

CRANE COMPOSITE CASE STUDY

PreVent Model R

Enhancing Efficiency & Longevity with Compressed Air Maintenance

How Crane Composites Boosted Compressed Air Efficiency and Equipment Longevity Using PreVent Filters and Proactive Maintenance.

Background

Crane Composites, located in Channahon, IL, is a global leader in providing high quality composite materials like fiberglass reinforced plastic. Their wide range of services span across building products, recreational vehicle and transportation industries. Within manufacturing facilities, compressed air is often referred to as the fourth utility. Convenient and versatile, compressed air is also expensive as energy costs continue to rise to unprecedented levels. Following corporate green initiatives to become more energy efficient, Crane Composites implemented measures to manage their energy consumption and replace inefficient equipment or entire systems.

Challenges

Crane's facility utilizes two-stage VST Series 100HP variable speed compressors, manufactured by Gardner Denver. Purchased to replace old worn out units, the new technology provides them a stable and reliable air supply at the lowest energy cost and the widest operating range. Through the help of local utility incentives, they were able to get approval for a complete system replacement. However, a key component of energy savings depends on sustaining those savings through maintenance best practices.

Crane Composites worked together with their compressed air provider, Steve Byrd, Sales Manager at Air Services Company, located in Elk Grove Village, Illinois. Together they developed a maintenance plan that ensures that this equipment would not only last, but maintain its factory designed efficiency. The first step in their plan was to promote good equipment air intake maintenance. Since the machines are cabinet enclosed, the opportunity to pre-filter the air and protect internal components at their point of entry, from dust and particulates, was an easy starting point.

Results

The air filter of choice was Permatron's PreVent air intake filter, Model R. Since the equipment air intake opening measured over 2,000 square inches, three custom air filters needed to be made for easier handling. Model R is a patented, rigid steel framed air filter that magnetically attaches to the metal equipment housing and uses a Z- bracket placed between the filters to join each panel together. The Z-bracket not only gives a clean looking installation, but also ensures that there is no air bypass gap between each air filter. **The filters are easily accessible with no need to dismantle the case to retrieve them for cleaning.** Quickly rinsed, brushed or vacuumed clean, PreVent air intake filters are a very cost effective way to keep equipment running smoothly in a busy manufacturing environment.



Equipment air intake openings located at foot traffic level are prone to pull in dust and debris along with necessary fresh air.

