Part 1 General

1.1 SHOP DRAWINGS AND PRODUCT DATA

.1 Submit shop drawing and product data in accordance with Section 01 33 00 – Submittal Procedures.

1.2 CLOSEOUT SUBMITTALS

.1 Provide maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.3 WASTE MANAGEMENT AND DISPOSAL

.1 Separate and recycle waste materials in accordance with Section 01 74 21 – Construction/Demolition Waste Management and Disposal, and with the Waste Reduction Workplan.

1.4 MAINTENANCE MATERIALS

.1 Provide maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.

.2 Furnish list of individual manufacturer's recommended spare parts for equipment such as frames and filters, addresses of suppliers, list of specialized tools necessary for adjusting, repairing or replacing for inclusion in operating manual.

1.5 EXTRA MATERIALS

.1 Spare filters: in addition to filters to be installed immediately prior to acceptance by Departmental Representative, supply 1 complete set of filters for each filter unit or filter bank in accordance with section 01 78 00 - Closeout Submittals.

Part 2 Products

2.1 GENERAL

.1 Media: suitable for air at 100% RH and air temperatures between -40°C and 50ºC.

.2 Number of units, size and thickness of panels, overall dimensions of filter bank, configuration and capacities: as indicated.

.3 Pressure drop when clean and dirty, sizes and thickness: as indicated on schedule.

2.2 ACCESSORIES

.1 Holding frames: channel section construction of galvanized steel, 1.6 mm thick, except where specified otherwise.

.2 Seals: to ensure leakproof operation.

.3 Blank-off plates: as required, to fit all openings and of same material as holding frames.

.4 Access and servicing: through doors/panels on each side and/or from upstream face of filter bank where indicated.

2.3 RIGID, SUPPORTED PLEAT TYPE FILTERS, 25-30% EFFICIENCY

.1 Media: disposable preformed cotton/polyester blend cartridge.

.2 Holding frame: high wet strength cardboard.

.3 Media support: welded wire grid.

.4 Performance:

.1 Average atmospheric dust spot efficiency 25-30% to ASHRAE 52.1.

.2 MERV 8 to ASHRAE 52.2.

.5 Fire rated: to ULC -S111.

.6 Acceptable material: Camfil 30/30, AAF, Air Guard.

2.4 CARTRIDGE TYPE FILTERS, 80-85 % EFFICIENCY

.1 Media: deep pleated, disposable, high efficiency, to CAN/CGSB-115.14.

.2 Holding frame: galvanized steel with bracing.

.3 Media support: welded wire grid.

.4 Performance:

.1 Average atmospheric dust spot efficiency 80-85 % to ASHRAE 52.1.

.2 MERV 13 to ASHRAE 52.2.

.5 Fire rated: to ULC -S111.

.6 Acceptable material: Camfil riga-flo, AAF, Air Guard.

2.5 FILTER GAUGES - DIAL TYPE

.1 Diaphragm actuated, direct reading. Compatible with air from -6°C to 48°C. Scale calibrated to read full range of filter from clean installation through fully loaded at 50% pressure beyond changeout limit.

.2 Two phototransistor acutated DPDT relays included for low/high limit sensing. Electrically rated for 10A@28 VDC, 10A@120 VAC.

.3 Acceptable material: Dwyer Photohelic A3000.

Part 3 Execution

3.1 INSTALLATION GENERAL

.1 Install in accordance with manufacturer's recommendations and with adequate space for access, maintenance and replacement.

3.2 REPLACEMENT MEDIA

.1 Replace all media with new upon acceptance.

3.3 FILTER GAUGES

.1 Install type as indicated across each filter bank (pre-filter and final filter) in approved and easy readable location.

.2 Mark each filter gauge with value of pressure drop for clean condition and manufacturer's recommended replacement (dirty) value.

END OF SECTION 23 44 00