I&J FISNAR INC.
2-07 Banta Place, Fair Lawn, NJ 07410-3002 USA
TEL. (201)796 - 1477 FAX. (201)794 - 7034
info@ijfisnar.com http://www.ijfisnar.com

P/N 561921-LF
REV. A AUG 06

790HPNM-LF HIGH PRESSURE VALVE

OPERATING MANUAL

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

The 790HPNM-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 U.H.M.W.P.E. 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.

The unique design displaces a portion of the material back into the nozzle after the valve has shut off. This creates a " SUCK - BACK " antidrip 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 (¼ 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 overtighten end cap onto valve body. Hand tighten only until O-Ring seal is engaged fully.

3. Select dispensing tip (a variety is available). Thread into material outlet. The ¼ NPT polypropylene nozzle thread directly into the material outlet port. For luer lock tips, the 560064 tip adapter is required (sold separately).

4. Turn on material supply (maximum input pressure 2,500 psi).

5. When required, use lightweight 10W or 20W oil, in oil gland cup.

I&J FISNAR INC.

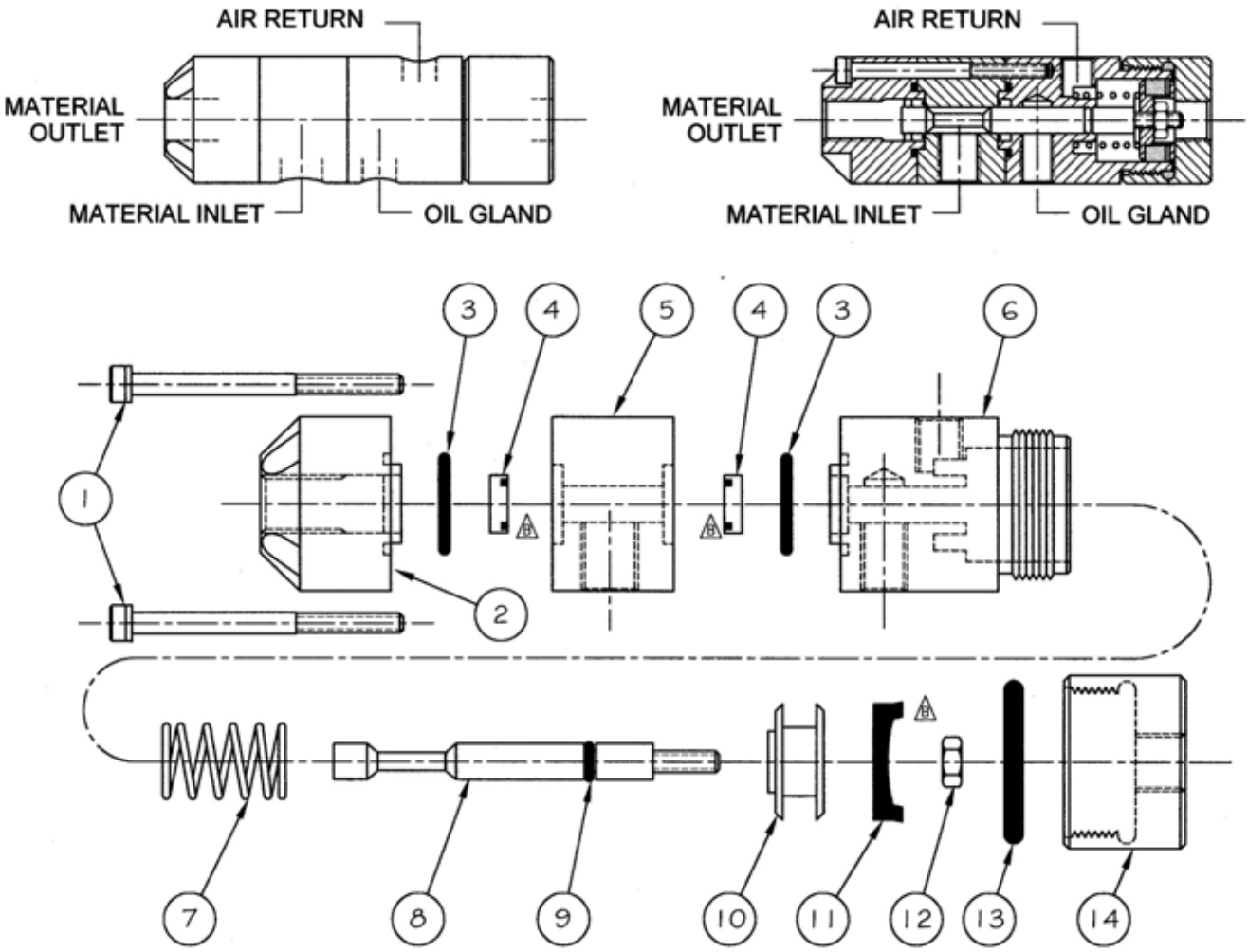
2-07 BANTA PLACE-FAIR LAWN-NJ 07410-3002
(201) 796-1477 FAX NO. (201) 794-7034
E-MAIL info@IJFISNAR.COM
INTERNET www.IJFISNAR.COM

