

## Product information

### **UP Pump Series**

Normal priming,  
centrifugal pumps  
with a single mechanical seal  
Material: stainless steel 1.4581

**SCHMITT**

chemical resistant pumps

## Description

### UP Pump Series



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Normal priming, centrifugal pumps  
with a single mechanical seal

**Application:** The UP Pump Series is designed for all sorts of applications and is perfectly suitable for the transmitting operation in stainless steel plants as well as for severe temperature stress.

**Field of application:** Circulation pump for heat exchanger, for very hot alkaline liquids, oils and degreasing baths, airplane jet engine cleaning plants, petrochemical industry, Filtration, large-scale bakeries, electro-plating technology, laboratory applications, brewery operations, environment engineering, food industry, applications for soiled and metallicly contaminated media

**Material :** Stainless steel 1.4581

**Max. output rate:** 460 l/min

**Max. discharge head:** 39 m

**Motor power:** 0,18 - 5,5 kW

In the UP Pump Series, the motor power is transmitted without slip directly to the pump impeller with a rigid shaft (no magnetic coupling). A mechanical seal prevents the leakage of the media to be pumped and ensures the leak proof sealing of the centrifugal pump. All parts that are in contact with the medium are made solid of stainless steel (1.4581).

**Advantages:**

- » also applicable for higher viscosities or metallic particles in the medium
- » the highest chemical resistance also at high temperatures up to +150° C
- » robust, thick-walled design, solid stainless steel fine cast (no thin-walled deep-drawing sheet metal)
- » low-maintenance through an optimal adaptation to the medium to be pumped
- » long-lasting and wear resistant, various types of designs for almost all operating conditions
- » open impeller (i.e. solids up to 3 mm grain size and 10 Vol. % possible)
- » easy to maintain (wear parts and the mechanical seal can be changed swiftly)
- » universally applicable, quiet and compact
- » various chemical resistant materials can be supplied as stock items
- » also available for combustible environments, explosion proof (ATEX)

# Types

## UP Pump Series



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- Materials and Components:**
- » Main material: Parts solid made of stainless steel 1.4581
  - » Elastomere alternatively made of FKM, EPDM, FEP or Kalrez®
  - » Shaft made of stainless steel
  - » Mechanical seals made of PTFE, ceramic, carbon or SiC
  - » The mechanical seal is spring-loaded (spring made of Hastelloy C4)
  - » High-quality electric motors made in Germany

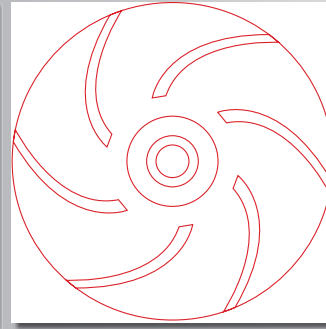
- Material details:**
- » **Stainless steel:** 1.4571 or stainless steel fine cast 1.4581 (A4) (up to +150° C)
  - » **FKM:** Viton® quality, -20...+200° C
  - » **EPDM:** Ethylene propylene diene M-class rubber, Food-safe (FDA, KTW, WRC), -40...+160° C
  - » **FEP:** Fluorinated ethylene propylene with 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 Al<sub>2</sub>O<sub>3</sub>-ceramic 99.7%
  - » **SiC:** Silicon carbide, without free silicon, sintered
  - » **Carbon:** Carbon, impregnated with synthetic resin, food-safe
  - » **Hastelloy C4:** 2.4610

### 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
  - » Three-phase motors: spark arrested for combustible environments, explosion proof: EEx e IIT3
- Special design models (available):**
- » Three-phase motors, explosion proof, flameproof enclosure, EEx de II CT4
  - » 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

