

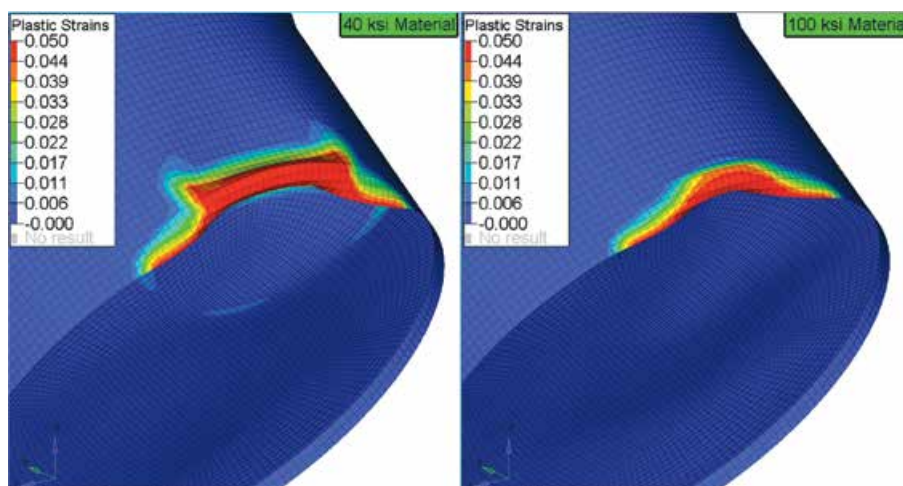
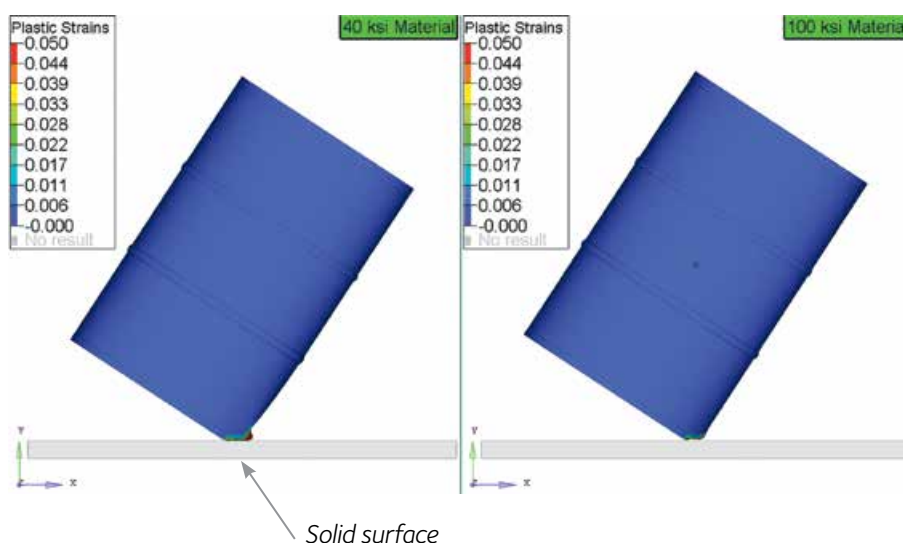


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Drum Drop Test Analysis

A drop test is one of the important criteria used to determine the performance of a steel drum. Many factors can influence the test results, so a computer simulation of the drop test was created to isolate variables and analyze each independently. This can save the customer material and fabrication costs of testing several design iterations and eliminate ambiguity in results.

In this case study, the impact of steel strength was analyzed. Drop impact simulations were performed to explore the use of high strength steel grades for this application. The drums are dropped onto a solid surface from a height of 1.8m and the results are compared between 40ksi and 100ksi steel.



The drum with 100 ksi steel grade significantly reduces the amount of deformation under impact conditions.



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