

# TechPure

by **TopTech**



**A trained, experienced technician must install this product.**

Carefully read these instructions. You could damage this product or cause a hazardous condition if you fail to follow these instructions.



## IMPORTANT

Carefully read these instructions. You could damage this product or cause a hazardous condition if you fail to follow these instructions.

## Need Help?

For assistance with this product please visit <http://www.toptechparts.com> or call customer care at 1-866-239-4440 during normal business hours.

This manual covers the following models:

- **TT-MAC-1625**
- **TT-MAC-2020**
- **TT-MAC-2025**
- **TT-MAC-1429**
- **TT-MAC-1729**
- **TT-MAC-2129**
- **TT-MAC-2429**
- **TT-MAC-1422**
- **TT-MAC-1722**
- **TT-MAC-2122**
- **TT-MAC-2522**

High performance media air cleaner. Air cleaner cabinet is fully insulated.

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# FEATURES AND SPECIFICATIONS

## Features

Easy to maintain, high efficiency media designed to capture small, medium, and large airborne particles.

Applicable to forced warm air furnaces, heat pumps, electric heat, and cooling systems up to 5 tons (2000 CFM).

Designed to easily support weight of a residential air handler, furnace, and a residential evaporator coil.

No electricity is consumed.

Quick and easy filter media replacement.

Fully insulated cabinet

Positive seal gasket material included.

Two-stage filter seal on cabinet door.

Minimal air leakage design.

## Specifications

### Unit Dimensions:

**#TT-MAC-1625:** 27.875"D x 17"H x 6.063"W  
(Repl. Media: #TT-FM-1625)

**#TT-MAC-2020:** 22.875"D x 21"H x 6.063"W  
(Repl. Media: #TT-FM-2020)

**#TT-MAC-2025:** 27.875"D x 21"H x 6.063"W  
(Repl. Media: #TT-FM-2025)

**#TT-MAC-1429:** 28.5"D x 14.25"W x 6.063"H  
(Repl. Media: #TT-FM-1425)

**#TT-MAC-1729:** 29.125"D x 17.25"W x 6.063"H  
(Repl. Media: #TT-FM-1625)

**#TT-MAC-2129:** 29.125"D x 21.25"W x 6.063"H  
(Repl. Media: #TT-FM-2025)

**#TT-MAC-2429:** 29.125"D x 24.25"W x 6.063"H  
(Repl. Media: #TT-FM-2424)

**#TT-MAC-1422:** 22.875"D x 14.25"W x 6.063"H  
(Repl. Media: #TT-FM-1420)

**#TT-MAC-1722:** 22.875"D x 17"W x 6.063"H  
(Repl. Media: #TT-FM-1620)

**#TT-MAC-2122:** 22.875"D x 21"W x 6.063"H  
(Repl. Media: #TT-FM-2020)

**#TT-MAC-2522:** 22.875"D x 25.25"W x 6.063"H  
(Repl. Media: #TT-FM-2025)

### Filter Media:

MERV 11. Our pleated design has greater media capacity than non-pleated filters.

### Temperature Rating:

-40° to 140° F (-40° to +60° C).

### Replacement Media Dimensions:

**#TT-FM-1420:** 14"D x 20"H x 4"W

**#TT-FM-1425:** 14"D x 25"H x 4"W

**#TT-FM-1620:** 16"D x 20"H x 4"W

**#TT-FM-1625:** 16"D x 25"H x 4"W

**#TT-FM-2020:** 20"D x 20"H x 4"W

**#TT-FM-2025:** 20"D x 25"H x 4"W

**#TT-FM1-2424:** 24"D x 24"H x 4"W

# INSTALLATION

## Application

The TechPure media air cleaner cabinet is designed to capture a significant amount of airborne particles. The cabinets are sold with MERV 1 filter media. TechPure media filter cabinets can be installed in all forced warm air furnaces and cooling systems up to 5 tons (2000 CFM).

## Mounting Positions

The TechPure media air cleaner cabinet can be mounted in any position.

## Installation

### 1. Plan the installation:

The TechPure media air cleaner cabinet is designed to support the weight of a residential furnace and residential evaporator coil. This media air cleaner can be mounted in any position in the return air duct. Typically, the media air cleaner is mounted next to the furnace blower compartment.

The media air cleaner cabinet is designed to be installed in the return air duct. Do not mount the media air cleaner cabinet in the supply duct.

