Installation-Ready™ Butterfly Valves

Series 121, 122, and 124 for Original Groove System (OGS) Mating Components
Series E125 for STRENGTHIN™100 Stainless Steel Mating Components

SERIES 124 SHOWN ABOVE
(REPRESENTATIVE OF SERIES 121 AND 122)

SERIES E125 SHOWN ABOVE

⚠ 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.
- DO NOT USE AN INSTALLATION-READY™ BUTTERFLY VALVE IN DEAD-END SERVICE.
- Wear safety glasses, hardhat, and foot protection.

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

IMPORTANT INFORMATION

Original Groove System (OGS) Groove Profile

STRENGTHIN™100 Groove Profile

Always verify that the correct groove profile is being used. There is a significant difference between the Original Groove System (OGS) groove profile and the STRENGTHIN™100 groove profile.

Series 121, 122, and 124 Installation-Ready™ Butterfly Valves are designed for use **ONLY** with mating components that are prepared to OGS groove specifications. Refer to Victaulic publication 25.01 for the OGS groove specifications, which can be downloaded at victaulic.com.

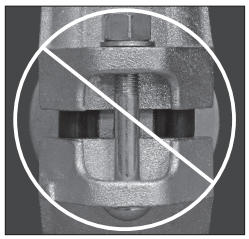
Series E125 Installation-Ready™ Butterfly Valves are designed for use **ONLY** with mating components that are prepared to STRENGTHIN™100 groove specifications. Refer to Victaulic publication 25.13 for the STRENGTHIN™100 groove specifications, which can be downloaded at victaulic.com.

⚠ WARNING

- **DO NOT USE AN INSTALLATION-READY™ BUTTERFLY VALVE IN DEAD-END SERVICE OR FOR A SYSTEM LEAK TEST IN A DEAD-END SERVICE.**
- **ALWAYS VERIFY THAT MATING COMPONENTS WITH THE CORRECT GROOVE PROFILE ARE BEING USED WITH THE VALVE.**
- **DO NOT LOOSEN OR TIGHTEN HARDWARE WHEN THE VALVE IS PRESSURIZED.**
- **The system designer is responsible for verifying suitability of mating component materials with the intended fluid media.**
- **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.**

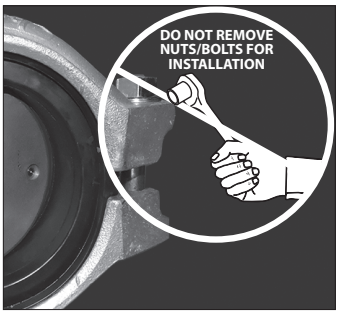
Failure to follow these instructions could result in death or serious personal injury.

- **DO NOT USE AN INSTALLATION-READY™ BUTTERFLY VALVE IN DEAD-END SERVICE OR FOR A SYSTEM LEAK TEST IN A DEAD-END SERVICE.**

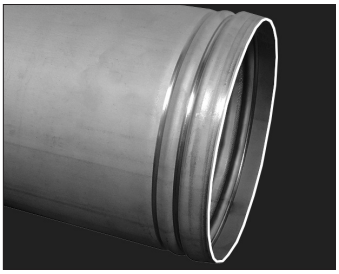


- **DO NOT** install Installation-Ready™ Butterfly Valves into the system with the disc in the fully "open" position. Exposed disc may be damaged and prevent proper function of the valve.
- When using Installation-Ready™ Butterfly Valves for throttling service, Victaulic recommends positioning the disc no less than 30 degrees open. For best results, the disc should be between 30 and 70 degrees open; this is dependent on the flow requirements/characteristics for the piping system. High pipeline velocities and/or throttling with the disc less than 30 degrees open may result in noise, vibration, cavitation, severe gasket erosion/abrasion, and/or loss of control. Contact Victaulic regarding throttling services.
- Victaulic recommends limiting the flow velocities for water service to 13.5 feet/second (4 meters/second). Contact Victaulic before installing this valve when higher flow velocities are necessary or specified.
- Victaulic recommends good piping practices by installing the valve five pipe diameters downstream of sources of irregular flow, such as pumps, elbows, and control valves. If not practical due to space constraints, the system should be designed to locate and orient the valve to minimize the impact of dynamic torque on valve life.
- Installation-Ready™ Butterfly Valves and connected piping shall be supported properly to prevent the joints from being overloaded. Hanger spacing shall comply with the applicable "Rigid System Hanger Spacing" section of the I-100 Field Installation Handbook.
- Welding to Installation-Ready™ Butterfly Valves is not permitted and will void the Victaulic warranty.

INSTALLATION



1. DO NOT DISASSEMBLE THE VALVE: Installation-Ready™ Butterfly Valves are designed so that the installer does not need to remove the bolts and nuts for installation. This facilitates installation by allowing the installer to directly insert the grooved end of mating components into the valve.



2. CHECK MATING COMPONENT ENDS: The outside surface of the mating components, between the groove and the mating component ends, shall be generally free from indentations, projections, weld seam anomalies, and roll marks to ensure a leak-tight seal. All oil, grease, loose paint, dirt, and cutting particles shall be removed.

The edge of the pipe end, highlighted in white above, shall be free from any burrs and sharp edges that could cut the gasket/pipe stop during assembly.

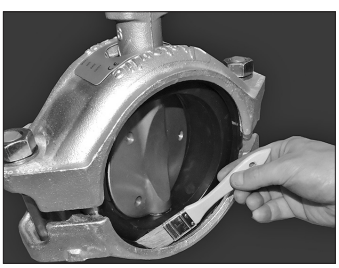
The mating components' outside diameter ("OD"), groove dimensions, and maximum allowable flare diameter shall be within the tolerances published in current Victaulic OGS groove specifications (Series 121, 122, and 124), publication 25.01, or Victaulic STRENGTHIN™100 groove specifications (Series E125), publication 25.13. These publications can be downloaded at victaulic.com.

