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Single Orifice

Description

An Air Release Valve, sometimes referred to as a “small orifice” valve, will continuously release accumulated air during system operation. As air from the pipeline enters the valve, it displaces the water, allowing the float to drop. The air is then released into the atmosphere through a small orifice. As the air is vented it is replaced. An added benefit of an Air/Vacuum Valve is its ability to provide pipeline vacuum protection. If a negative pressure develops, the valve will open, admitting air into the line, reducing the potential for surges related to column separation and possible pipeline collapse.

While Air/Vacuum Valves will exhaust large quantities of air upon start-up, it should be remembered that they will not continuously release air during system operation. For this function, an Air Release Valve is also required.

The function of a Single orifice air valve is to allow air to be expelled from the system during filling and to admit air into the system whenever sub-atmospheric pressure occurs. When water enters the valve body the float buoyancy lifts it on to the seat and the resultant rise in system pressure ensures a tight seal, with line pressure holding the float on the seat. In the event of air entering the valve while the line is still positively charged, the valve remains shut. In the event of sub-atmospheric pressure in the system, water is drawn from the body and the float drops from the seat to admit air into the system.

Features

- ✓ Valves for working pressure between 0,1 – 16 bar
- ✓ Designed according to EN 1074 – 4.
- ✓ Single chamber valve with float for dissipating small air flow rates
- ✓ Cross-section dependent on water level
- ✓ Automatic pipe air release and admission during filling, during operational air release and the discharging / Draining process
- ✓ Compact and robust design with low weight
- ✓ With threaded connection, flange connection on request
- ✓ Unconditionally guaranteed stainless steel floats
- ✓ Stainless steel 316 internal trim
- ✓ Resilient seating for positive shutoff
- ✓ Non-clog design eliminates backwashing
- ✓ Maintains system flow efficiency
- ✓ Releases unwanted air pockets during system operation
- ✓ Protects system against air related surges

Material Specification

- ✓ Body, Cover : Ductile Iron /Cast Iron
- ✓ Float(s) : Stainless Steel
- ✓ Orifice ball : Stainless Steel/ ABS Plastic
- ✓ Internal, external bolts, nuts : Stainless Steel
- ✓ Guides, seat ring, guide ring : ABS Plastic
- ✓ Sizes: DN50 – DN200
- ✓ Pressure rating : PN10/16/25
- ✓ Hydraulic Test: 1.1xPN for Seat & 1.5xPN for Body
- ✓ Coating: Nontoxic Epoxy Internally & Externally