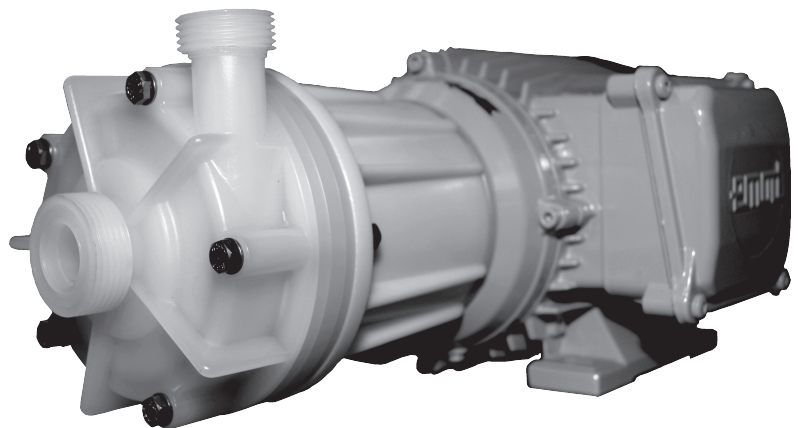


SCHMITT
Kreiselpumpen

**chemical resistant pumps
for corrosive and highly pure media**

product information



P Pump Series

**normal priming,
magnetically coupled
impeller-type peripheral pumps**

materials: PVDF

- normal priming, magnetically coupled impeller-type peripheral pumps
- materials: **PVDF (polyvinylidene fluoride)**
- hermetically sealed
- particularly suitable for small volume flows and high pressures

- max. output rate: **40 l/min, 2,4 m³/h, 10,5 US-Gal/min**
- max. discharge head: **32 m, 105 ft**
- motor power: **1,1 KW**

The P Pump Series is designed according to the peripheral impeller principle. The special impeller and housing geometry enables higher pressures and a linear characteristic. All parts in contact with the medium are made of PVDF (chemical resistant). The power is transmitted contact free and abrasion-free with a magnetic coupling through the closed housing wall ("Slot-pot") to the pump impeller. An encapsulated counter-magnet is built-in inside the impeller. Therefore, a rigid shaft passage is not necessary.

Advantages of the P Pump Series:

- due to the linear characteristic, this pump can be very precisely controlled and metered
- approximately double the pressure at the same size, compared to conventional centrifugal pumps
- transfer also possible at rising back pressure e.g. when filters are clogging
- building block system with a centric suction port
- fully compatible with the MPN Pump Series (with few steps, at location, an MPN Pump Series can be converted to a P Pump Series)
- hermetically sealed, absolutely leak-proof
- the highest chemical resistance
- low-maintenance through double hydro-dynamic slide bearings with extra big radii
- long lasting and wear resistant (self-centering impeller, therefore no axial thrust)
- self-cooling design for the operation under demanding conditions
- robust design - vulnerable (floating) axles are not necessary
- no metal parts are in contact with the medium
- easy to maintain (wear parts can be changed swiftly)
- very compact
- negative pressure tight for vacuum systems

The P Pump Series is particularly suitable for the frequency converter operation and for crystallizing media (no air can get inside), toxic or environmentally hazardous media. A small amount of gas in the liquid can also be transferred without disrupting the liquid flow.

This results in **application possibilities, amongst others, for the following application fields:**

Spraying of chemicals through narrow nozzles, transfer through close meshed filters, very narrow installation space in plants, metering equipment, electro-plating technology, laboratory and medical technology, waste water treatment, circulating pump for heat exchangers, laboratory technology, environmental technology

Types of the P Pump Series

Materials and Components:

- parts in contact with the medium are made solid of PVDF
- housing seal alternatively made of FKM, EPDM, FEP or Kalrez ®
- slide bearings made of the materials PTFE/ceramic
- high-quality electric motors made in Germany

