Regulator Performance Test Procedure

Operation Manual

GENTEC®

Leak Test

1. Install the Regulator to test the Valve (Usually a Cylinder Valve or a test Bench Valve) and make sure the regulator is turned in the off position or the outlet valve is closed.
2. Open the test valve slowly and allow test gas (helium is preferred) to enter the regulator.
3. Adjust the pressure to maximum outlet pressure by turning the adjustment knob (screw) clockwise.
4. Apply mild soap to the inlet connection, outlet connection, low pressure gauge, and high pressure gauge connect to the body, and the bonnet, and check for signs of any bubbles.
5. Wait (5) five minutes, and then check again for signs of any bubbles. No bubbles could mean there are no signs of any large leaks.
6. Proceed to perform the Creep Test after wiping/blowing away the bubbles.

Creep Test

1. Continue with the last step (Step 5) of the Leak Test or repeat Steps 1, 2, and 3 of Leak Test.
2. Adjust or lower the outlet pressure to 1/3 of the maximum delivery pressure by turning the adjustment knob counterclockwise - you may need to open the outlet valve to release the pressure at the outlet at the same time when adjusting the pressure.
3. Allow the regulator to sit for 15 minutes and observe for any movements (pressure change) on the outlet needle gauge.
4. The pressure variation should be less than 1/4 scale on the Mpa gauge or 1 scale on the psi gauge.
5. Proceed to the Delivery Pressure Stability Test.

Delivery Pressure Stability Test

1. Continue with last step (Step 4) of the Creep Test or repeat Step 1 and 2 of Leakage test.
2. Adjust the outlet pressure slowly to maximum outlet pressure by turning the adjustment knob (screw) clockwise. Observe and make sure the gauge needle does not *shake* or *jump* during the pressure adjustment.
3. Slowly open the outlet valve to let the gas continuously flow through the regulator. Make sure the gauge needle is stable - Pressure will drop but should be stable after the flow becomes constant and the process does not have any “whistling” sound.

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