

Ashcroft® Accessories - Pressure Dampening Devices

THROTTLING DEVICES

A throttling device should be used when a pressure gauge is subjected to rapid pressure fluctuations, which make the gauge difficult to read because of rapid pointer movement. Such a device reduces pressure impact, slows the speed and range of pointer movement, and prolongs gauge life.

Throttling effect is obtained by installing a restricting orifice between the gauge socket connection and the Bourdon tube. Severe service applications are characterized by the presence of significant levels of pressure pulsation and/or vibration. Gauges

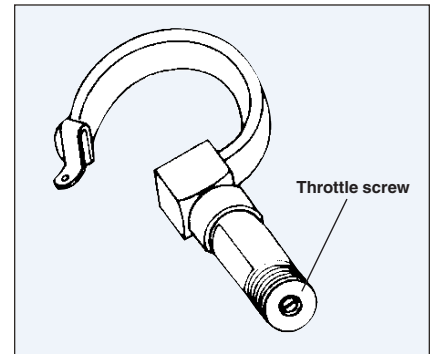
should be protected from severe pressure pulsation by the inclusion of a dampener such as a throttle plug/screw or porous metal snubber. If the pulsation is extreme, a liquid-filled gauge, with dampener, a diaphragm seal and or capillary are recommended. A liquid-filled gauge will also last significantly longer than a comparable dry gauge when vibration is present. If the vibration levels are extreme, the only solution may be to remotely mount the gauge away from the source of vibration. Capillary tubing may be used to connect the gauge to the pressure source.

THROTTLE SCREWS

The most economical method to dampen pulsation and pressure spikes is with a throttle screw or throttle plug. Threaded or pressed into an instrument socket, the throttle screw orifice selected is based on the viscosity of the pressure fluid, rapidity of pressure fluctuations, and the amount of dampening effect desired.

A smaller orifice should be used for low viscosities, high frequencies, high pressure and reduced pointer ampli-

tude. To accommodate these variables, throttle screws are available in these sizes: 0.0135, 0.020, 0.031, 0.040, and 0.070 inches, in brass and stainless steel. When orifice size or service condition is not specified, a 0.020-inch orifice will be supplied on Duragauge® pressure gauges and a 0.0135, on 25 or 35 1009 and 63 or 100mm 1008S and 4½" or larger. A throttle screw/plug is standard on liquid filled or weatherproof or hermetically sealed gauges.



PULSATION DAMPENER

Threads onto a gauge socket and provides restriction by means of a moving pin, which may be placed in either of five different sized holes, and this allows the user to vary the amount of dampening to suit requirements. The pulsating pressure moves the pin up and down, providing a self-cleaning action. Dampeners are shipped with a pin in the "middle" hole, and may be used in either a vertical or horizontal position. Maximum pressure is 5000 psi.

Type Number	NPT Conn.	Material	Weight (oz.)
25-1106B	¼	Brass	4
50-1106B	½	Brass	8
25-1106D	¼	Steel*	4
50-1106D	½	Steel*	8
25-1106S	¼	Stainless steel	4
50-1106S	½	Stainless steel	8

* Internal parts are stainless steel.

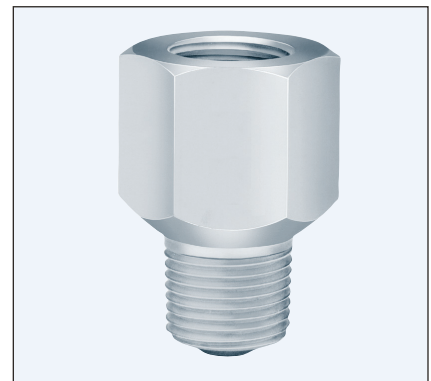


PRESSURE SNUBBER

Type Number	NPT Conn.	Material		Max psi Rating
		Housing	Filter Disc	
25-1112B	¼	Brass	316 stainless steel	10,000
50-1112B	½		316 stainless steel	
25-1112S	¼	303 stainless steel	316 stainless steel	15,000
50-1112S	½		316 stainless steel	
25-1112M	¼	R Monel	Monel	15,000
50-1112M	½		Monel	

Porosity	Max Pore Cap. Opening (Inches)	CFH at 1 psi Diff. Press.	For use with
D	0.005	6.5	Oil (50 to 500 S.S.U.)
E	0.0025	3.0	Water & Light Oils (Under 50 S.S.U.)
G	0.0008	1.1	Air, Steam and Gases
HX	0.0006	0.4	Mercury Manometers

Used for dampening and filtering, the snubber has a metal disc available in four grades of porosity. The one best suited for the application can be selected from the chart, using the same guidelines as for throttle screws. Due to the large filter area, the snubber has less tendency to clog than orifice-type devices. All-metal construction permits the snubber to be washed in a variety of common solvents.



