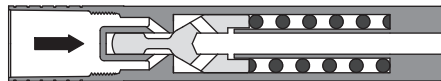


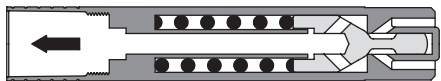
375 HD PRI®

The Lee Company's new 375 HD PRI, Hi-Damped Pressure Relief Insert, has been designed for applications where stability is a must. Dual dampening chambers provide an extremely stable relief flow over various flow rates and pressure combinations. It features a rugged 440C Poppet and Seat for durability and long life.

Available in forward and reverse relief flow directions, the 375 HD PRI offers a range of cracking pressures for 3000, 4000 and 5000 psi systems with system peak pressures up to 6750 psi. Each relief valve is 100% tested and inspected to ensure reliable, consistent performance.



RELIEF FLOW FORWARD



RELIEF FLOW REVERSE

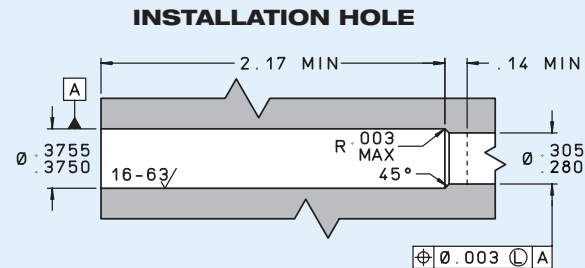
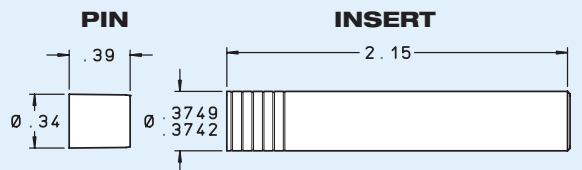
MATERIALS		
PART	MATERIAL	SPECIFICATION
Body	304 CRES	AMS 5639
Pin	17-4PH CRES	AMS 5643
Poppet	440C CRES	AMS 5630
Seat	440C CRES	AMS 5630
Spring	17-7PH CRES	AMS 5678
Retainer	15-5PH CRES	AMS 5659
Tube	13-8 MO CRES	AMS 5629
Orifice Plate	304 CRES	AMS 5639
Shim (Optional)	17-7PH CRES	AMS 5529

Finish: All CRES Parts Passivated.
 Pins are prewaxed. Do not degrease.
 Do not lubricate.

* The Lohm is a measure of flow resistance.
 Additional information can be found at
www.TheLeeCo.com.



- Extremely stable relief flow over various flow rates and pressure combinations
- Durable 440C Poppet and Seat
- Designed for system pressures up to 5000 psi
- Weighs only 21 grams
- Endurance tested to 100,000 cycles minimum



LEE PART NUMBER		MINIMUM CRACKING PRESSURE (psid)	FLOW POINT			MINIMUM SHUTOFF PRESSURE (psid)
FORWARD	REVERSE		MAX. LOHM* RATE	MIN. FLOW (gpm)	AT (psid)	
PBFA3750300D	PBRA3750300D	3000	400	3.7	3850	2850
PBFA3750320D	PBRA3750320D	3200	400	3.8	4050	3000
PBFA3750340D	PBRA3750340D	3400	400	3.9	4250	3200
PBFA3750420D	PBRA3750420D	4200	400	4.0	5250	4000
PBFA3750440D	PBRA3750440D	4400	400	4.1	5400	4200
PBFA3750520D	PBRA3750520D	5200	400	4.9	6550	5000
PBFA3750540D	PBRA3750540D	5400	400	5.0	6750	5200

PERFORMANCE	
Leakage at minimum cracking pressure: 2 mL/minute maximum
Leakage at minimum shut-off pressure: 2 mL/minute maximum
Restriction at minimum recommended valve lift: 1500 lohms
Nominal System Pressure: up to 5000 psi
System Peak Pressure: 6750 psi maximum
Nominal Weight: 21 grams
Valve performance on MIL-PRF-83282 or MIL-PRF-5606 at 85°F ± 15°F	
Tool Set Part Number: CUTA3752014C
Replacement Pin Number: PHRA3750003A

LEE LOHM LAWS

LOHM LAWS (liquids)

Every engineer 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 all 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.

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

FREE LOHM SYSTEM SLIDE RULE

The Lee Company offers a specially designed Hydraulic and Pneumatic Flow Calculator to help in the transition to the Lohm System. This handy, free slide rule can be used to solve basic Lohm calculations.

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	75 700	288 000	28 800
in ³ /min	4 620	17 600	1 760

GRAVIMETRIC FLOW UNITS			
Flow Units	Pressure Units		
	psi	bar	kPa
PPH	10 000	38 100	3 810
gm/min	75 700	288 000	28 800

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 above)
- *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.