

SECTION 23 84 13
HUMIDIFIERS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following humidifiers:

1.2 RELATED SECTIONS

- A. Section 23 00 10 – General Mechanical Requirements, is an integral part of this section. Requirements and work indicated in 23 00 10 are not repeated in this Section.

1.3 COORDINATION

- A. Coordinate work under provisions indicated in Section 23 00 10.

1.4 QUALIFICATIONS / QUALITY ASSURANCE

- A. Conform to requirements indicated in Section 23 00 10.

1.5 REGULATORY REQUIREMENTS

- A. Conform to requirements indicated in Section 23 00 10.

1.6 SUBMITTALS

- A. Submit as required herein and under Section 23 00 10.

1.7 EXTRA MATERIALS

- A. Furnish under provisions indicated in Section 23 00 10.

1.8 PROJECT RECORD DOCUMENTS

- A. Submit under provisions indicated in Section 23 00 10.

1.9 OPERATION AND MAINTENANCE DATA

- A. Submit under provisions indicated in Section 23 00 10.

1.10 WARRANTY

- A. Provide under provisions indicated in Section 23 00 10.

PART 2 - PRODUCTS

2.1 MATERIALS AND COMPONENTS

- A. General: Except as otherwise indicated, provide packaged humidifiers and ancillary equipment with manufacturer's standard materials and components as indicated and published product information, designed and constructed by manufacturer, and as required for complete installation.

2.2 ADIABATIC WETTED MEDIA HUMIDIFIER

- A. General: Provide humidifiers, of size and capacity as scheduled.
- B. The casing of the Humimax humidifier is made of stainless steel. A humidification pad is mounted in the air inlet. The air to be humidified is drawn through the pad by an axial fan positioned in the outlet of the unit.
- C. The bottom of the unit forms a water reservoir. Water is supplied to the reservoir through a water filter, a solenoid valve and a float valve that controls the water level. A circulation pump, in the water reservoir, feeds water to the distribution manifold located at the top of the humidification pad. The reservoir is emptied and refilled with fresh water to ensure low level of minerals, on a regular basis, using a drain valve that is opened or closed electrically.
- D. Equip unit with a built-in overflow protection.
- E. Equip unit with a control panel with possibility to set maximum fan speed, batch drain intervals and biocide intervals.
- F. Furnish a factory humidity set point control unit for each humidifier. Control units shall be mounted beneath the raised floor as shown on the Contract Drawings. Up to six units may be circuited together. The control unit is wired to a terminal at the unit mounted control panel.
- G. Furnish wall stand.
- H. Furnish rear filter for the humidifier units.
- I. Humimax humidifier power required is single phase 120V, 60 Hz.
- J. Manufacturer:
 - 1. Munters

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine areas and conditions under which humidifiers are to be installed. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Installer.

3.2 INSTALLATION OF HUMIDIFIERS

- A. General: Install humidifiers where indicated, in accordance with equipment manufacturer's written instructions, and with recognized industry practices, to ensure that humidifiers comply with requirements and serve intended purposes.
- B. Access: Provide access space around humidifiers for service as indicated, but in no case less than that recommended by manufacturer.
- C. Support: Provide supports humidifiers as indicated and in accordance with manufacturer's installation instructions. Coordinate supports with structural and architectural trades.
- D. Connect humidifier to water supply piping (provided by Div 22) and drainage piping.
- E. Electrical Wiring: Install electrical devices furnished by manufacturer but not specified to be factory-mounted. Furnish copy of manufacturer's wiring diagram submittal to Electrical Installer.

1. Verify that electrical wiring installation is in accordance with manufacturer's submittal and installation requirements of Division-26 sections. Do not proceed with equipment start-up until wiring installation is acceptable to equipment Installer.
2. Install humidity control units under Computer Room raised floor as shown on the Drawings.

3.3 FIELD QUALITY CONTROL

- A. Upon completion of installation and prior to initial operation, test and demonstrate that air humidification equipment is leak-tight.
- B. Repair or replace air humidification equipment as required to eliminate leaks, and retest as specified to demonstrate compliance.

3.4 ADJUSTING AND CLEANING

- A. Start-Up: Start-up humidifiers in accordance with manufacturer's instructions by factory authorized personnel.
- B. Cleaning: Clean factory-finished surfaces. Repair any marred or scratched surfaces with manufacturer's touch-up paint.

3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain humidifiers. Refer to Division 01 Section "Demonstration and Training."

END OF SECTION