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**SAMPLE SPECIFICATION**

**Air-Cushioned Lever & Weight Swing Check Valves**

GA-250-SPEC Rev B

1.0 GENERAL

1.1 Manufacturer shall have a minimum of ten (10) years’ experience in the manufacture of air-cushioned swing check valves

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

1.3 When requested, manufacturer shall provide detailed product data and descriptive literature including dimensions, weight, head loss vs. flow, pressure rating, materials of construction and cross-sectional drawings clearly illustrating the individual components.

2.0 PRODUCT

2.1 The swing check valve shall conform to the design, materials of construction and testing required by AWWA C508 (latest revision) plus be supplied with an outside lever, adjustable counterweight and adjustable air-cushion chamber to minimize slam and hammer caused by rapid flow reversal.

2.2 The valve flow area anyplace through the valve shall be no less than the area of the nominal inlet pipe size when the disc has swung no more than 25 degrees away from the seat

2.2 The swing check valve shall be NSF-61 certified for contact with drinking water and NSF-372 certified lead free.

2.3 The standard valve shall have the same size flanged inlet and outlet connections faced, drilled and of the thickness required by ANSI/ASME B16.1 Class 125 or Class 250, as shown on plans or in the valve schedule.

2.4 Where shown on the plans or in the valve schedule, “increasing size” valves shall be supplied. Single increasing Class 125 flanged valves in sizes 3-inch to 10-inch shall have the outlet expanded one size and double increasing valves in sizes 4-inch to 8-inch size valves shall have the outlet expanded by two sizes.

3.0 MATERIALS

3.1 The valve body shall be made from cast iron conforming to ASTM A126 Class B with a bolted cover through which all internal parts can be removed for service. The body shall have a mechanically retained and replaceable Type 316 stainless steel seat ring.

3.2 The hinge shaft shall be made from Type 303 stainless steel and be supported at both ends by non-corrosive, lead free bushings. The shaft shall be sealed where it passes through the body by compression packing retained by a packing gland, gland studs and nuts. Non-adjustable or O-ring shaft packing is not acceptable.

3.3 A ductile iron disc arm shall be keyed to and suspended from the hinge shaft. A non-rotational, cast iron disc with replaceable Buna-N rubber disc seat ring shall be attached to the disc arm by means of a center pin and nut providing 360-degree oscillation. The disc seat ring shall be retained by a Type 316 stainless steel follower ring and stainless steel screws.

3.4 Valve closure shall be cushioned by the action of a bronze piston in a bronze cushion cylinder. The cushion chamber assembly shall be non-pivoting and be mounted to the side of the valve body on machined pads without the need for brackets. The amount of cushioning shall be adjustable. Pivoting and/or commercial pneumatic cylinders are not acceptable.

3.4 Cover bolts, nuts and studs shall be zinc plated carbon steel.

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4.0 OPTIONS

4.1 Specify when required: The valve shall be equipped with a double pole, double throw NEMA 1, 4 and 13 limit switch to indicate valve closed position.

4.2 Specify when required: The hinge shaft shall be made from Type 316 stainless steel

4.3 Specify when required: The valve shall be supplied with Type 316 stainless steel cover fasteners and with external and exposed internal ferrous surfaces coated with minimum 6 mil NSF-61 certified 2-part epoxy.

5.0 MANUFACTURER

5.1 Cushioned swing check valves shall be VAG/GA Industries Figure 250 (standard), 251 (single increasing), or 252 (double increasing) as manufactured by VAG USA, LLC Cranberry Township, PA USA.