

# PTFE NEEDLE VALVES

## FVLT101



- ✓ Fluids Contact PTFE Only
- ✓ Structurally Rigid Metal Shell
- ✓ One PTFE O-Ring

The FVLT100 Series compact and reliable PTFE needle valves are designed for laboratory and industrial applications for regulating corrosive gases and liquids or for high purity service. They may also be used as shut off valves.

PTFE bodies of the valves are reinforced by structurally rigid metallic shells. Fluids contact only PTFE and CTFE materials. Shells are made of anodized aluminum or type 316 stainless steel and bushings are made of plated brass or 316 stainless steel. Where externally corrosive conditions exist stainless steel is recommended. Valve spindles are made of rigid CTFE to minimize the undesirable material "creeping" normally associated with PTFE.

The FVLT100 Series PTFE valves are designed for relatively high flow ranges while still performing well in low flow rates. Valves may be used in pressure or non-critical

vacuum service. The simplicity of design—there are only seven components (including a single PTFE O-ring)—assures reliability and minimizes sources of leakage. It takes seconds to disassemble the valve for cleaning and maintenance. The PTFE O-ring is radially compressed and due to this unique design feature the degree of compression may be adjusted without disassembly by tightening the hexagonal bushing.

The FVLT110 Series metering valves are constructed of PTFE and PCTFE materials. Non-fluid contacting external parts are made of anodized aluminum.

Valves are offered in three conveniently overlapping flow ranges. Safety handle prevents over tightening and facilitates fine metered regulation. FVLT110 Series valves are useful in regulating the flow of corrosive gases and liquids. They may be used in pressure or non-critical vacuum service and serve as bubble tight shutoff valves.

### SPECIFICATIONS

**Maximum Pressure:** 75 psig (517 kPa)

**Maximum Temperature:** 65°C (150°F)

**Orifice Size:** 3.175 mm dia. (0.125")

**Materials of Construction Fluid**

**Contacting:** FVLT100/FVLT110: Body and O-ring-PTFE. Valve spindle-CTFE



FVLT101 shown larger than actual size.

### Non Fluid Contacting:

**FVLT100:** Shell - Aluminum (anodized) or 316 stainless steel  
Bushing - plated brass, or 316 stainless steel. Adjusting Knob-phenolic

**FVLT110:** Shell + Handle - Aluminum (anodized)

### Number of Turns to Fully Open:

**FVLT100:** 6

**FVLT110:** 8

## To Order

Model No.	Maximum Flow**		Cv	Connections	Non Wetted Materials
	ml/min	ml/min			
	Air	Water			
FVLT101	2400	130	0.011	1/8 FNPT	Aluminum/Brass
FVLT102	55000	2800	0.250	1/8 FNPT	Aluminum/Brass
FVLT103	2400	130	0.011	1/4" Comp.	Aluminum/Brass
FVLT104	55000	2800	0.250	1/4" Comp.	Aluminum/Brass
FVLT101-SS	2400	130	0.011	1/8 FNPT	316 Stainless Steel
FVLT102-SS	55000	2800	0.250	1/8 FNPT	316 Stainless Steel
FVLT103-SS	2400	130	0.011	1/4" Comp.	316 Stainless Steel
FVLT104-SS	55000	2800	0.250	1/4" Comp.	316 Stainless Steel
FVLT111	600	36	0.003	1/8 FNPT	Anodized Aluminum
FVLT112	3000	180	0.015	1/8 FNPT	Anodized Aluminum
FVLT113	30000	1800	0.150	1/8 FNPT	Anodized Aluminum
FVLT114	600	36	0.003	1/4" Comp.	Anodized Aluminum
FVLT115	3000	180	0.015	1/4" Comp.	Anodized Aluminum
FVLT116	30000	1800	0.150	1/4" Comp.	Anodized Aluminum

\*\* Flow rates are based on 10 psig (69 kPa) inlet pressure and atmospheric exhaust.

**Ordering Examples:** FVLT101, PTFE wetted parts with a shell of aluminum and bushing of brass.

FVLT112, PTFE wetted parts with a shell of aluminum and bushing of brass.