	
S6	316 Stainless Steel	
M	Monel	
Z	Other (Please Specify)	
3. Porosity		Approx. micron rating
C	Highly Viscos Fluids (over 500 S.S.U.)	75
D	Oil (225 S.S.U. to 500 S.S.U.)	40-45
E	Water & Light Oils (30 to 225 S.S.U.)	10
F	Vapor and Low Viscosity Fluids (under 30 S.S.U.)	7
G	Air or other Gases	2-5
HX	Pulsating Gas	1
HXX	Extreme Gas Pulsation	1/2
P	Special porosity Special discs to repel water or smaller micron ratings	
Other Threaded Connections		
BSPP	British Pipe thread parallel (Example: 25B-BSPP)	
BSPT	British Pipe thread taper (Example: 25B-BSPT)	
NPS	NPS (Example: 25B-NPS)	
MTC	Metric (Example: 25B-MTC)	
Options		
(Special) Monel porous disc (With monel housing)		
Cleaned for oxygen service		
Lead free		

Applications

- > Increase instrument Life
- > Eliminate pressure instrument failure due to hydraulic or pneumatic shock
- > Smooth out pressure impulses and fluctuations
- > Remove harmful solids from actuating fluid
- > Assure steady average pressure readings
- > For filtration of small quantities of fluids (for example, flue gas sampling);
- > To be used As a metering device

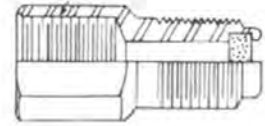


In addition to style and size of ports specified. Chemiquip Snubbers are available in a wide variety of other sizes and connections.

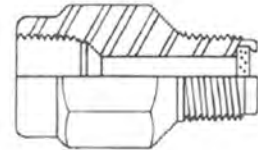


Standard Industrial pressure snubbers (NPT Threads)

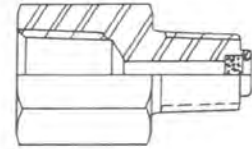
1/4" NPT Male x 1/4" NPT Female					
Model No.	Material	Length	Hex	Net weight	Maximum Pressure Rating
12B	Brass	1.1"	3/8"	1/2 oz.	3,000 psi
12S	Stainless Steel (303)	1.1"	3/8"	1/2 oz.	5,000 psi
12S6	316 Stainless Steel	1.1"	3/8"	1/2 oz.	5,000 psi



1/4" NPT Male x 1/4" NPT Female					
Model No.	Material	Length	Hex	Net weight	Maximum Pressure Rating
25B	Brass	1.5"	3/4"	2 oz.	10,000 psi
25S	Stainless Steel (303)	1.5"	3/4"	2 oz.	15,000 psi
25S6	316 Stainless Steel	1.5"	3/4"	2 oz.	15,000 psi
25M	Monel	1.5"	3/4"	2 oz.	15,000 psi



1/2" NPT Male x 1/2" NPT Female					
Model No.	Material	Length	Hex	Net weight	Maximum Pressure Rating
50B	Brass	2.2"	1 1/2"	8 oz.	10,000 psi
50S	Stainless Steel (303)	2.2"	1 1/2"	8 oz.	15,000 psi
50S6	316 Stainless Steel	2.2"	1 1/2"	8 oz.	15,000 psi
50M	Monel	2.2"	1 1/2"	8 oz.	15,000 psi



High Pressure 20,000 psi - Stainless Steel (Special)					
Model No.	Material	Length	Hex	Net weight	Maximum Pressure Rating
2025	1/2" NPT Male x 1/2" NPT Female	2"	1 1/2"	????	20,000 psi
2050	1/2" NPT Male x 1/2" NPT Female	2.5"	2"	12 oz.	20,000 psi

Add suffix to model no. to indicate desired porosity (e.g. 12BE)

	Porosity	Approx. micron rating
C	Highly Viscos Fluids (over 500 S.S.U.)	75
D	Oil (225 S.S.U. to 500 S.S.U.)	40-45
E	Water & Light Oils (30 to 225 S.S.U.)	10
F	Vapor and Low Viscosity Fluids (under 30 S.S.U.)	7
G	Air or other Gases	2-5
HX	Pulsating Gas	1
HXX	Extreme Gas Pulsation	1/2
P	Special porosity Special discs to repel water or smaller micron ratings	

