

Tideflex® Series 37G Inline Check Valve

Installation, Operation and Maintenance Manual



The revolutionary design of the Series 37G Inline Check Valve provides superior backflow protection. This unique "duckbill" design eliminates costly backflow from oceans, rivers, and other waterbodies and piping systems.

The Series 37G is available in a wide variety of elastomers and is designed to meet your exact flow specifications.

The cuff of the Series 37G Valve is constructed to have the same outside diameter as the inside diameter of the mating pipe. This allows the valve to be inserted into the pipe and held in place by means of an internal expansion clamp. **Tideflex® recommends pinning all Series 37G valves for added security and stability.**

The 37G effectively has a zero face-to-face dimension because they fit completely inside of the pipe. No modification of piping is required provided adequate pipe length exists.

- Simple Design
- Cost Effective
- No Hinges, Levers or Springs
- Minimal Routine Maintenance



Certified to
NSF/ANSI/CAN 61

Only certain valves have NSF/ANSI/CAN 61 Certification.

Contact Red Valve with the valve's part number and serial number that are embedded in the rubber to confirm.

IMPORTANT

Please take a moment to review this manual. Before performing any maintenance on the valve be sure the pipeline has been depressurized. The improper installation or use of this product may result in personal injury, product failure, or reduced product life. Tideflex® can accept NO liability resulting from the improper use or installation of this product. If you have any questions or problems, please call the customer service department at (412) 279-0044. We appreciate your comments. Thank you for choosing Tideflex®.

INSTALLATION

1. Inspection of Valve

Check inside diameter of pipe section for rough or damaged areas. Surface should be uniform and relatively smooth. Long gouges or cracks may allow water to pass and should be filled prior to installation. The exterior of the Series 37G should have a rough texture resembling a cloth pattern. This will help the valve grip the walls of the pipe.

2. Valve Orientation

The valve shall be installed with the bill in the vertical position. Valves to 18" (nominal) are supplied with a single clamp. The clamp turnbuckle should be oriented at top dead center.

Valves 24"—48" (nominal) are supplied with two clamps. The turnbuckles should be oriented 180° apart. Valves 60"—72" (nominal) are supplied with three clamps. Turnbuckles should be oriented 120° apart.

3. Pipe Dimensions

Every Series 37G is designed and built to fit into a specific pipe inside diameter. Different pipe materials such as concrete, HDPE, steel, and PVC have different I.D. dimensions for the same nominal pipe size. Do not attempt to install a Series 37G into a pipeline for which it was not intended.

4. Preparation

The Series 37G uses expanding clamp(s) to exert pressure outwards on the walls of the valve to "wedge" it in place within the pipe. The walls of the pipe should be clean and free of debris prior to installation.

5. Securing

The valve should be inserted fully into the pipe so that no part of the cuff or bill extends outside the pipe. Ensure that the valve is not "slanted" at an angle, with the bill pointing upwards or downwards. The valve centerline should be parallel to the pipe centerline.

Tideflex® recommends pinning the Series 37G on all installations. See below.

Four pre-drilled holes are provided in each expansion clamp. At least one clamp should be pinned. On exposed pipe, holes can be drilled through the valve and pipe, and a bolt run through secured with a nut. For buried pipe, silicon or similar sealant should be used to seal bolts.

NEVER...

Install the Valve at An Angle

NEVER...

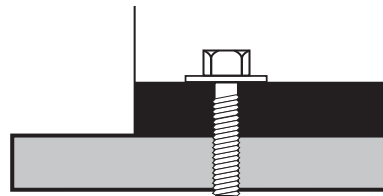
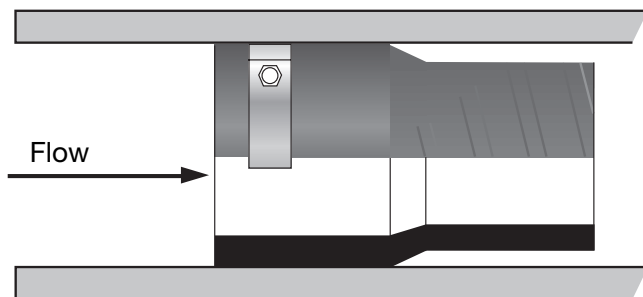
Use Sharp Tools on Rubber

NEVER...

Exceed Design Back Pressure

NEVER...

