

INSTRUCTION  
MANUAL

# PNEUMATIC CARBON DIOXIDE PUMP

MODEL  
560-080A

HYDRO-TEST PRODUCTS LLC  
85 HUDSON ROAD, STOW, MA 01775 U.S. A

560-080A

# Air Powered Carbon Dioxide Pump

## Introduction

This pump is designed for pumping liquid Carbon Dioxide from high pressure cylinders. Every pump system is factory checked to insure optimum performance in the field. The minimum and maximum requirements are as follows:

Carbon Dioxide Outlet Pressure Max. 3000 psi

\* This pump is capable of pumping what is considered low pressure CO<sub>2</sub> from bulk storage tanks. It is however, not recommended because the pumping rate is so low. (approximately 1.5 lbs./minute)

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## Introduction

Pumping from high pressure supply cylinders is typically at the rate of 4 lbs./minute.

Air Supply to operate the Pump can be as low as 50 psi and as high as 100 psi. The amount of air pressure required to operate the pump is based on the total outlet pressure that the pump must reach. **WARNING:** Never exceed 100 psi inlet air pressure to operate the pump as damage to the air motor may occur.

**WARNING:** This pump has no internal pressure relief devices as it relies on the safety relief valves built into the cylinders being filled to act as the system safety.

560-080A consists of...

- 1ea. Pump Ass'y
- 1ea. Inlet hose, 6'(connected to pump ass'y)
- 1ea. Outlet hose, 6', with Manifold Ass'y (connected to pump ass'y)
- 1ea, Operation Manual

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## Before you use your Pump

When you receive your new pump, immediately inspect it for damage in transit and report any found with the delivering freight carrier. Please consult with the factory if you are unsure of the pumps condition or if you think there are missing parts.

## Setting up your Pump

Once you have removed the pump and the components that go along with it, you can begin to prepare it for use. The pump itself has been preassembled and pretested at the factory. You need to connect the Air Supply to the Air connection on the pump which is clearly marked. (remember the air supply requirements as outlined earlier)

The Carbon Dioxide inlet and outlet hoses are also clearly marked. The pump comes with two hose assemblies, one has a set of valves and the other does not. The hose ass'y with the valves is the outlet hose. (**Note:** a Fiber Washer is to be used at all Carbon Dioxide hose connections and they are supplied) If you look carefully at the other hose you will note that end has a screen, this hose attaches to the Carbon Dioxide supply cylinder.

The air inlet side of the pump is equipped with a lubricator. The lubricator must be filled 3/4 full with Air Tool Oil and adjusted so that one drop of oil falls in the sight glass for every 30-35 strokes of the pump.  
HTP part # 230-135

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## Using your Pump

Step #1 Secure the cylinder you want to fill onto a suitable scale.

Step #2 Connect the cylinder you want to fill (cylinder valve closed) to the Valve/Manifold, remember to always use a Fiber or Teflon Washer at this connection.

Step #3 Close both Flip Valves at the Manifold.

Step #4 Open the Valve on the Supply Cylinder. (**Note:** if the Supply Cylinder does not have a siphon tube you will need to invert the cylinder with a Tilt Rack, our part #540-010)

Step #5 Open the first Flip Valve and then open the second. Close the second Flip Valve after you see a white flume, indicating liquid CO2, coming from the second valve. Open the cylinder valve being filled.

Step #6 Turn the pump on until the desired amount of CO2 has been transferred into the cylinder and then close the control valve for the pump.

Step #7 Close the first Flip Valve and the valve on the cylinder you are filling.

Step #8 Open the second Flip Valve to release the pressure trapped in the Manifold and then disconnect the cylinder you just filled. (always double check the weight of the cylinder before putting it back into service)  
If you are filling more cylinders repeat from step #2 otherwise continue with step #9

Step #9 Close the valve in the Supply Cylinder.

Step #10 Open the first Flip Valve to release the pressure trapped in the system.

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## Maintenance

The pump system is basically maintenance free. You may need to repair or replace worn or damaged hoses and Flip Valves, how often this needs repair or replacement depends on the amount of use and or abuse they are subject to. Repairs to the actual pump are not recommended onsite but a repair manual for the pump is included with this manual should you decide to repair it yourself. Parts for the pump can be ordered by selecting required components from the pump manual. Parts for remaining components can be selected from the listing that follows.

### Parts List

Part Number	Description
058-604	Fiber Washer
120-003	Ball Valve, 1/4" (air control)
160-070	Air Filter/Regulator Ass'y (with 160-021 gauge)
160-021	Gauge for 160-070
190-009	Pump
210-009	CO2 Hose, 6' long (commercial grade)
210-010	CO2 Hose, 6' long (mil. spec. grade)
210-130	Strainer
220-003	Tailpiece
220-004	Coupling Nut
240-046	Replacement check ass'y for 560-008
560-008	Flip Valve
560-012	Tailpiece, with strainer
560-013	Replacement lever for 560-008

### Common Filling Adapters (not included with pump)

Part Number	Description
100-553	Adapter, 1/8" CO2
100-554	Adapter, 1/4" CO2
100-555	Adapter, 3/8" CO2
100-556	Adapter, 1/2" CO2

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