Other Threaded Connections	
BSPP	British Pipe thread parallel (Example: 25B-BSPP)
BSPT	British Pipe thread taper (Example: 25B-BSPT)
NPS	NPS (Example: 25B-NPS)
	Metric

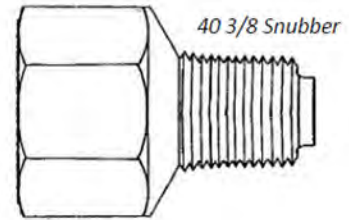
Options (Special)	
	(Special) Monel porous disc (With monel housing)
	Cleaned for oxygen service
LF	Lead free

Special NPT pressure Snubbers

Chemiquip Snubbers Are available in any configuration use these numbers by ordering

1. Select configuration
2. Select material
3. Select porosity

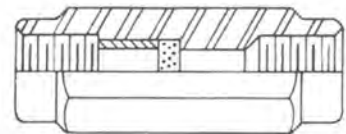
Model No.	Configuration
40	1/2" NPT Male x 1/2" NPT Female
75	1/2" NPT Male x 1/2" NPT Female
1M2	1/2" NPT Male x 1/2" NPT Female
5M2	1/2" NPT Male x 1/2" NPT Female
2M5	1/2" NPT Male x 1/2" NPT Female
90	Other configurations Male x Female



High Pressure 20,000psi	
2025	1/2" NPT Male x 1/2" NPT Female
2050	1/2" NPT Male x 1/2" NPT Female

Male x Male	
25MXM	1/2" NPT Male x 1/2" NPT Male
50MXM	1/2" NPT Male x 1/2" NPT Male
90MXM	Other configurations Male x Male

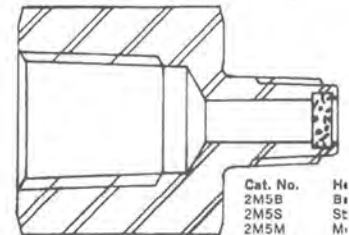
Female x Female	
F25	1/2" NPT Female x 1/2" NPT Female
F50	1/2" NPT Female x 1/2" NPT Female
F90	Other configurations Female x Female



2.	Material
B	Brass
S	Stainless Steel (303)
S6	316 Stainless Steel
M	Monel
Z	Other (Please Specify)

Add suffix to model no. to indicate desired porosity (e.g. 12BE)

3.	Porosity	Approx. micron rating
C	Highly Viscous Fluids (over 500 S.S.U.)	75
D	Oil (225 S.S.U. to 500 S.S.U.)	40-45
E	Water & Light Oils (30 to 225 S.S.U.)	10
F	Vapor and Low Viscosity Fluids (under 30 S.S.U.)	7
G	Air or other Gases	2-5
HX	Pulsating Gas	1
HXX	Extreme Gas Pulsation	1/2
P	Special porosity Special discs to repel water or smaller micron ratings	

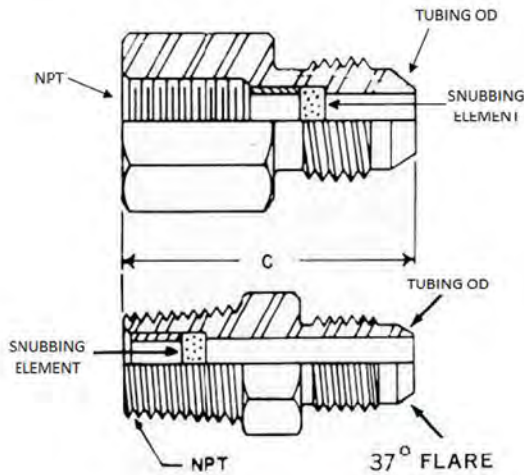


Cat. No. H
2M5B B
2M5S St
2M5M M

Other Threaded Connections	
BSPP	British Pipe thread parallel (Example: 40B-BSPP)
BSPT	British Pipe thread taper (Example: 40B-BSPT)
NPS	NPS (Example: 40B-NPS)
	Metric

