



Division 237200

Air-to-Air Energy Recovery

Equipment

DESIGN GUIDE

1 General

1.1 General

- A. See Section 230500 regarding service requirements and equipment rooms.
- B. Units shall be in compliance with Section 237300 for Air Handling Units. This section addresses energy recovery devices.
- C. When practical, air tunnels shall be side by side with access to both sides of unit to negate the need for service platforms and ship ladders to service the upper air tunnel.
- D. Designs for Dedicated Outside Air Systems (DOAS) shall consider night heating. Night heating shall be accomplished without the units operating at 100% outside air when they would not normally require outside air. This may be accomplished with a recirculation damper at the energy recovery equipment used in conjunction with the exhaust fan being off or with perimeter radiant heat.
- E. Project shall utilize technologies that are most suitable for the application that consider:
 - 1. Service/accessibility
 - 2. Efficiency
 - 3. Defrost
 - 4. Leakage rate



5. Cost
6. Indoor versus outdoor application

2 Materials

2.1 Air to Air Heat Recovery Equipment

- A. Packaged equipment with supply/exhaust fans, supply/exhaust filters, defrost, heat exchanger and hydronic coils as applicable.
- B. Filters: Per 234000.
- C. Heat exchanger types
 1. Rotary/Wheel
 2. Cross Plate Heat Exchanger
 3. Alternating Mass Heat Exchanger
 4. Other as suitable for project.

3 Execution

3.1 Location

- A. It is preferred that heat recovery equipment be located on the roof for purposes of craning on and off.
- B. Location in mechanical rooms is acceptable provided there is adequate service and means to replace heat exchangers.
- C. Location in attics without full walking access are not preferred.



4 Appendix

4.1 Reserved for future content.