## UP Pump Series

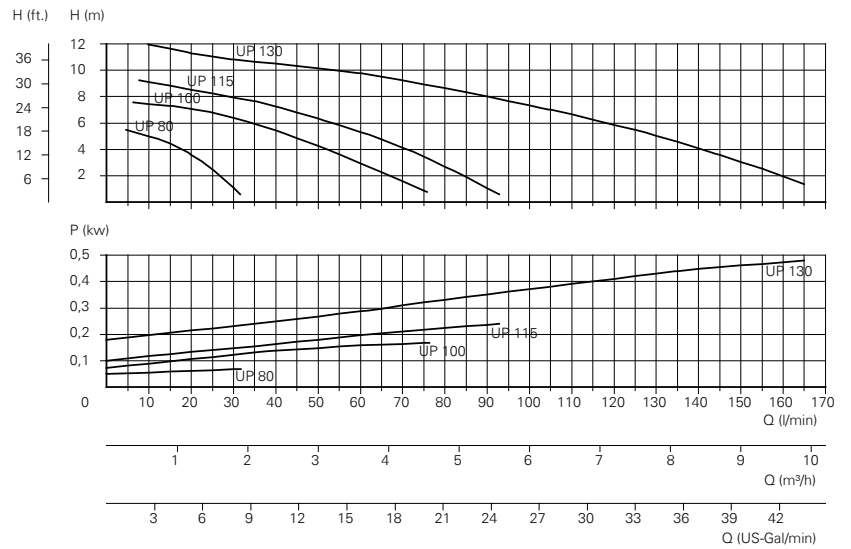


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chemical resistant pumps

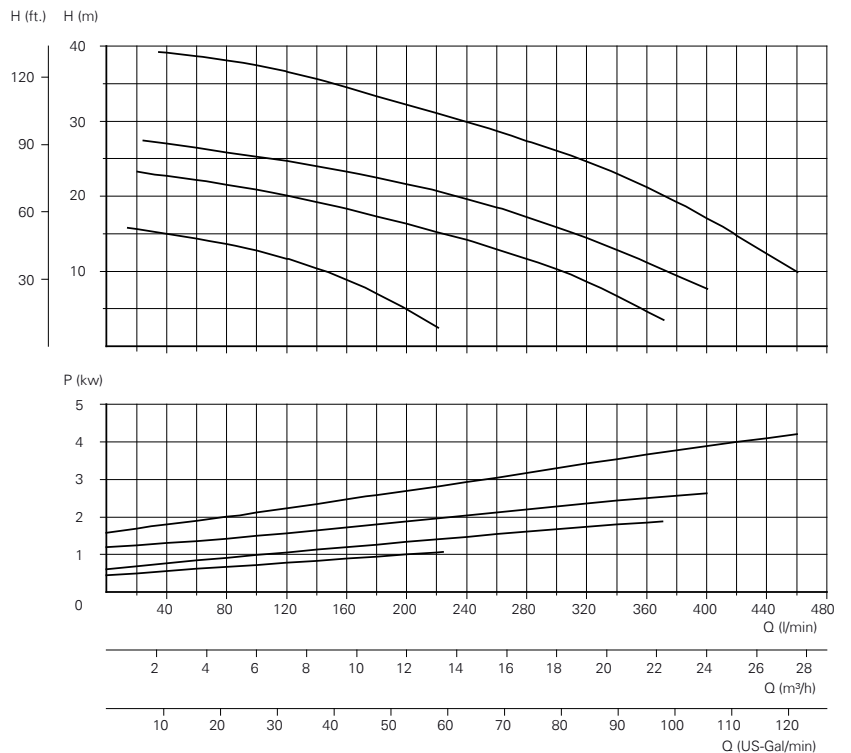
### UP 80 bis UP 130 Pump Series

- Motor power**
- » UP 130: **0,55 kW**
  - » UP 115: **0,25 kW**
  - » UP 101: **0,18 kW**
  - » UP 80: **0,18 kW**



### UP 150 bis UP 210 Pump Series

- Motor power**
- » UP 210: **5,50 kW**
  - » UP 190: **3,00 kW**
  - » UP 170: **2,20 kW**
  - » UP 150: **1,10 kW**

