

HAMPRO® 70 V Process plunger pump

HAMMELMANN®

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



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.

- 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

Adjustment

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

Adjustment options

- Hand wheel
- Servomotor also available for hazardous areas
- 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

Quality and reliability

- Crank section calculation by 'Finite element method' ensures long working life under continuous load
- Stainless steel pump head free of alternating stress
- Integral speed reduction gear
- Pressurised oil lubrication system with oil cooler/filter
- Bellows form hermetic seal between the suction chamber and crank section
- Large selection of materials available for different fluids

Features

- Power ratings up to 70 kW
- Vertical 3 cylinder design



Zero Emission



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.

Technische Daten Baureihe HAMPRO® 70 V: Leistungsdaten (Standardausführung)

HAM PRO®	Q* [l/min]	Q* [m³/h]	Required power rating [kW]				D [mm]	r.p.m.	
			37	45	55	70		n1	n2
			Operating pressure [bar]						
74 V	0 - 5,1	0 - 0,31	3500	4200	4500		10	1500	625
	0 - 5,8	0 - 0,35	3000	3700	4500	4500			720
	0 - 6,1	0 - 0,37	2900	3500	4300			1800	750
	0 - 7	0 - 0,42	2500	3100	3800	4500			860
	0 - 7,5	0 - 0,45	2400	2900	3600	3800	12	1500	625
	0 - 8,6	0 - 0,52	2100	2500	3100				720
	0 - 9	0 - 0,54	2000	2400	3000	3800		1800	750
	0 - 10	0 - 0,60	1750	2100	2600	3300			860
	0 - 12	0 - 0,72	1540	1870	2300	2400	15	1500	625
	0 - 14	0 - 0,84	1340	1630	2000				720
	0 - 14	0 - 0,84	1280	1560	1910	2400		1800	750
	0 - 16	0 - 0,96	1120	1360	1660	2100			860
	0 - 16	0 - 0,96	1130	1380	1680		17,5	1500	625
	0 - 19	0 - 1,14	980	1200	1460	1800			720
	0 - 20	0 - 1,20	940	1150	1400	1780		1800	750
	0 - 23	0 - 1,38	820	1000	1220	1560			860
73 V	0 - 21	0 - 1,26	870	1050	1300	1370	20	1500	625
	0 - 25	0 - 1,50	750	920	1120				720
	0 - 26	0 - 1,56	720	880	1070	1370		1800	750
72 V	0 - 26	0 - 1,56	720	870	1060	1130	22	1500	625
	0 - 30	0 - 1,80	620	760	920				720
	0 - 31	0 - 1,86	600	730	900	1130		1800	750
	0 - 32	0 - 1,92	600	730	900	950	24	1500	625
	0 - 37	0 - 2,22	520	640	780				720
	0 - 38	0 - 2,28	500	610	750	950		1800	750
	0 - 38	0 - 2,28	510	620	760	810	26	1500	625
	0 - 44	0 - 2,64	450	540	660				720
	0 - 45	0 - 2,70	430	520	640	810		1800	750
	0 - 50	0 - 3,00	400	470	570	610	30	1500	625
	0 - 57	0 - 3,42	330	410	500				720
	0 - 60	0 - 3,60	320	400	480	610		1800	750
	0 - 69	0 - 4,14	280	340	420	450	35	1500	625
	0 - 79	0 - 4,74	250	300	370				720
	0 - 82	0 - 4,92	240	300	350	450		1800	750
	0 - 90	0 - 5,40	220	260	320	340	40	1500	625
	0 - 104	0 - 6,24	200	230	280				720
	0 - 109	0 - 6,54	180	220	270	340		1800	750
	0 - 113	0 - 6,78	170	210	250	270	45	1500	625
	0 - 131	0 - 7,86	150	180	220				720
	0 - 136	0 - 8,16	140	170	210	270		1800	750
	0 - 140	0 - 8,40	140	170	210	220	50	1500	625
	0 - 161	0 - 9,66	120	150	180				720
	0 - 168	0 - 10,08	120	140	170	220		1800	750
	0 - 169	0 - 10,14	110	140	170	180	55	1500	625
	0 - 195	0 - 11,70	100	120	150				720
	0 - 203	0 - 12,18	100	120	140	180		1800	750

Data

- Rod force: 43 kN
- Stroke: 40 mm

Certificates

- Machine directive 2006/42/EG
- ATEX 2014/34/EG
- API 675
- TA-Luft (Clean Air)
- NORSOK M501
- NORSOK M650
- NACE MR0175

Standards

- DIN EN ISO 9001
- DIN EN ISO 14001
- DIN EN ISO 50001
- BS OHSAS 18001
- ASME-U
- Achilles
- EAC



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

* Data refer to the medium water (compressibility considered)

D = Plunger diameter

n1 = Motor/Engine r.p.m.

n2 = Crankshaft r.p.m.