

Series 713 Swing Check Valve Clapper Replacement Kit

⚠ WARNING



- Read and understand all instructions before attempting to install any Victaulic products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Confirm that any equipment, branch lines, or sections of piping that may have been isolated for/during testing or due to valve closures/positioning are identified, depressurized, and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, and foot protection.
- DO NOT loosen or tighten hardware when a valve is pressurized, and DO NOT impact the valve, pipe, couplings, or fittings when the system is pressurized.

- The system designer is responsible for verifying suitability of mating component materials with the intended fluid media. Valve bodies, discs, and other wetted components shall be compatible with the material flowing through the piping system. Refer to the current Victaulic product publication for the applicable valve, or contact Victaulic for details.
- The effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on mating component materials shall be evaluated to confirm system life will be acceptable for the intended service.

Failure to follow these instructions could result in death or serious personal injury and property damage.

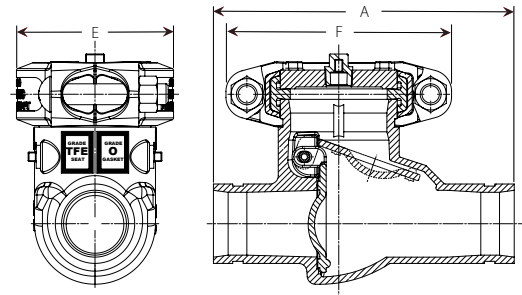
IMPORTANT INSTALLATION INFORMATION

These instructions cover replacement of the clapper assembly for 2 – 4-inch/DN50 – DN100 valve sizes. **NOTE:** the 2-inch/DN50 valve assembly does not contain a torsion spring.

- For proper installation of the valve into the piping system, always reference the I-100 Field Installation Handbook, which can be downloaded by scanning the QR code to the right.
- This valve assembly contains an access cap. For important installation and safety information, always reference the I-ENDCAP instructions, which can be downloaded by scanning the QR code to the right.



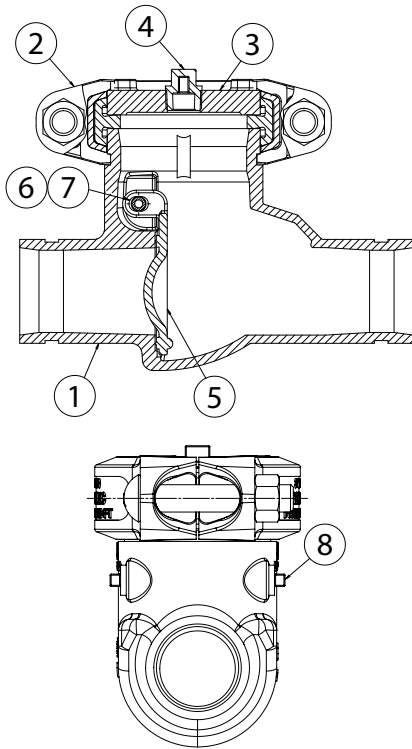
SERIES 713 DIMENSIONAL INFORMATION



Size		Access Cap		Bolt/Nut		Dimensions			Weight
Nominal inches/DN	Actual Pipe Outside Diameter inches/mm	Access Cap Size	Access Cap Coupling Style	Qty.	Size inches	A End-to-End inches/mm	E inches/mm	F inches/mm	Approximate (Each) lb/kg
2	2.375	3"	HP-70	2	5/8 x 3 1/2	9.00	4.38	6.38	11.6
DN50	60.3	DN80				229	111	162	55.3
2 1/2	2.875	4"	107V*	2	1/2 x 3 1/4	9.25	5.69	7.69	18.0
	73.0	DN100				235	145	195	8.2
3	3.500	133.0 mm	107V*	2	M16 x 4	10.75	6.25	9.00	22.5
DN80	88.9					273	159	229	10.2
4	4.500	6"	107V*	2	5/8 x 4	12.00	7.96	10.75	38.0
DN100	114.3	DN150				305	202	273	17.2

* Alternate coupling assemblies (Style 107N, 07, or HP-70ES) are available. Always verify that the appropriate coupling style is being used for the particular application.

ASSEMBLY DRAWING FOR 2-INCH/DN50 VALVE SIZE



Item	Qty.	Description
1	1	Valve Body
2	1	Style HP-70 Coupling Assembly
3	1	Access Cap with 1/2 NPT Tap
4	1	Square-Head Pipe Plug, 1/2 NPT
5	1	Clapper*
6	2	Washer*
7	1	Clapper Shaft*
8	2	Square-Head Pipe Plug, 1/8 NPT*

* Items included with the clapper replacement kit for the 2-inch/DN50 valve size

Other items required for clapper replacement:

- Victaulic Lubricant
- Adjustable Wrench
- PTFE Thread Sealant Tape
- Mild Abrasive Pad
- Torque Wrench
- 1/8-inch Drive Punch

