

PART 1: GENERAL

1.01 Purpose:

A. This standard is intended to provide useful information to the Professional Service Provider (PSP) to establish a basis of design. The responsibility of the engineer is to apply the principles of this section such that the University may achieve a level of quality and consistency in the design and construction of their facilities. Deviations from these guidelines must be justified through LCC analysis and submitted to the University for approval.

1.02 Requirements:

- A. Air Handling Units shall be designed to the specific requirements of the application: Recirculation or 100% Makeup. SHSU requires the use of Fan-wall technology where applicable.
- B. All Air Handling Units shall be fin and tube type constructed of seamless copper with aluminum fins mechanically bonded to the tubes and copper headers. Aluminum tubes and headers will not be allowed NO EXCEPTIONS.
- C. AHU shall utilize fan wall technology where possible.
- D. AHU mechanical rooms shall be designed to facilitate removal and installation of tube bundle without requiring modifications to building or any other mechanical system, including piping, wiring, ductwork, etc.
- E. AHU must have UVC lights installed between filter rack and coil section. UVC Lights must have an inspection port installed.

PART 2: PRODUCTS

2.01 Air Handler Casings (Factory):

A.Filter Gauges:

- a. Provide surface mounted pressure gauge for each pre-filter and final filter bank, with integral leveling screw and graduated to read appropriate pressure range based on maximum dirty filter pressure loss.
 - b. Provide pressure tips, tubing, gauge connections, and mounting bracket.
- B. Chain fall rails shall be provided to facilitate removal of fan drive motors and fans internal to the unit. Aluminum or fiberglass gratings on tower pumps preferred.

2.02 Air Handler Casings (Built-up):

- A. Only when approved by SHSU

2.03 Fans:

- 1. SHSU Requires the use of fan wall technology where applicable.

2.04 Motors and Drives:

1. Motors shall be mounted to be accessible and removable through the casing access door. All motors shall be manufactured to be high efficiency and designed to be used with variable frequency drives.
2. ABB Drives preferred.
3. Motor controls must be designed with HOA operations.

2.05 Preferred Manufacturers

1. Temtrol
2. Energy Labs
3. Haakon
4. Air Enterprises
5. York
6. Thermal Corp.

END OF STANDARD