⚠ CAUTION

- **A thin coat of a compatible lubricant shall be applied only to the gasket sealing lips to help prevent pinching, rolling, or tearing during installation.**
- **DO NOT use excessive lubricant on the gasket sealing lips.**

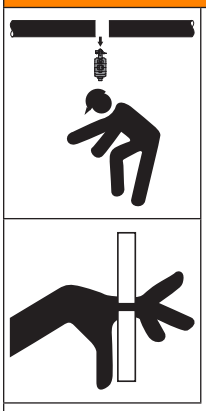
Failure to use a compatible lubricant may cause gasket damage, resulting in joint leakage and property damage.

3a. CHECK GASKET: Check the gasket to verify that it is suitable for the intended service. The color code identifies the material grade. Refer to Victaulic publication 05.01 for the color code chart, which can be downloaded at victaulic.com.



3b. LUBRICATE GASKET: Apply a thin coat of a compatible lubricant, such as Victaulic Lubricant or silicone grease, only to the gasket sealing lips (silicone spray is not a compatible lubricant). **NOTE: The gasket exterior is supplied with a factory-applied lubricant. Do not add additional lubricant to the outside of the gasket.**

⚠ WARNING

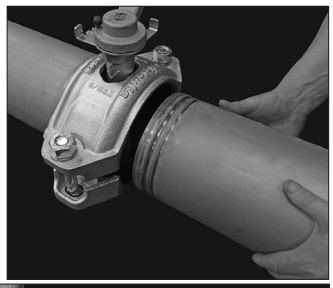


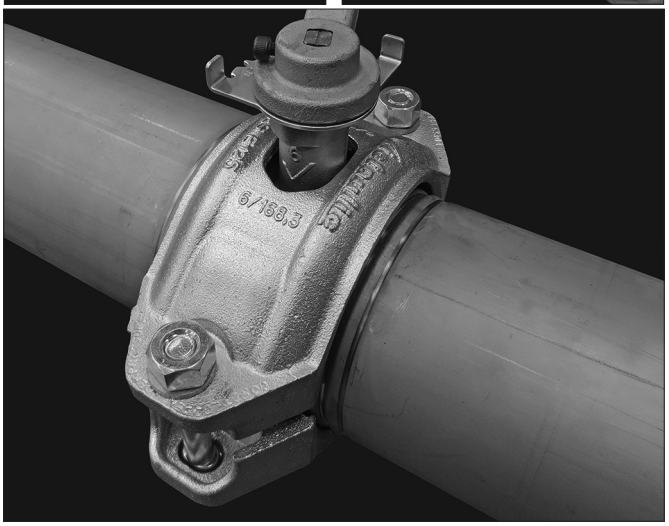
- **Never leave an Installation-Ready™ Butterfly Valve partially assembled on mating component ends. ALWAYS TIGHTEN THE HARDWARE IMMEDIATELY, AS DESCRIBED IN THESE INSTALLATION INSTRUCTIONS. A partially-assembled valve poses a drop or fall hazard during installation and a burst hazard during testing.**

- **Keep hands away from the mating component ends and the openings of the valve when attempting to insert grooved mating component ends into the valve.**
- **Keep hands away from valve openings during tightening.**

- **Keep hands away from valve openings during tightening.**

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





4. ASSEMBLE JOINT: Assemble the joint by aligning and inserting a mating component end squarely into each opening of the valve. The grooved mating component ends shall be inserted into the valve until contact with the pipe stop occurs. A visual check is required to verify that the valve housings' keys align with the groove in each mating component and that the mating components are inserted squarely into each valve opening prior to tightening the nuts in step 5.

⚠ WARNING

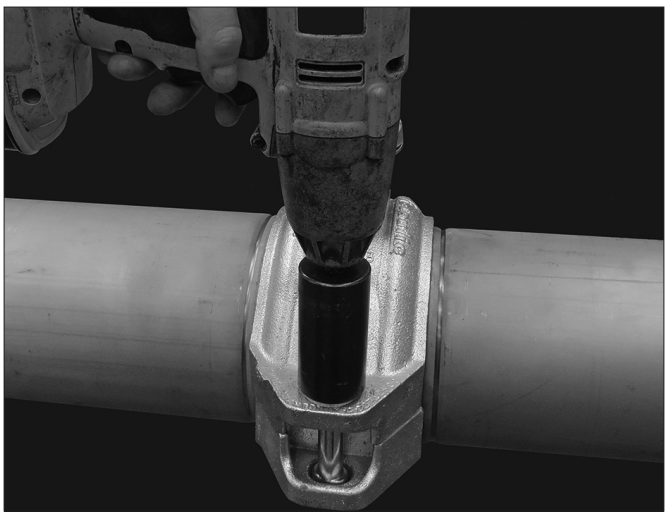
- **Nuts shall be tightened evenly by alternating sides, maintaining nearly uniform bolt pad gaps, until metal-to-metal contact occurs at the bolt pads, as indicated in steps 5 and 6.**

Failure to tighten nuts as instructed will cause increased loading of the hardware, resulting in the following conditions:

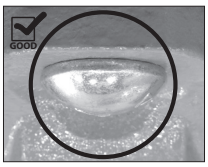
- **Excessive bolt torque required to assemble the joint (incomplete assembly)**
- **Damage to the assembled joint (damaged or broken bolt pads or fractures to housings)**
- **Bolt damage or fracture**
- **Joint leakage and property damage**
- **A negative impact on system integrity**
- **Personal injury or death**

DO NOT continue to tighten the nuts after metal-to-metal bolt pad contact is achieved.

- **Failure to follow this instruction could result in the conditions listed above.**



5. TIGHTEN NUTS: Using an impact tool or a standard socket wrench with a deep well socket, tighten nuts evenly by alternating sides, maintaining nearly uniform bolt pad gaps, until metal-to-metal contact occurs at the bolt pads. Verify that the oval neck of each bolt seats properly in the bolt holes. DO NOT continue to tighten the nuts after the visual inspection requirements on the following page are achieved. **If you suspect that any hardware has been over-tightened (as indicated by a bend in the bolt, bulging of the nut at the bolt pad interface, or damage to the bolt pad, etc.), the entire valve assembly shall be replaced immediately.** Refer to the "Helpful Information," "Impact Tool Usage Guidelines," and "Impact Tool Selection" sections.



