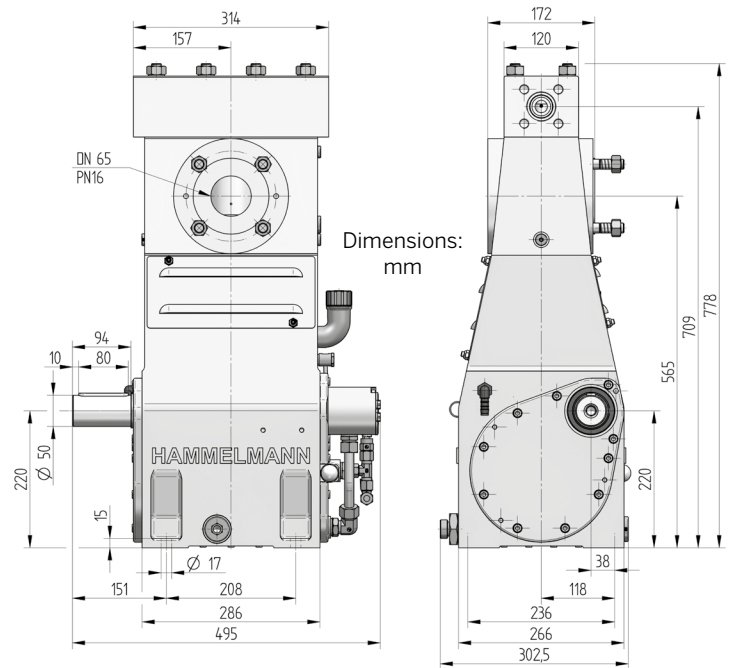
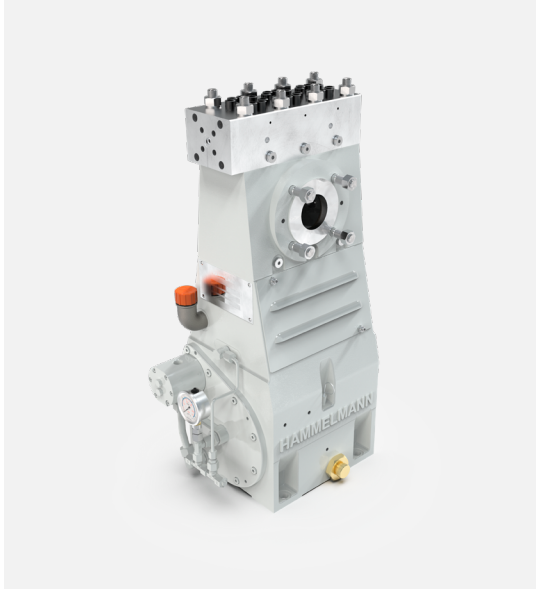


# HAMPRO® 70 Process plunger pump

**HAMMELMANN®**

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.



## 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 36 r.p.m.

## Features

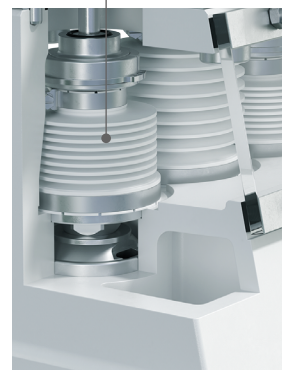
- Power ratings up to 70 kW
- Vertical 3 cylinder design

## Technical details HAMPRO® 70

Operating pressure	Flow rate
up to 3500 bar	up to 12,1 m <sup>3</sup> /h
Design	Weight
Vertical 3 cylinder design	~ 215 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® 70: Performance parameters (standard design)

HAM PRO®	Q** [l/min]	Q** [m³/h]	Required power rating [kW]			D [mm]	r.p.m.	
			30	45	70		n1	n2
			Operating pressure [bar]					
74	4,8	0,29	2650	3500		12	960/1123	*470
	7,2	0,43	2000	3000			1500	625
	11	0,66	1400	2100	3000		1800/2150	900
	8,4	0,50	1700	2400		15	960/1123	*470
	11,9	0,71	1250	1900			1500	625
	17,2	1,03	890	1300	2050		1800/2150	900
	11,8	0,71	1250	1750		17,5	960/1123	*470
	17	1,02	930	1400			1500	625
23	1,38	650	980	1500	1800/2150		900	

73	16	0,96	950	1350		20	960/1123	*470
	21	1,26	710	1050			1500	625
	26	1,56	600	900	1350		1500/1800	750

72	19	1,14	750	1100		22	960/1123	*470
	26	1,56	600	900	1130		1500	625
	32	1,92	500	750	1130		1500/1800	750
	23	1,38	650	950		24	960/1123	*470
	32	1,92	500	750	950		1500	625
	38	2,28	420	630	950		1500/1800	750
	27	1,6	570	800		26	960/1123	*470
	38	2,3	430	640	810		1500	625
	45	2,7	350	530	810		1500/1800	750
	37	2,2	420	600		30	960/1123	*470
	50	3,0	320	480			1500	625
	59	3,5	260	400	600		1500/1800	750
	51	3,1	310	440		35	960/1123	*470
	69	4,1	230	350			1500	625
	81	4,9	190	290	440		1500/1800	750
	68	4,1	240	340		40	960/1123	*470
	91	5,5	180	270			1500	625
	107	6,4	150	220	340		1500/1800	750
	86	5,2	190	270		45	960/1123	*470
	115	6,9	140	210			1500	625
	135	8,1	110	170	270		1500/1800	750
	107	6,4	150	210		50	960/1123	*470
	142	8,5	110	170			1500	625
	167	10,0	90	140	210		1500/1800	750
130	7,8	120	180		55	960/1123	*470	
172	10,3	90	140			1500	625	
201	12,1	60	100	150		1500/1800	750	

### Data

- Rod force: 43 kN
- Stroke: 40 mm
- Mean plunger speed at n2:

470 r.p.m. = 0,63 m/sec

625 r.p.m. = 0,84 m/sec

750 r.p.m. = 1,00 m/sec

900 r.p.m. = 1,20 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
- Achilles
- EAC



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

\*\*Data refer to the medium water (compressibility considered)

\* Speed limit for continuous service according to API 674 – 6.3.1

D = Plunger diameter

n1 = Motor/Engine r.p.m.

n2 = Crankshaft r.p.m.