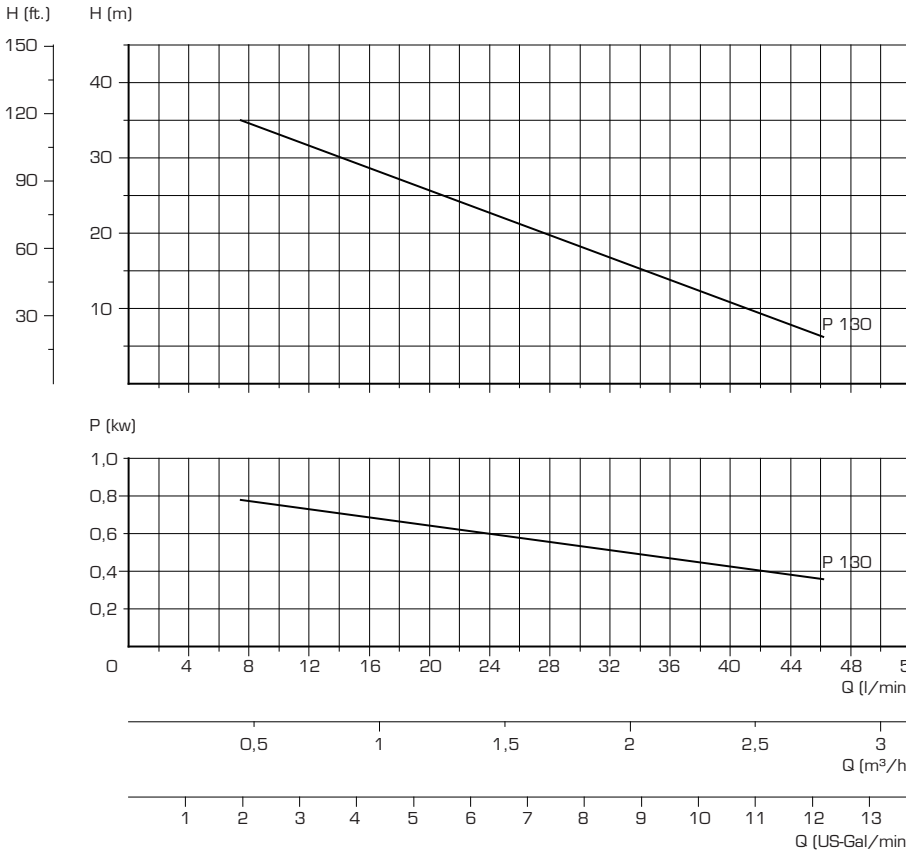
Material details:

- PVDF: polyvinylidene fluoride, pure, milky white, not colored (up to +95° C)
- FKM: Viton ® quality, -20...+200 °C
- EPDM: ethylene propylene diene M-class rubber, food-safe (FDA, KTW, WRC), -40...+160° C
- FEP: fluorinated ethylene propylene with Viton® or silicone core, -60...+200° C
- Kalrez ®: high performance elastomere up to +315° C
- PTFE: pure Teflon ®, fiber glass or carbon fiber reinforced
- Ceramic: highly pure Al₂O₃-ceramic 99,7%

Motor details:

- standard motors (stock items):
 - three-phase motors: 230/400 V 3ph, 50 Hz, IP 55, insulation class F or 277/480 V 60 Hz also with PTC thermistor
 - alternating current motors: 230 V 1ph, 50/60 Hz, IP 55, insulation class F
- special design models (available):
 - special voltages and frequencies
 - 2-, 4- and 8-pole
 - UL- and CSA execution
 - special protection types (e.g. IP 65)
 - high temperature designs
 - special insulation classes (e.g. tropical insulations)
 - multi area voltage (e.g. 220-290 / 380-500 V 50 Hz; 220-332 / 380-575 V 60 Hz.)
 - additional designs upon enquiry

