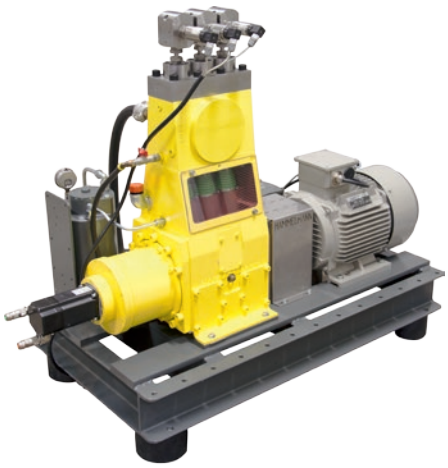
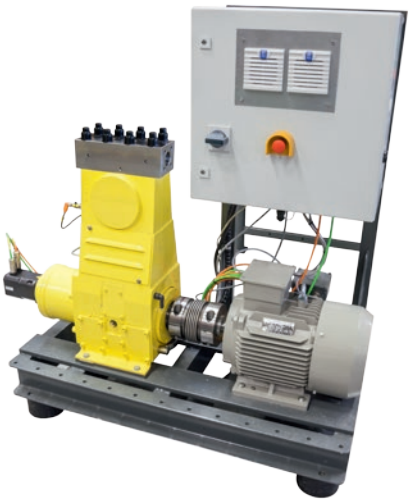
HAMPRO 70 V Process Plunger Pump

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.





Adjustment

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

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

Features

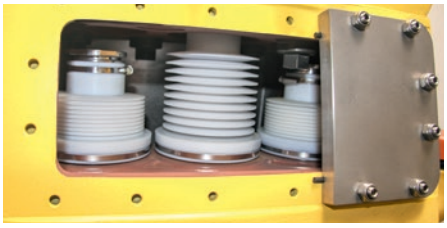
- Power ratings up to 70 kW
- Vertical 3 cylinder design

Zero Emission

ZERO EMISSION® VDI 2440

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.

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 servomotor. 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

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

HAMMELMANN®

Technical data, series HAMPRO 70 V

Performance parameters (Standard design)

HAM PRO	Q* [l/min]	Q* [m³/h]	Required power rating [kW]			D [mm]	r.p.m.	
			30	45	70			
			Operating pressure [bar]				n1	n2
74 V	0 - 7,5	0 - 0,45	1650	2500	3000	12	750	750
	0 - 9,3	0 - 0,56	1400	2100			900	900
	0 - 13,9	0 - 0,83	1050	1600	2050	15	750	750
	0 - 16,1	0 - 0,97	890	1300			900	900
	0 - 19,5	0 - 1,17	780	1150	1500	17,5	750	750
	0 - 23	0 - 1,38	650	980			900	900
73 V	0 - 26	0 - 1,56	600	900	1350	20	750	750
72 V	0 - 31	0 - 1,86	490	740	1130	22	750	750
	0 - 37	0 - 2,22	420	630	950	24	750	750
	0 - 45	0 - 2,70	350	530	810	26	750	750
	0 - 61	0 - 3,66	260	400	600	30	750	750
	0 - 83	0 - 4,98	190	290	440	35	750	750
	0 - 109	0 - 6,54	150	220	340	40	750	750
	0 - 139	0 - 8,34	110	170	270	45	750	750
	0 - 171	0 - 10,26	95	140	210	50	750	750
	0 - 206	0 - 12,48	60	100	150	55	750	750

Data

- Rod force: 43 kN
- Stroke: 0 – 40 mm
- Mean plunger speed at n2
  750 1/min. = 1,0 m/sec
  900 1/min. = 1,2 m/sec

Standards

- Machine directive 2006/42/EG
- ATEX 94/9/EG
- API 675 (with deviations)
- TA-Luft
- NORSOK M501
- NORSOK M650
- NACE MR0175

Certificates

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

ENERGY EFFICIENT

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.

+44 1905 751790
sales@calder.co.uk
www.calderltd.com

Calder Ltd
Prescott Drive
Worcester
WR4 9NE
United Kingdom

HAMMELMANN®