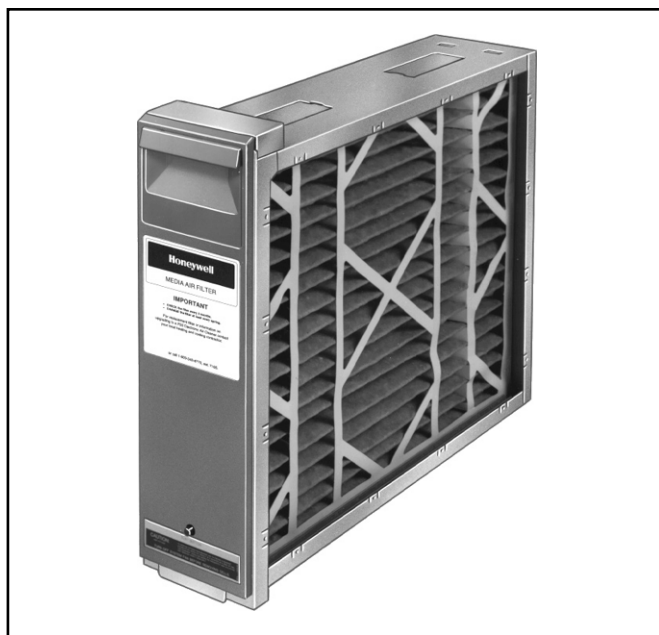


## F25F Media Air Cleaner

### PRODUCT DATA



### APPLICATION

The F25 Media Air Cleaner captures a significant amount of the air-borne particles from the air circulated through the unit.

### FEATURES

- High efficiency media filter captures particles as small as 1.0 micron.
- Efficiency and arrestance ratings based on the American Society of Heating, Refrigerating and Air Conditioning Engineers Standard 52-76.
- Applicable to all gas, oil, and electric forced warm air furnaces and to compressor cooling up to 3-1/2 tons. Can be used with heat pumps only if the filter is changed regularly to prevent excessive pressure drop. Not recommended for applications where pressure drop may be critical.
- Mounts in the return air duct.
- Cabinet can support weight of residential furnace and evaporator coil.
- Requires no electrical connections.
- Mounts in any position.
- Requires no maintenance except periodic media filter replacement.
- Media filter is easily replaced by homeowner.
- Later upgrade to F50 Electronic Air Cleaner is easy.

### Contents

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## SPECIFICATIONS

### IMPORTANT

*The specifications in this publication do not include normal manufacturing tolerances; therefore, an individual unit may not exactly match the listed specifications. This product is tested and calibrated under closely controlled conditions, and some minor differences in performance can be expected if those conditions are changed.*

### Model:

F25 Media Air Cleaner includes cabinet, access door and pleated media filter.

### Application:

Use with gas, oil, and electric forced warm air furnaces and with compressor cooling. Can be used with heat pumps if filter is changed regularly to prevent excessive pressure drop. Not recommended for applications where pressure drop may be critical.

### Arrestance Efficiency:

Efficiency ratings are based on National Bureau of Standards Dust Spot Method using atmospheric dust and American Society of Heating, Refrigerating and Air-Conditioning Engineers Standard 52-76.  
Initial Efficiency: 10 percent (staining dirt removal).  
Average Efficiency: 18 percent (staining dirt removal).  
Average Arrestance: 90 percent (bulb dirt removal).

The F25F removes particles as small as one micron. See Fig. 1 for size ranges of common household particles.

### Filter Media:

Nonwoven, reinforced cotton and synthetic fabric, pleated for greater media area. See Table 1.

### Capacity And Pressure Drop:

See Table 1.

### Temperature Rating:

-40° to +125°F (-40° to +52°C).

### Dimensions:

See Fig. 1.

### Mounting:

Mounts in any position in the return air duct next to the furnace blower compartment. Air flow must be in the direction of the arrow on the filter cartridge. Cabinet is sturdy enough to support weight of a residential furnace and evaporator coil.

