

**SCHMITT**  
Kreispumpen

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

## **product information**



### **T Pump Series**

**submersible pumps**

**materials: PP or PVDF**

## - Submersible pumps

- materials: **PVDF (polyvinylidene fluoride) oder  
PP (polypropylene)**

- vertical submersible pumps without gaskets

- dry run safe

- max. output rate: **280 l/min, 17 m<sup>3</sup>/h, 74 US-Gal/min**  
- max. discharge head: **28 m, 92 ft**  
- Immersion depth: **200 - 800 mm**  
- motor power: **0,18 - 5,5 KW**

In the T Pump Series, the motor power is transmitted vertically to the pump impeller through an extended shaft. This rotating shaft is exclusively supported through the two motor bearings and therefore runs completely contact free and abrasion-free inside the housing. Due to the design, the use of bearing and shaft seals can be forfeited.

## Advantages of the T Pump Series:

- absolutely dry run safe (no contact of mechanical parts)
- highest chemical resistance
- robust, thick-walled design
- long-lasting and abrasion-free
- design for the operation under demanding conditions
- open impeller (i.e. solids up to 3 mm grain size and 10 Vol. % possible)
- no abrasion into the medium to be pumped (high purity applications)
- no metal parts are in contact with the medium
- easy to maintain
- universally applicable, quiet and compact
- various chemical resistant materials can be supplied from the warehouse
- Available for standardized immersion depths

The T Pump Series is particularly suitable if containers or dipping baths cannot be flange connected to the side or if dry run in the plant cannot be excluded.

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

Wafer production, electro-plating technology, gas u, exhaust air scrubber, semiconductor technology, environment engineering, wastewater treatment, PCB manufacturing, solar cell production, laboratory and medical and pharmaceutical technology, circulation and mixing application.

# Types of the T Pump Series

## Materials and Components:

- parts in contact with the medium are made solid of PVDF, (up to +95° C), or PP (up to +80° C)
- housing seal alternatively made of FKM, EPDM, FEP or Kalrez®
- also with extension pipe and/or with filter basket
- high-quality electric motors made in Germany

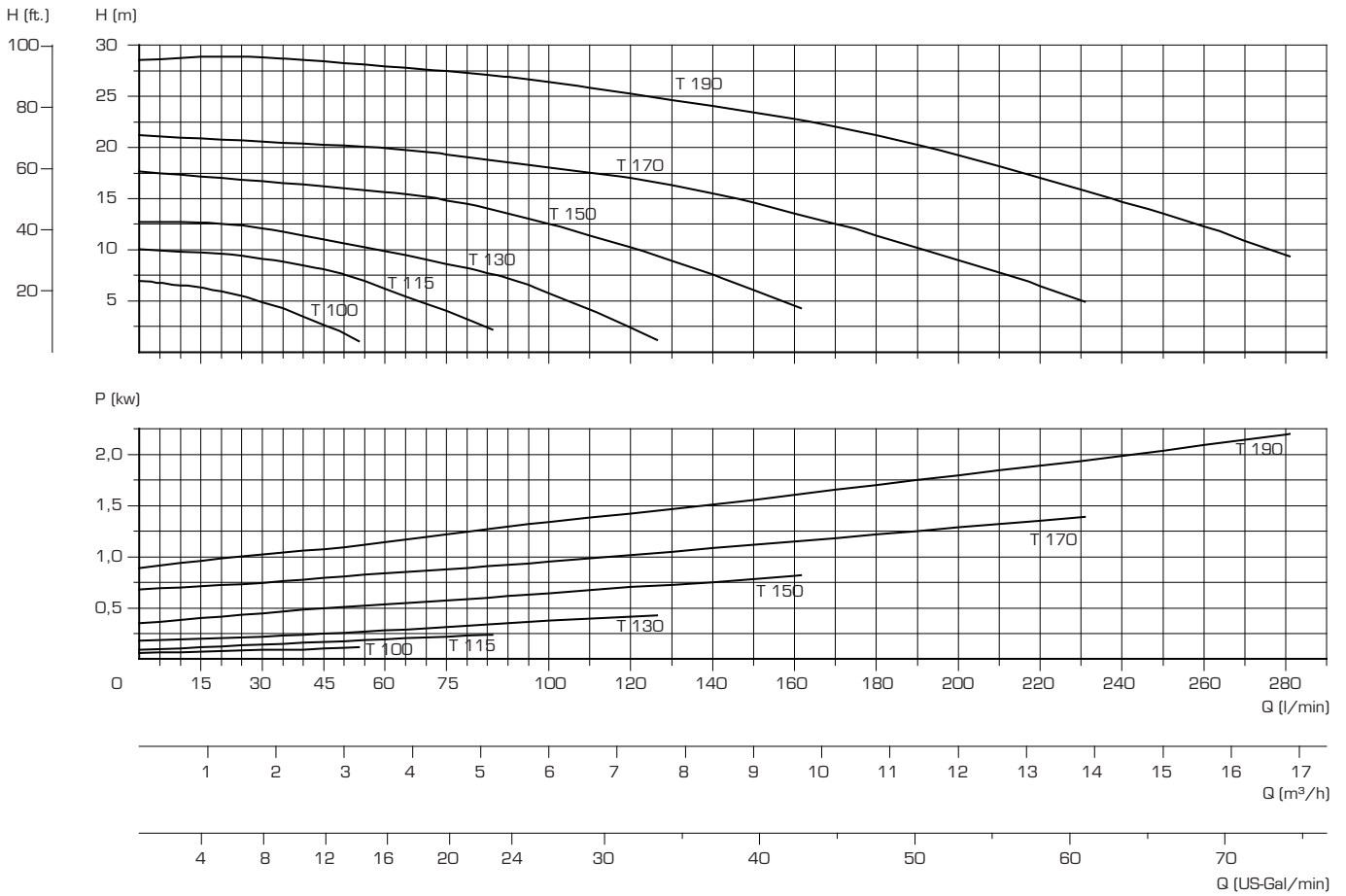
## Material details:

