Type 761 Diaphragm Valves

CHEMLINE PLASTICS
SUPERIOR FLOW SOLUTIONS

PVC CPVC PP PVDF

Manual Operation

SERIES: Type 761

SIZES: 1/2" to 2-1/2"

ENDS: True Union Socket, Threaded or ChemFlare™[1] Spigot[2] bodies with Plain, Socket, Threaded or Flanged ends

DIAPHRAGMS: EPDM[3], FKM-B (Viton®) or PTFE

True Union Body

The Chemline **Type 761** Manual Diaphragm Valve is part of the 700 Series of diaphragm valves. 700 Series valves have modular design and interchangeable bodies, diaphragms and actuators. The Type 761 features compact size and all plastic construction for corrosion resistance and light weight. Being a diaphragm valve it is suitable for sanitary or slurry applications. Because it is slow closing, water hammer problems are eliminated. This is also a good throttling valve. With a PTFE diaphragm, it has corrosion resistance superior to ball or butterfly valves.

When a few manual valves are required on a system using the pneumatically actuated 700 Series, the Type 761 is a good choice because the bodies and diaphragms are the same.

Features

Solid Plastic Body and Actuator
- Light weight
- Corrosion resistant inside and out

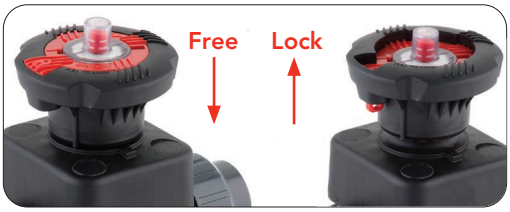
Excellent for Sanitary Applications
- Self draining
- PVDF and unpigmented PP bodies are approved for food applications
- Sanitary clamp end connections are available

Butt Fusion Ends available
- Spigot bodies are available 1/2" to 3" for direct butt fusion into Chemline PP and PVDF piping systems. All mechanical connections may be eliminated.

Modular Construction
- Only 5 actuator and diaphragm sizes for 9 valve sizes. Spare parts requirements are minimized.

No Maintenance
- Elastomer diaphragms have life well over one million cycles, but if necessary they are easy to replace

Built-in Locking Device
- Handwheel locking system that prevents the valve from being operated
- Engaged by simply lifting the handwheel
- Accepts a lock or hasp



[1] For ChemFlare™ end connectors, consult Chemline
[2] PP and PVDF spigot ends have metric dimensions and will butt fuse directly to Chemline PP and PVDF piping systems. PVC spigots are ANSI
[3] Epoxy cured EPDM

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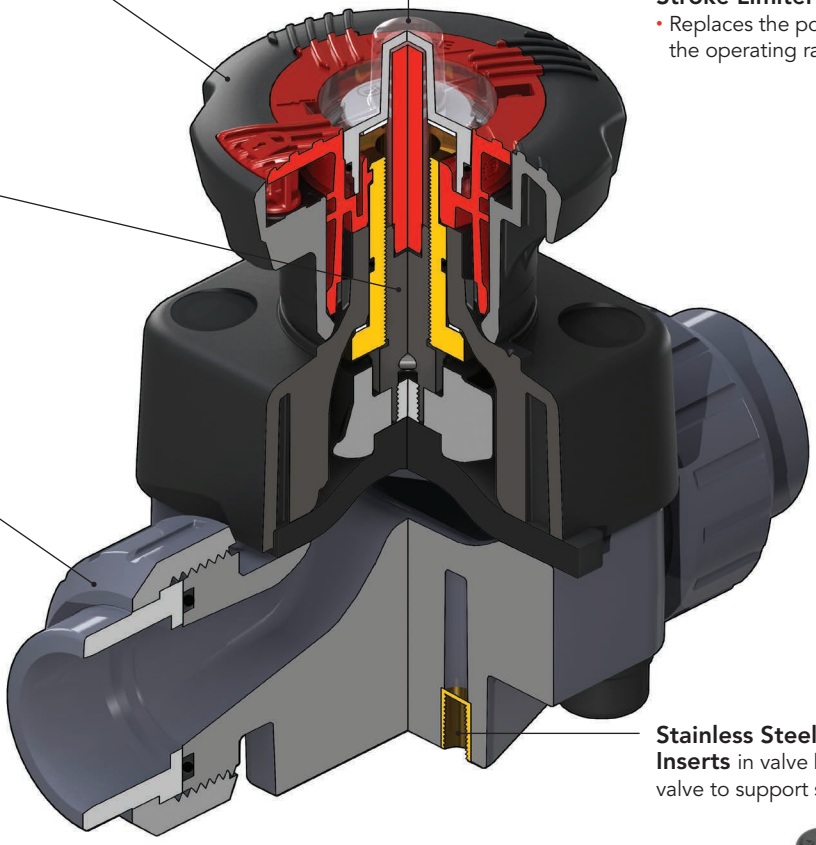
Actuator Housing of PPG
(Glass reinforced PP)
Virtually unbreakable, corrosion proof and lightweight

