

# NEEDLE VALVES - ANGLE & CROSS PATTERN

Flow can be accurately controlled from full orifice opening to shut off. Fluid flow is readily visible through large sight window. Cross pattern can be used singularly or installed in series. Pressure units supplied with non-vented sights. Gravity flow units supplied with vented sights. Vacuum application is available (requires modification) - **Please specify.**

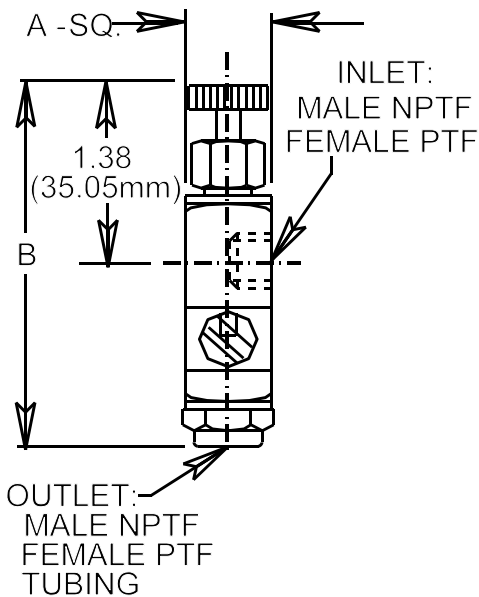
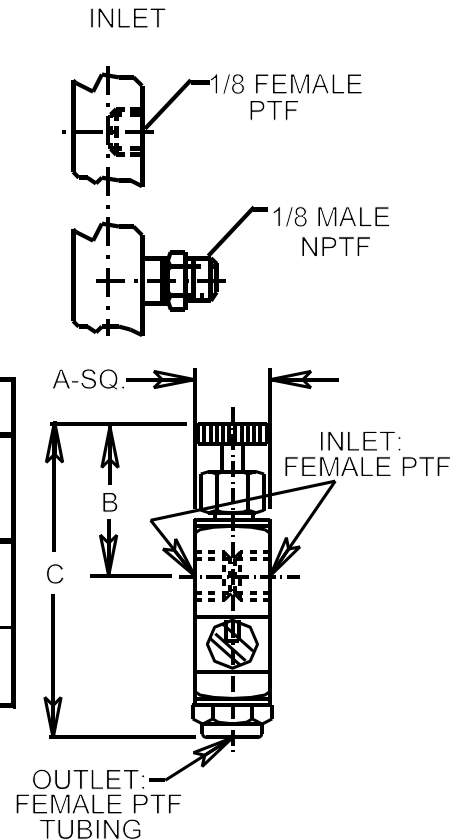
## STANDARD MATERIALS:

- Precision machined from aluminum bar stock
- Pipe threads are dryseal

## OPERATING CONDITIONS:

- Maximum working pressure up to 125 PSI (861.9 kPa) to orifice

CROSS PATTERN						
CATALOG NUMBER		A [ORIFICE]	INLET	OUTLET	B INCHES (mm)	C INCHES (mm)
GRAVITY	PRESSURE					
N401-01	N401-11	.69 Inches (17.53 mm) [.094 Inches] [2.39mm]	1/8 F	1/8 F	1.38 (35.05)	2.94 (74.68)
N401-04	-	1/4 T				



ANGLE PATTERN					
CATALOG NUMBER		A [ORIFICE]	INLET	OUTLET	B INCHES (mm)
GRAVITY	PRESSURE				
N403-01	-	.69 Inches (17.53mm) [.094 Inches] [2.39mm]	1/8 F	1/8 F	2.94 (74.68)
N403-02	-			1/8 M	3.12 (79.25)
N403-04	-			1/4 T	3.38 (85.85)
N404-01	N404-11		1/8 M	1/8 F	2.94 (74.68)

**MODIFICATIONS AVAILABLE - MADE TO ORDER - CONSULT OUR FACTORY . (MINIMUM ORDER MAY BE REQUIRED.)**

NEEDLE VALVES -  
ANGLE & CROSS PATTERN  
5/07 **BULLETIN F337**  
ISO9001:2000 CERTIFIED

**LDI Industries**  
Lube Devices • Flodar • Hydra-Tool • Vescor  
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# NEEDLE VALVE MANIFOLD

Designed for controlled multiple oiling from central location. Lubricant, (in reservoir of dispenser) individually metered at valve bank, travels to various points servicing hard to get at places, and eliminating individual oil cups. Easily disassembled for cleaning, individual valves remove without disturbing other components.

