Crispin Pressure Air Release Valves

OPERATION

The CRISPIN Pressure Air Release Valve allows air to be released from a system while the system is in operation and under pressure. This is accomplished by the mechanics of the simple or compound lever system inside the valve.

The buoyancy of the float raises the linkage to seal the orifice as the valve body fills upon start-up. As accumulating air displaces the liquid in the valve body, the water level drops. The weight of the float multiplied by the lever system begins to pull the resilient seal away from the seat. This releases a quantity of air that allows more liquid to enter the valve body and, in turn, raises the float to again seat the orifice. The valve will continue to function in this fashion as long as air accumulates.

MAINTENANCE

The valve should be inspected periodically for leakage, particularly at the seat area.

SEAT REPLACEMENT

Isolate or remove the valve from the system. Remove the top (Part No. 1S) which secures the seat (Part No. lN-PVC Seat or Part No. lP- stainless steel seat) in place. Mark the location of the top in relation to the top flange (Part No. 20). With the proper size wrench, turn the top counter-clockwise.

Once the top is removed, the seat will be exposed. Remove the seat and the seat gasket (Part No. 23) and make the required replacement.

It is always best to coat the threads of the top with a suitable thread sealer prior to reassembling the valve. Turn the top into the flange thread (Part No. 20) until it is snug and as close as possible to the original mark. Tighten the top one-quarter turn.

INTERNAL REPAIRS:

The top flange (Part No. 20) must be removed for internal repair. Simply remove the flange nuts and bolts after isolating the valve from the system.

REPLACING VALVE PLUNGER

The valve plunger (Part No. 2–Buna-N Rubber) should be replaced when it begins to deteriorate because of age (4 to 5 years).

The linkage is easily disassembled by removing the pin clips from the bearing pins, then removing the bearing pins.

Now replace the valve plunger (Valve and Lever Assembly Part No. 6) and reconnect the bearing pins and clips.

Crispin Pressure Air Release Valves (continued)

ADJUSTING THE VALVE

The valve plunger is adjusted by removing the top flange, then turning the flange upside down, exposing the lever mechanism. The float is extended away from the valve orifice in order to pull the plunger away from the orifice. A light dusting of powder is spread over the valve seat and the float is allowed to relax.

While extending the float again, observe the powder pattern on the rubber valve, and make appropriate adjustments to permit its full face contact with the valve seat. Secure the plunger by locking the nut or screw.

Replace the flange, being careful not to allow the linkage to toggle over, which would prevent its functioning. This is done by placing either the valve body over the linkage with the flange inverted and resting on a table, or by holding the linkage closed with a screwdriver while replacing the flange on the body. Secure the flange nuts and bolts.

INSTALLATION

The CRISPIN Pressure Air Valve shall be installed at the high points in the line and mounted vertically. The inlet of the valve should be at the same elevation or greater than the elevation at the top of the pipe, with the piping to the inlet on a continuous upward slope. Valves should be protected from freezing.

For more detailed information on valve sizing, etc., please refer to the CRISPIN Catalog and/or Technical Reference No. 5.

Troubleshooting

Seat Leakage

—If a low volume leak persists with the rubber valve against the orifice, then the rubber valve should be adjusted or replaced.

—Replace the rubber valve if the valve has been in operation longer than five years.

—Inspect the valve seating area for foreign particles that could be preventing the valve from seating.

—Internal pressure should be adequate to provide a drip tight seat.

—If problem continues, please consult the factory.

** These valves are intended for use on municipal waste water systems or approved industrial applications.*