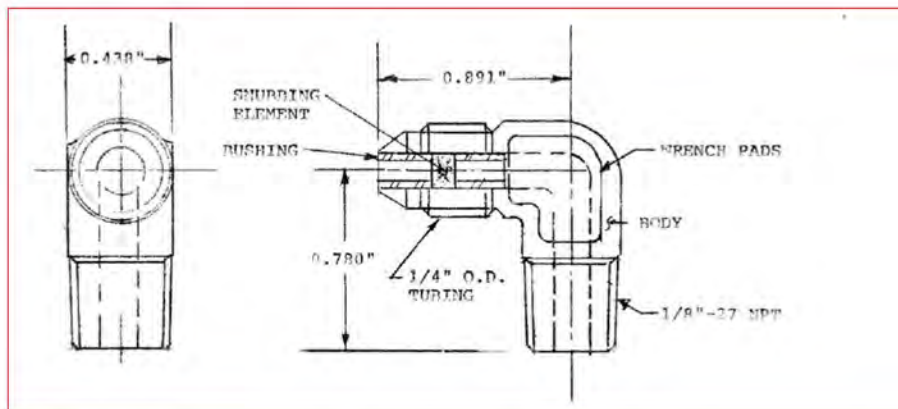
NPT x Flared Tubing Connections Pressure snubbers

Coupling Flared x NPT (Stainless Steel)						
Model No.	Tubing (O.D)	NPT Pipe	Length	Hex ?	Net Weight	Maximum Pressure Rating ?
12-FR-4	1/4"	1/4" Female	1 3/16"		1 oz.	
12-FR-5	5/16"	1/4" Female	1 3/16"		1 oz.	
25-FR-4	1/4"	1/4" Female	1 3/8"		1 oz.	
25-FR-5	5/16"	1/4" Female	1 7/16"		1 oz.	
25-FR-6	3/8"	1/4" Female	1 7/16"		1 oz.	
12-MR-4	1/4"	1/4" Male	1 1/2"	1/2"	???	
12-MR-5	5/16"	1/4" Male	1 3/16"		2 oz.	
25-MR-4	1/4"	1/4" Male	1 3/4"		???	
25-MR-5	5/16"	1/4" Male	1 5/16"		2 oz.	
25-MR-6	3/8"	1/4" Male	1 7/16"		???	
50-MR-4	1/4"	1/2" Male	???		3 oz.	
50-MR-5	5/16"	1/2" Male	???		3 oz.	
50-MR-6	3/8"	1/2" Male	???		3 oz.	



Housing:

- > 303 Stainless Steel
- > 316 Stainless Steel
- > Aluminum
- > Monel



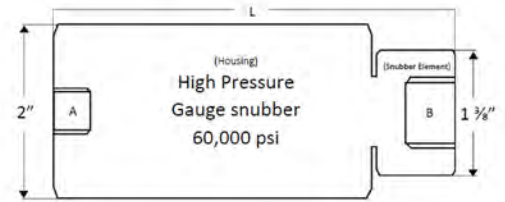
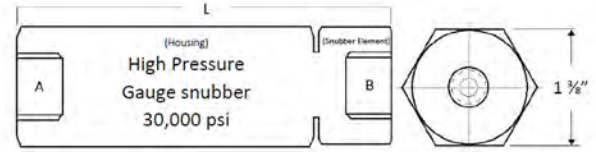
Special Purposes

High Pressure Gauge Snubber

The Chemiquip Super High-Pressure snubber is Designed for the protection of pressure gauges or other pressure devices when they are called upon to work under the extremes of pressure instrument encountered in many chemical processing, refining and synthesizing industry processes. The porous snubbing element is available in standard porosities for use with a wide variety of liquid viscosities and gases. When the snubber assembly is placed in the line just ahead of the pressure instrument, the instrument reacts to line pressure changes at a rate which is proportional to the pressure differential across the porous membrane. This results in a modularly rapid, but smooth, action of the instrument which is free of fluctuation or pulsations. The snubber element is calibrated to permit equilibrium readings upscale or downscale in approximately three seconds. When it is used with a pulsing system, a mean average pressure reading can be expected with an error to the order of magnitude of 1%. Unlike other types of pressure snubbers, chemiquip porous stainless-steel snubbers resist plugging in service. This freedom from plugging results from the large porous surface which is exposed to the actuating media. The porous material will not erode in service.

- > Housing is easily disassembled for cleaning or service
- > No moving parts
- > Fabricated from Stainless Steel Type 316 for maximum operating Pressures of 30,000 psi or 60,000 psi.
- > Unique design, utilizing an O-Ring seal makes it possible to contain pressures to 60,000 psi without applying extreme force to threaded connections.
- > Special designs or threaded connections are available to order.





Special Purposes High Pressure Gauge Snubber

Snubber Element (When ordering, please specify both housing and snubbing element catalog numbers.)

