

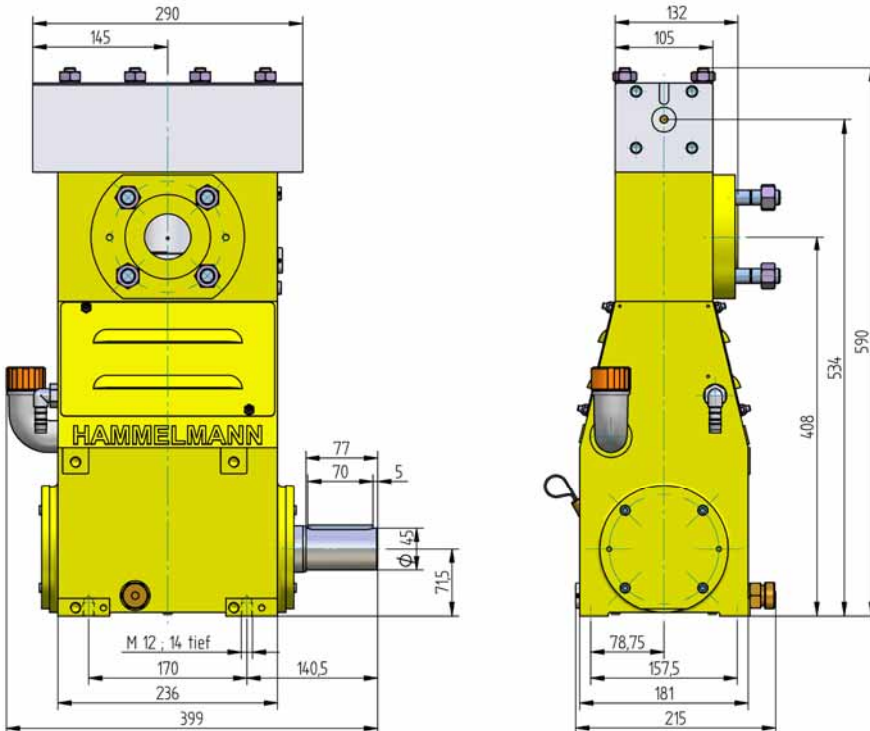
HDP 10 High Pressure Pump Series

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

Energy efficient →



Features

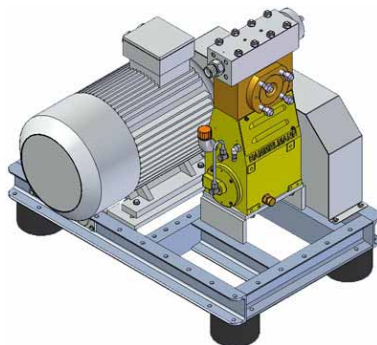
- Power ratings up to 11 kW
- Vertical 3 cylinder design

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 or bronze 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

Stationary unit with electric motor

- Length: 1000 mm
- Width: 752 mm
- Height: 890 mm
- Weight: approx. 370 kg at 11 kW



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.

HDP 10 series, technical data

Performance parameters

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

2,2	1100	1500	2200	8	1500/1800/2150	625
2,7	900	1250	1850			750
3,2	770	1050	1550			900
3,5	700	950	1400	10	1500/1800/2150	625
4,2	570	780	1150			750
5,1	490	660	980			900

3,5	700	950	1400	10	1500/1800/2150	625
4,2	570	780	1150			750
5,1	490	660	980			900
6	470	640	940	12	1500/1800/2150	625
7	400	550	810			750
8	350	480	710			900
9	310	420	630	15	1500/1800/2150	625
11	260	350	520			750
12	220	300	450	17,5	1500/1800/2150	625
15	190	250	380			750
16	170	230	350	20	1500/1800/2150	625
20	145	190	290			750
25	110	150	220	25	1500/1800/2150	625
31	95	130	190			750
37	75	100	150	30	1500/1800/2150	625
45	90	120	180			750
51	55	75	115	35	1500/1800/2150	625
62	45	65	95			750
68	40	55	85	40	1500/1800/2150	625
82	35	50	75			750
86	35	45	70	45	1500/1800/2150	625
103	25	35	55			750

- Rod force: 11,7 kN
- Stroke: 30 mm
- Mean piston speed at n₂
 - 625 r.p.m. = 0,63 m/sec
 - 750 r.p.m. = 0,75 m/sec
 - 900 r.p.m. = 0,90 m/sec



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

Conversion table

Rating	1 kW = 1.34 HP
Op. pressure	1 bar = 14.5 psi
Flow rate	1 l = 0.264 US gallon
	1 l = 0.22 Imp. gallon

D = Piston/Plunger dia. [mm]
n₁ = Motor/Engine r.p.m.
n₂ = Crankshaft r.p.m.

Type designations

Sealing system	D	HDP Type
Hydrodynamic with tungsten carbide plungers	8 - 10	14
Labyrinth with solid ceramic plungers	10 - 45	12
Packed sleeves with solid ceramic plungers	10 - 45	17

D = Piston/Plunger dia. [mm]

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