



# HAND PUMP HP12 AND HP16

ENGINEERING

1

Ref. No. P04910

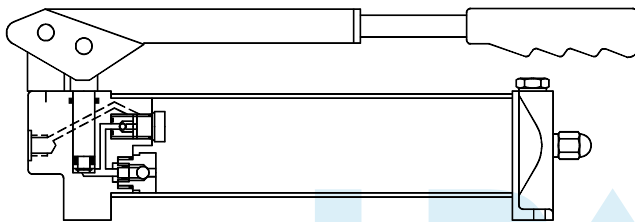
Release 01/2002

## Description

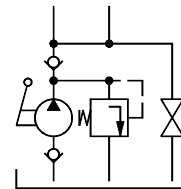
Heavy duty construction with hardened and ground piston. Renewable Suction, Delivery, Relief and Release valve parts. Integral Relief and Release valves. Collapsible hand lever for compact size and short hand movement at low pressure.



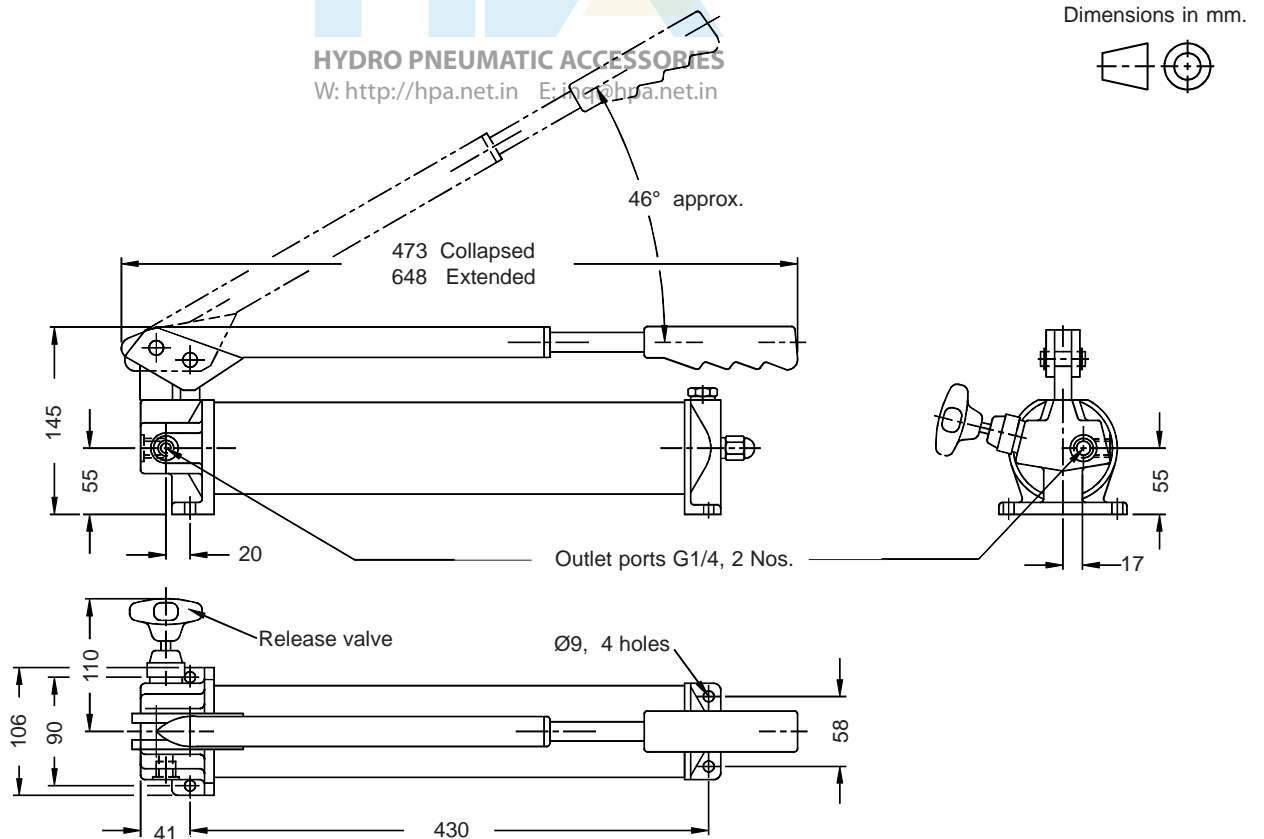
## Section



### Hydraulic Symbol



## Unit dimension



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## Technical specification

Construction .....	Sealed piston with ball type suction and delivery valve.		
Hydraulic medium .....	Mineral oil (ISO VG 68 Grade recommended)		
Maximum working pressure .....	HP 16 & HP 16 - K .....	350 bar	
	HP 12 & HP 12 - K .....	700 bar	
