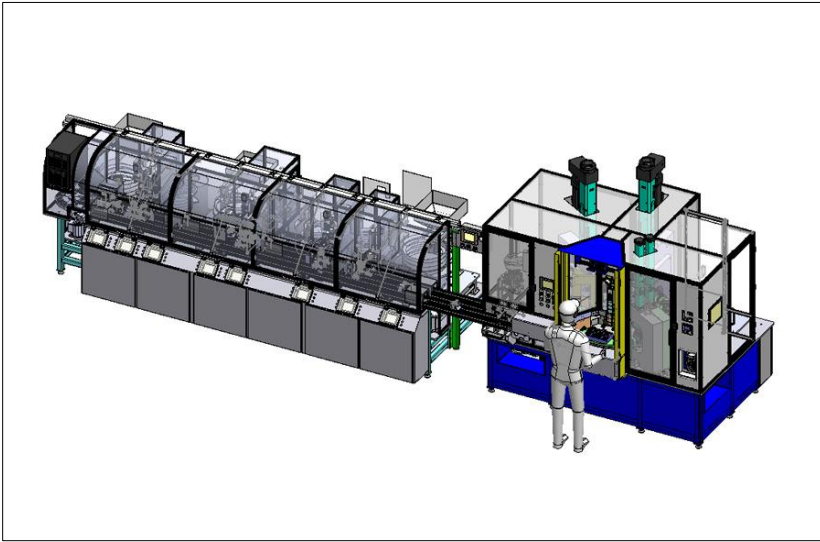


Seat Belt Buckle



Location: Canada
Project Value: \$1.5 million
Turnaround Time: 24 Weeks

The system highlighted here is used for automated seat belt assembly and inspection by a customer in the automotive industry. The system is used in their assembly plant located in Windsor, Ontario, Canada.

The assembly and testing system measures 10 m in length by 3 m in width and performs a total of 15 processes, including the assembly of 10 components. The system features pallet transfer equipment, 2-axis and 4-axis robots, laser measurement and vision inspection systems, and a bar code scanner that is used to track and log all tests and inspections. We use only the highest quality technology and machinery in the design of our custom assembly and inspection systems to minimize maintenance and maximize reliability for the life of the work cell.

The assembly process requires automated installation of two different springs and a 2 mm pivot shaft that runs through two components, laser inspection of the servo installed and rivet height is also required to be held to within ± 0.2 mm to meet the product specifications. These challenges required special consideration and a high degree of precision to ensure that the final assembly is correct. All of these processes are performed at a record setting rate of 3.7 seconds per part.

We provide completely customized fabrication, assembly, and inspection equipment that allow customers to achieve unprecedented levels of production efficiency. This project took a total of 24 weeks from development to delivery. For additional information about the custom assembly equipment project, contact us directly at info@iatglobalmfg.com.