Victaulic®
An ISO 9001 certified company

Series 318 Sump Ejector System

Please contact Engineered Products for further information at: 610/559-3593.

PRODUCT DESCRIPTION

Style 307 Coupling

The Victaulic Series 318 Sump Ejector system consists of AWWA and IPS sized grooved products for easier, faster assembly.

The Victaulic Series 318 Sump Ejector system is

Series 365 Plug Valve with Lever Operator

available in 3, 4 and 6" (88,9, 114,3 and 168,3 mm) sizes. Larger sizes are available, contact Victaulic for details. The assembly is rated to 175 PSI (1205 kPa).

Series 317 AWWA check

Style 31 Coupling

valve is supplied with an arm and spring configuration. Other arrangements are available. Contact Victaulic for details.

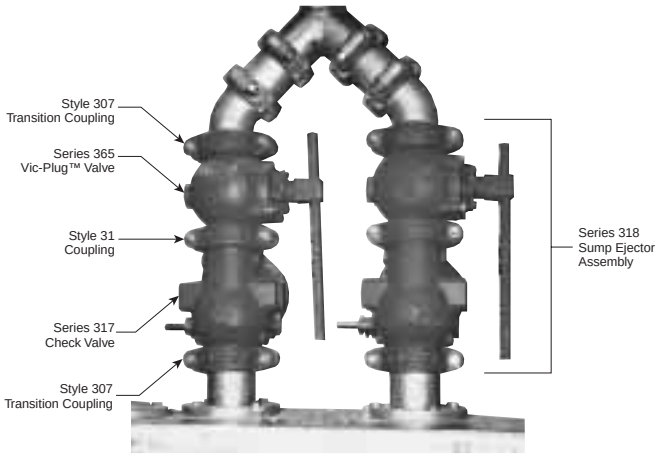
Series 365 Vic-Plug™ Valve is equipped with a lever handle.

Series 317 Check Valve with Spring and Lever

Victaulic components reduce weight, easing installation. See chart below for a weight comparison.

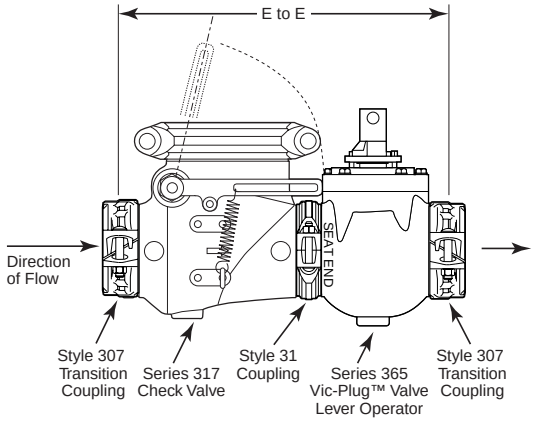
SERIES 318

(Photo below depicts two Series 318 systems)



LIST OF MATERIALS	
Qty.	**Part**
1	Vic S/365 AWWA Plug Valve
1	Vic S/317 AWWA Check Valve
2	Vic S/307 IPS to AWWA Transition Coupling
1	Vic S/31 AWWA Coupling

SYSTEM DIMENSIONS



Nominal Size Inches/Actual mm	E to E Inches/mm	WEIGHT COMPARISON Aprx. Weight Lbs./kg	
		Flanged Assy.	Grooved Assy.
3 88,9	17.58 447	120.0 54,4	91.4 41,5
4 114,3	20.61 524	209.0 94,8	128.8 58,4
6 168,3	24.61 625	358.0 162,4	221.4 100,4

NOTES:
The Series 317 Check Valve is shown with spring and lever on the right side of the valve. Spring and lever will be on the right side of the valve unless specified otherwise.
The Series 365 Plug Valve is shown with a lever operation. Gear operator is also available in all sizes.

