

Odd Form Applications

The Polaris Odd Form assembly cell is a widely used assembly platform for large form factor devices and high insertion force components for years. This platform is recognized Around the world as the premier platform to automate manual assembly processes.

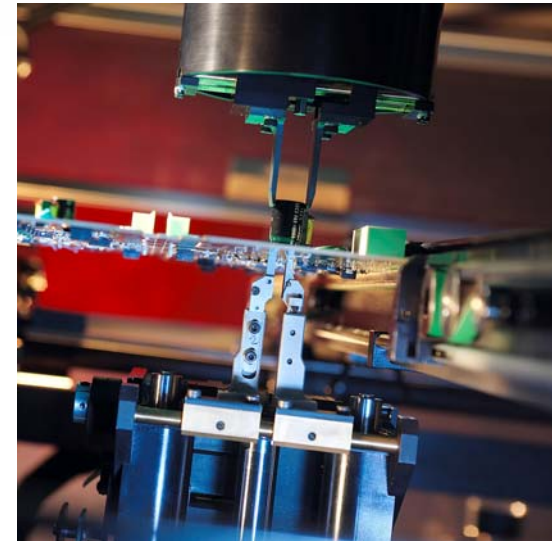
The machine is configured with the most flexible gripper head on the market. This machine can grip the part by grabbing the outside of the part or from the inside. The head also checks to make sure that the component has made it through the holes using the tactile sensing. Size is never an issue with this machine and neither is insertion force, Clinching, feeding, inspection, etc.

Some of these machines have been converted to other processes as of this writing, and those customers have reaped the benefits of protecting the automation investment. The average cost to convert a single cell from one process to another varies, but it is always less expensive than an additional capital investment.

As our economy continues to wain, Universal's Polaris customers have been able to perpetuate their automation strategies without going back to the bank!

If you have any questions about these applications, or the Polaris Automation solutions, Please contact your Local sales representative.

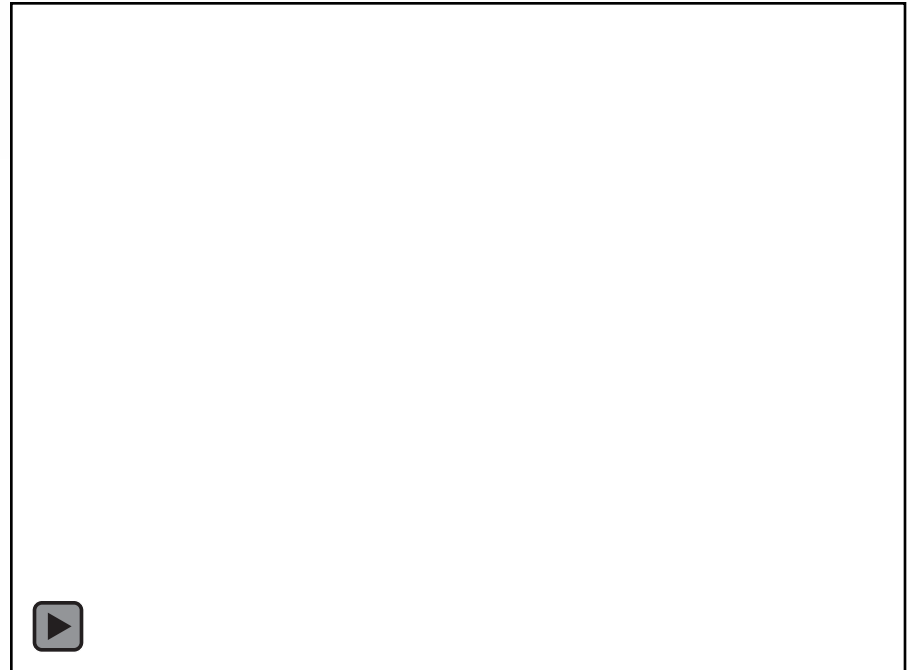
 POLARIS™



Polaris Audio Application

Customer Application

- This machine is a customer application with Bowl feeding, Tube feeding, and Radial tape feeding
- The tooling on the head is custom to handle the squaring of the Shield fence as well as the rest of the components without the tool changer



Polaris Clinch

Customer Application

- Polaris Clinching Box Caps
- Polaris uses double wipe clinch blades and holds the component from the top while the clinch is actuated



Polaris Clinch (Side View)

Customer Application

- Polaris Clinching Box Caps
- Polaris uses double wipe clinch blades and holds the component from the top while the clinch is actuated



Polaris Odd Form Demo

Customer Application

- Polaris servo Gripper machine built for a trade show
- This machine has tool changing, upward and downward looking cameras
- This is a very wide range of components; from very large automotive connectors to small radial electrolytic cans



Polaris Axial Leaded Insertion

Customer Application

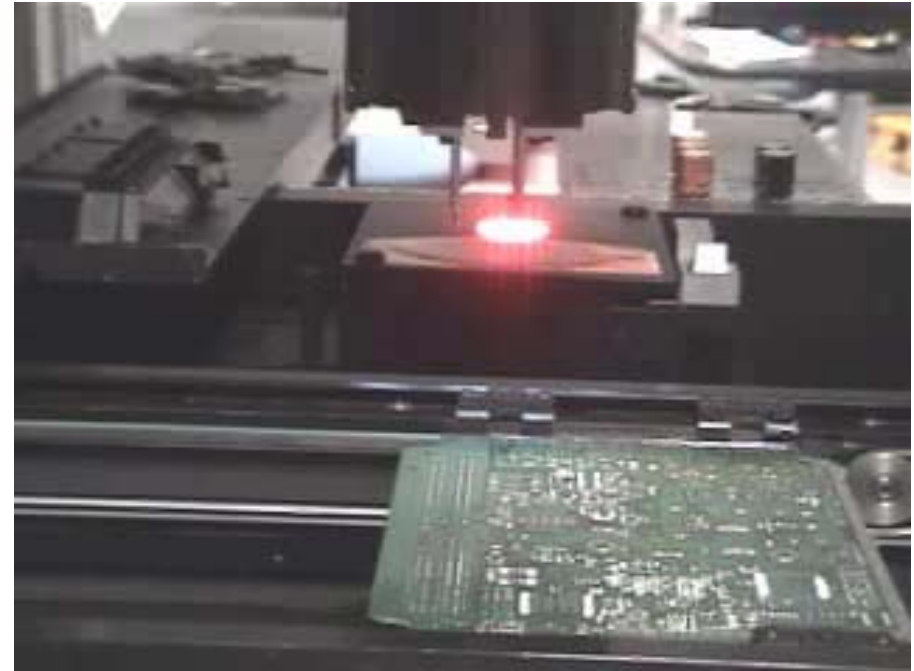
- This is a customer application
- The machine handles the axial components from the leads to avoid spring back and rotation



5 i hca chj Y7 cbhfc`Yf Demo

Customer Application

- This demo shows a wide range of component handling capability
- The machine is equipped with a servo gripper and can handle all of the parts without a tool change
- The components are:
 - Large system connector
 - Electrolytic cans



Under board screwdriver

Customer Application

- This is a standard servo gripper odd-form connector machine
- The screw driver is a Weber electric drive with torque and angle control.
- Process:
 - The driver rises to the bottom surface of the board and supports it for topside insertion
 - The connector is inserted and held
 - The screwdriver drives the first screw while the head is holding the connector
 - The driver moves to the second screw location and drives that screw

