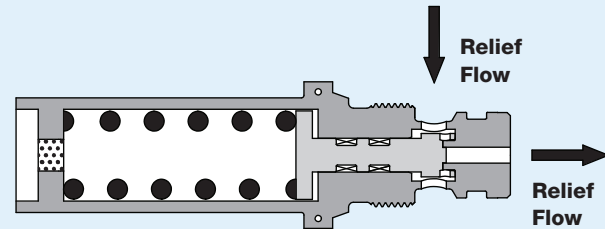
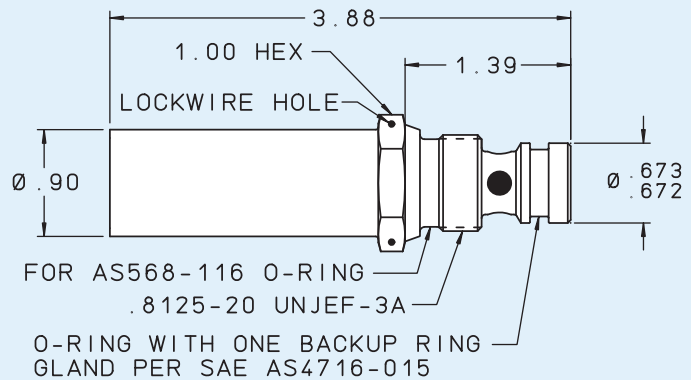


HI-Q PRESSURE RELIEF VALVE

The Lee Company's new Hi-Q Pressure Relief Valve is designed for applications that require both a high relief pressure and a high flow rate in a compact package. This new relief valve is capable of relief pressures up to 5400 psid and flow rates over 19 GPM. The valve utilizes a side inlet flow path to help minimize the installation boss size and weight.

The Hi-Q Pressure Relief Valve is offered in a range of cracking pressures from 1000 to 5400 psid. It is designed for nominal system pressures up to 5000 psi and system peak pressures up to 6750 psi. Each Lee Pressure Relief Valve is 100% tested and inspected to ensure reliable, consistent performance.

- Capable of Flow Rates Over 19 GPM
- Cracking Pressures up to 5400 psid
- 100% Tested and Inspected
- Designed for System Pressures up to 5000 psi
- Endurance Tested in Excess of 100,000 Cycles



See reverse side for installation hole.

PERFORMANCE	
Leakage at Minimum Cracking Pressure: 1 mL/min max
Leakage at Minimum Shutoff Pressure: 1 mL/min max
External Leakage:0 mL
Restriction at Minimum Recommended Valve Lift:	... 600 Lohms
Nominal System Pressure:	... up to 5000 psi
System Peak Pressure: 6750 psi max
Non-Relief Direction Differential Pressure: 500 psid max
Nominal Weight:200 grams
Valve performance on MIL-PRF-83282 or MIL-PRF-5606 at 85°F +/- 15°F	

MATERIALS		
PART	MATERIAL	SPECIFICATION
Body	304 CRES	AMS 5639
Poppet Retainer	304 CRES	AMS 5639
Spring Seat	304 CRES	AMS 5639
Spring Seat Vent	316L CRES	(Sintered)
Spring Guide	304 CRES	AMS 5639
Seat	15-5PH CRES	AMS 5659
Piston	Nitronic 60	AMS 5848
Springs	17-7PH CRES	AMS 5678
Poppet	Polyimide	—
Piston Seals	Viton	AMS-R-83485
	PTFE	AS 8791

