

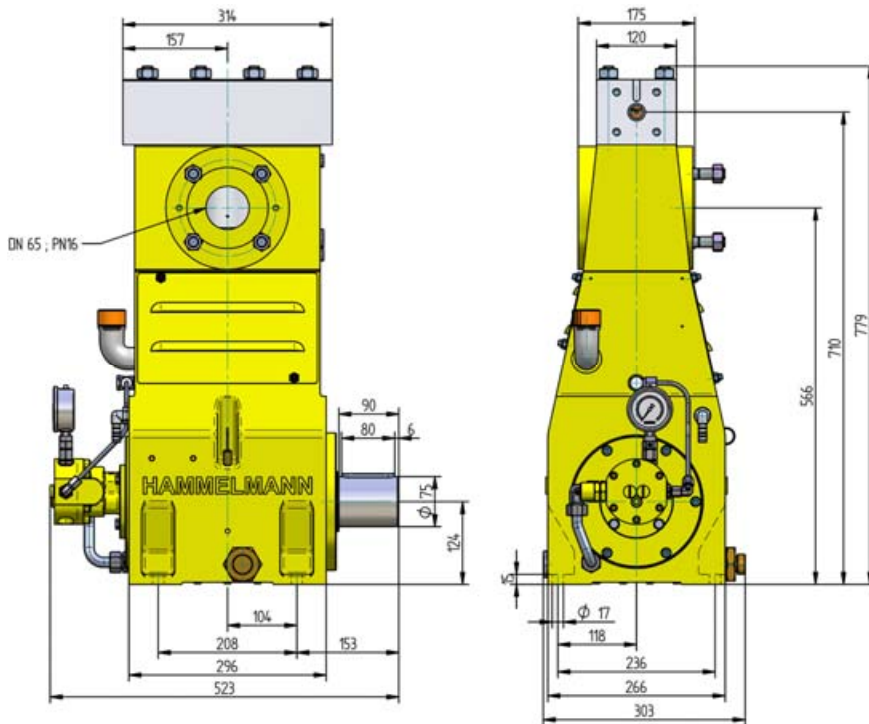
HDP 40 High Pressure Pump Series

Design criteria

Hammelmann high pressure pumps are built to operate at the continuous maximum duty stated in the performance parameters. Just compare the crankshaft speed, average plunger speed, plunger diameter and power rating.

High pressure pump

Weight: approx. 200 kg



Features

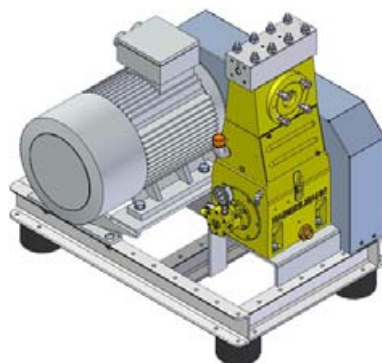
- Power ratings up to 37 kW
- Vertical 3 cylinder design
- Wide variety of complementary ancillaries

Quality and reliability

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

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 suction line, pressure regulator etc. All shown as right side drive. Detailed dimensional drawings and weights available on request.

HDP 40 series, technical data

Performance parameters

Q [l/min]*	Required power rating [kW]					D	r.p.m.	
	15	18,5	22	30	37		n 1	n 2
	Operating pressure [bar]							
5,5	1350	1650	2050	2800	3000	12	1500 / 1800 / 2150	625
6,5	1100	1400	1650	2350	2900			750
7,5	930	1150	1350	1850	2400			900
9	860	1060	1250	1700	2200	15	1500 / 1800 / 2150	625
11	720	880	1050	1450	1750			750
13	600	740	880	1200	1500			900
12,5	630	780	930	1250	1550	17,5	1500 / 1800 / 2150	625
15	530	650	770	1050	1300			750
18	440	540	650	880	1100			900

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

16,5	480	600	710	970	1200	20	1500 / 1800 / 2150	625
20	400	500	590	810	1000			750
20	400	490	590	800	980	22		625
24	330	410	490	670	820			750
24	330	410	490	670	830	24		625
29	280	340	410	560	690			750
28	280	350	420	570	710	26		625
34	240	290	350	480	590			750
38	210	260	310	430	530	30		625
45	180	220	260	360	440			750
52	150	190	230	310	390	35		625
62	130	160	190	260	320			750
68	120	150	170	240	300	40		625
82	100	125	145	200	250			750
86	95	115	140	190	230	45	625	
103	80	95	115	160	190		750	
107	75	95	110	150	190	50	625	
128	65	80	95	130	160		750	
129	60	80	90	125	160	55	625	
155	50	65	75	105	130		750	

Conversion table

Rating	1 kW = 1.34 HP
Op. pressure	1 bar = 14.5 psi
Flow rate	1 l = 0.264 US gallon
	1 l = 0.22 Imp. gallon

D = Piston/Plunger dia. [mm]
n1 = Motor/Engine r.p.m.
n2 = Crankshaft r.p.m.

- Rod force: 39 kN
- Stroke: 30 mm
- Mean piston speed at n₂
625 r.p.m. = 0,63 m/sec
750 r.p.m. = 0,75 m/sec
900 r.p.m. = 0,90 m/sec

Typical high pressure pump units



- Stationary unit with diesel motor



- Stationary unit with electric motor

Type designations

Sealing system	D	HDP Type
Hydrodynamic with tungsten carbide plungers	12 - 17,5	44
Labyrinth with solid ceramic plungers	20 - 55	42
Packed sleeves with solid ceramic plungers	20 - 55	47

D = Piston/Plunger dia. [mm]

- Mobile electric unit with hose reel