Polished **SS Spindle and Self-Lubricating Bearing** provide extremely long cycling life

True Union Body
- For easy replacement without modifying the piping
- Spigot or solid flanged bodies are also available



Built-In Handle Locking Device
- Lift and lock handwheel in the required position

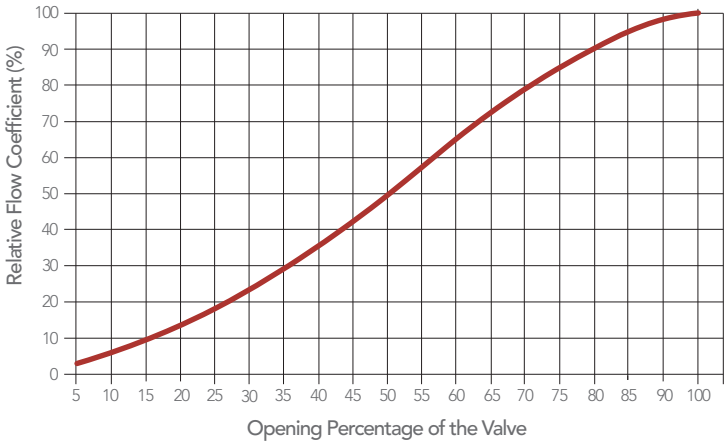
Stroke Limiter Option
- Replaces the position indicator, to limit the operating range

Stainless Steel Threaded Inserts in valve base for fixing valve to support structures

LINE PRESSURES VS. TEMPERATURE PSI

Temperature °C	Temperature °F	PVC	CPVC	PP	PVDF
0–20	32–68	150	150	150	150
40	104	90	110	110	150
60	140	25	90	75	115
70	158	–	65	60	100
80	176	–	40	30	85
100	212	–	15	–	50

