Endurance Test Bench for Hydraulic Rod Seals
IMA-TechSheet #101100 V3

Description:
- Multi-chamber test bench for the investigation of hydraulic rod seals
- Modular design with up to 5 hydraulic rods and 10 seals
- Short-term tests and endurance tests with individual operating conditions
- Analysis of...
  - Friction
  - Leakage
  - Pumping rate
  - Wear
  - Pressure between sealing rings
- Use of different sealing rings and sealing systems with or without wipers
- Use of different hydraulic oils (mineral oil, ester, water-glycol, silicone oil)
- Use of hydraulic rods with different coatings, surface roughness and according various specifications
- Adjustable temperatures of the rod and oil

Technical Data:
- Rod speed: 0 ... 1000 mm/s
- Operating pressure: 0 ... 450 bar
- Rod diameter: Ø 50 mm
- Stroke length: 0 ... 1000 mm
- Temperature: 15 ... 100 °C
- Hydraulic rods: as required
- Hydraulic fluid: as required

Available Test Methods:
- Analysis of the influence of a rod’s surface roughness on leakage, friction and wear
- Comparison of leakage, friction and wear of different sealing rings at certain operating conditions
- Compatibility tests for different seal-fluid combinations at high temperatures and practical relevant operating conditions