

Computer aided design of forging dies

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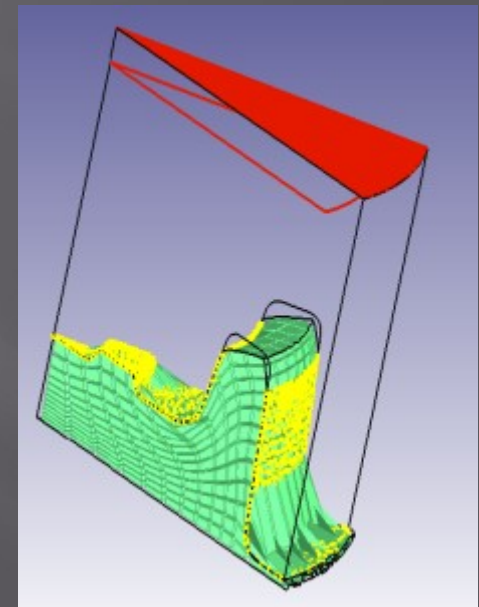
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Forging is a manufacturing process to form metallic materials into desired shape by hammering or pressing. Forming is used when producing various items including components of cars, electric appliance, components of machines, electronic parts. Mass production can be realized by forging but complex shaped dies, which are made of harder materials than workpiece, must be manufactured. It is time consuming and expensive to make dies so it is important to examine the shape of die before real trial by computer simulation.

In this class, forging process of metallic materials will be reproduced by computer simulation. The defect in the workpiece will be investigated. Revised dies will be discussed and forging dies will be designed by trial and error using simulations.



Example of simulation