

845 Series

UHP Stainless Steel Diaphragm Valve
High Pressure, Welded

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

Value Proposition:

The 845 Series diaphragm valve provides high pressure flow control for semiconductor, solar, and flat panel applications. The design provides high pressure and high flow in a compact device.

The 845AOPHP valves offer operating conditions from vacuum to 3500 psi with the newly designed and patent pending actuator. The new actuator requires only 75 psi actuation pressure for all pressure control applications and provides high cycle life.



Contact Information:

Parker Hannifin Corporation
Veriflo Division
250 Canal Blvd
Richmond, California 94804

phone 510 235 9590
fax 510 232 7396
veriflo.sales@parker.com

www.parker.com/veriflo
Mobile App: m.parker.com/veriflo

Product Features:

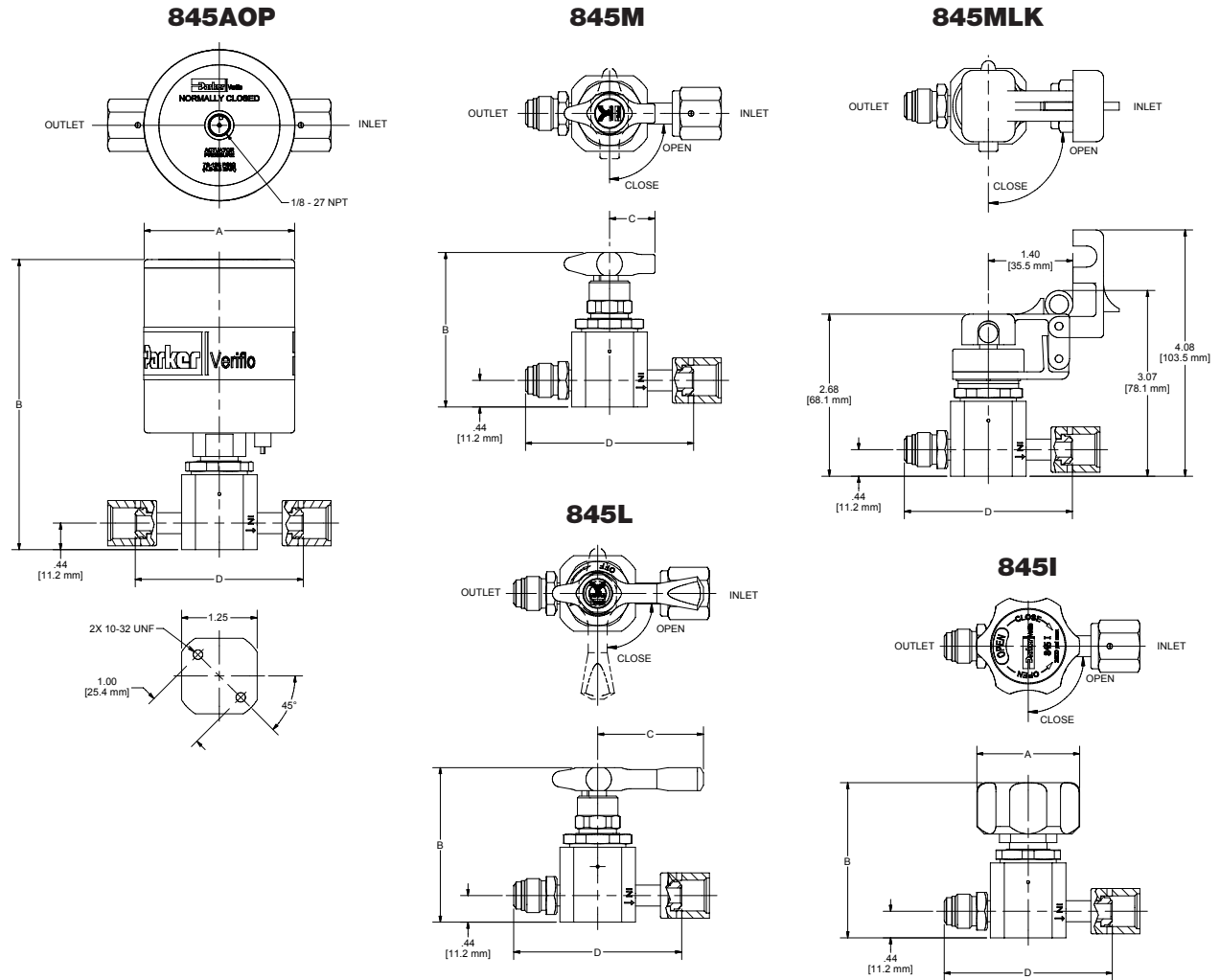
- Standard surface finish of 10 micro inch Ra with flash EP
- Internally threadless and springless
- Fully functional from vacuum to 3500 psig
- Cycle life of AOPHP exceeds 30000 cycles at 3000 psi inlet pressure
- 100% Helium leak tested
- Minimal particle generation and particle entrapment areas
- Vericlean™, Veriflo's low sulfur high purity 316L Stainless Steel enhances electropolishing, welding, and corrosion resistance



