

# Oil Bath Optimization

A Service provided by AICHELIN Group



**CONVERSION AND MODERNIZATION**  
Process Safety + Performance Optimization

## WHY YOU TOO SHOULD CONSIDER AN OPTIMIZATION OF YOUR OIL BATH

The potential that comes with an **improvement of oil baths** is often underestimated. But many factors with an impact on **quality of parts** and **plant safety** come into play here.

Irregular flow conditions in the oil bath can lead to different results of the hardness value within a batch. The **water content** in the quenching oil has an impact on the result of the hardened parts. If the water content is too high, this increases the **risk of foaming**. The risk of fire increases. Contaminations in the oil can cause sediments on the parts and irregularities during the hardening process, which **impairs the quality** of the parts and leads to **higher scrap quantities**.

## THE AICHELIN SOLUTION: INDIVIDUAL OPTIMIZATION TAILORED TO YOUR NEEDS

We are offering a suitable solution for each of these problems, tailored to your specific needs.

- To measure the water content, sensors are installed which constantly measure the water content in the oil. This helps to detect potential problems early on. Unlike with random sample measurements, deviations can be immediately detected thanks to the sensors, and counter measures can be implemented quickly.
- Taking measurements in the oil bath allows us to identify further potential for improvement and to make individual adjustments. The flow velocity or the circulation of the oil can be improved this way.
- Installing filters can extend the lifetime of the oil significantly. This saves costs, provides consistent quality of the oil, and contributes sustainably to the protection of our environment. The installation of a filter enables impurities such as particles, water, or sediments to be removed from the oil, and to recycle clean oil back in.

## YOUR ADVANTAGES

- Reproducible quality of the produced parts
- Cost savings thanks to longer periods between changes of the quenching oil
- Improved plant safety, adherence to the regulations of the Industrial Safety Regulation
- Service available for all types of oil bath

## YOUR RELIABLE PARTNER

- High flexibility when it comes to your desires and needs
- Play it safe, with your renowned heat treatment partner.
- Long-term experience in all things heat treatment from a strong group of companies.