Rel. 20160601

Hydraulic pressure comparison test pump
Serie LR-*Cal* LSP

- **Pressure source for calibration purposes**
- **Spindle pump and priming pump**

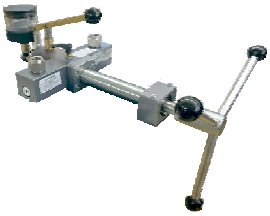
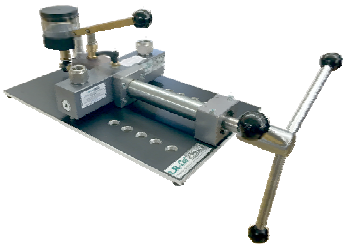
Operating fluid:
to 1,600 bar: oil
to 1,000 bar: destilled water or oil

NEW: easy operating, just one valve

Pressure comparison test pumps are used for generating pressure for the testing, adjusting and calibrating of mechanical and electronic pressure measuring instruments by means of comparison measurements. These pressure tests can be carried out in laboratories, workshops or on site at the set measuring point.

When the device under test and a reference measuring instrument with an adequate accuracy are connected to the pressure comparator, the same pressure will act on both measuring instruments after actuating the pump. A calibration or an adjustment can be carried out by comparing the two measured values at any pressure value.

In order to enable an accurate generation of the measuring points, the pressure comparison test pumps series **LR-*Cal* LSP** are provided with a fine adjustable spindle pump. In addition the series **LR-*Cal* LSP** feature a threaded spindle which only runs within the pump body. Thus there is no adverse bending moment acting on an outstanding spindle, and particularly for field use this has the advantage that the dimension of these pressure comparison pumps will not change when the spindle is turned during operation. The series **LR-*Cal* LSP** needs only little force to generate also high pressures.
For an easier operating, the **LR-*Cal* LSP** series pressure comparators are fitted with a priming pump.

Type		Execution	max. Pressure
LSP 1000		Including priming pump to simplify handling. Large fluid reservoir.	1,000 bar 14,500 psi
LSP 1200		Including priming pump to simplify handling. With rigid base plate	1,200 bar 17,400 psi
LSP 1600		ditto	1,600 bar 23,200 psi

Versions for aggressive media like SKYDROL® or brake fluids available on request (max. 1,000 bar / 1,200 bar).

LSP

Hydraulic pressure comparison test pump
1000 / 1200 / 1600 bar - 14500 / 17400 / 23200 psi

LR-*Cal*

Technical Data		LR-*Cal* LSP 1000	LR-Cal LSP 1200	LR-*Cal* LSP 1600
Pressure range	[bar]	0…1,000	0…1,200	0…1,600
	[psi]	0…14,500	0…17,400	0…23,200
Medium		Mineral Oil Destilled Water	Mineral Oil	Mineral Oil
Pressure ports		2 x 1/2" BSP female rotating incl. O-ring seal		
Fluid reservoir	[cm³]	400		
Piston diameter	[mm]	8		
Spindle stroke	[cm³]	approx. 3.9 (per turnaround: approx. 0.1)		
Needed force	[Nm]	at 250 bar: 2.0 / at 500 bar: 4.0 / at 1,000 bar: 8.0		
Materials		Stainless steel, Aluminium, Brass, Viton, NBR		
Dimensions				
distance of pressure ports	[mm]	200	200	200
lenght	[mm]	600	600	600
width	[mm]	280	300	300
height	[mm]	220	240	240
Weight	[kg]	8,5	9,9	9,9
Stationary fixing		2 drillings 6.4 mm dia.	(base plate)	(base plate)

Version for aggressive media such like SKYDROL® and brake fluids available on request: max. 1,000 bar = Order-Code: LSP-1000-S; max. 1,200 bar = Order-Code: LSP-1200-S. This versions are not suitable for mineral oil or water.

Optional Accessories

Order-Code	Description
BLINDSTOPFEN-G12-MS	Blind plugs for pressure port (1/2" BSP)
LSP-ADAPTER-SET	Set of stainless steel adapters, PN 1000 bar, 1/4" BSP, M20x1.5, 1/4" NPT, 1/2" NPT, gaskets
LSP-DOV	Spare O-rings for pressure ports (Set with 10 pcs.)
VA-M16X2-G12A	Minimess 1620 coupling to 1/2" BSP male for pressure port
MMS-M16X2-1-0	Minimess 1620 hose 1.0 m
MMS-M16X2-2-0	Minimess 1620 hose 2.0 m
MMS-M16X2-3-2	Minimess 1620 hose 3.2 m
MMS-M16X2-4-0	Minimess 1620 hose 4.0 m
MSV-G12-M16X2	Minimess 1620 adapter to 1/2" BSP female

Recommended reference pressure instruments

Type	Description	Accuracy
LR-*Cal* **LPC 300**	Documenting process calibrator	±0.025% FS
LR-*Cal* **LPC 200**	Electronic pressure calibrator	±0.025% FS
LR-*Cal* **TLDMM**	Precision digital reference gauge	±0.050% FS
LR-*Cal* **LDM 80 + KL01**	Digital test pressure gauge	±0.100% FS
LR-*Cal* **LDM 70-E25**	Digital test pressure gauge	±0.125% FS
LR-*Cal* **LDM 80**	Digital test pressure gauge	±0.200% FS
LR-*Cal* **LDM 70-K50**	Digital test pressure gauge	±0.250% FS