RELATIVE FLOW COEFFICIENT



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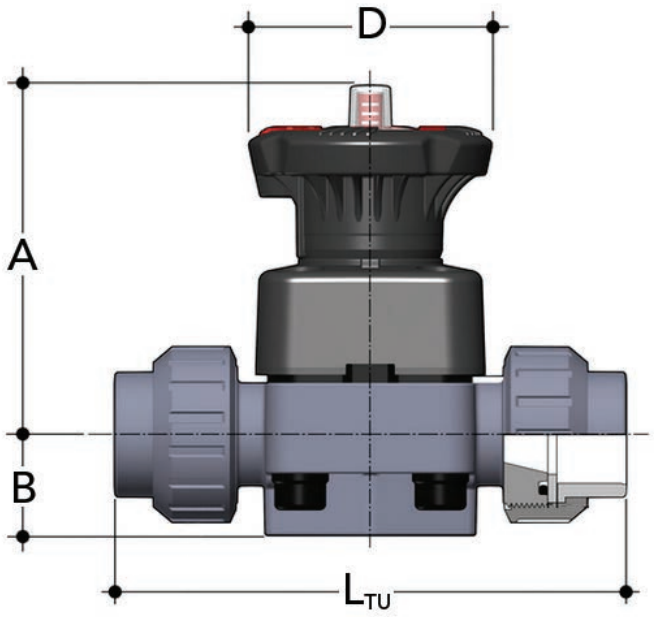
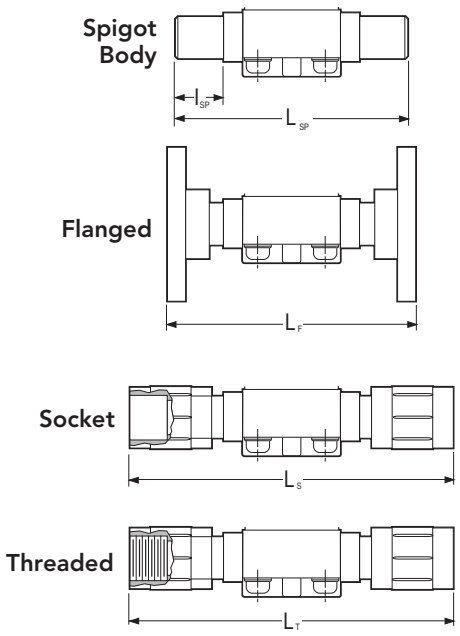
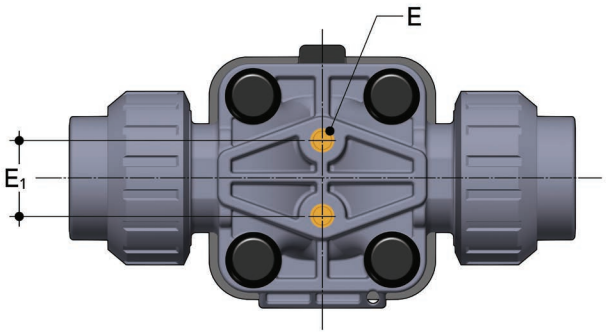


