SECTION 23 40 00 - HVAC AIR CLEANING DEVICES

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Disposable panel filters.
   B. High efficiency particulate air (HEPA) filters.
   C. Washable permanent panel filters.
   D. Electronic air cleaners.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
   B. Product Data: Provide data on filter media, filter performance data, filter assembly and filter frames, dimensions, motor locations and electrical characteristics and connection requirements.

PART 2 PRODUCTS

2.01 DISPOSABLE, EXTENDED AREA PANEL FILTERS
   A. Media: UL 900 Class 1, pleated, lofted, non-woven, reinforced cotton fabric; supported and bonded to welded wire grid by corrugated aluminum separators.
   B. Minimum Efficiency Reporting Value (MERV): 8, when tested in accordance with ASHRAE Std 52.2.

2.02 DISPOSABLE PANEL FILTERS
   A. Media: UL 900 Class 2, fiber blanket, factory sprayed with flameproof, non-drip, non-volatile adhesive.
1. Thickness: 1 inch (25 mm).

B. Performance Rating:
   1. Face Velocity: 500 FPM (2.54 m/sec).
   2. Initial Resistance: 0.15 inch WG (37 Pa).
   3. Recommended Final Resistance: 0.50 inches WG (125 Pa).

C. Casing: Cardboard frame.

2.03 HIGH EFFICIENCY PARTICULATE AIR (HEPA) FILTERS
   A. Media: UL 586, pleated, water-resistant glass fiber with separators of aluminum:
   B. Minimum Efficiency Reporting Value (MERV): 15, when tested in accordance with ASHRAE Std 52.2.

2.04 WASHABLE PERMANENT PANEL FILTERS
   A. Media: 14 mesh steel screen, zinc electroplated, alternate layers of flat and herringbone crimp, four layers per inch (25 mm); rod reinforced.

2.05 ELECTRONIC AIR CLEANERS
   A. Assembly: UL 867; galvanized steel assembly containing electronic agglomerator and disposable panel filters.
   B. Electronic Agglomerator: Independently supported and nested collection cells of aluminum construction including ionizing section consisting of alternately spaced grounded struts and charged ionizing wires, and collecting section consisting of alternately grounded and charged plates, with insulators located out of air stream.

PART 3 EXECUTION

3.01 INSTALLATION
   A. Install air cleaning devices in accordance with manufacturer's instructions.
   B. Prevent passage of unfiltered air around filters with felt, rubber, or neoprene gaskets.
   C. Do not operate fan system until filters (temporary or permanent) are in place. Replace temporary filters used during construction and testing, with clean set.

END OF SECTION  23 40 00