OVAL NECK OF BOLT SEATED PROPERLY

OVAL NECK OF BOLT NOT SEATED PROPERLY

NOTICE

- **It is important to tighten the nuts evenly by alternating sides to help prevent gasket pinching.**
- **An impact tool or standard socket wrench with a deep-well socket can be used to bring the bolt pads into metal-to-metal contact.**
- **Refer to the "Helpful Information," "Impact Tool Usage Guidelines," and "Impact Tool Selection" sections.**

HELPFUL INFORMATION

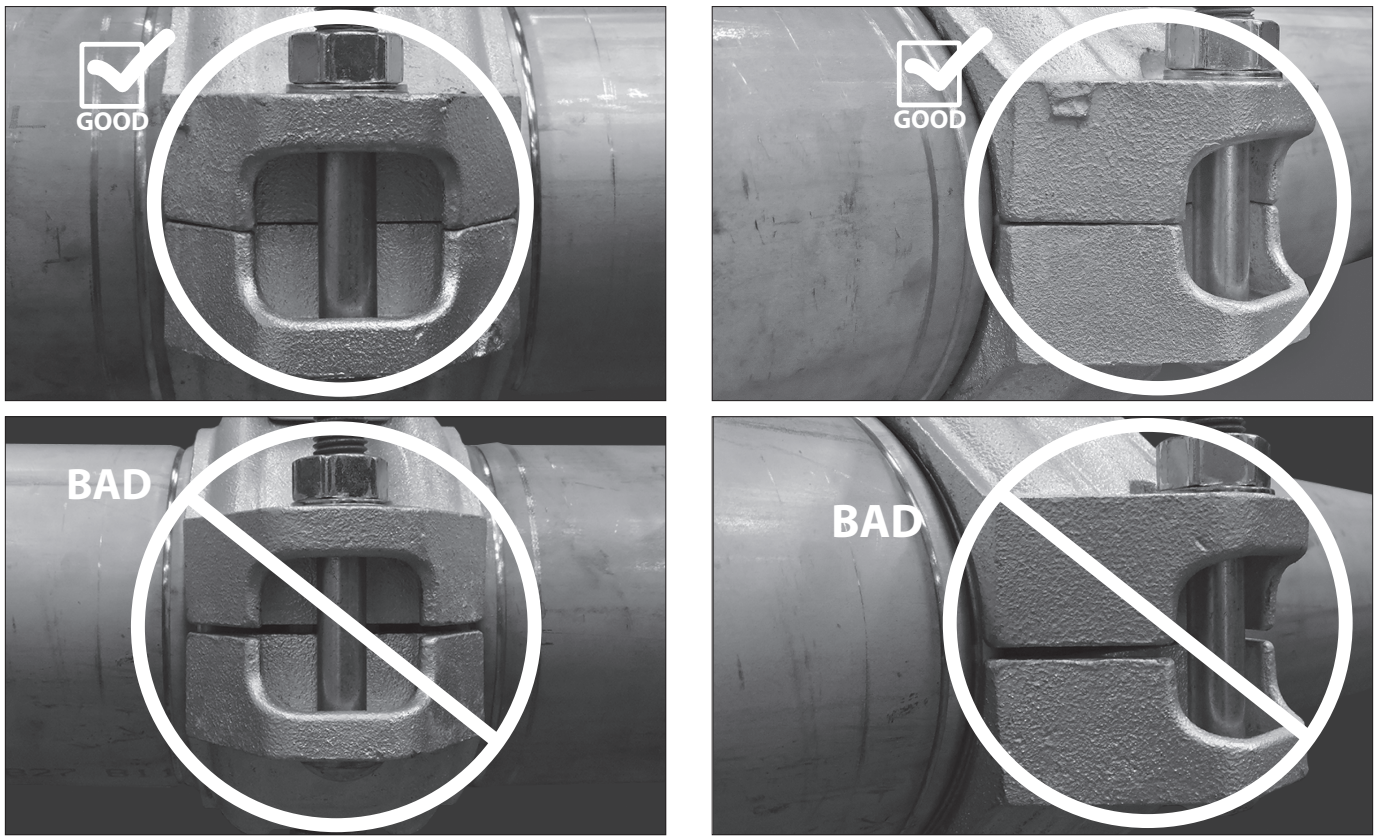
Nominal Valve Size inches/DN	Actual Pipe Outside Diameter inches/mm	Nut Size inches/Metric	Deep-Well Socket Size inches/mm	Maximum Allowable Bolt Torque*
2 DN50	2.375 60.3	½ M12	⅞ 22	135 ft-lbs 183 N•m
2 ½	2.875 73.0	½ M12	⅞ 22	135 ft-lbs 183 N•m
 DN65	3.000 76.1	½ M12	⅞ 22	135 ft-lbs 183 N•m
3 – 4 DN80 – DN100	3.500 – 4.500 88.9 – 114.3	⅝ M16	1 1⁄16 27	235 ft-lbs 319 N•m
 DN125	5.500 139.7	¾ M20	1 ¼ 32	425 ft-lbs 576 N•m
	6.500 165.1	¾ M20	1 ¼ 32	425 ft-lbs 576 N•m
6 DN150	6.625 168.3	¾ M20	1 ¼ 32	425 ft-lbs 576 N•m
	8.515 216.3	⅞ M22	1 7⁄16 36	675 ft-lbs 915 N•m
8 DN200	8.625 219.1	⅞ M22	1 7⁄16 36	675 ft-lbs 915 N•m

NOTE: Certain series of valves may not be available in all sizes listed.
*Maximum allowable bolt torque values have been derived from actual test data

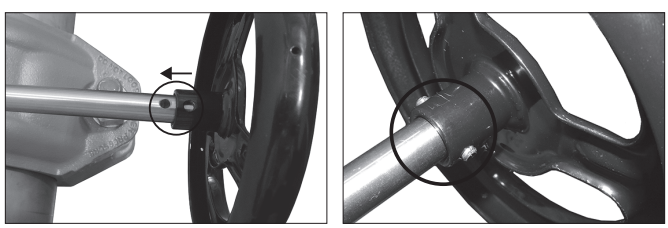
⚠ WARNING

- **Visual inspection of each joint is required.**
- **Improperly assembled joints shall be corrected before the system is filled, tested, or placed into service.**
- **Any components that exhibit physical damage due to improper assembly shall be replaced before the system is filled, tested, or placed into service.**

Failure to follow these instructions could cause joint failure, resulting in death or serious personal injury and property damage.



