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## Data-based tool try out in sheet metal forming

In sheet metal forming, the development cost and complexity of the tool try out is a major challenge. Data-based tool try out focuses on two main areas: the interpretation of die spotting images as indicators of tool quality, and the generation of tool designs based on the parts to be formed. In addition to the part geometry, various physical conditions are taken into account. Limited data availability increases the complexity of the task. As a solution, generative models such as CVAE or cGAN will be included, which can be pre-trained with simulations. For the analysis of the die spotting images, computer vision techniques like CNNs are applied to evaluate the relationship between the images and the excess material.

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