TECHNICAL SERVICE INFORMATION

REVISION	
A	APRIL 15, 1999
B	JULY 20, 1999
C	SEPT 24, 1999
D	APRIL 24, 2001

PRODUCT DESCRIPTION

790HPNM HIGH PRESSURE DISPENSING VALVE



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

DRAWN BY: G.O. BEUTEL	DATE DRAWN: 4/15/99		FILE NAME: \790hpnm0.DWG

I&J FISNAR INC.
2-07 BANTA PLACE-FAIR LAWN-NJ 07410-3002
(201) 796-1477 FAX NO. (201) 794-7034
E-MAIL info@IJFISNAR.COM
INTERNET www.IJFISNAR.COM

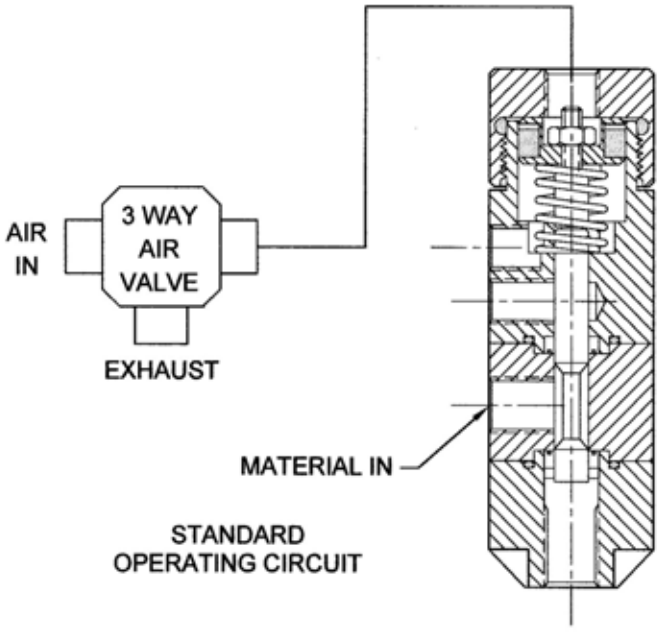
TECHNICAL SERVICE INFORMATION

REVISION	
A	DEC 13, 2001

PRODUCT DESCRIPTION

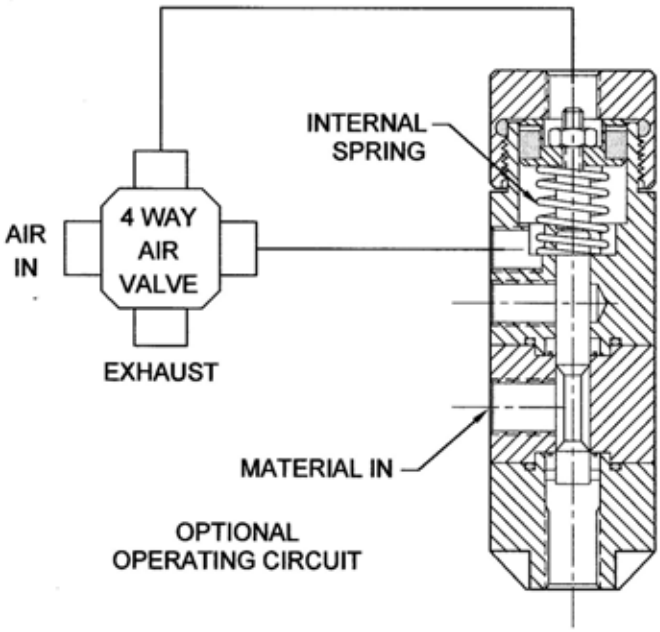
790HPNM / 790HPSSNM SPRING / AIR RETURN

SPRING RETURN



STANDARD OPERATING CIRCUIT

AIR RETURN

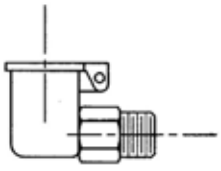


OPTIONAL OPERATING CIRCUIT

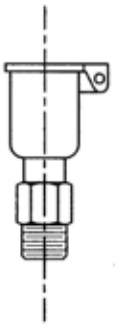
GENERAL

The 790HPNM is a balanced type ON / OFF segmented 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 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.

OPTIONAL



580019 Oiler, 1/8" NPT



580020 Oiler, 1/8" NPT

Oil or solvent cup mounting to fluid chamber of valve body provides a liquid seal for spool shaft when using moisture sensitive materials.

DRAWN BY: G.O. BEUTEL	DATE DRAWN: 4/15/99		FILE NAME: \790hpnm0.DWG

I&J FISNAR INC.
2-07 Banta Place, Fair Lawn, NJ 07410-3002 USA
TEL. (201)796 - 1477 FAX. (201)794 - 7034
info@ijfisnar.com http://www.ijfisnar.com

TECHNICAL SERVICE INFORMATION

ASSEMBLY - 790HPNM-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 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 front page for correct positioning of piston). Thread on lock nut and tighten with a small wrench or nut driver (item 12).

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 onto valve body to prevent over tightening of cap.

DISASSEMBLY

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).