

Systems analysis of process control capabilities for forging accuracy

Shibakov V., Pankratov D., Khairullin R.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2017 Trans Tech Publications, Switzerland. The significance matrix for the parameters of “material-billet-equipment-process-toolpersonnel- environment” system was compiled using the systems approach to the assurance of forging dimensional accuracy, and the expert analysis revealed the most significant process parameters that affect the accuracy. The application of simulation modeling helped to establish the dependence of forging force on the dimensions of an incoming billet. The paper suggests a solution to increase the accuracy of the sized forgings.

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Keywords

Forging accuracy, Hot forging, Machining elimination, Sizing

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