

Heat Treatment of Nigerian Forged Milling Module



Overview

The paper presents the results of modeling and testing of a heavy weight part made of Cr-Mo, which was V-modified ultra-high strength steel grade AISI 4140, processed through a novel open-die forging program and two alternative routes of two-stage heat treatment cycles designed. The paper presents the results of modeling and testing of a heavy weight part made of Cr-Mo, which was V-modified ultra-high strength steel grade AISI 4140, processed through a novel open-die forging program and two alternative routes of two-stage heat treatment cycles designed. Heat treatment for forgings is a critical process used to improve strength, hardness, and long-term performance of forged components. While forging defines the shape and grain flow, heat treatment refines the internal structure through controlled heating and cooling cycles. By carefully controlling temperature, heating duration, and cooling rates, manufacturers can improve hardness, toughness, strength, and resistance to wear. In this study, the effect of heat treatment (annealing, normalising, hardening, and tempering) on the. Heat treatment at 900 °C for four hours was done and six specimens of each were then quenched in water.



Article Content

Case Study: High-Efficiency Milling Solutions For Power Module Heat ...

Technical Requirements for Milling Tools in the Industry To meet the demands of power module heat sink manufacturing, the milling tool must satisfy the following core performance criteria:

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