Catalog #	Type of Service:	Viscosity range	Housing Material	Net Weight
HP-50C	High Viscosity Fluids	over 500 S.S.U.	Series 300 Stainless Steel	3 oz.
HP-50D	Heavy Oil	225 S.S.U. to 500 S.S.U.		
HP-50E	Water & Light Oils	30 to 225 S.S.U.		
HP-50F	Vapor and Low Viscosity Fluids	under 30 S.S.U.		
HP-50G	Air or other Gases			
HP-50HX	Pulsating Gas			
HP-50HXX	Extreme Gas Pulsation			

Housing 30,000psi

Catalog #	Tubing Connection (AMINCO) "A"	Pipe Connection "B"	Housing	Net Weight	Length "L"
30-31 HF-4B-GS	1/4"	1/4" NPT	Type 316 Stainless Steel		4 - 3/16"
30-31 HF-4-GS		1/4" TUBE AMINCO (9/16" - 18NF2)			
30-31 HF-6B-GS	3/8"	1/4" NPT			
30-31 HF-6-GS		1/4" TUBE AMINCO (3/4"-16NF2)			
30-31 HF-4-D-GS	1/4"	1/2" NPT			
30-31 HF-6-D-GS	3/8"	1/2" NPT			

Housing 60,000psi

60-31 HF-4B	1/4"	1/4" NPT	Type 316 Stainless Steel		5 1/2"
60-31 HF-4-GS		1/4" TUBE AMINCO (9/16"-18NF2)			
60-31 HF-6B-GS	3/8"	1/4" NPT			
60-31 HF-6-GS		1/4" TUBE AMINCO (3/4"-16NF2)			
60-31 HF-4-D-GS	1/4"	1/2" NPT			
60-31 HF-6-D-GS	3/8"	1/2" NPT			

Special designs or threads are available to order

CHEMIQUIP

High Pressure Limiting Valve

The Automatic action Pressure Limiting Valve-Snubbers Model 5460 & 5500 is for use with liquid & gases to protect systems from over range at operating pressure up to 22,500 psi

Achieves pressure gauge protection **Automatic positive protection** **Accurate repeatable performance**

- Available in 3 set ranges, the shut-off pressure is adjustable from 100 to 10,000 psi
- Chemiquip snubber assures positive, repeatable performance of valve and gauge by protecting against surges, pulsations and entrained solids inclusions
- Swift, Simple external adjustment
- Outfitted with ¼" NPT (5460) or ½" NPT (5500) female inlet and outlet ports
- Compact & installs in line
- Each valve is tested before shipping

The valve automatically shuts off pressure to the gauge if the pressure rises above the adjustable pre-set pressure, and automatically restores the instrument on-line when pressure falls below the pre-set value. Allows instruments of different ranges to be connected to a common manifold.

The valve may be assembled with a snubber at inlet for complete pressure and surge or pulsation control.

The snubber will also serve to smooth the reaction of the valve to pressure changes, thus avoiding erratic performance by insuring application of pressure at a constant rate.

The valve may be assembled at any point or in any position in an instrument system, Adjacency to the instrument is not important to the proper operation of the valve.



Specifications

Pressure set ranges:

Style-L 100-800 psi

Style-M 800-2500 psi

Style-N 2500-10,000 psi

Inlet operating pressure:

12,000 psi (5460)

22,500 psi (5500)

Temperature range:

0°F to 400°F (Viton)

-20°F to 250°F (Buna)

-70°F to 250°F (EPDM)

High Pressure Limiting Valve PLV-5460 & 5500 Data Sheet

Ordering Code:

Example:

PLV-	5460		L	V	C
1.	Connection				
5460	¼" NPT Female				
5500	½" NPT Female				
2.	Material				
	Stainless Steel 300 Series				
Z	(Special) Other Material				
3.	Style				
L	100-800 Psi				
M	800-2500 Psi				
N	2500-10,000 Psi				
4.	Seal / Temperature Range (°F)*				
V	Viton 0°F to +400°F*				
B	Buna -20°F to +250°F				
P	EPDM -70°F to +250°F				
Z	(Special) Other Seals (Please Specify)				
5.	Snubber (Type of Service)				
C	Highly Viscosity Fluids (over 500 S.S.U.)				
D	Oil (225 S.S.U. to 500 S.S.U.)				
E	Water & Light Oils (30 to 225 S.S.U.)				
F	Vapor and Low Viscosity Fluids (under 30 S.S.U.)				
G	Air or other Gases				
HX	Pulsating Gas				
HXX	Extreme Gas Pulsation				
NS	No Snubber				
6.	Options				
	Optional Factory Preset (Please Specify)				
	Material Traceability Report				
	Hydrostatic Testing				
	Cleaned for Oxygen Service				
	Service Stainless Steel tags				
	Repair kit				
	Male adapter with or without snubber				
	Special end connections				

