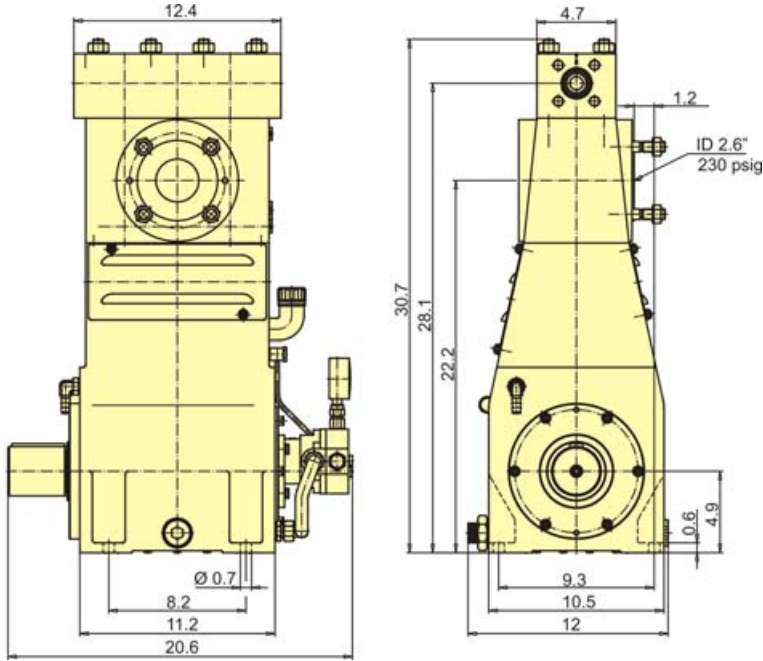


HDP 45 process plunger pump

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

High pressure pump

Weight: approx. 440 lbs



Dimensions: inches



Features

- Power ratings up to 40 HP
- Vertical 3 cylinder design
- Wide variety of complementary ancillaries

Quality and reliability

- Crank section calculation by 'Finite element method' ensures long working life under continuous load
- Pressurised oil lubrication system
- Bellows form hermetic seal between the suction chamber and crank section
- Bronze or 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

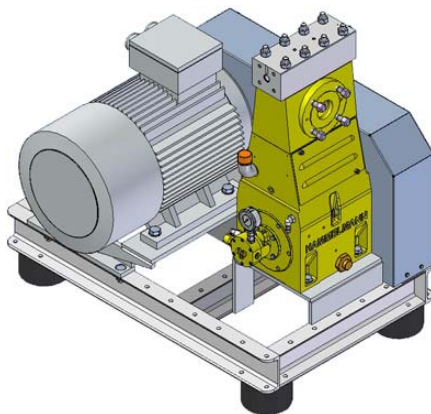
Stationary unit with electric motor

Length: 43 inch
 Width: 33 inch
 Height: 43 inch
 Weight: approx. 1,600 lbs at 40 HP



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.

Main dimensions without accessories such as pulsation damper, safety valve etc. Relevant drawings and weights available on request.



HDP 45 series, technical data

Performance parameters

Q [GPM] *	Required power rating [HP]**					D	r.p.m.	
	15	20	25	30	40		n 1	n 2
	Operating pressure [psig]							
0.8	25200	34400	42300	43500		12	1000 / 1200	350
1.0	21000	28600	35200	42100				420
1.1	17500	23900	29400	34900	43500			500
1.3	16100	22000	27100	31900		15		350
1.6	13300	18300	22600	26800	31900			420
1.9	11200	15200	18900	22500	30500			500
1.8	11900	16100	19900	23500		17,5		350
2.2		13500	16500	19700	23500			420
2.6			13800	16400	22500			500
* At pressures over 29000 psi approx. 5% of the flow rate is lost due to the compressibility factor of water								
2.4	9100	12300	15200	18000		20	1000 / 1200	350
2.9	7500	10300	12600	15100	18000			420
3.4	6200	8600	10600	12600	17300			500
2.9	7500	10200	12600	14800		22		350
3.5	6200	8600	10400	12500	14800			420
4.1	5200	7100	8700	10400	14200			500
3.5	6200	8600	10600	12500		24		350
4.2	5200	7100	8800	10400	12500			420
5.0	4400	5900	7400	8700	11900			500
4.1	5400	7300	9000	10600		26		350
5.0	4500	6100	7500	9000	10600		420	
5.9	3600	5100	6200	7400	10200		500	
5.5	4100	5500	6800	8000		30	350	
6.6	3300	4500	5700	6700	8000		420	
7.9	2800	3800	4600	5500	7700		500	
7.6	2900	4100	4900	5800		35	350	
9.1	2500	3300	4100	4900	5800		420	
10.9	2000	2800	3500	4100	5700		500	
10.0	2200	3000	3800	4500		40	350	
12.1	1900	2500	3200	3800	4500		420	
14.4	1500	2000	2600	3000	4200		500	
12.7	1700	2300	2900	3600		45	350	
15.2	1500	2000	2500	2900	3600		420	
18.1	1200	1700	2000	2500	3300		500	
15.7	1500	1900	2500	2900		50	350	
18.8	1200	1600	2000	2300	2900		420	
22.4	1000	1400	1700	2000	2800		500	
19.0	1200	1600	2000	2300		55	350	
22.8	900	1300	1700	1900	2300		420	
27.1	800	1100	1400	1700	2200		500	

* GPM = Water as measurement fluid
Flow rates can vary with type of medium
** Electric motor

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

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

- Rod force: 8,770 lbf
- Stroke: 1.18 inch
- Mean piston speed at n₂
350 1/r.p.m. = 1.15 feet/sec
420 1/r.p.m. = 1.38 feet/sec
500 1/r.p.m. = 1.64 feet/sec



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