### Underwriters Laboratories, Inc.:

Listed to UL 900, Class 2.

## ORDERING INFORMATION

When purchasing replacement and modernization products from your TRADELINE® wholesaler or distributor, refer to the TRADELINE® Catalog or price sheets for complete ordering number.

If you have additional questions, need further information, or would like to comment on our products or services, please write or phone:

1. Your local Home and Building Control Sales Office (check white pages of your phone directory).
2. Home and Building Control Customer Logistics  
Honeywell Inc., 1885 Douglas Drive North  
Minneapolis, Minnesota 55422-4386 (612) 951-1000

In Canada—Honeywell Limited/Honeywell Limitée, 155 Gordon Baker Road, North York, Ontario M2H 3N7.  
International Sales and Service Offices in all principal cities of the world. Manufacturing in Australia, Canada, Finland, France, Germany, Japan, Mexico, Netherlands, Spain, Taiwan, United Kingdom, U.S.A.

**Upgrade Path:**

The F25 uses the same cabinet as the F50 Electronic Air Cleaner. Upgrade requires installing the cell key, electronic cells, protective screens and installation and wiring of the power box.

**Accessory:**

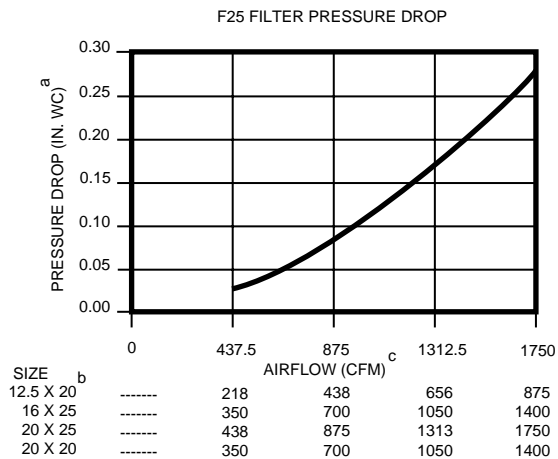
S830A Clogged Filter Indicator.

**Replacement Media:**

Replace media filter annually or more often if reduced air flow results in lower heating/cooling equipment performance.

| Nominal Size (in.) | Part Number |
|--------------------|-------------|
| 12.5 x 20          | 203722      |
| 16 x 25            | 203719      |
| 20 x 25            | 203720      |
| 20 x 20            | 203721      |

