

# SUSTAINABLE AIR DISTRIBUTION SYSTEMS FOR HEALTHCARE FACILITIES



# CARLISLE HVAC PRODUCTS **IMPROVES** INDOOR AIR QUALITY

Carlisle HVAC Products began sealing and remediating ductwork to facilitate HVAC system efficiency almost 50 years ago. As a leading pioneer in the HVAC sealant industry, Carlisle HVAC understands the importance of indoor air quality in healthcare facilities. From their original two-part system to their groundbreaking spray applied, robotically applied and rolled sealant products, Carlisle HVAC continues to provide new construction and remediation indoor air quality support, making them the perfect partner for any healthcare project.

## UNDERSTANDING HEALTHCARE FACILITIES

Properly sealed duct systems in healthcare facilities can reduce the entry of dust, contaminants and excess humidity as well as the spread of airborne germs. The Hardcast Iron-Grip™ product offers a trusted traditional brush applied sealant while Spray-Seal™ is now the choice for contractors needing to thoroughly test for leakage. The importance of ensuring the safety and quality of care for patients, staff and visitors is of critical concern within the healthcare industry. Recognizing these concerns, Carlisle HVAC Products has developed unique, long lasting solutions to meet the specific ductwork needs of healthcare facilities while increasing heating and cooling system efficiency and reducing energy bills.



## MEETING THE DEMANDS OF HEALTHCARE FACILITIES

### Environmentally Preferred Product Options

- Zero duct leakage attainable
- True zero and low-VOC high performance products
- Energy-efficient materials & energy-saving designs
- No system downtime

### Retrofit Solutions for Minimized Operational Impact

- Odor-free & low-odor installations
- Noise, vibration & sound mitigation solutions
- Robotic applications for hard to reach remediation
- Easy repair & maintenance

### Severe Weather Protection Enhancements & Long-Term Sustainable Sealing

- Rooftop weatherproof solution
- Superior adhesion for long-term performance
- Flexibility for building & seismic vibration
- Superior testing protocol



Fred Hutchinson Cancer Center, Seattle, WA

## CONTACT CARLISLE FOR ASSISTANCE

To learn more about Carlisle HVAC's Healthcare Facility Solutions, call 877-495-4822 or visit [www.carlislehvac.com](http://www.carlislehvac.com).

## UNIQUE SOLUTIONS DESIGNED FOR HEALTHCARE

Carlisle HVAC offers a versatile line of products that provide the protection and performance required of a healthcare facility. This wide array of systems and services allows healthcare facilities to develop customized solutions for their specific and unique needs.



Jacob Health Care, San Diego, CA

### Spray-Seal and the Mobile Sealant Delivery System:

- Labor and cost savings of up to 60%
- Low-VOC, LEED compliant water based products
- Targeted precision = uniform duct sealant coverage
- Minimized overspray
- Reduced application time
- Easy storage and cleanup



### Rolled Sealants:

- Code approved
- Ideal for replacement applications
- Easy to use with no mess
- Zero dry time
- Instant adhesion



## THE ISAAC™ HVAC ROBOTIC SYSTEM:

ISAAC, the inspecting, sealing and advanced cleaning robot, is a quick, versatile, consistent hard worker that can efficiently inspect, clean and seal HVAC ductwork without minimal disruption to building occupants:

- Lower labor costs
- Reduction in the number of damaging access cuts
- Treatment of otherwise inaccessible areas
- Provide video footage of interior conditions

Completing the list of advantages is the use of Carlisle HVAC's high-performance sealants, designed especially for use with the ISAAC System.

### RS-100

- Robotically applied sealant from inside the ductwork
- Flexibility allows resistance to cracking
- Water based, non-toxic
- Inhibits mold and fungus growth
- Non-reactive and non-flammable



### RE-500

- Encapsulate fiberglass insulation
- Prevents debris accumulation
- Inhibits mold and fungus growth
- Low-VOC
- Ideal for use in sensitive settings such as schools and healthcare facilities



## SPRAY-APPLIED SEALANT

### IMPROVES INDOOR AIR QUALITY FOR LEADING HEALTHCARE FACILITY:

Parkview Health in Fort Wayne, Indiana was serving a population of more than 820,000, and found that extensive expansion was necessary, so the decision was made to build a \$536 million Parkview Regional Medical Center. Installing an efficient HVAC system was a top priority because indoor air quality is of the utmost importance.

“We found that the Hardcast Spray-Seal System is a much faster way to seal ductwork. It’s been very efficient and time effective. In the future, Bright Sheet Metal has no intentions of going back to the bucket and brush. We will continue to use the Hardcast Spray-Seal System. It’s more efficient, more cost effective and it does a better job.”

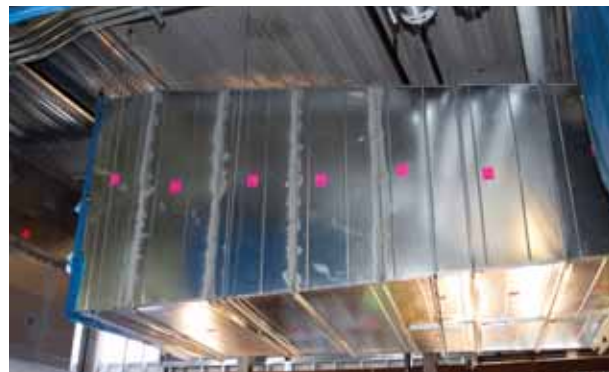
— Ken Kendrick, Project Manager for Bright Sheet Metal

Bright Sheet Metal was chosen to install the HVAC system and decided to use Spray-Seal because of its efficiency and labor savings. The project included 32 miles of ductwork that needed to be installed and more than 100 miles of seams and joints that would need proper sealing. With a traditional bucket and brush method, this would have taken between 4,000 and 5,000 man-hours to complete.

## SINGLE-SOURCE CAPABILITIES

With more than 50 years of experience in the construction industry and an extensive offering of roofing, waterproofing, insulation, HVAC and air & vapor barrier products, Carlisle Construction Materials (CCM) offers the products and expertise you need to create a durable, energy-efficient and high-performance building envelope. Improperly sealed healthcare facilities are not only economically and environmentally inefficient, but are also at risk for premature system failure, moisture infiltration and decreased indoor air quality. Carlisle Construction Materials enables you to avoid these issues by offering a complete building envelope integration of energy-efficient products that will provide superior performance and protection from the ground up.

- Below-grade waterproofing systems
- Plaza deck or planted rooftop waterproofing systems
- Roof garden assemblies
- EPDM, TPO & PVC roofing membranes
- Polyiso, EPS & XPS insulations
- Fire - & thermal-resistant coverboards
- Duct Adhesives & Sealants
- Air & vapor retarders
- Metal edging, coping & accessories
- Skylights & daylighting



## ON AVERAGE

According to a Lawrence Berkley National Lab Study, the average ductwork can leak up to 30%.\* Leaks in forced air duct systems lead to a multitude of problems:

- Reduced heating and cooling system efficiency
- Elevated building humidity
- Poor indoor air quality
- Increased energy bills

Carlisle HVAC Products has the tools to verify possible duct leakage through accurate duct testing equipment, calculate potential cost savings of a properly sealed duct system using DuctSense ([www.ductsense.com](http://www.ductsense.com)) and provide a sealing solution through our network of Carlisle HVAC Authorized Applicators.

\* Diamond, R. 2003. "Thermal Distribution Systems in Commercial Buildings." Lawrence Berkeley National Laboratory Report LBNL-51860.



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