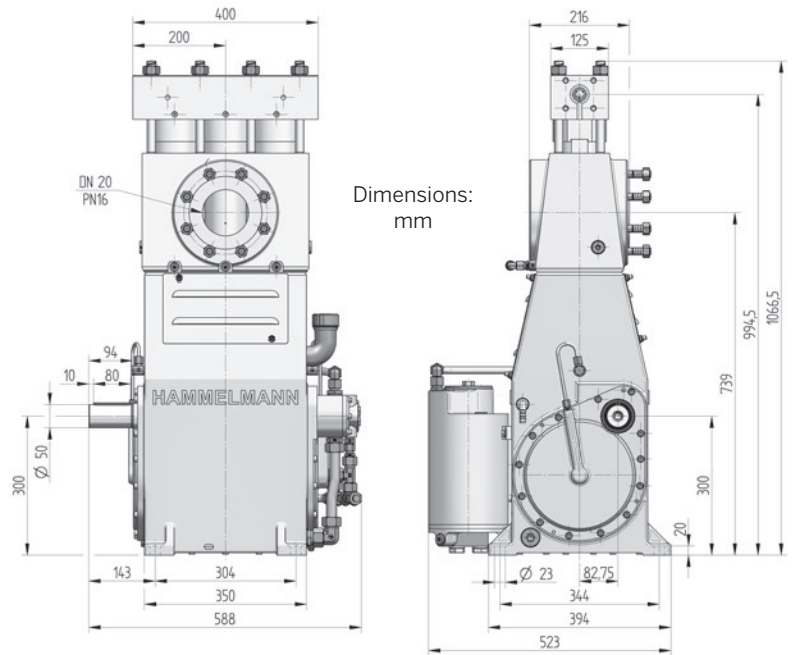


# HAMPRO® 140 Process plunger pump

**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 32 r.p.m.

## Features

- Power ratings up to 140 kW
- Vertical 3 cylinder design

## Technical details HAMPRO® 140

Operating pressure	Flow rate
up to 3600 bar	up to 20,6 m <sup>3</sup> /h
Design	Weight
Vertical 3 cylinder design	~ 380 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® 140: Performance parameters (standard design)

HAM PRO®	Q** [l/min]	Q** [m³/h]	Required power rating [kW]			D [mm]	r.p.m.	
			45	90	140		n1	n2
			Operating pressure [bar]					
144	13	0,78	1660	3300	3600	17,5	1500	390
	15	0,90	1450	2900	3600		1417/1694	*440
	22	1,32	1150	2310	3550		1800/2150	560
	18	1,08	1270	2540		20	1500	390
	20	1,20	1100	2200	2800		1417/1694	*440
	27	1,62	880	1770	2800		1800/2150	560

### Data

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

390 r.p.m. = 0,72 m/sec

440 r.p.m. = 0,81 m/sec

560 r.p.m. = 1,03 m/sec

143	30	1,80	810	1620		25	1500	390
	32	1,92	710	1430	1750		1417/1694	*440
	42	2,52	570	1130	1800		1800/2150	560
	37	2,2	640	1280		28	1500	390
	40	2,4	570	1140	1420		1417/1694	*440
	53	3,2	450	890	1430		1800/2150	560

### Certificates

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

142	43	2,6	560	1130		30	1500	390
	47	2,8	490	990	1240		1417/1694	*440
	61	3,7	390	790	1240		1800/2150	560
	53	3,2	480	970		33	1500	390
	60	3,6	430	870	1030		1417/1694	*440
	77	4,6	340	680	1030		1800/2150	560
	59	3,5	410	830		35	1500	390
	65	3,9	360	730	910		1417/1694	*440
	84	5,0	290	580	910		1800/2150	560
	78	4,7	320	630		40	1500	390
	86	5,2	280	560	690		1417/1694	*440
	111	6,7	220	440	680		1800/2150	560
	100	6,0	250	500		45	1500	390
	109	6,5	220	440	550		1417/1694	*440
	142	8,5	170	350	530		1800/2150	560
	124	7,4	200	410		50	1500	390
	136	8,2	170	350	440		1417/1694	*440
	177	10,6	140	280	430		1800/2150	560
	150	9,0	170	340		55	1500	390
	165	9,9	140	290	370		1417/1694	*440
	214	12,8	120	230	350		1800/2150	560
	176	10,6	140	280		60	1500	390
	197	11,8	130	240	310		1417/1694	*440
	252	15,1	100	200	300		1800/2150	560
	207	12,4	120	240		65	1500	390
	232	13,9	100	210	260		1417/1694	*440
	296	17,8	80	160	250		1800/2150	560
	240	14,4	100	210		70	1500	390
	270	16,2	90	180	220		1417/1694	*440
	343	20,6	70	140	220		1800/2150	560

### 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.