



Pure-Flo® & EnviZion® High Purity Diaphragm Valves

Product Selection Guide



ITT

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Product Details

Manually Operated Topworks

								
Type	Bio-Pure	Bio-Pure COP	Bio-Tek	903	913	963	970	ZH,ZHS
Size Range								
0.25 (DN6)	•	•	•					
0.38 (DN10)	•	•	•					
0.5" (DN15)	•	•	•	•	•	•	•	•
0.75" (DN20)				•	•	•	•	•
1" (DN25)				•	•	•	•	•
1.5 (DN32/40)				•	•	•	•	•
2" (DN50)				•	•	•	•	•
2.5" (DN65)				•	•	•		
3" (DN80)				•	•	•		
4" (DN100)				•	•	•		
Material	Bonnet: 316 Stainless Steel Handwheel: Polyethersulfone (PES)	Bonnet: 316 Stainless Steel Handwheel: Polyethersulfone (PES)	Bonnet: 316 Stainless Steel Handwheel: Polyethersulfone (PES)	Cast Iron coated White Epoxy or PVDF	Bonnet and Handwheel: Stainless Steel	Bonnet and Handwheel: Glass reinforced polyethersulfone (PES)	Bonnet: 316 Stainless Steel Handwheel: Glass reinforced polyethersulfone (PES)	Bonnet: Stainless Steel Handwheel: Polyethersulfone (PES) Bonnet Cover: Polyethersulfone (PES)
Maximum Service Pressure	150 psi 10.34 bar	150 psi 10.34 bar	150 psi 10.34 bar	0.5–1": 200 psig 13.8 bar	0.5–1": 200 psig 13.8 bar	150 psig 10.34 bar	0.5–1": 200 psig 13.8 bar	150 psig 10.34 bar
				1.5–2": 175 psig 12.1 bar	1.5–2": 175 psig 12.1 bar		1.5–2": 175 psig 12.1 bar	
				3–4": 150 psig 10.3 bar	3–4": 150 psig 10.3 bar			
Maximum Service Temperature	329°F (165°C)	329°F (165°C)	329°F (165°C)	See page D-9	See page D-9	300°F (149°C)	See page D-9	See page D-9
Pressure/ Temperature Limitations	See page D-9							
Autoclavable	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Sealed Option	No	Yes	Yes	Yes	Yes	Yes	No	Yes

963 Manual Bonnet

P Capable of withstanding typical washdown media, the 963 bonnet is a fully featured, compact, light-weight, yet rugged design. The 963 is packed with features that fulfill the most demanding requirements of today's critical bioprocessing systems.

Type: 963 & 963S

Size Range: 0.5–4" (DN15-DN100)

Service Pressure/Temperature:

Max Service Pressure:

150 psig (10.34 bar)

Max Service Temperature:

300°F (149°C)

External Temperature Limitations:

300°F (149°C)

Bonnet & Handwheel Material:

Glass reinforced polyethersulfone (PES)

FDA compliant to 21CFR 177.1660

Corrosion Resistance:

Resists alcohol, chloride and most caustic wash-downs.

For specific chemical resistance, consult factory.

Standard Features:

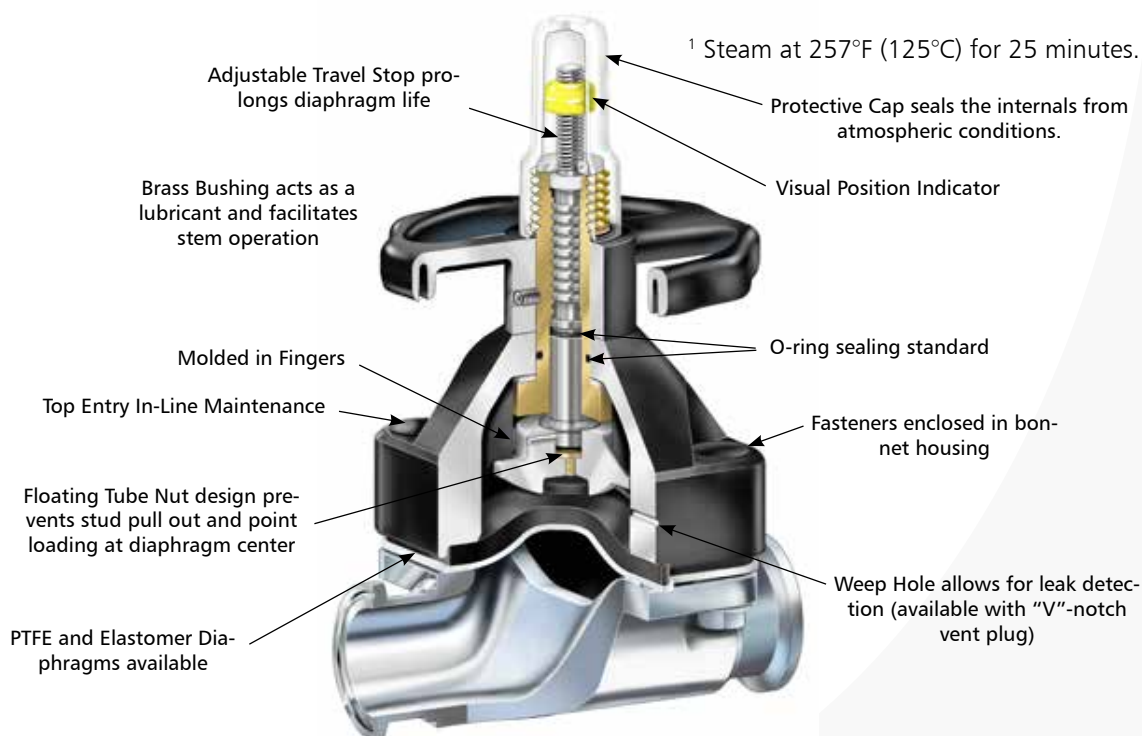
- Autoclavable¹
- Rising stem
- Adjustable travel stop
- Protective PPS cap
- Brass stem bushing
- Visual position indicator
- Permanent lubrication
- O-ring seals
- Stainless steel compressor
- 0.5 - 3" (DN15-DN50), stainless steel
- 4" (DN100) bronze
- Enclosed fasteners 0.5–3" (DN15–DN80)
- Hygienic internals: 0.5–4" (DN15-DN100)



