

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

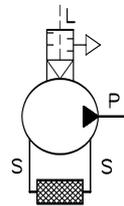
used in hazardous areas where electric motor drive pumps may cause fire or explosion such as in dye works, mining, pyrotechnic industry, petroleum refineries etc. These pumps also perform well in laboratory presses, jigs or lubrication applications.



Nomenclature:	Air driven hydraulic pumps
Design:	Individual pump Hydraulic power pack
$P_{\max \text{ hydr}}$:	160...1500 bar
$P_{\max \text{ air}}$:	10 bar
Q_{\max}:	0.9...12 lpm

Basic types and general parameters

Basic type and size	Operating pressure P_{\max} (bar)	Pressure ratio	Geom. volume per double stroke V_{Hydr} (cm ³)	Tapped port (pneumatic) Pipe diameters for high pressure connection	Symbol
LP80-	8	700	1 : 200	G 1/4 ¹⁾ Ø 6 mm	
	10	630	1 : 63		
	12	430	1 : 43		
	16	240	1 : 24		
LP125-	8	1500	1 : 243	G 3/8 ¹⁾ Ø 8 mm, Ø 10 mm	
	10	1500	1 : 155		
	12	700	1 : 108		
	16	600	1 : 60		
	18	470	1 : 47		
	20	380	1 : 38		
LP160-	25	240	1 : 24	G 1/2 ¹⁾ Ø 8 mm, Ø 10 mm	
	30	160	1 : 16		
	8	1500	1 : 400		
	10	1500	1 : 255		
	12	700	1 : 177		
	16	700	1 : 100		
	18	700	1 : 78		
	20	620	1 : 63		
25	390	1 : 40			
30	265	1 : 24			



1) BSPP-ports

Additional versions

- Hydraulic pump type LP, ready for connection
- Hydraulic power packs with valve banks type VB, BWH(N)
(see also "Additional information")

Additional elements

- Suction parts for hydraulic pump
- Tank for hydraulic pump

Order examples

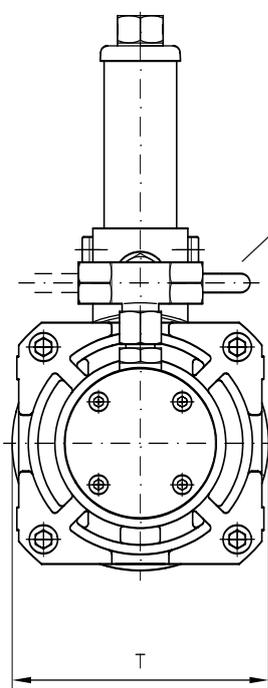
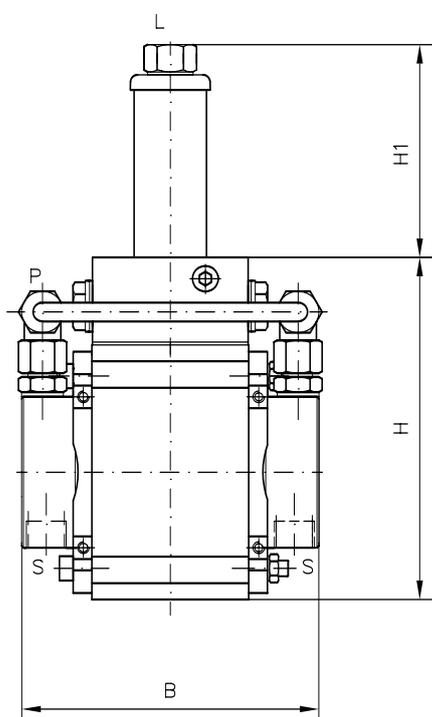
LP 125 - 16 E

Hydraulic pump type LP, size 125, plunger \varnothing 16 mm,
Single version for customer furnished piping

LP 80 -8

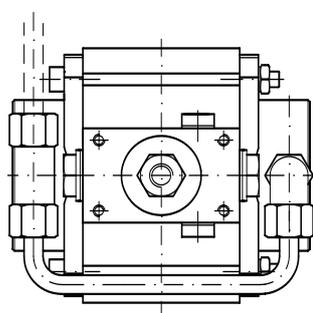
Hydraulic pump type LP, size 80, plunger \varnothing 8 mm,
ready for connection

Dimensions



Standard
(no piping for
type LP...-E)

All dimensions in mm, subject to change without notice!



Basic type	H	H1	B	T	m (kg)
LP 80	119	94	121	85	5
LP 125	159	114	156	135	8.5
LP 160	228	136	156	175	11.5

Additional information

- Hydraulic pump type LP D 7280
- Hydraulic power packs type LP D 7280 H
- Valve banks type VB D 7302

- Valve banks type BWH(N) D 7470 B/1
- see also section "Devices for special applications"
(Press controls, Devices for explosion hazardous areas, (conforming ATEX), Devices for up to 700 bar)