

## DESCRIPTION

The R-K NLF series no lube fluid pressure regulator is designed for use in systems where no lubrication is required or permitted. The adjustable screw and lock nut makes it easy to convert varying upstream pressure into accurate pre-set downstream pressure. Outlet pressure should be adjusted in a closed loop system within a range of 15-100 PSI. This patented pressure reducing valve is designed so there is no metal contact with the fluid.

This compact valve features top entry for easy in-line maintenance. It is ideally suited for systems that require additional pressure protection. Suitable for most harsh chemicals and ideal for DI water and other high purity applications.

## R-K NLF SERIES NO LUBE PRESSURE REGULATOR



## KEY FEATURES

- No-lube design: Ideal for high-purity applications where lubricants are not permitted.
- Adjustable screw and lock nut: Allows for easy conversion of varying upstream pressure into accurate pre-set downstream pressure.
- Isolated stainless steel spring: Prevents metal contact with the fluid, making it suitable for harsh chemicals, DI water, and other high-purity applications.
- Top entry and parallel inlet/outlet ports: Facilitates installation and avoids piping problems.
- Wide material compatibility: Available in PVC, Polypropylene, PVDF, and Teflon for the valve body, and EPDM, Viton, and Kalrez for seals.

## VALVE BODY MATERIALS:

- PVC Type 1, Grade 1
- Polypropylene
- PVDF
- Teflon

### Seal:

- EPDM
- VITON
- KALREZ

## SIZES & PORTING

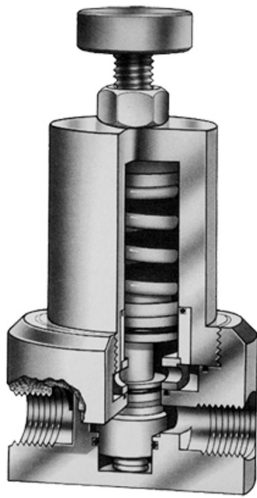
**Valve Sizes:** ¼", ½", ¾", 1.0", 1.5", 2.0", 3.0"

### Port Types:

- ¼" to 1" valves: FNPT
- 1.5" to 3" valves: MPT
- All valves are fully ported.

### Mounting:

- (4) ¼"-20 tapped holes: For standard machined valve bodies (¼" to 1.00").
- (2) cut-out slots: For molded valve bodies (½" to 1.00").



**PATENT NO: 4,276,902**

## PRESSURE & TEMPERATURE RATINGS:

**Upstream Pressure:**  
Vacuum to 150 PSIG

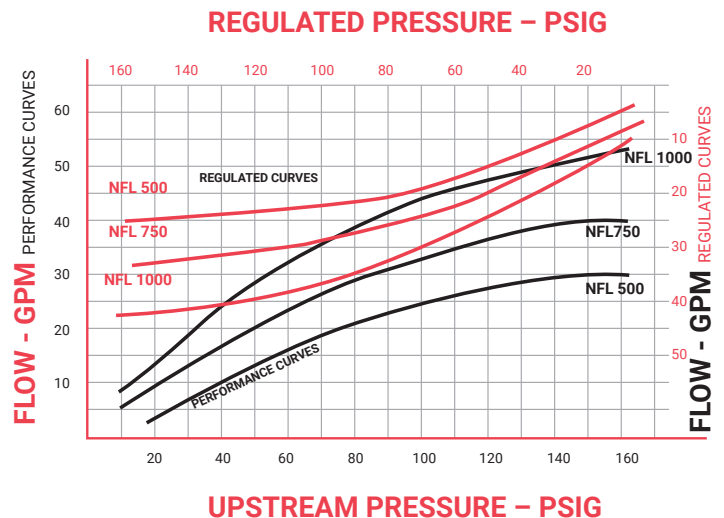
**Temperature Range**

- PVC: 0°F to 140°F
- Polypropylene: 0°F to 180°F
- PVDF: 0°F to 280°F
- Teflon: 0°F to 340°F

## ENGINEERING & PERFORMANCE DATA

### Regulated Pressure:

- 15 to 100 PSIG (for ¼" to 1-½" valve sizes)
- 15 to 80 PSIG (for 2" to 3" valve sizes)
- A 5-50 PSI pressure range is also available.
- Consult the factory for higher regulated pressure requirements.



The chart below will specify R - K standard valves regarding valve size, valve material, and seal material.  
For special orders, please consult the factory for pricing and delivery information.

