

**BROTHERS**  
*Select*  
ULTRA-EFFICIENT **BROAN** HVAC

# Air Handlers

## Innovative and reliable.

**Brothers Select Heating & Air Conditioning by Broan** is a line of heating and cooling systems that feature precision engineering components that deliver extended service life, plus state-of-the-art efficiency and comfort for your home.

A “split” system is the most common heating and cooling central system used. Your split system air conditioner or heat pump is the outdoor component of a total system. The indoor component is a matched coil, which typically sits on top of the furnace, or in warmer climates, an indoor air handler is used. The outdoor unit is only the half of a split-system. The air handler is the inside half of the system. Working in tandem, outside and inside units must be matched in size and efficiency for best results. Failing to replace an indoor unit, or mismatching components, can significantly undermine a new air conditioner’s or heat pump’s performance.

An air handler consists basically of a blower, an inside coil, and optional auxiliary electric heating strip. In the cooling mode, as air flows over the indoor coil, heat and humidity are drawn out. It’s the air handler’s job to then circulate conditioned air throughout the house. Ultimately, performance varies as a result of the blower motor choice.

### Understanding the complete system.

**Fixed Speed vs. Variable Speed.** Basic air handlers use fixed speed motors. Fixed speed motors are reliable technology, but they will use more energy than variable speed motors. Variable speed also balance temperatures and minimize hot and cold spots. The

continuous air flow provided through variable speed motors also improves filtration and humidity control. The 16 SEER systems require variable indoor technology, and 13 and 14 SEER products can be matched with variable speed air handlers if interested in the additional comfort and energy benefits.

### Variable-Speed Comfort.

Using variable-speed technology, air handlers provide extra efficiency improving efficiency ratings when matched to select air conditioners and heat pumps. Patented variable-speed technology, is the most-advanced and efficient blower motor design today. Unlike the abrupt start/stop cycles of conventional motors, variable-speed units ramp up to speed gradually to eliminate uncomfortable temperature swings in your home. The blower delivers constant air flow and adjusts in real time to meet cooling and heating needs. The entire system functions more efficiently for more-even temperatures, better indoor air quality, precise humidity control and reduced energy consumption.

Running a cooling system continuously\* on a thermostat’s “fan setting” has obvious benefits. Besides optimizing indoor comfort, an air handler uses 80% less electricity over standard-equipped air handlers. Ultimately, this can add up to hundreds of dollars in savings each year. So you can breathe easier, especially when utility bills come due.

\* Fan Settings during cooling not recommended in humid, coastal areas.

## Standard Efficiency Air Handlers



**13-14 SEER Fixed Speed.** This air handler is designed for ease-of-serviceability and flexible installation configurations. Its Silicone-protective polyurethane coating resists scratching and prevents rusting to keep your air handler looking new for years to come.

Replacing your indoor air handler at the time you replace your outdoor air conditioner or heat pump assures reliable, efficient performance.

## Air Handler Features.

All **Brothers Select Heating & Air Conditioning** Air Handlers have the following features:

- Quality construction—galvanized steel for added strength and durability, featuring silicone-protected 1.5 mil polyurethane finish that provides superior corrosion resistance, 50% better protection than standard outdoor finishes
- Multi-poise—can be used in horizontal, upflow, downflow and vertical applications
- Engineered for Easy-access—minimizes service time

13-14 SEER Fixed Speed Air Handlers include the following features:

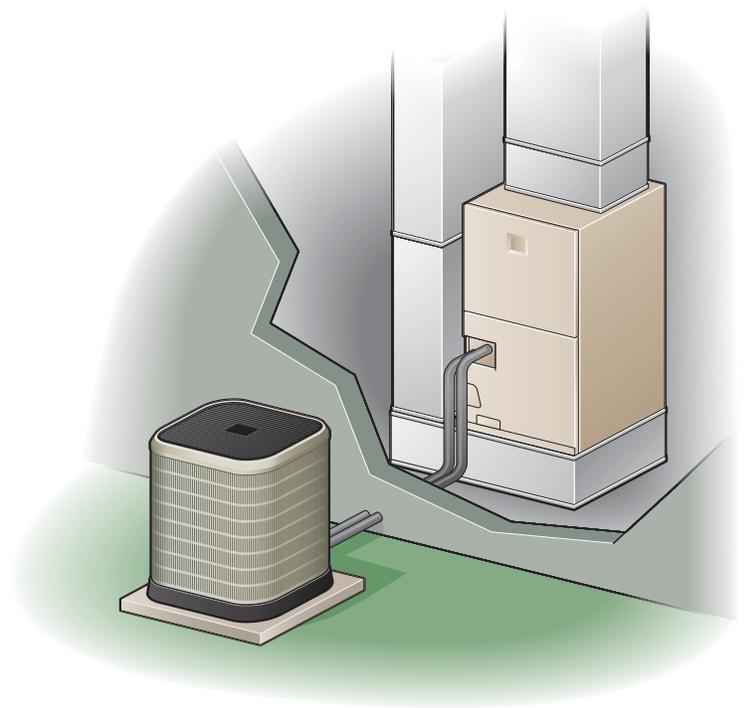
- Fixed-speed, direct-drive motor provides higher torque and operating speeds for improved air flow capacity
- Smoother motor operation reduces noise and lowers winding temperatures that help to extend bearing-life of the motor

