



## Customer

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## Part

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## Manufacturing Issue

FZ

## Customer's Goals

Utilize the metal shells to establish a more efficient manufacturing process

Reduce production times and costs.

## Redesign

The first image shows the original design of the metal shells. The second image shows the redesigned shells, which are more uniform in shape and design.

First, Ultra designed and built the crimping operations into their progressive stamping dies. This required precision forming of the material into the right shape and thickness for the crimping operation to be completed at the opening of the shells. Through the redesign, the customer's tooling costs were reduced by consolidating their progressive stamping dies from **FIVE to TWO**. This was feasible due to the uniform shape and design of the shells.

Second, we reduced the customer's tooling costs by consolidating their progressive stamping dies from **FIVE to TWO**. This was feasible due to the uniform shape and design of the shells.

- One progressive die was designed to stamp three separate shells that were grouped together because of their similar design and features.
- The second progressive die was designed to stamp the remaining two shells as they were similar.

The key to these stamping dies was the last station. It was designed and built for easy changeover to one of five different custom stations.

## Customer Outcome

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Reduced costs with the removal of crimping as a secondary operation.

Utilizing only two progressive stamping dies both reduced costs and simplified the production process.

**Watch the servo press deliver greater control and production rates for this customer.**