Install the Valve Backwards



INSTALLATION NOTES FOR SERIES 37G

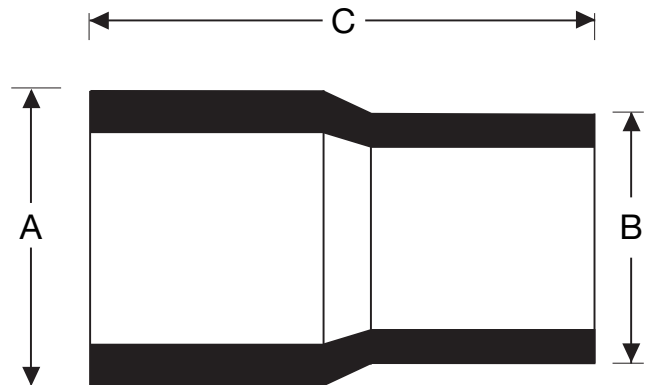
A. It is important that the Series 37G are installed level within the pipe. An equal amount of space must exist above and below the end of the bill. The Series 37G may "gap open" if installed improperly.

B. The bill of the Series 37G must have room to expand outwards, while bottom of the bill area rises. The area around the bill must be kept free of debris to allow the bill to close in order for the valve to seal properly.

C. The Series 37G effectively reduces the inside diameter of the pipe in which it is installed, creating a restriction. It may also create a "ledge" inside the pipe, causing standing water.

D. Back pressure in excess of the maximum line pressure may invert the sleeve and cause valve failure.

E. Should the conditions that the Series 37G was designed for change, (line pressure, back pressure, chemical compatibility) the performance of the valve may suffer.



| Nominal Pipe I.D./Valve Size* (A) | Maximum Bill Height (B) | Maximum Length (C) | Maximum Back Pressure (psi) |
|--------------------------------------|----------------------------|-----------------------|-----------------------------|
| 6" | 5-7/8" | 11" | 75 |
| 8" | 7-3/4" | 12-1/4" | 75 |
| 10" | 9-3/4" | 15-1/4" | 65 |
| 12" | 11-3/4" | 18-1/4" | 65 |
| 14" | 13-1/2" | 21-1/4" | 50 |
| 16" | 15-1/2" | 22-3/4" | 50 |
| 18" | 17-1/2" | 23-3/4" | 25 |
| 20" | 19-1/2" | 31-3/4" | 25 |
| 24" | 22" | 37" | 25 |
| 30" | 27" | 40-1/2" | 15 |
| 36" | 34" | 46-3/4" | 15 |
| 42" | 40" | 49" | 10 |
| 48" | 45" | 51-1/2" | 10 |
| 60" | 57" | 63-7/8" | 10 |
| 72" | 69" | 72-1/2" | 10 |

*For pipe I.D.'s other than the nominal pipe I.D.'s shown, consult factory to verify 37G dimensions.

MAINTENANCE

1. Inspection

Valves should occasionally be inspected for damage, wear, and buildup of debris. The frequency of the inspections should be determined by the severity of the service and the environment in which it operates.

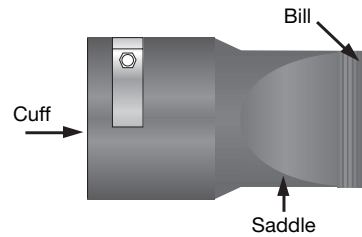
The clamp should be checked for proper tension, and be sure that the inside of the valve is free of debris. Soft marine growth is normal on valves in submerged applications, and because hard marine growth such as barnacles will not bond well to the Tideflex® they can be easily removed. Also insert pins to ensure they are tight.

STORAGE

If your Series 37G is to be stored for a period of time prior to installation, the following storage guidelines will help to preserve the valve and assure a trouble-free installation.

1. Store in a clean, cool, dry location. Avoid exposure to light, electric motors, dirt, or chemicals.
2. Store valve vertically on floor or pallet.
3. Store valve to prevent other items from contacting check sleeve to prevent possible damage.

4. Store this manual with the valve, so that is readily available at time of installation.



TROUBLESHOOTING GUIDE

SLEEVE INVERTED

- Excessive back pressure, water surge, or water hammer.

LEAKING AROUND PERIMETER OF VALVE

- Tighten Clamp
- Check for cracks and holes in surface of pipe

BACKFLOW

- Debris lodged inside bill
- Debris built up beneath bill



Limited Warranty

Red Valve Company ("Seller") manufactured products, auxiliaries and parts thereof that we manufacture for a period of twenty-four (24) months from date of shipment from Seller's factory, are warranted to the original purchaser only against defective workmanship and material, but only if properly stored, installed, operated, and serviced in accordance with Seller's recommendations and instructions.

