

Mikrostrukturelle und mechanische Untersuchung von Aluminiumblechen mit gradierten Eigenschaften

Microstructural and mechanical investigation of aluminum sheet with graded properties



- Masterthesis**
- Bachelorthesis**
- ADP**
- ARP**

- Theoretisch**
- Experimentell**
- Konstruktiv**
- Numerisch**

- HiWi-Stelle**
- WiMi-Stelle**

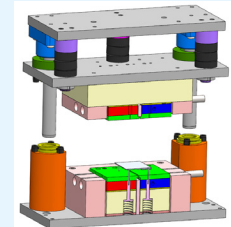
Hot stamping is a promising process allowing to manufacture aluminum alloy parts having functionally graded properties. The local modification of the strength and elongation properties is achieved by using different cooling conditions during the forming and quenching process inside the tools. The temperature gradient from hot to cold tool causes the formation of a transition zone on the hot-stamped product.

The purpose of the current research is the investigation of mechanical property change throughout the blank.

This study will contain the following work packages that can be discussed in a personal meeting:

- Determination of optimum process parameters to obtain desired mechanical properties.
- Microstructural and mechanical investigation of Al-alloy parts having graded properties by different techniques.

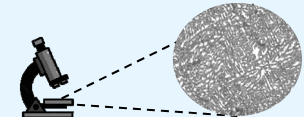
**English is required for this position*



Experimental set-up



Mechanical characterization



Microstructural examination

Bearbeitung immediately

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Voraussetzungen none

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