Characteristics of the P Pump Series



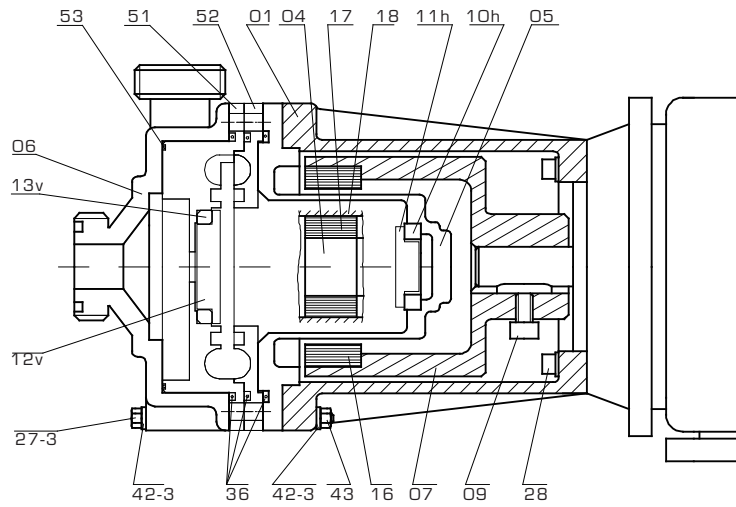
P 130
Pump Series

Motor power

P 130 1,10 kw

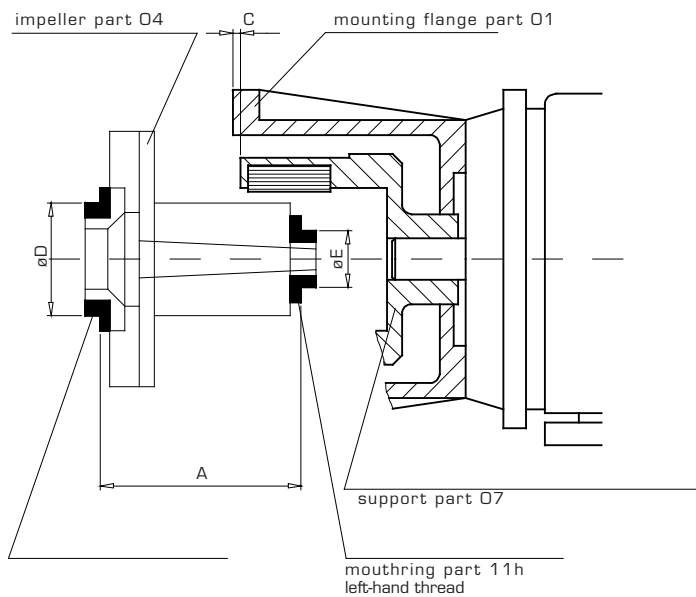
Characteristic lines measured with water, 20° C and 2900 Rpm (50 Hz.)

Parts Description of the P Pump series



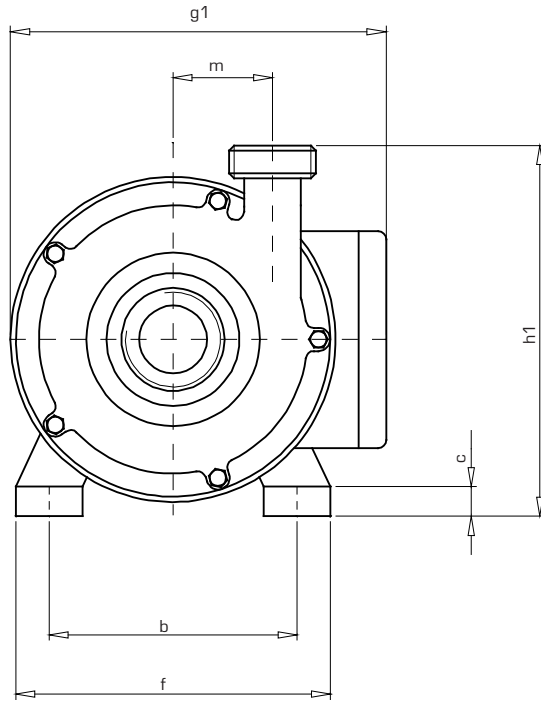
part-no.	part	standard	material on request
O1	mounting flange	PP	
O4/17	impeller with magnet + cover	PVDF	
18		PVDF	
11h	mouthring (left-hand thread)	PTFE	
12v	mouthring (right-hand thread)	PTFE	
O5	backplate + stationary ring	PVDF	
10h		Ceramic	
O6	pump housing	PVDF	
36	pump housing seal	FKM**	FEP or EPDM
O7	support with magnet + cylinder bolt		
16/09			
27-3	hexagon bolt	A4	
28	cylinder bolt	A4	
42-3	washer	A4	
43	hexagon bolt	A4	
51	pump housing insat + ring	PVDF	
13v		Ceramic	
52	back plate insat	PVDF	
53	o-ring seal	FKM**	