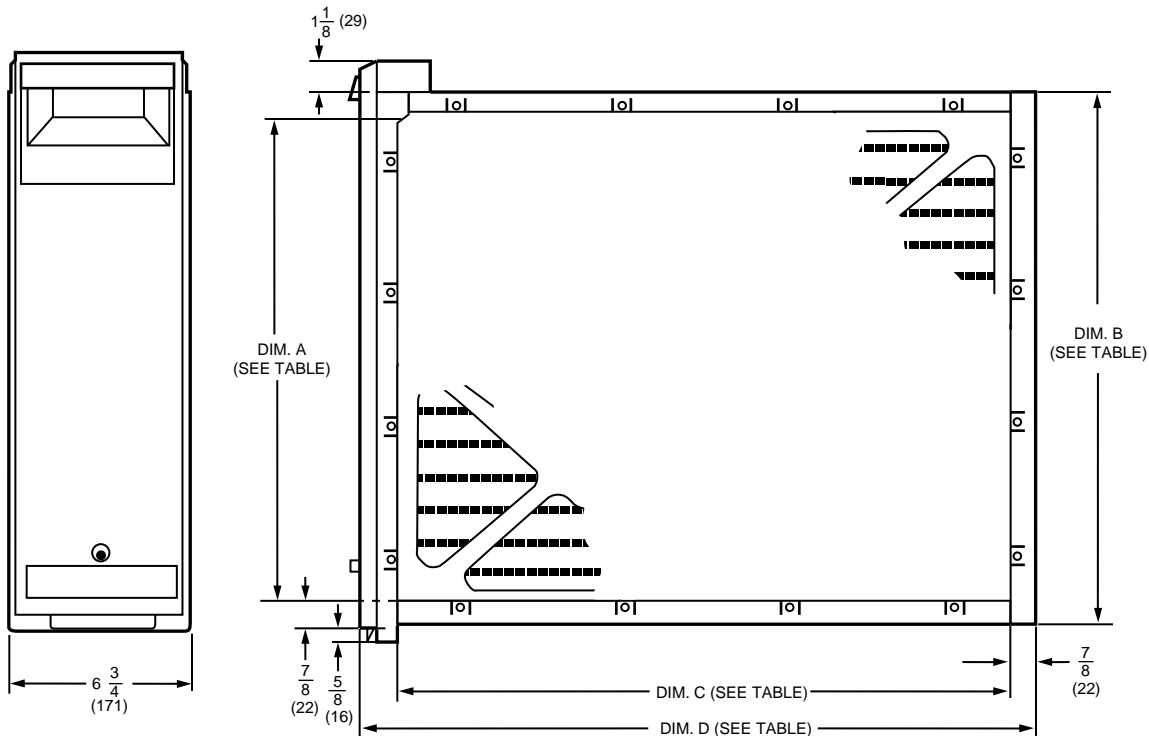
**Table 1. Capacity, Pressure Drop and Area of F25 Filter Media.**



ABOVE IS WHEN FIRST INSTALLED. PRESSURE DROP INCREASES AS FILTER BECOMES LOADED.

M5638

- a When first installed. Pressure drop increases as filter becomes loaded. Filter should be replaced when pressure drop reaches 0.5 in. w.c. (0.1 kPa).
- b Available in United States only.
- c Maximum capacity based on 500 FPM face velocity.



| F25 SIZE    |           | DIM. A  |     | DIM. B  |     | DIM. C |     | DIM. D |     |
|-------------|-----------|---------|-----|---------|-----|--------|-----|--------|-----|
| IN.         | MM        | IN.     | MM  | IN.     | MM  | IN.    | MM  | IN.    | MM  |
| 16 X 25     | 406 X 635 | 14 7/16 | 367 | 16 3/16 | 411 | 23 1/4 | 591 | 25 1/2 | 648 |
| 16 X 20     | 406 X 508 | 14 7/16 | 367 | 16 3/16 | 411 | 18 1/4 | 457 | 20 1/2 | 521 |
| 20 X 25     | 508 X 635 | 18 7/16 | 468 | 20 3/16 | 513 | 23 1/4 | 591 | 25 1/2 | 648 |
| 20 X 20     | 508 X 508 | 18 7/16 | 468 | 20 3/16 | 513 | 18 1/4 | 457 | 20 1/2 | 521 |
| 20 X 12 1/2 | 508 X 318 | 18 7/16 | 468 | 20 3/16 | 513 | 10 7/8 | 276 | 13 1/8 | 333 |

M5641A

**Fig. 1. Installation dimensions in in. (mm) of air cleaner.**

## PLANNING THE INSTALLATION

### Location

The media air cleaner should be installed where all the air passing through the system is circulated through it. The best location is in the return air duct next to the blower compartment so the media air cleaner can help to keep the blower motor and evaporator coils clean. Do not mount in the supply air duct.

For most efficient air cleaning, spread airflow evenly across the face of the media. If the duct is a different size than the media air filter cabinet, gradual transitions are required. If the duct turns sharply just before the air filter, turning vanes are required.

Choose a location that is readily accessible for checking and replacing the filter. Allow at least 26 in. (660 mm) clearance in front of the unit for removal of the cartridge.

Install the media air filter where the temperature will not exceed the ratings in the Specifications.

### Applications With Air Conditioning

Mount the media air cleaner upstream of the evaporator coil in a cooling system. The filter will help to keep the coil clean and reduce maintenance.

