

These 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.

Pliant PTFE bodies of the valves are reinforced by structurally rigid metallic shells. Fluids contact only PTFE and PCTFE 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 PCTFE to minimize the undesirable material “creeping” normally associated with PTFE. 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.

### design features

- ✓ Fluids contact PTFE and PCTFE only.
- ✓ Structurally Rigid Metal Shell.
- ✓ One PTFE o-ring.
- ✓ Simplicity only seven components.

Note: Based on 10psig (69 kPa) inlet pressure and atmospheric exhaust.



PTFE Needle valve with Stainless Shell and FNPT Fittings

#### ORDERING INFORMATION PTFE NEEDLE VALVES

MODEL NUMBER	MAXIMUM FLOW [ml/min]		CV	NON WETTED MATERIALS		CONNECTIONS
	AIR	WATER		SHELL	BUSHING	
VCL-TT-0A	2400	130	0.011	Aluminum	Brass	1/8" FNPT
VCH-TT-0A	55000	2800	0.250	Aluminum	Brass	1/8" FNPT
VCL-TT-0F	2400	130	0.011	Aluminum	Brass	1/4" Comp.
VCH-TT-0F	55000	2800	0.250	Aluminum	Brass	1/4" Comp.
VCL-TT-0G	2400	130	0.011	Aluminum	Brass	0.390 O.D. Glass Nipples
VCH-TT-0G	55000	2800	0.250	Aluminum	Brass	0.390 O.D. Glass Nipples
VCL-TT-2A	2400	130	0.011	Stainless	Stainless	1/8" FNPT
VCH-TT-2A	55000	2800	0.250	Stainless	Stainless	1/8" FNPT
VCL-TT-2F	2400	130	0.011	Stainless	Stainless	1/4" Comp.
VCH-TT-2F	55000	2800	0.250	Stainless	Stainless	1/4" Comp.
VCL-TT-2G	2400	130	0.011	Stainless	Stainless	0.390 O.D. Glass Nipples
VCH-TT-2G	55000	2800	0.250	Stainless	Stainless	0.390 O.D. Glass Nipples

#### SPECIFICATIONS

<b>MAXIMUM PRESSURE</b>	75 psig (517 kPa)
<b>MAXIMUM TEMPERATURE</b>	150 °F (65 °C)
<b>ORIFICE SIZE</b>	0.125" diameter (3.175 mm)
<b>**MATERIALS OF CONSTRUCTION FLUID CONTACTING</b>	Body and o-ring-PTFE. Valve spindle-PCTFE.
<b>NON FLUID CONTACTING</b>	Shell - Aluminum (anodized) or 316 stainless steel. Bushing plated brass, or 316 stainless steel. Adjusting Knob-phenolic.

*\*\*The selection of materials of construction, is the responsibility of the customer. The company accepts no liability.*

MVT™ 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. MVT™ 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 shut-off valves.



PTFE Needle valve with Aluminum Shell and Glass Nipples



PTFE Metering Valve

### ORDERING INFORMATION PTFE METERING VALVE

MODEL NUMBER	MAXIMUM FLOW [ml/min]		Cv	CONNECTIONS
	Air	Water		
VM1-TT-0A	600	36	0.003	1/8" FNPT
VM3-TT-0A	3000	180	0.015	1/8" FNPT
VM6-TT-0A	30000	1800	0.150	1/8" FNPT
VM1-TT-0F	600	36	0.003	1/4" Comp.
VM3-TT-0F	3000	180	0.015	1/4" Comp.
VM6-TT-0F	30000	1800	0.150	1/4" Comp.
VM1-TT-0G	600	36	0.003	0.390 O.D. Glass Nipples
VM3-TT-0G	3000	180	0.015	0.390 O.D. Glass Nipples
VM6-TT-0G	30000	1800	0.150	0.390 O.D. Glass Nipples

### SPECIFICATIONS

<b>MAXIMUM PRESSURE</b>	75 psig (517 kPa)
<b>MAXIMUM TEMPERATURE</b>	150 °F (65 °C)
<b>ORIFICE SIZE</b>	0.125" diameter (3.175 mm)
<b>NUMBER OF TURNS TO FULLY OPEN</b>	Eight.
<b>STEM</b>	Non-rising type.
<b>FLUID CONTACTING COMPONENTS</b>	Body /o-ring-PTFE. Valve spindle-PCTFE.
<b>NON-FLUID CONTACTING COMPONENTS</b>	Shell + Handle - Aluminum (anodized).

\* Based on 10 psig (69 kPa) inlet pressure and atmospheric exhaust.

## design features

- ✓ Fluids contact PTFE and PCTFE only.
- ✓ One PTFE o-ring.
- ✓ Simplicity, only six components.

**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.**

Fluids contact only PTFE and PCTFE materials.

**Valve spindles are made of rigid PCTFE to minimize the undesirable material “creeping” normally associated with PTFE.**

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 six 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 bushing.**



6mm PTFE Needle Valves

### ORDERING INFORMATION FOR 6mm PTFE NEEDLE VALVES

MODEL NUMBER	MAXIMUM FLOW LPM		Cv	CONNECTIONS
	Air	Water		
VT6-TT-0	300	9	0.765	3/8" FNPT

Note: Based on 10psig (69 kPa) inlet pressure and atmospheric exhaust.

### SPECIFICATIONS

<b>MAXIMUM PRESSURE</b>	75 psig (517 kPa)
<b>MAXIMUM TEMPERATURE</b>	150 °F (65 °C)
<b>ORIFICE SIZE</b>	6.0 mm (0.250") diameter.
<b>**MATERIALS OF CONSTRUCTION FLUID CONTACTING</b>	Body and o-ring-PTFE. Valve spindle-PCTFE.
<b>NON FLUID CONTACTING</b>	Set screws 18-8 stainless steel.