Optional Features:

- Sealed bonnets: 963S
- Hygienic internals (M2): 3–4"
- Lockable: 0.5, 0.75, 1, 1.5, 2, 3, 4 in. sizes
- Available in blue, green, & yellow colored hand wheels (sizes 0.5, 0.75, 1, 1.5, 2")

Note: Bonnets manufactured 2010 and beyond with model number 963 and 963S and stainless compressor are autoclavable as standard. Bronze compressor versions are autoclavable only with S2-M2-M17 options.

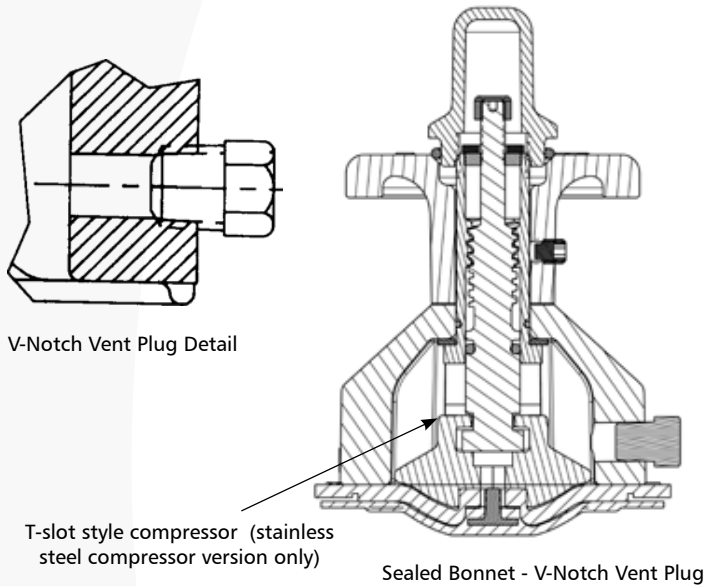


963 Manual Bonnet

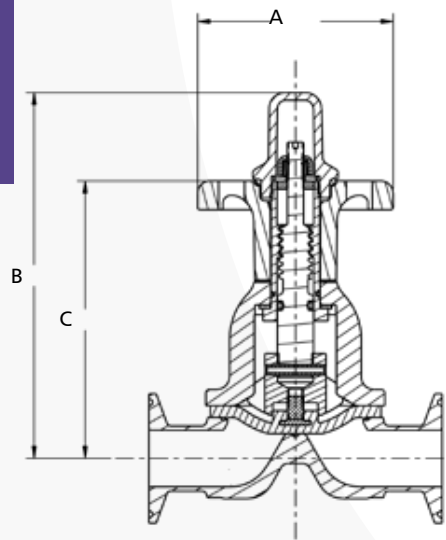
P Sealed Bonnet Option:
 A sealed bonnet provides a secondary containment area for process fluids if the diaphragm should ever fail. A v-notch vent plug is provided to serve as a leak detector and prevents the release of process fluids into the atmosphere. Sealed bonnets are an available option on 963 manual bonnets.

Colored Hand Wheel Option:
 The colored hand wheel option available in blue, green, and yellow will help you organize your operation and maintenance practices to:

- Organize your preventative maintenance work flow
- Segregate your valves by suite or process
- Simplify your work instructions (close the yellow valve)



Topworks



Weights and Dimensions for 963 Manual Bonnets

Valve Size		A		B		C		Bonnet Weight	
Inch	DN	Inch	mm	Inch	mm	Inch	mm	lb	kg
0.50	15	3.00	76,2	3.62	92,1	2.75	70,0	0.6	0,27
0.75	20	3.00	76,2	4.63	117,5	3.5	88,8	0.9	0,41
1.00	25	3.00	76,2	5.50	139,8	4.17	106,0	1.3	0,59
1.50	40	5.50	139,7	8.30	210,9	5.20	132,3	3.9	1,77
2.00	50	5.50	139,7	8.90	226,2	5.80	147,4	5.3	2,41
2.50 ¹	65	7.75	196,8	11.61	294,9	7.53	191,3	NA	NA
3.00	80	7.75	196,8	11.61	294,9	7.53	191,3	11.7	5,32
4.00	100	10.15	257,8	14.90	378,6	10.24	260,2	16.2	7,36

¹ The 2.5 in. (DN65) valve is a 3 in. (DN80) body and topworks with 2.5 in. (DN65) end connections.



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