

## Stainless Steel Sealed Bonnet Assembly

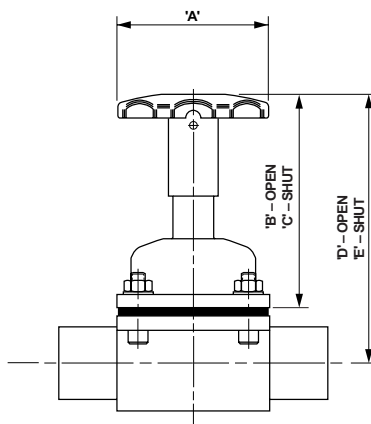
### HC4 Diaphragm Valves

Intended for the sterile Biotechnology and Pharmaceutical industries, this stainless steel bonnet assembly offers materials of construction suitable for high temperature, aggressive washdown and steam autoclave environments.

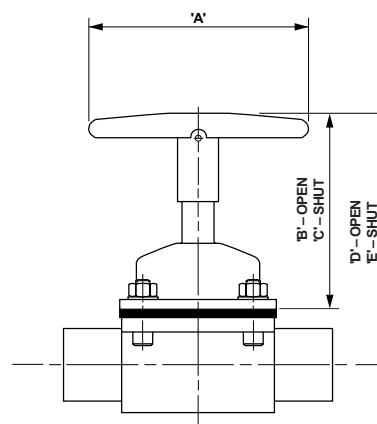
A silicone rubber seal arrangement ensures that in any unforeseen circumstance product containment is assured, even at maximum working pressure. The seal also prevents the ingress of foreign particulates from contaminating the internals of the bonnet.

The bonnet shell and internals are manufactured from 18/8 (Austenitic) grade stainless to match the chemical and physical properties of the valve body.

HC4/111/01/11.02



0.50"-2.00" (DN15-50)



2.50"-3.00" (DN65-80)

Size (DN)	A	B	C	D	E
0.50" (15)	2.44" (62mm)	3.27" (83mm)	2.99" (76mm)	3.98" (101mm)	3.70" (94mm)
0.75" (20)	2.44" (62mm)	3.31" (84mm)	3.03" (77mm)	4.13" (105mm)	3.86" (98mm)
1.00" (25)	3.15" (80mm)	3.82" (97mm)	3.43" (87mm)	4.80" (122mm)	4.41" (112mm)
1.50" (40)	3.94" (100mm)	5.00" (127mm)	4.41" (112mm)	6.34" (161mm)	5.75" (146mm)
2.00" (50)	4.41" (112mm)	5.83" (148mm)	4.88" (124mm)	7.40" (188mm)	6.46" (164mm)
2.50" (65)	6.69" (170mm)	7.01" (178mm)	5.79" (147mm)	8.94" (227mm)	7.72" (196mm)
3.00" (80)	8.66" (220mm)	7.72" (196mm)	6.26" (159mm)	9.92" (252mm)	8.46" (215mm)

#### Size Availability

AFP/A Type Valves: 0.50"-3.00" (DN15 to 80).  
Tank Mount & Customized Valves 0.50"-3.00" (DN15 to 80).

#### Standard Features

- Rising handwheel
- Smooth outer contour
- Electropolished Finish

#### Material of Construction (Bonnet)

- Bonnet: Stainless steel, BS 3100 316C16, electropolished
- Spindle: Stainless Steel BS EN 10088-3 grade 1.4057
- O ring: Silicone rubber
- Handwheel: Stainless steel FV 520, electropolished
- Compressor: Stainless Steel BS 3100 316C16

### Accessory Options

- V notch vent plug

### Biopharm Compatibility

Materials of construction are FDA compliant.

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

For other chemicals not stated above, contact the manufacturer.

### Temperature Rating

Maximum autoclave temperature 302°F (150 °C) where the valve is being sterilized and not in operation.

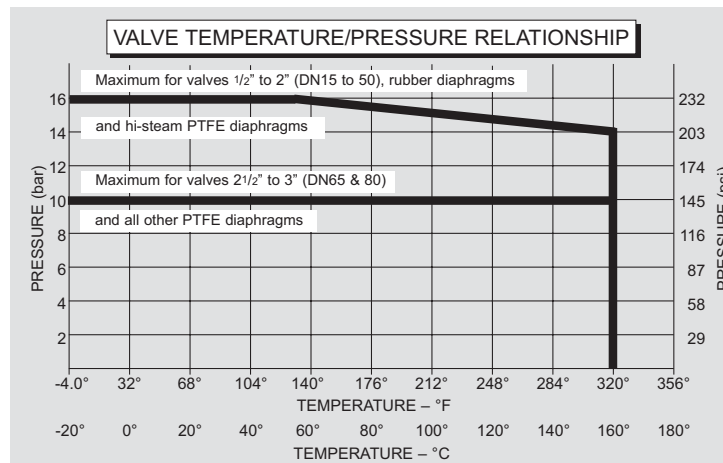
### Recommended Bolting Torques

For attachment to valve body the following torques are recommended, and should not be exceeded:

Size (DN)	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)

### Maximum Pressure Rating

- ½"-2" (DN15-50):  
 rubber diaphragm: 232 psi (16 bar)  
 hi-steam PTFE diaphragm: 232 psi (16 bar)  
 all other PTFE diaphragms: 145 psi (10 bar)
- 2½" & 3" (DN65 & 80):  
 all diaphragm types: 145 psi (10 bar)



Crane Process Flow Technologies  
 Saunders HC4 Products  
 9860 Johnson Road  
 Montgomery, Texas 77316  
 www.cranesaunders.com  
 PH 936-588-4447  
 Fax 936-588-8302