6. Visually inspect the bolt pads at each joint to verify that metal-to-metal contact is achieved, in accordance with step 5 on page 3.



7. For valves supplied with a gear operator, the handwheel is shipped disassembled from the gear operator shaft. After all previous steps have been completed, place the handwheel onto the gear operator shaft and align the holes. Tap the drive pin through the handwheel and gear operator shaft until it penetrates through to the other side.

IMPACT TOOL USAGE GUIDELINES

Impact tools do not provide the installer with direct "wrench feel" to judge nut torque. Since some impact tools are capable of high output speed and torque, it is important to develop a familiarity with the impact tool to avoid over-torquing, which may damage or fracture the bolts or the valve's bolt pads during installation.

⚠ WARNING

- **DO NOT exceed the "Maximum Allowable Bolt Torque" values specified in the table on this page for the applicable bolt/nut size.**

Failure to follow these instructions could cause joint failure, resulting in property damage, serious personal injury, or death.

Assemble valves per these installation instructions. Continue to tighten the nut(s) until the visual inspection requirements are achieved. Visual inspection of each joint is required for verification of proper assembly.

During the installation process, the installation torque shall not exceed the "Maximum Allowable Bolt Torque" values specified in the table on this page for the applicable bolt/nut size. Conditions that may result in over-shifting and/or excessive bolt torque include, but are not limited to, the following:

- **Improperly-Sized Impact Tool –** Refer to the "Impact Tool Selection" section on the opposite side of this page.
- **Uneven tightening of hardware –** The nuts shall be tightened evenly by alternating sides until the visual inspection requirements for the valve are achieved.
- **Out-of-specification grooved pipe end dimensions (particularly large and out-of-specification "C" diameters) –** If proper visual assembly is not achieved, remove the valve and confirm that all grooved pipe end dimensions are within Victaulic specifications. If grooved pipe end dimensions are not within Victaulic specifications, rework the pipe ends by following all instructions in the applicable pipe preparation tool's operating and maintenance manual.
- **Continued tightening of nut(s) after the visual inspection requirements are achieved –** DO NOT continue to tighten the nut(s) after the visual inspection requirements are achieved. Continuing to tighten the hardware after proper visual inspection requirements are achieved will cause joint failure, resulting in property damage, serious personal injury, or death. In addition, continued tightening may cause excessive stresses that compromise the long-term integrity of the bolts and may cause joint failure, resulting in property damage, serious personal injury, or death. Additional bolt torque will not provide a better installation; bolt torque that exceeds the "Maximum Allowable Bolt Torque" values specified in the table on this page could damage or fracture the bolts and/or the valve's bolt pads during installation.
- **Pinched gasket –** A pinched gasket could result in the inability to achieve proper visual inspection requirements. The valve shall be disassembled and inspected to verify that the gasket is not pinched. If the gasket is pinched, a new valve assembly shall be used.
- **Valve was not assembled per the applicable Victaulic installation instructions –** Adherence to installation instructions will help to avoid the conditions covered in this document.

If you suspect that any hardware has been over-torqued, the entire valve assembly shall be replaced immediately (as indicated by a bend in the bolt, bulging of the nut at the bolt pad interface, or damage to the bolt pad, etc.).

Maximum Allowable Bolt Torque

Bolt/Nut Size		Maximum Allowable Bolt Torque*
inches	Metric	
½	M12	135 ft-lbs 183 N•m
⅝	M16	235 ft-lbs 319 N•m

Bolt/Nut Size		Maximum Allowable Bolt Torque*
inches	Metric	
¾	M20	425 ft-lbs 576 N•m
⅞	M22	675 ft-lbs 915 N•m

*Maximum allowable bolt torque values have been derived from actual test data

IMPACT TOOL SELECTION

Appropriate selection of an impact tool is required to ensure proper installation in accordance with these installation instructions. Improper impact tool selection could cause valve mis-assembly and damage, resulting in property damage, serious personal injury, or death.

To determine the suitability of an impact tool, perform trial installation assemblies with a standard socket wrench or a torque wrench. These trial valve assemblies shall meet the visual installation requirements for the valve. After visual installation requirements are achieved, measure the torque applied to each nut with a torque wrench. Using the torque value measured, select an impact tool with a torque output or torque output setting that conforms to the measured value but does not exceed the "Maximum Allowable Bolt Torque" values specified in the table on the previous page.

Selection of an Impact Tool:

Impact Tools with Single Output Torque – Selection of an impact tool with an output torque considerably higher than the required installation torque could result in hardware and/or valve damage due to the possibility of hardware over-torque. Under no circumstances shall an impact tool be selected for use that has a torque output setting that exceeds the "Maximum Allowable Bolt Torque" values specified in the table on the previous page.

Impact Tools with Multiple Output Torque Settings – If an impact tool with multiple output torque settings is selected, the impact tool shall have at least one torque setting that satisfies the above requirements for an "Impact Tool with Single Output Torque."

Use of impact tools with excessive output torques creates installation difficulties for the installer due to the tool's unmanageable rotational speed and power. Using the same method above, periodically check nut torque on valve assemblies throughout the system installation process.

For safe and proper use of impact tools, always refer to the impact tool manufacturer's operating instructions. In addition, verify that proper impact grade sockets are being used for valve installation.

