



Customer

Major Appliance Manufacturer

Part

Stainless Steel Side Tables

Manufacturing Issue

Utilizing their own equipment and employees to produce this part was not sustainable for the long-term.

Customer's Goals

Select a tooling shop that could design and build a progressive stamping die of this magnitude.

Select a metal stamping supplier with the capability and capacity to produce these larger-sized, highly cosmetic side tables.

Design and Manufacturing Process

Ultra designed and built a **144-inch** progressive stamping die equipped with multiple stations and in-die sensors to produce the side table on our 800-ton press. The part's stringent cosmetic standards made it a challenge to metal stamp and this case study outlines how we established a successful production process.

To remove sharp edges on the side table during metal stamping the Die Designers utilized two methods; hemming and coining. Hemming works better on longer, straighter edges and so this method is primarily applied on the side edges of the tables. Hemming precisely wraps the sheet metal back around itself and forms a clean, radius edge. Coining operations are then used to remove the sharp edges on the remaining areas of the side table including interior locations; resulting in a stamped cut edge.

Another key component to maintaining the cosmetic standards was locating a steel supplier that could provide plastic coating on one-side of the sheet metal and within the specified material thickness.

Finally, during metal stamping two methods are utilized to maintain clean surfaces on the side tables. One is a permanent sprayer attached to the progressive die that clears away plastic and metal shavings. Second, in the last station of the die is a vacuum-like operation to remove all remaining debris from the side table.



[VIEW THE LAST STAGES OF THIS PRODUCTION](#)

Customer's Outcome

Side tables are being delivered defect-free for assembly at their manufacturing facility.

Significant time and money are being saved utilizing Ultra as their all-inclusive supplier. We provide die design and tool building, metal stamping, packaging and die maintenance services.

