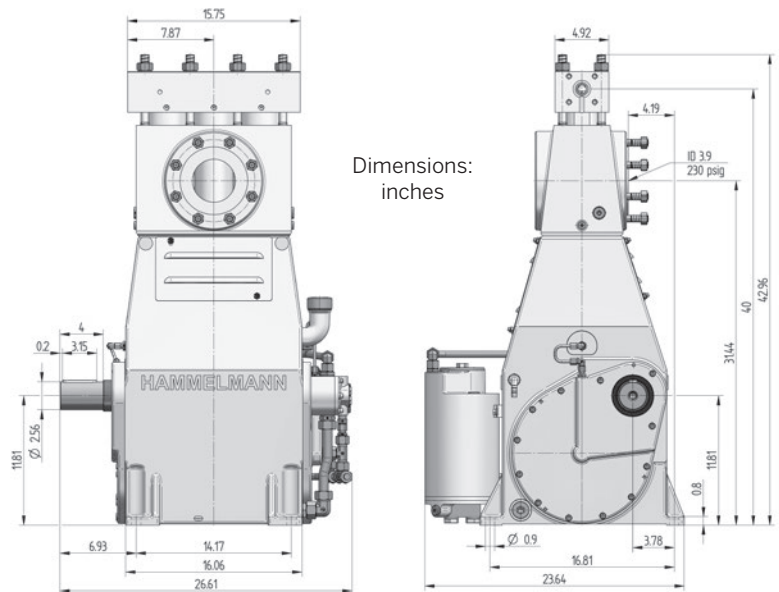


HAMPRO® 200 Process plunger pump

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 300 kW
- Vertical 3 cylinder design

Technical details HAMPRO® 200

Operating pressure	Flow rate
up to 46.4k psi	up to 129 gpm
Design	Weight
Vertical 3 cylinder design	~ 1157 lbs

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® 200: Performance parameters (standard design)

HAM PRO®	Q** [gpm]	Required power rating [hp]				D [mm]	r.p.m.	
		100	150	200	300		n1	n2
		Operating pressure [psi]						
204	4.8	28283	41336	46413		17,5	1220/1444	*400
	5.3	27558	41336	46413			1500	416
	7.4	19580	29008	34084	46413		1800/2150	593
	6.1	21756	31909	38436	40611	20	1220/1444	*400
	7.4	21031	30458	36260	40611		1500	416
	10.6	14504	21756	25382	40611		1800/2150	593

Data

- Rod force: 19,783 lbf
- Stroke: 3.0 inch
- Mean plunger speed at n2:

400 r.p.m. = 3.7 ft/sec

416 r.p.m. = 3.4 ft/sec

593 r.p.m. = 4.9 ft/sec

203	10.3	13779	20306	24657		25	1220/1444	*400
	11.4	13779	19580	23932			1500	416
	16.4	9428	13779	16680	25382		1800/2150	593
	13.2	10878	15954	19580		28	1220/1444	*400
	14.5	10878	15954	18855			1500	416
	20.6	7252	10878	13054	20306		1800/2150	593

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

202	15.3	9428	13779	16680		30	1220/1444	*400
	16.1	9428	13779	16680			1500	416
	23.0	6527	9428	11603	17405		1800/2150	593
	19.6	8557	12473	14794		33	1220/1444	*400
	20.3	8267	12038	14359			1500	416
	29.3	5802	8412	10153	15229		1800/2150	593
	21.1	7107	10443	12473		35	1220/1444	*400
	22.2	6817	10008	12038			1500	416
	31.7	4786	7107	8412	12764		1800/2150	593
	28	5366	7977	9573		40	1220/1444	*400
	29	5221	7687	9283			1500	416
	42	3626	5366	6527	10008		1800/2150	593
	36	4206	6237	7542		45	1220/1444	*400
	38	4206	6092	7397			1500	416
	53	2901	4351	5221	7832		1800/2150	593
	44	3481	5076	6092		50	1220/1444	*400
	47	3336	4931	5947			1500	416
	67	2321	3481	4206	6382		1800/2150	593
	54	2756	4206	5076		55	1220/1444	*400
	57	2756	4061	4931			1500	416
	80	2031	2901	3481	5221		1800/2150	593
	65	2321	3481	4206		60	1220/1444	*400
	67	2321	3481	4061			1500	416
	95	1595	2466	2901	4351		1800/2150	593
	76	2031	2901	3626		65	1220/1444	*400
	79	2031	2901	3481			1500	416
	112	1450	2031	2466	3771		1800/2150	593
	89	1740	2611	3046		70	1220/1444	*400
	91	1740	2466	3046			1500	416
	129	1160	1740	2176	3191		1800/2150	593



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.