

Lingyun Industrial Case Study

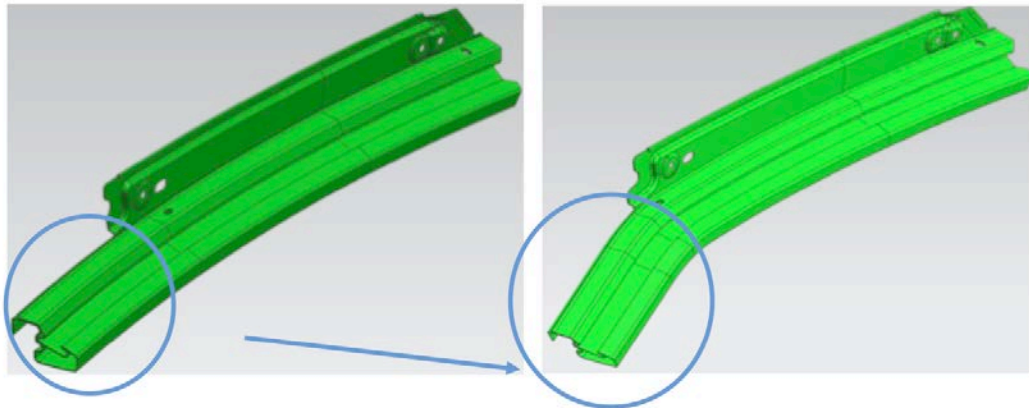
Lingyun Industrial is one of the largest car rolling and stamping parts manufacturer in China. The company is one of the main suppliers to the automotive manufacturers worldwide. As one of the globe's major players, the company has a number of forming simulation software solutions.

Lingyun does most of its validation by doing virtual try-outs, saving time and money and is very critical for organizational development. Recently, Houqing Sun from Lingyun contacted Wang Bin, Dynaform support engineer, for a very specific problem. They had tried other forming solutions, but were unable to generate satisfactory results, in terms of accuracy.

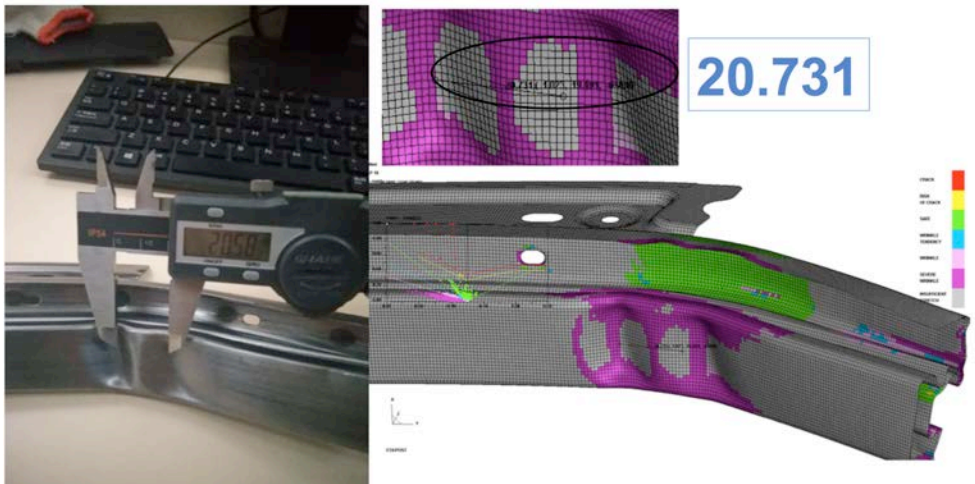
Developed by Engineering Technology Associates, DYNAFORM's formability simulation creates a "virtual tryout" by predicting forming problems such as cracking, wrinkling, thinning and spring-back, before any physical tooling is produced.

This type of simulation is used to predict the real world scenario, but it can be very challenging because there are so many factors involved in manufacturing. However, when it comes to accuracy, Mr Sun from Lingyun had heard that DYNAFORM was the leader in accuracy and decided to put it to the test with help from Wang Bin.

