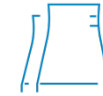


# Filtration Group application example – Power Plants & Energy

## 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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