⚠ WARNING

Failure to follow instructions for tightening hardware could result in:

- **Bolt damage or fracture**
- **Damaged or broken bolt pads or fractures to housings**
- **Joint leakage and property damage**
- **A negative impact on system integrity**
- **Personal injury or death**

VALVE REMOVAL AND REPLACEMENT

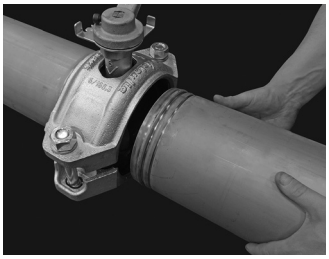
⚠ WARNING

- **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 this instruction could result in death or serious personal injury and property damage.

METHOD 1 – REMOVAL AND REASSEMBLY

The following is the preferred method for removal and replacement of a valve, where the mating component ends are not fixed and can be pulled out of the valve body. These instructions apply to valves installed in any orientation. Mating component ends and the valve shall be supported throughout the following process.



1. Verify that the system is depressurized and drained completely before attempting to remove any valves from the system.

1a. Place the disc to within approximately 20° from the fully-closed position.

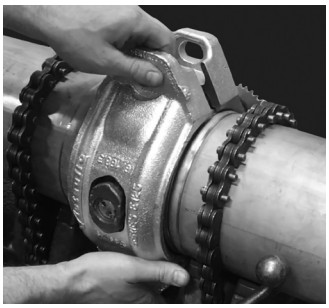
2. Loosen the nuts of the valve assembly just enough to permit removal of the mating component ends from the valve.

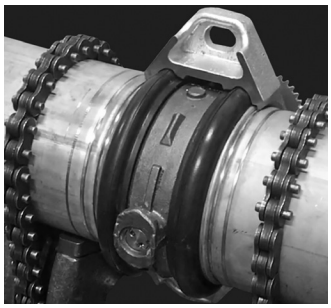
3. Inspect all components for any damage or wear. If any damage or wear is present, use a new Victaulic-supplied valve assembly.

4. Follow all steps of the "Installation" section on pages 2 – 4 to reinstall the valve into the system.

METHOD 2 – REMOVAL

The following method shall be used only in cases where the mating component ends are fixed and cannot be pulled out of the valve body. **NOTE:** There is a higher likelihood that valve damage will occur with this method, which will result in the valve requiring replacement. These instructions apply to valves installed in any orientation. Mating component ends and the valve shall be supported throughout the following process.





1. Verify that the system is depressurized and drained completely before attempting to remove any valves from the system.

1a. Place the disc to within approximately 20° from the fully-closed position.

2. Remove the nuts, bolts, and flat washers from the valve assembly to permit removal of the lower housing, as shown.

⚠ CAUTION

- **Use caution to prevent hands and arms from being cut on mating component ends during valve removal. Cut-resistant gloves are recommended.**

Failure to follow this instruction could result in personal injury.

NOTICE

- **For larger valve sizes, a chain fall/winch or similar device may be required to support the top of the valve assembly while performing the following steps.**
- **Pay close attention to the gasket lips as the valve is extracted. Mating component ends may be sharp. If the gasket is pulled across mating component ends without protection, it is possible to cut the gasket lip and cause irreparable valve damage.**

3. While supporting the top of the valve assembly securely, squeeze the gasket in between the mating component ends. Continue to work the gasket in between the mating component ends while pushing the valve assembly through the opening between the mating component ends.

4. After the valve is removed from in between the mating component ends, inspect all components for any damage or wear. If any damage or wear is present, use a new Victaulic-supplied valve assembly.

PROCEED TO THE REASSEMBLY STEPS ON THE FOLLOWING PAGE.

METHOD 2 – REASSEMBLY

⚠ CAUTION

- **A thin coat of a compatible lubricant shall be applied to the gasket sealing lips and the bottom exposed portion of the gasket, where the lower housing will seat, to help prevent pinching, rolling, or tearing during reassembly.**

Failure to use a compatible lubricant may cause gasket damage, resulting in joint leakage and property damage.

5. Apply a thin coat of a compatible lubricant, such as Victaulic Lubricant or silicone grease, to the gasket sealing lips and the bottom exposed portion of the gasket where the lower housing will seat (silicone spray is not a compatible lubricant).

NOTICE

- **Pay close attention to the gasket lips as the valve is inserted between the mating component ends. Mating component ends may be sharp. If the gasket is pulled across mating component ends without protection, it is possible to cut the gasket lip and cause irreparable valve damage. Additional deburring of mating component ends may be required to help prevent the gasket from being damaged during insertion.**

6. While supporting the top of the valve assembly securely, squeeze the gasket in between the mating com...ponent ends. Continue to work the gasket in between the mating component ends while pushing the valve assembly through until the upper housing's keys engage the grooves completely in each mating component end. Verify that the gasket is uniform around the entire circumference of the mating component ends and that no sections are pinched or damaged. If any damage occurs, the entire valve assembly shall be replaced.

7. Install the lower housing. Verify that the gasket seats completely within the lower and upper housings and that the housings' keys engage the grooves completely in each mating component end. Install a bolt into each hole location at the bolt pads. Install a flat washer onto the end of each bolt, and thread a nut onto each bolt until finger-tight.

