

HDP 340 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. 1070 kg

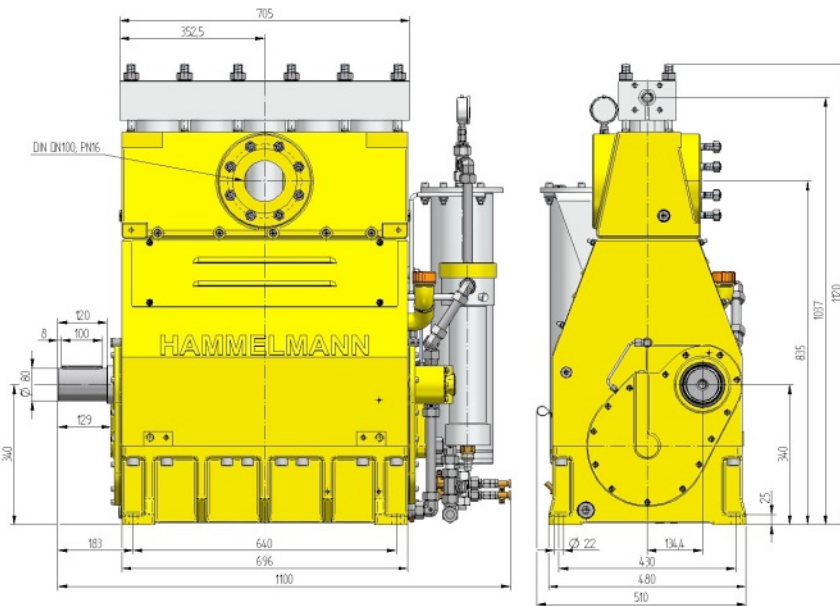


Features

- Power ratings up to 340 kW
- Vertical 5 cylinder design
- Wide variety of complementary ancillaries

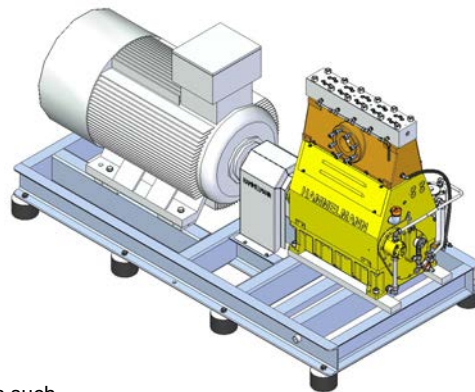
Quality and reliability

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



Stationary unit with electric motor

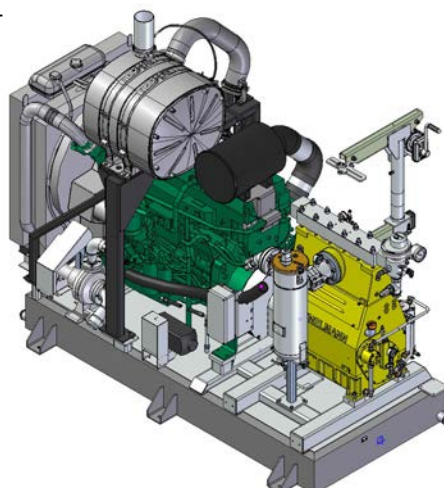
Length: 2900 mm
Width: 1290 mm
Height: 1750 mm
Weight: approx. 3800 kg at 340 kW



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.

Stationary unit with diesel engine

Length: 3060 mm
Width: 1570 mm
Height: 2600 mm
Weight: approx. 4500 kg with full fuel tank



HAMMELMANN®

Technical data, series HDP 340

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.			
		110	132	200	250	300	340		n 1	n 2		
		Operating pressure [bar]										
344	26/24* 31/29* 37/35*	2300* 1920 1600	2800* 2300* 1920	4200* 3500* 2900*	4500* 4400* 3600*	4500* 4400*	4500*	15	1500 1500/1800 1800/2150	411 493 591		
	35/33* 42/40* 51/47*	1700 1410 1180	2000* 1700 1410	3100* 2600* 2100	3200* 2700*	3200*		17,5	1500 1500/1800 1800/2150	411 493 591		
	42/40* 51/48* 61/58*	1400 1160 970	1670 1400 1160	2500* 2100* 1760	3000* 2600* 2200*	3000* 2600*	3000*	19,3	1500 1500/1800 1800/2150	411 493 591		
	46/43* 55/51* 65/61*	1300 1080 900	1550 1300 1080	2400 1960 1640	2800* 2500* 2100*	2800* 2500*	2800*	20	1500 1500/1800 1800/2150	411 493 591		
	* Ultra high pressure											
	343	72 86 103	830 700 580	1000 830 700	1510 1260 1050	1800 1570 1310	1800 1570	1780	25	1500 1500/1800 1800/2150	411 493 591	
		89 107 128	660 550 460	800 660 550	1200 1000 840	1430 1250 1040	1430 1250	1420	28	1500 1500/1800 1800/2150	411 493 591	
		342	101 122 146	580 480 400	700 580 480	1050 870 730	1240 1100 910	1240 1100	1240	30	1500 1500/1800 1800/2150	411 493 591
			127 152 182	480 400 330	570 480 400	860 720 600	1030 900 750	1030 900	1020	33	1500 1500/1800 1800/2150	411 493 591
			139 167 200	420 350 300	510 420 350	770 640 530	910 800 670	910 800	910	35	1500 1500/1800 1800/2150	411 493 591
			184 221 265	320 270 230	400 320 270	600 500 410	700 610 510	700 610	700	40	1500 1500/1800 1800/2150	411 493 591
	235 282 338		260 210 180	310 260 210	470 400 320	550 480 400	550 500	550	45	1500 1500/1800 1800/2150	411 493 591	
294 352 422	210 170 140		250 210 170	380 310 260	450 400 330	450 400	450	50	1500 1500/1800 1800/2150	411 493 591		
355 426 511	170 140 120		210 170 140	310 260 220	370 320 270	370 320	370	55	1500 1500/1800 1800/2150	411 493 591		
418 502 602	140 120 100		170 140 120	260 220 180	310 270 230	310 270	310	60	1500 1500/1800 1800/2150	411 493 591		
491 589 706	120 100 100		150 120 100	220 200 160	270 230 200	270 230	260	65	1500 1500/1800 1800/2150	411 493 591		
569 683 819	110 100 70		130 110 100	200 160 130	230 200 170	230 200	230	70	1500 1500/1800 1800/2150	411 493 591		
744 892 1069	80 70 60		100 80 70	150 120 100	180 150 130	180 150	170	80	1500 1500/1800 1800/2150	411 493 591		

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

- Rod force: 88 kN
- Stroke: 75 mm
- Mean piston speed at n₂
411 r.p.m. = 1,02 m/sec
493 r.p.m. = 1,23 m/sec
591 r.p.m. = 1,48 m/sec

Typical high-pressure pump units



- Stationary diesel unit in BDF-Container with workshop



- Stationary electric unit



- Electric unit in container



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



+44 1905 751790
sales@calder.co.uk
www.calderltd.com

Calder Ltd
Prescott Drive
Worcester
WR4 9NE
United Kingdom

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