TECHNICAL SPECIFICATIONS
Series 710 PTFE-Lined
Full-Face Wafer/Lug Butterfly Valves: 2” – 12”
Fiberglass Reinforced Composite Body

1. SCOPE
Full-Face Wafer/Lug Butterfly Valves with through-drilled or threaded flange bolt holes for corrosive chemical and high-purity services.

2. SERVICE RATING
Continuous temperature service from -50 to 275°F. Short-term exposures to 300°F are acceptable.

150 PSI PTFE/PFA rating for complete temperature range.

3. MATERIALS OF CONSTRUCTION
(1) Body: Glass Fiber Reinforced Vinyl Ester Resin
(2) Disc: PFA-Lined, 316 Stainless Steel, Gr. C-2 Titanium
(3) Seat: PTFE/Silicone or PTFE/Viton
(4) Body Bolts: PTFE-coated ASTM A193 Gr. B7
(5) Flange Connections: Bolt holes may be through drilled (wafer) or threaded (lug).
(6) Actuator Mounting Pad: Per ISO 5211

4. DESIGN
- Body shall have flange clearance holes per ANSI B16.5 CL 150 for alignment or be threaded. Threaded Lug valves are fully rated for end–of-line service.
- Valves are designed for Bi-Directional shutoff at full rated pressure.
- Body shall have burst pressure at least 4x the rated pressure, per ASTM 1173.
- Face-to-face dimensions per MSS-SP67 as listed on Page 2.
- Disc shall be a one piece blowout proof design.
- Stem sealing to be provided by mating primary seat/disc spherical surfaces backed up by tortuous locking barbs
- Valve design shall be such that it can be bolted into a standard PTFE-lined steel pipe and the valve disc not interfere with the lining of the pipe.
- Valve disc/seat to provide bubble tight shut off per API 598 and MSS-SP61.
- Gear or lever handle shall be available on all sizes.
- Valves shall be capable of on-off actuation or modulating control with pneumatic, electric or hydraulic actuators.

5. QUALITY ASSURANCE
- The Manufacturer’s facility shall be certified to ISO 9001 or equivalent.
- Each valve shall be hydrostatically tested with water at 225 psig with the disc open and both ends blanked for 3 minutes with no evidence of leakage.
- Each valve shall be subjected to a hydrostatic seat test at 165 psi with no evidence of leakage.

6. PACKING AND SHIPPING
Valves shall be shipped in the closed position. Each valve shall be marked with the manufacturer, size, series, construction materials, serial number, and valve component designation in accordance with MSS-SP25.

7. AVAILABILITY
Valves meeting this specification are available from:

Nil-Cor®, LLC
4855 Broadmoor Ave.
Kentwood, MI 49512
P: 616-554-3100
F: 616-554-5623
www.nilcor.com
# Nil-Cor®

## 710 SERIES BUTTERFLY VALVE DIMENSIONS

All dimensions are in inches

Unless otherwise noted

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### ENGLISH UNITS (Dimensions in inches)

