J & S Valve®

DUCKBILL
CHECK VALVE

HedFlex 1” - 96”
**HedFlex Duckbill Check Valve**
**Series 9800 & 9900**

**Design Features:**

*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, and to prevent other 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. HedFlex 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 webbing offers added strength to the product and will not wick fluids. Nylon Fabric is not as strong as polyester and nylon will wick when exposed to liquids. This wicking action causes the rubber to delaminate, and in-turn, cause the valve to fail.
Our experience working on major waterworks projects throughout the world sets us apart from other companies. We offer a full range of waterworks valves for all types of waterworks projects. As knowledgeable experienced valve professionals; our staff simplifies the process of valve selection and valve purchasing.

Manufacturers/Suppliers play an important role in the success of designing and building projects. The experienced staff at J&S Valve has the technical valve expertise with waterworks projects; collaboration with us can ensure success. We offer quality valves at competitive prices. We are a women business enterprise that is certified nationally and regionally and can assist with meeting project diversity goals.
**FEATURES & BENEFITS**

The Specified Back Pressure Forces the HedFlex Rubber Check Valve to Close Preventing Back Flow.

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 un-wanted 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 Rubber Check Valve Model 9800/9900 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)

Design and Materials Subject to Change Without Notice. Call for Verification and Any Updated Drawings

**ELASTOMERS:**

All of the J&S Valve - HedFlex Duckbill Check Valves are available in a various selection of 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.

Specify, the J&S Valve - HedFlex Duckbill Check Valves to provide backflow protection.
## Installation Dimensions

Hed-Flex Duckbill Check Valves Series 9800 Flanged:

<table>
<thead>
<tr>
<th>Nominal Pipe Size (Inch)</th>
<th>Length (Inch)</th>
<th>Duckbill Height (Inch)</th>
<th>Flange O.D. (Inch)</th>
<th>Bolt Circle (Inch)</th>
<th>No. Of Holes</th>
<th>Size of Holes (Inch)</th>
<th>Weight (Lbs)</th>
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Notes:
1. Larger sizes available upon request.
2. Weights are approximate.
### Installation Dimensions

**Hed-Flex Duckbill Check Valve Series 9900 Slip-On:**

<table>
<thead>
<tr>
<th>Nominal Pipe Size (Inch)</th>
<th>Length (Inch)</th>
<th>Collar Width (Inch)</th>
<th>Duckbill Height (Inch)</th>
<th>Approx. Weight (Lbs)</th>
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<td>5”</td>
<td>1”</td>
<td>2¾”</td>
<td>4#</td>
</tr>
<tr>
<td>2”</td>
<td>6½”</td>
<td>1½”</td>
<td>3½”</td>
<td>5#</td>
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<td>2½”</td>
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<td>3”</td>
<td>8½”</td>
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<td>11#</td>
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<tr>
<td>4”</td>
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<td>5”</td>
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</table>

**Notes:**
1. Larger sizes available upon request.
2. Weights are approximate.
**HedFlex Specifications**

**Scope**
1.1 Submit product literature that includes information on the performance and operation of the valve, materials of construction, dimensions and weights, elastomer characteristics, head loss data, and pressure ratings.

**Quality**
2.1 Supplier shall have at least ten (10) years experience in the manufacture of “duckbill” style elastomeric valves, and shall provide references and a list of installations upon request.
2.2 Manufacturer shall have performed hydraulic tests on valves through 48” for flow capacity, headloss, and jet velocity at an accredited flow laboratory. Manufacturer shall provide test data upon request.
2.3 Upon request, manufacturer shall provide installation data for existing valves of similar size and type to the project scope.

**Design**
3.1 J&S HedFlex Duckbill Check Valves are to be all rubber and the flow operated check type with a slip-on or flange type connection. The Check Valve is designed to slip over the specified pipe outside diameter and attached by means of vendor furnished stainless steel clamps. The port area shall contour down to a duckbill, which shall allow passage of flow in one direction while preventing reverse flow. The valves shall be one-piece rubber construction with nylon reinforcement. In sizes 20” and larger, the bill portion shall be thinner and more flexible than the valve body, and formed into a curve of 180°.
3.2 The company name, plant location, valve size and serial number shall be bonded to the check valve.

**Function**
4.1 When line pressure inside the valve exceeds the backpressure outside the valve by a certain amount, the line pressure forces the bills of the valve open, allowing flow to pass. When backpressure exceeds the line pressure by the same amount, the bills of the valve are forced closed.

**Installation**
5.1 J&S HedFlex Duckbill Check Valves shall be installed in accordance with the manufacturer’s written Installation and Operation Manual and approved submittals.

**Customer Service**
6.1 Manufacturer’s authorized representative shall be available for customer service during installation and start-up, and to train personnel in the operation, maintenance and troubleshooting of the valve.
6.2 Manufacturer shall also make customer service available directly from the factory in addition to authorized representatives for assistance during installation and start-up, and to train personnel in the operation, maintenance and troubleshooting of the valve.

**Manufacturer**
7.1 Duckbill Check Valves shall be of the 9800 and/or 9900 HedFlex Series as manufactured by J&S Valve of Huffman, Texas or approved equal.
J&S Valve shows its commitment to providing quality products by manufacturing with the highest grade materials and testing 100% of its valves (rather than random testing). J&S is a leader in the Waterworks Industry. We provide products and services that consistently meet and exceed our customers’ needs as they relate to quality, performance,