### Applications With A Charcoal Filter

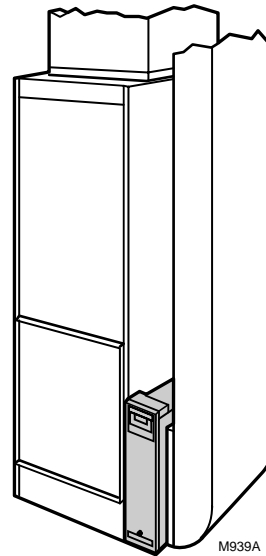
Add an activated charcoal filter to the air handling system to remove gaseous (nonparticulate) contaminants from the circulated air. A common residential application is to remove odors that cannot be removed by mechanical air filters. The activated charcoal filter, if used, should be installed downstream from the media air filter to protect the charcoal filter from lint and other particles.

### Applications With A Humidifier

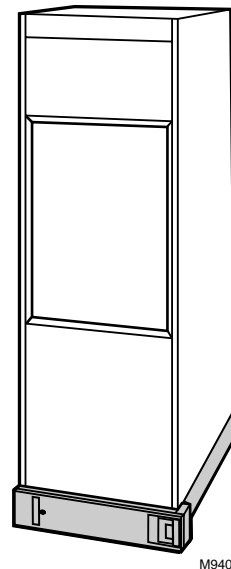
The media air cleaner is compatible with humidifiers. Avoid applications where water mist will reach the media. If an atomizing humidifier is used, the filter media will require replacement more often because of minerals in the water.

### Choose Mounting Position

The media air cleaner can be mounted in any position, but the arrow on the cartridge must point in the same direction as the airflow. See Figs. 2-9 for proper location of the media air cleaner for a variety of furnace installations. Note that the media air cleaner cabinet is sturdy enough to easily support the weight of the furnace and evaporator coil. See Fig. 3.



**Fig. 2. Highboy furnace, with side installation. Media air filter is mounted vertically where return enters side inlet of furnace.**



**Fig. 3. Highboy furnace, with installation beneath furnace. Media air cleaner is mounted horizontally where return enters from below.**

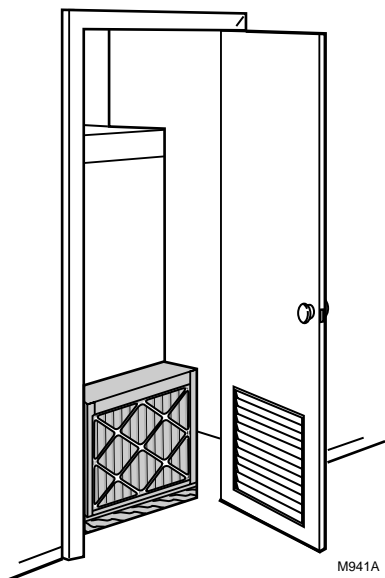


Fig. 4. Highboy furnace, with closet installation. Media air cleaner is mounted vertically on furnace between furnace and louvered return air opening in closet door.

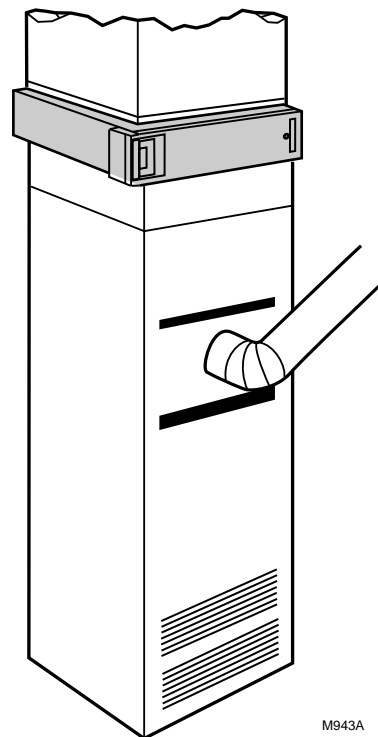


Fig. 6. Counterflow furnace, with media air cleaner mounted horizontally in return duct or plenum just above furnace.