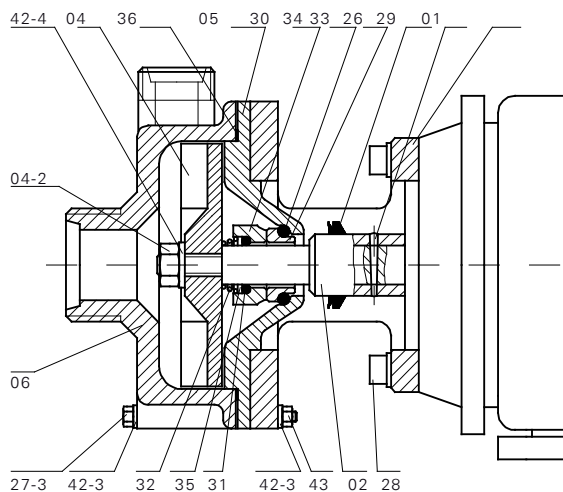


Characteristic lines measured with water, 20° C and 2900 Rpm (50 Hz.)

# Parts Descriptions

## UP Pump Series

chemical resistant pumps

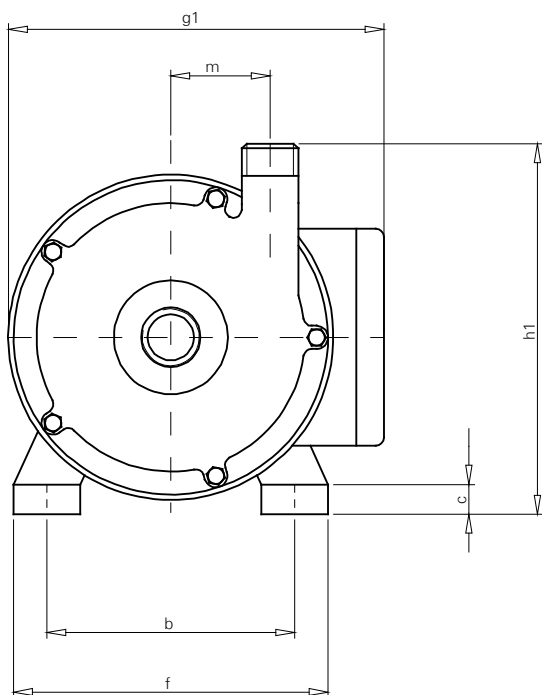


Part-No.	Part	Materials	
		standard	on request
01	mounting flange	aluminium	stainless steel
02	shaft extension C	stainless steel	
04	impeller	stainless steel	
04-2	locking nut	stainless steel	
05	backplate	stainless steel	
06	pump housing	stainless steel	
26	flinging disc	rubber	
26-1	thermal conduction plate		aluminium
27-3	hexagon bolt	A4	
28	bolt + washer	A4	
29	cotter pin	1.4571	
30	rotating seal	carbon	SiC
31	o-ring seal	FKM*	FEP or EPDM
32	coil spring righthand side	Hastelloy C	
33	stationary seal	ceramic	SiC
34	o-ring seal	FKM*	FEP or EPDM
35	thrust washer	stainless steel	
36	pump housing seal	PTFE	
42-3	washer	A4	
42-4	locking washer	stainless steel	
43	hexagon nut	A4	

