

# QUANTUM 955

## High Flow Diaphragm Valve



Parker Hannifin Corporation's Veriflo Division presents the Quantum 955 Manually Operated diaphragm valve. The 955 provides higher flows in an exceptionally clean, compact device.



### features

- ▶ .55  $C_v$  flow capacity.
- ▶ "VeriClean" low sulfur high purity 316L Stainless Steel™, which enhances electropolishing, welding, and corrosion resistance.
- ▶ Internally threadless and springless.
- ▶ Ideal for low vapor pressure gases.
- ▶ Fully functional from vacuum to 250 psig.
- ▶ Aerodynamic, smooth flow passages.
- ▶ Minimum particle generation and entrapment.
- ▶ High cycle life.
- ▶ 100% Helium leak tested.
- ▶ "Hurricane" cleaning, Veriflo's proprietary cleaning process, removes metallic ions, organic films and surface adhering particles.

### materials of construction

#### Wetted

Body . . . . . "VeriClean", Veriflo's custom high purity Type 316L Stainless Steel™, Hastelloy® C-22  
Seat . . . . . PCTFE, optional Vespel®, PEEK™  
Diaphragm . . . . . Elgiloy® or equivalent

#### Non-Wetted

Nut . . . . . 316L Stainless Steel  
Cap . . . . . 316L Stainless Steel

### operating conditions

Maximum operating pressure . . . . . 250 psig  
(17.22 barg)  
For oxygen . . . . . Refer to CGA G-4.4  
Industrial practices for gaseous oxygen

Minimum operating pressure . . . . . Vacuum  
Temperature . . . . . -40°F to 150°F (-40°C to 65°C)  
Bake out . . . . . 250°F (121°C) in the open position

### functional performance

Flow capacity . . . . .  $C_v = .55$   
(SEMI Flow Coefficient Test #F-32-0998)

#### Design Leak Rate:

Outboard . . . . .  $1 \times 10^{-9}$  scc/sec He  
Inboard . . . . .  $2 \times 10^{-10}$  scc/sec He  
Across seat . . . . .  $4 \times 10^{-9}$  scc/sec He

Design Proof Pressure . . . . . 375 psig (26 barg)  
Design Burst Pressure . . . . . 750 psig (52 barg)

### standard connections

Any combination of FS male and/or female fittings:

1/4" Gland to gland length . . . . . 2.96 in.  
(75.1 mm)  
Optional . . . . . 2.78 in. (70.6 mm)

#### Tube stubs inlet and outlet:

End to end length . . . . . 2.25 in. (57.1 mm)

Note : Other configurations available as options including as many as five ports

### internal volume

3.29 cc (including face seal fittings)

### surface finishes

Standard Ra . . . . . 5 micro inch  
(.13 micro meter) or less

### approximate weight

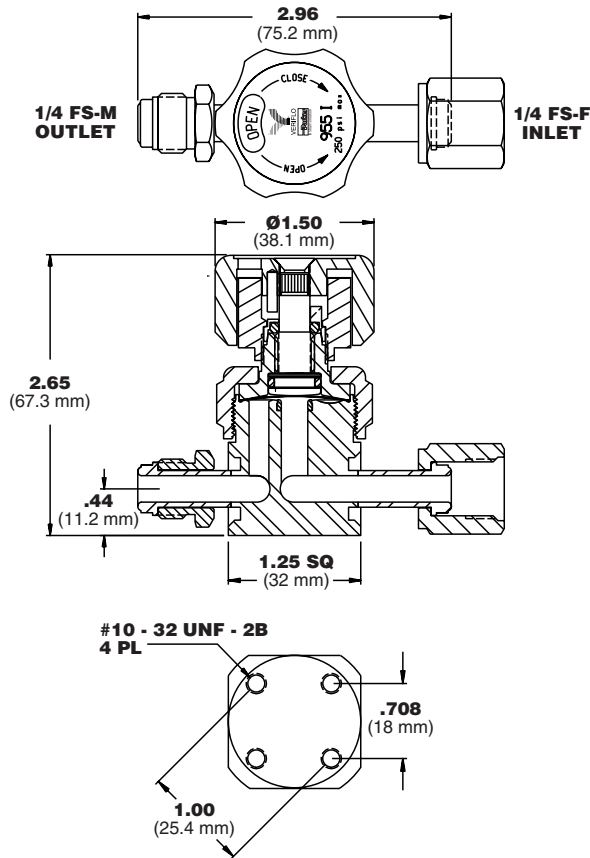
.81 lbs (.36 kg)

Catalog: 4505  
LitPN: 25000179  
Revision: A • 10/03

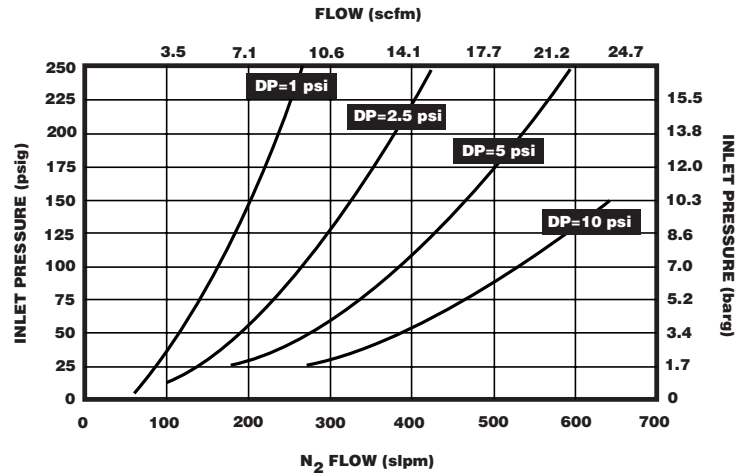


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## Dimensional Drawing



## Flow Curve



Nitrogen gas was used for flow curves.

1/4" FS	2.96" (75.1 mm) STD
1/2" FS8	4.20" (106.7 mm) STD
1/4" TS	2.25" (57.1 mm)
3/8" TS6	2.25" (57.1 mm) STD
1/2" TS8	2.25" (57.1mm) STD
1/4" FS	2.78 (70.6 mm) Optional

## Ordering Information

