



Catalog 2020

**A PIONEER IN
INSTRUMENTATION
PROTECTION**

- **Pressure Snubbers**
- **Pulsation Dampeners**
- **Pressure limiting Valve**
- **Flow Restrictors**
- **Gauge Isolators**
- **Excess Flow Check Valve**

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Our Purpose

Chemiquip Products Inc. is committed to providing quality standard and custom solutions which meet our customers' unique needs. We provide a highly valued experience for our customers and employees by making all our business partnerships enjoyable, professional and profitable.

Our Vision

We are a company that is large enough to produce standard products, but flexible enough to deliver superior quality, value-added, customized results at a competitive price. We seek out customers who share our commitment to value-added design and development of quality products. We sustain profitable growth by developing existing markets and customers and identifying new complementary opportunities that allow us to maintain our uniqueness and diversify our offerings. We attract and retain the best talent as a result of successfully integrating a fun, positive work environment, leadership and people development with recognition and incentives. As a result, our 65-year tradition and legacy renews, grows and prospers.

Our History

Chemiquip Products Inc. was founded in 1953 by Julian A. Lipman. Headquartered in Manhattan, NY. There was a need to manufacture pressure snubbers to protect gauges and other instruments.

After a decade, Chemiquip started to become a national manufacturer for all instrumentation protection needs such as providing components for the hawk missile program.

In 2007, Chemiquip Products Inc was acquired by the Feldman Family as a privately held venture.

In 2012, after the manufacturing plant in NYC was attacked by hurricane Sandy, Chemiquip relocated to our new facilities in Linden, NJ.

Chemiquip continues to be a pioneer in quality instrumentation protection ever since its founding over 60 years ago.

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Note: The products illustrated in this catalog are not limited to the standard design shown. We invite your inquires for your specific requirements.

CHEMIQUIP MEANS QUALITY



All Chemiquip Products are proudly

MADE IN USA

Warning: Products offered in this catalog can expose you to chemicals such as lead, a chemical which is known to the state of California to cause cancer, birth defects, or other reproductive harm. For more information visit www.p65warnings.ca.gov

POROUS METAL “PRESSURE SNUBBERS”

- increase instrument life
- Assure steady average pressure readings
- Remove harmful solids from actuating fluid
- Smooth out pressure impulses and fluctuations
- Eliminate pressure instrument failure due to hydraulic or pneumatic shock



Porous element pressure snubbers, used for protecting measurement instruments from sudden pressure increases or fluctuations. This enables sensing instruments to provide consistent readings, while extending product service life. An ideal solution for satisfying applications with challenging requirements.

APPLICATIONS

Dampening Pulsations: Systems which establish pulsations such as reciprocating machines or Force-pumps require protection for the pressure sensitive instruments assembled to them. The snubber is designed to afford a mean average pressure response with a maximum of accuracy.

For filtering small quantities of liquids or gases: The porous membrane in the snubber provides a surface upon which droplets of oil or moisture suspended in a gaseous phase may coalesce. Hence it is possible to remove small quantities of such liquids. When the snubber is used as a filter, particles 1/3 the pore diameter, or smaller, are effectively removed. Information concerning pore size and permeability can be supplied on request.

For Mercury – Type Instruments: The snubber dampens pulsations and surges and also confines mercury in the tube. Mercury will not penetrate the Grade HX snubber at pressure under 25psi. Finer grades of snubbers will confine the mercury at higher pressures.

Dampening Surges: If the pressure sensitive instrument is unprotected in systems where high pressure may be suddenly vented, the mechanism will be damaged or the pointer broken, bent or shifted up scale. These snubbers are calibrated to give an equilibrium reading either up or down scale in about 2-3 seconds

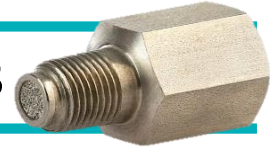
For Metering: Many types of instruments and machines require that a certain amount of liquid or gas be constantly bled. Here the pressure snubber replaces capillary tubing which is much more cumbersome, harder to control and shows a greater tendency toward plugging. Throughput rates may be supplied in a infinite variety.

Note: The snubber may be effectively adapted for use with systems containing high concentrations of suspended solids by filling the bourdon tube of the gage with glycerin, light viscosity oil or unmixable fluid and capping the pressure instrument connection with a snubber.

The myriad minute pores in the porous disc resist clogging by solids, suspensions, a frequent occurrence with single orifice types of snubbers.



