Swinger® Swing Check Valve

SERIES 712

Series 712 Swinger swing check valves are designed for use with standard Victaulic grooved fittings and couplings for fast installation on inlet and outlet ports. The large closure access bonnet permits easy internal coating for corrosive services. A 316 stainless steel clapper features a bonded bumper for coating protection.

Swing check valves are available with Teflon, EPDM, nitrile or an optional fluoroelastomer seat and EPDM, nitrile or fluoroelastomer bonnet gasket.

Available in 2 - 4" (50 - 100 mm) sizes, Series 712 swing check valves are cast of rugged ductile iron and rated to 300 psi (2065 kPa) service. A 2" (50 mm) size stainless steel model is also available (Refer to Section 12.04). Swinger swing check valves are supplied with bonnet cap drilled and tapped with ½" NPT pipe plug for chemical injection or other auxiliary connections.

Note: Series 712 and Series 712S Swinger check valves should not be installed on vertical pipelines.

MATERIAL SPECIFICATIONS

Housing: Ductile iron conforming to ASTM A-536, grade 65-45-12, painted. Series 712S stainless steel Type 316.

Closure Housing: Ductile iron conforming to ASTM A-536, grade 65-45-12, electrogalvanized.

Closure Cap: Ductile iron conforming to ASTM A-536, grade 65-45-12, painted.

Cap Plug: Carbon steel, zinc electroplated.

Clapper Seat: See Seat/Closure Gasket.

Bumper: See Seat/Closure Gasket.

Clapper: Stainless steel Type 316.

Clapper Pin: Stainless Steel Type 316.

Closure Bolt/Nut: Heat treated carbon steel track-head conforming to ASTM A-183, electroplated.

Pin Retaining Nut: Carbon steel (for ductile iron housings) and stainless steel (for stainless steel housings).

Seat/Closure Gasket (specify choice*):

- **Grade "E" EPDM**
  EPDM (Green color code). Temperature range –30°F to +230°F/–34°C to +110°C. Recommended for cold and hot water service within the specified temperature range plus a varietyof dilute acids, oil-free air and many chemical services. UL classified in accordance with ANSI/NSF 61 for cold +86°F/+30°C and hot +180°F/+82°C potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES.

- **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.

- **Grade "O" fluoroelastomer**
  (Blue color code). Temperature range +20°F to +300°F/–7°C to +149°C. Recommended for many oxidizing acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic liquids and air with hydrocarbons to +300°F/+149°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.

JOB/OWNER

System No. _____

Location _____

CONTRACTOR

Submitted By _____

Date _____

ENGINEER

Spec Sect _____ Para _____

Approved _____

Date _____

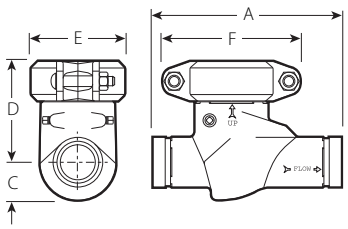
www.victaulic.com

VICTAULIC IS A REGISTERED TRADEMARK OF VICTAULIC COMPANY. © 2011 VICTAULIC COMPANY. ALL RIGHTS RESERVED.

Swinger® Swing Check Valve

SERIES 712

DIMENSIONS



Valve Size		Max. Work Pressure	Dimensions – Inches/mm					Approx. Wgt. Each
Nominal Diameter Inches mm	Actual Out. Dia. Inches mm	PSI kPa	End to End A	C	D	E	F	Lbs. kg
2 50	2.375 60.3	300 2065	9.00 229	1.81 46	4.88 124	4.38 111	6.38 162	11.6 55.3
2 ½ 65	2.875 73.0	300 2065	9.25 235	2.25 57	5.50 140	5.69 145	7.69 195	18.0 8.2
3 80	3.500 88.9	300 2065	10.75 273	2.50 64	5.75 146	6.25 159	9.00 229	22.5 10.2
4 100	4.500 114.3	300 2065	12.00 305	3.38 86	7.63 194	7.96 202	10.75 273	38.0 17.2

PERFORMANCE

C_V Values

C_V values for flow of water at +60°F/+16°C with a fully open valve are shown in the tables below.

Formulas for C_V Values:

$$\Delta P = \frac{Q^2}{C_v^2}$$

$$Q = C_v \times \sqrt{\Delta P}$$

Where:
Q = Flow (GPM)
ΔP = Pressure Drop (psi)
C_v = Flow Coefficient

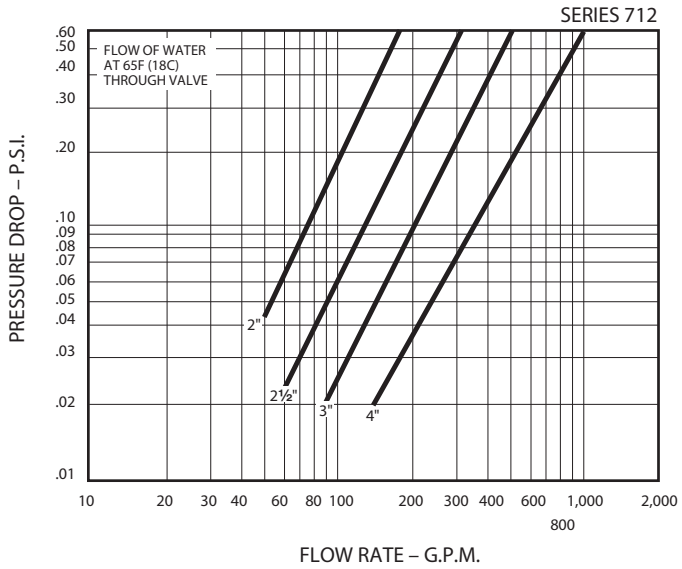
Valve Size		C_V (Full Open)	Valve Size		C_V (Full Open)
Nominal Diameter Inches mm	Actual Outside Diameter Inches mm		Nominal Diameter Inches mm	Actual Outside Diameter Inches mm	
2 50	2.375 60.3	78	3 80	3.500 88.9	210
2 ½ 65	2.875 73.0	125	4 100	4.500 114.3	358

VICTAULIC IS A REGISTERED TRADEMARK OF VICTAULIC COMPANY. © 2011 VICTAULIC COMPANY. ALL RIGHTS RESERVED.

Swinger® Swing Check Valve

SERIES 712

FLOW CHARACTERISTICS



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 eight (8) feet per second (2.4 mps). Distances less than three (3) diameters are not recommended and will violate the Victaulic product warranty.

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.

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.

08.11 1666 REV E UPDATED 2/2011

VICTAULIC IS A REGISTERED TRADEMARK OF VICTAULIC COMPANY. © 2011 VICTAULIC COMPANY. ALL RIGHTS RESERVED.