	HP 12-1000 & HP 12-1000 K .....	1000 bar	
Flow capacity .....	HP 16 & HP 16 - K .....	5 cm <sup>3</sup> / stroke	
	HP 12 & HP 12 - K .....	2.8 cm <sup>3</sup> / stroke	
	HP 12-1000 & HP12-1000 K .....	2.8 cm <sup>3</sup> / stroke	
Oil tank capacity .....	1.2 l.		
Oil tank displacement .....	1 l.		
Force required at the end of the hand lever at max. pressure .....	400 N. APPROX.		
Mass .....	8.7 kg. (without oil).		

## Ordering code



HP 16 K 02

Hand Pump

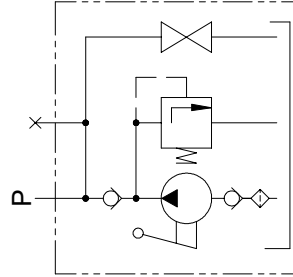
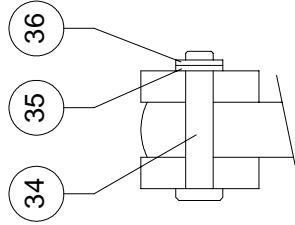
Design code subject to change.  
Installation dimensions remain same. for design code 01 thru 09.

Pr. (bar)	Flow (cm <sup>3</sup> / stroke)	Code
700	2.8	12
350	5	16
1000	2.8	12-1000

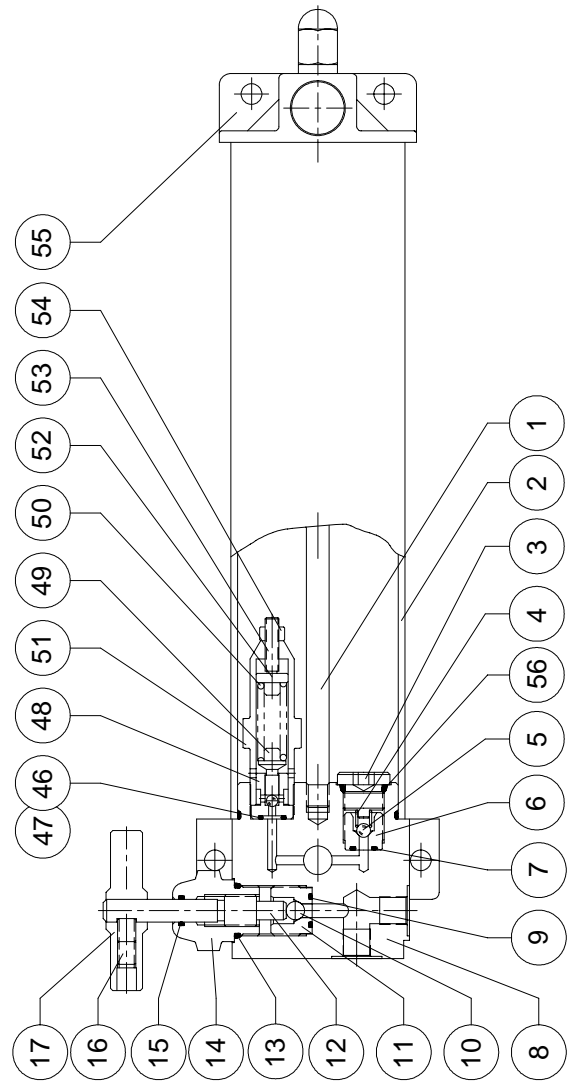
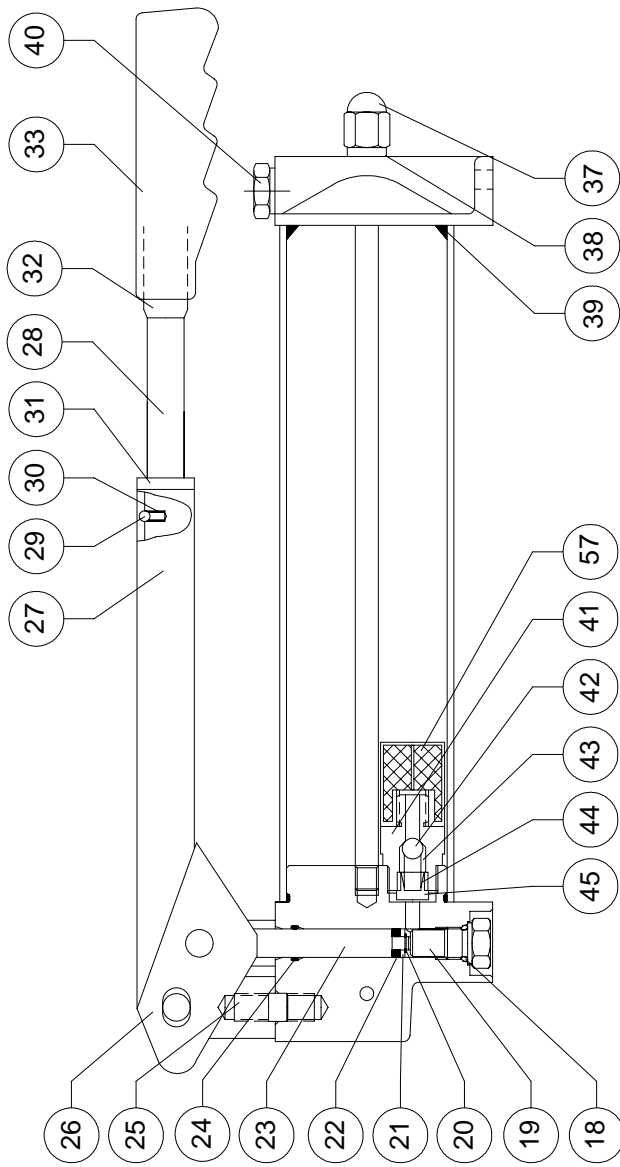
K