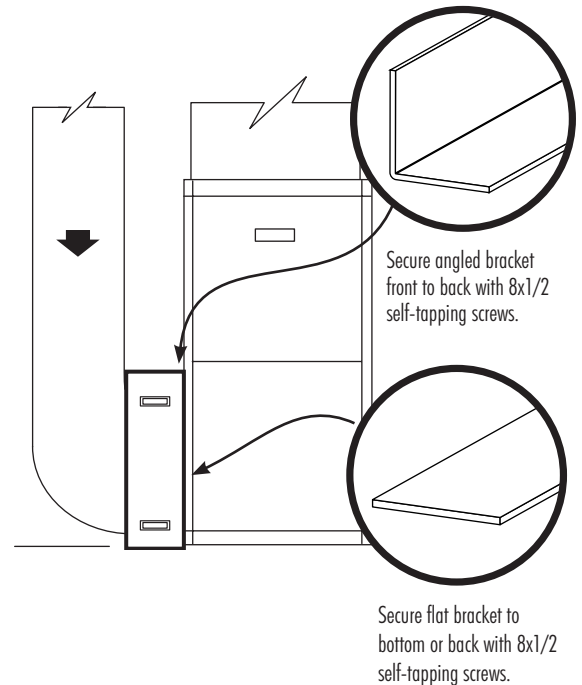
Install the media air cleaner cabinet in a manner that spreads airflow evenly across the filter media. Gradual transitions are required if the duct is a different size than the media air cleaner cabinet. To prevent turbulence, the maximum amount of expansion on each side of the transition is 20 degrees.

Turning vanes are required if the duct turns sharply just before attaching to the media air cleaner cabinet. For example, turning vanes would be required if there is an abrupt 90 degree elbow in the duct directly next to the media air filter cabinet.

Install the media air cleaner cabinet in an area that allows for at least 27" of clearance in front of the cabinet door for easy replacement of the filter media.

## TechPure MAC Tip

Choose a mounting location that is upstream of the furnace and/or evaporator coil. This will keep the furnace and/or evaporator coil clean.



## TechPure Install Tip

When installing the TechPure media air cleaner with a humidifier, choose a mounting location that will not allow the water mist to come in contact with the filter media.

## Installation (continued)

### 2. Fasten the media cabinet to the furnace

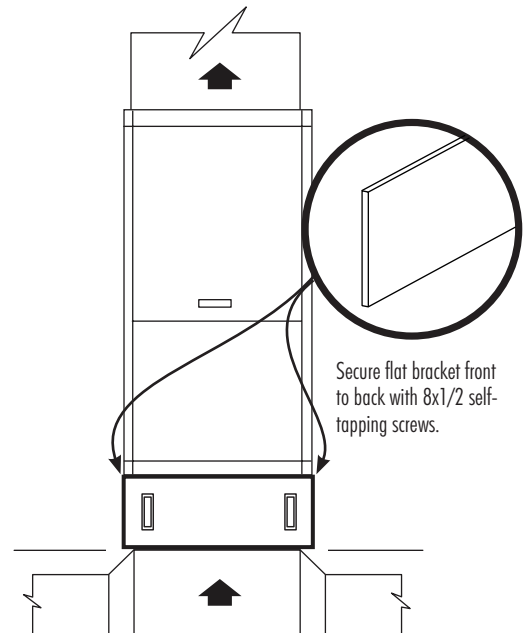
Carefully create or use opening in the furnace or air handler to match the filter media cabinet opening. Place enclosed gasket material on the side of the air cleaner that joins up with furnace or air handler. You can attach the media cleaner cabinet directly to the furnace or air handler, or fit a starting collar in the furnace opening. Drill holes and secure the cabinet to the furnace with sheet metal screws. (Rivets or slip joints are also suitable.)

### 3. Fasten media cabinet to the return duct

Secure the cabinet in place by using locking pliers. Drill holes and secure the cabinet to the furnace with sheet metal screws. (Rivets or slip joints are also suitable.)

### 4. Seal joints to prevent leaks

Ensure all joints are sealed.