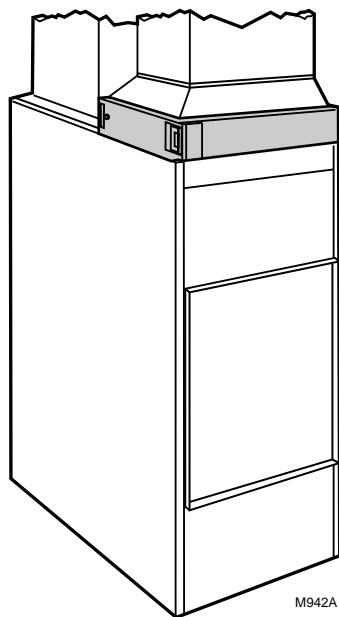


Fig. 5. Lowboy furnace, with media air cleaner mounted horizontally in return plenum just above furnace and opposite heating plenum.

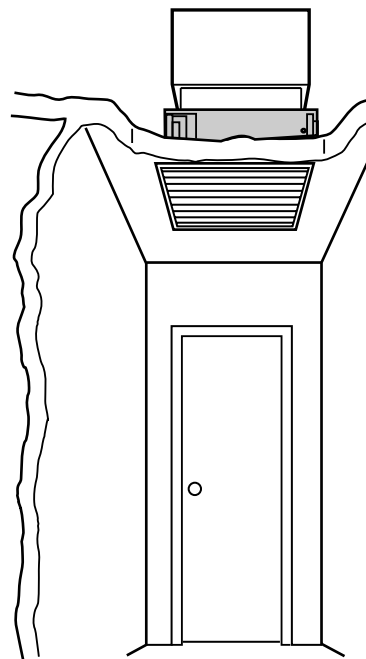


Fig. 7. Central fan installation, with media air cleaner mounted horizontally in central return duct.

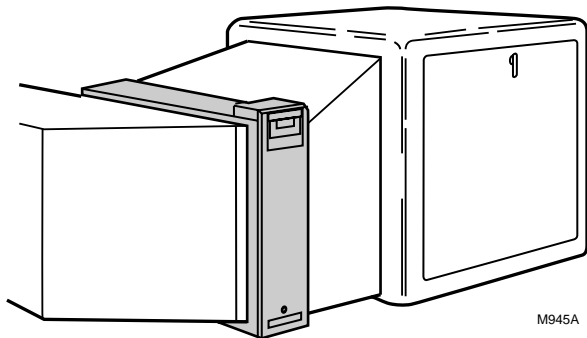


Fig. 8. Horizontal furnace, with media air filter mounted vertically in return duct near furnace.

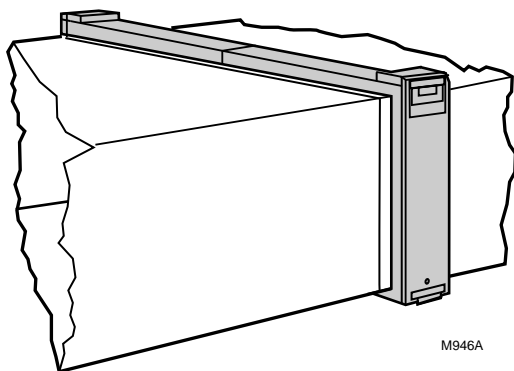


Fig. 9. Two or more media air cleaners used in a high capacity system.

## Determining Sheetmetal Requirements

The media air cleaner is adaptable to all new or existing forced air heating and cooling systems used in residential applications. Transitions or turning vanes may be required in some applications for effective media air cleaner operation.