For items proven to be defective within the warranty period, your exclusive remedy under this limited warranty is repair or replacement of the defective item, at Seller's option, FCA Incoterms 2020 Seller's facility with removal, transportation, and installation at your cost.

Products or parts manufactured by others but furnished by Seller are not covered by this limited warranty. Seller may provide repair or replacement for other's products or parts only to the extent provided in and honored by the original manufacturer's warranty to Seller, in each case subject to the limitations contained in the original manufacturer's warranty.

No claim for transportation, labor, or special or consequential damages or any other loss, cost or damage is being provided in this limited warranty. You shall be solely responsible for determining suitability for use and in no event shall Seller be liable in this respect.

This limited warranty does not warrant that any Seller product or part is resistant to corrosion, erosion, abrasion or other sources of failure, nor does Seller warrant a minimum length of service.

Your failure to give written notice to us of any alleged defect under this warranty within twenty (20) days of its discovery, or attempts by someone other than Seller or its authorized representatives to remedy the alleged defects therein, or failure to return product or parts for repair or replacement as herein provided, or failure to store, install, or operate said products and parts according to the recommendations and instructions furnished by Seller shall be a waiver by you of all rights under this limited warranty.

This limited warranty is voided by any misuse, modification, abuse or alteration of Seller's product or part, accident, fire, flood or other Act of God, or your failure to pay entire contract price when due.

The foregoing limited warranty shall be null and void if, after shipment from our factory, the item is modified in any way or a component of another manufacturer, such as but not limited to; an actuator is attached to the item by anyone other than a Seller factory authorized service personnel.

All orders accepted shall be deemed accepted subject to this limited warranty, which shall be exclusive of any other or previous warranty, and this shall be the only effective guarantee or warranty binding on Seller, despite anything to the contrary contained in the purchase order or represented by any agent or employee of Seller in writing or otherwise, notwithstanding, including but not limited to implied warranties.

THE FOREGOING REPAIR AND REPLACEMENT LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, OBLIGATIONS AND LIABILITIES, INCLUDING, BUT NOT LIMITED TO, ALL WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR OF MERCHANTABILITY OR OTHERWISE, EXPRESSED OR IMPLIED IN FACT OR BY LAW, AND STATE SELLER'S ENTIRE AND EXCLUSIVE LIABILITY AND YOUR EXCLUSIVE REMEDY FOR ANY CLAIM IN CONNECTION WITH THE SALE AND FURNISHING OF SERVICES, GOODS OR PARTS, THEIR DESIGN, SUITABILITY FOR USE, INSTALLATION OR OPERATIONS. NEITHER ANY PERFORMANCE OR OTHER CONDUCT, NOR ANY ORAL OR WRITTEN INFORMATION, STATEMENT, OR ADVICE PREPARED BY SELLER OR ANY OF OUR EMPLOYEES OR AGENTS WILL CREATE A WARRANTY, OR IN ANY WAY INCREASE THE SCOPE OR DURATION OF THIS LIMITED WARRANTY.

Limitation of Liability

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, DAMAGE TO OR LOSS OF OTHER PROPERTY OR EQUIPMENT, BUSINESS INTERRUPTION, COST OF SUBSTITUTE PRODUCTS, LOSS OF TIME, LOSS PROFITS OR REVENUE, COST OF CAPITAL, LOSS OF USE, OR DIMINUTION IN VALUE) WHATSOEVER, AND SELLER'S LIABILITY, UNDER NO CIRCUMSTANCES, WILL EXCEED THE CONTRACT PRICE FOR THE GOODS AND/OR SERVICES FOR WHICH LIABILITY IS CLAIMED. ANY ACTION FOR BREACH OF CONTRACT BY YOU, OTHER THAN RIGHTS RESPECTING OUR LIMITED WARRANTY DESCRIBED ABOVE, MUST BE COMMENCED WITHIN 12 MONTHS AFTER THE DATE OF SALE.

Sales and Service

For information about our worldwide locations, approvals, certifications and local representative:

Web site: RedValve.com E-Mail: support@redvalve.com



750 Holiday Drive, Suite 400, Pittsburgh, PA 15220 • Phone: 412-279-0044

Red Valve Company reserves the right to incorporate our latest design and material changes without notice or obligation. Design features, materials of construction and dimensional data, as described in this manual, are provided for your information only and should not be relied upon unless confirmed in writing by Red Valve Company. Certified drawings are available upon request.