

# Triple Service Valve Assembly



SEE VICTAULIC PUBLICATION 10.01 FOR DETAILS

Victaulic Tri-Service valve is an assembly (*shipped as individual components*) of a standard Victaulic butterfly or Vic-Plug™ valve and a check valve. This combination provides shut-off, throttling with positive mechanical memory and non-slam check service in one unit. The Series 779 check valve features accurate flow measurement capabilities plus spring assisted closing in a high flow design. The venturi-like inlet is drilled, tapped and plugged, ready to receive the flow measuring taps (included).

Triple seal butterfly valve design eliminates the packing commonly found in many globe-type combination units. Infinitely variable and latchlock handles are available for 2 ½ – 8"/65 – 200 mm sizes. Low torque gear operator eases manual operation and actuation costs. Butterfly/check valve assemblies are available on all sizes from 2 ½ – 12"/65 – 300 mm. Assembly with either Style 07 Zero-Flex® rigid couplings or Style 77 standard flexible couplings provides the option of rigidity or a flexible connection for noise/vibration isolation.

Plug/Check combinations are available with manual handles for 3 – 8"/80 – 200 mm sizes and with gear operators for 3 – 12"/80 – 300 mm sizes.

For 3 – 12"/80 - 300mm systems, Style 307 transition couplings directly join Vic-Plug to the check valve and steel piping system.

Working pressures for 2 ½ – 12"/65 - 300mm sizes of butterfly/check combinations are 300 psi/2065 kPa and 175 psi/1200 kPa for plug/check combinations. All configurations can be installed horizontally or vertically.

All butterfly and plugs for triple service assemblies are available with memory stop.

NOTE: When using Series 716 valves in place of Series 779, flow data, end-to-end dimensions and weights are the same.



TRIPLE SERVICE GEAR OPERATOR VIC-PLUG AND CHECK VALVE



TRIPLE SERVICE MANUAL OPERATOR BUTTERFLY VALVE AND CHECK VALVE

**JOB/OWNER**

System No. \_\_\_\_\_

Location \_\_\_\_\_

**CONTRACTOR**

Submitted By \_\_\_\_\_

Date \_\_\_\_\_

**ENGINEER**

Spec Sect \_\_\_\_\_ Para \_\_\_\_\_

Approved \_\_\_\_\_

Date \_\_\_\_\_

[www.victaulic.com](http://www.victaulic.com)

VICTAULIC IS A REGISTERED TRADEMARK OF VICTAULIC COMPANY. © 2009 VICTAULIC COMPANY. ALL RIGHTS RESERVED.

REV\_I



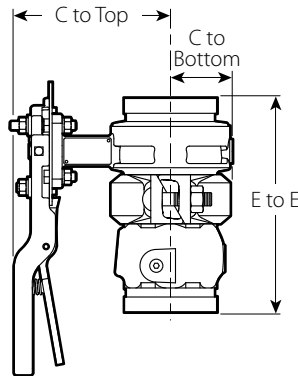
# Triple Service Valve Assembly

## DIMENSIONS

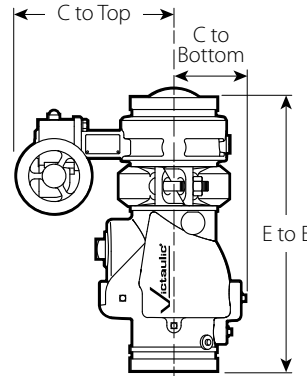
### TRI-SERVICE BUTTERFLY/CHECK VALVE COMBINATION

Valve Size		Dimensions – Inches/millimeters				Approx. Weight Each Lbs/kg	
Nominal Diameter Inches/mm	Actual Outside Diameter Inches/mm	Center to Top		Center to Bottom	End to End	Manual Handle	Gear Operator
		Handle	Gear				
2½	2.875	5.88	7.28	2.13 ‡	7.75	13.7	13.7
65	73.0	149	185	54	197	6.2	6.2
76.1 mm	76.1	149	185	54	197	6.2	6.2
	3.000	5.88	7.28	2.13‡	7.75	13.7	13.7
3	3.500	6.13	7.53	2.50‡	8.12	16.0	16.0
80	88.9	156	191	64	206	7.3	7.3
4	4.500	6.88	8.28	4.00	14.38	33.1	33.1
100	114.3	175	210	102	365	15.0	15.0
5	5.536	7.88	9.81	4.62	16.50	47.4	48.2
125	141.3	200	249	117	419	21.5	21.9
139.7 mm	139.7	200	249	117	419	21.5	21.9
	5.500	7.88	9.81	4.62	16.50	47.4	48.2
6	6.625	8.38	10.31	5.00	17.50	59.5	60.3
150	168.3	213	262	127	444	27.0	27.4
165.1 mm	165.1	213	262	127	444	27.0	27.4
	6.500	8.38	10.31	5.00	17.50	59.5	60.3
8	8.625	9.51	11.56	6.12	19.50	92.6	93.4
200	219.1	242	294	155	495	42.0	42.4
10	10.750	—	15.13	7.18	23.50	—	205.0
250	273.0	—	384	182	597	—	93.0
12	12.750	—	16.13	8.12	26.12	—	265.7
300	323.9	—	410	206	663	—	120.5

