



Initial Verification



Initial verification and start-up (commissioning) must be carried out by suitable qualified personnel.

Clearance

- 1. Ensure that the humidifier cabinet is installed in a location where the humidifier can be serviced correctly.

Electrical

- 2. Check that the power supply (voltage) conforms to the appliance name plate on the humidifier side.
- 3. Confirm that 24Vac is present between tab 1&2 of the control terminal, located on the control connection PCB. Remove the front top cover to get to this PCB.

Water

- 4. Ensure that water is supplied to the humidifier. A shut-off valve must be outside the humidifier. Once the water shut-off valve is turned ON, ensure that there are no apparent leaks.
- 5. Confirm that drain piping is properly connected with a pitch of at least ¼” (6.5mm) per foot (300mm) horizontal run.

Steam

- 6. Check that steam distributors are properly installed into the ventilation duct.
- 7. Verify that the flexible steam hoses and rigid steam supply pipes are shorter in total length than 15ft (5m), properly sloped and have condensation P traps wherever required.

Gas

- 8. Verify that a proper regulator and gas test point have been installed on the gas line to the humidifier.
- 9. Confirm that gas is supplied to the humidifier and that the shut-off valve located outside the humidifier is closed. Once the shut-off valve is turned ON, check for leaks, gas, smell or hissing sounds.

Flue Gases Venting

- 10. Verify the flue gases venting as follows:
- a) A tee is installed with a drain tee cap for the condensate.
- b) Check that all connections are air tight.
- c) The total length of the vent equivalent is not longer than 100ft (30m).
- d) An approved venting system is used, such as one of the following:

 - Cheminee Lining HEP, HEPL or HEPL2 rigid venting system, or
 - Flexmaster Z-Vent Model SVE Series III rigid venting system, or
 - DuraVent FasNSeal (single-wall) or FasNSeal W2 (double-wall) venting system, or
 - Magnaflex’s PV model insulated flexible venting system, or
 - Selkirk/HeatFab Saf-T Vent Model single-wall or double-wall venting system, or
 - Other system, please specify (for reference) _____

Note: Aluminum B vent is not acceptable.

Controls

- 11. Ensure that a high limit duct humidistat is installed, properly connected to the humidifier and that the setpoint is properly adjusted.
- 12. Verify that a room or return air duct humidistat is installed, properly connected to the humidifier and that the setpoint is properly adjusted.
- 13. Turn the power ON at the disconnect switch.
- 14. Confirm the control set-up of the humidifier (display #200). The humidifier is factory set with EXTERNAL control set-up, which means that the humidity demand is controlled by the room or duct humidistat.
- 15. Ensure that the type of signal (0-10Vdc, 2-10Vdc or 4-20mA) of the humidistat corresponds to the type set in the humidifier control set-up menu (display # 201).



Start-Up

Start-up

1. Proceed to start-up the humidifier as follows:
- a) Open the front access door of the humidifier cabinet; ensure that the manual drain valve is closed.
- b) Start up the humidifier by pushing the  (ON/OFF) button located on the humidifier control panel.
- c) After 5 seconds, water will start to flow in. Verify that the water level slowly rises in the water level sight glass located on the side of the evaporation chamber.
- d) Verify that there is a humidity demand. Humidity demand is displayed on the humidifier LCD screen.
- e) The Humidifier LCD screen will display the water level in percentage (%). When the display indicates that the water level is at 100%, verify that the water level in the water level sight glass is approximately 3/4" (20mm) below the safety belt band of the evaporation chamber.
- f) If there is a humidity demand, the burner combustion blower(s) will start and after approximately 90 seconds, the combustion will start. From a cold water start, the humidifier will require 5 to 10 minutes to produce steam. The Humidifier LCD display will indicate water temperature and flue gases temperature.
- g) During normal operation, while steam is produced, the water temperature must be 212°F (100°C) and the flue gases temperature around 248 to 392°F (120 to 200°C). Water level percentage must not indicate less than 95%.
- h) Observe for water, steam and flue gas leaks.

Combustion Field Adjustment

2. Please refer to the *Combustion field adjustment instructions* enclosed in this package to perform this operation

Safety Test

3. Check the location of the air flow switch in the system and its operation by stopping the fan. With no air movement in the air duct, the humidifier must automatically stop the combustion burner(s).

Drain and Reset

4. Turn the humidifier OFF, by pushing  (ON/OFF) push button on the control panel.
5. Execute a manual drain, by pushing the  (DRAIN) push button on the control panel. A water jet directed on the water level sensor located in the water level sight glass will start and create bubbles around it.
6. Reset the air flow switch and humidistat(s) to the proper value, if needed.

End

7. The humidifier is now ready for normal operation.

