

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: 210 lbs



Energy efficient →



Features

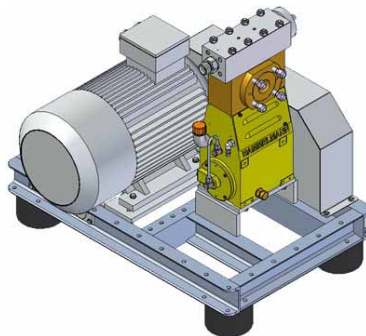
- Power ratings up to 15 HP
- Vertical 3 cylinder design

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: 39 inch
 Width: 29 inch
 Height: 35 inch
 Weight: approx. 820 lbs at 15 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.

HAMMELMANN®

HDP 10 series, technical data

Performance parameters

HDP	Q [GPM]*	Required power rating [HP]			D	r.p.m.	
		5,5	10	15		n ₁	n ₂
		Operating pressure [psig]					
14	0.6	15950	21800	31900	8	1500/1800/2150	625
	0.7	13100	18100	26800			750
	0.8	11200	15200	22500			900
	0.9	10200	13800	20300	10		625
	1.1	8300	11300	16700			750
	1.3	7100	9800	14200			900
13	0.9	10200	13800	20300	10	1500/1800/2150	625
	1.1	8300	11300	16700			750
	1.3	7100	9800	14200			900
	1.7	6800	9300	13600	12		625
	1.8	5800	8000	11700			750
	2.1	5100	7000	10300			900
12	2.4	5000	6100	9100	15	1500/1800/2150	625
	2.9	3800	5100	7500	17,5		750
	3.2	3200	4400	6500			625
	4.0	2800	3600	5500	20		750
	4.2	2500	3400	5100			625
	5.3	2100	2800	4200	25		750
	6.6	1600	2200	3200			625
	8.2	1400	1900	2800	30		750
	9.8	1100	1500	2200			625
	11.9	900	1200	1900	35		750
	13.5	800	1100	1700			625
	16.4	700	900	1400	40		750
	18.0	600	800	1200			625
	21.6	500	700	1100	45		750
	22.7	500	700	1000			625
	27.2	400	500	800	750		

- Rod force: 2,600 lbf
- Stroke: 1.18 inch
- Mean piston speed at n₂

625 r.p.m. = 2.1 feet/sec

750 r.p.m. = 2.5 feet/sec

900 r.p.m. = 3.0 feet/sec

**Energy
efficient** →

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

Conversion table
Rating 1 hp = 0,746 kW
Op. pressure 1 psi = 0,069 bar
Flow rate 1 gpm = 0,227 m³/h

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

HDP	Seal*	Sealing system
14	Dynamic	Tungsten carbide plunger & bushing
	Packing	Special ceramic plunger** / packing
13	Dynamic	Ceramic plunger / bronze bushing
	Packing	Ceramic plunger / packing
12	Dynamic	Ceramic plunger / bronze bushing
	Packing	Ceramik plunger / packing

* The dynamic high pressure sealing extends the advantages of the labyrinth design with further increased efficiency.

** Special ceramic plungers up to max. 2500 bar

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