



LIMS with SAP and
EiQMI for the analysis
of refining material,
precious metal and
alloy samples

Success Story

The Company

C.HAFNER stands for more than 165 years for innovative precious metal products and technologies. Precious metals come predominantly from their own recycling site at Pforzheim. These materials are the basis for producing dental alloys, solders and solder pastes, precious metal semi-finished products for jewellery and watch industries, components for medical and other electronic devices, as well as commercial gold bars.

The Laboratories

C.HAFNER's competence and high quality requirements in analysing precious metals and alloys are the reason for the accreditation according to ISO 17025 since 2008 for their chemical laboratories.

“Automatic recording of results and supplementary information from the analysis devices by SAP fulfils the requirements of DIN EN ISO/IEC 17025 and ensures evidence for the DAkkS (German Accreditation Body) with little effort.”

Ursula Steinmetz, Head of Laboratories,
C.HAFNER GmbH & Co. KG

The central point for controlling the material properties and the material flow at C.HAFNER are the physical and chemical laboratories. Their main duty is:

- Determining the fineness of precious metals in jewellery alloys
- Determining the precious metal content in material for recycling
- Exclusion of acceptance of unwanted materials from mines and of materials containing impurities that hinder the recycling process

For getting results much faster to offer suppliers good selling prices for their precious metals the laboratory set the target to accelerate their processing time.

The LIMS

The LIMS at C.HAFNER went live in 2015. It is based on SAP ERP and EiQMI.

Planning activities are operated by SAP ERP system where the entire logistic processes are implemented because of the evidence of commercial data. This gives the safety to keep the data available for decades.

The operative part of the LIMS is the EiQMI. The lab workflow with all permanent and temporary data of analysis and machine settings is documented by LIMS. All process steps are supported by barcode readers to avoid mistakes at the transfer of data and to get a fast input to the computer. So the laboratory became paperless. All relevant commercial data and test results are transferred to the SAP system for documentation.

The Workflow

A core requirement of the project was to determine exactly the precious metal contents and the composition for every recycling order and to

document the results. There are more than 10 alternative paths for the analysis of a sample.

EiQMI lets these paths come to reality. EiQMI gives recommendations to the technician which way would be best and gives instructions how and what to do. Every step and decision is automatically documented to trace the way to the result.

The Automation

EiQMI helps the laboratory to reduce processing times since it relieves the employees of a lot of manual recording work at the laboratory equipment. For example it supports them in registration of samples in the device by building up the list for the analysis device. The lists are fed into the device, manual entry is thus largely unnecessary.