

TRANSFORMER TANK FATIGUE TEST UNIT

Trustworthy leakage & endurance test
technology for transformer tanks



- Mobile option for time saving
- Cycle adjustment due to test parameters
- Easy tracking of test report data via SCADA
- Re-work risk prevention via realistic simulation
- On-time tank welding quality check opportunity

Innovation Story

Until recent years leakage tests were carried out after finishing welding operations of transformer tanks and corrugated walls. However especially for hermetical transformers, experiences showed that these transformers may get damaged due to temperature and pressure change under working conditions after deliveries. In conclusion according to EN50464-4 standard and customer requests, nowadays endurance test of tanks are an obligation for hermetical transformer production.

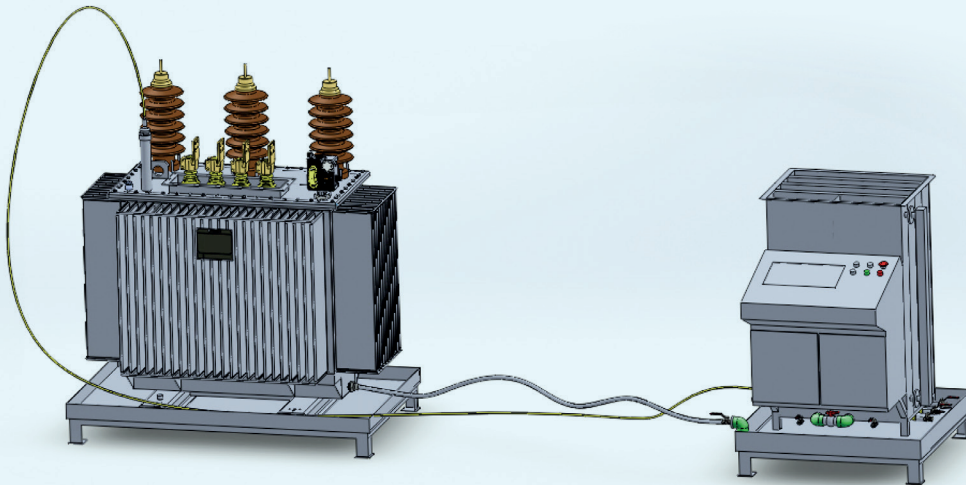
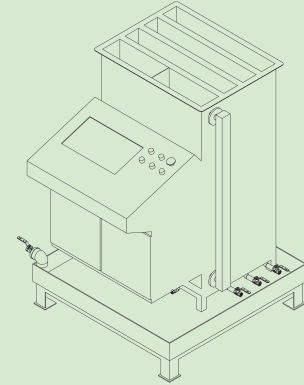


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Components of Test Unit

- Electrical Sensors
- SCADA Software
- PLC System
- Computer
- Driver
- Controller Set
- Power Supply
- Leakage Vessel
- Oil Storage Tank
- Valve Line Components



Working Principle

Assumed maximum and minimum working conditions of the transformer related to the temperature, inside volume/pressure and lastly test cycle time is determined by manufacturer plant design department. Maximum volume which is going to be added to the transformer tank or removed from the tank is defined to the test unit via PLC system of the device. As a next step, the oil is either added to the transformer tank or removed from the tank via fatigue

test unit. Pressure and volume is timely controlled by pressure transmitters and flowmeters on the test unit during test run. Beside these functions after oil filling operation at any temperature, the test unit can also be used for calculation of maximum oil capacity of the tank and oil needed to be added at 25°C according to EN 50464-4 or removed from tank which is called hermetization process.

