

Technical Specification RIGAFLO SAFETY MONITORING FILTER

A Safety Monitoring Filter shall be provided. It shall include housing, medium efficiency pre-filters, high efficiency filters, all necessary frame and fasteners and a dial type pressure gage (or combination dial type pressure gage/pressure switch).

SIDE ACCESS HOUSINGS

Filter housings shall be factory fabricated and assembled. They shall incorporate extruded aluminum tracks and individual Universal Holding Frames designed to accommodate a full range of standard nominal 24x24 or 12x24 filters without alteration to the holding frame or extrusion. The Universal holding frames shall be independent assemblies, which are easily slid out of the housing on the extruded aluminum track. Actual installation of individual filters into the holding frames shall be done externally from the housing. Fasteners to hold high efficiency filters in the individual universal holding frames shall be capable of withstanding 100 pounds force per filter without deflection or elongation.

Housings shall be constructed of not less than 16 gauge galvanized steel, reinforced with bracing. The housing shall be of welded construction and shall be equipped with pre-punched standing flanges to facilitate field installation. Housings shall be prime painted inside and outside with a topcoat outside.

Housings shall be equipped with two (2) access doors to facilitate removal and replacement of first stage and second stage filters from either side of the unit. The doors shall be equipped with positive sealing, heavy-duty latches and polyurethane foam gasketing.

Filter frames shall slide into the housing on extrusions made of heavy gauge anodized aluminum. The extrusions shall be equipped with a replaceable woven pile seal to ensure proper sealing between the extrusion and the Universal Holding Frame. The size of the housing and the arrangement of the tracks shall accommodate 12" deep rigid filters for the secondary, high efficiency filter, and 2" deep filters for the primary, medium efficiency filter.

Housings shall be designed for installation on the discharge side of the dust collection system fan.

MEDIUM EFFICIENCY FILTERS

Medium efficiency filters shall be provided to protect high efficiency filters from premature contamination at start-up or in the event of an upset.

Filters shall be 2", Farr 30/30, medium efficiency, pleated, disposable type. Each filter shall consist of a non-woven cotton fabric media, media support grid and enclosing frame. Underwriter's Laboratories shall list the filter as Class II.

Filter media shall be of the non-woven cotton fabric type. The filter media shall have an average efficiency of 25-30% on ASHRAE Test Standard 52-89. It shall have an average arrestance of 90-95% in accordance with that test standard.

The effective filter media shall be no less than 4.4 square feet of media per 1.0 square foot of filter face area and shall contain no less than 15 pleats per linear foot. Initial resistance at 500 fpm approach velocity shall not exceed .28" w.g.

The media support shall be welded wire grid with an effective open area of no less than 96%.

The welded wire grid shall be bonded to the filter media to eliminate the possibility of media oscillation and media pull away.

The media support grid shall be formed in such a manner that it affects a radial pleat design, allowing total use of filter media.

The enclosing frame shall be constructed of a rigid, heavy duty, high wet strength average board, with diagonal support members bonded to the air entering and air exit side of each pleat, to ensure pleat stability. The inside periphery of the enclosing frame shall be bonded to the filter pack, thus, eliminating the possibility of air bypass.

HIGH EFFICIENCY FILTERS

High efficiency air filters shall be Farr RigaFlo 200 high performance, deep pleated, totally rigid and totally disposable type. Each filter shall consist of high-density micro-fine glass fiber media, media support grid, contour stabilizers and enclosing frame.

The media shall be supported with a welded wire grid with an effective open area of no less than 96%. The welded wire grid shall be bonded to the filter media to eliminate the possibility of media oscillation and media pull-away.

The media support grid shall be formed in such a manner that it affects a tapered radial pleat design. The grid shall be designed to support the media both vertically and horizontally.

Contour stabilizers shall be permanently installed on both the air entering and air exit sides of the filter media pack to ensure that the tapered radial pleat configuration is maintained throughout the life of the filter. The filter shall be capable of withstanding 16" w.g. pressure drop without failure of the media pack or loss of efficiency.

The enclosing frame shall be constructed of galvanized steel. It shall be constructed and assembled in such a manner that a rigid and durable enclosure for the filter pack is effected.

The periphery of the filter pack shall be continuously bonded to the inside of the enclosing frame thus eliminating the possibility of air bypass. The enclosing frame shall be equipped with protective diagonal support members on both the air entering and air exit sides of the filters.

Filter media shall be of high-density micro-fine glass fibers which are laminated to a non-woven synthetic backing to form a lofted filter blanket. Media shall be of the lofted mat type and have a minimum thickness of 3/16". The filter media shall have an average efficiency of 90-95% on ASHRAE test standard 52-89. The filter media shall have an average arrestance of no less than 99% on that standard. Underwriter's Laboratories shall list filters as Class 2.