

Filtration Group application example – Power Plants & Energy

Lubrication oil treatment – Turbine balancing laboratory



Power Plants &
Energy

Initial situation

In Mülheim an der Ruhr / Germany this particular customer is planning, designing and producing complete **turbine strings for conventional power plants**. These big rotary machine parts are inspected particularly and **need to pass different test benches**. The customer has its own laboratory for the implementation of the turbine string balancing. Here the different rotary parts are balanced. A low vibration behavior is the basis for a long lifetime of the rotary machines and a reliable operation of the power plant.



Challenge

During the balancing process the **turbine oil is used as lubrication oil**. In this process leaks occur on different positions of the bearing. During normal operation this leaks disappear after the balancing of the turbine string. The **oil from the leaks is contaminated with particles and water** and needs to be collected in a 2.000 liter drain tray. This waste oil tank had to be discharged approx. 10 times per year. **To achieve an optimized cost situation** the oil needs to be treated and reused.



Solution statement

From the Hamburg plant an OTS 16 was chosen to reduce the water content significantly by **coalescer technology**. To reduce also the particles in the oil a hydraulic filter from the plant in Öhringen was added to the system.

The installed **Pi 150** with a **Premium Select element guarantees an absolute retention rate of 10µm**. The customers' technicians reported best results directly after the first treatment of the waste oil. The environmental department gave **positive feedback** concerning our system. Thanks to the **significant reduction of the costs** for the oil discharge, the involved people at the company where nominated for an improvement award.

Customer value

Since the installation of the Filtration Group OTS 16, the test bench is running without any problems and the oil discharge is no longer necessary.

- **Reduction of the time- and financial wise burden** through oil discharge
- Further cost savings thanks to **multiple use of the oil**
- **Saving of valuable resources and the environment**



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