

Catalog 2020



**Chemiquip Products Co. Inc.** 

109 Bradford Ave. Linden NJ 07036 USA

P: 201-868-4445 | F: 201-868-4447

E: sales@chemiquip.com | W: www.chemiquip.com

### **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, valueadded, 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 identifying complementary new 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 recognition development with 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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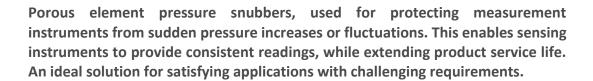
**Note:** The products illustrated in this catalog are not limited to the standard design shown. We invite your inquires for your specific requirements.



**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 <a href="https://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>

## **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



### **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.



### Model No. 12

### **Threaded Connection**

1/8" NPT Inlet & 1/8" NPT outlet

#### **Materials**

316 Stainless Steel 303 Stainless Steel

### Brass

### **Max Pressure Rating**

5,000 psi (Stainless Steel) 3,000 psi (Brass)

Hex.

5/8"

## Length

1.1"

### **Net Weight**

½ oz.

### Model No. 25

### **Threaded Connection**

1/4" NPT Inlet & 1/4" NPT outlet

#### **Materials**

316 Stainless Steel 303 Stainless Steel

### Brass Monel

### **Max Pressure Rating**

15,000 psi (Stainless Steel) 15,000 psi (Monel) 10,000 psi (Brass)

#### Length Hex. 3/4" 1.5"

### **Net Weight** 2 oz.

### Model No. 50

### **Threaded Connection**

½" NPT Inlet & ½" NPT outlet

### **Materials**

316 Stainless Steel 303 Stainless Steel Brass Monel

### **Max Pressure Rating**

15,000 psi (Stainless Steel) 15,000 psi (Monel) 10,000 psi (Brass)

Length Hex. 2.2" 1 1/4"

**Net Weight** 8 oz.

Example:	25	S	Е
1.	Body		
12	1/8" NPT Inlet & 1/8" NPT outlet		
25	¼" NPT Inlet & ¼" NPT outlet		
50	½" NPT Inlet & ½" NPT outlet		
2.	Material		
В	Brass		-
S	303 Stainless Steel		-
<b>S6</b>	316 Stainless Steel		-
М	Monel (special on model 12)		-
Z	Other (Specify)		-
3.	Porosity		~
С	High Viscosity Fluids		
D	Heavy Oil		
E	Water & Light Oils		
F	Vapor and Low Viscosity Fluids		
G	Air or other Gases		
нх	Pulsating Gas		
НХХ	Extreme Gas Pulsation		
SPECIAL	Special discs to repel water or smaller micro	on ratings	
4.	Options		
BSPP	British pipe thread parallel (Example: 25B-E	BSPP)	
BSPT	British pipe thread taper (Example: 25B-BS	PT)	
NPS	NPS (Example; 25B-NPS)		
XS	Cleaned for oxygen service		
LF	Lead Free		



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

Max Pressure Rating
30,000 psi

Material
316 Stainless Steel

Model: 60-31

Max Pressure Rating
60,000 psi

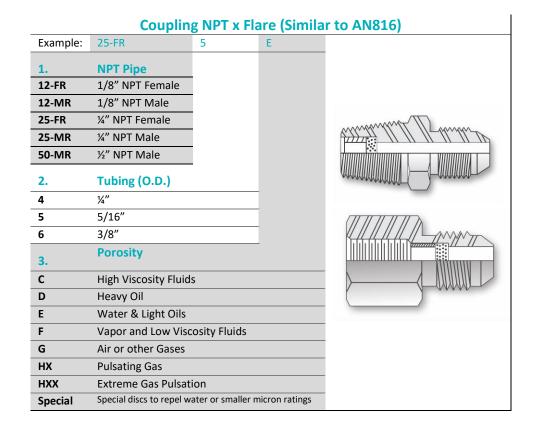
Material
316 Stainless Steel

- 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.

<b>30-31</b> 3	Body Housing 30,000psi 60,000psi			
<b>30-31</b> 3	30,000psi			
	<u> </u>			
	60,000psi			
<b>60-31</b> 6				
2.	Connection "A" (Inlet)			
HF-4 3	¼" Aminco			
HF-6	¾" Aminco			
3.	Connection "B" (Outlet)			
GS 7	Tube Aminco Same as inlet			
B-GS 3	¼" NPT			
C-GS 3	%" NPT			
D-GS 3	½" NPT			
Note: NPT Co	connections are limited to NPT ratin	ngs		
4.	Snubber	Viscosity Ran	ge	
C I	High Viscosity Fluids	Over 500 S.S.	.U.	
D I	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 A	Air or other Gases			
HX F	Pulsating Gas			
HXX E	Extreme Gas Pulsation			
HP-50	Snubber Element only (Specify por	osity)		