Standard Pressure Snubbers

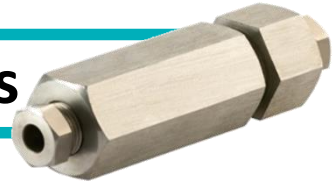


Model No. 12		Model No. 25		Model No. 50	
Threaded Connection 1/8" NPT Inlet & 1/8" NPT outlet		Threaded Connection 1/4" NPT Inlet & 1/4" NPT outlet		Threaded Connection 1/2" NPT Inlet & 1/2" NPT outlet	
Materials 316 Stainless Steel 303 Stainless Steel Brass		Materials 316 Stainless Steel 303 Stainless Steel Brass Monel		Materials 316 Stainless Steel 303 Stainless Steel Brass Monel	
Max Pressure Rating 5,000 psi (Stainless Steel) 3,000 psi (Brass)		Max Pressure Rating 15,000 psi (Stainless Steel) 15,000 psi (Monel) 10,000 psi (Brass)		Max Pressure Rating 15,000 psi (Stainless Steel) 15,000 psi (Monel) 10,000 psi (Brass)	
Length 1.1"	Hex. 5/8"	Length 1.5"	Hex. 3/4"	Length 2.2"	Hex. 1 1/4"
Net Weight 1/2 oz.		Net Weight 2 oz.		Net Weight 8 oz.	

Example:	25	S	E
1. Body			
12	1/8" NPT Inlet & 1/8" NPT outlet		
25	1/4" NPT Inlet & 1/4" NPT outlet		
50	1/2" NPT Inlet & 1/2" NPT outlet		
2. Material			
B	Brass		
S	303 Stainless Steel		
S6	316 Stainless Steel		
M	Monel (special on model 12)		
Z	Other (Specify)		
3. Porosity			
C	High Viscosity Fluids		
D	Heavy Oil		
E	Water & Light Oils		
F	Vapor and Low Viscosity Fluids		
G	Air or other Gases		
HX	Pulsating Gas		
HXX	Extreme Gas Pulsation		
SPECIAL	Special discs to repel water or smaller micron ratings		
4. Options			
BSPP	British pipe thread parallel (Example: 25B-BSPP)		
BSPT	British pipe thread taper (Example: 25B-BSPT)		
NPS	NPS (Example; 25B-NPS)		
XS	Cleaned for oxygen service		
LF	Lead Free		



Super High-Pressure Snubbers



Designed for the protection of pressure gauges or other pressure devices when they are called upon to work under the extremes of pressure up to 60,000 psi

Model: 30-31	Model: 60-31
Max Pressure Rating 30,000 psi	Max Pressure Rating 60,000 psi
Material 316 Stainless Steel	Material 316 Stainless Steel

- No moving parts
- Housing is easily disassembled for cleaning or service
- Fabricated from Stainless Steel Type 316
- 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.

Example:	30-31	HF-4	GS	E
1. Body Housing				
30-31	30,000psi			
60-31	60,000psi			
2. Connection "A" (Inlet)				
HF-4	¼" Aminco			
HF-6	⅜" Aminco			
3. Connection "B" (Outlet)				
GS	Tube Aminco Same as inlet			
B-GS	¼" NPT			
C-GS	⅜" NPT			
D-GS	½" NPT			
Note: NPT Connections are limited to NPT ratings				
4. Snubber		Viscosity Range		
C	High Viscosity Fluids	Over 500 S.S.U.		
D	Heavy Oil	225 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			
HP-50	Snubber Element only (Specify porosity)			



Flared Fitting Pressure Snubbers



Coupling Flare x Flare (Similar to AN815)

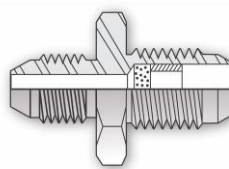
Example:	25-FR	E	
1.	NPT Pipe	Threads	
AC-1	1/4" Flare	7/16-20 NF-3	
AC-6	3/8" Flare	9/16-18 NF-3	
AC-8	3/8" Flare	3/4-16 NF-3	
2.	Porosity		
C	High Viscosity Fluids		
D	Heavy Oil		
E	Water & Light Oils		
F	Vapor and Low Viscosity Fluids		
G	Air or other Gases		
HX	Pulsating Gas		
HXX	Extreme Gas Pulsation		
Special	Special discs to repel water or smaller micron ratings		

