

# High-pressure pump series HDP 680

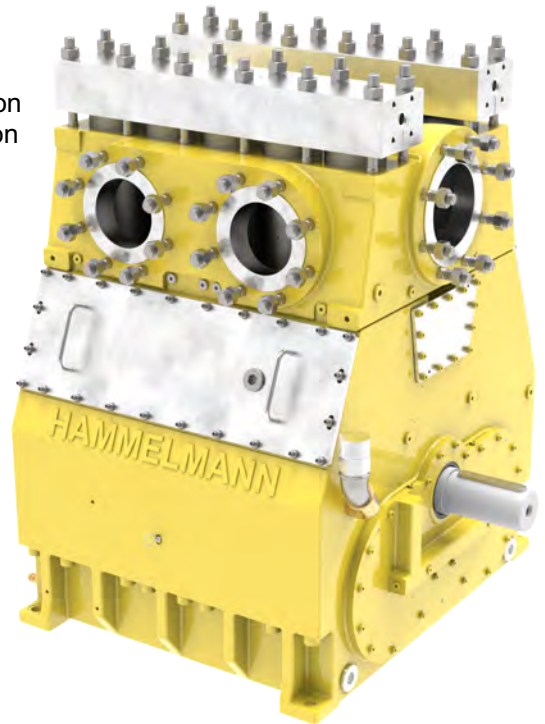
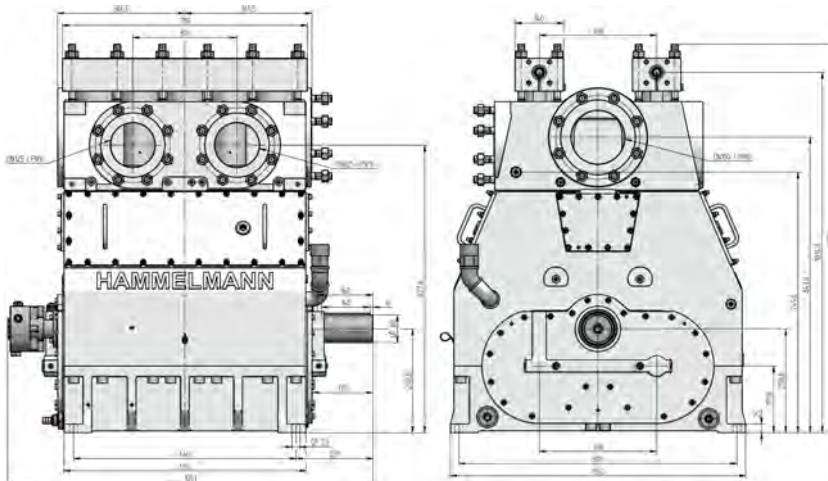
## Product Overview

Hammelmann high-pressure pumps are designed for continuous operation within their performance range. Note the crankshaft speed, average piston speed, piston diameter, and drive power.

### High-pressure pump

Weight: approx. 2300 kg

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## Specifications

- Drive power up to 680 kW
- Design: 10 cylinders, vertical
- Extensive range of complementary accessories

## Quality and reliability

- Crank mechanism calculated using the "finite element method" and designed for long service life and operational reliability
- Stainless steel pump head with no load switching
- Integrated reduction gearbox
- Oil circulation lubrication system with oil cooler/oil filter
- Hermetic seal to the crankshaft drive via a bellows system
- Suction chamber available in bronze (standard) or stainless steel
- Custom seal kits depending on the application
- Plunger made of ceramic or carbide



# Technical Data HDP 680

## Performance data (standard version)

**Note: Actual flow rates for water  
(volumetric efficiency already taken into account)**

HDP	Q [l/min]	Required drive power [kW]					D	Speed	
		450	500	560	630	680		n 1	n 2
		Operating pressure [bar]							
684	54/48* 65/58* 78/70*	4500* 3900* 3300*	4400* 3600*	4500* 4100*	4500*		15	1500 1800	411 493 591
	74/66* 89/79* 107/95*	3200* 2900* 2400*	3200* 2700*	3000*	3200*		17,5	1500 1800	411 493 591
	90/80* 108/96* 130/115*	2800* 2400* 1980	3000* 2600* 2200*	3000* 2500*	3000* 2800*	3000*	19,3	1500 1800	411 493 591
	97/85* 116/102* 139/123*	2700* 2200* 1840	2800* 2500* 2100*	2800* 2300*	2800* 2600*	2800*	20	1500 1800	411 493 591

\* Maximum pressure

683	144 172 207	1700 1410 1180	1800 1570 1310	1760 1470	1800 1650	1780	25	1500 1800	411 493 591
	178 214 257	1350 1130 940	1430 1250 1040	1400 1170	1430 1320	1420			

682	203 243 291	1180 980 820	1240 1100 910	1220 1020	1240 1150	1240	30	1500 1800	411 493 591
	253 304 364	970 810 680	1030 900 750	1010 840	1030 950	1020			
	279 334 401	860 720 600	910 800 670	900 750	910 840	910	35	1500 1800	411 493 591
	368 441 529	660 550 460	700 610 510	700 570	700 640	700			
	471 565 677	520 440 360	550 480 400	540 450	550 510	550	45	1500 1800	411 493 591
	587 704 844	420 350 300	450 400 330	440 370	450 410	450			
	710 852 1021	350 300 240	370 320 270	360 300	370 340	370	55	1500 1800	411 493 591
	837 1004 1203	300 250 200	310 270 230	310 250	300 310	310			
	982 1178 1412	250 210 170	270 230 200	260 220	270 240	260	65	1500 1800	411 493 591
	1139 1366 1638	220 180 150	230 200 170	220 200	230 210	230			
	1487 1784 2139	170 140 120	180 150 130	170 140	180 160	170	80	1500 1800	411 493 591

- Rod force: 88 kN
- Stroke: 75 mm
- Average piston speed at n<sub>2</sub>  
411 rpm = 1.02 m/sec  
493 rpm = 1.23 m/sec  
591 1/min. = 1.48 m/sec

D = Piston diameter [mm]  
n1 = Speed/motor [rpm]  
n2 = Speed/crankshaft [rpm]



Hammelmann piston pumps convert 93 to 98% of shaft power into hydraulic energy.



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