



MASTERLINE, INC.

Quality Air and Gas Boosters

FILL PROCEDURE FOR OXYGEN BOOSTER WITH MANIFOLD

1. Close all isolation valves and bleed valves on manifold and booster
2. Fully open valve on supply oxygen cylinder.
3. Open inlet shut-off on booster.
4. Open valve (1) and bleed oxygen to atmosphere from valve (2) to purge air out of system. Close valve (1) & (2).
5. Close inlet shut-off valve on booster.
6. Connect cylinder to be filled to fill connectors on manifold. Open isolation valve (2) on manifold for each cylinder to be filled. Open cylinder valves and check for leaks.
7. Open main outlet valve (1) on manifold and read pressure of cylinders on outlet gauge.
8. If the cylinders have at least 200 PSI proceed to step (10). If the cylinders are empty and need to be evacuated with a vacuum pump proceed as follows: Close main outlet valve (1). Be sure there is no pressure in the system, you may need to bleed the remaining pressure in the cylinder.
9. Open isolation valve (4) on manifold to vacuum pump. Turn vacuum pump on and evacuate cylinder(s) to 25 inches of mercury vacuum minimum. Close vacuum pump isolation valve (4) and shut off vacuum pump. Open main outlet valve (1).
10. **Slowly** open inlet shut-off valve on booster. Pressure should now read on inlet and outlet gauge. Flow can be controlled with inlet shut-off valve to maintain cool fills when equalizing.
11. Monitor inlet pressure gauge and outlet pressure gauge. Wait until outlet pressure equalizes with inlet pressure.
12. Push START button on booster; booster will now automatically fill cylinders to final pressure and shut off. NOTE: The pressure relief valve has been factory set to automatically relieve pressure at approximately 10% over fill pressure (preset at factory).
13. During the filling cycle the temperature in the oxygen cylinders will rise in proportion to how fast the cylinders are filled. The warm cylinders will give a false high reading resulting in a low fill pressure after they cool. After filling the cylinders, allow to cool to room temperature; 70F or 25C. If the pressure drops after the cylinders cool, restart booster to bring cylinders up to desired pressure. Close all oxygen cylinder valves and close outlet shut-off valves (2).
14. Open bleed valves on valve (2) and relieve pressure from fill connectors.
15. Loosen fill connectors and remove each oxygen cylinder.
16. Upon completion of filling all cylinders close inlet shut-off valve and bleed all pressure from the system.
17. Close all isolation valves, bleed valves, inlet valve and outlet valve. Replace all dust caps.