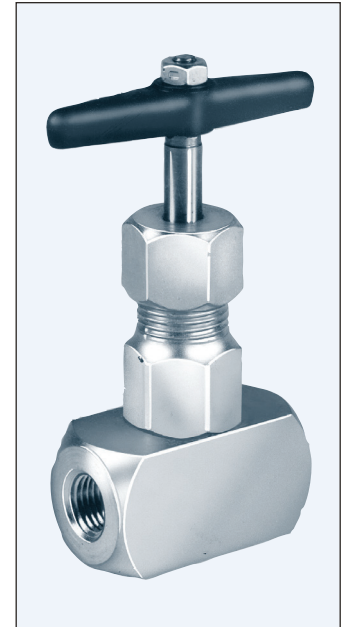
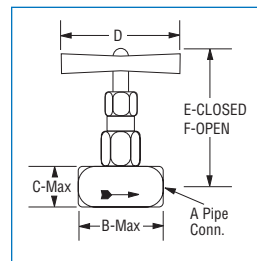
Ashcroft® Accessories - Instrument Needle Valves & Pressure Limiting Valves

STEEL NEEDLE VALVE

The steel needle valve is an economical, adjustable throttling device for any severe gauge application. It provides the most practical means for varying the orifice to determine the exact orifice for any specific service condition. The valve has an internal seat and is of bar stock construction.

Dimension – Inches						
A NPT Conn.	B	C	D – min.	E	F	Weight oz.
¼	2⅝	⅞	2½	3	3⅝	8
½	2¼	1¼	2½	3⅞	3⅞	21

NPT Conn.	Type Numbers	Material	Pressure Ratings Noncorrosive Service (psi)			
	Lock Bonnet Type Valves		100°F	550°F	850°F	1000°F
¼	25-7001L	Carbon steel	10,000	7735	—	—
½	50-7001L	Stainless steel stem				
¼	25-7004L	316 stainless steel	7000	4500	3895	3535
½	50-7004L					



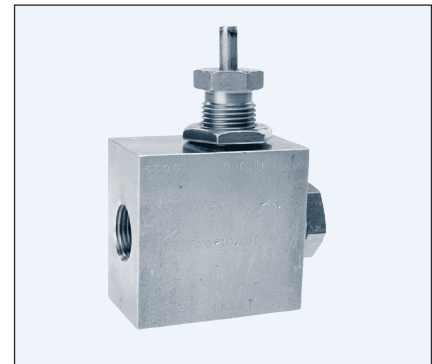
CHEMIQUIP PRESSURE LIMITING VALVE ⁽⁴⁾

Type Number	Conn.	Material	Available Ranges ⁽¹⁾	Style
25-5460	¼ NPTF	303 SS	100-800 psi 800-2500 psi	L M
50-5500	½ NPTF	303 SS	2500-10,000 psi 10,000-18,000 psi	N O

(1) Use code XFS for factory setting.

Type of Service	Porosity Designations
High viscous fluids (over 500 S.S.U.)	C
Oil (225-500 S.S.U.)	D
Water and light oils (30-225 S.S.U.)	E
Vapor and low viscosity fluids (Below 30 S.S.U.)	F
Air or other gases	G
Extreme gas pulsations	HX

Protects pressure instruments against surges and pulsations. Provides automatic positive protection and accurate, repeatable performance. Automatic pressure shut-off. Built-in snubber enhances instrument, protecting performance.



CHEMIQUIP PRESSURE LIMITING VALVE SNUBBER

Type Number	Conn.	Material	Available Ranges
25-255B ⁽¹⁾	¼ NPTF	Brass	10-150 psi ⁽²⁾
25-255S ⁽¹⁾	¼ NPTF	303 SS	150-500 psi 500-1000 psi
50-2550D ⁽³⁾	½ NPTF	316 SS	1000-3000 psi

(2) Specify porosity designation.

(3) Use code XFS for factory setting.

(4) Meets NACE MR01-75 requirements.

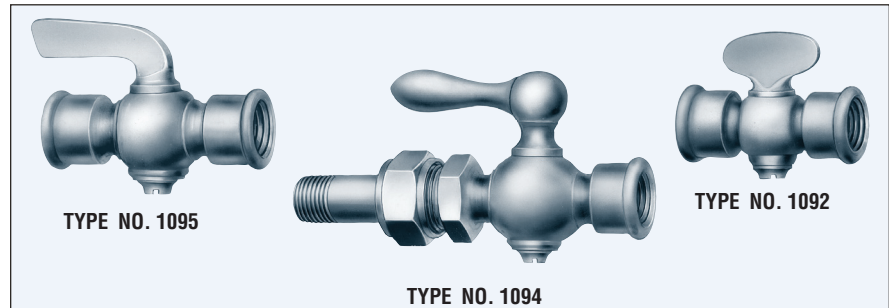
Assures positive, repeatable performance of the instrument by protecting against surges and pulsations. Automatically shuts off when overpressure occurs and is restored when pressure falls below preset values.



Ashcroft® Accessories - Gauge Cocks and Siphons

COCKS

- 1/4" brass Tee Handle Cock No. 1092 – Wgt. 3 oz.
- 1/4" brass Lever Handle Union Cock No. 1094 – Wgt. 10 oz.
- 1/4" brass Lever Handle Cock No. 1095 – Wgt. 4 oz.
- All rated 100 psi air.



