

WARD 3D PHYSICAL THERAPY RENOVATION
VA WNY Health Care System
3495 Bailey Ave
Buffalo, New York

SECTION 23 82 00
CONVECTION COOLING UNITS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Valance Units.

1.2 RELATED WORK

- A. Section 13 05 41, SEISMIC RESTRAINT REQUIREMENTS FOR NON-STRUCTURAL COMPONENTS: Seismic restraints for equipment.
- B. Section 23 05 11, COMMON WORK RESULTS FOR HVAC: General mechanical requirements and items, which are common to more than one section of Division 23.
- C. Section 23 05 41, NOISE and VIBRATION CONTROL FOR HVAC PIPING and EQUIPMENT: Noise requirements.
- D. Section 23 21 13, HYDRONIC PIPING: Chilled water piping.
- E. Section 23 09 23, DIRECT-DIGITAL CONTROL SYSTEM FOR HVAC: Valve operators.
- F. Section 23 05 93, TESTING, ADJUSTING, and BALANCING FOR HVAC: Flow rates adjusting and balancing.

1.3 QUALITY ASSURANCE

- A. Refer to Paragraph, QUALITY ASSURANCE, in Section 23 05 11, COMMON WORK RESULTS FOR HVAC.

1.4 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, and SAMPLES.
- B. Manufacturer's Literature and Data:
 - 1. Valance Units
- C. Certificates:
 - 1. Compliance with paragraph, QUALITY ASSURANCE.
 - 2. Compliance with specified standards.
- D. Operation and Maintenance Manuals: Submit in accordance with paragraph, INSTRUCTIONS, in Section 01 00 00, GENERAL REQUIREMENTS.

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1.5 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
- B. National Fire Protection Association (NFPA):
 - 90A-09.....Standard for the Installation of Air Conditioning and Ventilating Systems
 - 70-11.....National Electrical Code
- C. Underwriters Laboratories, Inc. (UL):
 - 1995-05.....Heating and Cooling Equipment

1.6 GUARANTY

- A. In accordance with FAR clause 52.246-21

PART 2 - PRODUCTS

2.1 VALANCE UNITS

- A. General: All equipment shall be free from expansion, noises and strains. Exposed parts to be cleaned and parkerized or phosphate coated before prime coating or baked enameling. Finish colors as selected from manufacturer's standard colors during the submittal process. Factory-boxed and tagged by room number. Verify at site, the space available for each piece of equipment. Top of unit enclosure shall be at least 1" below. Refer to owner's representative at once, and correction, discrepancy or suggested change in size of location. This contractor shall be responsible for proper location and size of recesses. Coordinate dimensions from ceiling to bottom of unit with other trades. Provide framing in recess and shims, if required.
- B. Units shall be 2- pipe cooling only, as called for and scheduled.
- C. Valance units shall be complete with coil, integral concealed streamline style insulated drain pan/roomside enclosure, brackets, interior drain fitting connection (exterior drain fitting shall be used only where interior drain fittings will not fit the application), corner splices and trim pieces as required.

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- D. Coils constructed of aluminum plate fins with copper tubing.
Condensate drain pans shall be heavy gauge aluminum lined with closed cell insulation with a solid waterproof surface facing the coil.
- E. Units shall be hung from aluminum wall hangers fastened securely through the wall board. Intermediate hangers shall be provided on any unit over 13 feet in length.
- F. Capacities and coil types as listed on the contract documents.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Each unit shall be isolated with shut-off ball valves to permit servicing. Provide flow balancer for each unit as detailed. Provide trap and drain for each unit as detailed. Contractor shall be responsible for correct end connection and arrangements. Arrange piping accessories and valving fully accessible for servicing. Enclosures fastened to structure with screws or bolts, no nailing allowed.
- B. Provide enclosure wall to wall as shown. Hang valance 6" from finished column surface. All valance units shall be hung same dimension from exterior wall surface, whether there is column in room or not.
- C. Valance valving shall be provided over lay-in ceiling area for ease of accessibility.
- D. The contractor shall install a minimum of two (2) mock up rooms under the supervision of the valance manufacturer's representative. The installation shall be complete in all respects with all specified materials to include the piping risers, control valve, stop and balance valves, air vents, valance coil and enclosure. This is to allow the contractor to become familiar with the installation details so the installers will be aware of how and where to specifically locate the valves and mounting apparatus such that they will not be visible when viewing the valance from the front. The installation of the mock-up room shall be reviewed and approved by the engineer prior to the contractor's proceeding with installation throughout the project. Once the mocks are approved by the Engineer, the sample installation shall serve as the model installation practices throughout the balance of the project.

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3.2 OPERATIONAL TEST

- A. Refer to Section 23 05 11, COMMON WORK RESULTS FOR HVAC.

3.3 STARTUP AND TESTING

- A. Coordinate the startup and contractor testing schedules with the Resident Engineer. Provide a minimum of 7 days prior notice.

3.4 DEMONSTRATION AND TRAINING

- A. Provide services of manufacturer's technical representative for four hours to instruct VA personnel in operation and maintenance of units.
- B. Submit training plans and instructor qualifications in accordance with the requirements of Section 23 08 00 - COMMISSIONING OF HVAC SYSTEMS.

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