LR-Cal **Pressure Comparison Pump, hydraulic**
1000 bar = 14500 psi / 1600 bar = 23200 psi

LSP 1000-BM
LSP 1600-BM

Comparison Test Pumps incl. Priming Pump LSP 1000-BM / LSP 1600-BM

Pressure Source for calibration purposes
Operating fluid: oil (or destilled water)

Pressure Comparison Test Pumps are used to generate pressures for checking, adjusting and calibrating mechanical and electronic pressure measuring instruments by comparative measurements. These pressure tests may be carried out in laboratories, workshops or on site at the measuring point.

The comparison test pumps **LSP 1000-BM** and **LSP 1600-BM** are equipped with two connections for the test specimen and the reference instrument which can be used in any order. If the instrument to be tested and a sufficiently accurate reference measuring instrument are connected to the test pump, the same pressure is applied to the two measuring instruments when the pump is operated. By comparing the two measured values at random pressure values, the accuracy can be verified or the instrument under test can be adjusted. First the pressure is set via an integrated initial (priming) pressure pump. For further pressure generation and for fine adjustment by approaching the measuring points precisely an adjustable volume with precision spindle is available. Another important feature of the **LSP 1000-BM** and **LSP 1600-BM** is the rotating spindle that only runs inside the body of the pump. This eliminates the negative effect of a bending torque on a spindle turning outside the body and offers the advantage, especially for use in the field, that the dimensions of these pumps do not change during operation due to the spindle turning. A priming pump is integrated in the basement.

Technical Data

Order-Code:		LSP-1000-BM	LSP-1600-BM
Pressure Range:		0...1000 bar / 0...14500 psi	0...1600 bar / 0...23200 psi
Medium:		oil (or destilled water)	
Pressure connections:		2 x 1/2" BSP female, rotating, with O-ring	
Distance of the pressure ports:		300 mm	
Liquid reservoir:		250 cm³	
Piston diameter:		8 mm	
Swept volume per revolution:		appr. 0.1 cm³	
Overall swept volume:		appr. 3.9 cm³	
Required moment at	250 bar 500 bar 1000 bar	2.0 Nm 4.0 Nm 8.0 Nm	2.0 Nm 4.0 Nm 8.0 Nm
Material	Cylinder Piston Tubing Back flange Sealing gaskets	brass stainless steel stainless steel 1.4404, 6 x 2 mm aluminium FKM, NBR	
Dimensions:		W 400 x D 375 x H 265 mm	
Weight:		20 kg	
Stationäre Befestigung:		standfestes Basement mit höhenverstellbaren Füßen	

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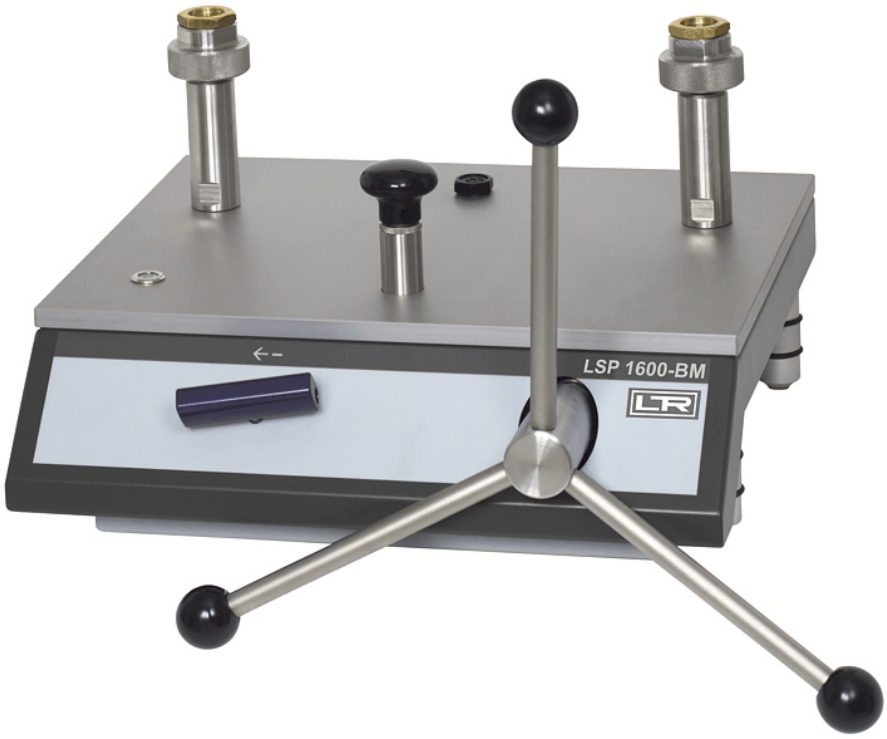
Pressure Comparison Pump, hydraulic
1000 bar = 14500 psi / 1600 bar = 23200 psi

LSP 1000-BM
LSP 1600-BM

Fig.: Type LSP 1600-BM



Optional Accessories:

Order-Code	Description
CPB5000-FLUID	Operating fluid (oil) - 1 l in plastic bottle
CPB5000-ADS	Set of adapters for pressure port (1/4" BSP, 3/8" BSP, 1/2" NPT, M20x1.5)
CPB5000-R-SET	set of O-rings for pressure ports (5 pcs. 4 x 2.2 and 5 pcs. 8 x 2)
CPB5000-WA90	Angled pressure connection 90°, for testing e.g. pressure gauges with back connection

Recommended Reference Gauges:

Accuracy	Description (details see related data sheets)	Typ
±0.025% f.s.	Electronic Pressure Calibrator LPC 300 Pressure ranges up to 1000 bar Documentating process calibrator	LPC 300
±0.05% f.s.	Precision Reference Pressure Gauge TLDMM Pressure ranges up to 2000 bar	TLDMM
±0.1% f.s.	Reference Pressure Gauge TLDMM-A01 Pressure ranges up to 2000 bar	TLDMM-A01
±0.2% f.s.	Reference Pressure Gauge TLDMM-A02 Pressure ranges up to 2000 bar	TLDMM-A02

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