14-16 SEER Variable Speed Air Handlers include the following features:

- Variable-speed motor adjusts to meet airflow requirements more efficiently and quietly
- Variable-speed motors can save hundreds of dollars annually compared to blowers with standard induction motors
- Maintains factory-calibrated airflow capacity automatically compensating for reduced duct volume, dirty air filters, zoning changes, obstructed supply register, etc.
- Dehumidification Profile—improves dehumidification during the cooling mode

16 SEER Variable Speed Air Handlers also feature:

- Designed for Two-Stage Cooling outdoor products. Variable-speed ultra high efficiency – 16 SEER and 9.0 HSPF ratings possible when matched to select air conditioners and heat pumps
- Operation that provides more even temperatures throughout the home
- Thermal Expansion Valve (TXV)—factory-installed, externally-equalized, provides precise refrigerant control under varying load conditions



## High Efficiency Air Handlers



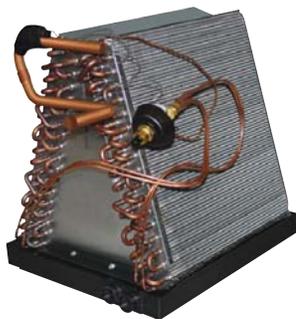
**14-15 SEER Variable Speed.** Variable Speed Blower Motor automatically compensates for reduced duct volume, dirty air filters, zoning changes, obstructed registers, etc. to improve indoor air quality, and precise humidity control. Setting the thermostat fan mode to run continuously reduces electrical consumption close to 80% over conventional air handlers therefore reducing utility costs.

This model can be matched with both 13 and 14 SEER split system air conditioners or heat pumps achieving up to 1 SEER point more in efficiency.

## Indoor Coils.

Quality, durable, energy-efficiency, value and comfort. These are the things you expect from a **Brothers Select Heating & Air Conditioning** product, and they're exactly what you'll get with our indoor coils.

Would you ever buy a new car, and ask to have your old tires be put on it? Probably not. Similarly, when you buy a new heat pump or air conditioner, should you use your old indoor coil? Definitely not. Here's why: An old, dirty, coil designed for a less efficient product, will prevent your outdoor unit from performing at the optimum efficiency, and may even damage your new air conditioner or heat pump compressor. Also, a coil designed for a different brand has not been matched or tested with your new system so efficiency ratings and performance can also be affected.



An uncased indoor coil, used for upflow and down-flow applications. The coil is encased by the ductwork during installation.



Typical cased indoor coil

**R-410A REFRIGERANT.** Our air handlers are compatible with R-410A products. R-410A is an environmentally friendly refrigerant which is non-ozone depleting. In 2010, all air conditioner and heat pump manufacturers are required to stop manufacturing R-22 refrigerant products which most homes have today.

### TEN-YEAR WARRANTY

A manufacturer's confidence in the quality of their product is demonstrated in the warranty they offer. Air Handlers and coils carry a 5-year all parts warranty. When installed with a matched outdoor unit, the air handler will carry the outdoor system warranty. See current warranty document or visit our consumer web site for warranty details. Contact us to help you decide the best efficiency and product suited to meet your needs.



