

Title (en)
PROCESS FOR TARGETED HEAT TREATMENT OF INDIVIDUAL COMPONENT ZONES

Title (de)
VERFAHREN ZUR GEZIELTEN BAUTEILZONENINDIVIDUELLEN WÄRMEBEHANDLUNG

Title (fr)
PROCÉDÉ DE TRAITEMENT THERMIQUE CIBLÉ SUR LES ZONES D'UNE PIÈCE

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Application
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Abstract (en)
[origin: WO2017144217A1] The invention relates to a method and a device for the heat treatment of a steel component directed specifically at individual zones of the component. In one or more first regions of the steel component, a primarily austenitic microstructure can be produced from which a mainly martensitic microstructure can be brought about by means of a quenching process. In one or more second regions of the steel component, a mainly ferritic-pearlitic microstructure can be brought about. In one or more third regions, a mainly bainitic microstructure can be brought about. For this purpose, the steel component is first heated to a temperature below the AC3 temperature in a first furnace, and the steel component is then transferred into a treatment station, wherein the steel component can be cooled during the transfer process. In the following treatment station, the one or more first regions and the one or more third regions of the steel component are brought to a temperature above the austenitization temperature within a dwell time t151. Then, only the one or more third regions are cooled to a cooling stop temperature 9S. The steel component is then transferred into a second furnace, the temperature of which lies below the AC3 temperature. There, the temperatures of the three different regions approximate one another.

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