

Title (en)

Process and apparatus for producing sintered parts

Title (de)

Verfahren und Vorrichtung zur Herstellung von Sinterteilen

Title (fr)

Procédé et appareil pour la fabrication des pièces frittées

Publication

EP 0747154 B1 20010214 (DE)

Application

EP 96250118 A 19960604

Priority

DE 19521941 A 19950607

Abstract (en)

[origin: US5628045A] A process for producing sintered parts with high wear resistance and good dynamic strength properties from formed bodies, which have been pressed as green parts from a completely-alloyed air-hardened heat-treatment steel powder with a carbon content of at least 0.3% added in the form of graphite. The process includes sintering the parts under protective gas at a sintering temperature of at least 1000 DEG C. and subsequent cooling. The sintered parts are cooled immediately after sintering from the sintering temperature to a first holding temperature in the range of Ar3 to a maximum of 150 DEG C. above Ar3 and are held for a first holding period of 5 to 25 minutes at this temperature (austenitizing phase). Immediately after this, the sintered parts are cooled in accelerated fashion to a second holding temperature by convective gas cooling and are held at this temperature for a second holding period. The second holding temperature lies in a temperature range in which a bainitic structure forms and is of such a length that a bainitic structure portion of at least 50% is established. The sintered parts are then cooled to room temperature.

IPC 1-7

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IPC 8 full level

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