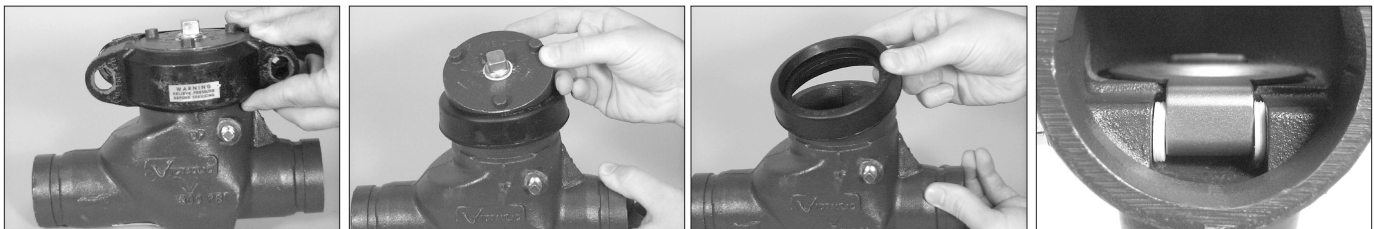
CLAPPER REMOVAL FOR 2-INCH/DN50 VALVE SIZE

⚠ WARNING

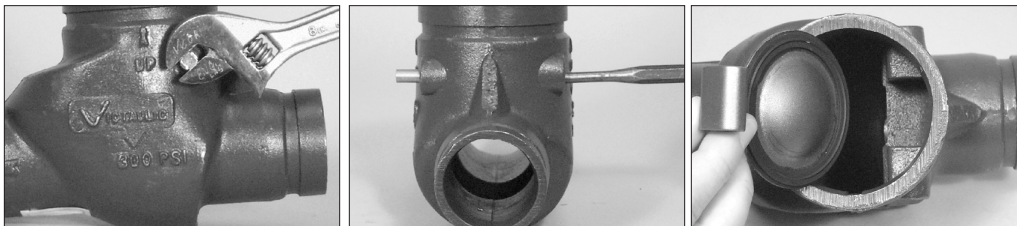


- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Confirm that any equipment, branch lines, or sections of piping that may have been isolated for/during testing or due to valve closures/positioning are identified, depressurized, and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.

Failure to follow these instructions could result in death or serious personal injury and property damage.

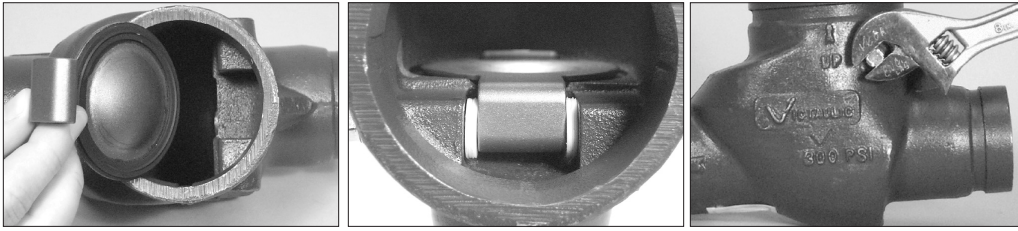


1. Loosen and remove the two nuts and bolts from the coupling assembly (Item 2), then remove the housings, access cap (Item 3), and gasket from the valve body (Item 1). Inspect all components for any damage or wear. If any damage or wear is present, use a new Victaulic-supplied coupling/access cap assembly.
2. Note the current position of the clapper (Item 5). The gasket side faces the seat, which is opposite the flow arrow stamped on the valve body (Item 1).



3. Loosen and remove the two square-head pipe plugs (Item 8) from the valve body (Item 1). Discard these plugs.
4. Push the clapper shaft (Item 7) out of the valve body (Item 1) with an 1/8-inch drive punch. Discard this clapper shaft.
5. Remove the clapper (Item 5) and the two washers (Item 6) from the valve body (Item 1). Discard these washers, along with the clapper.

