

TU DORTMUND

CASE STUDIES

Project 2: BTA Deep Hole Drilling

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1 Introduction

BTA deep hole drilling is a machining process that differs from traditional boring processes in some ways. BTA stands for Boring and Trepanning Association and describes drilling processes in which the hole depth to diameter ratio is particularly large. BTA drilling machines can create holes of a diameter of 7mm up to 700 mm and can achieve a depth to diameter ratio of up to 400:1. Because the holes are XXXX the boring head needs

2 Methods

2.1 Power Spectrum

2.2 ACF (Auto-Correlation-Function)

2.3 Absolute Area under the ACF

2.4 Kolmogorow-Smirnow-Test

3 Data Analysis

3.1 Variable exploration

3.2 Predictions

3.3 Avoid False Positives

4 Summary and Discussion

Bibliography