True Union Body



NON UNION ENDS



Bottom View

DIMENSIONS INCHES

Cv WEIGHTS VALUES

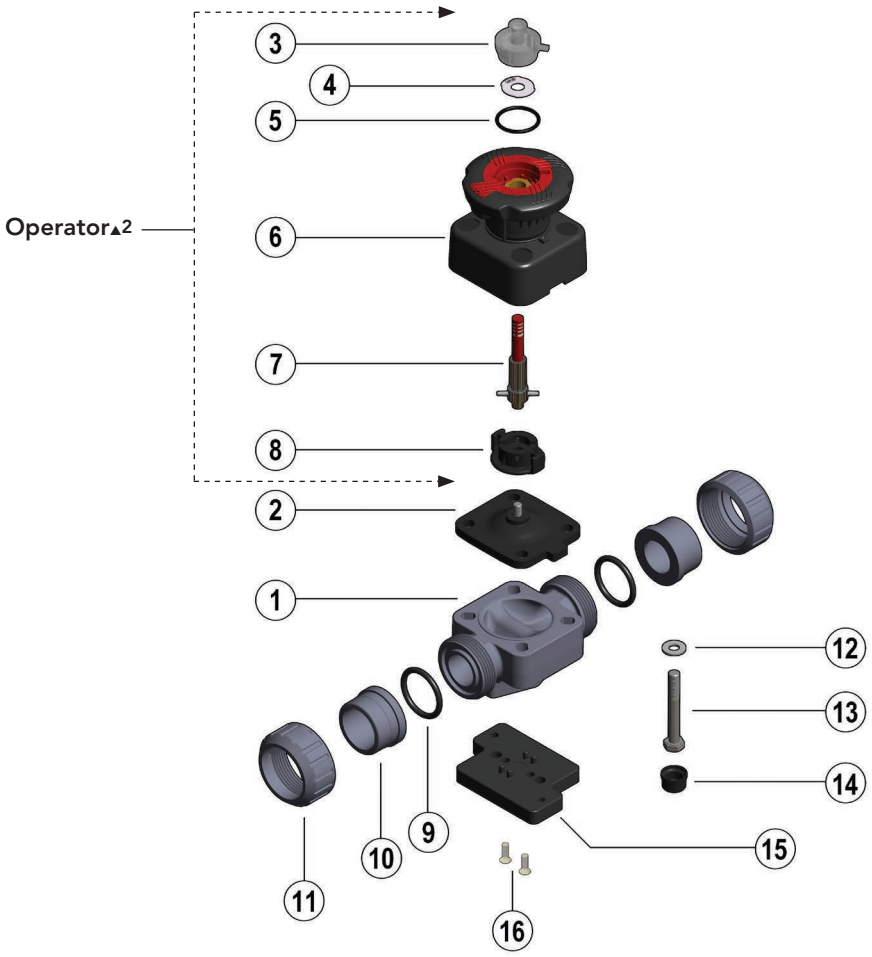
Size	A	B	D	E	E_1	l_{SP}	Union Soc L_{TU}	Spig L_{SP}	Soc[1] L_S	Thd[1] L_T	PVC/CPVC Flg[1] L_F	PP/PVDF Flg[1] L_F	Flg"S"[2] L_{FS}	Pounds	C_V
1/2"	4.0	1.0	3.1	M6	1.0	0.6	5.6	4.9	6.9	6.7	5.2	6.8	–	1.2	7.5
3/4"	4.1	1.2	3.1	M6	1.0	0.7	6.6	5.7	8.1	7.5	6.0	7.6	5.9	1.4	17.5
1"	4.5	1.3	3.1	M6	1.0	0.9	7.1	6.1	8.6	8.3	6.3	8.0	5.9	2.0	29.9
1-1/4"	4.7	1.2	3.1	M8	1.8	1.0	8.2	6.9	9.5	9.1	7.2	8.8	6.4	2.4	36.9
1-1/2"	5.8	1.4	4.7	M8	1.8	1.2	9.2	7.6	10.8	10.8	8.1	9.5	6.9	4.4	72.9
2"	6.8	1.8	4.7	M8	1.8	1.5	10.7	8.8	12.1	11.1	9.3	10.7	7.9	7.1	110.5
2-1/2"	6.8	2.0	4.7	M12	3.9	1.7	–	11.2	15.1	14.7	11.8	13.1	–	6.3	107.3

[1] Socket, Threaded and Flanged fabricated are for PVC and CPVC valves only. Consult Chemline for PP or PVDF fabricated spigot body dimensions.

[2] **Flanged "S"** = ITT Saunders plastic lined valve length.

Weights are for PVC Spigot valves.

Type 761 Diaphragm Valves



PARTS

▲ Recommended Spare Parts

No.	Part	Pcs.	Materials
1▲	Valve Body	1	PVC, CPVF, PP, PVDF
2▲	Process Diaphragm	1	EPDM, FKM (Viton®), PTFE
3	Transparent Cap	1	PVC
4	Customization Plate	1	PVC
5	Cap O-Ring	1	EPDM
6	Bonnet Handwheel	1	PP-GR/PVDF
7	Threaded Stem Ind.	1	Stainless Steel
8	Compressor	1	IXEF
9▲	Socket Seal O-Ring	2	EPDM, FKM
10	End Connector	2	PVC, CPVF, PP, PVDF
11	Union Nut	2	PVC, CPVF, PP, PVDF
12	Washer	4	Stainless Steel
13	Bolt	4	Stainless Steel
14	Protection Plug	4	PE
15	Distance Plate [1]	1	PP-GR
16	Screw [1]	2	Stainless Steel