## Transitions

Transitions are needed when the duct is a different size than the media air cleaner cabinet. Follow these guidelines when fabricating:

1. Use gradual transitions to reduce air turbulence and increase efficiency. See Fig. 10.
2. Use no more than 20 degrees (about 4 in. per running ft. (100 mm per 300 linear mm)) of expansion on each side of a transition fitting.

## Turning Vanes

If the media air cleaner is installed next to an elbow or angle fitting, add turning vanes inside the angle to distribute airflow more evenly across the face of the media. See Fig 11.

## Offsets

If the duct connection to the furnace in a side installation allows less than 7 in. (178 mm) for mounting media air cleaner cabinet, attach an offset to the elbow. See Fig. 12.

### DUCT SIZE CHANGED GRADUALLY TO PREVENT TURBULENCE.

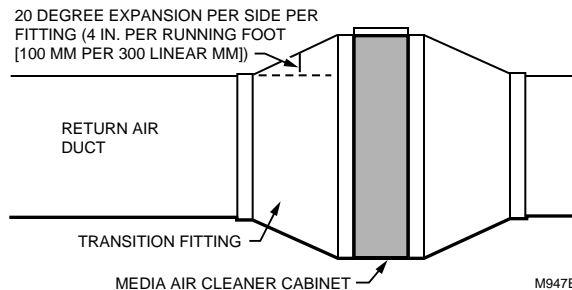


Fig. 10. Duct size changed gradually to prevent turbulence.

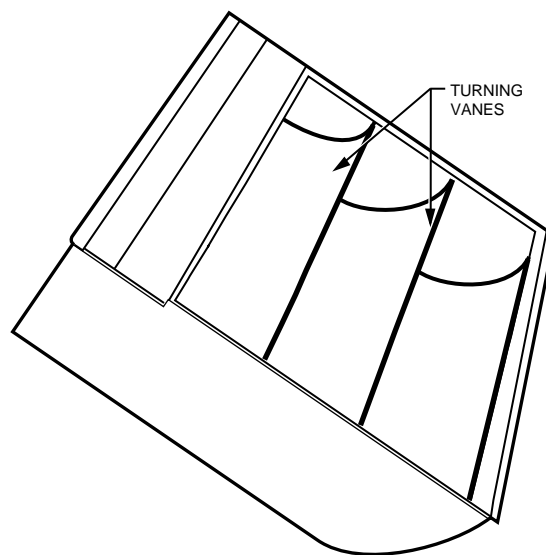
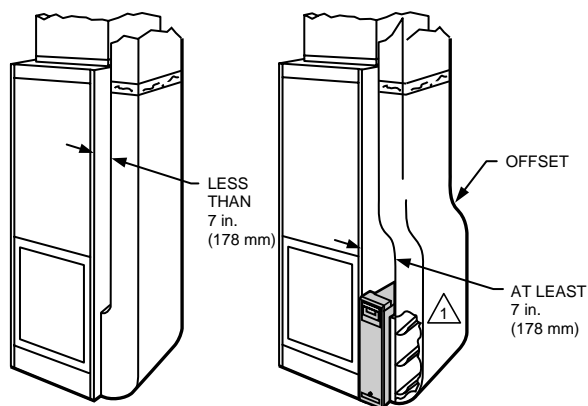


Fig. 11. Turning vanes installed in bend help distribute airflow evenly over face of media.



1 REQUIRED TURNING VANES HELP DISTRIBUTE AIRFLOW EVENLY. M948A

Fig. 12. Typical use of duct offset to make room for media air cleaner.

## INSTALLATION AND CHECKOUT

### When Installing this Product...

1. Read these instructions carefully. Failure to follow them could damage the media air filter or cause a hazardous condition.
2. Check the ratings given in the instructions and on the media air cleaner to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.

### Remove Furnace Filter And Clean Blower Compartment

Before starting the installation, remove and discard the existing furnace filter (if used). Thoroughly clean the blower compartment. If possible, power vacuum the ductwork to remove accumulated dust in an occupied home or remove construction dirt in a new home. The media air cleaner cannot remove dirt that has settled in the blower compartment and distribution ducts.

