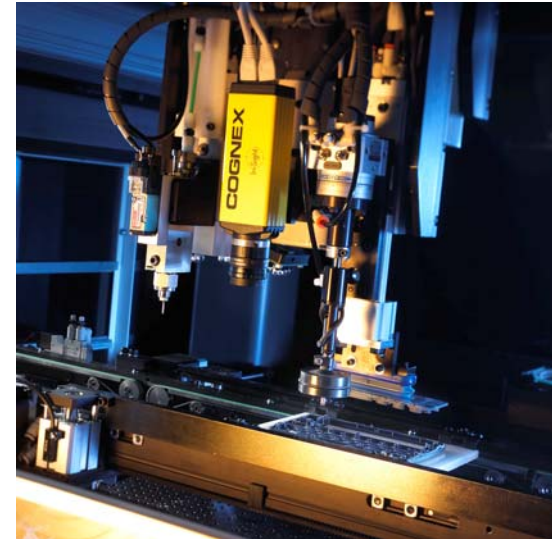# A]gWY``UbYci g 5dd`]WUh]cbg

Our customers have used the Polaris for more than a single process machine in many applications, the following pages show a few of the applications where the combination of Dispensing and pick and place processes. These customers realized the value of protecting their investment, and minimizing the front end costs associated with multiple machines in a single line to accomplish what this machine can.

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!
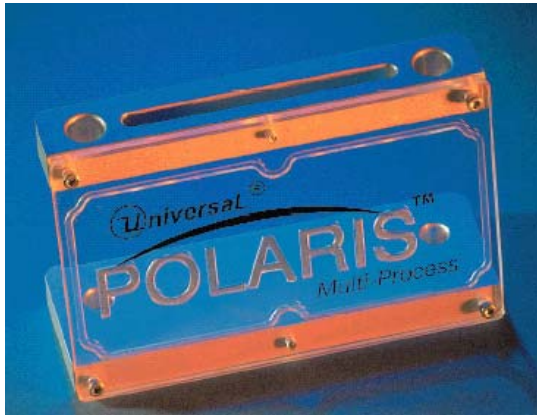
=Zmci \UjY UbmXei Ygh]cbg UVci h h\Yg Udd`]WUh]cbgž cf h\Y Dc`Uf]g 5i hca Uh]cb gc`i h]cbgž D`YUgY WcbhUWh mci f @cWU gU`Yg fYdfYgYbhUh]jY"

defining the future

Polaris Multi-Process

- Live demonstration of Multi-Process Capabilities

- Pick and place, dispensing, vision tolerance inspection, screw driving

Desktop Card and Pencil Holder

defining the future

Component assembly

Dispense and Die Pick and Place

- This machine was a Polaris Multi Process machine configured with a Auger Pump and a Precision pick and place tool

- The dispensed material was a conductive epoxy

- The end product was a 16 pin SOIC

defining the future
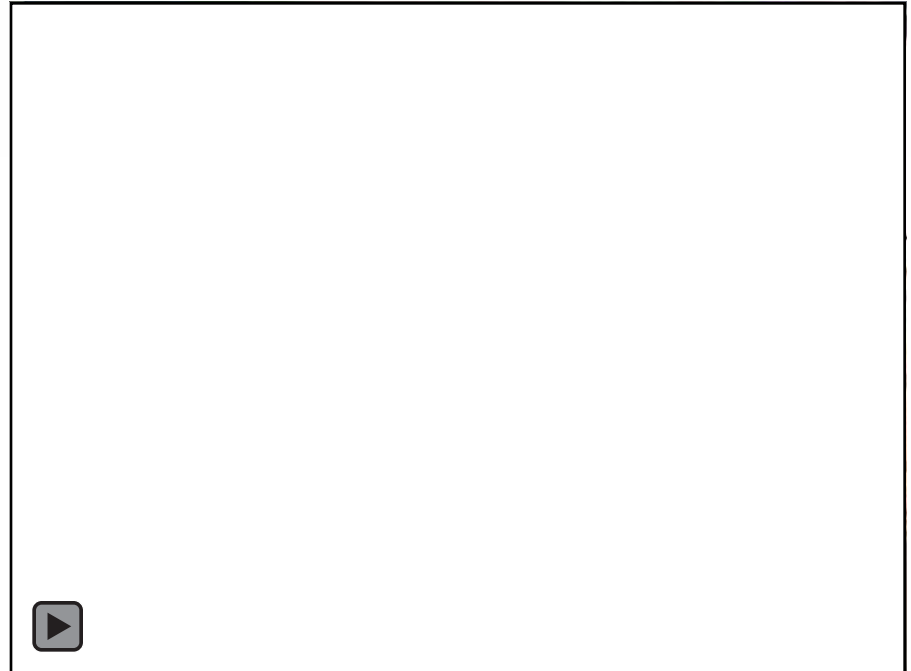
Tray Loader

Customer Application

- The machine is linked to a tester via Universal Pallet handling conveyor

- The Product is tested and transferred into the Polaris

- The pallet is located in a nest while the Polaris reads the bar code and requests the Status of the device

- If the Product has failed test, the machine places the product in a bucket, if it passed test, then the machine places the part in the tray
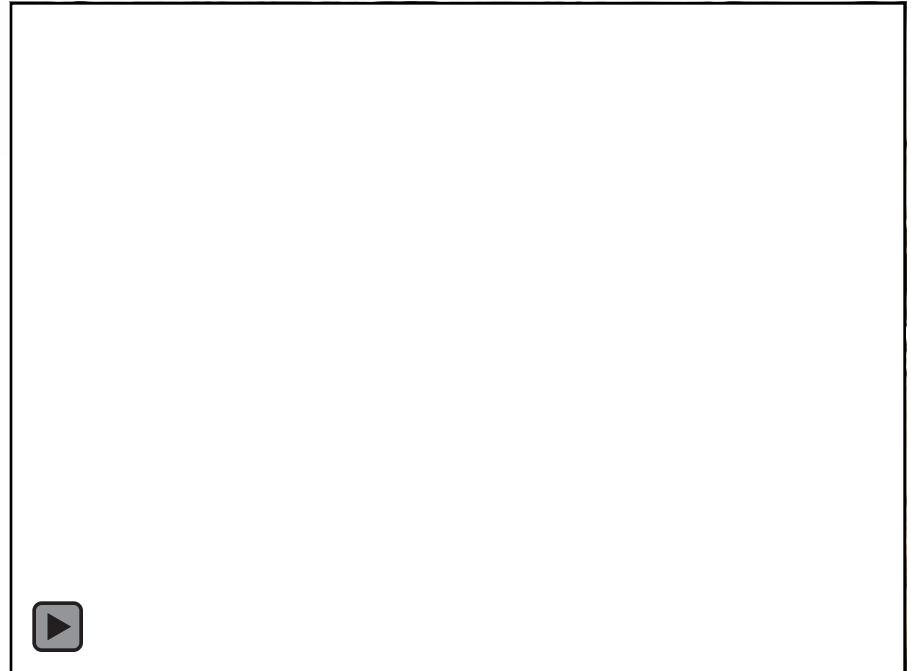
defining the future

LID Attach

Process

- The pallet with the components transfers into the machine

- The press stops at the first column and presses the Lids

- The programmable stop moves out to the second column and presses row two

- The process repeats until the pallet is complete

defining the future

Die Attach

Process

- The pallet with the components transfers into the machine

- The laser maps the surface and updates the plane offset

- All Z moves are coordinate driven, not impact sense

- Z accuracy is +/- .0005"

defining the future