

AIR FILTERS

General

Air filtering systems to include filter units, devices, air leakage seals, holding frames, supports and housings.

Filter efficiencies should be average atmospheric dust spot efficiencies tested in accordance with ARI 850. Minimum efficiencies and maximum clean pressure drops should be scheduled on the drawings. Maximum dirty pressure drops for design capacities should also be scheduled. For general use the University uses a 60 percent bag with a 2 inch pleated prefilter.

High efficiency filters should be UL listed as Class I filters, low efficiency filters listed as Class II. All filters should meet NFPA-90A standards.

Filters and filter housings should be furnished by the same manufacturer.

Pleated pre-filters of the panel throw-away type should be installed upstream of cartridge type bag filters. The first set (or only set, if allowed by code) of bag filters should contain integral retention clips for the panel type pre-filters.

Roll type pre-filters are not acceptable.

Material Requirements

Pleated Panel Filters

Pleated panel filters are to be tested in accordance with ASHRAE Standard 52.76, and shall meet the following performance requirements.

Nominal Filter Size (H x W x D)	24 x 24 x 2
Face Velocity (fpm)	500
Test Air Flow Rate (cfm)	2000
Final Resistance (Inches W.G.)	1.0
Minimum Average Rated Efficiency (percent)	25
Minimum Average Arrestance (percent)	90
Minimum Gross Media Area (per sq. ft.)	12 pleats

The filters shall have been tested and approved by Underwriters' Laboratories, Inc. and classified Class II or I when tested in accordance with UL Standard 900.

High Capacity Extended Surface (Bag) Filters

Bag filters must be certified to have passed testing as specified in ASHRAE Standard 52-76. All testing is to be performed on filters with a nominal 24 inches x 24 inches header dimension. ASHRAE 52-76 tests on UL Class II filters are considered representative of the performance characteristics of Class I filters.

Filters shall have been tested and approved by UL, and classified Class I or II when tested in accordance with UL Standard 900.

Physical characteristics of the bag filters are:

- Header sizes - 13/16 inch minimum and 7/8 inch maximum.
- Each filter shall consist of a ridged (16) gauge rust resistant metal header to which individual pockets of filter media supported by a scrim backing are attached and sealed.
- Urethane gasketing to be secured to frame.
- Provide minimum of 6 pockets for 60 percent bags.
- Provide minimum of 8 pockets for 90 percent bags.

02/03/00 07:53 AM