

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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