

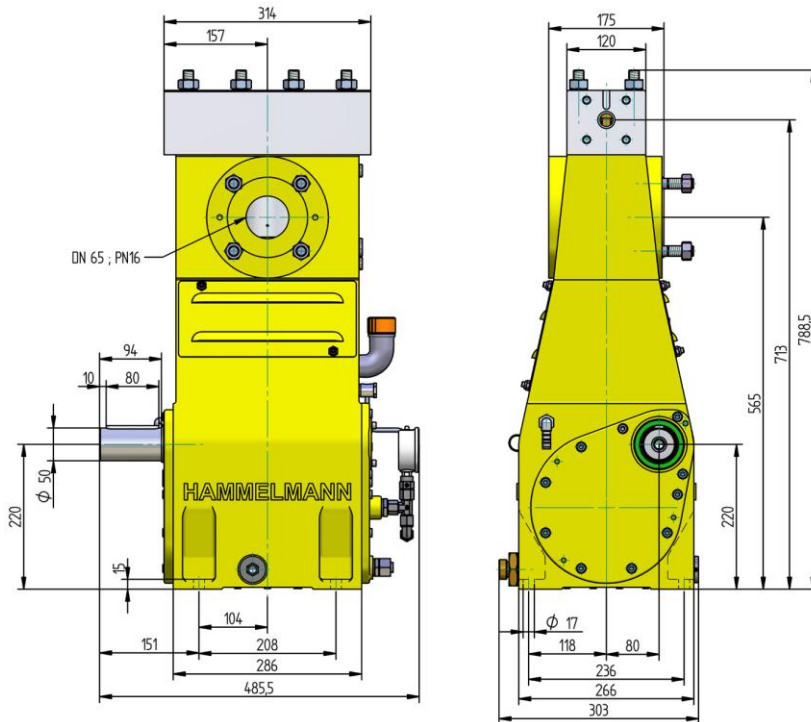
HDP 70 High Pressure Pump Series

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. 215 kg



Energy efficient →



Features

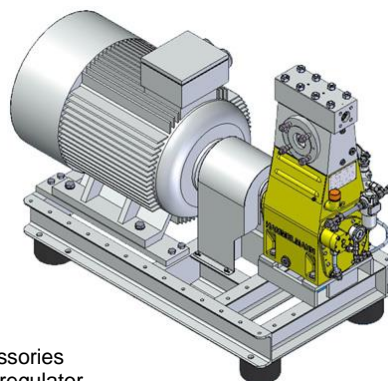
- Power ratings up to 70 kW
- Vertical 3 cylinder design
- Wide variety of complementary ancillaries

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
- Integral speed reduction gear
- Pressurised oil lubrication system with oil cooler/filter

Stationary unit with electric motor

Length: 1502 mm
Width: 720 mm
Height: 1105 mm
Weight: approx. 1150 kg at 75 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.

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HDP 70 series, technical data

Performance parameters (Standard design)

Note: Actual flow rates for water as pumped medium (volumetric efficiency has already been taken into account).

HDP	Q [l/min]	Required power rating [kW]					D	r.p.m.			
		30	37	45	55	70		n 1	n 2		
		Operating pressure [bar]									
74	5,9 / 4,9* 7,1 / 5,9* 8,5 / 7,0*	2680* 2300* 1970*	3240* 2770* 2360*	3930* 3280* 2800*	4500* 4000* 3350*	4500* 4500* 4200*	10	1500	625		
	7,2 / 7,2* 9,2 / 8,7* 11,0 / 10,4*	2000* 1650 1400	2450* 2050* 1700	3000* 2500* 2100*	3180* 3000* 2550*	3800* 3550* 3000*		12	1500	625	
	11,9 / 11,3* 14,3 / 13,5* 17,2 / 16,2*	1250 1050 890	1550 1300 1100	1900 1600 1300	2350* 1950 1600	2400* 2050*			15	1500	625
	17 19,5 23	930 780 650	1150 970 810	1400 1150 980	1700 1400 1200	1750 1500				17,5	1500

*Ultra high pressure

73	21	710	880	1050	1300	20	1500	625
	26	600	740	900	1100		1350	1500/1800

72	26	600	740	900	1100	1130	22	1500	625
	32	500	610	750	910	1130		1500/1800	750
	32	500	620	750	920	950	24	1500	625
	38	420	520	630	780	950		1500/1800	750
	38	430	530	640	780	810	26	1500	625
	45	350	440	530	650	810		1500/1800	750
	50	320	390	480	590	30	1500	625	
	59	260	330	400	490		600	1500/1800	750
	69	230	290	350	430	35	1500	625	
	81	190	240	290	360		440	1500/1800	750
	91	180	220	270	330	40	1500	625	
	107	150	180	220	270		340	1500/1800	750
	115	140	170	210	260	45	1500	625	
	135	110	140	170	210		270	1500/1800	750
	142	110	130	170	210	50	1500	625	
	167	90	110	140	170		210	1500/1800	750
172	90	110	140	170	55	1500	625		
201	70	90	110	140		180	1500/1800	750	

HDP	Seal **	Sealing system
74	Dynamic	Tungsten carbide plunger & bushing
	Packing	Special ceramic plunger *** / packing
73	Dynamic	Ceramic plunger / bronze bushing
	Packing	Ceramic plunger / packing
72	Dynamic	Ceramic plunger / bronze bushing
	Packing	Ceramik plunger / packing

** The dynamic high pressure sealing extends the advantages of the labyrinth design with further increased efficiency.

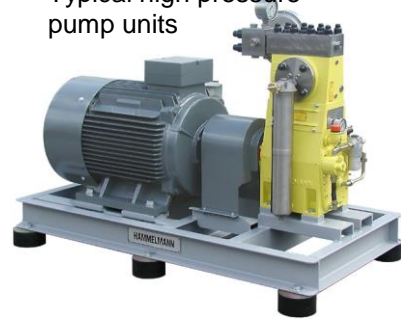
*** Special ceramic plungers up to max. 2600 bar.



Hammelmann plunger pumps convert 93 to 98 % of the shaft power to hydraulic energy.

- Rod force: 43 kN
- Stroke: 40 mm
- Mean piston speed at n2
625 r.p.m. = 0,84 m/sec
750 r.p.m. = 1,00 m/sec
900 r.p.m. = 1,20 m/sec

Typical high pressure pump units



- Stationary unit with electric motor



- Trolley

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

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



- Road going or stationary trailer units with sound damping cover
- 10 or 20 foot sound damped container versions

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