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Specifications

Number:	SP-275-1
Product:	Permanent Metal Filters
Effective:	07-23-02
Replaces:	NEW
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Specifications for Permanent Metal Air Filters:

1.0 SCOPE

This specification covers permanent metal (aluminum, galvanized or stainless steel) air filters that are a component of air conditioning, heating and ventilating systems.

2.0 PURPOSE

The purpose of this specification is to establish performance criteria and identify physical properties that are pertinent and necessary for proper filter performance. Conformance to all items in the specifications is the responsibility of the bidder.

3.0 PERFORMANCE CHARACTERISTICS

3.1 Filters of the size, air flow capacity and material construction shall meet the following rated performance specifications based on the ASHRAE 52.1-92 test method. Performance tolerance specified in Section 7.4 of the Air-Conditioning and Refrigeration Institute (ARI) Standard 850-93 shall apply to the performance ratings. All testing is to be conducted on filters with a nominal 24" x 24" face dimension.

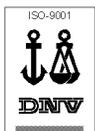
Nominal Size (Width x Height x Depth)	24x24x1	24x24x2
Material of Construction	Aluminum	Aluminum
Rated Air Flow Capacity (CFM)	2,000	2,000
Final Resistance (In W. G.)	1.0"	1.0"
Rated Initial Resistance (In W. G.)	0.17"	0.13"

3.2 The galvanized and stainless steel filters shall be approved and Listed by Underwriters' Laboratories, Inc. Class 1 when tested according to U. L. Standard 900 and CAN 4-S111. Aluminum filters shall be listed as Class 2.

4.0 PHYSICAL CHARACTERISTICS

Each filter shall contain a media pack consisting of layers of pleated metal mesh, in a metal frame. An expanded metal retainer is located on both the air entering and air leaving side of each filter.

4.1 Filter Media



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Filter media shall consist of 18x16 mesh, 0.009" strand diameter. Each filter shall have an expanded metal faceguard on both sides. Material composition shall match that of the filter type; aluminum, galvanized or stainless steel.

4.2 Media Configuration

Layers of filter media shall be pleated, and assembled such that the pleats are at 90° angles from the layer of media directly beneath. The media layers shall be pleated to a height of ___ (based on the chart below, depending on the overall thickness of the filter). The filter shall consist of ___ layers of media per filter (based on the chart below).

	½" Filters	1" Filters	2" Filters	4" Filters
Pleat Height	1/8"	5/8"	5/8"	5/8"
Layers of Media	2	2	3	7

4.3 Filter Frame

Filter frame shall be constructed of 0.032", 3003 H -14 aluminum (aluminum filters), 24 gauge galvanized metal (galvanized filters) or 24 gauge type 304 stainless steel (for stainless steel filters).

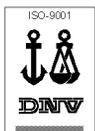
5.0 **PACKAGING AND IDENTIFICATION**

Packaging shall provide adequate protection against damage or deterioration during shipment and allow complete identification of both the filters and the shipping container.

5.1 Package Markings

- 5.1.1 The name or tradename of the product
- 5.1.2 The nominal size of the filter
- 5.1.3 Name of Manufacturer

6.0 **APPROVED INTERNATIONAL QUALITY SYSTEM**





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- 6.1 The manufacturer shall have implemented, or be in process of implementing, an approved international quality system based on ISO 9000 at the facility manufacturing this product.
 - 6.1.1 If manufacturer has implemented an approved international quality system, the manufacturer shall make available documentation showing third party certification of same.
 - 6.1.2 If manufacturer is in process of implementing an approved international quality system, manufacturer shall submit evidence illustrating progress towards compliance. Evidence is defined as a timetable for implementation plus one or more operating procedures.
- 6.2 If requested, manufacturer shall make available their procedures describing the monitoring of their Approved Vendors List (AVL).
- 6.3 If requested, manufacturer shall make available a copy of their Corporate Quality Manual.
- 6.4 Manufacturer shall provide evidence of a corporate quality policy which must be signed by an officer of the company.

