TEST STAND FOR HYDRAULIC VALVES

Application Areas

- End-of-line testing
- Development test bench
- Service test bench

Test Components

- Hydraulic valves (directional valves, proportional valves, pressure relief valves, flow control valves, etc.)

Automated Test Procedures

- Pressure tests
- Leakage tests
- Endurance tests
- Performance tests
- Pressure/flow characteristic curve testing
- Flow rate adjustments

<< TECHNICAL DATA

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Hydraulic Functions

- High-pressure and low-pressure hydraulic circuits
- Automated oil return from drip tray in test cell
- Oil drip tray beneath the entire test bench
- Quick-release coupling for hydraulic interfaces during high-pressure testing
- Oil filtration in test circuits
- Conditioning (temperature control and filtration)
- Automated monitoring of oil tank level, filter condition, oil temperature
- Optional: powered test door

Test Setup

- Suitable for testing hydraulic valves
- Safety enclosure for the test cell
- Optional crane loading capability

Safety

// Testing takes place inside a test cell, providing protection against leakage of high-pressure media.

// The test cell is monitored by automation.

// Adjustments on the test specimen during pump operation are only possible under safe pressure conditions according to hazard analysis.

// The test bench complies with the European Machinery Directive and applicable standards.

// Complete system with CE conformity.

TECHNICAL DATA

Medium:
- Shell Tellus 46
- Oil temperature: 31 ± 3 °C

Hydraulic Data:
- Max. pressure high-pressure pump: 350 bar
- Flow rate: 0–50 l/min
- Pressure filter: 10 µm
- Return filter: 10 µm

Measurement Technology:
- Pressure measurement: 0–350 bar ±0.5% FS
- High-pressure flow measurement: 1–50 l/min ±0.5% of reading

Electrical Supply:
- Installed power: 40 kW
- 3 x 400 V AC, 50 Hz

Dimensions and Weight
- Approx. 3400 x 2000 x 2500 mm (L x W x H)
- Approx. 4 t

Optional Features

- Oil-air cooling
- Acoustic enclosure
- Oil cleanliness testing (particle sensor)
- Testing according to ISO 10770
- Higher pressures
- Higher flow rates
- Automated clamping systems

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