

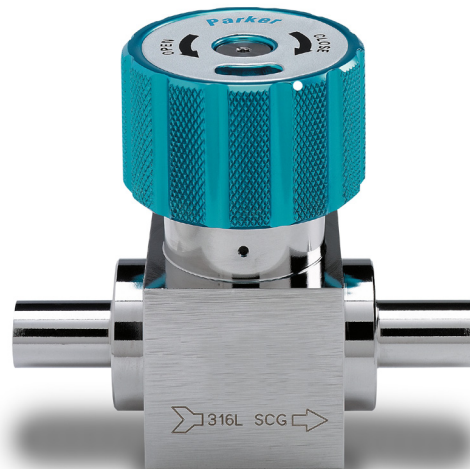
18 Series

UHP Stainless Steel Diaphragm Valve
High Pressure, High Flow

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Value Proposition:

The 18 Series provides high-flow and positive shut off for high purity gas/fluid systems. This 1/2" and 3/8" spring type diaphragm valve offers superior leak integrity for manually and pneumatically actuated versions with pressure ranges from vacuum to 1500 psig.



Contact Information:

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Product Features:

- Standard surface finish of 10 micro inch Ra
- Fully functional from vacuum to 1500 psig. (Pneumatic version to 1200 psig)
- Multi-diaphragm for superior cycle life
- Serialized and heat code traceable
- 100% Helium leak tested
- Standard full internal electroplish
- Minimal particle generation and particle entrapment areas
- Vericlean™, Veriflo's low sulfur high purity 316L Stainless Steel enhances electropolishing, welding, and corrosion resistance

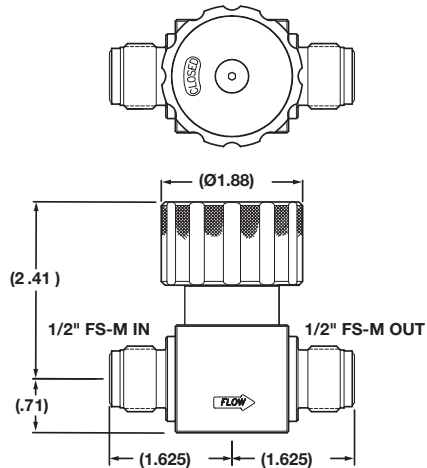


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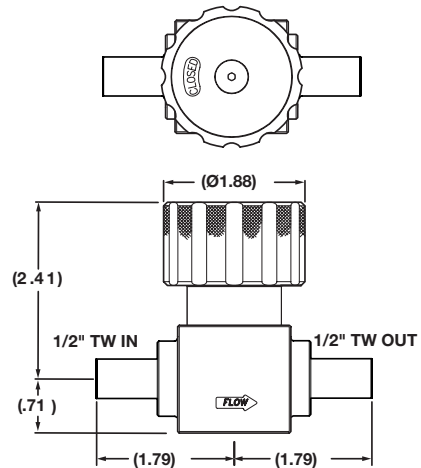
18 Series