● **PATENTED**

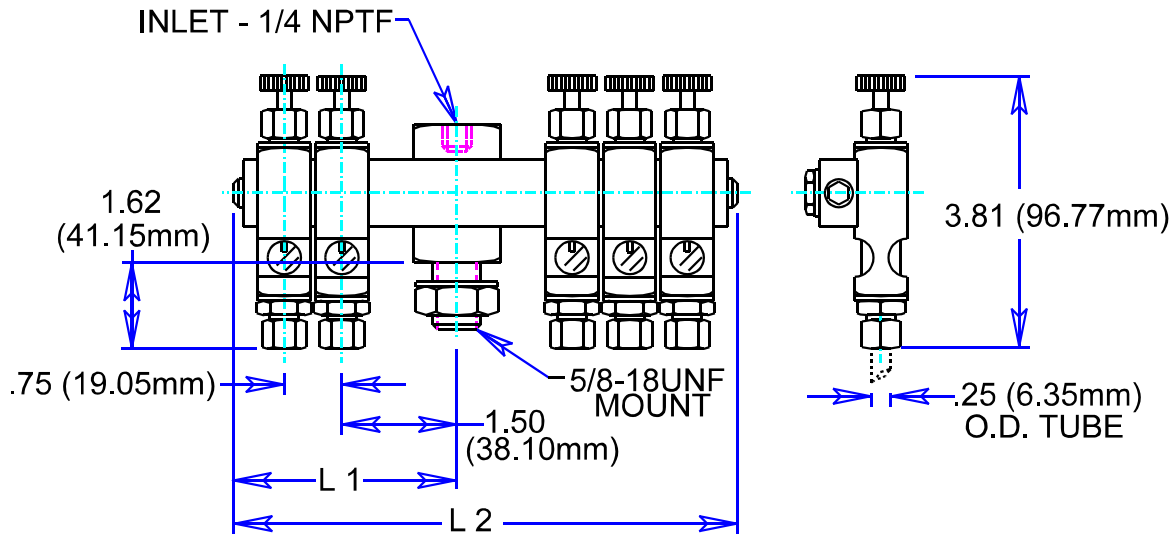
**STANDARD MATERIALS:**

- Aluminum construction
- Buna N Seals
- Gage glass sight

**OPERATING CONDITIONS:**

- Pressure applications up to 125 PSI (861.9 kPa) non-vented.
- Vacuum pressure available (requires modification) - **Please specify.**

**MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY  
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CATALOG NUMBER		FEEDS	L1 INCHES (mm)	L2 INCHES (mm)
GRAVITY VENTED SIGHT	PRESSURE NON-VENTED SIGHT			
NVM102-002	-102	2	2.09 (53.09)	4.19 (106.43)
NVM102-003	-103	3	2.09 (53.09)	4.94 (125.48)
NVM102-004	-104	4	2.84 (72.14)	5.69 (144.53)
NVM102-005	-105	5	2.84 (72.14)	6.44 (163.58)
NVM102-006	-106	6	3.59 (91.19)	7.19 (182.63)
NVM102-008	-108	8	4.34 (110.24)	8.69 (220.73)



**LUBE DEVICES, INC.**

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**NEEDLE VALVE MANIFOLD**

9/03 **BULLETIN F577-1**

# TOGGLE VALVES - ANGLE PATTERN

LUBE DEVICES' toggle valves are designed for controlled flow applications that require shutting off at times. This style of valve can be shut off and turned on again without affecting the previous preset drip rate. Fine adjustments can be made and easily locked by the knurled friction lock-ring. The drip rate is clearly visible through the large sight. Gravity feed valves are furnished with a vented sight chamber, provided by a split in the gasket above the sight glass. Valves for pressure applications have a solid gasket in both ends of the sight glass. (Non-vented)

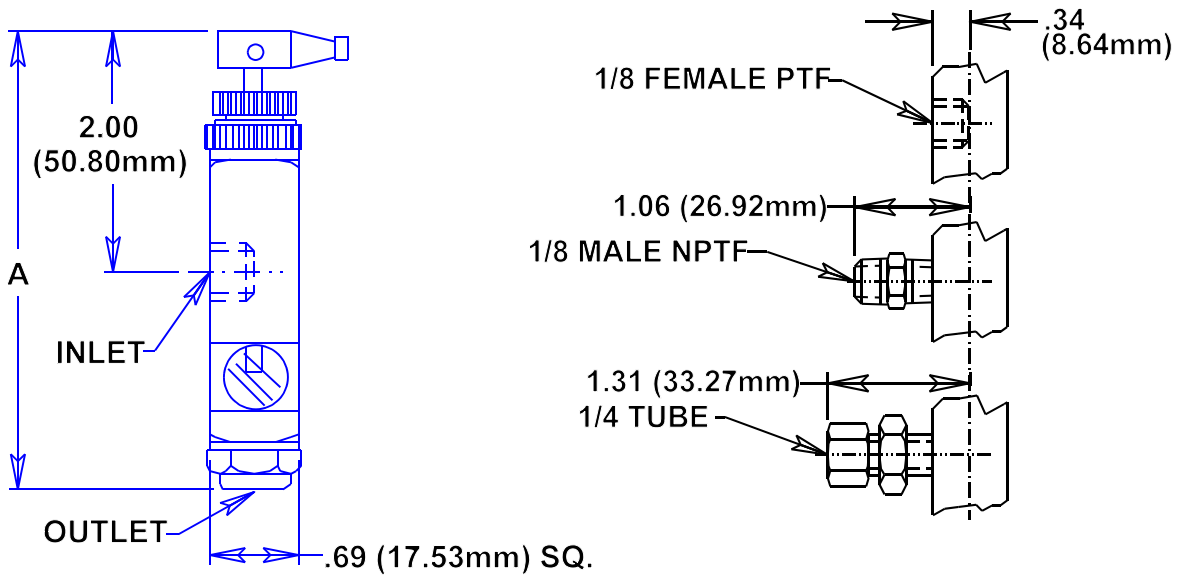
## STANDARD MATERIALS:

- Brass construction
- Buna N seals
- Pipe threads are dryseal

## OPERATING CONDITIONS:

- Pressure version is rated for maximum working pressure applications up to 125 PSI (861.9 kPa)
- .094 (2.39mm) minimum orifice

**For Toggle Adjustment - See Eng. Std. 103**



ANGLE PATTERN			
CATALOG NUMBER		OUTLET	A - INCHES (mm)
GRAVITY	PRESSURE		
<b>1/8 PTF FEMALE INLET</b>			
N471-02	-	1/8 MALE	3.81 (96.77mm)
N471-03	-	1/4 TUBE	4.00 (101.60mm)
<b>1/8 NPTF MALE INLET</b>			
N472-03	N472-13	1/4 TUBE	4.00 (101.60mm)
<b>1/4 NPTF MALE INLET</b>			
N473-03	-	1/4 TUBE	4.00 (101.60mm)

TOGGLE VALVES -  
ANGLE PATTERN

3/04 BULLETIN F797-2



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# **“LUBE-O-MATIC”- SOLENOID WITH INTEGRAL SIGHT FEED**

The exclusive “LUBE-O-MATIC” features an integral solenoid/sight feed package which offers automatic fluid flow. The coil wires (normally closed valve) connect across the drive line or start switch allowing the unit to feed only when the machine is running. This package is price competitive with the cost of the solenoid alone. The knurled adjustment wheel provides positive, smooth feed rate adjustment from full-flow to shut-off. A large vented sight window is provided for easy viewing of the feed rate.

## **STANDARD MATERIALS:**

- Class ‘B’ molded water resistant coil
- Needle valve is brass construction

## **OPERATING CONDITIONS:**

- All commercial voltages are available.
- 11.5 watts power consumption for all units
- .094 (2.39mm) minimum orifice
- Gravity flow

## **HOW TO ORDER:**

After catalog number, specify the voltage / Hertz required, separate with a dash (-).

### **VOLTAGE:**

- 26 120V/60Hz, 1Ph
- 27 240V/60Hz, 1Ph
- 28 480V/60Hz, 1Ph
- 42 12V, DC
- 43 24V, DC

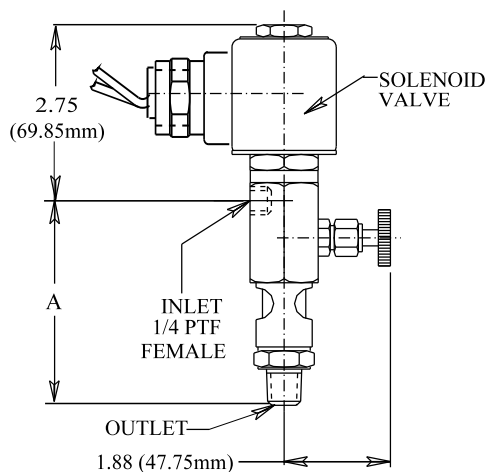
**EXAMPLE:** ESS102-26—120V/60Hz, 1Ph.

Solenoid voltage  
Series ESS102  
(Angle pattern)

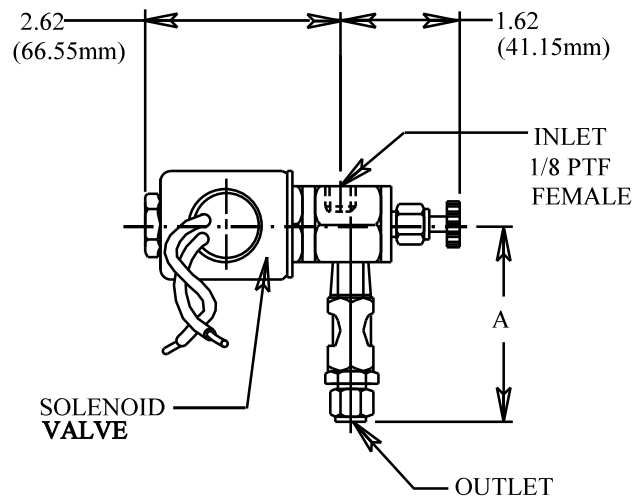
**MODIFICATIONS AVAILABLE MADE TO ORDER - CONSULT OUR FACTORY  
(MINIMUM ORDER MAY BE REQUIRED)**

