

**MiModify Section 23 73 00, part .02, items B. and F. per the following (deletions are shown struck through and additions are double underlined). Remainder of section is unchanged.**

## 23 73 00 AIR-HANDLING UNITS

### .02 Product Requirements

#### B. Unit Casings:

8. Provide marine lights in sections requiring routine service (fans, filters, full-sized access/inspection). Marine light shall be UL listed for wet locations. Light shall be complete with energy efficient, long-life fluorescent lamp and junction box.

#### F. Coil Sections:

- ~~All coils shall be completely cleaned prior to installation into the air handling unit. Complete fin bundle in direction of airflow shall be degreased and steam cleaned to remove any lubricants used in the manufacturing of the fins, or dirt that may have accumulated, in order to minimize the chance for water carryover.~~
- Provide at least 24" of access space upstream and between each coil with doors to facilitate installation of sensors and for inspection and cleaning.
- On applications that will condense moisture, such as typical air conditioning cooling/dehumidification and exhaust air heat recovery, provide coil casings, tube sheets and intermediate supports of minimum 16 gauge (0.0625" thick) **stainless steel** channel frames. Use 14 gauge on very large coils that need extra strength. Also use **stainless steel** for associated independent structural supports of multiple coil banks as described below.
- ~~All coils shall be air vented and arranged for proper drainage.~~
- Fabricate coil section to allow removal and replacement of each coil segment and to allow in-place access for service and maintenance of coil(s). For units with banks of multiple coil segments, provide independent supports of coils to allow slide out removal

and replacement of each coil segment. Coils shall not act as structural component of unit or support other coils.

*Designer Note: Independent coil supports for multiple stacked coils are typically only available on semi-custom or custom grade units, not standard units. Verify.*

6. All coils shall be air vented and arranged for proper drainage.
7. Primary Drain Pans: All cooling coil sections and heat recovery coils subject to condensing conditions shall be provided with an insulated, double-wall, **stainless steel** drain pan.
  - a. The drain pan shall be designed in accordance with ASHRAE 62.1 being of sufficient size to collect all condensation produced from the coil and sloped in two planes, pitched toward drain connections, promoting positive drainage to eliminate stagnant water conditions when unit is installed level and trapped per manufacturer's requirements. See below for specifications on intermediate drain pans between cooling coils.
  - b. The outlet shall be located at the lowest point of the pan and shall be sufficient diameter to preclude drain pan overflow under any normally expected operating condition.
  - c. All drain pan threaded connections shall be visible external to the unit. Threaded connections under the unit floor shall not be accepted.
  - d. Drain connections shall be of the same material as the primary drain pan and shall extend beyond the base to ensure adequate room for field piping of condensate traps.
8. Intermediate Drain Pans: Units with stacked coils shall have an intermediate drains pan to collect condensate from each row of coils.
  - a. The intermediate drain pan shall be designed being of sufficient size to collect all condensation produced from the coil and sloped to promote positive drainage to eliminate stagnant water conditions.
  - b. The intermediate drain pan shall be constructed of the same material as the primary drain pan.
  - c. The intermediate drain pan shall begin at the leading face of the water-producing device and be of sufficient length extending downstream to prevent condensate from passing through the air stream of the lower coil.

- d. Intermediate drain pans shall have drop tubes to guide condensate to the main drain pan, thus preventing flooding of lower coils that would result in moisture carryover.
9. All coils shall be completely cleaned prior to installation into the air handling unit. Complete fin bundle in direction of airflow shall be degreased and steam cleaned to remove any lubricants used in the manufacturing of the fins, or dirt that may have accumulated, in order to minimize the chance for water carryover.
10. ~~On applications that will condense moisture, such as typical air conditioning cooling/dehumidification and exhaust air heat recovery provide coil casings of minimum 0.0625" thick stainless steel channel frames.~~

**END of revision**

**Update Commentary:**

Section was updated primarily for the following reasons:

- 1) *Unit Casings: Added requirement for marine lights.*
- 2) *Coil Sections: Added requirement for stainless steel coil casings and structural supports for coils subjected to condensation and rearranged paragraphs for more logical order.*