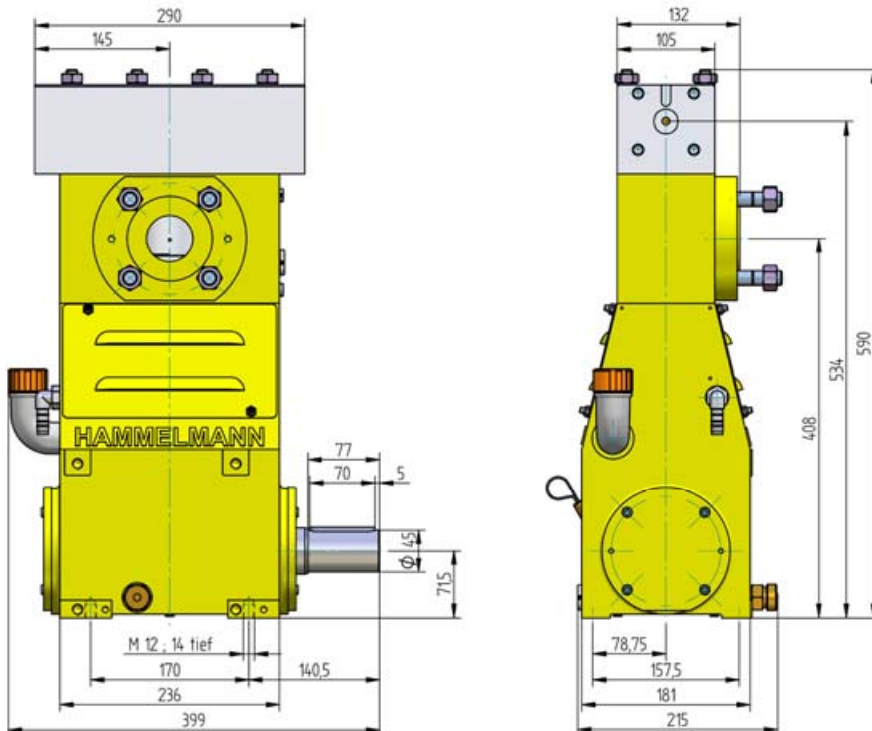


# HDP 15 process plunger pump

Hammelmann process pumps are built to operate at continuous maximum duty. Just compare the crank shaft speed, average plunger speed and power rating.

## High Pressure Pump

Weight: 94 kg



## Recommendations and standards

Machine directive 2006/42/EC  
ATEX 94/9/EC  
API 674 (with exceptions)

Other customer specified standards, i.e.

NORSOK M501  
NORSOK M650  
NACE MR 0175



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.



The bellow system is gastight.

## Features

- Power ratings up to 11 kW
- Vertical 3 cylinder design

## Quality and reliability

- Crank section calculation by 'Finite element method' ensures long working life under continuous load
- Splash lubricated crank section
- Bellows form hermetic seal between the suction chamber and crank section
- Stainless steel suction chamber
- Solid ceramic or tungsten carbide plungers
- Stainless steel pump head free of alternating stress
- Choice of performance and pumped medium specific seal and pump head assemblies
- Flow control achieved with variable speed gear or frequency converter
- Flow turndown ratio 1:10

# HDP 15 series, technical data

## Performance parameters

Q [m³/h]*	Q [l/min]*	Required power rating [kW]**				D	r.p.m.	
		4	5,5	7,5	11		n <sub>1</sub>	n <sub>2</sub>
		Operating pressure [bar]						

0,082	1,4	1290	1870	2320		8	1000 / 1200	370
0,093	1,6	1140	1650	2250	2320			420
0,111	1,9	950	1380	1890	2320			500

\* At pressures over 2000 bar approx. 5% of the flow rate is lost due to the compressibility factor of water

0,14	2,3	830	1190	1500		10	1000 / 1200	370
0,16	2,7	730	1050	1430	1500			420
0,19	3,2	610	880	1200	1500			500
0,21	3,5	570	830	1035		12	1000 / 1200	370
0,23	3,8	500	730	1000	1035			420
0,28	4,7	420	610	840	1035			500
0,33	5,5	360	530	660		15	1000 / 1200	370
0,38	6,3	320	460	640	660			420
0,45	7,5	270	390	530	660			500
0,46	7,7	270	390	480		17,5	1000 / 1200	370
0,52	8,7	240	340	470	480			420
0,62	10,3	200	280	390	480			500
0,60	10,0	220	300	370		20	1000 / 1200	370
0,68	11,3	190	260	360	370			420
0,81	13,5	160	220	300	370			500
0,94	15,7	130	190	230		25	1000 / 1200	370
1,07	17,9	120	160	230				420
1,28	21,3	100	140	190	230			500
1,35	22,5	95	130	160		30	1000 / 1200	370
1,54	25,6	85	110	160				420
1,83	30,5	70	95	130	160			500
1,85	30,8	70	95	120		35	1000 / 1200	370
2,10	35,0	60	85	100	120			420
2,50	41,6	50	70	95	120			500
2,42	40,3	50	70	90		40	1000 / 1200	370
2,75	45,8	45	65	90				420
3,27	54,5	40	55	75	90			500
3,07	51,1	40	55	70		45	1000 / 1200	370
3,48	58,0	35	50	70				420
4,15	69,1	30	40	55	70			500

\* m³/hr. = Water as measurement fluid  
Flow rates can vary with type of medium

\*\* Electric motor

D = Piston/Plunger dia. [mm]

n<sub>1</sub> = Motor r.p.m.

n<sub>2</sub> = Crankshaft r.p.m.

- Rod force: 11,7 kN
- Stroke: 30 mm
- Mean piston speed at n<sub>2</sub>

370 r.p.m. = 0,37 m/sec

420 r.p.m. = 0,42 m/sec

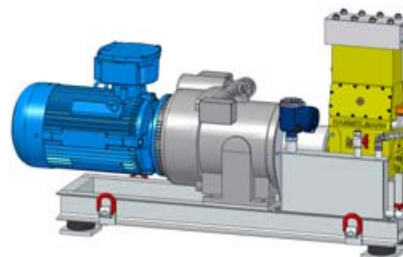
500 r.p.m. = 0,50 m/sec



### Stationary unit with electric motor

Length: 800 mm  
Width: 693 mm  
Height: 845 mm  
Weight: 480 kg  
at 11 kW

Automatic flow control via frequency converter (integrated in motor housing).



### Stationary unit with electric motor

Length: 1550 mm  
Width: 535 mm  
Height: 885 mm  
Weight: 480 kg  
at 11 kW

Manual or automatic flow control via adjustable gear.

Hammelmann  
Maschinenfabrik GmbH

Postfach 3309 • D-59282 Oelde Telefon (0 25 22) 76-0  
Zum Sundern 13-21 • Germany Telefax (0 25 22) 76-444  
eMail: pp@hammelmann.de • Internet: www.process-pumps.de

