

790HP-LF HIGH PRESSURE VALVE

OPERATING MANUAL



The 790HP-LF Dispense Valve consists of two body sections, one air cylinder section, one air cylinder cap and a balanced spool shaft.

The 790HP-LF Dispense Valve design is based on the use of a balanced spool (input pressure does not affect operation of valve) to create a fast “on / off” fluid dispensing function.

The spool slides in UHMW-PE seals and is suitable for use with high viscosity materials having a viscosity of up to three million cps at pressure up to 2,500 psi.

A portion of the material is displaced back into the nozzle after the valve has shut off. This creates a “suck-back” anti-drip feature.

An oil chamber is provided above the upper seal to create an additional liquid seal that will prevent moisture being carried on the spool. The valve design facilitates easy maintenance without the need for special tools.

The valve is designed to be opened by air pressure and closed by a return spring (single acting).

A port is provided so that the valve may be connected for air closing with or without the spring (double acting).

OPERATING INSTRUCTIONS

1. Connect material supply source to center block inlet ($\frac{1}{4}$ NPT side) of valve body.
2. Connect three-way or four-way air control to cap. Minimum 65 psi. air pressure is required to open the valve. Do not over tighten end cap onto valve body. Hand tighten only until O-Ring seal is engaged fully.
3. The $\frac{1}{4}$ ” NPT nozzles can be threaded directly into the material outlet port. If a luer lock tip is used a tip adapter (sold separately P/N: 560064) is necessary to be threaded first into the material outlet port.
4. Turn on material supply (maximum input pressure 2,500 psi).
5. When required, use lightweight 10W or 20W oil, in oil gland cup.

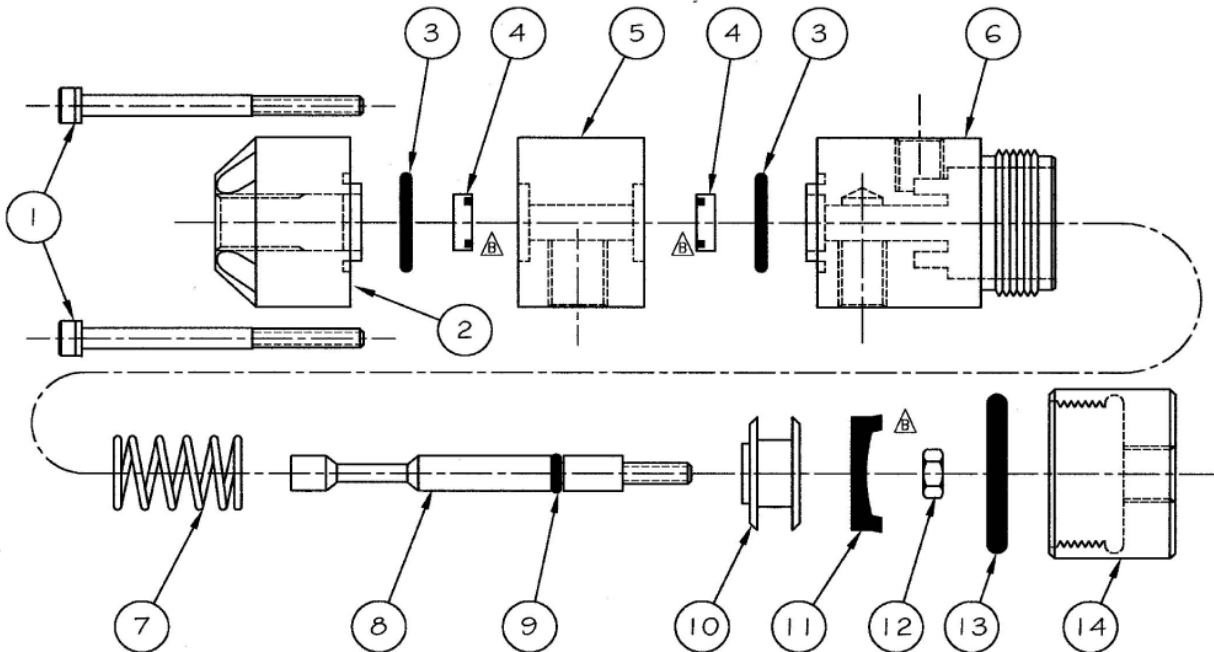
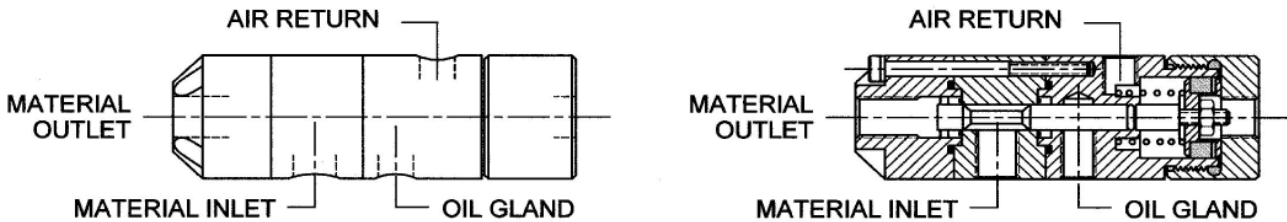


