

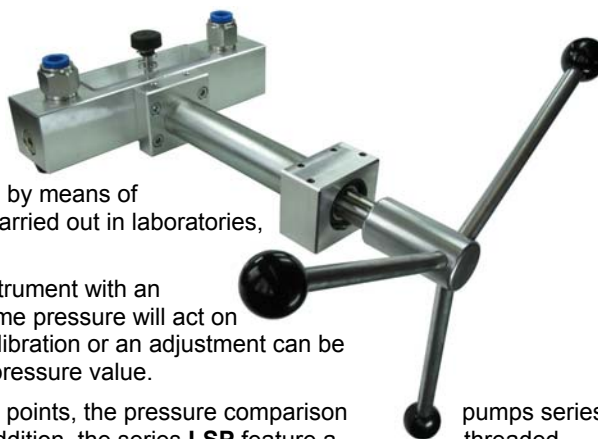
Pressure Comparison Pump Series LSP

Pressure source for calibration purposes
Operating fluid: distilled water or hydraulic oil

Pressure comparison 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 test pump, 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 pumps **LSP** are provided with a fine adjustable spindle pump. In addition, the series **LSP** feature a 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 **LSP** needs only little force to generate also high pressures.



pumps series threaded

Type	Execution	Pressure generation
LSP 1000-LC	(Picture: see above) basic execution	1000 bar / 14500 psi
LSP 1000-P	portable execution, sealed fluid reservoir	1000 bar 14500 psi
LSP 1000-K	portable execution with sealed fluid reservoir mounted in rigid alu case Weight appr. 14 kgs Case: 44 x 43 x 28 cm	1000 bar 14500 psi
LSP 1200-DL	high end execution with sealed fluid reservoir with base plate (with drillings for optional adapters) Pressure up to 1200 bar (17 400 psi)	1200 bar 17400 psi
LSP 1600-DL	ditto, but including two valve packages LSP-VENT for a more easy venting (bleeding) of the calibration circuit. Up to 1600 bar.	1600 bar 23 200 psi

The gauges and adapters, shown on above pictures, are not included in standard supply.
Versions for aggressive media like SKYDROL® or brake fluids also available (Type ..."-S")



Technical Data		LSP-1000-LC	LSP-1000-P / -K	LSP-1200-DL	LSP-1600-DL
Pressure generation	[bar]	0 ... 1000		0 ... 1200	0 ... 1600
Medium		hydraulic oil or distilled water			
Pressure ports		2 x 1/2" BSP female, rotating, with gaskets			
Fluid reservoir	[cm ²]	112	56	112	112
Piston diameter	[mm]	8			
Spindle stroke	[cm ³]	appr. 3.9 (per turnaround appr. 0.1)			
Needed force	[Nm]	at 250 bar: 2.0 • at 500 bar: 4.0 • at 1000 bar: 8.0			
Materials:		stainless steel, aluminium, brass, Viton and NBR			
Dimensions	distance of [mm] pressure ports	200	115	200	200
	length [mm]	420	420 (case: 440)	430	430
	width [mm]	280	195 (case: 430)	300	330
	height [mm]	103	103 (case: 280)	115	115
Weight	[kg]	6.3	5.6 (-K: 14)	8.5	8.7
stationary fixing (except LSP-....-DL)		two drillings in front flange (diameter 6.4 mm)			

Versions for aggressive media like SKYDROL® or brake fluids also available (Type ..."-S")

Optional Accessories:

Valve package LSP-VENT (standard at LSP-1600-DL) for a very easy bleeding of LSP comparison pumps. The valve package is to be mounted at the LSP pressure pump below the pressure port(s), replacing the blind plug(s). If both, reference and device under test, have a large volume, the usage of two valve packages LSP-VENT is recommended for a very easy venting of the calibration circuit.



Priming (filling) tool BV-DL to pre-fill quick and easy with the operating fluid of pressure comparison pumps, recommended for test items with large volume, incl. vacuum handpump.

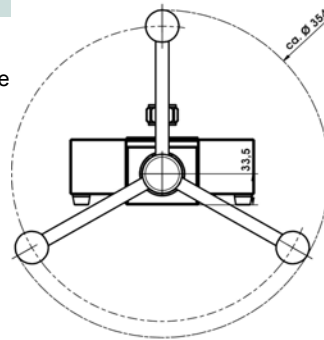


More accessories:

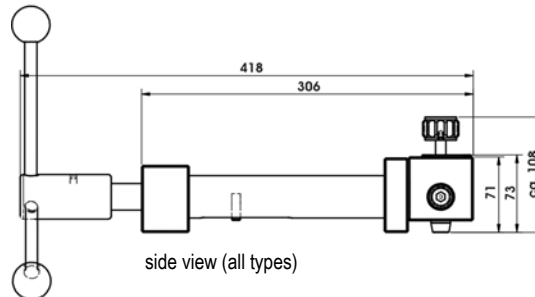
- blind plugs 1/2" BSP
- thread adapter sets BSP, NPT and metric
- set of spare O-ring seals
- hand suction pump HAP 02 for suction of operating fluid
- simple tool to fill test item and/or reference

Recommended reference pressure gauges:

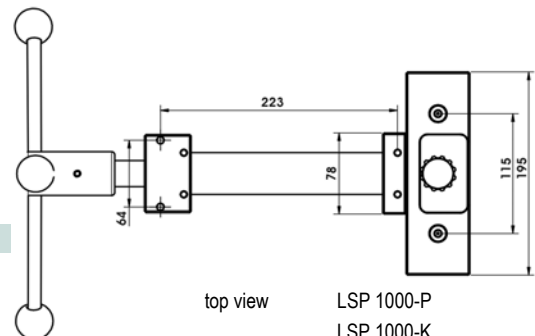
- electr. pressure calibrator **LPC 300** ±0.025%
- digital reference manometer **TLDMM** ±0.05%
- digital test pressure gauge **TLDMM-A** ±0.1/0.2%



Spindle (all types)

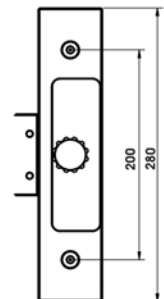


side view (all types)



top view

LSP 1000-P
LSP 1000-K



back flange
all other types



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