

Curved Bill Tideflex® — Tideflex® TF-2, Series 35, Series 39

Features & Benefits

- Curved bill design increases sealing area
- Lightweight, all-elastomer design
- Cost-effective, maintenance-free design
- Will not rust or corrode, no hinges to freeze or bind

Materials of Construction

- Elastomers available in Pure Gum Rubber, Neoprene, Hypalon, Chlorobutyl, Buna-N, Viton, and EPDM

The Tideflex® Technologies Company has been committed to the advancement of the Tideflex® “Duck Bill” Check Valve principal through on-going research and development since its inception in 1984. The latest advancement is the incorporation of a 180° bend into the resilient “bill” area, creating the Curved Bill Tideflex®.

Traditional Tideflex® Check Valves have a uniform wall thickness throughout the valve, for example, a 48” (120mm) TF-2 would have a 2” (50mm) wall thickness. The stiffness of the fabric-reinforced rubber bills in large diameter valves often proved too great to achieve a tight seal where little or no back pressure existed. For sizes 20” through 96”, the curved bill was developed.

The Curved Bill Tideflex® uses the same construction for the body of the valve, but has a bill that is thinner and more resilient. This construction allows the bill to be formed in a 180° curve that returns to the closed position more naturally than a straight bill. This allows the Curved Bill Tideflex® to form a tighter seal around the entrapped solids that are typical with effluent and stormwater outfalls.

Positive line pressure straightens the bill to permit discharge, absence of pressure allows the bill to close. The curved bill is able to discharge with as little as 1”-2” of water column, just like the straight bill. The curved design can also be rotated to gain additional bottom clearance while still providing a tight seal. The Curved Bill Tideflex® design is now standard on all TF-2, Series 35, and Series 39F check valves, and can be retrofitted to straight-bill check valves with a simple kit.