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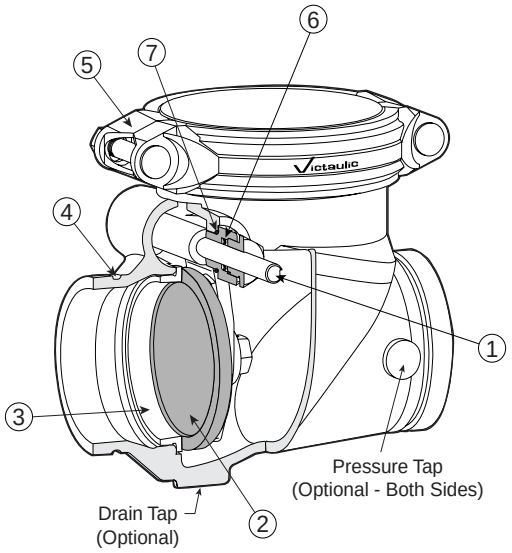
CHARACTERISTICS

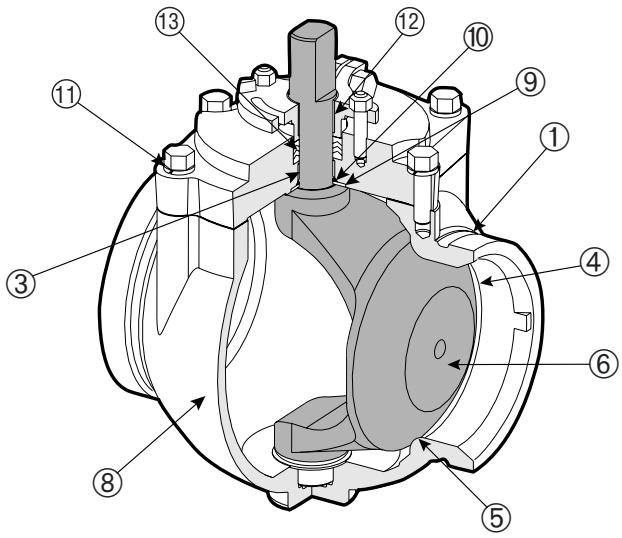
Series 317 AWWA Check Valve

1. **Shaft:** Stainless steel shaft prevents corrosion or seizures.
2. **Disc:** Provides positive sealing up to 175 PSI (1200 kPa). The 3" and 4" (100,6 and 121,9 mm) sizes are bronze, while the 6" (175,3 mm) size consists of ductile iron with nickel welded seat.
3. **Body Seat:** Rubber lined nitrile seat is standard.
4. **Groove:** Provided with rigid grooves conforming to AWWA C-606 standards.
5. **Coupling/Cap Assembly:** Provides access to internal components by simply removing two bolts and nuts. Greatly reduces downtime during maintenance operations.
6. **Adjustable Packing:** Provides a reliable, durable shaft seal.



Series 365 Vic-Plug Valve

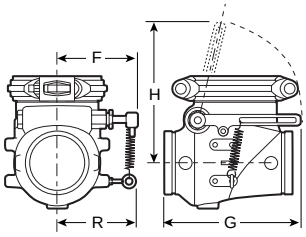
1. **Grooved Ends:** Fast assembly with two Victaulic couplings. Grooves conform to AWWA C-606 rigid groove specifications.
2. **Excellent Flow Characteristics:** (not shown) Minimum 90% diameter (81% area) free flow circular port.
3. **Self-Lubricating Bearings:** Glass-filled teflon with Type 316 stainless steel upper and lower bearings maintain plug alignment.
4. **Positive Seating Plug:** Ductile plug/stem for cam-action sealing.
5. **Corrosion Resistant Seat:** Welded-in nickel seat overlay.
6. **Durable Plug Coating:** Plug encapsulated with resilient elastomers.
7. **Standard Laying Length:** (not shown) Designed to AWWA C-509 end-to-end dimensions.
8. **Corrosion Resistant Body:** Durable iron body is 100% tested to 350 PSI (2415 kPa) for 3 - 6" (100.6 - 175,3 mm) sizes.
9. **Thrust Bearings:** Eccentric plug rides on low friction thrust washers.
10. **Protective O-rings:** Grit seals keep media from bearing areas.
11. **True Top Entry Access:** Rugged ductile iron bonnet allows bolted access.
12. **Easy Maintenance Packing Gland:** Easy access for packing adjustment.



13. **Multiple Chevron Packing:** Provides a reliable, durable stem seal.
14. **Adjustable Shaft Brake:** External brake (not shown) is adjustable for non-slamming action or to lock plug in-place for throttle settings.