#### SHAFT ISO FLANGE WAFER LUG LEVER GEAR

| SIZE | A   | B   | C   | D   | E   | F   | G   | H   | J   | K   | L   | M   | N   | N   | O   | P   | W   | X   | Y   | HW | WT (LBS) |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2    | 8.78| 8.25| 5.53| 3.61| 1.47| 2.06| 1.31| 0.625| 0.439| 0.44| 4.016| 0.50| 0.75| 5.8 -11| 4.75| 1.69| 13.75| 6.87| 6.25| 8.11| 9.64| 6.00| 6   |
| 3    | 10.06| 9.00| 6.31| 5.00| 3.69| 2.59| 1.31| 0.625| 0.439| 0.44| 4.016| 0.88| 0.75| 5.8 -11| 6.00| 1.81| 13.75| 7.65| 6.25| 8.89| 10.42| 6.00| 9   |
| 4    | 11.31| 10.25| 6.81| 6.00| 1.00| 3.47| 1.31| 0.625| 0.439| 0.44| 4.016| 0.88| 0.75| 5.8 -11| 7.50| 2.06| 13.75| 8.15| 6.25| 9.39| 10.92| 6.00| 14  |
| 6    | 14.09| 12.22| 8.06| 8.25| 1.88| 5.50| 1.31| 1.000| 0.836| 0.44| 4.016| 1.50| 0.88| 3.4 -10| 9.50| 2.22| 13.75| 9.40| 6.75| 10.64| 13.17| 8.00| 25  |
| 8    | 17.19| 15.39| 10.13| 10.25| 2.69| 7.38| 1.31| 1.000| 0.836| 0.44| 4.016| 1.50| 0.88| 3.4 -10| 11.75| 2.38| NA  | NA  | 6.75| 11.02| 13.55| 8.00| 34  |
| 10   | 21.09| 18.81| 13.31| 12.25| 3.63| 9.56| 1.75| 1.375| 1.060| 0.56| 4.921| 1.50| 1.00| 7.8 -9 | 14.35| 2.69| NA  | NA  | 7.25| 15.26| 19.69| 12.00| 52  |
| 12   | 25.75| 21.00| 13.31| 14.38| 4.44| 11.96| 2.13| 1.375| 1.060| 0.56**| 4.921| 1.50| 1.00| 7.8 -9 | 17.00| 3.09| NA  | NA  | 7.25| 16.29| 20.69| 12.00| 65  |

### METRIC UNITS (Dimensions in mm)

#### SHAFT ISO FLANGE WAFER LUG LEVER GEAR

| SIZE | A   | B   | C   | D   | E   | F   | G   | H   | J   | K   | L   | M   | N   | N   | O   | P   | W   | X   | Y   | HW | WT (KG) |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 50   | 223.0| 208.6| 140.5| 91.7| 11.9| 52.3| 33.3| 15.88| 11.15| 11.2| 102| 12.7| 19.1| 5.8 -11| 120.7| 42.9| 349| 174| 159| 206| 245| 152| 2.7   |
| 80   | 255.6| 238.6| 160.3| 127.0| 17.5| 65.8| 33.3| 15.88| 11.15| 11.2| 102| 22.4| 19.1| 5.8 -11| 152.4| 46.0| 349| 194| 159| 226| 265| 152| 4.1   |
| 100  | 287.3| 260.4| 173.0| 152.4| 25.4| 86.1| 33.3| 15.88| 11.15| 11.2| 102| 22.4| 19.1| 5.8 -11| 190.5| 52.4| 349| 207| 159| 238| 277| 152| 6.4   |
| 150  | 357.9| 310.4| 204.7| 208.9| 47.6| 139.7| 33.3| 25.40| 21.23| 11.2| 102| 38.1| 2.2 | 3.4 -10| 241.3| 56.4| 349| 239| 171| 270| 334| 203| 11.4  |
| 200  | 436.6| 390.9| 257.3| 260.4| 68.3| 167.5| 33.3| 25.40| 21.23| 11.2| 102| 38.1| 22.4| 3.4 -10| 296.5| 60.3| NA  | NA  | 171| 280| 344| 203| 15.5  |
| 250  | 535.8| 477.8| 312.7| 311.2| 92.2| 242.8| 44.5| 34.93| 25.40| 14.2| 125| 38.1| 2.5 | 7.8 -9 | 362.0| 68.3| NA  | NA  | 184| 388| 505| 305| 23.6  |
| 300  | 603.3| 533.4| 338.1| 365.3| 112.8| 293.6| 54.1| 34.93| 25.40| 14.2**| 125| 38.1| 25.4 | 7.8 -9 | 431.8| 78.6| NA  | NA  | 184| 414| 525| 305| 29.5  |

#### NOTES:

* Lined piping which exceeds the liner thickness specification of ASTM F1545 may require spacers to avoid disc interference.

** 12" valve size only, the actuator mounting holes are offset 15" on ISO S211 F12 bolt circle. (See Above)

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3/10/16 Series 710 PTFE Technical Specification