

# Filtration Group application example – Factory Equipment

## Centralized cooling lubricant treatment / AF 179 S



Factory Equipment

### Initial situation

The **MAHLE GmbH** in Rottweil is a manufacturer of pistons for commercial vehicles and automobiles. The **centralized cooling lubricant treatment** for **40 machine tools** should be automated.

The cooling lubricant which is used for **production of truck pistons** requires a **fine filtration under high pressure sphere**. The pre-filtration is proceeded with the help of a modified FAUDI filtration plant from the company Mayfran. In doing so, the cooling lubricant has to be free from steel particles.

### Solution statement

- Application of a combination of four automatic backflush filter of the type **AF 179 S** for the fine filtration of low viscosity fluids
- The fine filtration is set behind the gravity separator
- The facility is a **self-cleaning system** with **durable filter elements** made from metal in **highest Filtration Group-Quality**
- The pulse-cleaning of the automatic filter is done **without interruption of the filter- and production process**



### Customer value

- Highest compatibility with existing systems and **flexible integration into the production process**
- No waste of filter material due to the **self cleaning functionality of the automatic filter**
- **Long durability of the automatic filter elements (more than 4 years)** by using premium materials
- Increased filter life and **reduced maintenance intervals** over the lifecycle of the whole production plant
- **Increased filtration rate**



### Challenge

The **cooling lubricant consists of 8% oil**. In addition to that, the self-contained supply of band filter should be completely replaced by the new centralized cooling lubricant treatment system.

**Downstream** to the FAUDI band filter plant there is an **AF 179** that **ensures a filtration rate from < 40 µm**. Thanks to the omission of process interruptions and the **significantly longer maintenance intervals**, the new system works **highly cost-efficient**.

#### Technical Data

- Flow rate: 9.000 l/min
- Operating pressure: 3 - 5 bar
- Viscosity: 2 mm<sup>2</sup>/s
- Temperature: 20 - 40°C

