

## Solid Edge

# Superior Radiant Products

Choosing the best over the most popular 3D software brings a competitive edge

### Industry

Machinery (HVAC equipment)

### Business initiatives

New product development

Value chain synchronization

### Business challenges

Provide clearer documentation for customers and installers

Improve communication in-house between engineering and sales/marketing

Cross language barrier with overseas suppliers

Stand out from the competition

### Keys to success

Honest, helpful CAD reseller

Designing all new products as 3D assemblies in Solid Edge software

Creating photorealistic images from assembly models

Using rendered images instead of drawings in manuals

## Comparing software pays off and helps heating equipment manufacturer distinguish itself in a crowded field

### Welcoming, cost-saving heat

Superior Radiant Products (SRP) manufactures a full range of gasfired, high and low-intensity infrared space heating equipment for commercial, industrial, agricultural and residential markets. The company's products are sold throughout North America and Asia. A typical application for SRP's heaters is a restaurant patio where they create a warm and welcoming environment out of an area that might otherwise be too cold for outdoor dining. But they're also used in indoor settings where they can substantially reduce heating costs. A huge indoor riding arena, for example, decreased fuel costs by 39 percent with SRP heaters while increasing the total heated area.

SRP competes in a fairly crowded field of about a dozen other suppliers of this type of equipment in North America. The company ranks near the top but its engineering vice president, Pat Caruso, is always looking for ways to distinguish SRP and its products from the competition. Part of this involves design innovation, which SRP recently illustrated by winning the first place award for "Most Innovative HVAC Product" at Canada's Ciphex trade show. Another important factor is customer satisfaction, which is what led Caruso



to upgrade the company's design environment from 2D AutoCAD to 2D/3D Solid Edge® software.

"When people called in with problems with our equipment, we could almost always trace the problem back to the installation," Caruso explains. "Yet it was hard to say to the contractors who did the installation, who are our customers, 'You didn't follow the manual.' So we decided to give them a better manual." In doing that, SRP also got a design environment that enhances its ability to innovate.

### Comparing 3D options

Caruso wanted to create manuals that used less text and had nicer graphics than the line drawings or artist's conceptions in most manuals of this sort. He knew 3D CAD geometry could be used for this purpose and set out to purchase a mid-range solid modeling program. Photorealistic

## Results

Manuals that stand out  
Realistic images in minutes  
vs. weeks for less informative  
2D drawings  
More efficient sales and  
support efforts  
Fewer errors due to miscom-  
munication with suppliers  
and customers

**"We now have a strong,  
technical and competitive  
advantage because  
I dared to compare."**

Pat Caruso  
Vice President, Engineering  
Superior Radiant Products

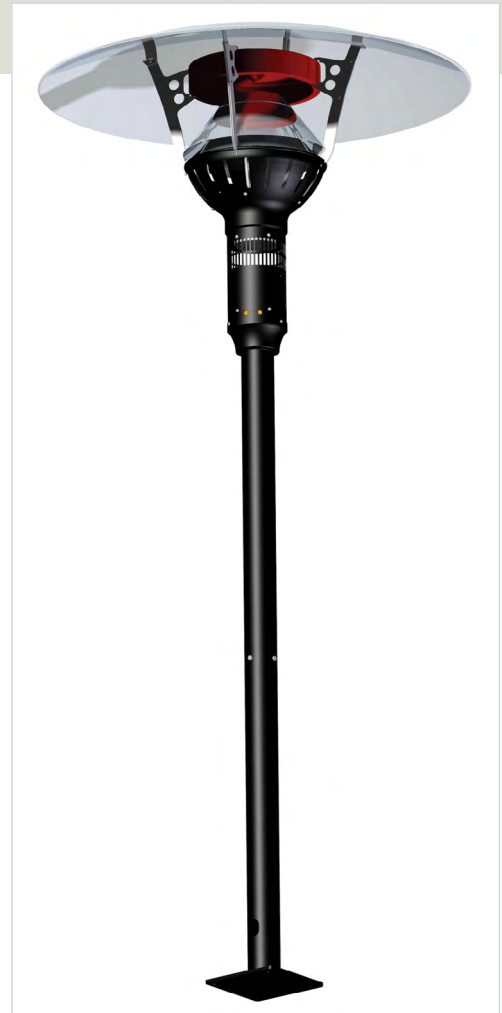
rendering functionality was high on his list of must-have features. Sheet metal modeling (with the ability to automatically unfold parts) was also important. Caruso thought he had made his selection after working with a trial version of SolidWorks for a while.