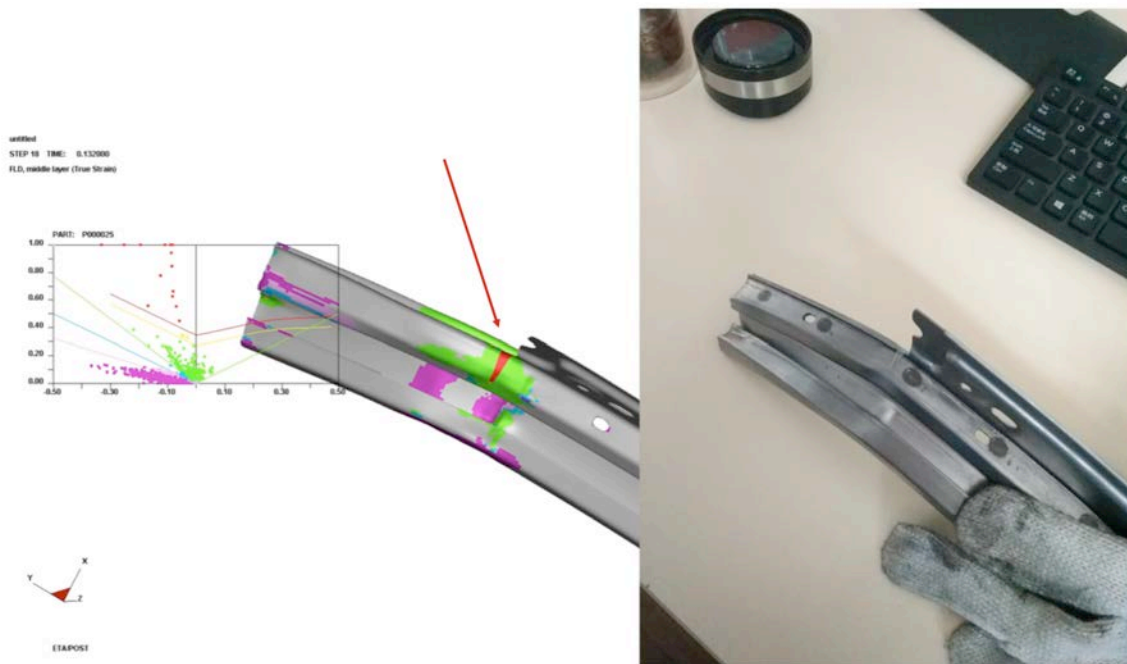
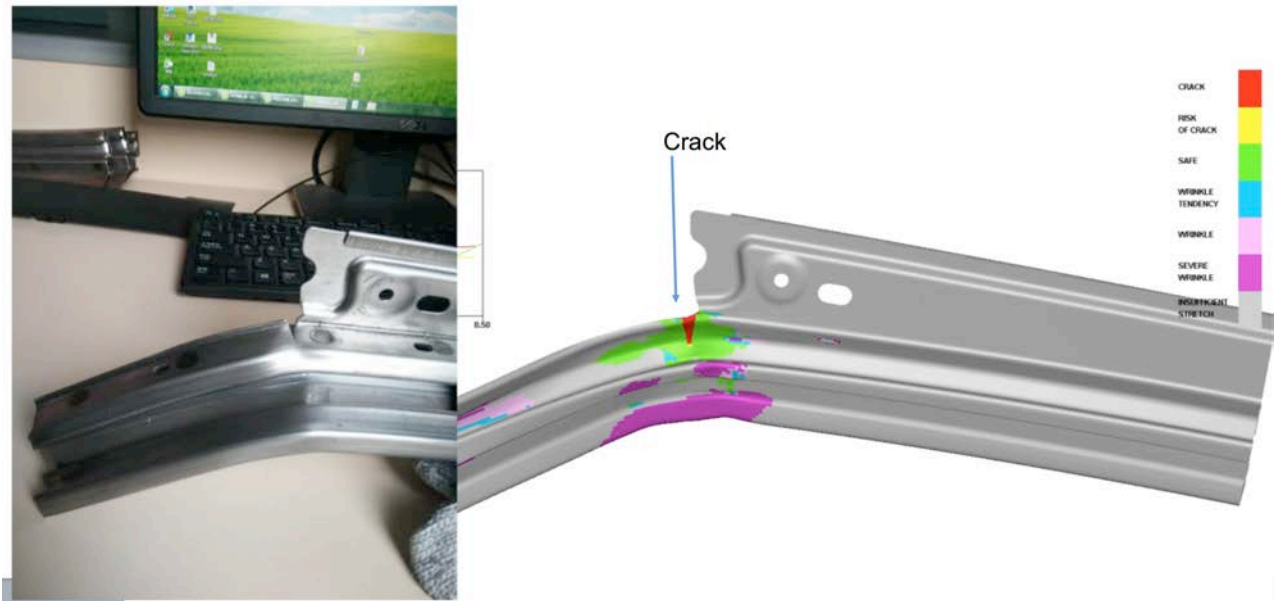
In this test, Lingyun wanted to bend the frame as shown below.



It was an extremely challenging part with varied cross-sections along with rolling, flanging, punching, trimming and bending involved in the molding process. Wang assisted them to set-up the simulation and evaluate the results. Hailed as the leader in accuracy, the simulations yielded extremely accurate correlation results when compared to the final part. The actual result compared with the early simulation result was within 1%.



Then other details were evaluated, as shown in the pictures.



The fine details including wrinkling and the safe zone were captured with great accuracy and Mr. Sun from Lingyun manufacturing was very pleased.