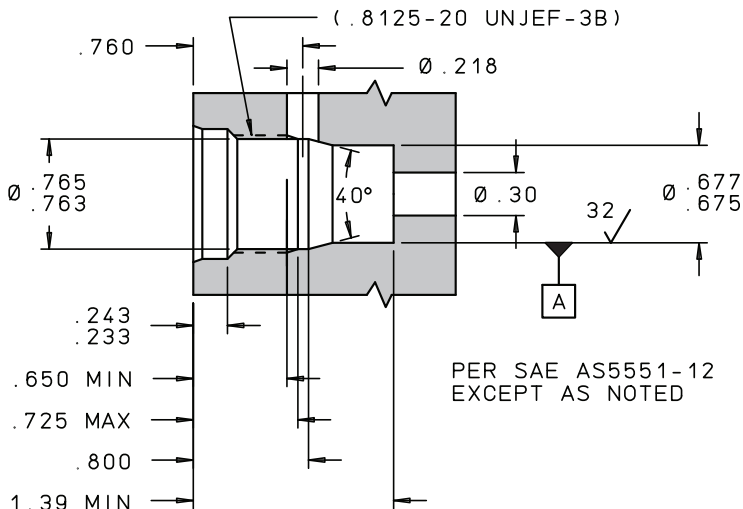
Finish: All CRES Parts Passivated.

LEE PART NUMBER	MINIMUM CRACKING PRESSURE (psid)	FLOW POINT			MINIMUM SHUTOFF PRESSURE (psid)
		LOHM* RATE	MIN FLOW (GPM)	AT (psid)	
PRVA0812010H	1000	75	11.3	1500	850
PRVA0812012H	1200	75	11.8	1650	1000
PRVA0812014H	1400	75	12.7	1900	1200
PRVA0812022H	2200	75	15.1	2750	2000
PRVA0812024H	2400	75	15.9	3000	2200
PRVA0812032H	3200	75	18.5	4050	3000
PRVA0812034H	3400	75	19.0	4250	3200
PRVA0812042H	4200	100	15.8	5250	4000
PRVA0812044H	4400	100	16.2	5500	4200
PRVA0812052H	5200	100	17.6	6500	5000
PRVA0812054H	5400	100	17.9	6750	5200

* The Lohm is a measure of flow resistance. Additional information can be found on the reverse side and at www.TheLeeCo.com.

NOTE: Pressures in excess of 500 psid in the non-relief flow direction may cause damage to the valve's critical sealing surfaces.

INSTALLATION HOLE



LEE LOHM LAWS

LOHMS LAWS (liquids)

Engineers will be interested in our simple system of defining the fluid resistance of Lee hydraulic components.

Just as the OHM is used in the electrical industry, we find that we can use a liquid OHM or "Lohm" to good advantage on hydraulic computations.

When using the Lohm system, you can forget about coefficients of discharge and dimensional tolerances on drilled holes. These factors are automatically compensated for in the Lohm calculations, and confirmed by testing each component to establish flow tolerances. The resistance to flow of any fluid control component can be expressed in Lohms.

The Lohm has been selected so that a 1 Lohm restriction will permit a flow of 100 gallons per minute of water with a pressure drop of 25 psi at a temperature of 80°F.

LIQUID FLOW FORMULA

The following formulas are presented to extend the use of the Lohm laws to many different liquids, operating over a wide range of pressure conditions.

These formulas introduce compensation factors for liquid density and viscosity. They are applicable to any liquid of known properties, with minimum restrictions on pressure levels or temperature.

The units constant (K) eliminates the need to convert pressure and flow parameters to special units.

$$\text{Volumetric Flow Units } L = \frac{KV}{I} \sqrt{\frac{H}{S}} \quad \text{Gravimetric Flow Units } L = \frac{KV}{w} \sqrt{HS}$$

NOMENCLATURE

- L = Lohms
- S = Specific gravity*
- H = Differential pressure
- V = Viscosity compensation factor**
- I = Liquid flow rate: Volumetric
- w = Liquid flow rate: Gravimetric
- K = Units Constant – Liquid (see chart below)
- *S = 1.0 for water at 80°F.
- **V = 1.0 for water at 80°F.

For other fluids and temperatures, contact your Lee Sales Engineer or visit us at www.TheLeeCo.com.

LIQUID FLOW - UNITS CONSTANT K

VOLUMETRIC FLOW UNITS			
Flow Units	Pressure Units		
	psi	bar	kPa
GPM	20	76.2	7.62
L/min	75.7	288	28.8
ml/min	75700	288000	28800
in ³ /min	4620	17600	1760

GRAVIMETRIC FLOW UNITS			
Flow Units	Pressure Units		
	psi	bar	kPa
PPH	10000	38100	3810
gm/min	75700	288000	28800