

PART 1 GENERAL**1.1 SECTION INCLUDES**

1. This section specifies Pleated Pre-Filter applications. The Pleated Pre-filter specification includes standard equipment and components that are necessary for the complete installation and proper operation.

1.2 RELATED SECTIONS

1. Division 13 "Cleanrooms"
2. Division 23 "HVAC "

1.3 DESIGN REQUIREMENTS

1. The Pleated Pre-filter shall be designed allowing fit into various locations and sizes

Model: Various sizes

1.4 SHOP DRAWINGS

1. The Pleated Pre-filter supplier shall furnish shop drawings of the filter showing layout, placement, elevations, sections, and details
2. Product Data: Submit manufacturer's data sheet on each product to be used. Include: dimensions, construction details and configurations.
3. Shop Drawings: Provide scalable drawing(s) of each unit, illustrating front, side, and top views. Drawings shall include all options, special features, component dimensions, construction details and tolerances. Particular attention shall be given to installation interfaces as required by other trades (plumbing fixtures, exhaust connections, electrical requirements, etc.)

1.5 QUALITY ASSURANCE

1. The Pleated Pre-filter shall be supplied or furnished by a single manufacturer
2. The manufacturers shall have production facilities including all tools, equipment, and machinery necessary for the fabrication and installation of work specified, complete with skilled personnel.
3. Manufacturer Qualifications: Not less than 10 years experience in the actual production of specified products
4. A list of five (5) installations of comparable stature completed in the past 5 years
5. Performance: Cleanroom panel HEPA filters shall be designed to meet or exceed IEST "RP-CC001, latest Revision

1.6 DELIVERY, STORAGE AND HANDLING

1. Packaging: Products shall have adequate packaging to protect the finished surfaces from soiling or damage during shipping
2. Delivery: Deliver materials in manufacturer's original, unopened containers with identification labels intact
3. Storage: Store materials in such a manner as to prevent any damage or intrusion of foreign matter. Store within the building in space designated for storage. Items not properly stored will not be warranted against damage due to unsatisfactory conditions.

4. Handling: Care shall be used at all times to prevent any damage.
5. Waste disposal: Installer is responsible for removing waste resulting from the installation of the ducted terminal module. Trash container to be provided by others

1.7 REFERENCES

1. ASHRAE 52.2 Test Standard
2. UL 900 and ULC-S111-07

1.8 PROJECT SITE CONDITIONS

Do not deliver until the following conditions have been met:

1. Windows and doors are installed, and building is secure and weather tight
2. Ceiling overhead ductwork and lighting are installed
3. All painting is completed, and floor finish is installed
4. Protective packaging should be left in place while handling and the removed only when pieces are being installed in place.

1.9 WARRANTY

1. Pleated Pre-filter warranty: 3-months from date of shipment. Defects in material and workmanship within this time are to be replaced or repair at no additional charge to the owner

PART 2 PRODUCTS

2.1 MANUFACTURER

In order to define a minimum acceptable standard of quality, this specification names whose published products are acceptable

1. Acceptable Manufacturer:
 1. Filtration Group IAQ Aerostar® Series 400 Extended Surface Pleated Pre-filter as supplied by HEPAire Products Inc. 120 Terence Matthews Cres. Ottawa, ON. Telephone: 613-366-4984. Email: info@hepaireproducts.com

2.2 MATERIALS

1. The filter frame shall be constructed from a high wet strength beverage board with a cross member design that increases filter rigidity and prevents breaching. The frame shall be recyclable
2. Filter media shall be 100% synthetic, mechanical media that does not support microbial growth.
3. The pleated pre-filter shall have an expanded metal support grid bonded to the air-exiting side of the filter to maintain pleat uniformity and prevent fluttering. Metal support grid shall be recyclable and contain a significant amount of post-consumer and pre-consumer content
4. The filters shall be available in nominal 1", and 2" depths

2.3 PERFORMANCE

1. Each filter shall be MERV 8 in a standard capacity airflow and MERV 10 in a high-capacity airflow when tested in accordance with ASHRAE 52.2 Test Standard.
3. Filters shall be rated to withstand continuous operating temperature up to 200°F
4. The filters shall have a recommended final resistance of 1.0" w.g.
5. Underwriters Laboratories classified to UL 900 and ULC-S111-07

PART 3 EXECUTION**3.1 INSTALLATION**

1. Install in accordance with manufacturers recommendations
2. Install equipment so as to not damage other work

3.2 CLEANING

1. Remove all protective packaging
2. Remove or repair damaged or defective filters

3.3 PROTECTION

1. Provide all necessary protective measures to prevent exposure of HEPA filters from exposure to other construction activity
2. Advise contractor of procedures and precautions for protection of HEPA filters from damage by work of other trades.