

Air driven hydraulic pumps type LP

These hydraulic pumps are reciprocating, valve controlled plunger pumps. They are basically oscillating pneumatic/hydraulic pressure intensifiers which are available in three sizes. These pumps stop automatically when the opposing forces on the pneumatic side of the piston are in equilibrium with the forces on the hydraulic side. Likewise the pumps will start when the forces are unequal. This force equivalent also determines the cycle frequency. The hydraulic pumps type LP are available in various versions e.g. pump only, hydraulic power pack with tank or as turn-key power pack with the required directional valves directly mounted. These pumps are commonly used in hazardous areas where electric motor drive pumps may cause fire or explosion such as in dye works, mining, pyrotechnic industry, petroleum refineries etc. These pumps also perform well in laboratory presses, jigs or lubrication applications.

Features and benefits:

- Max. pressure 700 bar
- Suited for explosion hazardous applications or when no electric energy is available
- Hydraulic power packs for direct mounting of valve banks

Intended application:

- Machines for construction and construction material
- Jigs
- Test and laboratory equipment



Nomenclature: Air driven hydraulic pumps

Design: Individual pump
Hydraulic power pack

$P_{\text{hydraulicmax}}$: 160...1500 bar

P_{airmax} : 10 bar

Q_{max} : 0.9...12 lpm

Design and order coding example

LP 125 - 16 E /S 81

Additional elements

- Suction components for the hydraulic pump
- Tank for the hydraulic pump

Version

Hydraulic pump

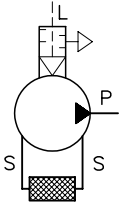
- Turn-key versions
- Pump alone for customer furnished pipe work

Hydraulic power pack (with valve banks type VB, BWH, BWN)

- Versions with tank, usable volume V_{usa} . 5 l to 28 l
- Cover plate version (for installation on customer furnished tanks)

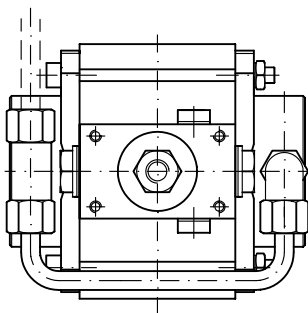
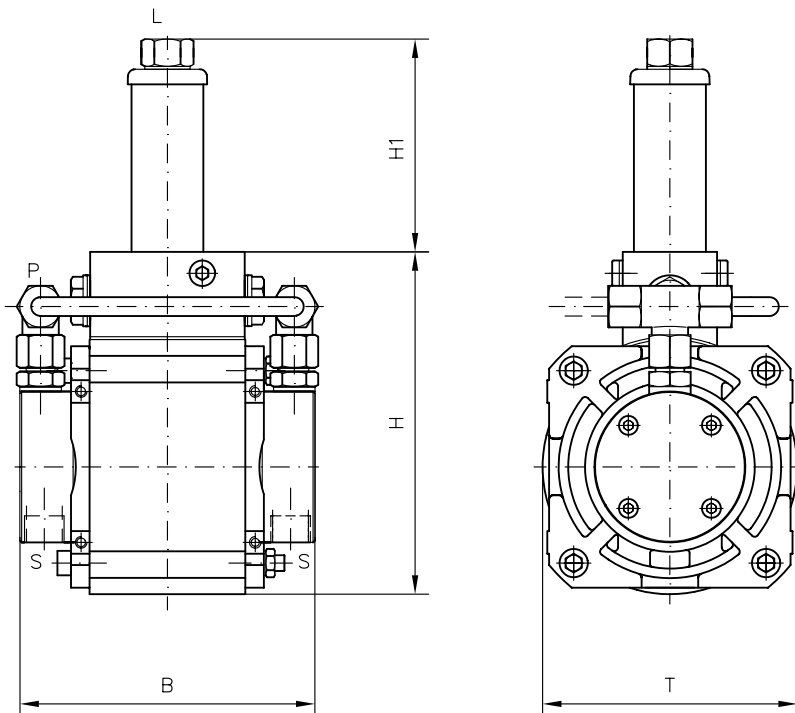
Basic type, size Type LP, size 80, 125, 160

Function



General parameters and dimensions

LP

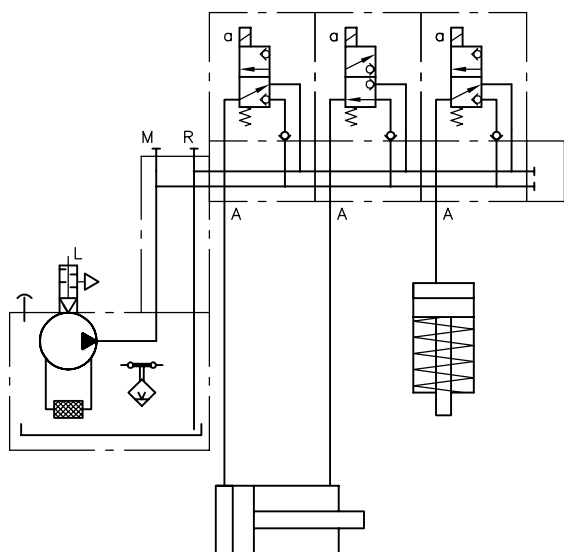


No piping for type LP...-E

Basic type and size		p _{max} [bar]	Pressure ratio	Geom. volume per double stroke V _{Hydr} [cm ³]	Tapped port (air) Pipe diameters for pressure connection (hydr)	Dimensions [mm]				m [kg]
						H	H1	B	T	
LP80-	8	700	1 : 200	1.5	G 1/4 Ø6 mm	119	94	121	85	5
	10	630	1 : 63	2.3						
	12	430	1 : 43	3.4						
	16	240	1 : 24	6						
LP125-	8	1500	1 : 243	2	G 3/8 Ø8 mm, Ø10 mm	159	114	156	135	8.5
	10	1500	1 : 155	3.1						
	12	700	1 : 108	4.5						
	16	600	1 : 60	8						
	18	470	1 : 47	10.2						
	20	380	1 : 38	12.6						
	25	240	1 : 24	19.6						
	30	160	1 : 16	28.3						
LP160-	8	1500	1 : 400	2	G 1/2 Ø8 mm, Ø10 mm	228	136	156	175	11.5
	10	1500	1 : 255	3.1						
	12	700	1 : 177	4.5						
	16	700	1 : 100	8						
	18	700	1 : 78	10.2						
	20	620	1 : 63	12.6						
	25	390	1 : 40	19.6						
	30	265	1 : 24	28.3						

Circuit example:

LP 125-10/B 10 D
-VB 11 LM-NRN-1-G 24



Associated technical data sheets:

- Hydraulic pump type LP: **D 7280**

Hydraulic power packs:

- Hydraulic power packs type LP: **D 7280 H**

Valve banks :

- Type VB: **page**
- Type BWH(N): **page**

See also section "Devices for special applications":

- Press controls
- Devices for explosion hazardous areas (conforming ATEX)
- Devices for up to 700 bar