



MASTER THESIS - ADVANCED PROCESS CONTROL IN SECO PRODUCTION

BACKGROUND AND PURPOSE

The manufacturing processes of metal cutting tools within Seco are very complex, typically depending on a wide range of parameters evolving over time. Currently, it's very difficult or even virtually impossible to obtain an overview of these parameters as well as control on how they influence the final product. With the help of, e.g., multivariate data-analysis we strive to condense and visualize the information provided by the production parameters to comprehend, predict and follow the outcome of different production steps.

WORK DESCRIPTION

In this project we will investigate the conditions for advanced analysis of the production parameters related to coatings and surface treatment, preferably in real-time, to increase our understanding of the manufacturing processes as well as to achieve a more reliable and higher quality production. The study will focus on real-time process data from either, physical- or chemical vapor deposition (PVD or CVD) or any of applied post-treatment processes applied in the production of Seco cutting tools. Questions that you may want to answer during the project with a focus on the selected production process are:

- Which data collection/sensors are best suited for the task,
- Which data analysis technology/model best predict the selected process.

YOUR PROFILE

Master students in, e.g., production technology, metrology, industrial sensors, logistic and quality development, AI, materials physics or similar are suitable for this position. Before we begin the work, we will discuss its details to best meet your background and needs.

EXTENT, CONTACT AND APPLICATION

The work consists of 30 credits and may start during 2020/21. The position is placed in Fagersta, Sweden.

For more information or to submit your application, please contact:

Mats Johansson-Jöesaar, phone +46 70 3142190

mats.johansson-joesaar@secotools.com

At Seco Tools we develop and offer advanced products and solutions that simplify cutting processing. We work with our customers to identify and implement the best solution for their needs. Common values unite Seco Tools' nearly 4,300 employees in over 75 countries: Passion for our customers, Family Spirit and Personal Commitment.

SECO TOOLS AB
BJÖRNBACKSVÄGEN 10
737 82 FAGERSTA, SWEDEN
TEL. +46 223 400 00
WWW.SECOTOOLS.COM