8. Follow steps 5 – 6 on pages 3 – 4 to complete the assembly.

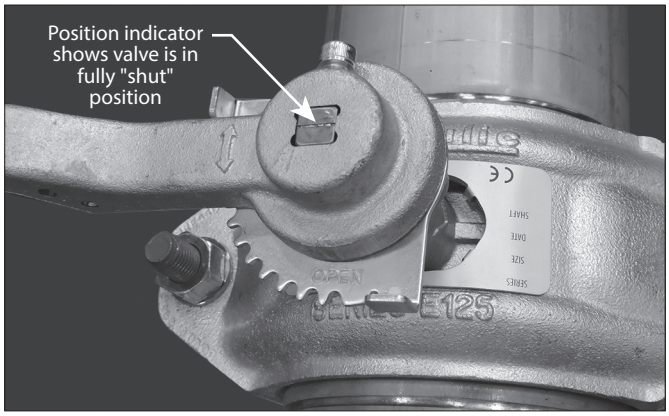
LEVER LOCK HANDLE TO GEAR OPERATOR CONVERSION

⚠ WARNING

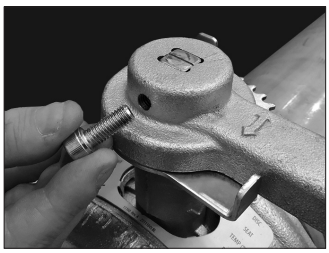
- **Read and understand all instructions before attempting to perform the lever lock handle to gear operator conversion.**
- **Prevent flow from passing through the valve, and place the disc in the "shut" position during the following procedures.**

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

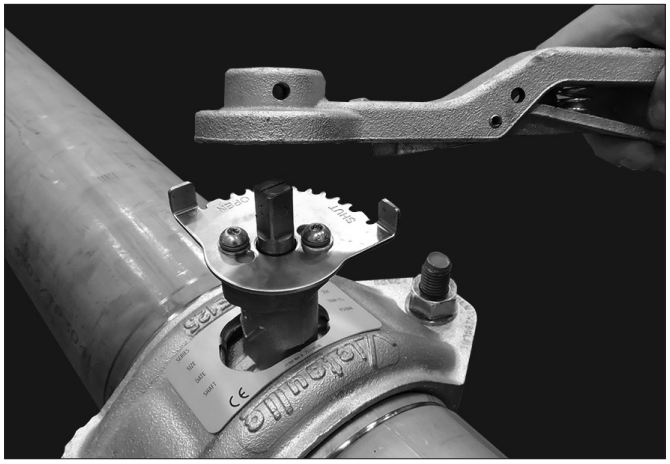
Removal of the lever lock handle can be performed without removing the valve from the piping system. **Prevent flow from passing through the valve during removal of the lever lock handle.**



1. Using the lever lock handle, place the valve in the fully "shut" position. **NOTE:** There is a position indicator on top of the stem.



2. Remove the set screw from the side of the lever lock handle.



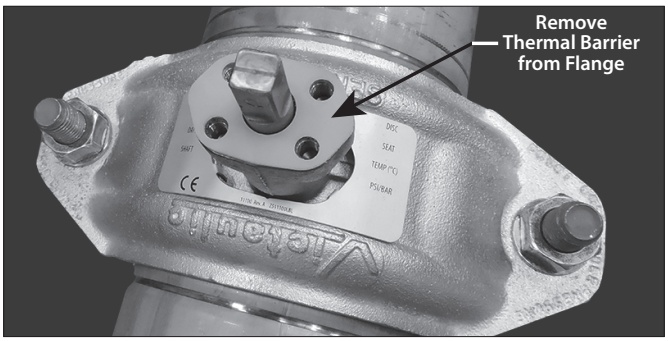
3. Remove the lever lock handle from the lever lock handle plate.

⚠ CAUTION

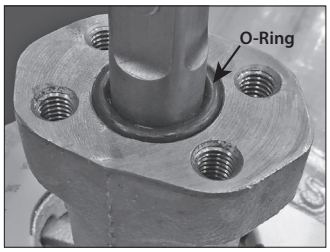
- **DO NOT attempt to operate an Installation-Ready™ Butterfly Valve without a lever lock handle or gear operator installed.**

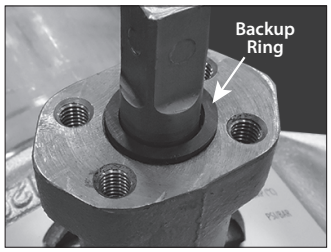
Failure to follow this instruction will cause improper valve operation and damage to the stem.

4. Remove the two cap screws and washers, then remove the lever lock handle plate.

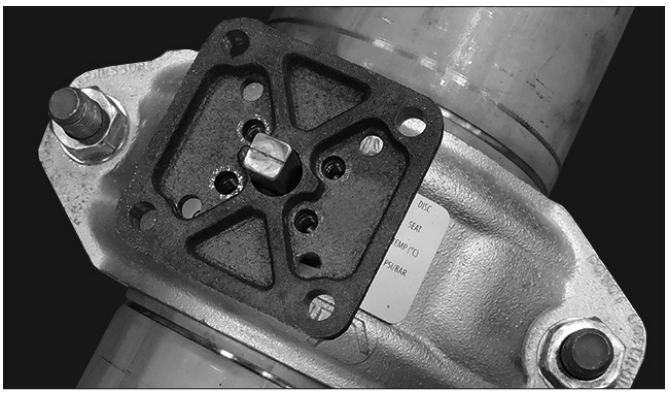


5. Remove the thermal barrier from the flange.

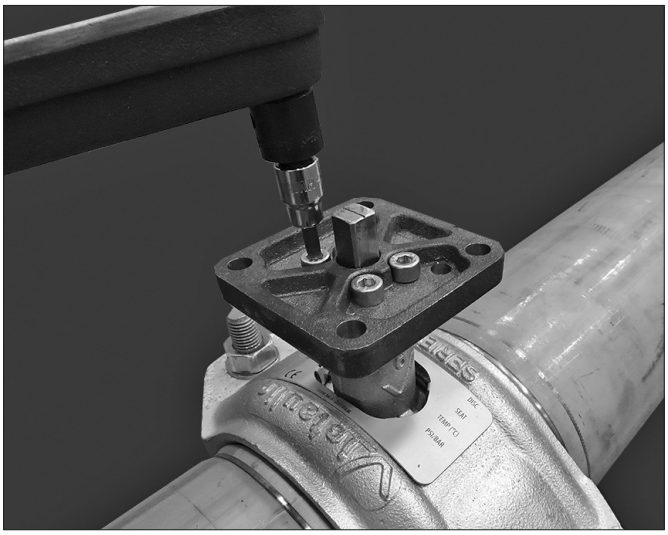




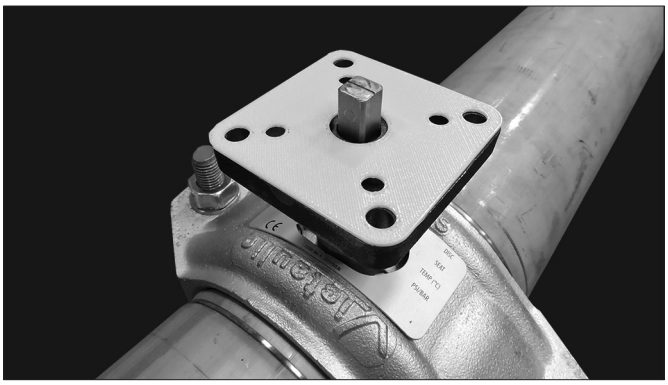
6. Verify that the o-ring and backup ring are still installed in the recess of the flange around the stem, as shown above (o-ring is installed under the backup ring).



