

Tideflex® Waterflex WF-3 Check Valve



- High backpressure rating
- Drop-tight seal eliminates backflow
- No springs or packing seals
- Lightweight
- Non-slamming
- Low profile, short face-to-face
- Full-face flange with bolt drilling mounts between two pipe flanges

Patent No. 76412514

Materials of Construction

- **Waterflex Membrane:** Natural Rubber (NR), Ethylene Propylene Diene Terpolymer (EPDM)*, Acrylonitrile-Butadiene (NBR), Fluoroelastomer (FKM), Chloroprene (CR), Chlorosulfonated Polyethylene (CSM), Chloro-Isobutylene-Isoprene (CIIR), NSF/ANSI/CAN 61 and NSF/ANSI/CAN 372 certified EPDM
- **Disc:** Carbon steel, 304 Stainless, 316 Stainless Steel, PVC (low pressure only)

The Tideflex® Waterflex WF-3 is a wafer-style check valve designed specifically for water applications. The WF-3 provides very low head loss characteristics with high backpressure ratings comparable to other valve styles such as lever and weight or spring-loaded discs.

The WF-3 operates solely on line pressure and backpressure to open and close without an additional energy source. As line pressure builds, the 100% elastomer Waterflex Membrane is folded away from the perforated disc, allowing water to pass. The memory of the elastomer membrane will cause it to return flat and backpressure will seal the membrane against the disc to prevent backflow. The WF-3 features a full-face flange and ASME bolt drilling to mount it between two pipe flanges.

The Waterflex WF-3 is more cost effective than other valve styles. Moving parts such as hinges and springs can seize if routine maintenance and lubrication are not performed. The WF-3 has no moving parts and requires virtually no maintenance or repairs. Operational costs are low and service life is long. The WF-3 also eliminates the need for machined metal parts, further keeping costs down.

Waterflex WF-3

| NOMINAL PIPE SIZE* | DIMENSIONS in/mm | | MAX. BACKPRESSURE** psi/kPa |
|--------------------------|------------------------|---------------------|-----------------------------------|
| | ASME FLANGE SIZE | OUTSIDE DIAMETER | |
| 4" | 4.00 | 9.00 | 150 |
| 100mm | 102 | 229 | 1030 |
| 6" | 6.00 | 11.00 | 150 |
| 150mm | 152 | 279 | 1030 |
| 8" | 8.00 | 13.50 | 125 |
| 200mm | 203 | 343 | 860 |
| 10" | 10.00 | 16.00 | 100 |
| 250mm | 254 | 406 | 690 |
| 12" | 12.00 | 19.00 | 75 |
| 300mm | 305 | 483 | 520 |
| 14" | 14.00 | 21.00 | 75 |
| 350mm | 356 | 533 | 520 |
| 16" | 16.00 | 23.50 | 75 |
| 400mm | 406 | 597 | 520 |
| 18" | 18.00 | 25.00 | 75 |
| 450mm | 457 | 635 | 520 |
| 20" | 20.00 | 27.50 | 75 |
| 500mm | 508 | 699 | 520 |
| 24" | 24.00 | 32.00 | 50 |
| 600mm | 610 | 813 | 350 |
| 30" | 30.00 | 38.75 | 50 |
| 750mm | 762 | 984 | 350 |
| 36" | 36.00 | 46.00 | 50 |
| 900mm | 914 | 1168 | 350 |
| 42" | 42.00 | 53.00 | 50 |
| 1050mm | 1067 | 1346 | 350 |
| 48" | 48.00 | 59.50 | 50 |
| 1200mm | 1219 | 1511 | 350 |

* For sizes 54" and up, consult factory.

**Consult factory for higher backpressure.

Head Loss Versus Pipe Velocity

