

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 94 hp
- 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.

Technical data, series HAMPRO® 70 V: Performance parameters (standard design)

HAM PRO®	Q* [gpm]	Required power rating [hp]				D [mm]	r.p.m.	
		50	60	74	94		n1	n2
		Operating pressure [bar]						
74 V	1.36	50763	60916	65267		10	1500	625
	1.54	43511	53664	65267	65267			720
	1.63	42061	50763	62366			1800	750
	1.85	36259	44962	55114	65267			860
	1.98	34809	42061	52214	55114	12	1500	625
	2.29	30458	36259	44962				720
	2.38	29008	34809	43511	55114		1800	750
	2.64	25382	30458	37710	47862			860
	3.17	22336	27122	33359	34809	15	1500	625
	3.70	19435	23641	29008				720
	3.70	18565	22626	27702	34809		1800	750
	4.23	16244	19725	24076	30458			860
	4.23	16389	20015	24366		17,5	1500	625
	5.02	14214	17405	21176	26107			720
	5.28	13634	16679	20305	25817		1800	750
	6.08	11893	14504	17695	22626			860

73 V	5.55	12618	15229	18855	19870	20	1500	625
	6.60	10878	13343	16244				720
	6.87	10443	12763	15519	19870		1800	750

72 V	6.87	10443	12618	15374	16389	22	1500	625
	7.93	8992	11023	13343				720
	8.19	8702	10588	13053	16389		1800	750
	8.45	8702	10588	13053	13779	24	1500	625
	9.77	7542	9282	11313				720
	10.04	7252	8847	10878	13779		1800	750
	10.04	7397	8992	11023	11748	26	1500	625
	11.62	6527	7832	9572				720
	11.89	6237	7542	9282	11748		1800	750
	13.21	5802	6817	8267	8847	30	1500	625
	15.06	4786	5947	7252				720
	15.85	4641	5802	6962	8847		1800	750
	18.23	4061	4931	6092	6527	35	1500	625
	20.87	3626	4351	5366				720
	21.66	3481	4351	5076	6527		1800	750
	23.78	3191	3771	4641	4931	40	1500	625
	27.47	2901	3336	4061				720
	28.79	2611	3191	3916	4931		1800	750
	29.85	2466	3046	3626	3916	45	1500	625
	34.61	2176	2611	3191				720
	35.93	2031	2466	3046	3916		1800	750
	36.98	2031	2466	3046	3191	50	1500	625
	42.53	1740	2176	2611				720
	44.38	1740	2031	2466	3191		1800	750
	44.65	1595	2031	2466	2611	55	1500	625
	51.51	1450	1740	2176				720
	53.63	1450	1740	2031	2611		1800	750

Data

- Rod force: 9,666 lbf
- Stroke: 1,57 inch

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.