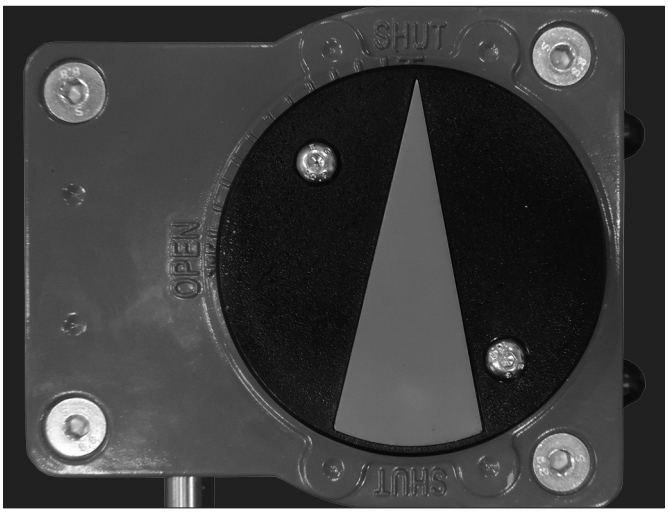
7. Place the gear operator adapter plate over the stem. Align the holes of the gear operator adapter plate with the holes in the flange.



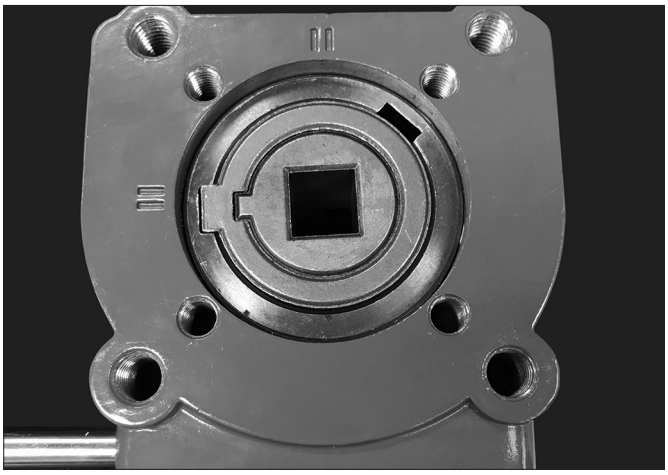
8. Apply thread-locking compound to the cap screws. Insert the cap screws to retain the gear operator adapter plate to the flange. **Tighten each cap screw to 28 – 30 ft-lbs/38 – 41 N•m.**



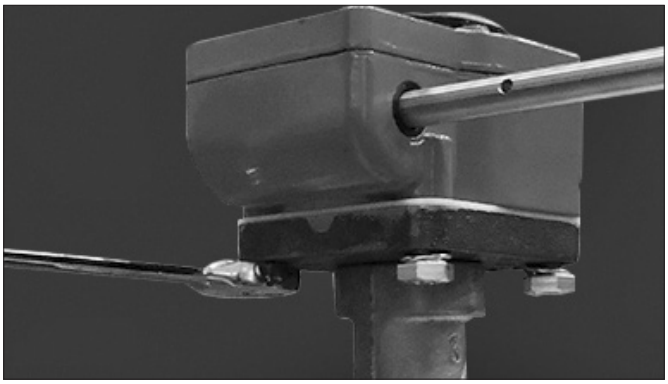
9. Place the thermal barrier over the stem. Align the holes of the thermal barrier with the holes in the gear operator adapter plate.



10. Turn the handwheel of the gear operator until the arrow on the indicator cap is pointing toward the "SHUT" position, as shown above.



11. Insert the drive bushing into the gear operator, as shown above.

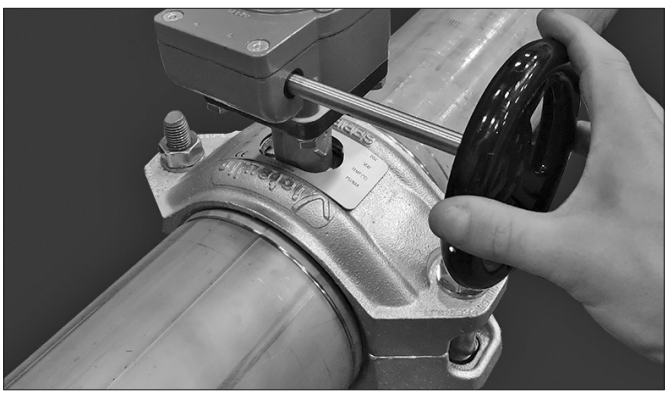


12a. Place the gear operator/drive bushing assembly onto the gear operator adapter plate by aligning the four holes of the gear operator with the four holes in the gear operator adapter plate/thermal barrier. **NOTE:** In certain cases, the handwheel may need to be rotated to position the drive bushing/stem for alignment of the gear operator's and gear operator adapter plate's bolt hole patterns. If this is the case, loosen the hex lock nut and internal set screw of the "shut" travel limit stop to permit alignment (refer to the following page).

12b. Thread a bolt with a lock washer up through each hole in the gear operator adapter plate/thermal barrier and into the gear operator.