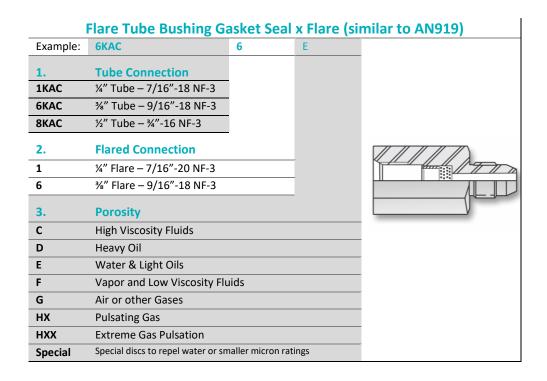


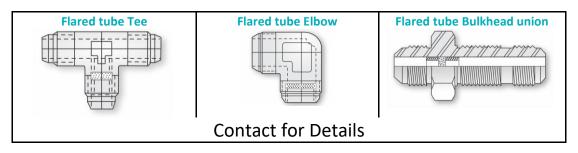
	Couplin	g Flare x Flare (	Similar to A	N815)
Example:	25-FR		E	
1.	NPT Pipe	Threads		
AC-1	¼" Flare	7/16-20 NF-3		
AC-6	¾" Flare	9/16-18 NF-3		
AC-8	¾" Flare	¾-16 NF-3		
2.	Porosity		-	
С	High Visco	sity Fluids		
D	Heavy Oil			
E	Water & Li	ght Oils		
F	Vapor and	Low Viscosity Fluids		
G	Air or othe	r Gases		
НХ	Pulsating G	as		
нхх	Extreme G	as Pulsation		
Special	Special discs	to repel water or smalle	r micron ratings	



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		Flared T	ันbe Redเ	ucer (similar to	o AN919)	
Example:	25-FR				E	
1.	A	Thread	В	Thread		
ARC-1	¼" Flare	7/16-20 NF-3	⅓" Flare	5/16-20 NF-3		
1ARC-6	¾" Flare	9/16-18 NF-3	¼" Flare	7/16-20 NF-3		
1ARC-10	¾" Flare	¾-16 NF-3	¼" Flare	7/16-20 NF-3		
2.	Porosi	ity				This was a second
С	High Vi	iscosity Fluids				
D	Heavy	Oil				
E	Water	& Light Oils				
F	Vapor a	and Low Viscosity	Fluids			
G	Air or c	other Gases				
нх	Pulsatii	ng Gas				
нхх	Extrem	e Gas Pulsation				
Special	Special c	discs to repel water or	smaller micro	n ratings		







# **Flareless Pressure Snubbers**



(Bite Type Snubbers)

Example:	AC-1U				E	С
1.	Snubber Body					
	Inlet	Outlet	Hex	Material	Ī	
AC-1U	¼" Bite Type - Male	¼" Bite Type - Male	1/2"	316 SS		
ACG-1U	¼" Bite Type - Male	¼" Bite Type - Male	11/16"	316 SS		
25FS-1U	¼" NPT Female	¼" Bite Type - Female	3/4"	316 SS		
25FS-1K	¼" NPT Female	¼" Gasket seal Female	3/4"	316 SS		
25MS-1U	¼" NPT Male	¼" Bite Type Male	3/4"	316 SS		
25MS-1K	¼" NPT Female	¼" Bite Type Male	3/4"	316 SS		
50MS-1K	½" NPT Male	¼" Bite Type		303 SS		
150KNC-1U	1/4" Gasket seal Female	¼" Bite Type Male	3/4"	316 SS		
150KMN-1U	1/4" Gasket seal Female	¼" Bite Type Male		Monel		
50FS-1U	½" NPT Female	¼" Bite Type Male	1¼"	303 SS		
50FS-1K	½" NPT Female	¼" Gasket seal Female	1¼"	316 SS		
175KNC-1U	%" Gasket seal Female	¾" Tube Male		316 SS		
175KMU-1U	¾" Gasket seal Female	¾" Tube Male		Monel		
2.	Porosity		Viscosit	y Range		
C	High Viscosity Fluids			0 S.S.U.		_
D	Heavy Oil			500 S.S.U.		_
	Water & Light Oils			25 S.S.U.		-
<u>-</u> F	Vapor and Low Viscosity	Fluids		30 S.S.U.		-
G	Air or other Gases					-
HX	Pulsating Gas					-
НХХ	Extreme Gas Pulsation					
SPECIAL	Special discs to repel wa	ter or smaller micron ratin	gs			
3.	Options					
XS	Cleaned for oxygen servi	ice				
LF	Lead Free					
	Leau Free					





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.

