## Shaft Sealing Systems Endurance Test Bench - Modifications

University of Stuttgart Institute of Machine Components

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Auxiliary chamber for shaft seal double arrangments



Cross-section of a shaft seal double arrangment



Dehumidification chamber for low temperature applications

## **Description:**

The endurance test benches for rotary shaft seals can be modified for special applications. The use of auxiliary chambers, allows for example radial shaft seals to be tested in double and multiple arrangements. Just like the test chambers of the test bench, the auxiliary chambers can be flooded with oil, tempered and pressurized. The oil sump temperature and the pressure in the auxiliary chamber are monitored by sensors and recorded in a protocol. Auxiliary chambers and other test bench extensions are designed and constructed for specific applications and manufactured with short reaction times in the institute's own workshop.

## **Available Test Methods:**

- Pumping rate test according to the two-chamber method
- Auxiliary chamber with reduced volume for high temperature gradients
- Auxiliary chamber for the simulation of vacuum applications
- Auxiliary chamber for the specific investigation of shaft seal double and multiple arrangements
- Condensation chamber for the investigation of vaporised leakage
- Dehumidification chamber for low temperature applications
- Auxiliary chamber for the application of dirt, dirty fluids or particle contamination
- Auxiliary chamber for the application of salt or lye spray