Coupling NPT x Flare (Similar to AN816)

Example:	25-FR	5	E	
1.	NPT Pipe			
12-FR	1/8" NPT Female			
12-MR	1/8" NPT Male			
25-FR	1/4" NPT Female			
25-MR	1/4" NPT Male			
50-MR	1/2" NPT Male			
2.	Tubing (O.D.)			
4	1/4"			
5	5/16"			
6	3/8"			
3.	Porosity			
C	High Viscosity Fluids			
D	Heavy Oil			
E	Water & Light Oils			
F	Vapor and Low Viscosity Fluids			
G	Air or other Gases			
HX	Pulsating Gas			
HXX	Extreme Gas Pulsation			
Special	Special discs to repel water or smaller micron ratings			

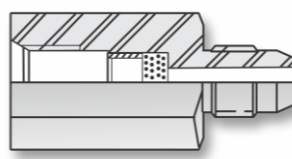
Flared Tube Reducer (similar to AN919)

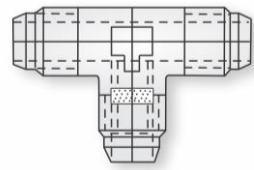
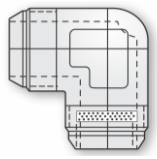
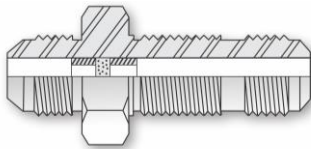
Example:	25-FR				E
1.	A	Thread	B	Thread	
ARC-1	¼" Flare	7/16-20 NF-3	⅛" Flare	5/16-20 NF-3	
1ARC-6	⅜" Flare	9/16-18 NF-3	¼" Flare	7/16-20 NF-3	
1ARC-10	⅜" Flare	¾-16 NF-3	¼" Flare	7/16-20 NF-3	
2.	Porosity				
C	High Viscosity Fluids				
D	Heavy Oil				
E	Water & Light Oils				
F	Vapor and Low Viscosity Fluids				
G	Air or other Gases				
HX	Pulsating Gas				
HXX	Extreme Gas Pulsation				
Special	Special discs to repel water or smaller micron ratings				



Flare Tube Bushing Gasket Seal x Flare (similar to AN919)

Example:	6KAC	6	E
1.	Tube Connection		
1KAC	¼" Tube – 7/16"-18 NF-3		
6KAC	⅜" Tube – 9/16"-18 NF-3		
8KAC	½" Tube – ¾"-16 NF-3		
2.	Flared Connection		
1	¼" Flare – 7/16"-20 NF-3		
6	⅜" Flare – 9/16"-18 NF-3		
3.	Porosity		
C	High Viscosity Fluids		
D	Heavy Oil		
E	Water & Light Oils		
F	Vapor and Low Viscosity Fluids		
G	Air or other Gases		
HX	Pulsating Gas		
HXX	Extreme Gas Pulsation		
Special	Special discs to repel water or smaller micron ratings		



<p>Flared tube Tee</p> 	<p>Flared tube Elbow</p> 	<p>Flared tube Bulkhead union</p> 
<p>Contact for Details</p>		



Flareless Pressure Snubbers

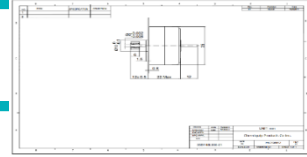


(Bite Type Snubbers)

Example:	AC-1U	E	C
1.	Snubber Body		
	Inlet	Outlet	Hex
AC-1U	¼" Bite Type - Male	¼" Bite Type - Male	½"
ACG-1U	¼" Bite Type - Male	¼" Bite Type - Male	11/16"
25FS-1U	¼" NPT Female	¼" Bite Type - Female	¾"
25FS-1K	¼" NPT Female	¼" Gasket seal Female	¾"
25MS-1U	¼" NPT Male	¼" Bite Type Male	¾"
25MS-1K	¼" NPT Female	¼" Bite Type Male	¾"
50MS-1K	½" NPT Male	¼" Bite Type	
150KNC-1U	¼" Gasket seal Female	¼" Bite Type Male	¾"
150KMN-1U	¼" Gasket seal Female	¼" Bite Type Male	
50FS-1U	½" NPT Female	¼" Bite Type Male	1¼"
50FS-1K	½" NPT Female	¼" Gasket seal Female	1¼"
175KNC-1U	¾" Gasket seal Female	¾" Tube Male	
175KMU-1U	¾" Gasket seal Female	¾" Tube Male	
Material			
2.	Porosity	Viscosity Range	
C	High Viscosity Fluids	Over 500 S.S.U.	
D	Heavy Oil	225 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		
SPECIAL	Special discs to repel water or smaller micron ratings		
3.	Options		
XS	Cleaned for oxygen service		
LF	Lead Free		



Custom Pressure Snubbers



Design your customized snubber in any shape, design, thread, End connection, material, porosity.