- PVDF: polyvinylidene fluoride, pure, milky white, not colored (up to +95° C)
- PP: polypropylene, fiber glass-reinforced, gray (up to +80° 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

## 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):
  - 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

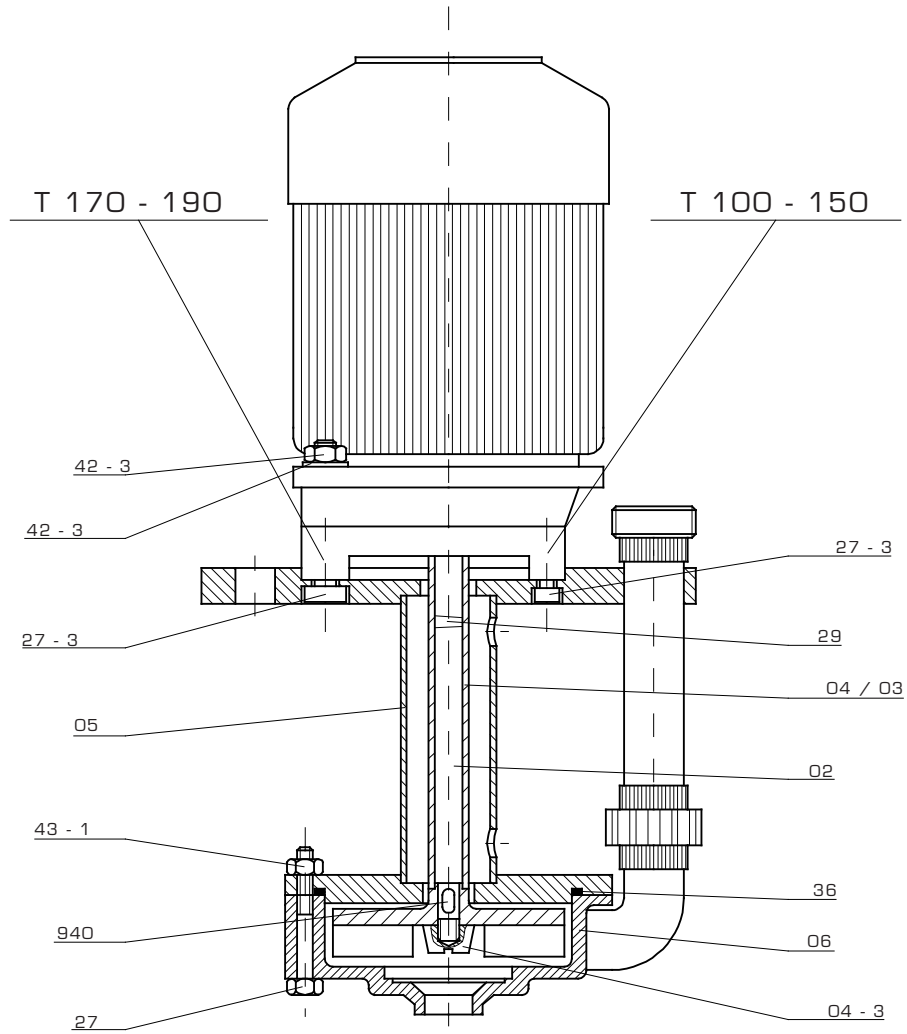
# Characteristics of the T Pump Series



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

type	motor power P	ET = depth of immersion
	kW	mm
T 100	0,12	200
T 115	0,25	200 - 300 - 400
T 130	0,55	200 - 300 - 400
T 150	0,75	300 - 400 - 500
T 170	1,50	400 - 600 - 800
T 190	2,20	400 - 600 - 800