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Dimensional Drawings



Actuator Style	Actuator Diameter (A)	Height (B)	Lever Radius (C)
AOPHPNC	2.49	4.80	-
I	1.70	2.58	-
L	-	2.56	1.75
M	-	2.56	.75
S	2.00	2.88	-

Port Style	End-To-End Length (D)
FS	2.78
TS	1.75
TS6	2.24

845 Series

Ordering Information

Build an 845 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: **8** **45** **AOPHPNC** **S** **FS** **FM** **VESP**
Finished Order: **845AOPHPNC SFSFMVESP**

1 **Basic Series**
45 = 845

2 **Type**
AOPHPNC = Air Operated, High Pressure, Normally Closed
I = Indicating Handwheel
L = Lever
M = Mini Lever
S = Spin Handwheel

3 **Body Material**
S = VeriClean™ 316L Stainless Steel

4 **Port Style**
2 and 3 Port configurations are available
FS = 1/4" Face Seal
FS8 = 1/2" Face Seal
TS = 1/4" Tube Stub *Standard only when configured as TSTS*
TS6 = 3/8" Tube Stub
TS8 = 1/2" Tube Stub
Note: For Multiport: See 25000178 Valve Selection Guide. All Multiport configurations are Special Order.

5 **Port Configuration**
M = Male Face Seal
F = Female Face Seal

6 **Optional Features**
This section can have multiple options
LK = LockOut-TagOut
LockOut-TagOut clamp for Mini Lever (M) type
LSC = Limit Switch Closed *Available with AOPHPNC option only*
LSO = Limit Switch Open *Available with AOPHPNC option only*
PM = Panel Mount *Not available with (I) Indicating Handwheel or AOPHPNC type valves*
VESP = Vespel™ Seat *Recommended for Nitrous Oxide (N2O) Service*

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Specifications

Materials of Construction	
Wetted	
Body	VeriClean™ 316L Stainless Steel
Diaphragm	Elgiloy® or equivalent
Seat Options	PCTFE (std) or Vespel®
Non-wetted	
Cap	17-4 PH
Nut	316L Stainless Steel
Support Diaphragm	Beryllium Copper (BeCu)
Actuator Housing	Anodized Aluminum
Operating Conditions <i>(Operating limits based upon pressure applied at inlet port.)</i>	
Maximum Pressure	3,500 psig (241 barg)
Minimum Pressure	Vacuum
Temperature	-40°F to 150°F (-40°C to 66°C)
AOP Actuation Pressure	75 psig (5 barg) nominal
AOP Air Inlet	1/8-27 NPT

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

Functional Performance	
Design	
Proof Pressure	5,250 psig (362 barg)
Burst Pressure	10,500 psig (724 barg)
Flow Capacity	
	C_v 0.27
Leak Rate	
Inboard Test Method	
Internal	$\leq 1 \times 10^{-9}$ scc/sec He
External	$\leq 2 \times 10^{-10}$ scc/sec He
Surface Finish	
10 micro inch Ra with flash EP	
Internal Volume	
2.7 cc (including glands)	
Approx. Weight	
2.5 lbs. (1.2 kg)	
Limit Switch (Optional)	
Type	Single Pole, Single Throw (SPST) momentary action, non-adjustable
Rating	
AOPHPLSC	1/4 amp at 115 vac (normally closed)
AOPHPLSO	1/2 amp at 115 vac (normally open)

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Elgiloy® is a registered trademark of Elgiloy Company
VeriClean™ is a trademark of Parker Hannifin Corporation

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