## Extra High Efficiency Air Handlers



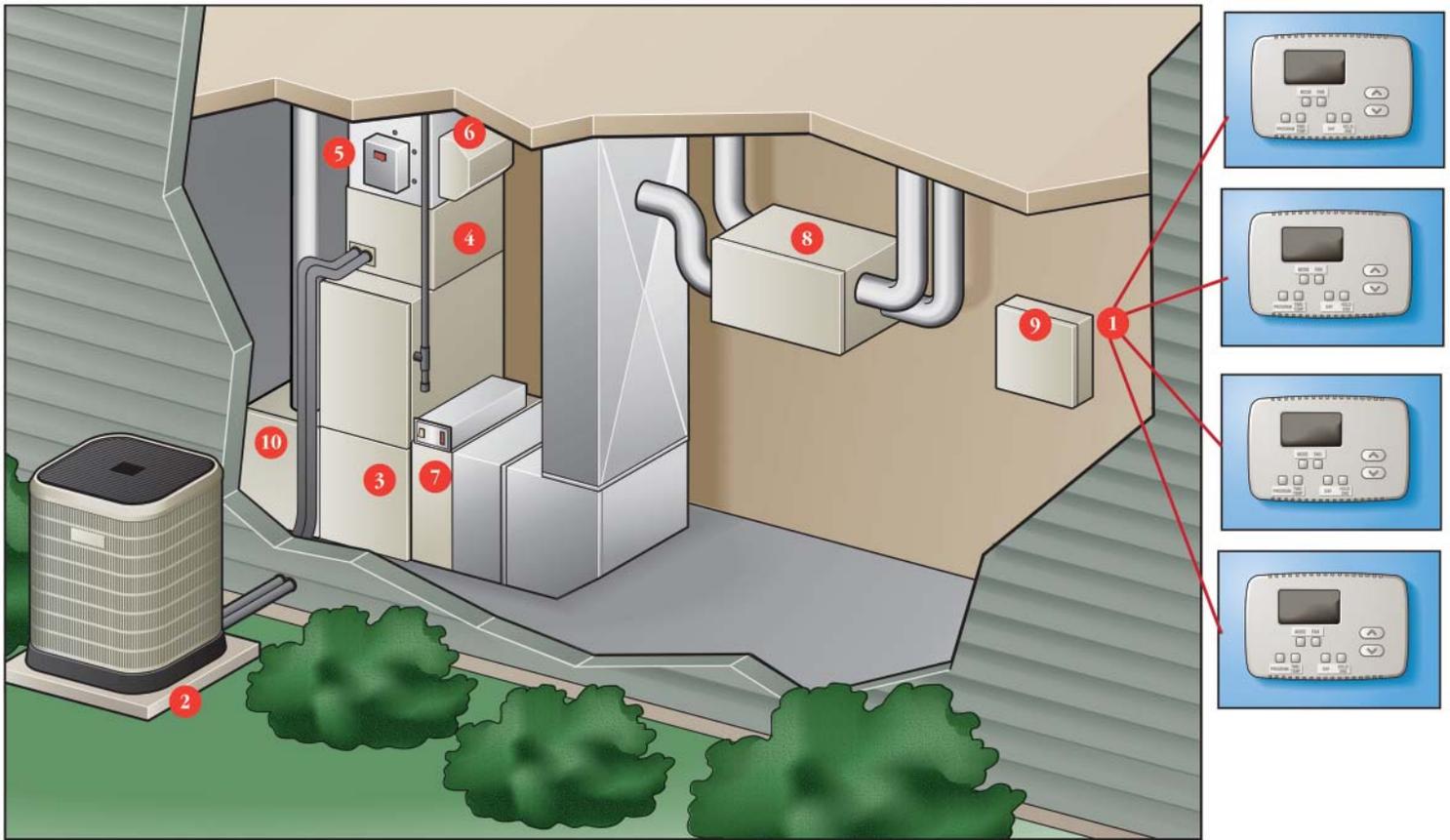
**16 SEER Variable Speed.** Selecting a variable speed delivery air handler instead of a standard unit can keep you even more comfortable and significantly improve overall system efficiency, indoor air quality and sound levels.

This model is specifically designed for use with our outdoor two-stage 16 SEER air conditioners and heat pumps.

We are proud to offer the **Brothers Select Heating & Air Conditioning** brand of heating and cooling equipment as the perfect choice for reliable, top-quality products. We have been in the heating and cooling business for 25 years serving the Charlotte area, and are proud to provide the **Brothers Select Heating & Air Conditioning** line. We offer installations, repairs and financing. We also offer 24 hour emergency service on all makes and models of heating and cooling equipment. We're confident you'll enjoy many years of trouble-free service with your new **Brothers Select Heating & Air Conditioning** comfort system. For more information, please call us at **1-800-849-2881**.

**Brothers Select Heating & Air Conditioning**

**BROTHERS** *Select*  
**ULTRA-EFFICIENT** BY **BROAN® HVAC**



- ❶ Programmable thermostat
- ❷ Air conditioner or heat pump
- ❸ Gas furnace or air handler
- ❹ Evaporator coil
- ❺ UV air purifier
- ❻ Humidifier
- ❼ Air cleaner
- ❽ Energy recovery ventilator
- ❾ Zone control panel
- ❿ HEPA air cleaner

### Energy Definitions:

**SEER – Seasonal Energy Efficiency Ratio.** Measures cooling performance on air conditioners, heat pumps and gas/electric package product.

**HSPF – Heating Seasonal Performance Factor.** It is a measure of the average number of Btu of heat delivered for every Watt-hour of electricity used by the heat pump over the heating season.

**AFUE – Annual Fuel Utilization Efficiency.** It measures the amount of heat delivered to your house compared to the amount of fuel that you must supply to the furnace. For example, a furnace that has an 80% AFUE rating converts 80% of the fuel supplied to heat - the other 20% is lost out of the chimney.

As ratings increase so does the efficiency.



Specifications and ratings subject to change. Ask your dealer about current efficiencies and models available before purchase.