

# Windows with More Than a View



A Thermal Barrier is the key to quieter rooms and lower utility bills.

large contractors and retail – direct to the public in its Tulsa and Oklahoma City showrooms. “Everything in our plant is custom made,” says Dennis Lane, president of Thermal Windows, “whether it’s for the guy who wants 10 windows in his house or for a large project that will have 100 or even 5,000 windows.” The same technology goes into the final product, regardless of the size or number ordered.

“We have a test chamber where our windows are tested for structural strength, positive and negative air pressure, water and air leakage and ease of lifting.” The testing is stringent enough to certify the windows for use at military bases, but the windows are also appropriate for use by homeowners or local businesses.

In the fast-growing local retail business, a large portion of the market is for retrofit or replacement windows. The reason? Too often, first-time homeowners don’t realize the importance of well-built, energy-efficient windows, according to Lane. “The homes are built with double-paned windows, but they are low-end models of inferior design and performance. Then, five years down the road, the homeowners call us and say, ‘We bought this house and the windows are awful. Can you replace them?’”

Many first-time customers also don’t realize that a window is more than the glass that provides that beautiful view. “A window is 80 percent glass and 20 percent frame,” says Pool. As a result, the frame must be designed for as much insulation as the glass. This concept underlies all the company’s products, which have a thermal barrier throughout the entire aluminum frame.

“That’s probably one of the hardest things for us to get across to people who aren’t familiar with our product,” Lane says. A lot of people still have in their minds the old aluminum windows from 20 years ago. With those windows, if it was cold outside, it was cold inside – the simple aluminum frames were conducting heat directly to the outdoors,” Lane explains.

That’s not the case with a thermal-barrier window. “We design all our windows with a 3/8-inch polyurethane pocket running through the frame, creating a thermal barrier; the inside and outside aluminum do not touch each other,” says Lane. “You have the strength and endurance aluminum provides, with an additional thermal barrier to prevent energy loss.”

“Residential customers who purchase the windows can expect to see an impressive difference in power bills – especially on air-conditioning,” says Pool. “The average customer will enjoy a significant reduction in energy use.”

Tulsa area customers also enjoy the benefit of the local manufacturing facility. “Although we sell products coast to coast, we’ve adopted a different method of marketing locally,” Pool explains. “We maintain a factory showroom where customers can walk in and look at the products.”

In fact, the business is based on personalized service, with factory-

**W**hen Bob Pool founded his window manufacturing business back in 1979, Americans were just beginning to learn terms like energy-efficiency and conservation. “We had just been through the energy crisis,” says Pool, and one thing people learned was how much energy their homes lost every day through windows and doors. They also began learning how double-paned glass could help retain some of that energy.

“The average customer of a building contractor thinks as long as the home has insulated glass, it’s top of the line,” says Pool. “That’s not true. There’s glass – and then there’s glass.”

The fact that not all “insulating” glass is equal is just one of the points the Tulsa-based company, Thermal Windows, has been teaching its customers for years. Those customers range from local residents building custom homes to businesses, hotels, colleges and military bases throughout the United States.

The company sells both wholesale to



Bob Pool, Chairman and CEO



trained professionals performing all installations. “Our specialist comes to your house or business and measures it, we make the windows to fit, and the installers are trained to install them correctly – and to make sure the customer’s happy,” says Pool. “Our employees are taught not to leave the premises until the customer says, ‘Yes, I like the looks of it.’”

Along with area homeowners and businesses, Thermal Windows has provided custom windows for projects as varied as retrofitting the Tulsa public schools and designing a showpiece for Tulsa’s Southern Hills Country Club, as seen on national TV broadcasts of PGA tournaments.

A large shipment of Tulsa-built windows also made its way to Russia. “They designed some homes over there, made

with all American products. We provided 400 windows for it, which was exciting,” says Lane. “It’s pretty cold there, and they chose our thermally improved product.”

While customers typically expect to save

Not all windows are created equal. Double-paned insulated glass and aluminum frames with a polyurethane thermal barrier set these windows apart.

energy and money, they also discover some hidden bonuses after switching to thermal-barrier windows, Pool has found. When many a homeowner walks into the house after a window installation, “they’ll say, ‘Something’s different. What is it?’ Then they realize: It’s quieter,” Pool said.

Evidence of the windows’ effectiveness can be seen in the types of major customers who use them. Many large projects that buy from Thermal Windows require the company to meet a sound reduction level. For example, a major chain of suite hotels ordered windows for eleven hotels around the country. “They have a stringent sound transmission rating because of the privacy needed and also because they’re often near an interstate,” says Pool.

Thermal Windows has experienced rapid growth – with annual sales between \$25 million and \$35 million per year. According to its leadership team, that represents a challenge. “We have to continue growing, yet stay competitive. As we get larger, we must maintain the quality of products and service,” says Lane.

When homeowners and business owners visit the Tulsa plant for the first time, they’re often surprised to learn that a local manufacturer has the technology to produce a custom window as good as anything available, according to Pool. “When I started out, I decided I couldn’t be the biggest manufacturer of windows in terms of quantity – but I could make the best ones,” he says.

### **POWDER-PERFECT FRAMES**

Teal blue, forest green, brilliant red, smooth sandstone. Whatever an architect or home builder has in mind, Thermal’s aluminum window frames can match the exact hue.

In a special temperature-controlled chamber, a coat of fine powder is sprayed onto the electrostatically-charged aluminum frame. Then the frame passes through a huge infrared oven that bonds the powder to the metal, creating a smooth, durable finish. As a bonus, Thermal’s powder coating system does not produce

atmospheric pollutants, VOC’s or heavy metals, making it less damaging to the environment than wet paint processes.

“By painting in-house, we maintain control over the process, with the flexibility to give architects and homeowners what they want,” says Lane. The firm recently sent over 1000 red windows to a commercial project in St. Louis, and has custom-manufactured windows in a wide range of colors for buildings in Fort Knox, Orlando, Washington, DC and other cities across the nation, as well as for local residences.