

# HAMPRO 500 Process Plunger Pump

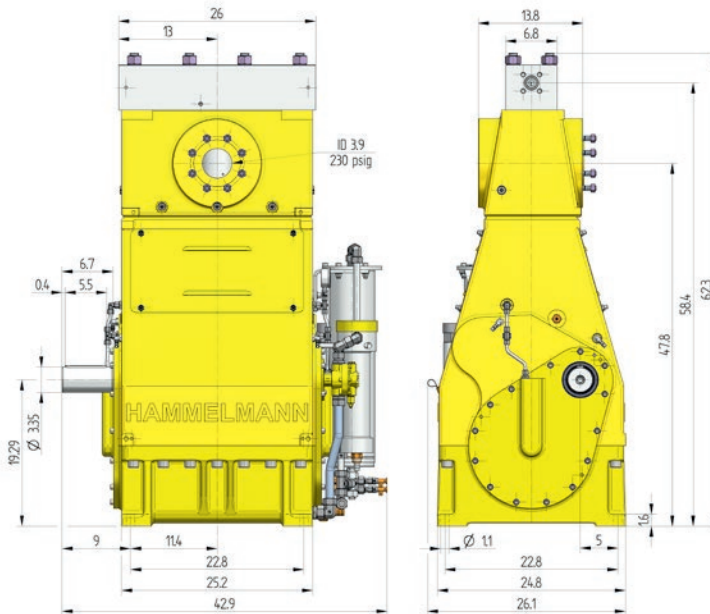


## Design criteria

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.

## Process Plunger Pump

Weight: approx. 4,321 lbs

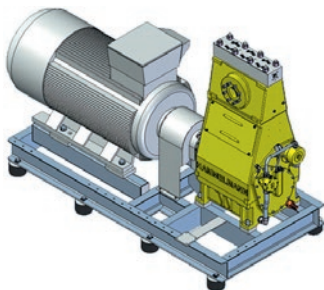


Dimensions: inches



## Stationary unit with electric motor

- Length: 114 inch
- Width: 52 inch
- Height: 75 inch
- Weight: approx. 12,345 lbs at 750 HP



Main dimensions without accessories such as suction line, pressure regulator etc. All shown as right side drive. Detailed dimensional drawings and weights available on request.

## Features

- Power ratings up to 750 HP
- Vertical 3 cylinder design

## Zero Emission



In the Zero Emission design the pumped fluid is hermetically sealed within the pump preventing leakage to atmosphere during operation.



The bellows system is gastight.

## 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 oil pump 50 1/min

# Technical data, series HAMPRO 500

Performance parameters (Standard design)

HAM PRO	Q** [GPM]	Required power rating [HP]			D [mm]	r.p.m.	
		400	550	750		n1	n2
		Operating pressure [psig]					
504	13.7	43512			28	1500	315
	13.7	37710	43512			1362/1659	*350
	20.3	30458	39886			1800	465
	18.0	32634			32	1500	315
	18.5	29008	37710			1362/1659	*350
	26.4	22191	29733	36985		1800	465
	21.9	26832			35	1500	315
	22.7	23932	31184			1362/1659	*350
32.2	18130	24657	31909	1800		465	

503	30	20741			40	1500	315
	31	18130	23932			1362/1659	*350
	44	14214	18855	23642		1800	465
	38	16390			45	1500	315
	40	14504	18855			1362/1659	*350
	56	11168	14939	18710		1800	465

502	47	13344			50	1500	315
	50	11603	15229			1362/1659	*350
	69	8992	12038	15084		1800	465
	57	11023			55	1500	315
	61	9428	12764			1362/1659	*350
	83	7542	10008	12473		1800	465
	68	9283			60	1500	315
	73	8122	10733			1362/1659	*350
	100	6237	8412	10443		1800	465
	81	7832			65	1500	315
	87	6962	9138			1362/1659	*350
	118	5366	7107	8992		1800	465
	94	6817			70	1500	315
	101	6092	7832			1362/1659	*350
	137	4641	6092	7687		1800	465
	108	5947			75	1500	315
	116	5221	6817			1362/1659	*350
	157	4061	5366	6672		1800	465
	119	5221			80	1500	315
	133	4641	5947			1362/1659	*350
173	3481	4641	5947	1800		465	

501 high flow	119	5221			80	1500	315
	133	4641	5947			1362/1659	*350
	173	3481	4641	5947		1800	465
	134	4641			85	1500	315
	151	4061	5221			1362/1659	*350
	196	3191	4206	5221		1800	465
	152	4061			90	1500	315
	170	3626	4786			1362/1659	*350
	222	2756	3771	4641		1800	465
	187	3336			100	1500	315
	210	2901	3771			1362/1659	*350
	274	2176	3046	3771		1800	465
	231	2756			110	1500	315
	255	2466	3191			1362/1659	*350
	338	1886	2466	3046		1800	465

## Data

- Rod force: 47,209 lbf
- Stroke: 3.9 inch
- Mean plunger speed at n2  
315 r.p.m. = 3.5 ft/sec  
350 r.p.m. = 3.8 ft/sec  
465 r.p.m. = 5.0 ft/sec

## Certificates

- Machine directive 2006/42/EU
- ATEX 94/9/EU
- API 674 (with deviations)
- TA-Luft
- 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.

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