

Hydraulic Pressure Comparison Test Pump LR-Cal LSP-4000

- Simple hydraulic test pressure generation on site, in the laboratory or in the workshop
- For testing, adjustment and calibration of all types of pressure measuring instruments
- Hydraulic pressure generation up to 4,000 bar (58,000 psi)
- Precisely adjustable dual-area spindle pump for filling, pressure generation and fine adjustment of pressure
- Compact dimensions, low weight

The **LR-Cal LSP-4000** serves as pressure generator for the testing, adjustment and calibration of mechanical and electronic pressure measuring instruments through comparative measurements. The device can be used in the laboratory or workshop, or on site at the measuring point.

By connecting the test item and a sufficiently accurate reference pressure measuring instrument to the test pump, the same pressure will act on both measuring instruments. By comparison of the two measured values at any given pressure value, a check of the accuracy and/or adjustment of the pressure measuring instrument under test can be carried out.



The integrated dual-area spindle pump with switching valve enables rapid filling of the test system and smooth pressure generation.

At the same time, the precisely adjustable spindle pump also serves for fine pressure adjustment. A control schematic for pressure generation on the instrument base facilitates quick and easy operation.

The two test connections are equipped with 1/2" BSP female loose union connections with double ended metal cone. Two threaded adapters mounted on M16 x 1.5 male thread are included in the scope of delivery. Further thread adapters are available for the calibration of instruments with different connection threads.

Technical data:

Pressure range:	0...4,000 bar
Pressure transmission medium:	Hydraulic fluid based on VG22 mineral oil (optional: sebacate oil)
Reservoir:	170 cm ³
Test connections (2):	2 x 1/2" BSP female thread union nut with metal cone equipped with 2 thread adapters M16 x 1.5 as standard
Distance between test connections:	290 mm
Low-pressure piston diameter:	31.2 mm
High-pressure piston diameter:	6.35 mm
Displacement:	approx. 5 cm ³
Wetted parts:	Austenitic stainless steel, high-tensile brass, nitrile rubber
Operating temperature:	0...40°C
Dimensions:	W 401 x D 397 x H 155 mm
Weight:	13.5 kg
Optional storage case:	Wood, W 664 x D 614 x H 380 mm, weight 8.5 kg
CE conformity:	97/23/EC (PS > 1,000 bar; module A, pressure accessory)

Scope of standard delivery:

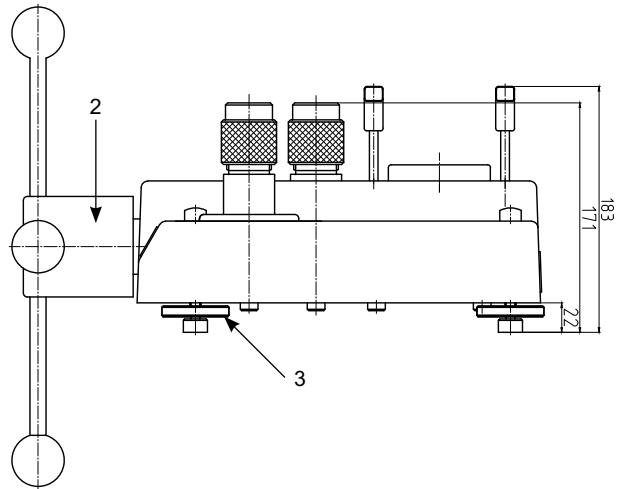
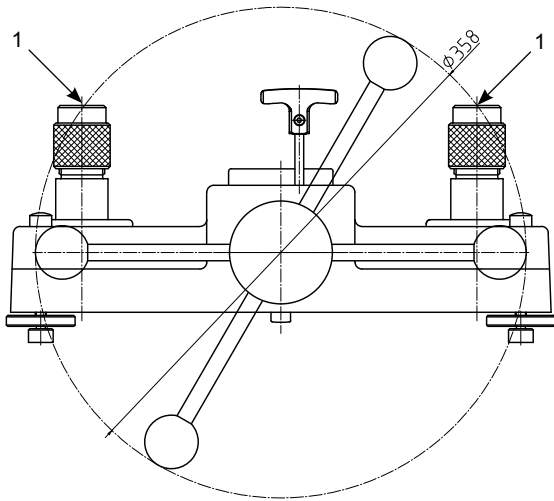
- Pressure comparator **LR-Cal LSP-4000** with dual-area spindle pump
- 2 pressure ports with 1/2" BSP female rotating swivel nuts with metal cone
- 2 adapters M16 x 1.5 male thread with sealing cone
- Mineral oil VG22 (0.5 l)
- Tool and maintenance set
- Operating manual (English/German)

