

# **CRYOGENIC EXPERTS, INC.**

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## **CEXI MINI ELECTRIC VAPORIZER OPERATING AND INSTALLATION INSTRUCTIONS CEXI MODEL NUMBER \_\_\_\_\_**

**Date** \_\_\_\_\_

1. Set heater on level concrete base and anchor holes provided in base angles.
2. Connect Process fluid lines to inlet and outlet connections. **CAUTION:** Be sure inlet is connected to inlet and outlet is connected to outlet; improper connections may damage the equipment and void warranty. Bubble check all connections at 1.25 times the rated working pressure of the system.
3. Connect electric power to line terminals of disconnect switch. **CAUTION:** Be sure voltage supply agrees with name plate rating on equipment. Connect the power supply to the top contactor terminals. If the unit is placed outdoors, we strongly recommend that the connections through the box be made through the side or the bottom of the box to keep water from entering the electrical box.
4. Temperature controllers are set at factory at approximately the correct setting for normal operation, however it is advisable to test the controller settings before putting the equipment into service. The following is the recommended test procedure before starting flow of gas.
  - 4.1. Turn on ON OFF switch to ON the position.
  - 4.2. The setpoint on the controller was set at 70°F at the factory.
  - 4.3. Start flow of gas. Check discharge gas temperature. If gas temperature is too low, adjust the temperature controller to a slightly higher temperature. If the gas temperature is too hot lower the setting. The outlet gas temperature should be approximately the same as the set point indicates on the controller. If the temperature is extremely hot, the unit may be installed backwards, or there may be a problem with the temperature controller.
  - 4.4. For maximum heater life and best operation, the discharge gas should be as cold as possible and still remain compatible with the user's needs. The unit is designed to deliver 70°F gas so the heaters will run around 75-80°F. These heaters should not be operated at temperatures above 100°F (unless specifically ordered to deliver a higher temperature gas).
5. The heaters on this unit are powered via a contactor. The controller is an on off controller and will turn the contactor on and off.

6. High temperature safety switches (HTCO)'s are mounted on top of the heater castings to prevent overheating in case of temperature controller failure. This switch has a setting of 140°F and will shut off power to the heaters anytime casting temperature exceeds 140°F . This switch will reset automatically when casting cools to approximately 120°F . If the HTCO trips out, the contactor will drop out and the heaters will be shut off.

### Specifications

#### Model MV-6

Direct to Process Electric Vaporizer

Flow	140 lbs. per hour max flow
MAWP	1000 psig
Fluid	Liquid CO <sub>2</sub>
Inlet Temp	0°F
Outlet Temp	70°F
Operating Press	300 psig
Pressure Drop	10 to 15 psig at 300 psig and full rated flow
Fluid Passages	304 Stainless Steel
Power Required	240 vac, 1/3 phase, 50/60 htz
Kilowatts	
Single Phase	3, 6, or 9
Three Phase	3 or 9
Inlet Conn.	1/2" Male Pipe Thread
Outlet Conn.	1/2" Male Pipe Thread
Dimensions	30" tall x 12" wide x 6" deep

The unit includes the following

1. NEMA 4 Electrical Enclosure
2. Aluminum casting assembly with heaters and tubing cast in place.
3. Control circuit transformer
4. Control circuit fuse
5. Control circuit on off switch
6. Casting High Temperature Safety Switch
7. Outlet Gas Temperature Controller
8. Power Contactor - 40 amp