Dimensional Drawings

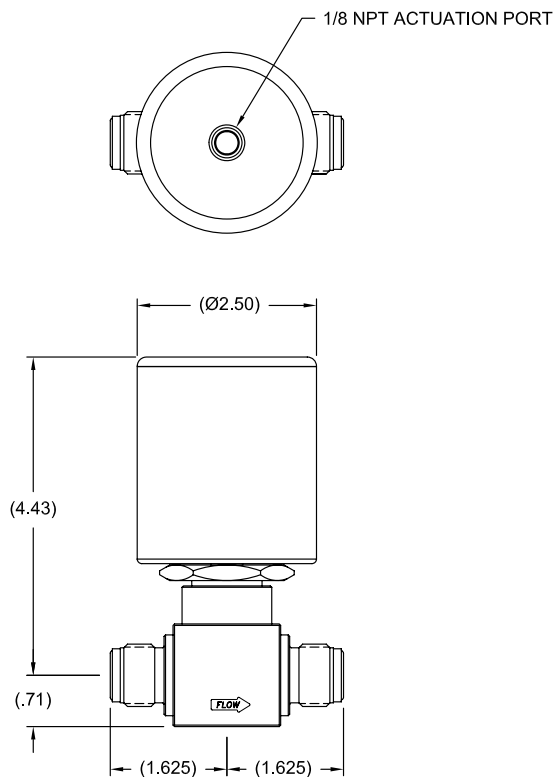
18E SERIES VACUSEAL™



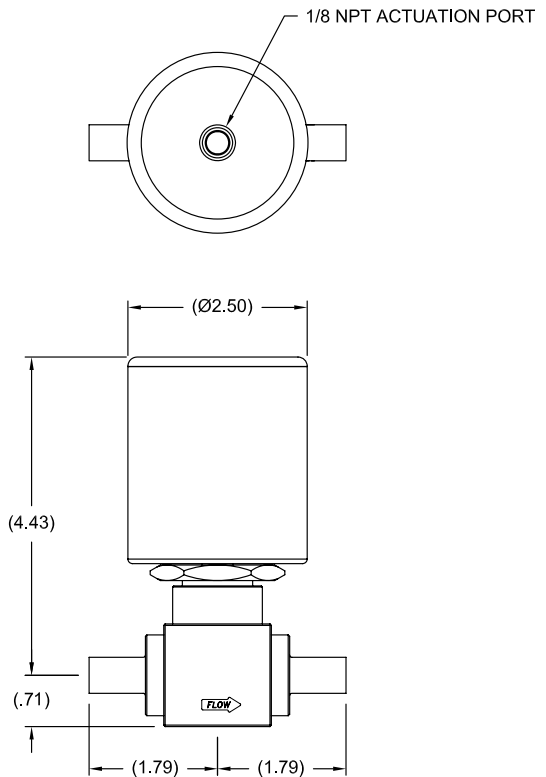
18E SERIES TUBESTUB



93-18E SERIES VACUSEAL™



93-18E SERIES TUBESTUB



18 Series

Ordering Information

Build an 18 Series valve by replacing the numbered symbols with an option from the corresponding tables below.

Color Explanations: Black = Standard Lead Time Configurations
Blue = Extended Lead Time Configurations

For an explanation of Ordering options please reference literature 25000275 at www.parker.com/veriflo

Sample: **18E** **8** **8** **2** **TWTW** **PI**
Finished Order: **18E-882TWTW-PI**



Basic Series

18E = Electropolished,
Indicating Handwheel

18 = Non-Electropolished,
Handwheel

93-18E = Electropolished,
Pneumatically Actuated

93-18 = Non-Electropolished,
Pneumatically Actuated



Outlet Port Size

6 = 3/8"

8 = 1/2"



Body Material

2 = 316L Vericlean™



Inlet/Outlet Connection

TWTW = Tube Stub

VFVF = VacuSeal™ Female

VMVM = VacuSeal™ Male

VMSVMS = VacuSeal™ Male Swivel



Optional Features

PI = Vespel® Seat Recommended
for Nitrous Oxide (N2O) Service



Inlet Port Size

6 = 3/8"

8 = 1/2"

18 Series

Specifications

Materials of Construction	
Wetted	
Body	VeriClean™ 316L Stainless Steel
Seat Options	PCTFE (std) or Vespel®
Diaphragm	Elgiloy® or equivalent
Lower Stem	VeriClean™ 316L Stainless Steel
Spring	316 Stainless Steel
Non-wetted	
Pneumatic	
Actuator Housing	Aluminum
Stem Button	303 Stainless Steel
Bonnet	303 Stainless Steel
Set Screw	18-8 Stainless Steel
Manual	
Hand Wheel	Aluminum
Bonnet	303 Stainless Steel
Upper Stem	Aluminum Silicon Bronze
Lock Screw	316 Stainless Steel
Set Screw	18-8 Stainless Steel

Functional Performance	
Flow Capacity	
Manual	C _V 1.3
Pneumatic	C _V 1.0
Leak Rate	
Design Internal	< 4 X 10 ⁻⁹ scc/sec He Inboard Test Method
Design External	< 1 X 10 ⁻⁹ scc/sec He Inboard Test Method
Production Leak Test	Outboard sniffer probe at 1000-1500 psig, 20-25% Helium
Surface Finish	10 micro inch Ra
Operating Conditions	
Operating Pressure	
Manual	Vacuum to 1500 psig
Pneumatic	Vacuum to 1200 psig at 70°F
Actuator	75 psig nominal (5 barg)
Max Differential Back Pressure	200 psid (13.79 bard)
Temperature	-65°F to 150°F (-54°C to 65°C)

For additional information on materials of construction, functional performance and operating conditions, please contact factory.

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 Vespel® is a registered trademark of DuPont Performance Elastomers L.L.C.
 VeriClean™ and VacuSeal™ are trademarks of Parker Hannifin Corporation
 Inconel® is a registered trademark of Special Metals Corporation

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