\*FKM = e.g. Viton®

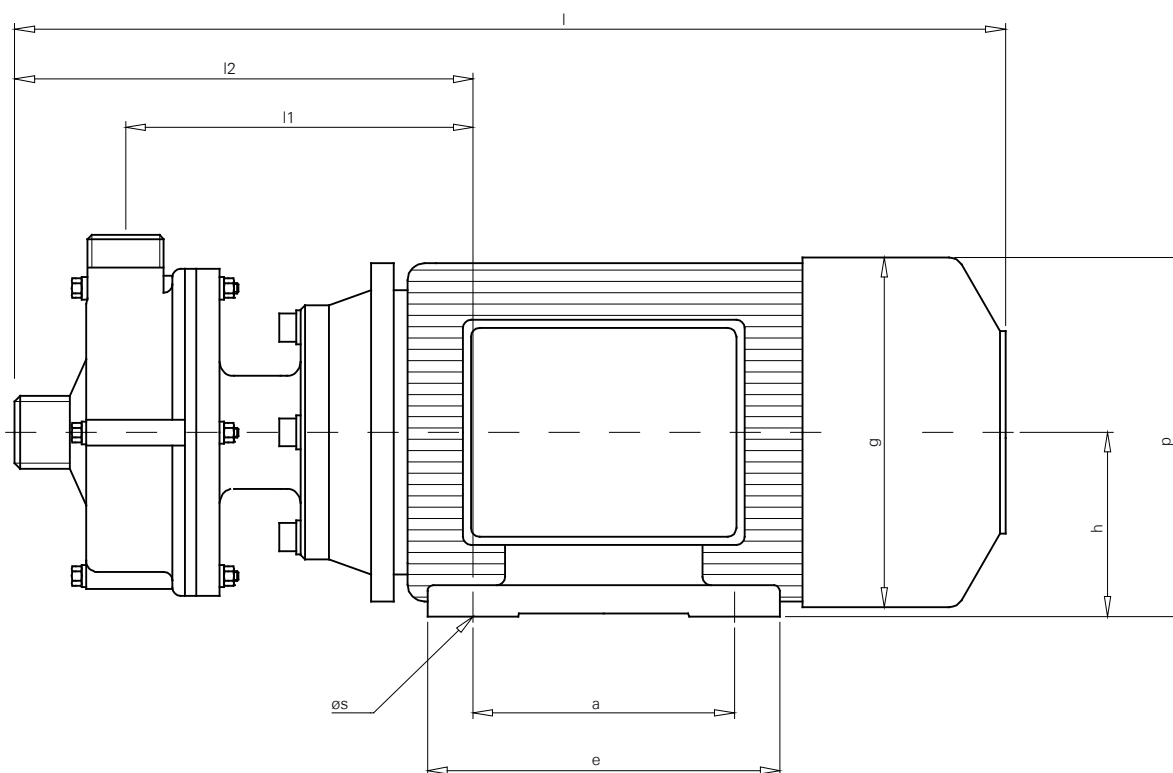
# Specification UP Pump Series

chemical resistant pumps

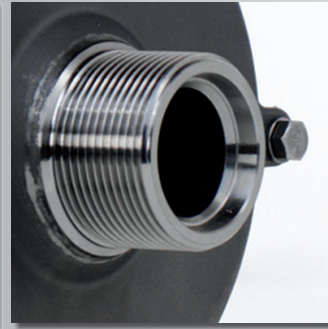


Type	h	h1	l	l1	l2	g	g1	p	a	b	e	f	c	ø s	m	suction conn.		pressure conn.		weights kg
																DN	AG	DN	AG	
UP 80	56	121	277	104	143	111	163	113	71	90	90	112	8	6	32	10	G ½"	10	G ½"	5,2
UP 100	56	126	281	106	147	111	163	113	71	90	90	112	8	6	35	15	G ¾"	15	G ¾"	5,6
UP 115	63	140	315	119	164	126	156	126	80	100	97	116	6	7	35	15	G ¾"	15	G ¾"	6,4
UP 130	71	157	343	127	172	139	191	140	90	112	108	140	10	7	42	20	G 1"	20	G 1"	9,9
UP 150	80	176	388	152	203	157	209	159	100	125	125	160	11	10	47	25	G 1 ¼"	20	G 1"	16,3
UP 170	90	200	453	175	234	177	235	180	125	140	152	180	14	11	55	32	G 1 ½"	25	G 1 ¼"	24,4
UP 190	100	220	481	182	241	198	256	200	140	160	175	205	14	12	60	32	G 1 ½"	25	G 1 ¼"	29,7
UP 210	112	242	508	189	253	220	279	224	140	190	180	232	15	12	70	40	G 2"	32	G 1 ½"	39,4

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



## Types UP Pump Series



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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.

### **SCHMITT**

**Kreiselpumpen GmbH & Co.KG**

Einsteinstrasse 33

D - 76275 Ettlingen, Germany

Phone: +49 - 72 43 - 54 53 - 0

Fax: +49 - 72 43 - 54 53 - 22

info@schmitt-pumpen.de

[www.schmitt-pumpen.de](http://www.schmitt-pumpen.de)



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

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