## **YOUR CHOICE OF TWO PATTERNS - ANGLE AND STRAIGHT**

### **ANGLE PATTERN**



### **STRAIGHT PATTERN**



CATALOG NUMBER	OUTLET	A - INCHES (mm)
ESS101	1/4 TUBE	3.19 (81.03)
ESS102	1/4 MALE NPTF	3.19 (81.03)
ESS103	1/8 MALE NPTF	3.00 (76.20)

CATALOG NUMBER	OUTLET	A - INCHES (mm)
ESS151	1/8 MALE NPTF	2.50 (63.50)
ESS152	1/4 MALE NPTF	2.56 (65.02)
ESS155	1/4 TUBE	2.62 (66.55)

“LUBE-O-MATIC” - SOLENOID WITH INTEGRAL SIGHT FEED

5/07 **BULLETIN F987**

**ISO9001:2000 CERTIFIED**



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# NEEDLE VALVES - STRAIGHT PATTERN

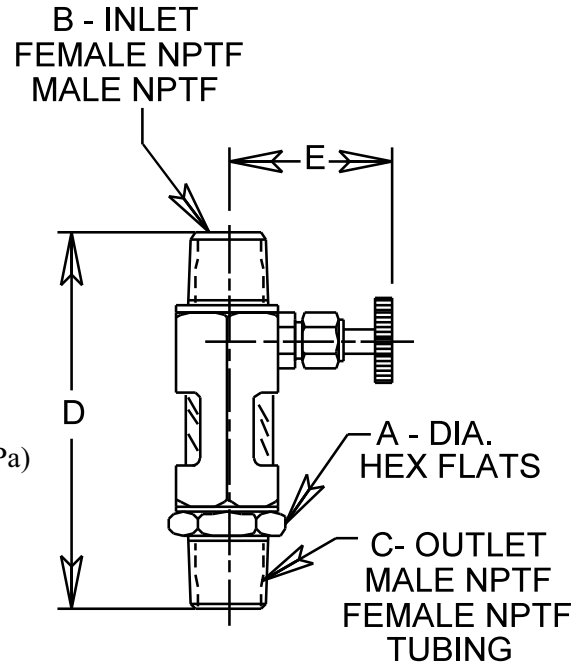
Sight pattern valves are ideally suited for vertical inline installation requiring controlled visible fluid metering. Knurled wheel provides for smooth, accurate adjustments of flow rate. Drip feed rate is adjustable from full orifice flow to complete shut-off. Flow is readily visible through large sight window. Pressure units supplied with non-vented sights. Gravity flow units supplied with vented sights. Vacuum application is available (requires modification) - **Please specify.**

## STANDARD MATERIALS:

- Precision machined from brass bar stock.
- Buna N seals.
- Gage glass sight.
- Pipe threads are dryseal

## OPERATING CONDITIONS:

- Maximum working pressure up to 125 PSI (861.9 kPa) to orifice



**MODIFICATIONS AVAILABLE-MADE TO ORDER-CONSULT OUR FACTORY.  
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CATALOG NUMBER		A - HEX [ORIFICE]	B - INLET	C - OUTLET	D INCHES (mm)	E INCHES (mm)
GRAVITY	PRESSURE					
N102-01	-	.81 Inches (20.57 mm) [.094 Inches] [2.39 mm]	1/8 M	1/8 M	3.03 (76.96)	1.50 (38.10)
N102-02	N102-12		1/4 M	1/4 M	3.41 (86.61)	
N102-03	-		1/8 F	1/8 F	2.72 (69.09)	
N102-04	N102-14		1/4 F	1/4 F	2.97 (75.44)	
N102-06	-		1/4 M	1/4 T	3.44 (87.38)	
N103-01	-	.94 Inches (23.88 mm) [.109 Inches] [2.77 mm]	3/8 M	3/8 M	3.56 (90.42)	1.75 (44.45)
N103-02	-		3/8 F	3/8 F	3.25 (82.55)	
N104-01	-	1.06 Inches (26.92 mm) [.152 Inches] [3.86 mm]	1/2 M	1/2 M	3.94 (100.08)	1.75 (44.45)
N104-02	-		1/2 F	1/2 F	4.62 (117.35)	



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6/05

NEEDLE VALVES -  
STRAIGHT PATTERN  
**BULLETIN F307**  
ISO9001:2000 CERTIFIED