## NLF - X X X - XX

### VALVE SIZE

- 25 = ¼"
- 50 = ½"
- 75 = ¾"
- 100 = 1.0"
- 150 = 1.5"
- 200 = 2.0"
- 300 = 3.0"

### MATERIAL

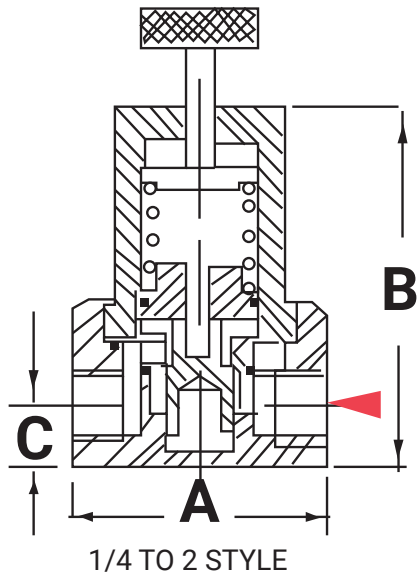
- 1 = PVC
- 2 = POLYPRO
- 3 = PVDF
- 4 = TEFLON
- 5 = OTHER (Please specify)

### SEALS

- E = EPDM
- V = VITON
- K = KALREZ
- O = OTHER (Please specify)

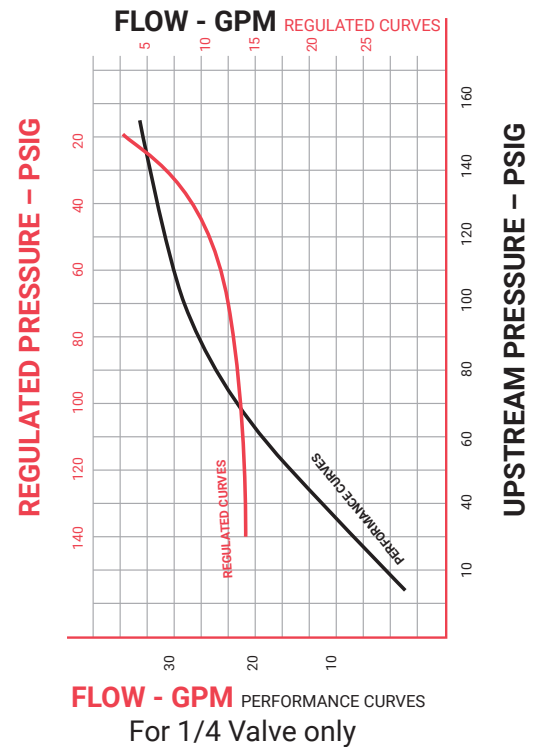
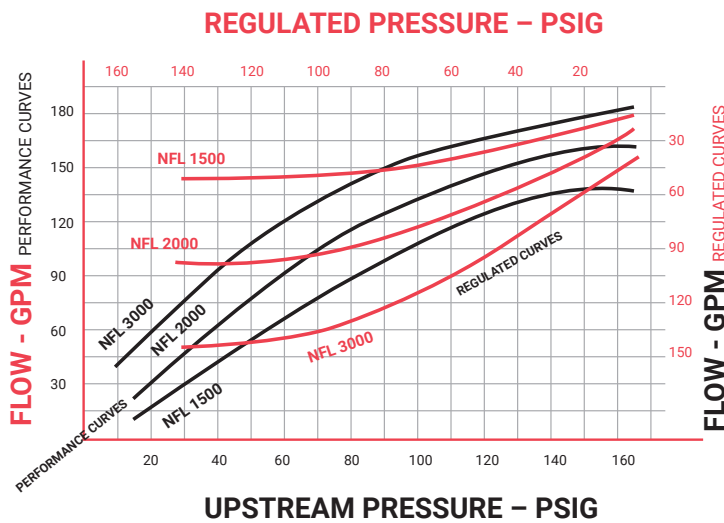
**X = MOLDED BODY**  
½", ¾", 1" only

# ENGINEERING & PERFORMANCE DATA



## NOTES

- During assembly, a small amount of DuPont Krytox is applied to assist in the break-in of moving parts, then carefully wiped off.
- Test data was performed with 68°F water and a maximum pressure of 160 PSIG.
- The performance curves will change with higher viscosity liquid and/or higher temperatures.



## DIMENSIONAL DATA

DIMENSIONS IN INCHES

( ) MOLDED BODY DIM

Valve size	Ports	A	B	C	Cv
1/4"	FNPT	2	3.12	0.5	0.58
1/2"	FNPT	3 (2.9)	4.2 (4.1)	.7 (.7)	2.35
3/4"	FNPT	3.5 (3.3)	4.9 (4.9)	.9 (.8)	2.72
1.0"	FNPT	4 (3.9)	5.4 (5.6)	1.1 (.9)	3.48
1.5"	MPT	5	8	1.5	15.8*
2.0"	MPT	6	9	1.7	21.1*
3.0"	MPT	9.7	10.9	3.8	31.7*

(\*) Cv value @ 150 GPM