

GRINNELL Model 680 Butterfly Valve with Lever Handle for Copper Tubing (CTS)

General Description

The GRINNELL Model 680 Butterfly Valve is for use in piping systems with grooved copper tubing (CTS). It provides for efficient control of fluid in piping systems with a 10 position locking lever handle. Flow may be from either direction, and the valve may be positioned in any orientation.

The Model 680 Butterfly Valve features a bronze body and a disc that is fully encapsulated with EPDM rubber for potable water service. The Model 680 Valve is ANSI/NSF 61 classified.

The Model 680 Valve is also available with a factory-installed gear operator on request.

⚠WARNING

Never remove any piping component nor correct or modify any piping deficiencies without first de-pressurizing and draining the system. Failure to do so may result in serious personal injury, property damage, and/or impaired device performance.

It is the Designer's responsibility to select products suitable for the intended service and to ensure that pressure ratings and performance data are not exceeded. Material and gasket selection should be verified for compatibility with the specific application. Always read and understand the installation instructions.

The GRINNELL Model 680 Butterfly Valve described herein must be installed and maintained in compliance with this document, in addition to the standards of any other authorities having jurisdiction. Failure to do so may result in serious personal injury or impair the performance of these devices.

Owners are responsible for maintaining their mechanical system and devices in proper operating condition. The installing contractor or device manufacturer should be contacted with any questions.

Technical Data

Approvals
UL and NSF-61 Annex G

Sizes
2 inch to 6 inch

Maximum Working Pressure
300 psi (20,7 bar)

Materials of Construction

- **Body**
Bronze per ASTM B 584 (UNS C90500)
- **Disc**
EPDM encapsulated ductile iron, ductile iron per ASTM A 536, Grade 65-45-12
- **Upper and Lower Shafts**
Stainless steel Type 416 per ASTM A 582
- **Operator**
Lever with locking device

Installation

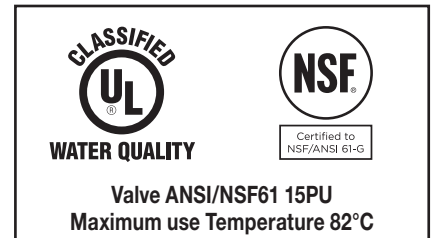
In piping systems, butterfly valves should be located where they can be readily accessible for operation, inspection, and maintenance.

The Model 680 Butterfly Valve may be hydrostatically tested for a one time field test at 1-1/2 times working pressure (that is, 450 psi/31 bar).

When a valve "closes hard", it may be due to debris lodged in the sealing area. This may be corrected by backing-off the handle and closing it again, several times if necessary.

The valve should never be forced to seat by applying an extension to the handle, as it may distort the valve components or score the sealing surfaces.

To prevent rotation of the valve, it is recommended that the Model 680 Butterfly Valve be installed with rigid couplings, such as the GRINNELL Figure 672 Coupling. If flexible couplings are used, additional support may be needed to prevent rotation.



NOTICE

Never disassemble or remove any valve component without verifying that the system is de-pressurized and drained.

Care and Maintenance

Owners are responsible for the inspection, testing, and maintenance of their mechanical system and associated devices in compliance with the standards of any authorities having jurisdiction. The installing contractor or device manufacturer should be contacted relative to any questions.

