



Division 233300

Air Duct Accessories

DESIGN GUIDE

1 General

1.1 General

- A. Reserved for future.

1.2 Submittals

- A. Fire/Smoke dampers
 1. Submit the manufacturer's installation manual & equipment specific startup documents as a part of the initial equipment submittal.
 2. Submit the manufacturer's operating and maintenance manual as a part of the initial equipment submittal
 3. Maintain copy of installation requirements on the job site.

2 Materials

2.1 Balance dampers

- A. Balance dampers materials shall be materially compatible with the duct system.
- B. All dampers larger than twelve inches (12") in any dimension shall be multiple blade construction. All dampers larger than four hundred (400) square inches shall be opposed blade.



2.2 Fire Dampers.

- A. UL listed.

2.3 Smoke Dampers and Combination Fire/Smoke Damper

- A. UL listed.
- B. Actuators on smoke dampers shall be Belimo and shall be mounted out of airstream. Provide with end switches to be monitored by the building automation system.
- C. Automatic reset on restoration of power when alarm condition has cleared.
- D. Damper test switch - push button
- E. Detectors provided by Division 28.

2.4 Duct Access Doors

- A. Materials materially compatible with the duct system.
- B. Provide with sealing gaskets, quick fastening locking devices and continuous piano hinge. For insulated ductwork, install 1" minimum insulation and sheet metal cover.

2.5 Control Dampers

- A. Furnished in 230900.

3 Execution

3.1 Balancing Dampers

- A. Provide balancing dampers on duct take-off to diffusers, grilles, and registers, regardless of whether dampers are specified as part of the diffuser, grille, or register assembly.



- B. In larger low-pressure systems place at branch take-offs from the mains to facilitate air balancing.
- C. Indicate location of balancing dampers in the plans.
- D. Coordinate accessibility of dampers with other systems and ceiling types.
- E. Dampers above concealed ceilings shall have concealed regulator with remote adjustment or ceiling access door.

3.2 Duct Access Doors

- A. Provide at the following minimum locations:
 1. For required cleanouts in material handling or grease waste system.
 2. Before and after duct coil installations for visual inspection and cleaning.
 3. Before and after duct filters
 4. At fire/smoke dampers.
 5. Access doors shall be maximum size to fit ductwork up to 24 inches square for duct sizes larger than 24 inches. Provide larger size access doors where indicated on drawings.
 6. Provide man access doors (up to man size but minimum 36"x36") to enter large intake plenums near air intakes for cleaning of dirt/debris/leaves etc.

3.3 Fire/Smoke Dampers

- A. Install in strict accordance with the UL listing and the manufacturers installation requirements as submitted with the product submittals.
- B. Prior to substantial completion, prepare a set of drawings that have the locations of each fire and smoke damper clearly annotated.
- C. At substantial completion, provide the owner with a print of the drawings with fire/smoke damper locations. Demonstrate access and resetting of each damper to CWU's Fire Control Technician or other



designated representative. All actuators and/or fusible links must be easily accessible to maintenance personnel for inspection and service.

- D. The building automation system shall monitor smoke damper position. Coordinate with 230900.

4 Appendix

4.1 Reserved for future.