

“Now that the first system has been up and running for a full year, I thought you would be pleased to hear we have been able to maintain the design temperature without having to use the natural gas fired backup systems. The initial return on investment project was two years. I think you just beat that by a mile. The InSpire product has exceeded my expectations. Thanks for your help in bringing it together in our project”  
- Craig Cigas (President of Cigas Machine Shop, Inc.)



**Featured Project:**  
**Cigas Machine Shop**  
**Pottstown, PA**  
**InSpire Wall**  
**Black**

In its original condition and based on 2006 fuel prices, the annual cost to heat the Cigas Machine shop was estimated to be \$350,000. The challenges of the renovation were not only to bring the structure up to current building and safety standards, but also to make it as efficient as possible while maintaining the original architectural character and craftsmanship from the 1880's.

The solution was to retrofit the south-facing walls using InSpire panels that capture the heat from the sun to preheat ventilation air. A total of 11,670 square feet of 0.032 aluminum wall panels with a black KYNAR 500° PVDF or HYLAR 5000° PVDF-based paint system were used in the installation.

The InSpire panels are perforated and are installed several inches from the wall of the building, creating an air space between them. During cold months, the system is designed to provide preheated fresh air for the building by collecting the heat from the sun, generated when the sun's rays warm the air at the surface of the dark colored panels. Ventilation fans mounted inside the building draw the solar-heated air through the perforations, into the wall cavity, and then into the building's interior through conventional ductwork.