15 Corporate Drive, Suite E - Wayne - NJ 07470
 Tel: (201) 796-1477 E-mail: info@fisnar.com
 www.fisnar.com

P/N 561921LF
 REV. A MARCH 08

©2008 FISNAR INC.

PRODUCT DESCRIPTION **790HP-LF HIGH PRESSURE DISPENSING VALVE**



8	580006-LF	VALVE SPOOL	1	3, 4, 8, 9, 11, 13	580017-LF	REPAIR KIT	1
7	580013-LF	SPRING	1	3, 4, 9, 11, 13	580018-LF	REPAIR KIT	1
6	580005-LF	CYLINDER	1	14	580004-LF	END CAP	1
5	580007-LF	MATERIAL INLET BLOCK	1	13	580015-LF	O-RING	1
4	580010-LF	SEAL	2	12	580016-LF	LOCKNUT	1
3	580011-LF	O-RING	2	11	580014-LF	U-CUP SEAL	1
2	580008-LF	MATERIAL OUTLET BLOCK	1	10	580003-LF	PISTON	1
1	580009-LF	S.H.C.S.	4	9	580012-LF	O-RING	1
NO.	PART NUMBER	DESCRIPTION	QTY.	NO.	PART NUMBER	DESCRIPTION	QTY.

DRAWN BY: G.O. BEUTEL DATE DRAWN: 4/15/99

FILE NAME: \790hpnm0.DWG

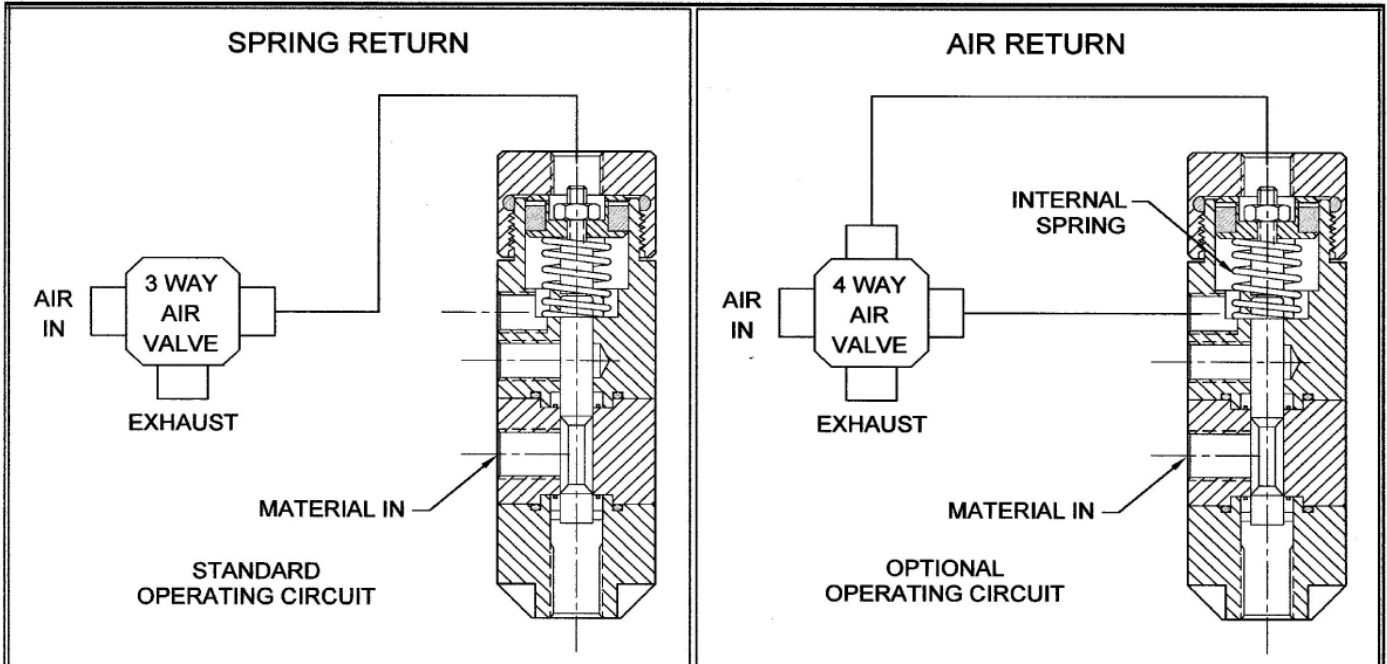


15 Corporate Drive, Suite E - Wayne - NJ 07470
 Tel: (201) 796-1477 E-mail: info@fisnar.com
 www.fisnar.com

P/N 561921LF
 REV. A MARCH 08

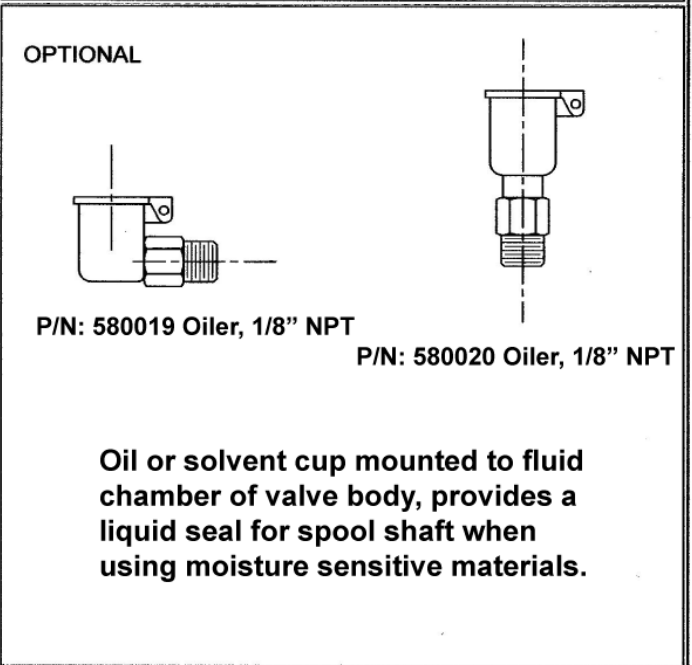
©2008 FISNAR INC.

PRODUCT DESCRIPTION **790HP-LF SPRING / AIR RETURN**



GENERAL

The 790HP-LF is a balanced type ON / OFF segment spool valve. Applying a minimum of 65 psi air pressure to the air inlet will force the spool forward, allowing the material to be dispensed. Releasing the air pressure allows the internal spring to close the valve as well as create a no-drip, suck-back action at the fluid outlet. The normal air circuit used to operate the valve incorporates a three-way air valve as per the above diagram. Should automated application of the valve be desired with a slightly faster closing action, a four-way air valve can be used. In this instance, the internal spring may be removed if desired.



