

Case Study

ARTOMATION'S TOOL CHANGE SYSTEM BUILT TO WITHSTAND HARSH CHEMICALS

Problem defined.

The painting industry was in need of a robust, modular tool changer. Frequent changing of paint atomizers and the subsequent exposure to solvents such as Xylene, Toluene and Methyl Ethyl Ketone (MEK) were causing the o-rings on tool changers to deteriorate and leak over time. And because the system supported several different paint atomizers, there was also a need for compatible OEM designed modules, such as fiber optic feedback modules.

Tired of static tool changer designs, limited port selection and time consuming maintenance, ARTomation (www.artomation.com)—a leading manufacturer of test panel painting equipment used in the automotive industry—turned to Applied Robotics for help.

Solution in reach.

Applied Robotics' applications engineer contacted ARTomation to understand the manufacturing challenges and ask the right questions. Working collaboratively, Applied Robotics was able to discover that its existing, aluminum-fabricated products would cause similar deterioration and that stainless steel was the most viable material for this application. In response, Applied Robotics produced its standard MXC 75 master side and tool side tool changer and provided custom-built paint modules, which were manufactured out of stainless steel. The modular features of the MXC 75 provided ARTomation the flexibility it required. In addition, Applied Robotics retrofitted the standard Omega fitting into the stainless steel module and fitted it with an o-ring that was strong enough to resist frequent exposure to these harsh chemicals.