12c. Tighten the four bolts completely until the lock washers are flattened.

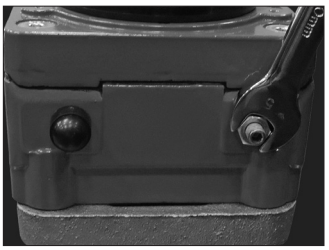
12d. Set the "shut" travel limit stops by following the steps on the following page; this is especially important if the handwheel was rotated in step 12a.



13. After setting the "shut" travel limit stops in step 12d, operate the valve to the fully "open" position (90° from the correctly-adjusted "shut" position). Set the "open" travel limit stops by following the steps on the following page.

ADJUSTING AND SETTING THE "SHUT" TRAVEL LIMIT STOPS OF THE GEAR OPERATOR

1. Remove the dust cap from the right side of the gear operator.

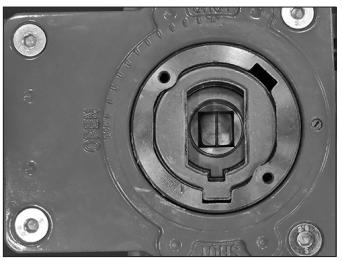


2a. Loosen the hex lock nut (counterclockwise) located on the right side of the gear operator.

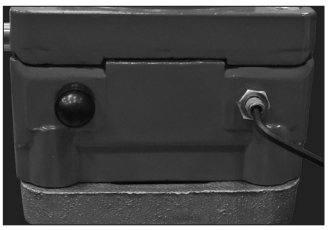
2b. Using a hex key wrench, loosen the internal set screw approximately three turns (counterclockwise).

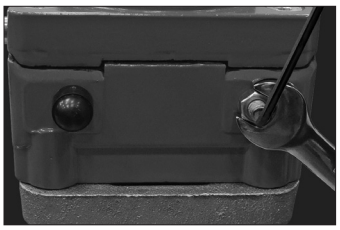
NOTICE

- **When using a stem extension kit, additional adjustment may be required to achieve the fully "shut" position.**



3. Verify that the valve is in the fully "shut" position. The fully "shut" position can be verified by removing the indicator cap from the top of the gear operator and checking the position indicator on top of the stem, as shown to the left.





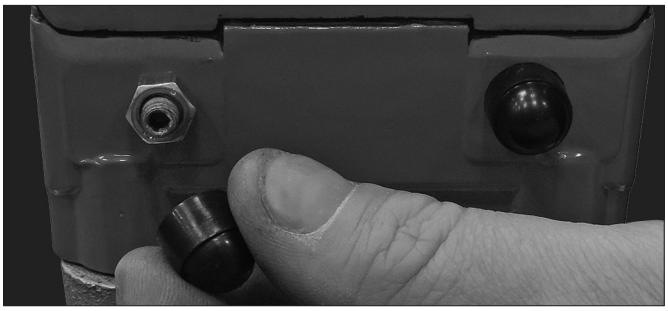
4a. Using a hex key wrench, tighten the internal set screw (clockwise) until it contacts the internal quadrant gear.

4b. While holding the internal set screw in position with the hex key wrench, tighten the hex lock nut (clockwise).

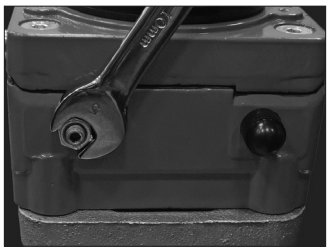
5. Verify proper operation of the gear operator by turning the handwheel. Repeat the prior steps of this procedure, if necessary.

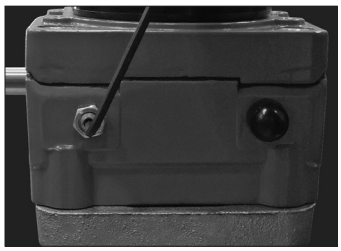
6. Replace the dust cap, and follow the "open" travel limit stop adjustment procedure in the following column.

ADJUSTING AND SETTING THE "OPEN" TRAVEL LIMIT STOPS OF THE GEAR OPERATOR



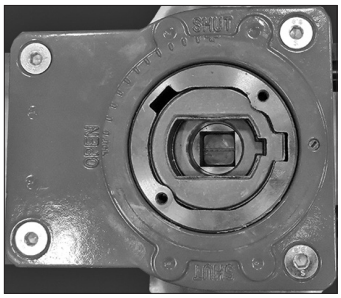
1. Remove the dust cap from the left side of the gear operator.



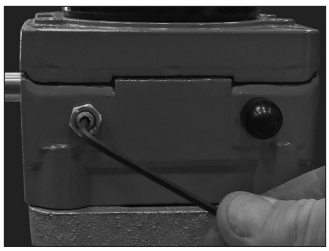


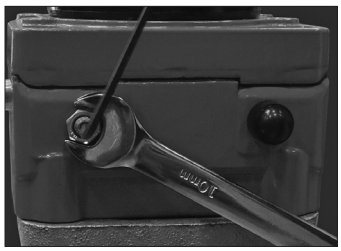
2a. Loosen the hex lock nut (counterclockwise) located on the left side of the gear operator.

2b. Using a hex key wrench, loosen the internal set screw approximately three turns (counterclockwise).



3. Turn the handwheel counter-clockwise. Verify that the valve is in the fully "open" position by checking the position indicator on top of the stem, as shown to the left. The position indicator on top of the stem should be 90° from the correctly adjusted "shut" position.





4a. Using a hex key wrench, tighten the internal set screw (clockwise) until it contacts the internal quadrant gear.

4b. While holding the internal set screw in position with the hex key wrench, tighten the hex lock nut (clockwise).

5. Verify proper operation of the gear operator by turning the handwheel. Repeat the prior steps of this procedure, if necessary.

6. Replace the dust cap and indicator cap.

Installation-Ready™ Butterfly Valves

Series 121, 122, and 124 for Original Groove System (OGS) Mating Components
Series E125 for STRENGTHIN™100 Stainless Steel Mating Components