

Leesburg, Virginia

ZANG RESIDENCE



CHALLENGE

Selecting a sophisticated, cost-effective cooling and heating system

SOLUTION

Zoned Comfort Solutions® from Mitsubishi Electric

RESULT

Year-round comfort and ample cost savings

A year and a half ago, the Zangs moved into their new house in Leesburg, Virginia, knowing its HVAC system was outdated. They also knew about split-ductless technology, and appreciated its ability to zone and provide clean, healthy air. When it came time to select a new HVAC system for their home, after much research the Zangs chose Hyper-Heating INVERTER® (H2i®) Zoned Comfort Solutions® from Mitsubishi Electric.

“The house was built in 1972 and the main heat was baseboard electric heat – and kind of a hodgepodge of companies. We had thermostats from three or four different brands. And the electric baseboards were just killing the electric bill even though we kept the house at 58 degrees in the winter,” said Mr. Zang. The central air-conditioning system, located in the attic with ductwork running down the house through the closets, worked poorly and took up a lot of room.

As the couple began thinking about replacing their HVAC system, Mr. Zang said their “number one priority was compartmentalization [or zoning]. We both like the idea. You conserve heating in the winter and cooling in the summer. It was really our biggest priority just looking at long-term cost efficiency. How much an HVAC system will cost to operate years down the line can be hard to predict because the price of energy fluctuates, so we figured the more control we could have, the better.” Second to zoning abilities, the couple wanted quiet operation.

Mr. Zang knew that zoning systems were a good answer to their needs. “My wife did six years in the Navy and was born in Okinawa. This technology was already common over there, and she saw it a lot on her cruises in the navy – Croatia, Crete, Singapore, Malaysia ... It’s just the prevalent system used overseas. These systems offer true compartmentalization, they’re modular and they take up less space.



We also really liked that you can't hear them."

He continued, "We looked at the Japanese and Korean brands – Mitsubishi Electric, LG, Daikin, Toshiba, Fujitsu and Samsung. Mitsubishi Electric seemed to offer a balance of price, technological options and availability, as well as a longer track record in the US. We were considering things such as parts availability and support 10 years from now. With Mitsubishi Electric, we figured we'd get the best long-term support."

Next, the Zangs needed a contractor. Mr. Zang said, "Part of my job as a mechanical engineer is to look up equipment specs, so it's normal for me to go through that process and ask questions. So for this project, I wanted to be able to ask questions and get good, accurate answers. I searched sites like Yelp and Angie's List, and the Mitsubishi Electric site to find someone good and local." That's exactly what he found in Dan Pollak, a home comfort advisor at M.E. Flow, Inc., Leesburg.

Dan Pollak agreed that zoning systems were a great fit for the Zangs' needs, and felt particularly good about Mitsubishi Electric zoning systems. "Their hyper-heating systems work almost 100 percent down to zero degrees outside, and with

high capacity down to negative 13 degrees. We don't get down to zero degrees often around here, but when we do, you want heat. I also just really like the Mitsubishi Electric company. We're a Diamond Contractor®. We like the 12-year guarantee on compressors and parts, and we just have fewer issues with the system. It's a very nice product. Plus, our distributor – Aireco – they do a great job getting us the materials. My contact there is very thoughtful."

With a good design, the team planned for installation – broken across two days several months apart "to allow our cash reserves to catch up. So that's another thing I liked about this system – the ability to install in phases," said Mr. Zang. Dan Pollak added that both times installation took place, "it went very smoothly. Just a one-day event."

Mr. Zang has been pleased with the results. "It's been a lot more comfortable. We're not getting hot and cold spots. We also don't have to keep the whole house at one temperature now. We condition only the rooms we need. Having that is relaxing." He also mentioned his two dogs, one of whom is a 70-pound boxer who "curls up in a little ball when he gets cold. It looks sad and pathetic. So it was good to see him much more comfortable this year."

Comfort is not just about thermal comfort but also other senses. Mr. Zang has seen additional benefits relating to sound and smell: "The new outdoor unit is by far quieter than the original a/c unit. And the smell – when the baseboard heat turned on, you'd smell that burning dog hair smell. We don't have that smell now." He has also appreciated the improvements to indoor air quality. When cleaning the old system's ducts, "which took up half of our closet space, by the way, I have to say that it was exceptionally gross. There was a significant amount of buildup. Having pets, we understand the importance of having to clean fairly often. The Mitsubishi Electric system is easy to clean. We just take a vacuum cleaner to the filters and vacuum them off a

“ Mitsubishi Electric's system appeared to be the only system really meant for the Virginia region's cold climate. Even if it's only extremely cold one day of the year, I don't want my system to fail that day. ”

— Mr. Zang, homeowner

Project Completed: February 2016 |

bit. Neither of us got sick this year, so that says something.”

These increases in comfort and health come alongside an increase in cost savings. “Comparing from one year to another, I can already see the energy savings. Our March bill, for example, is about \$100 less than it was last March with the old system – so that’s from \$280 to \$180. Likewise comparing from one year to another, we’re using about 500 fewer kWh a month now. And this is with keeping the house at a more comfortable temperature,” said Mr. Zang.

The experience has been so positive that Mr. Zang now finds himself wanting to educate other homeowners on the technology. “There is a general lack of awareness. Some of our friends have never even heard of ductless mini-splits. But we’ve been pretty impressed by the system. Our house feels a lot more comfortable and balanced.”



Photos: Jamie Zang

EQUIPMENT

- ▶ (1) MXZ M-Series Outdoor Unit
- ▶ (5) MSZ Wall-mounted Indoor Units

PROJECT TEAM

HVAC Contractor:

M.E. Flow, Inc., Leesburg, Virginia

Distributor:

Aireco Supply, Inc., Laurel, Maryland