If your design is listed select the number listed otherwise specify your requirements.

Example:	75	S	E
1. Body			
40	3/8" NPT Male Inlet & 3/8" NPT Female outlet		
75	3/4" NPT Male Inlet & 3/4" NPT Female outlet		
1M2	1/8" NPT Male Inlet & 1/4" NPT Female outlet		
5M2	1/2" NPT Male Inlet & 1/4" NPT Female outlet		
2M5	1/4" NPT Male Inlet & 1/2" NPT Female outlet		
90	Other Configuration Male x Female		
25MXM	1/4" NPT Male x 1/4" NPT Male		
50MXM	1/2" NPT Male x 1/2" NPT Male		
90MXM	Other Configurations Male x Male		
F25	1/4" NPT Female x 1/4" NPT Female		
F50	1/2" NPT Female x 1/2" NPT Female		
F90	Other Configurations Female x Female		
2. Material			
B	Brass		
S	303 Stainless Steel		
S6	316 Stainless Steel		
M	Monel		
Z	Other (Specify)		
3. Porosity			
C	High Viscosity Fluids		
D	Heavy Oil		
E	Water & Light Oils		
F	Vapor and Low Viscosity Fluids		
G	Air or other Gases		
HX	Pulsating Gas		
HXX	Extreme Gas Pulsation		
SPECIAL	Special discs		
4. Options			
BSPP	British pipe thread parallel (Example: 40B-BSPP)		
BSPT	British pipe thread taper (Example: 40B-BSPT)		
NPS	NPS (Example: 40B-NPS)		
BT	Bite-Type Flareless (Example: 40B-BT)		
FT	Flared Tubing (Example: 40B-FT)		
XS	Cleaned for oxygen service		
LF	Lead Free		
Note: The designs specified on this page are not standard snubbers for standard snubbers see page 5			



Mil Spec Pressure Snubbers

Chemiquip products has been a long standing provider of military products to both original equipment manufacturers such as General Dynamics, and directly to the US DOD departments of the army air force, navy etc., Over the past fifty years we have developed and tested products that are used on vehicles, ships, and missile systems. We specialize in manufacturing Pressure Snubbers otherwise known as Fluid pressure dampeners that comply to Military specifications. We are a very proud supplier of choice for fluid pressure dampeners for these applications. We support our troops by providing the highest quality products available.

Fluid Pressure Dampeners

Chemiquip has the capabilities to manufacture every TYPE, CLASS, COMPOSITION, END CONNECTION and CLEANLINESS requirements for your application.

Part number

MIL-PRF-2940D
MIL-S-2940C (SH)
MIL-S-2940B
MIL-D-2940A
MIL-S-2940
MIL-D-2940

COMPOSITION

Composition A - Copper-nickel alloys (CuNi) MIL-C-15726 C71500.
Composition B - Nickel-copper (Monel Alloy 400/405) (55-70 percent nickel).
Composition C - Corrosion resistant steel S30400 (304), S30403 (304L), S31600 (316) and S31603 (316L).
Composition X - Brass and Bronze.

CLEANLINESS REQUIREMENTS

MIL-STD-1330
MIL-STD-1622
MIL-STD-1246
MIL-STD-767
AOR-767

Contact our team to help you select the Dampener for your application with a Mil spec part number (for example M2940-3LCPG M2940-3-L-C-P-G) or a part based on your design requirements.

Chemiquip's Dampeners were tested for high impact shock in accordance to the military specifications MIL-S-901, and for mechanical vibrations in accordance to the military specifications MIL-STD-167-1.



Pressure Limiting Valve / Overpressure Protector

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.

