

Sanitary Diaphragm Valve

Description

The types 601 and 602 are extremely compact valves with many features which make them ideal for pharmaceutical and bio-processing applications.

Standard Features

- Compact Design
- Ultem® 1000 handwheel, standard with type 601
- Stainless steel handwheel, standard with type 602
- Stainless steel bonnet with sanitary internals
- Internal adjustable travel stop (U.S. Pat. 5 377 956)
- Adjustable minimum flow regulator
- Autoclavable (Type 602), SIP (Type 601)
- Visual position indicator
- FDA compliant diaphragms
- Body material 316L stainless steel
- Triclamp®, O.D. Tubing, ISO, and DIN end connections
- Sizes 1/4", 3/8", 1/2"

Typical Applications

- Pharmaceutical manufacturing
- Bioprocessing
- Cosmetic
- Brewery Services
- Food and Beverage
- Semiconductor
- High Purity Chemicals

Also Available from Tri-Canada and Gemu

- Type 611/612 manual diaphragm valves (3/8" - 3/4")
- Type 671/673 manual diaphragm valves (1/2" - 6")
- Type 687/695 air operated diaphragm valves (1/2" - 6")
- Cluster valve assemblies for both horizontal and vertical orientations
- Zero Static T-valves, Duplex, Multiported, Bottle Sampling, Tank Bottom, Side Sampling and custom fabrications upon request.

Other Biopharm Products available from Tri-Canada

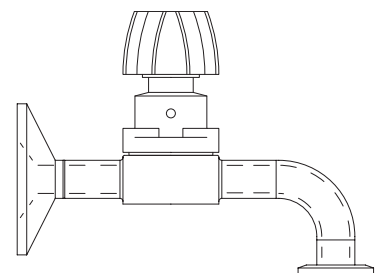
- Replacement diaphragms for ITT, Saunders and Gemu valves
- High purity hose assemblies
- BPE Spec tubing and fittings
- Fristam centrifugal pumps
- Class VI gaskets



Type 601

Available with Tri-Clamp connections from stock at

Tri-Canada



**Custom Configurations,
such as Sample Valve above,
available with 3 day delivery**

Type 601/602 Technical & Dimensional Data

Size (In.)	Nominal bore (mm)	Operating pressure (psi)	C _v -value (gpm)		Body configuration D = straight through	Weight (lbs)	
			ISO Connection	O.D. Tubing		601	602
1/4	8	0 - 150	2.93	1.05	D	.35	.49
3/8	10	0 - 150	-	1.99	D	.35	.49
1/2	15	0 - 150	-	2.93	D	.35	.49

All pressure values are specified in psig.

Max. perm. temperature of the operating medium; 302° F (150°C)
(Depending on diaphragm material)

The valve is completely sealed in both flow directions up to full operating pressure.

Body Configuration	Ref.no.
Tank bottom valve body	B
2-way valve body	D
2-way angled valve body	E
Multiported valve body	M
Zero Static T-Valve	T
U-bend	U

Diaphragm material	Ref.no.
Ethylene-propylene Rubber for saturated steam max 302° F	EPDM - 13 3A
2nd generation, modified PTFE with Ethylene-proplene backing	TFM/EPDM 5A

All diaphragms listed conform to the FDA code of Federal Regulations paragraph 177.2600 of section 21.

Connection	Ref.no.
Butt weld OD tubing	59
Sizes 1/4-3/8" 20 gauge .035" wall	
Sizes 1/2-3" 16 gauge .065" wall	
Sizes 4" 14 gauge .083" wall	
Tri-clamp®	80
O.D. Tubing by Triclamp®	93
Extended O.D. Tubing	94
Extended O.D. Tubing by Triclamp®	95

Surface finish							Ref.no.
μ-in.		BPE Surface Designation	Ra Average [Note (1)]		Ra Max		
			μ-in.	μm	μ-in.	μm	
32	Mechanical	SFV3	25	0.625	30	0.750	3
25	Mechanical	SFV3	25	0.500	25	0.625	1502
20	E-pol	SFV6	20	0.500	25	0.625	1508
20	Mechanical	SFV2	20	0.500	25	0.625	1507
15	E-pol	SFV5	15	0.375	20	0.500	1537
11	Mechanical	SFV1	15	0.375	20	0.500	1536
10	E-pol	SFV4	10	0.250	15	0.375	1516

GENERAL NOTE: All Ra readings are taken across the grain.
NOTE: (1) The average Ra is derived from two readings taken at different locations.

Body material	Ref.no.
Forged Body	
Stainless steel 316 L 1.4435 (ASTM A 182)	40

Gemu Type 601 Dimensions

Size	DN	Con. Ref. No.		(59) L1	(80) L2	(94) L3	(93) L4	(95) L5
		Units	Ød s					
1/4	8	mm	6.35	0.89	72.00	63.50	148.20	67.75
		in	0.250	0.035	2.835	2.500	5.835	2.667
3/8	10	mm	9.53	0.89	72.00	63.50	148.20	67.75
		in	0.375	0.035	2.835	2.500	5.835	2.667
1/2	15	mm	12.70	1.65	72.00	63.50	148.20	67.75
		in	0.500	0.065	2.835	2.500	5.835	2.667

- L1 = Connection Code 59 = Standard butt-weld
- L2 = Connection Code 80 = Standard clamp
- L3 = Connection Code 94 = Standard butt-weld extension (AWF)
- L4 = Connection Code 93 = Standard clamp X butt-weld
- L5 = Connection Code 95 = Standard clamp X butt-weld extension (AWF)

