

Title (en)
GAS QUENCHING METHOD

Title (de)
VERFAHREN ZUM ABSCHRECKEN VON GAS

Title (fr)
PROCÉDÉ DE TREMPÉ GAZEUSE

Publication
EP 3375894 A1 20180919 (EN)

Application
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Abstract (en)
A gas quenching method of the present invention includes a first stage (t1 to t2) at which a workpiece is subjected to a rapid cooling by forcibly circulating a cooling gas, a second stage (t2 to t3) at which the circulation of the cooling gas is stopped and pressure is reduced inside the furnace to conduct heat insulation, and a third stage (as from t3) at which the workpiece is cooled again by the cooling gas. At the second stage, the workpiece is maintained at an intermediate temperature that is higher than martensite transformation start temperature, and, during this, temperature throughout the workpiece is made uniform. Therefore, it is possible to achieve a uniform quenching and suppress distortion caused by difference of the cooling speed.

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