# Parts Description of the T Pump series

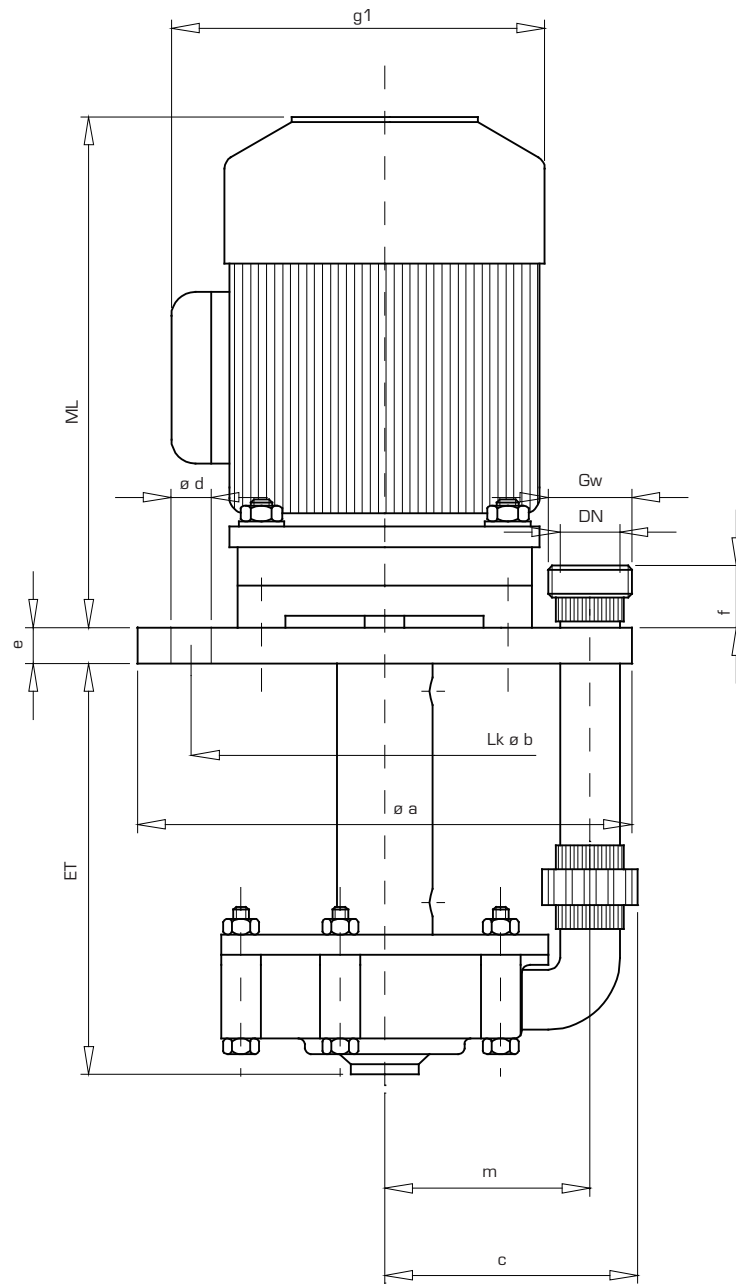


part-no.	part	material	
		standard	on request
02	shaft	Stahl	
04/03	impeller with shaft coating	PP	PVDF
04 - 3	cap	PVDF	
05	support tube	PP	PVDF
06	pump housing	PP	PVDF
27	hexagon bolt	PP*	PVDF
27 - 3	bolt	A4	
29	cotter pin	1.4305	
36	pump housing seal	FKM**	EPDM - FEP
42-3	washer	A4	
43	hexagon bolt	A4	
43 - 1	hexagon bolt	PP*	PVDF
940	feather key	1.4305	

\*for T 100 - 130: PVDF

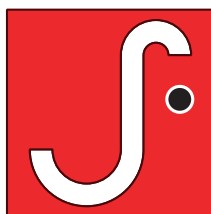
\*\*FKM = e.g. Viton®

# Specification of the T Pump Series



type	ø a	ø b	c	ø d*	e	f	g1	m	ML	Gw	DN
T 100	220	150	119	11	18	30	147	90	191	G 1"	15
T 115	230	170	126	11	18	30	158	90	211	G 1 ¼"	20
T 130	240	200	129	11	18	30	182	100	241	G 1 ¼"	20
T 150	265	225	142	11	22	30	209	113	263	G 1 ¼"	20
T 170	320	280	162	13	22	55	235	130	278	G 1 ½"	25
T 190	330	280	173	13	22	55	235	141	303	G 1 ½"	25

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.

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