

HIGH PRESSURE 250 FLOSER[®]

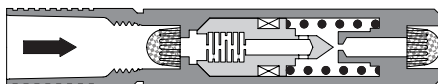
The Lee Company's new High Pressure 250 Flosert is the latest addition to Lee's line of miniature flow regulating valves. These valves are pressure compensated to provide a constant flow over a wide range of pressure differentials. This new valve is ideal for high pressure hydraulic applications with system pressures up to 5,000 psi. The metal components are constructed entirely of stainless steel for durability and long life. Nominal weight is just 6 grams.

The High Pressure 250 Flosert is available in forward and reverse regulated flow configurations, with regulated flow rates from 0.01 to 0.1 GPM. Each Flosert is 100% tested and inspected to ensure reliable, consistent performance. Contact your local Lee Sales Engineer for more information and technical assistance.

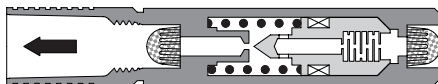
- Provides Regulated Flow up to 5000 psid
- Regulated Flow Rate Available from 0.01 to 0.1 GPM
- Regulated Flow Tolerance: $\pm 15\%$
- Weighs only 6 grams
- 100% Tested and Inspected
- Endurance Tested to 100,000 Cycles



REGULATED FLOW FORWARD



REGULATED FLOW REVERSE



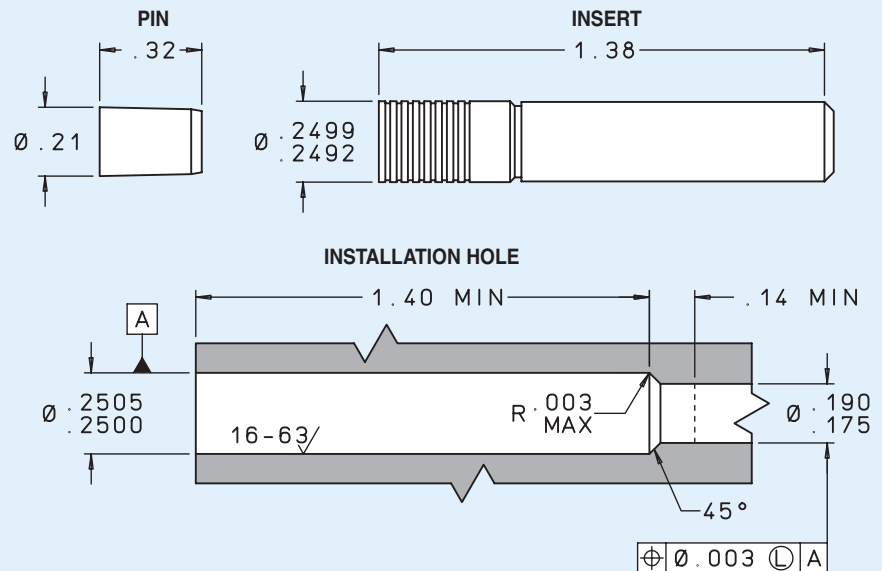
PERFORMANCE

Regulated Flow Tolerance: $\pm 15\%$
 Nominal System Pressure: up to 5000 psi
 Nominal Weight: 6 grams

INSTALLATION AND EXTRACTION

Tool Set Part No.: CUTA2500116C
 Replacement Pin Part No.: CHFA2500003A

See reverse side for Part Numbers and Flow Rates.



MATERIALS		
PART	MATERIAL	SPECIFICATION
Rear Body	304 CRES	AMS 5639
Front Body	303 CRES	QQ-S-763C
Seat	303 CRES	QQ-S-763C
Screen Retainer	303 CRES	QQ-S-763C
Spring Seat	303 CRES	QQ-S-763C
Screens	316L CRES	ASTM A 478 and ASTM A 666 or AMS 5653
Braze	Silver Alloy	AMS 4765
Piston	303 CRES	QQ-S-763C
Internal Seal	PTFE/302 CRES or MP35N	—
Spring	17-7PH CRES	AMS 5678
Metering Discs	17-7PH CRES	AMS 5529
Visco Stack	304L CRES	ASTM A 666
Shim, Spacers, Washers	303 CRES	QQ-S-763C or ASTM A 666
Pin	17-4PH CRES	AMS 5643

LEE Part Number	Regulated Flow MIL-PRF-83282 (GPM at 85°F±15°F)	Flow Regulation Range (psi)		Nominal Lohm Rate Non Regulating Flow Direction
		Δ P Min.	Δ P Max.	
Regulated Flow Forward				
FLFA2504510L	0.10	500	5000	3500
FLFA2504509L	0.09	500	5000	3800
FLFA2504508L	0.08	500	5000	4300
FLFA2504507L	0.07	500	5000	4900
FLFA2504506L	0.06	500	5000	5800
FLFA2504505L	0.05	500	5000	6900
FLFA2504504L	0.04	500	5000	8600
FLFA2504503L	0.03	500	5000	12000
FLFA2504502L	0.02	500	5000	24000
FLFA2504501L	0.01	500	5000	41000
Regulated Flow Reverse				
FLRA2504510L	0.10	500	5000	3500
FLRA2504509L	0.09	500	5000	3800
FLRA2504508L	0.08	500	5000	4300
FLRA2504507L	0.07	500	5000	4900
FLRA2504506L	0.06	500	5000	5800
FLRA2504505L	0.05	500	5000	6900
FLRA2504504L	0.04	500	5000	8600
FLRA2504503L	0.03	500	5000	12000
FLRA2504502L	0.02	500	5000	24000
FLRA2504501L	0.01	500	5000	41000

LEE LOHM LAWS

LOHMS 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.

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

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

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)
- *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