# GENERAL

## SECTION INCLUDES

### Variable volume terminal units.

## REFERENCE SECTION 23 05 00 FOR THE FOLLOWING:

### References.

### Submittals.

#### Include schedules listing discharge and radiated sound power level for each of second through sixth octave bands at inlet static pressures of 1 to 4 inch wg.

### Project record documents.

### Operation and maintenance data.

#### Operation and Maintenance Data: Include manufacturer's descriptive literature, operating instructions, maintenance and repair data, and parts lists. Include directions for resetting constant volume regulators.

### Qualifications.

#### Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum five (5) years documented experience.

#### CRC brand (Critical Room Control) air terminal units will not be allowed.

### Regulatory requirements.

#### Products Requiring Electrical Connection: Listed and classified by Underwriters' Laboratories Inc., as suitable for the purpose specified and indicated.

### Warranty.

#### Operation and Maintenance Data: Include manufacturer's descriptive literature, operating instructions, maintenance and repair data, and parts lists. Include directions for resetting constant volume regulators.

# PRODUCTS

## SINGLE DUCT VARIABLE VOLUME UNITS

### See Drawings for further information.

### Basic Assembly:

#### Casings: Minimum 22 galvanized steel.

#### Liner: Fiber-free internal liner.

#### Air Outlets: S slip and drive connections.

### Basic Unit:

#### Configuration: Air volume damper assembly inside unit casing.

#### Provide protective metal shroud for UNL provided and installed control components.

#### Volume Damper: Construct of steel with peripheral gasket and self lubricating bearings; maximum damper leakage: 4 percent of design air flow at three (3) inches inlet static pressure.

#### Mount damper operator to position damper normally open or normally closed as required by the operation sequence.

#### On units with heating coils, provide minimum 9”x6” hinged and gasketed access door on bottom of unit to facilitate coil inspection.

### Velocity Sensors: No transitions from the duct size at the velocity sensor to the actual the box inlet size are allowed.

#### Removable multipoint differential pressure array.

#### Vortex shedding airflow measurement stations.

#### Thermal anemometer airflow measurement stations.

### Hot Water Heating Coil:

#### Construction: 1/2 inch copper tube mechanically expanded into aluminum plate fins, leak tested under water to 200 psig pressure, factory installed.

#### Provide factory-insulated coil bends.

#### Capacity: As scheduled.

# EXECUTION

## INSTALLATION

### Install in accordance with manufacturer's instructions.

### Provide ceiling access doors or locate units above easily removable ceiling components. In no instance shall units be installed in inaccessible locations.

### Support units individually from structure. Do not support from adjacent ductwork.

### Connect to ductwork in accordance with Section 23 31 13.

### Maintain a minimum of 18” clearance in front of VAV controller.

### Provide a minimum of 5 straight duct diameters upstream of VAV box inlet.

### Flexible duct connections to VAV boxes are not permitted.

### EPDM pressure/temperature tap (“Pete’s plugs”) shall be installed on HWS/HWR piping at each terminal unit.

## IDENTIFICATION

### Label each air terminal unit with plan number, nominal airflow, and maximum and minimum factory-set airflows. Comply with requirements in Section 23 05 53 "Identification for HVAC Piping and Equipment" for equipment labels and warning signs and labels.

## ADJUSTING

### Reset volume with damper operator attached to assembly allowing flow range modulation as indicated on equipment schedule.

END OF SECTION 23 36 00