



CASE STUDY: INJECTION MOLDING - SMALL PLASTIC PARTS

The Problem:

A manufacturer of small plastic injection molded parts (caps, closures, fitments and pipettes) was experiencing static electricity problems during various steps in their molding and handling operations.

The static caused the plastic parts to cling to the mold surfaces and causing the part, in some cases, to not completely eject from the mold cavity. Machine operators would receive a painful or potentially harmful shock from the molding process, and the attraction of airborne contaminants was causing unwanted dirt on the finished plastic parts.

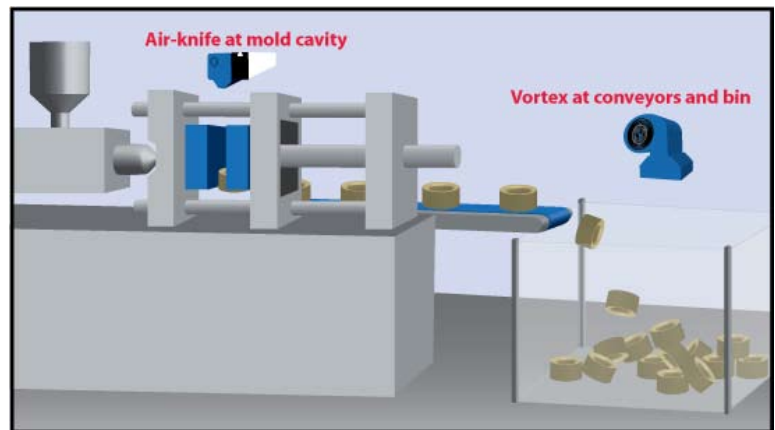
These issues negatively impacted operations by reducing productivity, increasing machinery malfunctions, increasing maintenance costs and posing discomfort or harm to operators.

The Solution:

Because there were two different areas needing static control, we recommended a multifaceted approach using two different types of static control - the Super Air-Knife at the mold cycle and the Vortex Blower on the conveyors.

The Ion-Jet Super Air-Knife engulfs the parts and mold surfaces with a curtain of ionized air, neutralizing the static electricity and preventing the parts from clinging to the molds so they would be ejected properly. The Super Air-Knife is also effective at blowing the parts towards the catch bins.

The Vortex Blower is strategically positioned on the conveyors to project a wide and long range of ionized air. This will ensure the parts will remain free of static, dirt and contaminants as they move toward and into Gaylord-style storage bins.



These controls eliminated the static issues enabling the manufacturer to increase their productivity and profits. The solution also reduced the discomfort of static electricity shock to the machine operators.