

DIVISION 15 - MECHANICAL

Section 15855 - Air Handling Systems

Introduction

Equipment associated with:

CENTRAL STATION AIR CONDITIONING AND DISTRIBUTION.

See related Sections:

15540 Heat Transfer Equipment
15860 Fans
15885 Filters

Part 1 - General

- See Section 15000 for discussions of preferred system type.
- Dual Deck Systems with > 40% Outdoor Air – Discuss with UFS Project Manager and Mechanical Engineer the options to include cooling in existing and new hot decks be it via chilled water supply or return or other means.
- AHU to be 'draw-thru' type.
- Preferred location of OA intakes is above roof level - not ground level. However, avoid location of AHU outside air intake in vicinity of plumbing vent stacks, emergency generator stacks and loading dock areas.
- OA intakes to be hard ducted through Mech. Rooms unless a separate AHU room is provided.
- Equipment layout shall minimize / eliminate any system effect on fan static pressure.

Part 2 - Products

- Provide hinged access doors to both sides of coils, fans, filters, and damper sections.
- Provide removable side panels in fan sections to allow for fan and shaft removal/replacement.
- AHU shall not be constructed using porous or semi porous materials.
- AHU shall be double walled casing - minimum 18 gauge.
- AHU shall have interior inspection lights.
- Large AHU to have inspection windows in access doors.
- Utilize only 'premium efficiency' motors in AHU's. See Section 15050.
- AHU should be designed to minimize the number of field connections between sections.

Part 3 - Execution

- Ensure coil drain pans and condensate pipework is pitched to drain, (pitch per Section 15410).
- In new construction utilize AHU to 'flush' building to reduce off-gassing of interior furnishings prior to occupancy. Fit AHU with temporary filters during this period.
- Replace filters before system balancing.

- Provide vibration safety switches on all Vane Axial type fans.
- Provide suitable access for servicing/removal of fan assemblies.
- Control valves shall be located outside of air handler enclosure. (i.e. not within the airstream)
- Ensure access is provided to both sides of AHU fans to allow bearing replacement.
- Factory leak tests and sound tests are required.

End of Section 15855