‡ Based on Style 77 couplings. When using Style 07 dimensions are 1.94"/49.28mm for 2½"/65mm and 76.1 mm sizes and 2.25"/57.15mm for 3"/80mm size



2½ – 3" TYPICAL WITH VIC-300 MASTERSEAL MANUAL OPERATOR BUTTERFLY AND SERIES 716 VIC-CHECK VALVES



4 – 12"/100 - 300MM TYPICAL WITH VIC-300 MASTERSEAL GEAR OPERATOR BUTTERFLY AND SERIES 716 OR 779 VIC-CHECK VALVES

**Note:** Assembly is provided with either Style 07 Zero-Flex rigid couplings or Style 77 standard flexible couplings. Specify choice when ordering.

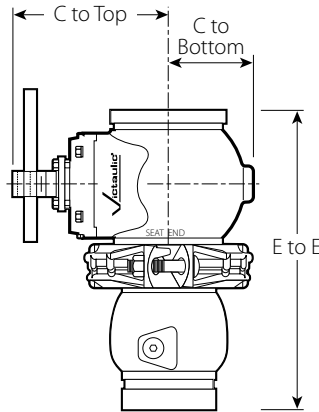
# Triple Service Valve Assembly

## DIMENSIONS

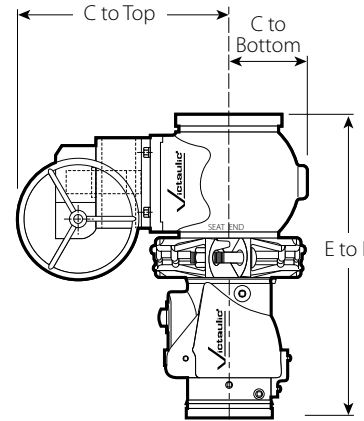
### TRI-SERVICE PLUG/CHECK VALVE COMBINATION

Valve Size		Dimensions – Inches/millimeters				Approx. Weight Each Lbs/kg	
Nominal Diameter Inches/mm	Actual Outside Diameter Inches/mm	Center to Top		Center to Bottom	End to End	Manual Handle	Gear Operator
		Handle	Gear				
3	3.500	8.25	12.38	3.75	12.25	40.0	50.0
80	88.9	210	315	95	311	18.1	22.7
4	4.500	8.75	12.87	4.44	18.62	60.0	70.0
100	114.3	222	327	113	473	27.2	31.8
6	6.625	10.00	13.75	5.56	22.00	110.0	130.0
150	168.3	254	349	141	559	49.9	59.0
8	8.625	—	17.10	6.87	25.50	180.0	210.0
200	219.1	—	434	175	648	81.6	95.3
10	10.750	—	22.63	8.00	30.00	—	307.0
250	273.0	—	575	203	762	—	139.3
12	12.750	—	24.50	9.50	33.50	—	412.0
300	323.9	—	622	241	851	—	186.9

For connecting Vic-Plug valve to Vic-Check valve or IPS steel pipe (3 – 12"/80 - 300mm), refer to Style 307 Transition coupling in 23.03.



3" / 80MM TYPICAL SERIES 377 VIC-PLUG WITH MANUAL HANDLE, SERIES 716 VIC-CHECK VALVE, AND SERIES 307 COUPLING



4 – 12" / 100 - 300MM TYPICAL SERIES 377 VIC-PLUG WITH MANUAL HANDLE, SERIES 716 VIC-CHECK VALVE, AND SERIES 307 COUPLING

