

SECTION 23 37 13

DIFFUSERS, REGISTERS AND GRILLES

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. Verify type of ceiling on architectural drawings and specify correct air terminal device
- B. No diffusers will be specified in a lay in ceiling smaller than the grid size.
- C. Aluminum air devices will be specified in kitchens, bathrooms and other application with the possibility of high humidity.
- D. Supply diffusers will have the same neck size as the supply duct to the diffuser.
- E. Balancing dampers for the air terminal device will be located close to the main supply duct as possible to eliminate noise at the diffuser. No diffusers will have integral balancing dampers.
- F. Supply diffusers will be selected so that the end of the throw will be less than 50 fpm and greater than 25 fpm in the occupied zone. Design supply diffuser so that the mixing of cool supply air and warm room air does not happen in the occupied zone.
- G. Return grilles should be located in the most air stagnate zone of the room.
- H. For VAV systems select supply diffusers based on anticipated air volume and not maximum air volume.
- I. Slot diffuser plenums will be factory insulated with no exposed insulation.
- J. Avoid perforated ceiling diffusers.
- K. Avoid eggcrate return devices. Use return devices that reduces view above ceiling.
- L. Paint ductwork visible through the terminal device matte black.
- M. Fibrous insulation will not be used on the interior of any air device.

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. Approved Manufacturers:
 - 1. Metalaire

DESIGN AND CONSTRUCTION GUIDELINES

2. Titus
 3. Airmate
- C. Optional molded insulation blanket shall be available. The insulation will be R-6, foil-backed and provided an additional 1-inch gap around the neck to install insulated flex duct.

END OF SECTION 23 37 13