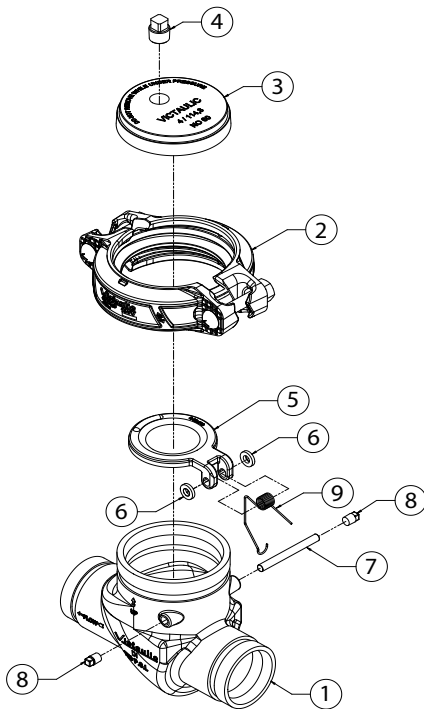
INSTALLING THE NEW CLAPPER ASSEMBLY FOR 2-INCH/DN50 VALVE SIZE



1. Clean the seat of the valve body (Item 1) with a mild abrasive pad.
2. Insert the new clapper (Item 5) into the valve body (Item 1). Verify that the gasket side faces the seat, which is opposite the flow arrow stamped on the valve body (Item 1).
3. Place a new washer (Item 6) on each side of the clapper's arm. Insert the new clapper shaft (Item 7) through the valve body (Item 1), and verify that the clapper shaft engages the clapper and each washer.
4. If the two new $\frac{1}{8}$ NPT square-head pipe plugs (Item 8) do not have thread sealant pre-applied, use a single wrap of PTFE thread sealant tape. Thread a new square-head pipe plug (Item 8) into each side of the valve body (Item 1) until contact with the clapper shaft (Item 7) occurs. Tighten each square-head pipe plug to 9 – 15 ft-lbs/12 – 15 N•m. DO NOT exceed a torque of 15 ft-lbs/20 N•m.
5. Follow all instructions in the I-100 Field Installation Handbook for reassembly of the access cap/Style HP-70 Coupling Assembly (scan QR code on page 1). **NOTE:** If the $\frac{1}{2}$ NPT square-head pipe plug (Item 4) was removed from the access cap (Item 3) for any reason, use a single wrap of PTFE thread sealant tape and reinstall the pipe plug to a torque of 45 – 55 ft-lbs/61 – 75 N•m. DO NOT exceed a torque of 55 ft-lbs/75 N•m.

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ASSEMBLY DRAWING FOR 2 ½ – 4-INCH/73.0-MM – DN100 VALVE SIZE



Item	Qty.	Description
1	1	Valve Body
2	1	Style 107V Coupling Assembly#
3	1	Access Cap with ½ NPT Tap
4	1	Square-Head Pipe Plug, ½ NPT
5	1	Clapper*
6	2	Washer*
7	1	Clapper Shaft*
8	2	Square-Head Pipe Plug, ⅛ NPT*
9	1	Torsion Spring*

Alternate coupling assemblies (Style 107N, 07, or HP-70ES) are available. Always verify that the appropriate coupling style is being used for the particular application.

* Items included with the clapper replacement kit for the 2 ½ – 4-inch/73.0-mm – DN100 valve sizes.

Other items required for clapper replacement:

- Victaulic Lubricant
- Adjustable Wrench
- PTFE Thread Sealant Tape
- Mild Abrasive Pad
- Torque Wrench
- ⅛-inch Drive Punch

CLAPPER REMOVAL FOR 2 ½ – 4-INCH/73.0-MM – DN100 VALVE SIZES

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- Failure to follow these instructions could result in death or serious personal injury and property damage.

1. Loosen and remove the two nuts and bolts from the coupling assembly (Item 2), then remove the housings, access cap (Item 3), and gasket from the valve body (Item 1). Inspect all components for any damage or wear. If any damage or wear is present, use a new Victaulic-supplied coupling/access cap assembly.
2. Note the current position of the clapper (Item 5). The gasket side faces the seat, which is opposite the flow arrow stamped on the valve body (Item 1). In addition, note the current orientation of the torsion spring (Item 9).
3. Loosen and remove the two square-head pipe plugs (Item 8) from the valve body. Discard these plugs.
4. Push the clapper shaft (Item 7) out of the valve body (Item 1) with an ⅛-inch drive punch. Discard this clapper shaft.
5. Remove the clapper (Item 5), two washers (Item 6), and torsion spring (Item 9) from the valve body (Item 1). Discard these washers, along with the torsion spring and clapper.

INSTALLING THE NEW CLAPPER ASSEMBLY FOR 2 ½ – 4-INCH/73.0-MM – DN100 VALVE SIZES

1. Clean the seat of the valve body (Item 1) with a mild abrasive pad.
2. Insert the new clapper (Item 5) into the valve body (Item 1). Verify that the gasket side faces the seat, which is opposite the flow arrow stamped on the valve body (Item 1).
3. Place the new torsion spring (Item 9) between the clapper's arms. Reference the above drawing for the proper orientation of the torsion spring (Item 9) in relation to the clapper (Item 5).
4. Place a new washer (Item 6) on each side of the clapper's arm. Insert the new clapper shaft (Item 7) through the valve body (Item 1), and verify that the clapper shaft engages the clapper, torsion spring, and each washer.
5. If the two new ⅛ NPT square-head pipe plugs (Item 8) do not have thread sealant pre-applied, use a single wrap of PTFE thread sealant tape. Thread a new square-head pipe plug (Item 8) into each side of the valve body (Item 1) until contact with the clapper shaft (Item 7) occurs. Tighten each square-head pipe plug to 9 – 15 ft-lbs/12 – 15 N•m. DO NOT exceed a torque of 15 ft-lbs/20 N•m.
6. Follow all instructions in the I-100 Field Installation Handbook for reassembly of the access cap/applicable style coupling assembly (scan QR code on page 1). **NOTE:** If the ½ NPT square-head pipe plug (Item 4) was removed from the access cap (Item 3) for any reason, use a single wrap of PTFE thread sealant tape and reinstall the pipe plug to a torque of 45 – 55 ft-lbs/61 – 75 N•m. DO NOT exceed a torque of 55 ft-lbs/75 N•m.

For complete contact information, visit victaulic.com

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