

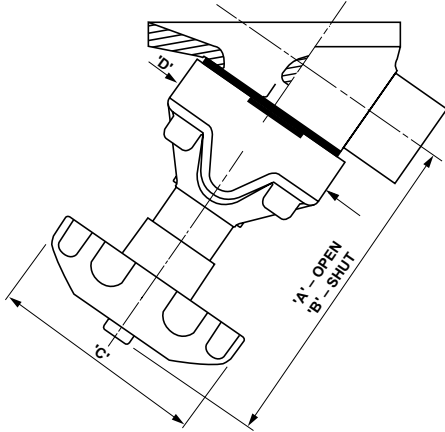
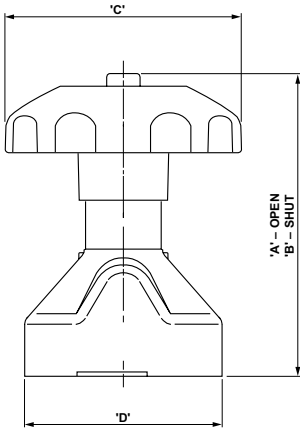
Performance Bonnet Assemblies – PES

HC4 Diaphragm Valves

Intended for the Biopharm industry, the PES thermoplastic polymer bonnet assembly offers many features that allow flexibility of accessory options, and materials of construction suitable for high temperature and autoclaving.

A standard option has molded-in stainless steel inserts for mounting to a standard valve body. A flanged version allows fixing to tank bottom valves, T & L port and other customized products. The bonnet is attached to Tank Bottom, Zero Dead Leg, T & L, and Diverter Valves by means of studs. The bonnet design has been sculpted to accept through studs with top mounting stainless steel nuts protected by plastic covers for overall cleanliness.

HC4/100/01/11.02



Size (DN)	A	B	C	D
0.50"(15)	3.78	3.50	2.44	2.17
0.75"(20)	3.90	3.50	2.44	2.68
1.00"(25)	4.92	4.37	3.15	2.99
1.50"(40)	6.85	5.96	5.51	4.02
2.00"(50)	6.97	5.81	5.51	4.65
2.50"(65)	7.19	5.85	5.51	5.79
3.00"(80)	9.59	7.89	9.84	6.81

Size (DN)	A	B	C	D
0.50"(15)	4.35	4.07	2.44	2.17
0.75"(20)	4.59	4.19	2.44	2.68
1.00"(25)	5.77	5.22	3.15	2.99
1.50"(40)	8.01	7.12	5.51	4.02
2.00"(50)	8.35	7.20	5.51	4.65
2.50"(65)	8.92	7.60	5.51	5.79
3.00"(80)	11.59	9.90	9.84	6.81

Dimensions in Inches

Size Availability

AFP Type Valves 0.50"-3.00" (DN15-80).
Tank Mount & Customised Valves

Material of Construction (Bonnet)

Polyethersulphone (PES) Black, glass filled.

Standard Features

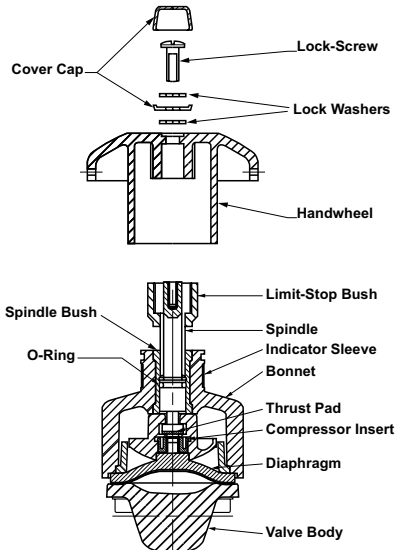
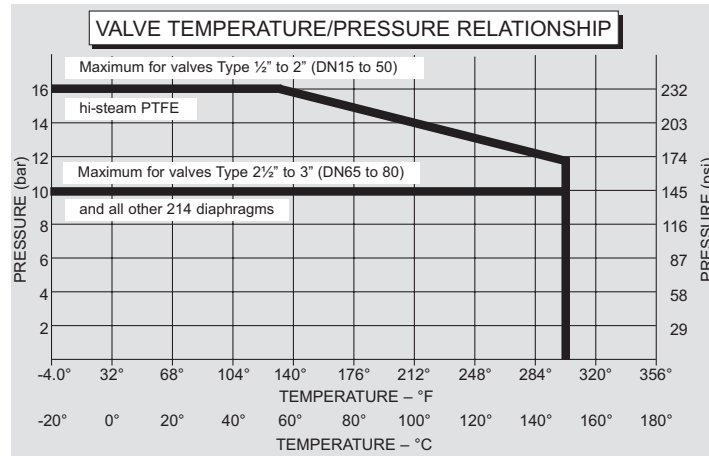
1. Rising handwheel
2. Yellow Visual Indicator
3. O Ring Sealed
4. Limit Close Stop
5. Enclosed Fasteners (Standard Version)
6. Enclosed Diaphragm

Temperature Rating

Maximum autoclave temperature 302°F (150°C) when the valve is being sterilized. For maximum line temperature refer to diaphragm grade selection and performance graph.

Maximum Pressure Rating

Rubber diaphragm: 232 psi (16 bar)
 High-steam PTFE diaphragm: 232 psi (16 bar)
 All other PTFE types: 145 psi (10 bar)
 All diaphragm types: 145 psi (10 bar)



Material of Construction

- Spindle – Stainless Steel BS EN 10088-3 1.4057
- Spindle Bush – Brass, ASTM B21 C48500 HO2
- Bonnet Inserts – Stainless Steel BS EN 10088-3 1.4305
- O Rings – Silicone Rubber
- Indicator Sleeve – Polyolefin
- Handwheel – PES
- Limit Stop Bush – PES or St.Steel
- Lock Screw – St. Steel
- Compressor – St Steel
- BS3100 304C15 - 0.50"-2.00" (DN15-50)
- BS3100 316C13 - 2.50"-3.00" (DN65-80)
- Compressor inserts – PES
- Cover Cap – Polypropylene

Recommended Bolting Torques

For attachment to valve body the following maximum torques are recommended:

Size (DN)	Maximum Torque (Nm)
0.50" (15)	3.7 lbf ft (5)
0.75" (20)	3.7 lbf ft (5)
1.00" (25)	4.4 lbf ft (6)
1.50" (40)	9.6 lbf ft (13)
2.00" (50)	18.4 lbf ft (25)
2.50" (65)	25.8 lbf ft (35)
3.00" (80)	36.9 lbf ft (50)

Accessory Options

- Proximity Switch, one closed position for sizes 0.50" & 0.75" (DN 15 & 20)
- Proximity Switch, open & closed for sizes 1.00"-3.00" (DN 25 - 80)
- V Notch vent plug
- Padlocking. Also available in kit form for retrospective fitting

Biopharm Compatibility

Materials of construction are FDA Compliant.

PES is suitable for wash-down with detergents, sodium hydroxide, hypochlorite, alcohols, dilute acids and autoclaving.

For other chemicals not stated above, contact the manufacturer.

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