COLONIAL VALVE
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527 Series Air Release – Vacuum Breaker Valve
INSTALLATION, OPERATION & MAINTENANCE (Rev_122023)

Allows for evacuation of air while filling the pipeline or tank. Allows for intake of air while draining the pipeline or tank, to prevent against vacuum formation.

PLEASE READ THE FOLLOWING INFORMATION PRIOR TO INSTALLING AND USING COLONIAL VALVE VALVES, STRAINERS, AND OTHER ASSOCIATED PRODUCTS. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY.

1. Colonial Valve guarantees its products against defects in material and workmanship only. Colonial Valve assumes no responsibility for damage or injury resulting from improper installation, misapplication, or misuse of any product.
2. Colonial Valve assumes no responsibility for damage or injury resulting from chemical incompatibility between its products and the process fluids to which they are subjected. Compatibility charts provided in Colonial Valve literature are based on ambient temperatures of 70ºF and are for reference only. Customer should always test to determine application correctness.
3. Consult Colonial Valve literature to determine operating pressure and temperature limitations before installing any Colonial Valve product. Note that the maximum recommended fluid velocity through any Colonial Valve product is eight feet per second. Higher flow rates can result in possible damage due to water hammer effect. Consult with the adjoining pipe and pipe-fittings manufacturers' installation instructions to determine the maximum flow velocity for your piping system. Also note that maximum operating pressure is dependent upon material selection as well as operating temperature. Colonial Valve products are designed primarily for use with non-compressible liquids. They should NEVER be used or tested with compressible fluids such as compressed air or gas.
4. Systems should always be depressurized prior to performing maintenance.
5. Temperature effect on piping systems should always be considered when the systems are initially designed. Piping systems must be designed and supported to prevent excess mechanical loading on Colonial Valve equipment due to system misalignment, weight, shock, vibration, and the effects of thermal expansion and contraction.

⚠ WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

THREADED CONNECTION:
Threaded end connections are manufactured to ASTM specifications D2464. F437 and ANSI B1.20.1. **Colonial recommends using the following thread sealant: IPS WELD-ON All Seal™. If this is not available, Teflon tape may be used, following the manufacturer's instructions for use.** To provide a leak proof joint, the pipe should be threaded into the end connection "hand tight". Tightening beyond this point may induce excessive stress that could cause failure.

SIZE SELECTION:
Use the 1" valve (V10527N) with pipe sizes of ½ - 2". Use the 2" valve (V20527N) with pipe sizes of 2-1/2 - 4". Reducing fittings may be required to connect the valve to the piping.

ORIENTATION:
- Install where the air is most likely to collect, at the highest elevation locations points in the system.
- Install in the VERTICAL position, as shown in the photo above.

- The valve's position must be within 5 degrees of the top of the pipe, to allow for proper alignment and movement of the float.
- Install the valve no closer than 5 pipe diameters from a pump. At least 5 pipe diameters should be between these valves and an elbow.
- On very steep ground, it is recommended that you install several Air-Release Valves along a piping manifold in order to break the vacuum quickly when the system is drained.
- The Elbow at the top of the valve has female NPT threads, allowing for connection to a hose or pipe to contain any minor spillage that occurs while the valve checks, and to further protect against the admittance of dirt, debris, etc., into the system.
- It is recommended that a ball valve and riser are installed upstream of the Air-Release Valve, as shown below, to allow for isolation if maintenance is required. Recommended Ball Valves: Super C Compact TxT PVC/EPDM 1" V10201N, 2" V20201N. (See illustration below)

REPAIR & CLEANING:

MAINTANENCE:
EXTREME CAUTION MUST BE TAKEN WHEN WORKING ON THIS VALVE. THE AIR RELEASE VALVE MUST BE ISOLATED, OR THE PIPING SYSTEM MUST BE DEPRESSURIZED, AND/OR DRAINED. PROPER CARE MUST BE TAKEN. CONSULT M.S.D.S. (MATERIAL SAFETY DATA SHEETS) INFORMATION REGARDING YOUR SPECIFIC APPLICATION.

Disassembly for cleaning: 1. Brace the bottom hex-flats (B) with a wrench or vice. 2. Place a light cloth or plastic wrap over the hex-flats on the upper body (A) to prevent damage, and rotate to the left using a wide adjustable wrench or straight-jaw pliers. 3. Note the configuration of the internal parts before removing them for cleaning. 4. Reverse the steps for reassembly. Tighten the body halves no more than 1/10 turn past hand tight.