

A. O. SMITH PRODUCTS PROVIDE WHOLE HOME HEATING SOLUTION

As avid collectors of Southwestern art, Ted and Betsy Rogers could not think of a better locale for a secondary home than Santa Fe, N.M. However, their 2,200 sq. ft. home in Santa Fe's historic district did not provide adequate area to display their extensive collection. To create more space for both art display and offices, the Rogers family expanded their home with a 5,000 sq. ft. addition.

As part of this major renovation, the family realized they needed a water and home heating system that could accommodate the size of the addition and carry them through the cold winter months in Santa Fe. With an average wintertime low of 16 degrees and a record of 29 degrees below zero, the Rogers family needed a system that was both reliable and energy efficient.

"Primarily, we were looking for reliability," said homeowner Ted Rogers. "Because this is a second home for us, we spend about four months out of the year here, including time in the winter."



In their pursuit for energy efficiency, the Rogers family turned to A. O. Smith for a one-stop solution to supply hot water—not only for domestic hot water, but also for radiant heating and a snowmelt system for the exterior walkways and stairs.

Rather than heating their home using the conventional "forced air" method, the Rogers family elected to use a more energy-efficient radiant heating system in both the new and old sections of the house. The entire radiant heating system is supported by two 96 percent efficient A. O. Smith Cyclone® Xi units—one a primary heater, the other functioning solely as a backup unit. By dividing the home into 11 independent heating zones, each with a programmable thermostat, the family is able to conserve energy by heating each zone based on its individual need.

"Conventional heaters don't deliver 96 percent efficiency," said Steve Drinkwater, application engineer for A. O. Smith. "With the Cyclone Xi, the homeowners could save 35 to 40 percent on energy compared to conventional standard efficiency forced air heating systems. They should see a return on investment in two years or less."

Next, to cover their need for domestic hot water, the Rogers family installed a third Cyclone Xi water heater. Each Cyclone Xi unit installed in the home is a 199,000 BTU commercial water heater. The glass-lined Cyclone Xi has powered anodes for tank protection, resulting in a state-of-the-art water heater with money-saving 96 percent thermal efficiency.

Case Notes

Project:

A. O. Smith products provide whole home solution for heat, hot water, and snowmelt systems.

Location:

Santa Fe, New Mexico

Products:

- A. O. Smith Cyclone® Xi High Performance Commercial Gas Water Heater
- Vertex™ High Efficiency Residential Gas Water Heater
- iCOMM™ Elite Remote Monitoring Service

Product Highlights:

- Cyclone Xi:
 - Up to 96% thermal efficiency generates significant savings for homeowner
 - 100-gallon capacity
 - 199,000 BTU Power Direct Vent Water Heater
- Vertex: An advanced internal heat exchanger with 100,000 BTU input, a residential heater inspired by A. O. Smith's time-tested Cyclone commercial design
- iCOMM: Provides leak detection and fault alerts for water heaters and boilers through email or text messaging



To combat Santa Fe's severely icy winters, the Rogers family installed the A. O. Smith Vertex™ residential gas water heater, a 100,000 BTU high efficiency unit, to power a snowmelt system. Monitored by external moisture and temperature sensors, the Vertex is activated when the outdoor walkways or stairs begin to freeze. The system heats and circulates an ethylene glycol solution with the help of a secondary heat exchanger. Ethylene glycol, an antifreeze-like liquid, that effectively melts any snow or ice that may develop.

To monitor the extensive heating systems, the Rogers family installed the iCOMM™ Elite remote monitoring service. iCOMM is the latest technology in commercial water heating that allows A. O. Smith to interact with, proactively manage, and monitor each of the four water heaters. Should problems arise, this industry-exclusive service will identify any issues early on and will minimize downtime for repairs.

"For an absentee homeowner, the iCOMM is really valuable," Ted Rogers said. "Somebody's looking after your system even when you're not there."

The installation of A. O. Smith's Cyclone Xi, Vertex and iCOMM products has been an all-in-one high efficiency heating solution for the Rogers family. Even in a short time, Ted Rogers has already noticed a difference in his energy bills.

"There are significant energy savings here," said Rogers. "We just had one heater before. Now that we've doubled the size of our house and we've had the A. O. Smith equipment put in, our overall heating bills have still gone down by 20 percent."



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