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**SAMPLE SPECIFICATION**

**Oil-Controlled Closing Swing Check Valve for Water, Sewage or Wastewater**

GA-25DXH-SPEC Rev B

1.0 GENERAL

1.1 Manufacturer shall have a minimum of ten (10) years’ experience in the manufacture of oil-controlled closing swing check valves for water and sewage service.

1.2 Manufacturer shall have an ISO-9001 quality management system certified by an accredited body.

1.3 When requested, the valve manufacturer shall provide principle component stress calculations to substantiate the valve’s ability to withstand the maximum rated reverse pressure differential during final closure as well as detailed product data and descriptive literature including dimensions, weight, capacity, pressure rating, materials of construction and cross-sectional drawings clearly illustrating the individual components.

2.0 PRODUCT

2.1 Valve design shall provide for two-speed closure. Unrestricted, rapid initial closure shall be initiated by the outside counter-weight. Final closure shall be controlled by a single, external side-mounted hydraulic cylinder.

2.2 Final closure speed shall be easily adjusted by a needle type valve controlling the flow of hydraulic oil to and from a non-pressurized reservoir. The point of transition from rapid initial to controlled final closure also shall be adjustable. The hydraulic system shall be rigidly mounted to the valve body on machined pads using dowel pins or shoulder bolts to prevent fretting. The hydraulic system shall be serviceable and removable without de-pressurizing the valve. Dual, bottom-mounted or pivoting hydraulic cylinders or pre-charged air chambers are not acceptable.

2.3 The valve shall swing open smoothly at pump start and provide two-stage closing upon pump shutdown. Valve shall close quickly through the initial portion of closure and at a controlled rate of speed for the final pre-determined portion of its closing stroke to minimize surges associated with pump shut down by allowing a nominal amount of backflow through the valve during final closing.

3.0 MATERIALS

3.1 The valve shall have a heavy-duty body of high-strength cast iron conforming to ASTM A126 Class B with integral flanges, faced and drilled per ANSI B16.1 Class 125. A bolted top flange shall allow removal of all internal components permitting the valve to be completely serviced without removal from the line.

3.2 The valve disc shall be faced with a renewable, resilient seat ring and be held in place by a 316 stainless steel follower ring and shall seal tightly against a 316 stainless steel replaceable body seat.

3.3 The disc arm shall be ductile iron or fabricated of high strength steel and be suspended from and keyed to an austenitic stainless steel shaft completely above the waterway and supported at each end by heavy bronze bushings. Shaft shall rotate freely without the need for external lubrication.

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4.0 OPTIONS *(Specifier to select any combination of options)*

4.1 Specify when required: The valve shall be supplied with a DPDT NEMA 1, 3, 4, 4X, 6, 6P, 12 & 13 position switch.

4.2 Specify when required: The valve shall be supplied with 316 stainless steel cover fasteners and be coated on external and exposed internal ferrous surfaces with NSF-61 certified 2-part epoxy.

4.3 Specify when required: The valve shall be configured for installation in a vertical pipe.

5.0 MANUFACTURER

5.1 Oil-controlled closing swing check valves shall be GA Industries Figure 25-DXH as manufactured by VAG USA, LLC Mars, PA USA.

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