



Initial verification



A qualified Gas technician should carry out the following Initial Verification & Start up procedure.

Clearance

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

Electrical

- 2. Verify that the power supply (voltage) conforms to the name plate on the side of the humidifier. []

- 3. Confirm that 24Vac is present between pins 1 & 2 of the Control terminal located on the control PCB. To access this PCB, remove the front top cover. []

Water

- 4. Ensure that water is supplied to the humidifier. A shut-off valve should 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 least 1/4" (1.5mm) per 40" (1m). []

Steam

- 6. Check that the steam distributors are properly installed into the ventilation duct. []

- 7. Verify that the total length of the flexible steam hoses and rigid steam supply pipes are shorter than 15 feet (5m). Also verify that they are 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, the smell of gas, or hissing sounds. []

Flue gases venting

- 10. Verify the Flue gases venting as follows: []

- a) A tee is installed with a drain trap for the condensate []
- b) Check that all connections are air tight []
- c) The total length of vent equivalent is not longer than 100 feet (30m). []
- d) The venting system used is one of the following: []
- Chiminee Lining IPP rigid venting system, or
- Flexmaster's Z-Flex model SVE Series III rigid venting system, or
- Magnaflex's PV model, insulated flexible venting system, or []
- Profab system rigid venting system, or
- Other system, please specify (for reference) _____ []

Note: Aluminium B vent is not acceptable []

Controls

- 11. Ensure that a High limit duct humidistat is installed, properly connected to the humidifier and set point properly adjusted. []

- 12. Verify that Room humidistat or returned air duct humidistat is installed, properly connected to the humidifier and set point properly adjusted []

- 13. Turn Power ON at the disconnect switch []


- 14. Confirm the control setup of the humidifier (display #200). The humidifier is factory set with EXTERNAL control setup, 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 setup menu, display # 201 (if humidifier is set in EXTERNAL control setup) []



Start Up

Start-up

- 1. Proceed to the start up of the Humidifier, as follows:
- a) Open the front access door of the humidifier cabinet and 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 fill. Water level should slowly rise 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 display.
- e) Humidifier LCD display will display the water level in percentage (%). When the display indicates water level at 100%, the water level in the water level sight glass should be 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 requires 5 to 10 minutes to produce steam. Humidifier LCD display is indicating water temperature and flue gases temperature.
- g) During normal operation and while steam is produced, the water temperature should be 212°F (100°C) and the flue gas temperature around 250 to 390°F (120 to 200°C). Water level percentage should not indicate less than 95%.
- h) Observe water steam and flue gas for 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 (if possible). With no air movement in the air duct, the humidifier should automatically stop the combustion burner(s).

Drain and Reset

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

End

- 7. Humidifier is ready for normal operation.

