Pure-Flo® Valve

The Pure-Flo brand is synonymous with the highest quality, precision engineered hygienic diaphragm valves. Pure-Flo valves offers superior hygienic processing components for the global hygienic processing industries (Pharmaceutical, Bioprocessing and Fine Chemical). Through both standard and custom designed valve assemblies, ITT Pure-Flo is committed to providing the best quality and value in engineered solutions for your unique flow-control needs.

The Pure-Flo valve product line began in 1978 as an extension to the venerable Dia-Flo product line. Since then ITT has been delivering to the Biopharm industry a reliable and process proven stainless steel hygienic diaphragm valve.





Process Proven Hygienic Diaphragm Valve

Providing products from standard forged valves to the most innovative block technology, each and every Pure-Flo valve is engineered to the highest standards.

- Bonnet isolation: The diaphragm isolates the working parts of the valve from process fluids.
- Streamlined fluid passage: The smooth contoured body, streamlined flow path, and high quality interior surface prevents accumulation of process fluids or contaminants.
- Minimual contact surface: The process contact surfaces (i.e. body and diaphragm) are minimal, enhancing the ease of cleaning and sterilization.
- Positive closure: The resilient diaphragm bead in contact with the metal weir assures positive closure.
- Ideal for CIP and SIP: Clean in place and steam in place operations may be performed in line without valve disassembly or operation.
- In-line maintenance: The top entry design allows for in-line maintenance.



Diaphragm Valve Bodies

ITT Pure-Flo has developed a line of valve bodies that help address the needs of the Bioprocessing and Pharmaceutical industries for high quality, welded process systems.

By providing valve bodies with controlled sulfur 316L/1.4435 stainless steel material and weld tangents long enough to accept the most common orbital weld heads in the industry, we have eliminated two of the most common concerns in valve-to-tube welding known today. Automatic welding of 316L process components is greatly affected by the sulfur content of the mating process components. A disparity of sulfur content can result in reduced orbital weld quality and potentially incomplete fusion of the mating components. By controlling valve body sulfur content to the same chemistry as that required for ASME BPE fittings, welding problems due to material chemistry differences will be greatly reduced.







970 Stainless Steel Manual Bonnet



Resistant to standard washdown protocols, the 970 stainless steel bonnet is the compact, autoclavable solution for Pharmaceutical/ Bioprocessing applications.

Type: 970

Size Range: 0.5-2" (DN15-DN50)

Max Service Pressure: 0.5–1" (DN15-25): 200 psig (13.8 bar) 1.5–2" (DN40-50): 175 psig (12.1 bar)

Max Service Temperature: See page D-9

Bonnet Material: 316 Stainless Steel



Handwheel Material: Glass reinforced polyethersulfone (PES) FDA compliant to 21CFR 177.1660

Corrosion Resistance:

Resists alcohol, chloride and most caustic washdowns. For specific chemical resistance, consult factory.

Standard Features:

- Easy assembly and disassembly
- Rising handwheel
- Adjustable travel stop*
- Visual position indicator
- O-ring splash seal
- Stainless steel stem
- Bronze compressor/ Stainless Steel Optional



*	Patent	#	6.241	.213
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Valve	e Size	Bonnet Weight		
Inch	DN	lb.	kg.	
0.50	15	0.97	0,44	
0.75	20	1.23	0,56	
1.00	25	1.67	0,76	
1.50	40	5.00	2,27	
2.00	50	6.50	2,95	

Valve Size		А		В		с	
Inch	DN	Inch	mm	Inch	mm	Inch	mm
0.50	15	2.75	69,9	3.69	93,7	3.90	99,1
0.75	20	2.75	69,9	4.11	104,4	4.32	109,7
1.00	25	2.75	69,9	4.74	120,3	4.95	125,7
1.50	40	5.25	133,3	6.05	153,6	6.53	165,9
2.00	50	5.25	133,3	6.05	153,6	6.53	165,9

Note: Handwheel diameter and assembly heights are from body centerline to top of bonnet assembly.

¹ Tri Clamp, TC x BW, Short Tangent BW

² Extended BW Forging

³ ISO/DIN