DIMENSIONS OF COMPONENT

Series 317
AWWA Check Valve



Series 317
Spring and Lever

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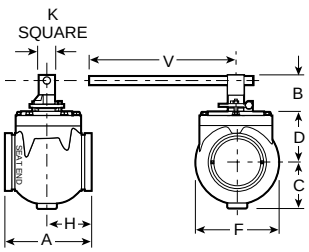
SIZE Nominal In. Actual mm	Dimensions Inches/millimeters				Aprx.* Wgt. Ea. Lbs./kg	Accessory Kits Aprx. Wgt. Lbs./kg
	F	G	H	R		Spring & Lever
3 100,6	7.05 179	9.50 241	13.22 336	6.82 173	44.5 20,2	2.5 1,1
4 121,9	7.80 198	11.50 292	13.91 353	7.54 192	66 29,9	2.5 1,1
6 175,3	8.86 225	14.00 356	15.26 388	8.60 218	117 53	2.5 1,1

* Weights listed above are for the bare valve. Accessory kit weights are listed separately in right hand columns.
Note: Valve may be installed horizontally or vertically with options shown above.

Series 365
Vic-Plug Valve

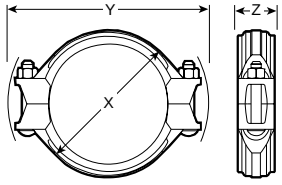


23.06-1A

SIZE Nom. In. Actual mm	Dimensions Inches/millimeters								Aprx. Wgt. Each w/o Handle Lbs./kg*
	End to End A	B	C	D	F	H	V	K	
3 100,6	8.00 203	4.06 103	3.75 95	4.25 108	6.56 167	4.00 102	18.50 470	2.00 51	25.0 11,3
4 121,9	9.00 229	4.06 103	4.44 113	4.75 121	7.74 197	4.50 114	18.50 470	2.00 51	35.0 15,9
6 175,3	10.50 267	4.44 113	5.56 141	6.06 154	10.32 262	5.25 133	18.50 470	2.00 51	70.0 31,8

*Handle weight is approximately 5 lbs. (**2,3 kg**).

Style 31 Coupling

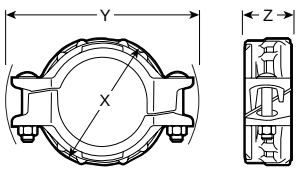


23.02-1B

SIZE Nominal Inches Actual mm	Max. Work Pres.* PSI kPa	Max. End Load* Lbs. N	Allow. Pipe End † Sep. In./mm	Deflect Fr. C_L † Per Cplg. Degree	Deflect Fr. C_L † Pipe In./Ft. mm/m	Bolt/Nut @ No. Size Inches	Dimensions Inches/mm X	Y	Z	Aprx. Wgt. Each Lbs. kg
3 100,6	500 3450	6200 27590	0 - 0.09 0 - 2.4	1° - 21´	0.28 23	2 - ½ X 2¾	5.50 140	7.25 184	2.13 54	4.6 2,1
4 121,9	500 3450	9000 40050	0 - 0.09 0 - 2.4	1° - 8´	0.21 17	2 - ⅝ X 3¼	6.25 159	9.20 234	2.09 53	6.4 2,9
6 175,3	400 2750	14950 66528	0 - 0.09 0 - 2.4	0° - 47´	0.14 12	2 - ⅝ X 3¼	8.28 210	11.19 284	2.22 56	8.5 3,9

* Working Pressure and End Load are total, from all internal and external loads, based on AWWA class 53 (except where noted) ductile iron pipe radius cut grooved in accordance with ANSI/AWWA C-606 specifications. Contact Victaulic for performance on other pipe.
† Allowable Pipe End Separation and Deflection figures show the maximum nominal range of movement available at each joint for pipe prepared to flexible radius cut grooved specifications. Pipe cut grooved to rigid specifications is essentially rigid and does not permit expansion and contraction.
@ Number of bolts required equals number of housing segments.

Style 307 Coupling



23.03-1A

Mating Pipe Size Nominal Inches Actual mm		Max. Work. Press.* PSI/kPa	Max. End Load* Lbs./N	Fixed Pipe End Sep. † Inches/mm	Bolt/Nut @ No. Size Inches	Dimensions Inches/millimeters			Aprx. Weight Each Lbs./kg
IPS Steel	AWWA Ductile					X	Y	Z	
3 88,9	3 100,6	500 3450	4810 21405	0.03 1	2 - ½ X 2¾	5.50 140	7.38 187	2.07 53	4.9 2,2
4 114,3	4 121,9	500 3450	7950 35377	0.06 2	2 - ½ X 3¼	6.38 162	9.00 229	2.25 57	6.9 3,1
6 168,3	6 175,3	400 2750	13780 61321	0.06 2	2 - ⅝ X 3¼	8.25 210	11.00 279	2.25 57	8.7 3,9

† For field installation only. Style 307 Transition couplings are essentially rigid and do not permit expansion/contraction.
* Working Pressure and End Load are total, from all internal and external loads, based on AWWA class 53 (except where noted) ductile iron pipe radius cut grooved in accordance with ANSI/AWWA C-606 specifications. Contact Victaulic for performance on other pipe.
@ Number of bolts required equals number of housing segments.