Then he had the opportunity to compare that program with Solid Edge, and the choice became clear. "I saw Solid Edge at a trade show and I'm glad I did," he says. "Its rendering capability is far superior to that of SolidWorks. Solid Edge also had better sheet metal modeling functionality." Caruso also realized that Solid Edge was more intuitive to use. "It knows what your next logical step is, so you're clicking your mouse a lot less. Solid Edge definitely does what we need and more," he adds.

Caruso also noted a difference in approaches the resellers of the two programs took. "For example, we were led to believe that SolidWorks owned the Parasolid modeling technology that Solid Edge uses. We later discovered the opposite to be true, that Siemens, which develops Solid Edge, owns the technology SolidWorks uses," Caruso explains. "The Solid Edge reseller, Designfusion (Toronto), was very professional."

### **Straight to rendering**

As soon as Caruso got Solid Edge, he had a chance to see what it could do for the manuals. Without any formal training (working from the built-in tutorials), he created a Solid Edge assembly model of a new product that had recently been developed in AutoCAD. Then he taught himself all there was to know about creating photorealistic images in Solid Edge. The results were stunning; some of the sales and marketing staff thought they were photos. They were incorporated into the manual for the new product, the EvenGLO™ patio heater.



Compared to the company's previous manuals and to those of the competition, this one is a contractor's dream. Not only does the quality of the rendered images bring a new level of clarity to the document, Caruso was able to easily position the Solid Edge assembly model to show the most advantageous angles for the installers. "As we get these manuals out for more and more of our products, I think it will elevate our company's image in the minds of the buyers and installers," Caruso adds.

The clarity of the rendered images has in-house benefits as well. "It's much faster and easier to communicate our ideas to the sales and marketing people with these images," Caruso says. The same is true for communications with overseas suppliers.

## Solutions/Services

Solid Edge  
[www.siemens.com/solidedge](http://www.siemens.com/solidedge)

## Customer's primary business

Superior Radiant Products manufactures gas fired, high and low intensity infrared space heating equipment.  
[www.superiorradiant.com](http://www.superiorradiant.com)

## Customer location

Stoney Creek, Ontario  
Canada

"We don't have to compromise our creativity because of limits of 2D."

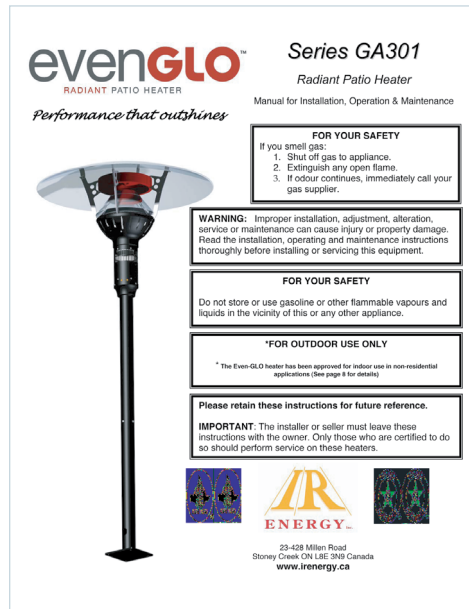
Pat Caruso  
Vice President, Engineering  
Superior Radiant Products

"People understand these images easily and they overcome the language barrier," he adds.

## Support for innovation

Today, all new products are being designed in Solid Edge. An unanticipated benefit of the software has been its support for innovation. "In the past, if we had an idea that was overly complicated to draw in 2D, it would have been put on the back burner or not attempted at all," says Caruso. "Because it's easier to design in Solid Edge, we can create more sophisticated and advanced products. We don't have to compromise our creativity because of limits of 2D."

In Caruso's opinion, the choice of Solid Edge sets his company apart in many ways, not least in its choice of the design software itself. "Solid Edge users do not just follow the path to the better-known SolidWorks or Autodesk Inventor software," he says. "We did the work to evaluate which CAD system would do the best job for us. I didn't want to compromise what our company needed because SolidWorks was more popular. We now have a strong, technical and competitive advantage because I dared to compare."



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