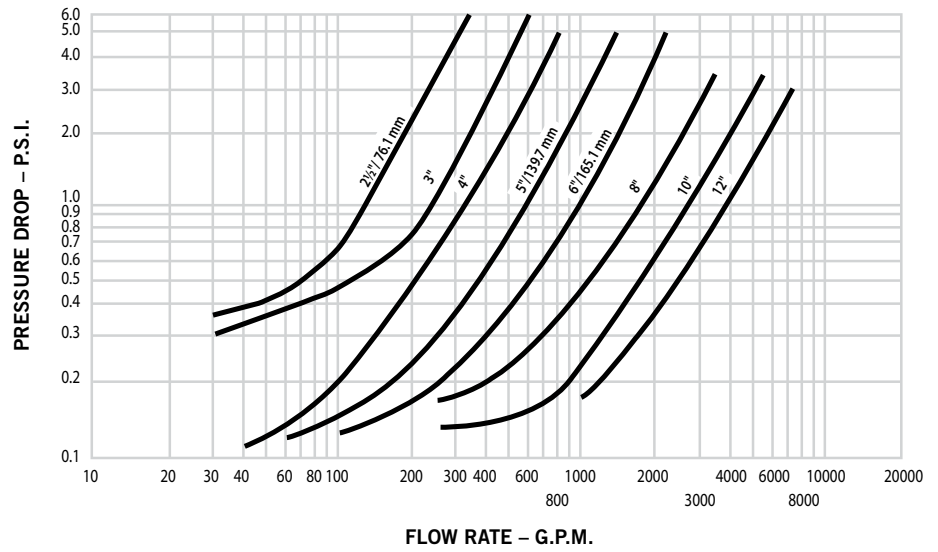
**Note:** Assembly is provided with either Style 07 Zero-Flex rigid couplings or Style 77 standard flexible couplings. Specify choice when ordering.

# Triple Service Valve Assembly

## PERFORMANCE

### Tri-Service Butterfly/Check Valve Combination

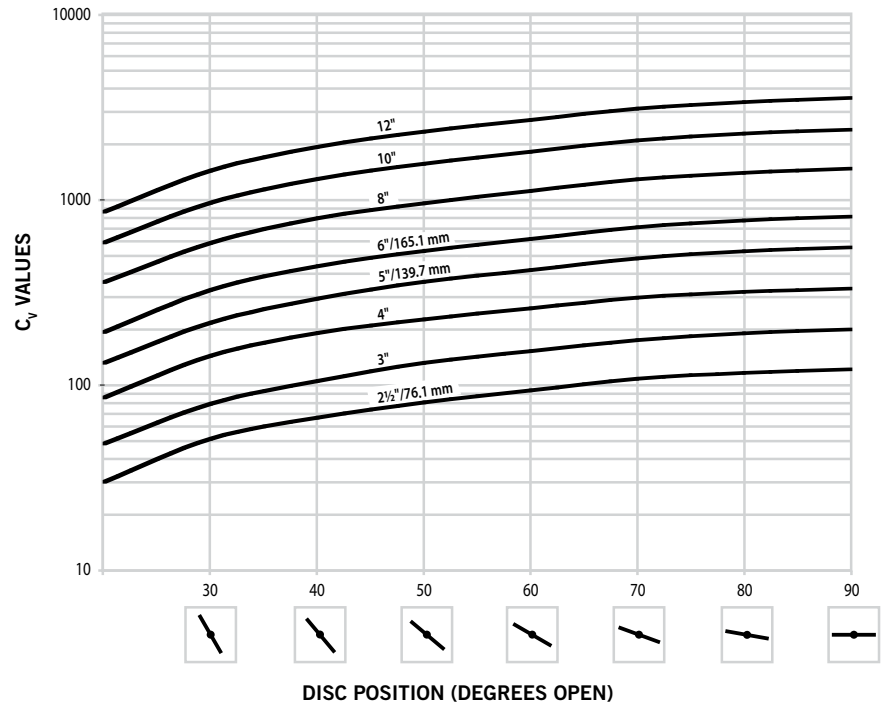
NOTE: Placement of check valves too close to sources of unstable flow will shorten the life of the valve and potentially may damage the system. To extend valve life, valves should be installed a reasonable distance downstream from pumps, elbows, expanders, reducers or other similar devices. Sound piping practices dictate a minimum of five (5) times the pipe diameter for general use. Distances between three (3) and five (5) diameters are allowable provided the flow velocity is less than 8 1/2.5m per second (2.4 mps). Distances less than three (3) diameters are not recommended and will violate the Victaulic product warranty.