Limited Warranty

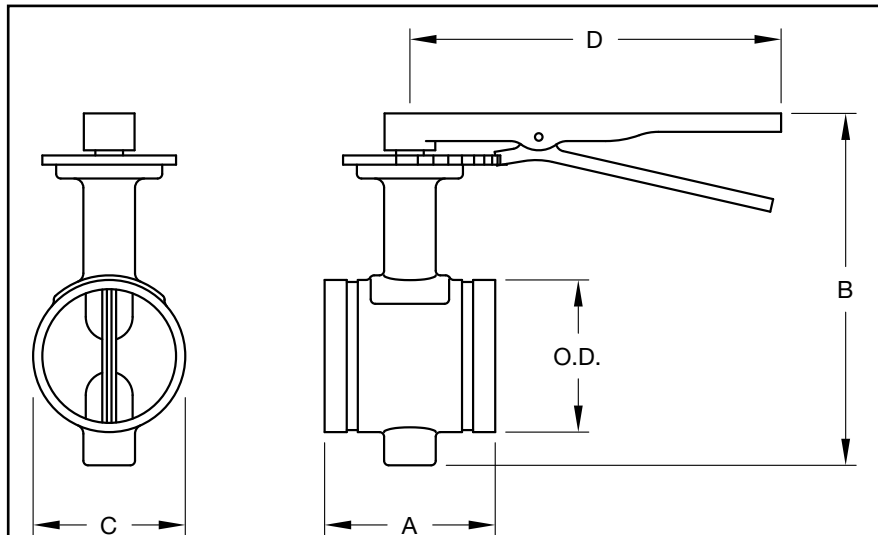
Products manufactured by Tyco Fire Suppression & Building Products (TFSBP) are warranted solely to the original Buyer for ten (10) years against defects in material and workmanship when paid for and properly installed and maintained under normal use and service. This warranty will expire ten (10) years from date of shipment by TFSBP. No warranty is given for products or components manufactured by companies not affiliated by ownership with TFSBP or for products and components which have been subject to misuse, improper installation or maintenance, corrosion, or other external sources of damage. Materials found by TFSBP to be defective shall be either repaired or replaced, at TFSBP's sole option. TFSBP neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sale of products or parts of products. TFSBP shall not be responsible for system design errors or inaccurate or incomplete information supplied by Buyer or Buyer's representatives.

In no event shall TFSBP be liable, in contract, tort, strict liability or under any other legal theory, for incidental, indirect, special or consequential damages, including but not limited to labor charges, regardless of whether TFSBP was informed about the possibility of such damages, and in no event shall TFSBP's liability exceed an amount equal to the sales price.

The foregoing warranty is made in lieu of any and all other warranties, express or implied, including warranties of merchantability and fitness for a particular purpose.

This limited warranty sets forth the exclusive remedy for claims based on failure of or defect in products, materials or components, whether the claim is made in contract, tort, strict liability or any other legal theory.

This warranty will apply to the full extent permitted by law. The invalidity, in whole or part, of any portion of this warranty will not affect the remainder.



Nominal Valve Size ANSI Inches	Tube O.D. Inches (mm)	Nominal Dimensions Inches (mm)				Approx. Weight Lbs. (kg)
		A	B	C	D	
2	2.125 (54,0)	3.19 (81,0)	5.31 (135,0)	2.45 (57,0)	10.00 (254,0)	4.9 (2,2)
2-1/2	2.625 (66,7)	3.75 (96,0)	5.91 (150,0)	2.63 (67,0)	10.00 (254,0)	5.9 (2,7)
3	3.125 (79,4)	3.75 (96,0)	7.68 (195,0)	3.13 (79,0)	10.00 (254,0)	6.6 (3,0)
4	4.125 (104,8)	4.63 (118,0)	8.78 (223,0)	4.13 (105,0)	10.00 (254,0)	11.0 (5,0)
5	5.125 (130,2)	5.88 (149,0)	9.80 (249,0)	5.13 (130,0)	10.00 (254,0)	17.6 (8,0)
6	6.125 (155,6)	5.88 (149,0)	10.86 (276,0)	6.13 (156,0)	10.00 (254,0)	21.6 (9,8)

FIGURE 1
MODEL 680 BUTTERFLY VALVE
FOR COPPER TUBING (CTS)

Ordering Information

GRINNELL Products are available globally through a network of distribution centers. Visit www.grinnell.com for the nearest distributor.

When placing an order, indicate the full product name. Specify the quantity, valve model number, and size.