MATERIAL SPECIFICATIONS FOR UNITS IN STANDARD ASSEMBLY

Series 365

Body: Ductile Iron conforming to ASTM A-536.

Body Coating: Alkyd phenolic primer

Seat: Welded nickel

Bonnet: Ductile iron conforming to ASTM A-536

Plug: Ductile iron conforming to ASTM A-536.

Plug Coating/Seal: (Specify choice on order)

❑ **Grade "T" nitrile**
Nitrile (Orange color code). Temperature range –20°F to +180°F (–29°C to +82°C). Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Not recommended for hot water services over +150°F (+66°C) or for hot dry air over +140°F (+60°C).

*Services listed are General Service Recommendations only. It should be noted that there are services for which these gaskets are not recommended. Reference should always be made to the latest Victaulic Gasket Selection Guide for specific gasket service recommendations and for a listing of services which are not recommended.

Stem Packing: Adjustable chevron style – nitrile standard, same as Plug Coating/Seal available upon request.

Upper/Lower Bearing: Type 316 stainless steel backed TFE – self lubricating

Upper/Lower O-ring: Nitrile standard, same as Plug Coating/Seal available upon request.

Upper/Lower Thrust Washer: Teflon/glass filled

Bonnet Gasket: Non-asbestos

Packing Gland: Ductile iron conforming to ASTM A-536.

Packing Gland Studs/Nuts: Steel, zinc plated

Operator: Manual lever handle

Style 307

Housing: Ductile iron conforming to ASTM A-536.

Housing Coating: Couplings are orange enamel.

❑ **Alkyd-phenolic primer (1.5 mil)**

Gasket:

Grade "S" FlushSeal
Nitrile (Red color code). Temperature range –20°F to +180°F (–29°C to +82°C). Specially compounded to conform to ductile pipe surfaces Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range; except hot, dry air over +140°F (+60°C) and water over +150°F (+66°C). NOT RECOMMENDED FOR HOT WATER SERVICES.

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Bolts/Nuts: Heat treated plated carbon steel, track-head conforming to physical properties of ASTM A-183 minimum tensile 110,000 PSI (758340 kPa).

Series 317

Body: Cast Iron conforming to ASTM A-126 Class B.

Body Coating: Alkyd phenolic primer

Disc:

3 - 4": Bronze conforming to ASTM B-584

6 - 12": Ductile iron conforming to ASTM A-536 with welded nickel seat.

Hinge: Ductile iron conforming to ASTM A-536.

Seat:

Grade "T" nitrile
Nitrile (Orange color code). Temperature range –29°C to +82°C (–20°F to +180°F). Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range; except hot, dry air over +60°C (+140°F) and water over +66°C (+150°F). NOT RECOMMENDED FOR HOT WATER SERVICES.

Shaft: 17-4PH stainless steel conforming to ASTM A-564.

Bearings and Packing Nut: Bronze conforming to ASTM B-140.

Cap: Ductile iron conforming to ASTM A-536.

Closure Coupling : Ductile iron conforming to ASTM A-536

Coupling Gasket:

Grade "S" nitrile
Nitrile (Red color code). Temperature range –20°F to +180°F (–29°C to +82°C). Specially compounded to conform to ductile pipe surfaces. Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Not recommended for hot water services over +150°F (+66°C) or for hot dry air over +140°F (+60°C).

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Bolts/Nuts: Heat treated carbon steel, zinc plated to ASTM B-633, track-head conforming to physical properties of ASTM A-183 minimum tensile 110,000 PSI (758340 kPa).

Accessories: Lever and spring is standard.

Style 31

Housing: Ductile iron conforming to ASTM A-536.

Housing Coating: Couplings are alkyd-phenolic primer (1.5 mil)

Gasket :

Grade "S" FlushSeal
Nitrile (Red color code). Temperature range –20°F to +180°F (–29°C to + 82°C). Specifically compounded to conform to ductile pipe surfaces. Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range; except hot air over +140°F (+60°C) and water over +150°F (+66°C). NOT RECOMMENDED FOR HOT WATER SERVICES.

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Bolts/Nuts: Heat treated plated carbon steel, track-head, conforming to physical properties of ASTM A-183 minimum tensile 110,000 PSI (758340 kPa).