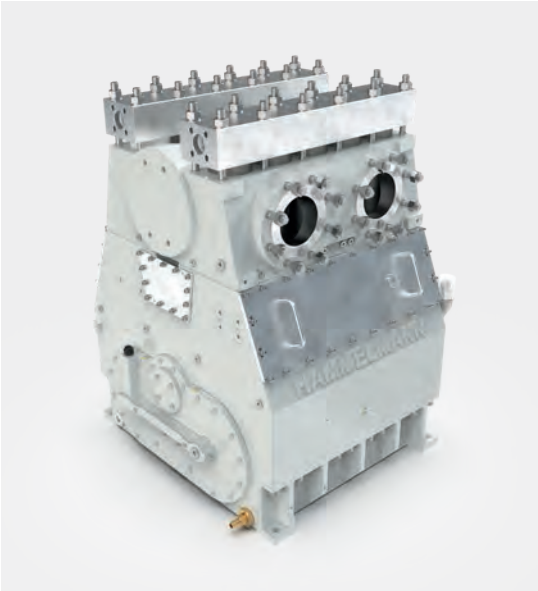
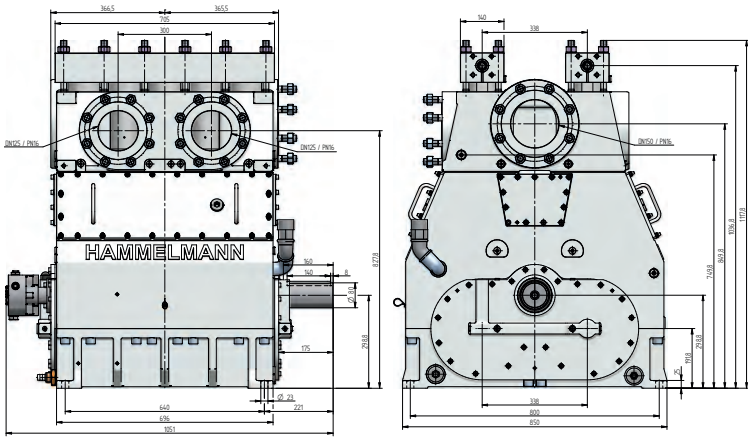
HAMPRO® 680 Process plunger pump

Hammelmann process 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.



Dimensions: mm



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
- Large selection of materials available for different fluids
- Minimum crankshaft speed with external oilpump 32 r.p.m.

Features

- Power ratings up to 680 kW
- Vertical 10 cylinder design

Technical details HAMPRO® 680

Operating pressure	Flow rate
up to 3200 bar	up to 128 m^3/h
Design	**Weight**
10 cylinders, vertical, U-design	~ 2300 kg

Weight and dimensions refer to the pump only, without accessories. Detailed dimensional drawings and weights on request.

The bellow system is gastight.

Zero Emission

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.

Technical data, series HAMPRO® 680: Performance parameters (standard design)

HDP	Q* [l/min]	Q* [m³/h]	Required power rating [kW] Operating pressure [bar] 450	500	560	630	680	D [mm]	r.p.m. n1	n2
684	66	3,96	3200	-	-	-	-	17,5	1500	411
	79	4,74	2900	3200	-	-	-		1500 / 1800	493
	95	5,7	2400	2700	3000	3200	-		1800 / 2150	591
	80	4,8	2800	3000	-	-	-	19,3	1500	411
	96	5,76	2400	2600	3000	3000	-		1500 / 1800	493
	115	6,9	1980	2200	2500	2800	3000		1800 / 2150	591
	85	5,1	2700	2800	-	-	-	20	1500	411
	102	6,12	2200	2500	2800	2800	-		1500 / 1800	493
	123	7,38	1840	2100	2300	2600	2800		1800 / 2150	591
683	144	8,64	1700	1800	-	-	-	25	1500	411
	172	10,32	1410	1570	1760	1800	-		1500 / 1800	493
	207	12,42	1180	1310	1470	1650	1780		1800 / 2150	591
	178	10,68	1350	1430	-	-	-	28	1500	411
	214	12,84	1130	1250	1400	1430	-		1500 / 1800	493
	257	15,42	940	1040	1170	1320	1420		1800 / 2150	591
682	203	12,18	1180	1240	-	-	-	30	1500	411
	243	14,58	980	1100	1220	1240	-		1500 / 1800	493
	291	17,46	820	910	1020	1150	1240		1800 / 2150	591
	253	15,18	970	1030	-	-	-	33	1500	411
	304	18,24	810	900	1010	1030	-		1500 / 1800	493
	364	21,84	680	750	840	950	1020		1800 / 2150	591
	279	16,74	860	910	-	-	-	35	1500	411
	334	20,04	720	800	900	910	-		1500 / 1800	493
	401	24,06	600	670	750	840	910		1800 / 2150	591
	368	22,08	660	700	-	-	-	40	1500	411
	441	26,46	550	610	700	700	-		1500 / 1800	493
	529	31,74	460	510	570	640	700		1800 / 2150	591
	471	28,26	520	550	-	-	-	45	1500	411
	565	33,9	440	480	540	550	-		1500 / 1800	493
	677	40,62	360	400	450	510	550		1800 / 2150	591
	587	35,22	420	450	-	-	-	50	1500	411
	704	42,24	350	400	440	450	-		1500 / 1800	493
	844	50,64	300	330	370	410	450		1800 / 2150	591
	710	42,6	350	370	-	-	-	55	1500	411
	852	51,12	300	320	360	370	-		1500 / 1800	493
	1021	61,26	240	270	300	340	370		1800 / 2150	591
	837	50,22	300	310	-	-	-	60	1500	411
	1004	60,24	250	270	310	-	-		1500 / 1800	493
	1203	72,18	200	230	250	300	310		1800 / 2150	591
	982	58,92	250	270	-	-	-	65	1500	411
	1178	70,68	210	230	260	270	-		1500 / 1800	493
	1412	84,72	170	200	220	240	260		1800 / 2150	591
	1139	68,34	220	230	-	-	-	70	1500	411
	1366	81,96	180	200	220	230	-		1500 / 1800	493
	1638	98,28	150	170	200	210	230		1800 / 2150	591
	1487	89,22	170	180	-	-	-	80	1500	411
	1784	107,04	140	150	170	180	-		1500 / 1800	493
	2139	128,34	120	130	140	160	170		1800 / 2150	591

Data

- Rod force: 88 kN
- Stroke: 55 mm
- Mean plunger speed at n2:

400 1/min. = 1,00 m/sec
493 1/min. = 1,23 m/sec
591 1/min. = 1,48 m/sec

Certificates

- Machine directive 2006/42/EG
- ATEX 2014/34/EG
- API 674
- TA-Luft (Clean Air)
- NORSOK M501
- NORSOK M650
- NACE MR0175

Standards

- DIN EN ISO 9001
- DIN EN ISO 14001
- DIN EN ISO 50001
- BS OHSAS 18001
- ASME-U
- EAC

ENERGY EFFICIENT

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

*Data refer to the medium water (compressibility considered)

D = Plunger diameter

n1 = Motor/Engine r.p.m.

n2 = Crankshaft r.p.m.

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