**FKM = e.g. Viton®



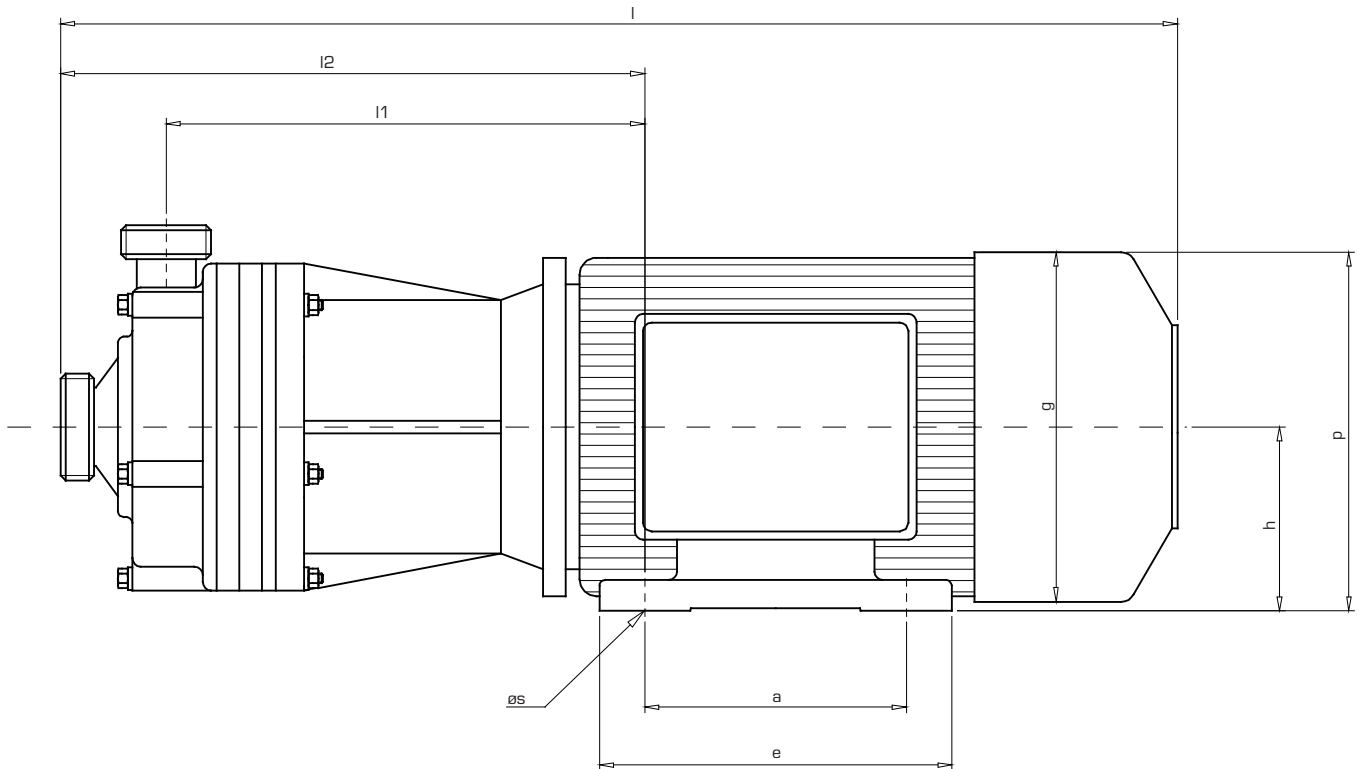
type	A	C	D	E
P 130	76,1	3,1	33,8	19,8

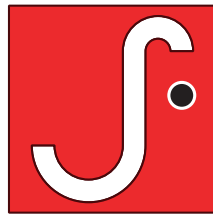
Specification of the P Pump Series



type	h	h1	l	l1	l2	g	g1	p	a	b	e	f	c	ø s	m	suction conn.		pressure conn.		weights
																nom. bore	male thread	nom. bore	male thread	kg
P 130	80	159	410	174	216	157	215	159	100	125	125	160	11	10	42	20	G1 1/4"	15	G1"	12,7

The dimensions of the motors refer to three-phase standard motors.





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Motors: - all driving motors are to IEC standard operating on 230/400 volts 50 cycles.
 - single phase A.C. motors are also available up to 1,10 kW.
 - explosionproof motors can be supplied to the whole range of pumps.
 - special voltages, frequencies and types of protection can be delivered on request.

Note: - upon request all motors can be supplied for USA standard (UL proof).
 - for each pump also detail handouts are available.

We reserve the right to alter the technical details.
Dimensions and performance details without guarantee.

12/2008



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