* It is the customer's responsibility to make sure that the medium is compatible with the O-rings

Pressure Limiting Valve Gauge Saver

The Automatic action Pressure Limiting Valve-Snubbers Model 255, 2550 and 71620 is for use with liquid & gases to protect systems from over range at operating pressure up to 15,000 psi

Achieves pressure gauge protection Automatic positive protection Accurate repeatable performance

- Available in 4 set ranges, the shut-off pressure is adjustable from 10 to 3,000 psi
- Chemiquip snubber assures positive, repeatable performance of valve and gauge by protecting against surges, pulsations and entrained solids inclusions
- Swift, Simple external adjustment
- Entire unit length 3" (255) or 4" (2550)
- Outfitted with 1/4" NPT (255), 1/2" NPT (2550) or 716-20 UNF Male or female inlet and female outlet ports
- Compact & installs in line easily
- Each valve is tested before shipping

The valve automatically shuts off pressure to the gauge if the pressure rises above the adjustable pre-set pressure, and automatically restores the instrument on-line when pressure falls below the pre-set value. Allows instruments of different ranges to be connected to a common manifold.

The valve may be assembled with a snubber at inlet for complete pressure and surge or pulsation control.

The snubber will also serve to smooth the reaction of the valve to pressure changes, thus avoiding erratic performance by insuring application of pressure at a constant rate.

The valve may be assembled at any point or in any position in an instrument system, Adjacency to the instrument is not important to the proper operation of the valve.



PLV-255B

Specifications

Pressure set ranges:

Style-3 10-150 psi

Style-4 150-500 psi

Style-5 500-1000 psi

Style-6 1000-3000 psi

Inlet operating pressure:

3000 psi (255-Brass)

8000 psi (255-Stainless Steel)

10,000 psi (2550-Stainless Steel)

15,000 psi (71620-Stainless Steel)

Minimum burst pressure:

15,000 psi (255-Brass)

20,000 psi (255 & 2550-Stainless Steel)

Temperature range:

0°F to 400°F (Viton)

-20°F to 250°F (Buna)

-70°F to 250°F (EPDM)

Pressure Limiting Valve Gauge Saver

Ordering Code:

Example:

PLV-	255S	3	V	C	
1.	Body				
255S	¼" NPT Female Stainless Steel 300 Series				
255SK	¼" NPT Female 316 Stainless steel Meets N.A.C.E MR0175				
255B	¼" NPT Female Brass				
255M	¼" NPT Female Monel (Special)				
2550	½" NPT Female 316 Stainless steel Meets N.A.C.E MR0175				
2550M	½" NPT Female Monel (Special)				
71620	7/16-20 UNF Female				
MxF	add MxF for male x female valve (255S-MxF)				
2.	Style				
3	10-150 Psi				
4	150-500 Psi				
5	500-1000 Psi				
6	1000-3000 Psi				
3.	Seal / Temperature Range (°F)*				
V	Viton 0°F to +400°F*				
B	Buna -20°F to +250°F				
P	EPDM -70°F to +250°F				
Z	(Special) Other Seals (Please Specify)				
4.	Snubber (Type of Service)**				
C	Highly Viscosity Fluids (over 500 S.S.U.)				
D	Oil (225 S.S.U. to 500 S.S.U.)				
E	Water & Light Oils (30 to 225 S.S.U.)				
F	Vapor and Low Viscosity Fluids (under 30 S.S.U.)				
G	Air or other Gases				
HX	Pulsating Gas				
HXX	Extreme Gas Pulsation				
NS	No Snubber				
5.	Options				
	Optional Factory Preset (Please Specify)				
	Material Traceability Report				
	Hydrostatic Testing				
	Cleaned for Oxygen Service				
	Stainless Steel tags				
	Repair kit				
	Special end connections				

* It is the customer's responsibility to make sure that the medium is compatible with the O-rings

**Snubber for model no 71620 has to be ordered separately