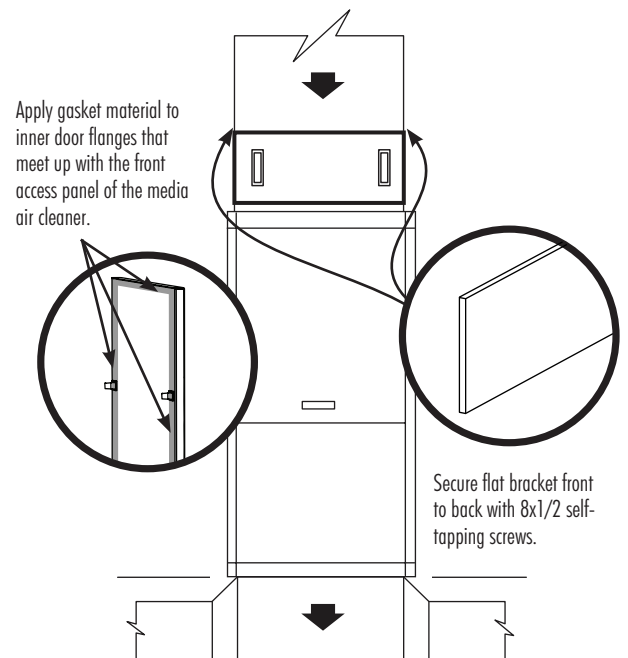
## Energy Star Home Certification

If installing the media air cleaner into an application that is going to have the ducts leakage tested for compliance with 2011 Energy Star Home Certification, Energy Efficient Mortgage (EEM), or Energy Improvement Mortgage (EMI) rating requirements, then cut the provided roll of gasket material to length and apply to the inner door flanges that meet up with the front access panel of the media air cleaner to reduce the air leakage between the door and the air cleaner.

More information about the Energy Star Home Certification, EEM, and EMI requirements can be found at <http://www.texenergyaudit.org/facts.htm>

## Installing the Filter media

The arrow on the filter media must point in the direction of the air flow. If the media cabinet is installed in the return air side of the duct work, the arrow will typically point toward the blower compartment.



# PRESSURE DROP DATA

## MERV 11 Pressure Drop

Flow Rate (CFM)	Velocity (FPM)	dP (mm H <sub>2</sub> O)	Pressure Drop ("H <sub>2</sub> O)	% of Rated Airflow	Dust Fed	Pressure Drop
0	0	0.00	0.000	0%	0.00	0.181
427	123	0.70	0.028	25%	21.50	0.221
854	246	1.65	0.065	50%	73.30	0.386
1281	369	2.80	0.110	75%	106.30	0.591
1708	492	4.60	0.181	100%	132.70	0.795
2135	615	6.95	0.274	125%	152.70	1.000

DP ("H <sub>2</sub> O)	0.181in.	0.221in.	0.386in.	0.591in.	0.795in.	1.000in.	*CME
Size Range (mm)	Fractional Efficiency (%)						
0.3-0.4	15.7	15.1	21.2	26.3	34.2	38.5	15.1
0.4-0.55	19.9	19.5	25.9	36.3	42.9	51.2	19.5
0.55-0.7	28.0	30.6	39.8	52.3	57.6	65.8	28.6
0.7-1.0	42.0	45.3	52.6	65.9	71.2	79.3	43.0
1.0-1.3	53.4	57.8	63.7	74.8	81.4	86.6	53.4
1.3-1.6	61.5	65.9	72.0	81.5	85.9	91.3	61.5
1.6-2.2	69.1	74.8	80.3	86.9	90.9	95.0	69.1
2.2-3.0	77.0	82.9	88.2	93.2	95.0	97.2	77.0
3.0-4.0	81.7	88.0	92.2	95.7	96.8	98.2	81.7
4.0-5.5	85.1	90.8	95.1	97.0	97.8	99.0	85.1
5.5-7.0	86.5	92.6	96.5	98.0	98.3	99.5	86.5
7.0-10.0	87.2	93.5	97.2	98.6	99.0	99.8	87.2

\*Test data performed on a 20x25x4 MERV 11 filter / 1708 CFM / 492 FPM, by LMS technologies

# FINAL CHECKS AND CONTACT INFO

## Replacement Schedule

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It is very important for optimal heating and cooling system efficiency to replace the filter media as recommended by your heating and cooling technician. The climate in which you live and the particulate count in your indoor environment will be considered when your heating and cooling technician personalizes a replacement schedule for your particular application. In many climates, it is best to replace the filter at least before the heating season and before the cooling season. The filter should always be replaced at least once a year in all circumstances.

## Final Checks

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Check installation:

1. TechPure air cleaner cabinet is installed securely on the return side of the system.
2. The arrow on the filter media points in the direction of the air flow.
3. If used, turning vanes and transitions are installed properly.
4. All joints in ductwork and between TechPure air cleaner and furnace/air handler are properly sealed to prevent leaks.
5. Blower compartment is cleaned and the original filter has been removed.
6. Use enclosed cleaning cloth to wipe down access door.

## Contact Info

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### **TopTech**

2000 Parks Oaks Ave  
Orlando, FL 32808

Phone: 866-239-4440

Web: <http://www.TopTechParts.com>

Hours of operation: Mon-Fri (8am-5pm EST)

### Disclaimer:

TechPure® products are exclusive products of Carrier Enterprise, LLC. and are manufactured by Dust Free, LP.