

Spray-applied sealant improves IAQ for leading healthcare facility

Ductwork is probably not the first thing that comes to mind when thinking of healthcare facilities, but it is one of the most vital aspects of the design and construction. This is for many reasons, but perhaps most importantly because indoor air quality is an absolute necessity for the promotion of a clean, healthy, contamination-free environment for patients. And IAQ is largely determined by the performance of a building's HVAC system.

When Parkview Health decided to expand its facilities in Fort Wayne, Ind., IAQ and HVAC system performance were a top priority. By 2003, Parkview was serving a population of more than 820,000 and found an extensive expansion was necessary. The decision was made to build Parkview Regional Medical Center, a \$536-million facility currently under construction. The project, which began in 2008, is expected to be complete by Dec. 31, 2011 and open in January of the following year.

During the planning phase of the project, Parkview not only wanted to build the most efficient, cutting-edge facility possible, but also wanted to promote the local economy by utilizing local contractors. The contractor chosen for the construction and sealing of the HVAC system was Bright Sheet Metal, based in Indianapolis, Ind. and known for high-quality products and service.

The facility's HVAC system is extensive and includes 32 miles of ductwork that needs to be installed properly, sealed



and tested, ensuring it meets the highest quality of standards. The ductwork also has to meet stringent jobsite requirements, which states ductwork has to be sealed with a maximum leakage of 3 percent.

With nearly 50 years of experience, Bright Sheet Metal knew the importance of sealing, and initially bid the job to use a traditional bucket and brush method, which is the industry's longest standing, proven method for ensuring airtight ductwork.

While this traditional bucket and brush sealing method is effective, it is also time consuming and labor intensive; sealing more than 100 miles of duct seams and joints at Parkview would have taken 4,000-5,000 man hours to complete. Bright Sheet Metal was not daunted by the time requirement, but when approached with a new Hardcast spray-applied duct sealant, manufactured by Carlisle HVAC Products, their interest was piqued.

A team from Carlisle HVAC - Hardcast visited the jobsite, demonstrating the application of the Spray-Seal™ spray-applied sealant, showing how it can cut labor time in half while providing a more effective, consistent seal. This mobile delivery system would also enable the crew to be more efficient because there would be no repetitive motions, compared to the traditional

sealing method. The crew would be holding a spray nozzle and injecting the sealant at more than 1,000 psi into the seams and joints, while pulling the sealant behind them on a mobile, wheeled cart.

Not only would Spray-Seal cut labor time by at least 50 percent, it would also enable the crew to move the ductwork after sealing it, providing an easier overall application and more flexible time schedule. The product is also designed to accommodate minor vibrations and movement, and unlike traditional brushed sealants, will not crack when sealed ductwork is moved on the jobsite. Spray-Seal, which contains low VOCs, also eliminates the sticky messiness of the bucket and brush method, while significantly reducing waste produced on the jobsite. It is packaged in 5-gallon pails instead of traditional 1-gallon containers.

The more than 32 miles of ductwork and 100-plus miles of sealing are still in progress. By the end of 2011, the Parkview Regional Health Center will provide its patients with one of the safest, healthiest and cleanest environments available in the healthcare industry.

For more information on Carlisle HVAC products, call 800-527-7092 or visit www.CarlisleHVAC.com.