

Ultra CASE STUDY

Advanced Manufacturing Practices: In-Die Welding

For more information on this study, or to view other case studies, please visit www.ultratoolmfg.com.

The advantages of in-die welding

- ▶ **Substantial Cost Savings**
- ▶ **Improved Quality**
- ▶ **Shorter Lead Times**
- ▶ **Complete Individual Weld Analysis**
- ▶ **Improved Efficiencies**

Ultra Tool & Manufacturing has invested much time and resources to the research and development of advanced manufacturing processes.

Substantial Cost Savings — Reduced labor costs by eliminating secondary operations. Lower costs due to handling, logistics and setup of multiple operation types.

Improved Quality — Lower your PPM by eliminating missing nuts due to operator error. In-die verification of nut installation and weld. Monitor each and every weld and store the data for analysis and verification. Rejections in a weld are kept from contaminating a good part bin.

Shorter Lead Times — With the demand of shorter lead times, in-die automation at the press is vital. Lower labor costs occur with decreased operations and less handling. Completed assembly moves directly to packaging/shipping straight from the press. Proven and guaranteed run rates.

Complete Individual Weld Analysis — Advanced weld monitoring equipment works in real time at virtually any run speed.

Improved Efficiencies — Accurate scheduling due to the elimination of secondary operations. Shorter lead times. Increased throughput. Reduced material costs due to less scrap and waste.

Please read our case study of the ongoing success incorporating in-die welding at the right.

(A video is available for viewing upon request.)

Specifications:

Date: May 2007
Plant: Ultra Tool & Manufacturing's production plant in Menomonee Falls, Wisconsin (greater Milwaukee area)
Part: Metal Stamping
Material: 1010 HRPO
Thickness: .120
Parts: 1 stamping, 2 nuts
Quantities: 40,000/year
Press: 200 ton punch press
SPM: Currently 45 spm
Shipping: Bulk packed at the press

Additional Information:

- 40% of the piece part cost is material
- 37% of the piece part cost is labor
- Of the labor cost (37%), 73% is for the secondary welding operation. 27% of the labor cost is stamping

In Summary:

The part is still produced as a metal stamped part. Parts are welded complete in the die and are sent for packaging straight off the press. 40% of the cost is still material.

Final savings of 58% off labor costs with the incorporation of in-die welding and the elimination of secondary operations.

CONTACT US TODAY

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