

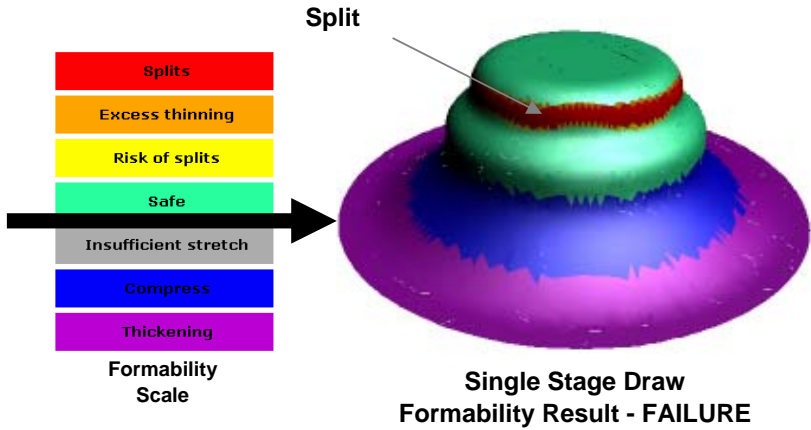
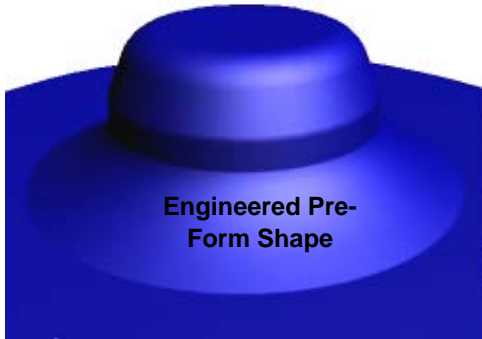
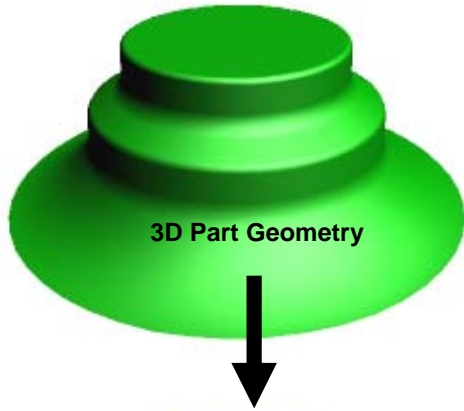


SimulateComplete® - Process Engineering

Job No: 5019

Client: Minnesota Tool & Die Works

www.mtdwi.com



Introduction:

The client required a successful forming process, to form the provided 3D Part Geometry.

Aim:

To form the part successfully at FIRST tryout.

Simulation Input Parameters:

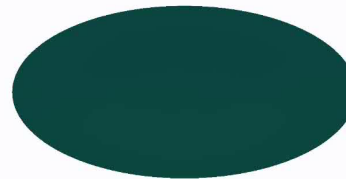
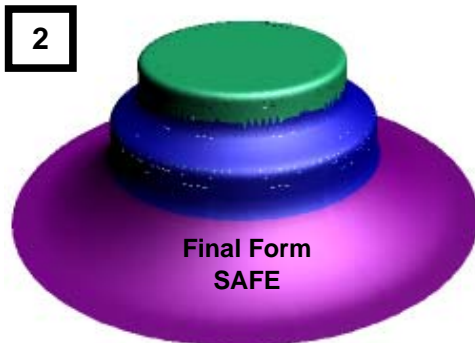
Material: Deep Draw Quality Steel (n=0.22)
Thickness: 0.7mm
Process: Draw form with blank holder (under pressure)

Method:

- a. Initially a single stage draw was simulated, to determine if the part required more than one forming stage.
- b. A pre-form shape was engineered, to form the part in TWO stages.

Results:

- a. The simulation predicted FAILURE in a single stage draw
- b. The two stage approach showed SUCCESS.
- c. The client tooled the process and achieved success at FIRST TRYOUT. Refer to part photos over page.



Two Stage Simulation
CLICK to play. DOUBLE CLICK for full screen.

This is a 3D Report. Click each item for 3D controls. (Requires Acrobat Reader v8.1)

Disclaimer

StampingSimulation.com takes every care to ensure simulation results are as practical and accurate as possible. Differences between the simulation parameters and an actual physical tool may yield different results. These results are used at your own risk.



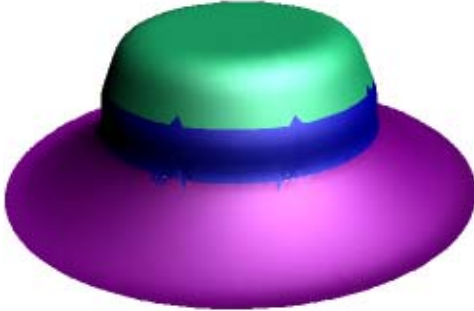

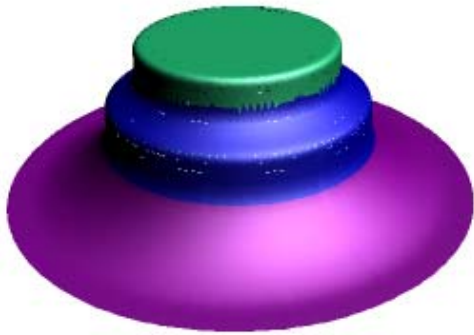

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Results - Side by Side Review

	Simulation	First Try Out - Actual Part
Pre - Form		
Final Form		

Feedback from the client...

"We fabricated the tooling directly from the simulation data and the parts turned out great after the very first tryout."

Jeff Clark

Minnesota Tool and Die Works (United States)

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Used with permission. Thanks to:

Minnesota Tool and Die Works

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