HedFlex Duckbill Check Valves
The J&S VALVE - Duck Bill Rubber Check Valve, is a cost effective way to control back pressures from sewage treatment plants, outfalls and tidal operations. They are a fully passive backflow device requiring neither maintenance, outside sources of power, or manual assistance to operate.

The J&S VALVE - HEDFLEX Duckbill Rubber Check Valves, are offered as direct replacements for ineffective and maintenance ridden flap type check valves, which are commonly known to seize, rust and bind in unwanted positions. Unlike flap type valves, the Duckbill rubber check valves will handle large obstructions without jamming or having swing gates binding open.

Advantages of the J&S VALVE - HEDFLEX DUCKBILL CHECKVALVE Model DBV-09 Series Duckbill Rubber Check Valves:

- Positive Backflow Prevention
- Manufactured to Your Head Pressure Requirements
- Simple Installation When Replacing Flap Valves
- Zero Water Hammer Problems
- 35-50 Years of Service Life
- All Rubber Construction Resists Abrasive Slurries
- NSF/ANSI Standard 61 Certified Materials
- Very Quiet Operation
- Negligible Maintenance and Energy Costs
- Will Not Warp or Freeze
- Available in Sizes 1" to 96" (Available with special IDs to suit concrete pipe)

Specify, the J&S VALVE - HEDFLEX DUCKBILL CHECK VALVE to provide backflow protection.

Elastomers: All of the J&S VALVE - HEDFLEX DUCKBILL VALVES are available in a various elastomers and back pressure capabilities to suit most applications.

The J&S VALVE - HEDFLEX DUCKBILL CHECK VALVES will not freeze or deform and function solely on inlet and back pressures which will be Present in most applications

Each valve is carefully constructed using the finest of engineered materials and built by the most experienced rubber technicians in the industry.

APPLICATIONS:

- Wastewater Treatment Plant
- Sewer Systems
- Potable Water Holding Tanks
- Airport Runways
- Parking Lots
- Residential Areas
- Commercial Centers
- Storm Water Discharge
- Flood Control Prevention
- Effluent Diffusers
- Marine Effluent Diffusers
- Flap Valve Replacement
- Aeration Systems
- Blow-Off Connections
- Lift Station Drain Valves
- Salt Water Barriers
- Tidal Walls
- Filter Drains
- Detention Ponds

When an engineered solution is needed to solve a piping or backflow problem, call J&S VALVE

NOTE: Dimensional Drawings are Available at JandSValve.com
J&S Straight Bill Design vs. Competitors Curved Bill Design

Straight Bill Design Offers:
- Full Flow Without Curved Bill Restrictions
- Low Head Pressure to Open
- Not Affected by Flows or Current
- Can be Installed without Large Protective Headwalls
- Flow even Under Marginal Head Pressure
- Washes Sand and Other Matter away from the Bill
- Provides Full Flushing from the Lip Area
- Not a Patented Design

Curved Billed Design Offers:
- Partial Flow Caused by Curved Bill Restrictions
- Higher Head Pressure to Open
- Not Affective in Dual Flow Applications; Rivers and Tide Change
- No Continual Flow Under Low Cracking Pressure
- Fails if Valve Lips are Blocked with Sand and Ocean Debris
- Requires Regular Maintenance to Prevent Clogging by Debris
- Patented Design to Eliminate Competition

In the photo on the left, the straight bill design on the left and the curved bill design is on the right. Notice that the straight bill design is operating under low-flow conditions while the curved bill is not. In the photo on the right, The curve bill has failed in many applications where trapped debris prevents the back pressure from sealing the valve. The curve bill collapses under the water weight causing the bill to remain open even when back pressure applies.
J&S HedFlex Check Valves are constructed with superior high grade rubber and superior polyester reinforcement to improve performance, operation, and life expectancy. There are many grades of rubber that vary in chemical make-up. The elastomer’s chemical make-up “the recipe” determines cost, characteristics, durometer (hardness and stiffness), and quality of the rubber parts used to construct HedFlex Check Valves.

The HedFlex product line must have the proper durometer, for memory, and strength to allow it to operate under specific flow-conditions, also to be strong enough to withstand the weight of water and specified back pressure. The exterior of the HedFlex Check Valves are coated to prevent damage from the ultraviolet rays of the sun. HedFlex Check Valves are fire retardant and treated so sea life will not adhere to it, and to prevent animals from eating it. The Hedflex Check Valve reinforcing plies, are a key factor in the construction of HedFlex Check Valves, for example, a tire rated for 80,000 miles of service has a superior rubber compound and reinforcement than a tire rated for 40,000 miles of service.

Duckbill Check Valves versus the competition is similar. HedFlex Check Valves use a much higher grade of rubber than the leading competitors. J&S uses a polyester fabric reinforcement compared to less expensive nylon. The polyester offers added strength to the product and will not wick fluids. Nylon Fabric is not as strong as polyester and will wick when exposed to liquids. This wicking action causes the rubber to delaminate and in-turn will cause the valve to fail.