### Install The Cabinet

The following procedure describes a typical side installation on an existing highboy furnace. Alternate procedures are noted as appropriate. Other changes in installation procedures may be necessary to complete your installation.

### Review The Installation Plan

Temporarily place the cabinet on the floor, oriented as it will be when installed. Insert and remove the cartridge to make sure the plan allows adequate clearance for easy removal and replacement of the cartridge.

Make sure that shop-fabricated sheetmetal components, such as turning vanes, are available.

### Fasten The Cabinet To The Furnace

Align the cabinet with the return air opening. Place blocks under the cabinet, as necessary, to make sure the unit sits securely. Create an opening in the furnace to match the cabinet opening. Attach the cabinet securely to the furnace. Attach the unit directly or fit a starting collar in the furnace opening. Either drill holes and fasten with sheetmetal screws or rivets, or use slip joints. If you are drilling holes, use a locking pliers to help hold the unit in place during drilling.

### Install Turning Vanes

Install turning vanes to help distribute air equally over the full surface of the upstream side of the media. Install them whenever an abrupt 90 degree elbow is installed directly against the media air cleaner cabinet.

### Fasten Cabinet To Ductwork

Fasten side of cabinet to the ductwork using sheet-metal screws, rivets, or slip joints, as appropriate.

### Connect Ductwork

Connect the vertical duct section to the elbow. If the vertical drop of the duct is less than 7 in. (178 mm) from the side of the furnace, shorten the horizontal trunk or attach an offset fitting to the elbow. See Fig. 12. When ductwork is properly aligned, connect the vertical duct to the horizontal trunk.

### Seal Joints

Seal all joints in the return air system between the media air filter and the furnace to prevent dust from entering the clean airstream.

### Install Filter Cartridge

Slide the filter cartridge into the cabinet, making sure the arrow on the cartridge points in the direction of air flow.

Replace access door. Insert the tab on the bottom of the door into the slot in the cabinet. Swing the door closed and press it into place.

### Checkout

Visually check the installation. Make sure:

- Airflow is in the direction of the arrow on the media air filter cartridge.
- Turning vanes and transitions, if used, are properly installed.
- Joints in sheetmetal between media air filter and furnace are sealed.
- All sheetmetal connections are complete.
- Original furnace filter has been removed and blower compartment is cleaned.

Replace any access doors removed during the Installation or Checkout.

Run the furnace or cooling system through one complete cycle to make sure the system operates as desired.

### Maintenance

The media filter must be replaced when pressure drop across the media filter reaches 0.5 in. w.c. (0.1 kPa), or at least annually. If the media air cleaner is installed downstream from an atomizing humidifier or if the installation includes both heating and cooling, more frequent replacement may be necessary. Clogged media must be replaced promptly to avoid restricting airflow and reducing efficiency of the heating-cooling system. Record the replacement date in the space provided on the replacement media filter.

See Replacement Parts in the SPECIFICATIONS section. If desired, install the S830A Clogged Filter Indicator to allow visual indication of when the media needs replacing. Install and adjust the S830A by following the instructions provided with the unit.

## FUTURE OPTION

The F25 Media Air Filter cabinet and filter cartridge are designed to be **easily upgraded to an F50 Electronic Air Cleaner**. An electronic air cleaner has the features to increase the comfort and enjoyment of your home.

- Captures up to 95% of airborne particles 0.5 microns and larger that pass through the unit.
- Can save 10 to 15% in operating costs over the life of your equipment. Honeywell offers an exclusive **10-year Clean Coil Guarantee**.
- Protects your expensive HVAC equipment.
- No on-going filter replacements because cells can be washed and restored to top efficiency.
- Increased home comfort.
- Easy maintenance.
- **And it's by Honeywell, a leader in indoor air quality products for over 30 years.**



**High Efficiency Cleaning  
F50 Electronic Air Cleaner**

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