



Series VRVI, Inline Vent Relief Valve User Instructions

Scope:

These user instructions are applicable for Generant Series VRVI, Inline Vent Relief Valves sizes 1/4", 3/8", 1/2 " and 3/4" (Connection Types NPT, SAE, BSPT and BSPP)

Intended Use:

The intended use of these valves is to protect against over pressure in a given system. These products can be used with the following media, Inert gases, Oxygen and potential oxidizer gases > 21% and Hydrogen. When intended use is for Oxygen and oxidizer gases >21%, valves must be specified to be "Cleaned for Oxygen service" and will be supplied heat-sealed in poly bags. Proper seal material selection is important to insure compatibility with intended media.

Technical Data:

VRVI series valves are supplied preset, 100% factory tested and locked. Every Series VRVI is marked with manufacturer, part number, set pressure and date of manufacture. Operating parameters are listed below:

- Set Pressure Tolerance: +/- 5%
- Temperature Range: -320° F to 400° F Fahrenheit (elastomer dependent)
- Nominal Set Pressure Range: .5 – 150 psi (0.03 – 10.34 Bar)
- Full Rated Flow by 110% of Set Pressure
- Maximum Operating Pressure: 400 Psi (27.5 Bar)



Generant Series VRVI Relief Valves are supplied assembled, preset and tested. If required, valves should only be re-adjusted by trained personnel or returned to the factory. Valves that are supplied "Cleaned for Oxygen Service" from the factory are supplied heat sealed in poly bags. Once removed from the bag, integrity of this cleaning has been compromised. Proper handling should be used to ensure the integrity and cleanliness of the system.

To make a proper connection:

1. All Series VRVI relief valves are 100% factory tested for leakage, set pressure, flow and reseal performance.
2. The piping system should be complete before installation of the relief valve.
3. All upstream piping and connection ports must be free from particulate contamination that is naturally generated during the assembly of the piping system. This should be accomplished by purging the system with clean, dry nitrogen gas. Visually inspect the port for cleanliness.
4. For use with NPT or BSPT threads, Teflon tape should be used to seal the connection between the relief valve and the piping system.
5. Beginning with the first thread, wrap tape in the direction of the male tapered thread spiral, and join with a slight overlap.
6. Make sure tape does not overhang the first thread, as the tape could shred and get into the system.
7. Cut off excess tape. Draw the free end of the tape around the thread tautly so that it conforms to the threads. Press in firmly at the overlap point. The connection is now ready for makeup. (If any additional pipe sealant is being used (i.e.: pipe dope or Swak), **Do not** apply it to the first thread of the valve)
8. Thread the valve into the connection port hand tight. Using an open-end wrench, tighten the valve an additional ¼ to 1 full turn.
9. When ordered with other thread connections, user shall consider proper sealing and tightening according to the appropriate industry standards.
10. The relief connection should be tested for leaks using an approved leak detector.

Mounting Limitations – Please note the following mounting limitations:

Generant Valve Series	Mounting Limitations
VRVI 1/4" through 1/2"	-None
VRVI 3/4" -Set pressures less than 5 psig	-Vertical Orientation Recommended
VRVI 3/4" -Set pressures greater than 5 psig	-None

Safe Component Selection

When selecting a component, the total system design must be considered to ensure safe, trouble-free performance. Component function, materials compatibility, adequate ratings, proper installation, operation, cleanliness and maintenance are the responsibility of the system designer and user.