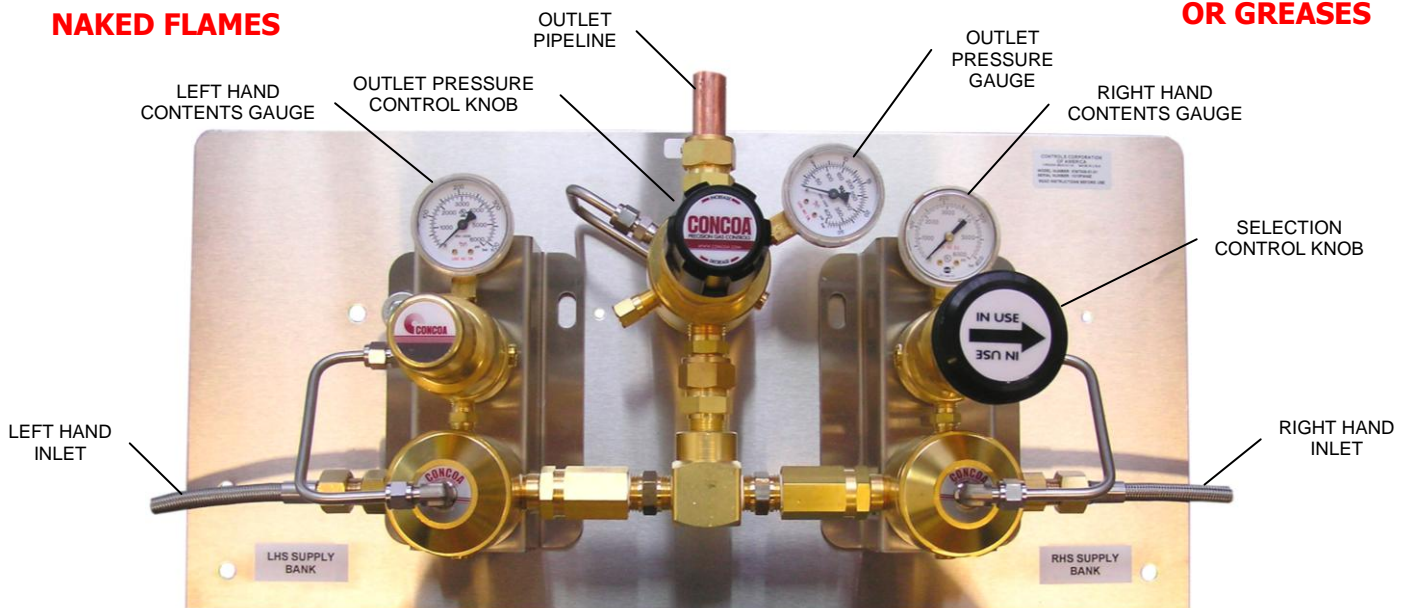


LASER CUTTING ASSIST GAS AUTOMATIC CHANGE-OVER MANIFOLD OPERATING INSTRUCTIONS

**NO SMOKING OR
NAKED FLAMES**

**USE NO OIL
OR GREASES**



IMPORTANT

- This manifold system is designed to operate at higher than normal pressures, ensure that any equipment connected to the pipeline has a suitable inlet pressure rating.
 - Do not use oils or greases on the manifold or associated components
- Open all valves **SLOWLY** and **FULLY** to ensure the pressure increases gradually.
- Do not remove the plastic caps in cylinder valve outlets until ready for use.

TO PUT THE MANIFOLD INTO OPERATION

1. Ensure that the downstream pipeline isolation valve is closed and the control knob on the outlet regulator is fully "backed off" (ie. turned fully anti-clockwise).
2. Ensure that each cylinder valve outlet is clean. Momentarily open and then close each cylinder valve to blow out any foreign matter and ensure that each cylinder is full. Close each cylinder valve lightly to make slow opening easier, (after connection to the manifold).
3. Connect cylinder leads/coils to the cylinder valve. Ensure that the ends of the leads/coils are not contaminated with any foreign matter, or that they are not damaged.
4. Move the **selection control knob** to the left or right to select the bank of cylinders to be *in-use*, (the opposite bank will now be *reserve*).
5. Slowly and fully open all cylinders.
6. Adjust the outlet **pressure control knob** to the required pipeline pressure.
7. Partially open the outlet isolation valve to allow the pipeline system to pressurize slowly. When fully pressurized, open the outlet isolation valve fully.

Note:

Care must be taken to slowly pressurize the system. Rapid, uncontrolled pressurization may damage the manifold internals.

WHEN IN-USE CYLINDER BANK IS DEPLETED

1. Move the **selection control knob** to the opposite side (new *in-use* side)
2. Close and remove all empty cylinders.
3. Ensure that each new cylinder valve outlet is clean. Momentarily open and then close each cylinder valve to blow out any foreign matter and ensure that each cylinder is full. Close each cylinder valve lightly to make slow opening easier, (after connection to the manifold).
4. Connect the new cylinders, open all cylinder valves slowly and fully.
5. Observe the contents gauge to check that the newly fitted cylinders are full.

TO CLOSE THE MANIFOLD DOWN

1. Turn off all cylinder valves.
2. Bleed off pipeline pressure until both contents gauges and the line pressure gauge reads no pressure.
3. Turn off the downstream isolation valve.
4. Fully "back off" outlet pressure regulator control knob (ie. turned fully anti-clockwise).

It is recommended that the manifold only be shutdown for servicing or if the pipeline system is not going to be used for a prolonged period of time. It is normal practice to leave the manifold in an operating condition overnight. Each time the manifold supply cylinders are changed over, the *reserve* cylinders becomes the *in-use* cylinders, and the previously *in-use* cylinders become the *reserve* cylinders.