Pressure Limiting Valve Model 255, 2550 & 71620



Available in 4 set ranges, the shut-off pressure is adjustable from 10 to 3,000 psi

Inlet operating pressure:

- 3000 psi (255-Brass)
- 8000 psi (255-Stainless Steel)
- 10,000 psi (2550)
- 15,000 psi (71620)

High Pressure Limiting Valve Model 4560 & 5500



Available in 3 set ranges, the shut-off pressure is adjustable from 100 to 10,000 psi

Inlet operating pressure:

- 12,000 psi (5460)
- 22,500 psi (5500)

Pressure Limiting Valve / Overpressure Protector Model 255, 2550 & 71620

Example:

PLV-	255S	3	V	C	
1. Body					
255S	¼" NPT Female Stainless Steel 300 Series				
255SK	¼" NPT Female 316 Stainless steel <small>Meets N.A.C.E MR0175</small>				
255B	¼" NPT Female Brass				
255M	¼" NPT Female Monel (Special)				
2550	½" NPT Female 316 Stainless steel <small>Meets N.A.C.E MR0175</small>				
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

High Pressure Limiting Valve / Overpressure Protector Model 5460 & 5500

Example:

PLV-	5460	L	V	
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. Options				
	Pressure Snubber (specify one of standard porosity's) See standard pressure snubbers			
	Optional Factory Preset (Specify)			
	Material Traceability Report			
	Hydrostatic Testing			
	Cleaned for Oxygen 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



Excess Flow Check Valve

(Hydraulic Fuse)



When Valve's predetermined flow-rate is exceeded, a spring-loaded poppet closes automatically, instantly. It remains closed as long as system imbalance remains across the valve. When normal equilibrium is restored, the valve resets automatically and normal flow resumes.

Typical Applications

- Designed for protection of systems handling noxious, toxic, flammable or radioactive materials
- Delivers positive, automatic protection from uncontrolled liquid or gas flows
- the valve contains many features which can be used on dead-end systems.

The Excess-Flow check valve may be designed to prevent

- all flow in case of system rupture;
- with a calibrated leak which automatically resets valve when downstream failure is corrected.
- It may also be used to prevent too rapid charging of a line, such as an incorrect manipulation of an upstream control valve, or other mechanism.

This resulting inrush sometimes results in damage to instruments or other flow or pressure sensitive equipment.

Standard EFCV	Custom EFCV
<p>Connections:</p> <p>1/4" NPT 1/2" NPT 3/4" NPT</p> <p>Maximum operating pressure:</p> <p>6,000 psi – Brass 10,000 psi – Stainless Steel</p> <p>Flow Rates:</p> <p>Water – 1-40 GPM Air – See Table Gases and other liquids see formula</p>	<p>Can be Custom Designed and built to suit your specific application.</p> <p>Your Excess-Flow Check Valve will be designed to fulfill your requirements in terms of the following:</p> <ol style="list-style-type: none">1. Normal flow, system pressure and operating temperature.2. Flow-rate which must not be exceeded; point at which valve is to close.3. Density and viscosity of fluid or gas.4. Style and size of connections required.5. Material of construction.

Standard EFCV Data & Ordering Sheet

Example:

EFCV-	25	B	2						
1. Connection									
25	¼" NPT Female								
50	½" NPT Female								
75	¾" NPT Female								
2. Materiel									
S	Stainless Steel								
B	Brass								
Z	(Special) Other Material								
3. Liquid Shut off flow (1-40 GPM Water)				Air Shut off flow (SCFM of air at 70°at different operating pressures)					
			Max pressure drop to close	100 PSIG	250 PSIG	500 PSIG	1000 PSIG	2000 PSIG	4000 PSIG
0	0.25		2.5 psi	3.75	6	8	11.5	16	22.5
1	0.50		2.5 psi	7.5	12	16	23	32	45
2	1.00		5.0 psi	15	23	32	45	64	90
3	2.00		5.00 psi	30	45	64	90	128	180
4	5.00		7.50 psi	75	115	164	225	320	450
5	7.50		7.50 psi	115	175	240	340	480	680
6	10.00		15.00 psi	150	230	320	450	640	900
Other Liquids To find out shut off flow for liquids other than water. divide the water shut off flow by the square root of the liquid specific gravity. For example, using a EFCV-25S-4 that has a water shut off flow at 5.0 GPM the shut off flow for oil whose specific gravity is 1.3 the shut off flow is 4.4 GPM $(5.0\sqrt{1.3})$				Other Gases To find out the shut off flow for gases other than air, multiply the air shut-off flow by the square root of ratio of air density and gas density.					
4. Options									
Metal to Metal seal									
Teflon tip seal									
O-ring tight seal									
Micro groove (Calibrated leak)									