The Unico System®

Small-Duct Central Heating & Air Conditioning

Retrofit Renovation Case Study: *Jackson, MI*

PARTNERS

UNICO Contractor

Aspen Heating and Cooling Gary Schulz 4131 W. Michigan Ave. Jackson, MI. 49202 517-750-0200



Outside of home

Overview

Located in Jackson, MI., the owners of this ranch style home were looking to add central air conditioning. The home was previously outfitted with a boiler for the hydronic baseboard heat, which the owners still intended to use for their primary heating. To accomplish the goal of adding central A/C, the owners contacted Gary Schultz with Aspen Heating and Air Conditioning for a quote. Aspen Heating and Air Conditioning has been installing the Unico System for a number of years and is always in communication with Unico.

Beginning this year, the company had learned of the latest product from Unico, the Unico iSeries. This is an inverter based product line that features three separate products: the Unico System, outdoor heat pumps, and indoor mini-splits. Gary decided that the iSeries was perfect for this particular installation and because of his outstanding reputation, the homeowners agreed to use the system.

easily blended into the white ceiling, which kept the system even more hidden.

The Unico System blower features an Electronically Commutated (E.C.) motor which only uses as much power as needed to maintain the correct airflow. The coil is a heat pump and in this case, will primarily be used for cooling.

The outdoor inverter heat pump unit also is very efficient and modulates the amount of power used based off of the load calling from the thermostat. This means that the unit will never use more power than necessary while it's running, saving a lot of money. Additionally, the unit never goes through on/off cycles which is when HVAC units typically use the most power. The unit only goes into "standby" mode, which uses just 1W of power. And because the unit doesn't turn off, it will reach the indoor target temperature much faster than traditional systems.

Results

The homeowners now have a completely conditioned home, complete with some of the best HVAC technology on the market today. They also didn't have to tear up the interior of the home, reducing additional costs. The system has been performing flawlessly and they couldn't be happier. "It works great and it's very quiet," they said. "We're very happy!"

The Unico System is designed to fit. It's ideal for heating or cooling buildings with:

- Electric Heat
- Hot Water Heat
- Chilled Water Loops
- Steam Heat
- Radiant Floor Heat
- Inadequate or No Ductwork
- Limited Space
- Inadequate Cooling on Upper Levels
- Baseboard Heat
- Radiator Heat

Strategy

After performing a load calculation on the 1500 sq. ft. house, it was determined that a 2.5 ton system would be sufficient to cool the home. Gary installed a M2430BL1-EA2 blower, a M2430CL1-A heat pump coil and paired them to an IS30G080 outdoor inverter unit. The system utilized Unico square plenum and a total of 15 outlets were installed throughout the home.

The home didn't have ductwork, but not much additional construction was needed to accommodate the new duct. Small, circular pipe was used inside the closet space to run duct between floors, keeping the duct concealed and out of sight. The white outlets



Unico iSeries blower and coil installed in attic



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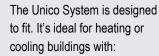
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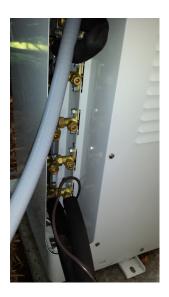
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Unico iSeries Outdoor unit hidden discretely



Flare connections make installation a breeze



This small pipe located in the closet was all that was needed to run duct in between floors



Unico outlet nicely matches interior



Unico System Square supply plenum

