CASE STUDY: GLASS MANUFACTURING

The Problem:
A glass door and window manufacturer produces various size glass "lights" or panels for installation into their door and window products. The glass lights are profiled and/or contoured with a router to achieve special designs and edges. The lights are sent into a water bath for cleaning and then are force air-dried. Once completely dry, cosmetic appliques or decorative paints can be applied to the glass surface. In order to produce a defect-free finished product, it is critically important that the glass light be free of any airborne contaminants or glass shards which could result in a defective or low-quality finished product.

The company used a static consultation to determine that the dust and other contaminants being attracted to the glass lights were caused by electrostatic charges. Immediately after the glass was profiled or cut into shapes, the manufacturer used a water bath and air blowoff to clean the windows, which is one of the most critical steps in the cleaning and neutralization process. The static consultation determined that the hot, dry air blowoff often added additional static electricity to the glass, increasing the potential for attracting contamination. These problems were increasing the defective product counts, as well as creating reworking delays.

The Solution:
The company wanted to know what solutions could be employed to prevent defects in their products, as well as reduce the production-robbing problems associated with reworking their parts.

Our recommendation included implementing several **Ion-Jet Super Air Knife Ionizers** at strategic locations throughout the manufacturing process. The Super Ion-Jet Ionizers deliver robust ionization to eliminate any static charges, while simultaneously delivering a forceful blast of air to remove any contaminants from the glass lights. This results in reduced defective parts and streamlined production of the products. The company is also able to minimize their compressed air usage with the Super Air Knives, compared to their old drilled pipe blowoffs.