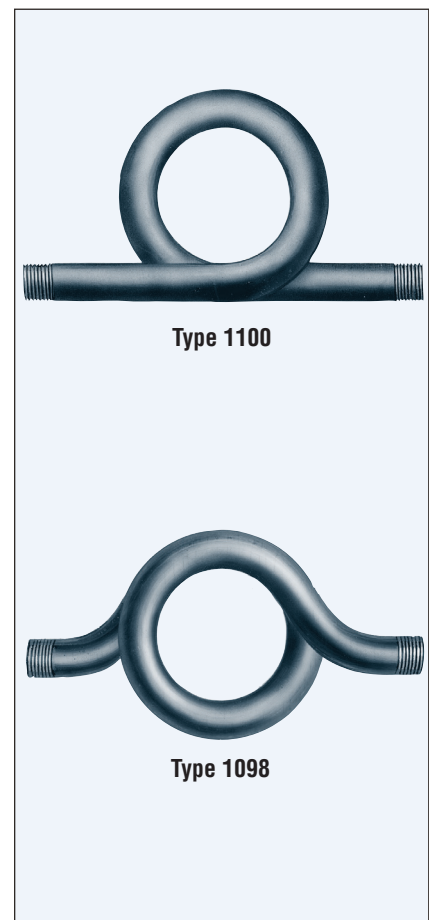
SIPHONS

Used when live steam is present in the process, a siphon filled with water should be installed between the gauge and the process line. If freezing of the condensate in the loop of a siphon may occur, a diaphragm seal should be used to isolate the gauge from the process steam. Also use siphons whenever

condensing hot vapors (not just steam) are present.

- Pig Tail Siphon—Number 1100 Series, 1/4" sizes: to 500 psi and 400°F.
- Coil Pipe Siphon—Number 1098 Series, 1/4", 1/2" sizes: to 9550 psi and 400°F.

Type Number	NPT Conn.	Material	Capacity
25-1098 I	1/4	Iron	500 psi @ 400°F
25-1098 B	1/4	Brass	250 psi @ 400°F
25-1098 S	1/4	ASTM A-106 seamless steel, Grade A	338 psi @ 1000°F to 3360 psi from -20° to 400°F
50-1098 S	1/2	ASTM A-106 seamless steel, Grade A	333 psi @ 1000°F to 3000 psi from -20° to 400°F
50-1098 SD	1/2	ASTM A-106 seamless steel, Grade A	420 psi @ 1000°F to 3740 psi from -20° to 400°F
50-1098 CD	1/2	ASTM A-213 seamless steel, Grade T 22	1048 psi @ 1200°F to 9550 psi from -20° to 400°F
50-1098 NS	1/2	Seamless stainless steel, Type 316	294 psi @ 1500°F to 3981 psi from -20 to 100°F
50-1098 ND	1/2	Seamless stainless steel, Type 316	336 psi @ 1500°F 5840 psi from -20° to 100°F
25-1100 A	1/4	Stainless steel	500 psi @ 400°F
25-1100 I	1/4	Iron – 6 3/8" Long	
25-1100 IL	1/4	Iron – 8" Long	
25-1100 IN	1/4	Iron – Angle	
25-1100 B	1/4	Brass – 5 3/8" Long	250 psi @ 400°F
25-1100 BL	1/4	Brass – 8" Long	



Ashcroft® Accessories - 2265 Electric Contacts

ELECTRIC WARNING CONTACTS

The Ashcroft® 2265 electric contact is an ideal accessory to turn on a signal light, sound an alarm, or operate a pump or valve. The contacts can easily be set so that a circuit can be closed or opened at a desired pressure or temperature.

Settings can be easily made in the field without removing the instrument from service. Contact adjustment is made externally with a removable key to make the instrument virtually tamper proof.

The contact is designed for easy installation on Types 1279, 1377 and 1379 Duragauge pressure gauges (either stem or flush mounted), Type 1125 differential pressure gauges, or Type 600A Duratemp dial thermometers.

Contacts are equipped with adjustable magnets to eliminate chatter caused by vibration. A plug-in connector with five feet of electrical cable is standard.

Use with Ashcroft Model No.	Description	Availability			
		Code		Mounting	
		45	60		
		4½" Dial	6" Dial	Stem	Flush
1279	Duragauge	X	—	X	X ⁽¹⁾
1377	pressure	X	X	—	X
1379	gauge	X	X	X	X ⁽¹⁾
1125	D/P gauge	X	X	X	X
				Surface	Flush
600A-02	Duratemp	X	X	—	X
600A-03	remote	X	X	X	X
600A-04	thermometer	X	X	X	X

⁽¹⁾ Flush mounting requires type 1278 flush mounting ring.
 All specifications are subject to change without notice.

Model	Code	Contact arrangements
2265	XED	High and low contact
	XEE	Double high contact
	XEF	Double low contact
	XEG	"OFF" at low and high, and "ON" in between



Indicating accuracy of Ashcroft Duragauge, above 300 psi with contact: Pointer not carrying contact – 1.0%.
 Pointer carrying contact – 1.5%. For ranges below 30 psi, add an additional ½% to indicating accuracies.