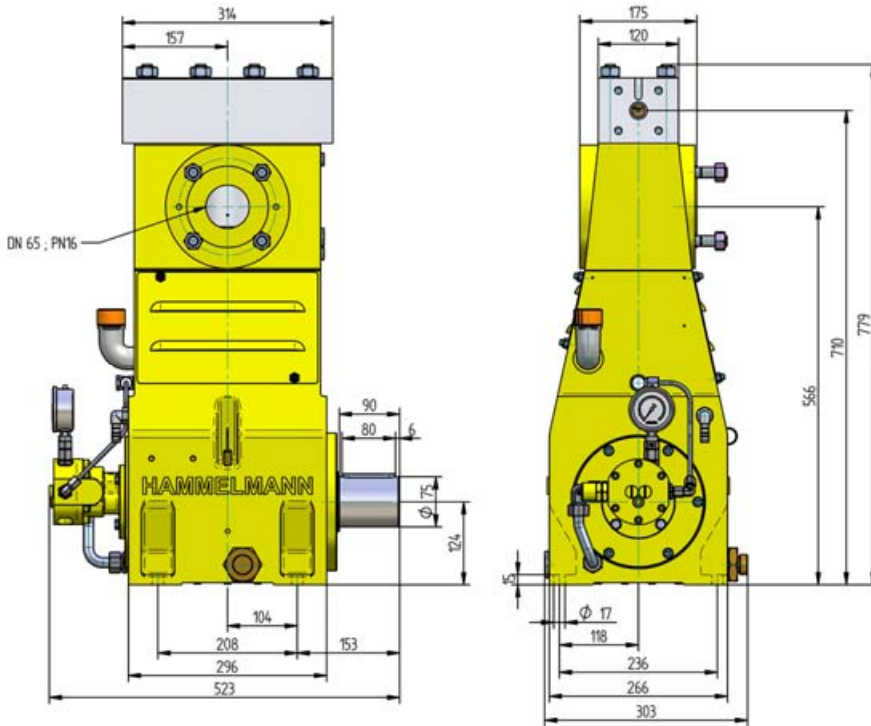


# HDP 45 process plunger pump

Hammelmann process pumps are built to operate at continuous maximum duty. Just compare the crankshaft speed, average plunger speed, plunger diameter and power rating.

## High pressure pump

Weight: approx. 200 kg



## Features

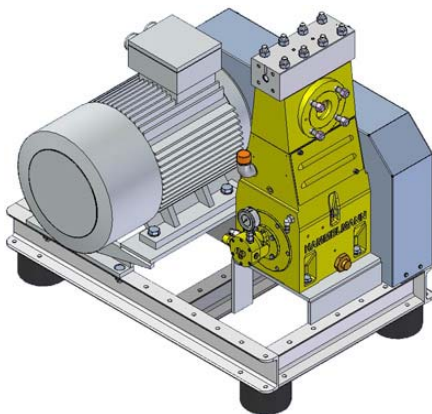
- Power ratings up to 30 kW
- Vertical 3 cylinder design
- Wide variety of complementary ancillaries

## Quality and reliability

- Crank section calculation by 'Finite element method' ensures long working life under continuous load
- Pressurised oil lubrication system
- Bellows form hermetic seal between the suction chamber and crank section
- Bronze or stainless steel suction chamber
- Solid ceramic or tungsten carbide plungers
- Stainless steel pump head free of alternating stress
- Choice of performance and pumped medium specific seal and pump head assemblies

## Stationary unit with electric motor

Length: 1100 mm  
Width: 833 mm  
Height: 1100 mm  
Weight: approx. 730 kg at 30 kW



Main dimensions without accessories such as pulsation damper, safety valve etc. Relevant drawings and weights available on request.



TA-Luft (Clean Air) certified to VDI 2440

In the Zero Emission design the pumped fluid is hermetically sealed within the pump preventing leakage to atmosphere during operation.



The bellow system is gastight.

# HDP 45 series, technical data

## Performance parameters

Q [m³/h]*	Required power rating [kW]**					D	r.p.m.	
	11	15	18,5	22	30		n 1	n 2
Operating pressure [bar]								
0,18	1740	2370	2920	3000		12	1000 / 1200	350
0,22	1450	1970	2430	2900				420
0,26	1210	1650	2030	2410	3000			500
0,30	1110	1520	1870	2200		15		350
0,36	920	1260	1560	1850	2200			420
0,43	770	1050	1300	1550	2100			500
0,42	820	1110	1370	1620		17,5		350
0,50		930	1140	1360	1620			420
0,60			950	1130	1550			500
0,55	630	850	1050	1240		20	1000 / 1200	350
0,66	520	710	870	1040	1240			420
0,78	430	590	730	870	1190			500
0,66	520	700	870	1020		22		350
0,79	430	590	720	860	1020			420
0,94	360	490	600	720	980			500
0,80	430	590	730	860		24		350
0,96	360	490	610	720	860			420
1,14	300	410	510	600	820			500
0,94	370	500	620	730		26		350
1,14	310	420	520	620	730			420
1,35	250	350	430	510	700			500
1,26	280	380	470	550		30		350
1,51	230	310	390	460	550			420
1,80	190	260	320	380	530			500
1,73	200	280	340	400		35	350	
2,07	170	230	280	340	400		420	
2,47	140	190	240	280	390		500	
2,28	150	210	260	310		40	350	
2,74	130	170	220	260	310		420	
3,26	105	140	180	210	290		500	
2,89	120	160	200	250		45	350	
3,46	100	140	170	200	250		420	
4,12	85	115	140	170	230		500	
3,56	100	130	170	200		50	350	
4,28	80	110	140	160	200		420	
5,09	70	95	115	140	190		500	
4,31	80	110	140	160		55	350	
5,17	65	90	115	130	160		420	
6,16	55	75	95	115	150		500	

\* At pressures over 2000 bar approx. 5% of the flow rate is lost due to the compressibility factor of water

- Rod force: 39 kN
- Stroke: 30 mm
- Mean piston speed at n<sub>2</sub>
  - 350 1/r.p.m. = 0,35 m/sec
  - 420 1/r.p.m. = 0,42 m/sec
  - 500 1/r.p.m. = 0,50 m/sec



\* m³/hr. = Water as measurement fluid  
Flow rates can vary with type of medium

\*\* Electric motor

D = Piston/Plunger dia. [mm]

n1 = Motor r.p.m.

n2 = Crankshaft r.p.m.

### Conversion table

Rating	1 kW = 1.4 HP
Op. pressure	1 bar = 14.5 psi
Flow rate	1 l = 0.264 US gallon
	1 l = 0.22 mp. gallon