

## Intelligent Process Models

Intelligent process models ensure highest reproducibility of quality and production related parameters and lead to a fully automated plant operation.

# INTELLIGENT PROCESS MODELS

Ensure highest reproducibility of quality

## CHALLENGE

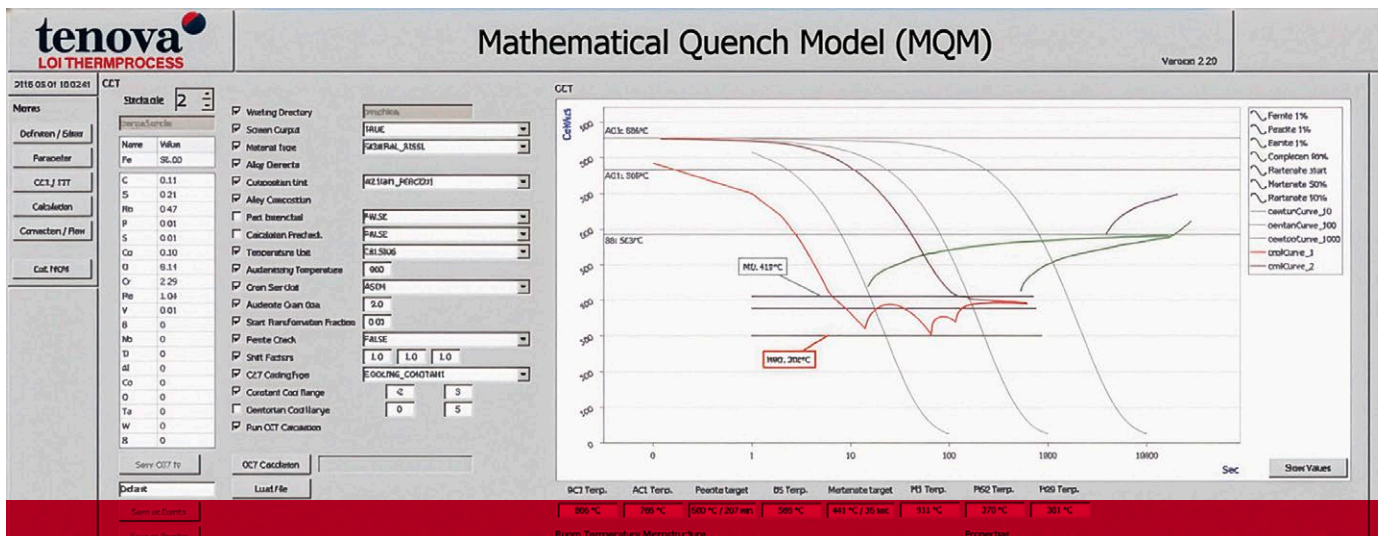
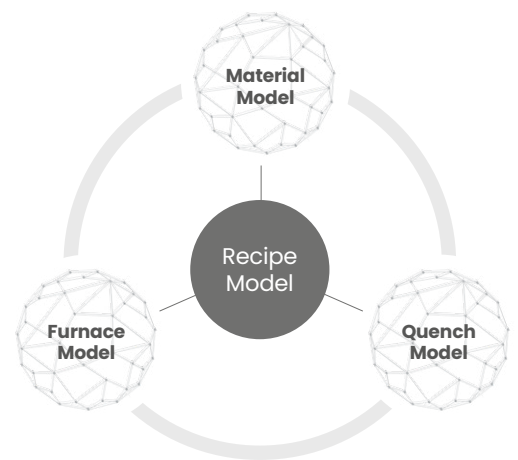
At many manual or semi-automatic plants, the heat treatment of various products is still dependent on the qualifications and experience of individual employees. The development of "recipes" (plant parameters) for new products and the preliminary and start-up phase after product changes have resulted to date in considerable waste of time and material as a result of the tests which are required. Individual theoretical models can offer considerable support in the determination of process parameters. However, the conversion of process parameters into plant parameters is still a matter of "trial and error".

## LOI'S DIGITAL SOLUTION

LOI has developed intelligent process models for several applications, such as the heat treatment of steel strip or hot formed materials, that renders superfluous all the time-consuming, resource-intensive tests previously required in the preliminary and start-up phase following product changes. The plant parameters are calculated in a targeted way to ensure that the specifications required are immediately met. The intelligent models model the entire heat treatment process, including cooling and drying processes. In addition, all movements of materials and/or equipment are tracked, and, for example, furnace temperature and materials transport speed are constantly recalculated leading to a fully automatic plant operation.

## YOUR ADVANTAGES

- Fast start-up of new plants
- Quick and easy development of recipes for new products
- Highest reproducibility of quality and production related parameters
- Minimized use of resources, time requirements and material
- Plant is not operated in the traditional sense but only monitored



**Sustainable solutions for a green transition of metals**



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