

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

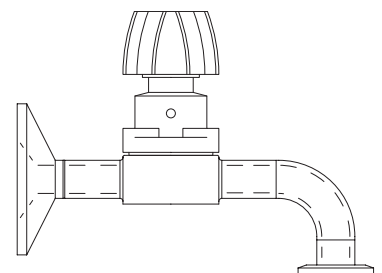
- Replacement diaphragms for ITT, Saunders and Gemu valves
- High purity hose assemblies
- BPE Spec tubing and fittings
- Fristam centrifugal pumps
- Class VI gaskets



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

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.

All pressure values are specified in psig.

Body Configuration

Tank bottom valve body
2-way valve body
2-way angled valve body
Multiported valve body
Zero Static T-Valve
U-bend

Ref.no.

B
D
E
M
T
U

Diaphragm material

Ethylene-propylene Rubber for saturated steam max 302° F

2nd generation, modified PTFE with Ethylene-propylene backing

EPDM - 13

TFM/EPDM

Ref.no.

3A

5A

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

Connection

Butt weld OD tubing
 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®
O.D. Tubing by Triclamp®
Extended O.D. Tubing
Extended O.D. Tubing by Triclamp®

Ref.no.

59

80
93
94
95

Surface finish

μ-in.		BPE Surface Designation	Ra Average [Note (1)]		Ra Max		Ref.no.
			μ-in.	μm	μ-in.	μm	
32	Mechanical	SFV3	25	0.625	30	0.750	3
25	Mechanical	SFV3	20	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

Forged Body

Stainless steel 316 L 1.4435 (ASTM A 182)

Ref.no.

40

Gemu Type 601 Dimensions

Size	DN	Units	Con. Ref. No.		(59) L1	(80) L2	(94) L3	(93) L4	(95) L5
			Ød	s					
1/4	8	mm	6.35	0.89	72.00	63.50	148.20	67.75	105.85
		in	0.250	0.035	2.835	2.500	5.835	2.667	4.167
3/8	10	mm	9.53	0.89	72.00	63.50	148.20	67.75	105.85
		in	0.375	0.035	2.835	2.500	5.835	2.667	4.167
1/2	15	mm	12.70	1.65	72.00	63.50	148.20	67.75	105.85
		in	0.500	0.065	2.835	2.500	5.835	2.667	4.167

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)