ASSEMBLY - 790HP-LF

1. Insert O - Ring * (item 3) into material outlet block (item 2) and cylinder (item 6).
2. Insert seal (item 4) into material outlet block and cylinder (item 2 & 6).
SEAL LIPS MUST FACE EACH OTHER AT MATERIAL INLET BLOCK
3. Assemble material outlet block, material inlet block and cylinder together.
4. Thread socket head cap screws (item 1) into assembled valve. Tighten with wrench evenly to approximately 20 inch pounds torque.
5. Install O - Ring * (item 9) onto valve spool (item 8).
6. Install “ U “ cup (item 11) onto piston (item 10).
7. Position valve spool onto piston (see Product Description page for correct positioning of piston). Thread on locknut (item 12) and tighten with a small wrench or nut driver.
8. Insert spring (item 7) into cylinder (item 6).
9. Insert piston / valve spool assembly into valve body.
10. Insert O - Ring* (item 13) into cap (item 14).
11. Thread cap onto valve body. Finger tighten, but ensuring airtight seal.

* USE SILICONE GREASE OR LUBRIPLATE TO LUBRICATE O-RING & SEALS.

NOTE : Air fitting should be threaded into valve cap before threading valve cap onto valve body, to prevent over tightening of cap.

DISASSEMBLY - 790HP-LF

1. Detach air source supply.
2. Detach material source.
3. Unthread cap (item 14).
4. Pull out piston / valve spool assembly.
5. Unthread socket head cap screws.
6. Pull apart material outlet block, material inlet block and cylinder.
7. Remove seals (item 4).
8. Remove O - Rings (item 3).