[1] Accessories
[2] Complete operator only available as spare part

ORDERING EXAMPLE

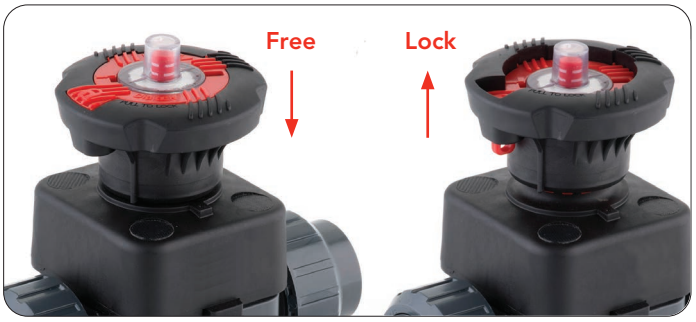
Chemline Diaphragm Valves	761	010	A	E	U
Size	**005** – 1/2" **007** – 3/4" **010** – 1" **012** – 1-1/4" **015** – 1-1/2" **020** – 2" **025** – 2-1/2"				
Body Material	**A** – PVC **B** – PP **C** – CPVC **K** – PVDF				
Diaphragm	**E** – EPDM **B** – Nitrile **V** – FKM-B (Viton®) **P** – PTFE one-piece[1] **P2** – PTFE two-piece				
Ends	**Blank** – Spigot (Butt) **S** – Socket **T** – Threaded **F** – Flanged **U** – Union Socket **CF** – ChemFlare™				

Example: Chemline Type 761 Diaphragm Valve, 1" PVC body, EPDM diaphragm, Socket Union ends.
[1] PTFE one-piece diaphragm is supplied standard.

Options & Accessories

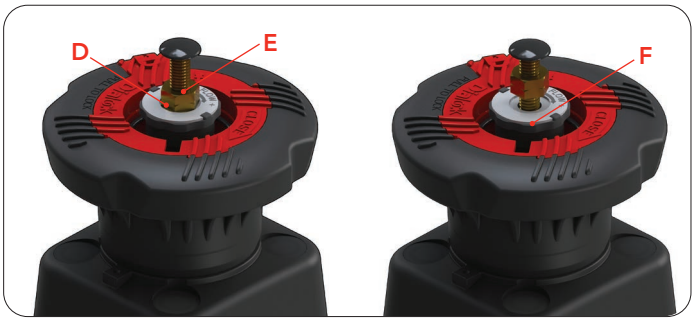
LOCKING DEVICE

The 761 valve is equipped with a handwheel locking system that prevents the valve from being operated.The system can be engaged by simply lifting the handwheel once the required positionhas been reached (fig. 8).To release the operating mechanism, simply return the handwheel to its previous positionby pushing it downwards (fig. 6).When the system is in the locked position, a lock can be installed to protect the plant against unwanted interference (fig. 9).



STROKE LIMITER

The version of the diaphragm valve equipped with a handwheel stroke control system allows the minimum and maximum flows to be preset. The system allows the valve stroke to be modified using the two independent adjusting screws, which determine the mechanical limits of the valve during opening and closing. The valve is sold with the stroke limiters positioned such that does not limit the opening or closing stroke.



To access and set the adjusting screws, remove the transparent protection cap (A) as previously described (see chapter "Customization").

Travel stop adjustment. Minimum flow rate

1) Rotate the handwheel clockwise until the required minimum flow rate is reached.

2) Screw in nut (D) as far as it will go and lock it in this position by tightening the locknut (E).

If it is not necessary to limit the closing stroke, completely unscrew nuts (D and E). In this way, the valve will fully close.

3) Re-assemble the transparent protection cap making sure that the seal O-Ring remains in its seating.

Stroke limiter adjustment. Maximum flow rate

1) Rotate the handwheel anticlockwise until the required maximum flow rate is reached.

2) Rotate knob (F) anticlockwise as far as the stop. The plate indicates the direction of rotation of the wheel required to obtain a higher or lower maximum flow rate.

If the opening stroke does not need to be limited, rotate the knob (F) clockwise a number of times. In this way, the valve will fully open.

3) Re-assemble the transparent protection cap making sure that the seal O-Ring remains in its seating.

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