# Triple Service Valve Assembly

**PERFORMANCE**

**Tri-Service Butterfly/Check Valve Combination**  
**Flow Coefficients – C<sub>v</sub>**

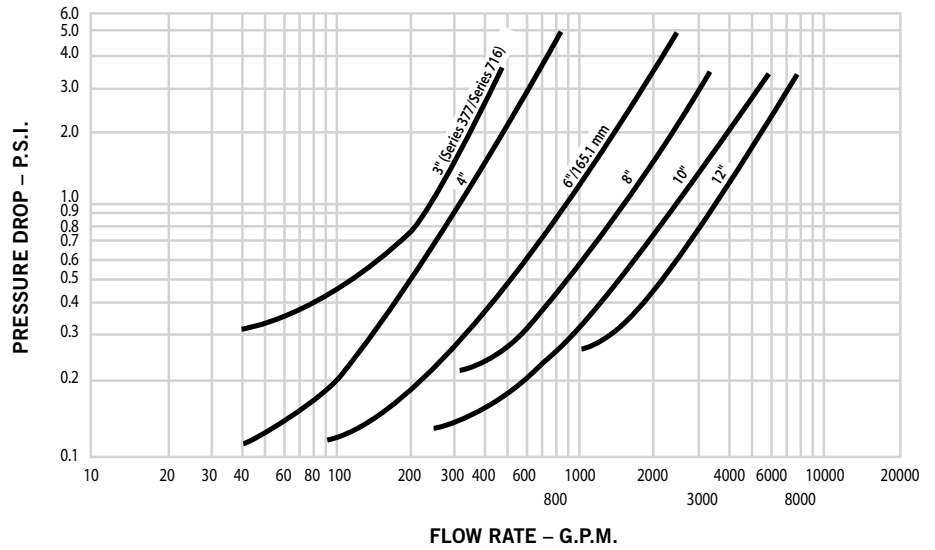


# Triple Service Valve Assembly

## PERFORMANCE

### Tri-Service Plug/Check Valve Combination

NOTE: Placement of check valves too close to sources of unstable flow will shorten the life of the valve and potentially may damage the system. To extend valve life, valves should be installed a reasonable distance downstream from pumps, elbows, expanders, reducers or other similar devices. Sound piping practices dictate a minimum of five (5) times the pipe diameter for general use. Distances between three (3) and five (5) diameters are allowable provided the flow velocity is less than 8 1/2 m per second (2.4 mps). Distances less than three (3) diameters are not recommended and will violate the Victaulic product warranty.



## Triple Service Valve Assembly

### IMPORTANT INSTALLATION CONSIDERATIONS

For installing a Victaulic triple service valve assembly into a piping system, follow the instructions supplied with the coupling. Refer to the notes below for applications/limitations.



**DO NOT INSTALL BUTTERFLY VALVES INTO THE SYSTEM WITH THE DISC IN THE FULLY OPEN POSITION.**

When using valves for throttling service, Victaulic recommends the disc or plug be positioned no less than 30 degrees open. For best results, the disc or plug should be between 30 and 70 degrees open. High pipeline velocities and/or throttling with the disc or plug less than 30 degrees open may result in noise, vibration, cavitation, severe line erosion, and/or loss of control. For details regarding throttling services, contact Victaulic.

Victaulic recommends that flow velocities for water service are limited to 20 ft/sec/6.1 m/sec. When higher flow velocities are necessary, contact Victaulic. When dealing with flow media other than water, contact Victaulic.

#### Triple Service with Butterfly Valve

Victaulic Butterfly Valves are designed with grooved ends for use with grooved pipe couplings. If flange connections are required, refer to the following notes regarding Vic-Flange Adapter restrictions.

- Style 741 Vic-Flange Adapters can be used on all sizes Vic-300 MasterSeal Butterfly Valves.
- Style 743 Vic-Flange Adapters cannot be used with Vic-300 MasterSeal Butterfly Valves. A No. 46 groove by ANSI Class 300 flange adapter is required.

#### Triple Service with Plug Valve

Vic-Plug valves are designed with rigid radius grooved ends for use with Victaulic Style 31 AWWA size couplings or Style 307 IPS/AWWA Transition couplings. If flange connections are required, refer to the following notes regarding Vic-Flange adapter restrictions.

- Style 341 Vic-Flange adapters can be used on all size Vic-Plug valves for ANSI Class 125/150 lb. flange connections.

## Triple Service Valve Assembly

---

**INSTALLATION**

Reference should always be made to the I-100 Victaulic Field Installation Handbook for the product you are installing. Handbooks are included with each shipment of Victaulic products for complete installation and assembly data, and are available in PDF format on our website at [www.victaulic.com](http://www.victaulic.com).

---

**WARRANTY**

Refer to the Warranty section of the current Price List or contact Victaulic for details.

---

**NOTE**

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

---

For complete contact information, visit [www.victaulic.com](http://www.victaulic.com)

08.09 1448 REV I UPDATED 2/2009

VICTAULIC IS A REGISTERED TRADEMARK OF VICTAULIC COMPANY. © 2009 VICTAULIC COMPANY. ALL RIGHTS RESERVED.

08.09

