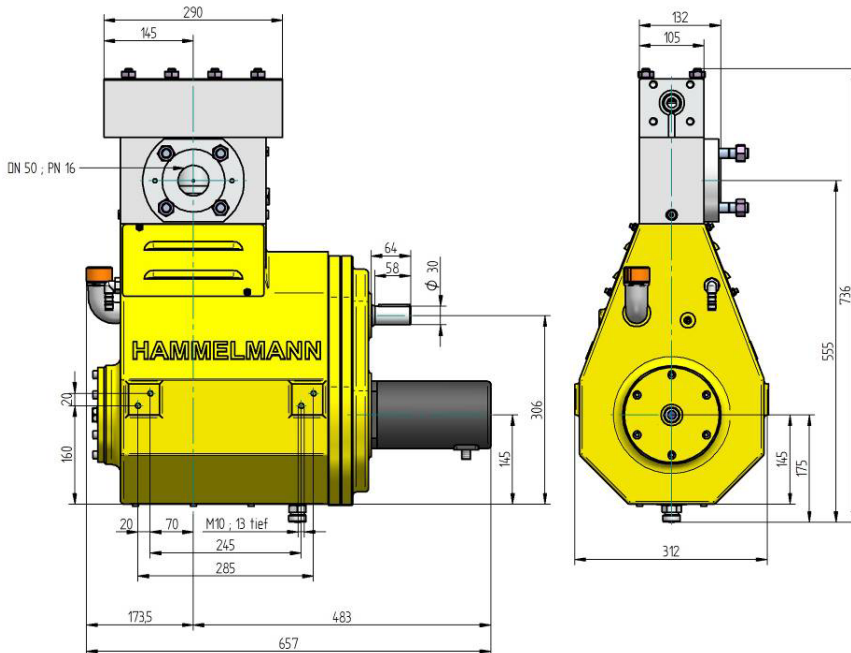


HDP 20 V high pressure pump

with smoothly adjustable stroke length



- Smooth, automatic adjustment of the flow rate
- Compact design with small footprint
- Highly energy efficient, Flow rate adjustment without energy loss also under partial load
- Possible to control the flow rate down to zero

Stroke adjustment operation

The stroke length is altered by turning the variator shaft. This can be achieved when the pump is not running as well as during operation. Once the adjustment has been made the variator shaft is held in position by the stepper motor. The system then runs with the newly adjusted stroke length providing the required flow rate.

Adjustment

- The stroke alters in relation to the middle position.
- Very precise adjustment possible - API 675 conform

Adjustment options

- Hand wheel
- Servomotor also available for hazardous and explosive areas: -> EX de II C T4
- Nominal power= up to 900 [W]
- Nominal supply voltage = 115/230 or 400/480 [V]
- Net frequency = 50/60Hz
- Communication interface:
 - Modbus
 - CANopen
 - CANmoiton
 - Maschinenbus
 - DeviceNet
 - EtherNet / IP
 - Profibus DP
 - Ether CAT



HAMMELMANN®

HDP 20 V, technical data

Performance parameters

HDP	Q [GPM]*	Required power rating [HP]			D	r.p.m.	
		15	20	25		n1	n2
		Operating pressure [psig]					

- Rod force: 224,809 lbf
- Stroke: 0 to 1.18 inch

24 V	0 to 0.63	28280	38430	47420	8	1500/1800	675 810
	0 to 0.77	23490	32050	39600			
	0 to 1.03	17980	24650	30310	10	1500/1800	675 810
	0 to 1.28	15080	20450	25230			

Features

- Power ratings up to 25 HP
- Vertical 3 cylinder design
- Wide variety of complementary ancillaries

* At pressures over 29000 psig there is 5% pressure loss due to the compressibility of mediums

23 V	0 to 1.03	17980	24650	30310	10	1500/1800	675 810
	0 to 1.27	15080	20450	25230			
	0 to 1.64	12470	17110	21030	12	1500/1800	675 810
	0 to 1.98	10440	14210	17550			

Quality and reliability

- Stainless steel pump head free of alternating stress
- Bellows form hermetic seal between the suction chamber and crank section
- Choice of application specific seal assemblies
- Solid ceramic or tungsten carbide plungers
- Choice of bronze (standard) or stainless steel suction chamber
- Crank section calculation by 'Finite element method' ensures long working life under continuous load
- Pressurised oil lubrication system

22 V	0 to 2.56	7980	10880	13490	1500/1800	675 810	
	0 to 3.14	6670	9140	11310			
	0 to 3.43	5950	7980	9860			17,5
		0 to 4.28	4930	6670			
	0 to 4.57	4500	6090	7540			20
		0 to 5.70	3770	5080			
	0 to 7.13	2900	3920	4930			25
		0 to 8.84	2470	3340			
	0 to 10.56	2030	2760	3340			30
		0 to 12.83	1740	2320			
	0 to 14.55	1450	2030	2470			35
		0 to 17.69	1160	1740			
0 to 18.82	1160	1600	1890	40			
	0 to 23.39	870	1310		1600		
0 to 23.94	870	1160	1450	45			
	0 to 29.30	730	1020		1310		



HDP	Seal*	Sealing system
24 V	Dynamic	Tungsten carbide plunger & bushing
	Packing	Special ceramic plunger** / packing
23 V	Dynamic	Ceramic plunger / bronze bushing
	Packing	Ceramic plunger / packing
22 V	Dynamic	Ceramic plunger / bronze bushing
	Packing	Ceramik plunger / packing

D = Piston/Plunger dia. [mm]
n1 = Motor/Engine 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

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

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

** Special ceramic plungers up to max. 36250 psig

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