LSP-4000

Pressure Comparison Pump
up to 4,000 bar / 58,000 psi

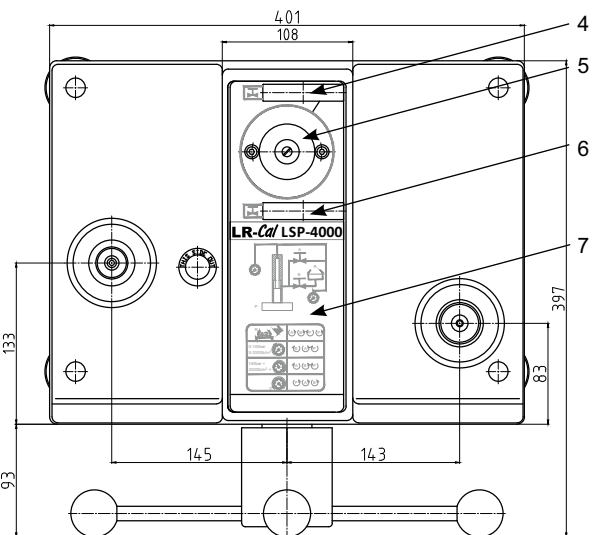
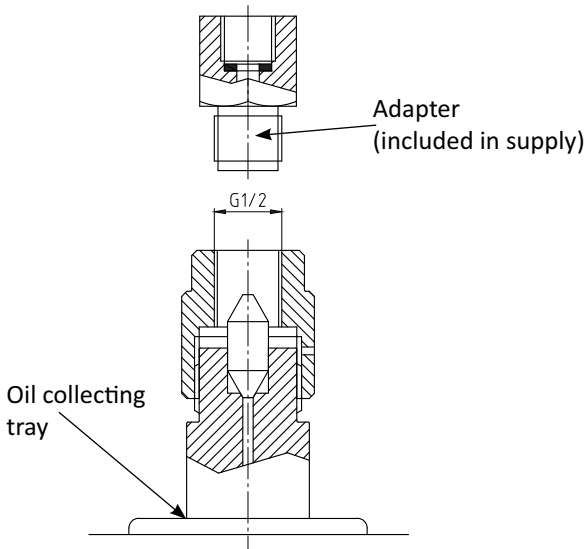


Dimensions in mm



- (1) Test connection
- (2) Dual-area spindle pump with star handle
- (3) Rotatable feet
- (4) High-pressure shut-off valve
- (5) Reservoir with sealing plug
- (6) Low-pressure shut-off valve
- (7) Pressure generation control schematic

Test connection



Optional accessories

- Adapter for test connection M20 x 1.5 male, with sealing cone, made in hardened st.st.
Order-Code: [LSP-HP-A-M20](#)
- Adapter for test connection 9/16-18 UNF male, with sealing cone, made in hardened st.st.
Order-Code: [LSP-HP-A-916](#)
- Adapter for test connection 1/2" BSP female with O-ring max. 1,600 bar, in st.st. 1.4571
Order-Code: [LSP-HP-A-G12](#)
- Storage case, wood
Order-Code: [LSP-4000-AB](#)
- Set with spare gaskets and o-rings
Order-Code: [LSP-4000-WARTUNG](#)
- Operating fluid 0.5 l (Mineral oil VG22)
Order-Code: [LSP-HP-FLUID](#)
- Operating fluid 0.5 l for version for sebacate oil
Order-Code: [SEBACATE-05](#)

Order-Codes

- **LR-Cal LSP-4000** version for mineral oil:
Order-Code: [LSP-4000-MO](#)
- **LR-Cal LSP-4000** version for sebacate oil:
Order-Code: [LSP-4000-SO](#)