SECTION 23 33 00

AIR DUCT ACCESSORIES

PART 1: GENERAL

1.1 PURPOSE

A. This guideline is intended to provide useful information to the Professional Service Provider (PSP) to establish a basis of design. PSP is to apply the principles of this section such that the University of Texas at Arlington (UTA) may achieve a level of quality and consistency in the design and construction of their facilities. Deviations from these guidelines must be approved by UTA and may require justification through Life Cycle Cost (LCC) analysis and submitted to UTA for approval.

1.2 **LESSONS LEARNED AND DESIGN CONSIDERATIONS**

A. Label duct silencers on outside of insulation with stencil.

B. Connect ducts to duct silencers with a rigid connection.

C. Install duct accessories in accordance with SMACNA "HVAC Duct Construction Standards".

D. For any duct accessory use the same type of material as the duct material.

E. Install duct access doors in the following locations at a minimum:

1. Upstream of duct filters.

2. Outdoor intakes.

3. At drain pans.

4. Adjacent to fire/smoke dampers to allow for service.

F. Install access door swing against static pressure.

G. Label access door with purpose for the door.

H. Avoid the use of splitter dampers.

I. Install duct mounted humidifier dispersion tubes with enough upstream duct diameters from elbows, sensors or other accessories. Ensure dispersion tube size, length and location are designed and approved by the manufacturer prior to 100% construction documents are complete.

J. Turning vanes will be single wall, pre-fabricated. No turning vanes constructed onsite will be allowed.

K. Show location of remote damper operators on construction drawings.

PART 2 - PRODUCTS

2.1 GENERAL

A. This product section is intended to inform the PSP on the minimum standard of quality that should be incorporated in new designs. The PSP should evaluate these standards and incorporate or make additional requirements per project specific requirements. Where the PSP considers any requirement listed not to be applicable or incompatible with the project design intent should be discussed with UTA Office of Facilities Management.

B. Manual Volume Dampers

1. Manufacturers:

a. Nailor

b. Ruskin

c. Mestek

2. Frames:

a. Galvanized Steel Channels, .064 inch minimum thickness.

b. Mitered and welded corners.

3. Blades

a. Multiple or Single.

b. Opposed blade design.

c. Galvanized steel, minimum thickness 0.064 inches.

d. Seals if applicable: Neoprene.

C. Silencers

1. Manufacturers

a. Dynosonic

b. IAC

c. Vibro-Accoustics

d. Others as approved

2. Factory Fabricated.

3. Material: Galvanized sheet metal.

4. Connection size to match existing ductwork.

5. Silencers should be built to not vibrate or rattle or react to system changes in pressures.

D. Remote Damper Operators

1. Manufacturers:

a. Young Regulator Company (Preferred)

b. Pottoriff

c. Ventfabrics, Inc.

d. Others as approved

2. Tubing: Brass

3. Cable: Stainless Steel

4. Ceiling Mount: Cover plate will be painted to match ceiling.

E. Duct Mounted Access Doors

1. Rectangular, double wall.

2. Material: Galvanized sheet metal.

3. Hinges:

   a. Less than 12” square: No hinge and two sash locks.

   b. 12” to 18” square: Two hinges or piano hinge and one cam lock.

   c. Doors greater than 18” square: Piano hinge and compression latches.

F. Turning Vanes

1. Manufacturers:

   a. Ductmate

   b. Duro Dyne

   c. SEMCO

   d. AeroDyne

   e. Others as approved

2. Galvanized steel supported by bars perpendicular to blade set. Set into vane runners for duct mounting.

3. Construction: Single wall.

PART 3 - EXECUTION

3.1 Test access doors and verify purpose of access door can be performed.

3.2 Test all manual dampers to full range of motion.

3.3 Inspect turning vanes prior to installing duct. Turning vanes will be installed secure and parallel with the airflow on the inlet and outlet.

3.4 Operate all remote damper operators over full range of motion.

END OF SECTION 23 33 00