



Series 5000 Ball Check Valve User Instructions

Scope:

These user instructions are applicable for Generant Series 5000, Ball Check Valves sizes 1/8", 1/4", 3/8", and 1/2 " (Connection Type: NPT- Male or Female, SAE for special order)

Intended Use:

The intended use of these valves is to limit reverse flow 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:

5000 Series Ball Check Valves are 100% factory tested for leakage in the backflow direction. Series 5000 Valves are marked with Manufacturer and Direction of Free Flow. Operating parameters are listed below:

Maximum Operating Pressure: 3000 Psi (206 Bar) for Brass,
5000 Psi (340 Bar) for Stainless Steel
Leakage in Check Direction: Zero @ 0.5 Psi Backpressure (Elastomer Seals Only)
Temperature Range: -40° to 500° Fahrenheit (Elastomer Dependent)
Nominal Cracking Pressures: 2.5 psi (.17 Bar) standard, custom cracking pressure available

Note: Mounting orientation should be considered in the system design



WARNING Valves that are supplied "Cleaned for Oxygen Service" from the factory are supplied heat sealed in poly bags. Once removed from the bag, the 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 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.
2. For use with NPT threads, Teflon tape should be used to seal the connection between the check valve and the piping system.
3. Beginning with the first thread, wrap tape in the direction of the male tapered thread spiral, and join with a slight overlap.
4. Make sure the Teflon tape does not overhang the first thread, as the tape could shred and get into the system.
5. 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.
6. Be sure to install the check valve with the free flow direction in line with the arrow. Thread the valve into the connection port hand tight. Using an open-end wrench, tighten the valve an additional 3/4 to 1 full turn. Overtightening the valve may result in the valve failing to function properly.
7. The check valve connection should be tested for leaks using an oxygen-approved leak detector.

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.