Evenenie	75	c	E	
Example:	75	<b>S</b>	E	
1.	Body			
40	1/8" NPT Male Inlet & 1/8" NPT Female outlet			
75	¾" NPT Male Inlet & ¾" NPT Female outlet			
1M2	1/8" NPT Male Inlet & 1/4" NPT Female outlet			
5M2	½" NPT Male Inlet & ¼" NPT Female outlet			
2M5	¼" NPT Male Inlet & ½" NPT Female outlet			
90	Other Configuration Male x Female			
25MXM	¼" NPT Male x ¼" NPT Male			
50MXM	½" NPT Male x ½" NPT Male			
90MXM	Other Configurations Male x Male			
F25	¼" NPT Female x ¼" NPT Female			
F50	½" NPT Female x ½" NPT Female			
F90	Other Configurations Female x Female			
2.	Material			
В	Brass		-	
S	303 Stainless Steel		-	
S6	316 Stainless Steel		-	
M	Monel		-	
Z	Other (Specify)		_	
	Other (Specify)		_	
3.	Porosity			
С	High Viscosity Fluids			
D	Heavy Oil			
E	Water & Light Oils			
F	Vapor and Low Viscosity Fluids			
G	Air or other Gases			
НХ	Pulsating Gas			
НХХ	Extreme Gas Pulsation			
SPECIAL	Special discs			
4.	Options			
BSPP	British pipe thread parallel (Example: 40B-BS	PP)		
BSPT	British pipe thread taper (Example: 40B-BSPT	<u> </u>		
NPS	NPS (Example: 40B-NPS)	<u> </u>		
ВТ	Bite-Type Flareless (Example: 40B-BT)			
FT	Flared Tubing (Example: 40B-FT)			
XS	Cleaned for oxygen service			
LF	Lead Free			
	esigns specified on this page are not standard snub	bers for standard	d snubbers see pa	ge 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 preset 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	С	
1.	Body				
255S	1/4" NPT Female Stainless Steel 300 Series				
255SK	¼" NPT Female 316 Stainless steel	•			
255B	Meets N.A.C.E MR0175  1/2" 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*				
В	Buna -20°F to + 250°F				
Р	EPDM -70°F to +250°F				
Z	(Special) Other Seals (Please Specify)				
4.	Snubber (Type of Service) **				-
С	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.	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				

<sup>\*</sup> It is the customer's responsibility to make sure that the medium is compatible with the O-rings

<sup>\*\*</sup>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.	Materiel					
	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 Rang	ge (°F)*				
٧	Viton 0°F to +400°F*					
В	Buna -20°F <i>to</i> + 250°F					
Р	EPDM -70°F to +250°F					
Z	(Special) Other Seals (Please S	pecify)				
					•	
5.	Options					
	Pressure Snubber (specify o	ne of standard p	orosity's) See stan	dard pressure snubbe	rs	
	Optional Factory Preset (Spe	cify)				
	Material Traceability Report	:				
	Hydrostatic Testing					
	Cleaned for Oxygen Service					
	Stainless Steel tags					
	Repair kit					
	Male adapter with or withou	ut snubber				
	Special end connections					

<sup>\*</sup> It is the customer's responsibility to make sure that the medium is compatible with the O-rings





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**

### **Connections:**

1/4" NPT

1/2" NPT

¾" NPT

### Maximum operating pressure:

6,000 psi – Brass

10,000 psi – Stainless Steel

#### Flow Rates:

Water - 1-40 GPM

Air – See Table

Gases and other liquids see formula

### **Custom EFCV**

# Can be Custom Designed and built to suit your specific application.

Your Excess-Flow Check Valve will be designed to fulfill your requirements in terms of the following:

- **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**

EFCV-	25	В	2							
									*	
1.	Connection									
25	¼" NPT Female									
50	½" NPT Female									
75	¾" NPT Female									
2.	Materiel									
S	Stainless Steel									
В	Brass									
Z	(Special) Other Ma	terial								
			Max					air at 70	°at	
3.	Liquid Shut off fl		pressure				ressure	s)	1	
	(1-40 GPM Wate	r)	drop to	100	250	500	1000	2000	4000	
			close	PSIG	PSIG	PSIG	PSIG	PSIG	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 $(5.0\sqrt{1.3})$			To find	ıltiply the	air shut	-off flow	gases othe by the sq s density	uare	
4.	Options									
	Metal to Metal sea	ıl								
	Teflon tip seal									
	O-ring tight seal									
	Micro groove (Cali	brated leak	<)							

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