Crispin Universal Sewer Air Release Valve

OPERATION

The CRISPIN Universal Sewer Air Release Valve provides two air release functions in a single body casting. The design permits the automatic escape of large quantities of air from a pipeline when the line is being filled, and allows the entry of air when a negative pressure occurs. The valve will also release accumulating air while the system is in operation and under pressure.

Air is forced out of a pipeline throughout the Air Release Valve by a liquid column as the line is being filled. As the liquid enters the Universal Sewer Air Release Valve, the float is made buoyant and rises with the rising liquid level. Both the air and vacuum and the pressure air release orifice will be sealed through the buoyant reaction of the float and the compound lever system. Accumulating air enters the valve body and displaces the liquid level, which causes the float to drop. The pressure air release orifice is opened and air escapes. The loss of compressed air causes a rise in the liquid level, which again raises the float and seals the valve. This cycle will continue to occur as long as air accumulates in the valve body.

MAINTENANCE

The valve should be inspected periodically for external leakage, particularly at the seating areas. (See below.)

SEAT REPLACEMENT

Refer to Sewer Air & Vacuum seat replacement.

INTERNAL INSPECTION

The top flange must be removed to inspect the valve internally. The internal linkage is easily disassembled by removing the pin clips from the bearing pins, then removing the bearing pins. The pressure seat should be inspected for wear and replaced if necessary.

The valve plunger should be replaced if damaged, or when it becomes deteriorated because of age. Normal life expectancy of Buna-N is four to five years. 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 flange in order to pull the plunger away from the Pressure Valve orifice. A light dusting of powder is spread over the pressure 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 full face contact of the rubber valve with the valve seat. Secure the lock nut on the valve plunger threads. Replace the flange, being careful not to allow the linkage to toggle over, which would prevent it from functioning. Secure all flange bolts and nuts prior to repressurizing valve.

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