For Pump Cartridge only  
(Without Tank)  
Omit for Pump with tank

## Sectional view and Part list



Hydraulic symbol





## HAND PUMP HP12 AND HP16

**SERVICE**

**4**

Ref. No. P04910

Part no.	Description	Qty.	Part no.	Description	Qty.
1	Tie rod	1	30	Spring detension	1
2	Reservoir tube	1	31	Guide screw	1
3	Spring guide	1	32	Grip holder	1
□ 4	Spring delivery	1	33	Grip	1
5	Ball	1	34	Pin	2
6	Delivery valve seat	1	35	Spacer	2
* 7	O'Ring (7.1 id x 1.8 csd.)	1	36	Circlip external	4
8	Pump body	1	37	Domenut	1
* 9	O'Ring (10 id x 1.8 csd.)	1	* 38	Bonded seal (G 1/8)	1
10	Ball	1	* 39	O'Ring (65 id x 3.55 csd.)	2
11	Release valve seat	1	40	Plug	1
12	Spindle	1	41	Suction valve housing	1
* 13	O' Ring (19 id x 2.5 csd.)	1	42	Ball	1
14	Guide	1	□ 43	Spring suction	1
* 15	O'Ring (10 id x 1.8 csd.)	1	44	Spring guide	1
16	Grub screw	2	45	Screw	1
17	Lever	1	* 46	Backup ring (12 x 8 x1.5)	1
* 18	O' Ring (11.4 id x 2.5 csd.)	1	* 47	O'Ring (4.5 id x 1.8 csd.)	1
19	Plug	1	48	Relief valve seat	1
□ 20	Circlip external (Ø5, C type) HP12 (Ø6, C type) HP16	1	49	Poppet	1
21	Spacer	1	□ 50	Spring relief	1
* 22	Seal fabric (12 x 6 x 7) HP12 (16 x 8 x 8) HP16	1	51	Spring casing	1
23	Plunger	1	52	Spring pad	1
* 24	O'Ring (12 id x 2 csd.)	1	53	Socket set screw	1
25	Stud	1	54	Nut	1
26	Link	1	55	End cover	1
27	Yoke	1	* 56	O'Ring (15 id x 2.5 csd.)	1
28	Handle rod	1	57	Suction strainer	1
29	Ball	1			

Note : \* Recommended seal kit. \* & □ Recommended spare kit.

While ordering the individual spares / seal kit / spare kit give part.no.  
and complete details of model code as punched on the pump body.