



# SCHMITT

chemical resistant pumps



## UP/UP-DO

STAINLESS STEEL CENTRIFUGAL PUMP  
WITH SINGLE OR DOUBLE MECHANICAL SEAL



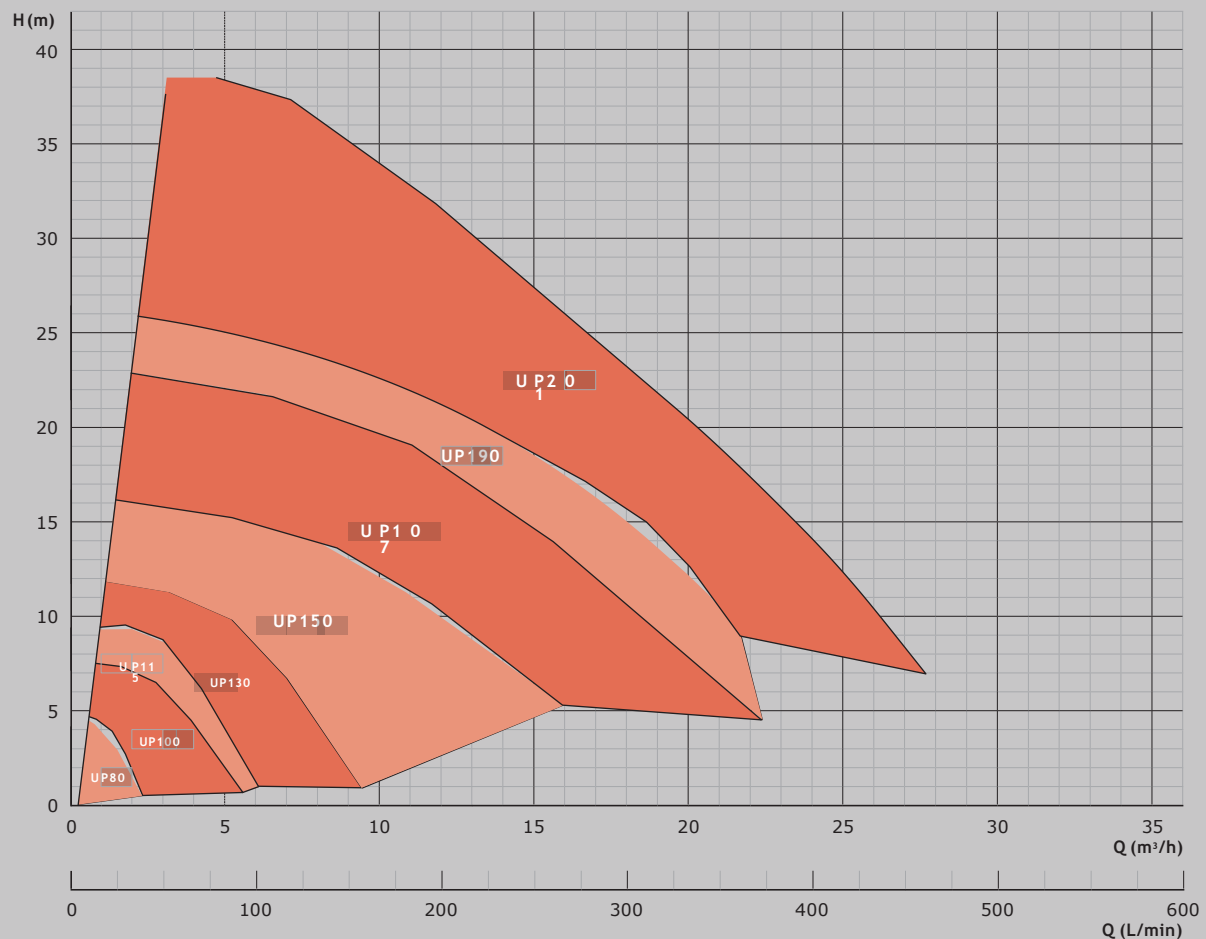
## UP/UP-DO

Stainless steel centrifugal pump with single or double mechanical seal

Housing and impeller material:	Stainless steel ANSI 316Ti (1.4571)
Elastomers:	EPDM, FKM (e.g. Viton®), FEP, FFKM (e.g. Kalrez®)
Mechanical seal materials:	SiC (silicon carbide), graphite carbon, PTFE-GF, Al <sub>2</sub> O <sub>3</sub> -ceramics
Metal parts:	Stainless steel ANSI 316Ti (1.4571)

The UP series is for those applications in which a non-metallic pump cannot be used or is not desired, e.g. for temperatures up to 150 °C. The impeller is directly mounted on the motor shaft extension. The pump is sealed with a single or double (UP-DO) mechanical seal that is cooled and lubricated by the fluid. For the UP-DO, a separate barrier fluid system is required.

## PERFORMANCE CHART





### Advantages:

- + Robust housing parts with high wall thickness
- + Compact close-coupled design
- + Easy installation
- + Suitable for high temperatures
- + UP-DO: dry run safe in connection with a barrier fluid system
- + UP-DO: no leakage of toxic or environmentally hazardous liquids
- + UP-DO: meets the requirements of TA Luft

Solid particles up to 3 mm in size and 10 % volume are allowed. The maximum viscosity is 150 mPas, the maximum allowed temperature is 150 °C. All sizes are also available in ATEX-certified versions under the name UP-EX for ATEX zones 1 and 2.





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Stainless steel centrifugal pump with single or double mechanical seal

## DESCRIPTION

Characteristics	Stainless steel, chemical-resistant, single-stage centrifugal pump, closed-coupled design, with single or double mechanical seal
Features	<ul style="list-style-type: none"><li>• Robust housing parts with high wall thickness</li><li>• Well suited to fluids containing solid particles due to spring-loaded mechanical seal</li><li>• Pumping of magnetic particles possible</li><li>• Low-maintenance-operation due to high-quality seal face materials</li><li>• All wetted parts made of high-quality, corrosion-resistant stainless steel 1.4571 (AISI 316 Ti)</li><li>• Threaded connections as per ISO 228-1 as standard. Optionally available with flange connections (from size 130)</li><li>• Universally applicable, low-noise and compact close-coupled design</li><li>• Approved for use in explosive atmospheres (ATEX zone 1)</li><li>• Corrosion-resistant motor finish</li></ul>
Fields of application	<p>Delivery of seawater, weak acids, lye or other corrosive liquids at temperatures up to 150 °C. For use in heavy-duty applications and harsh environments, where a robust pump is required.</p> <p>For example in the following applications:</p> <ul style="list-style-type: none"><li>• Circulation of coolants and heat transfer oils in cooling or heating devices</li><li>• Electroplating and surface coating</li><li>• Wastewater and fresh water treatment</li><li>• Laboratory equipment and medical technology</li><li>• Environmental technology, emission control and gas scrubbers</li></ul>



## TYPES

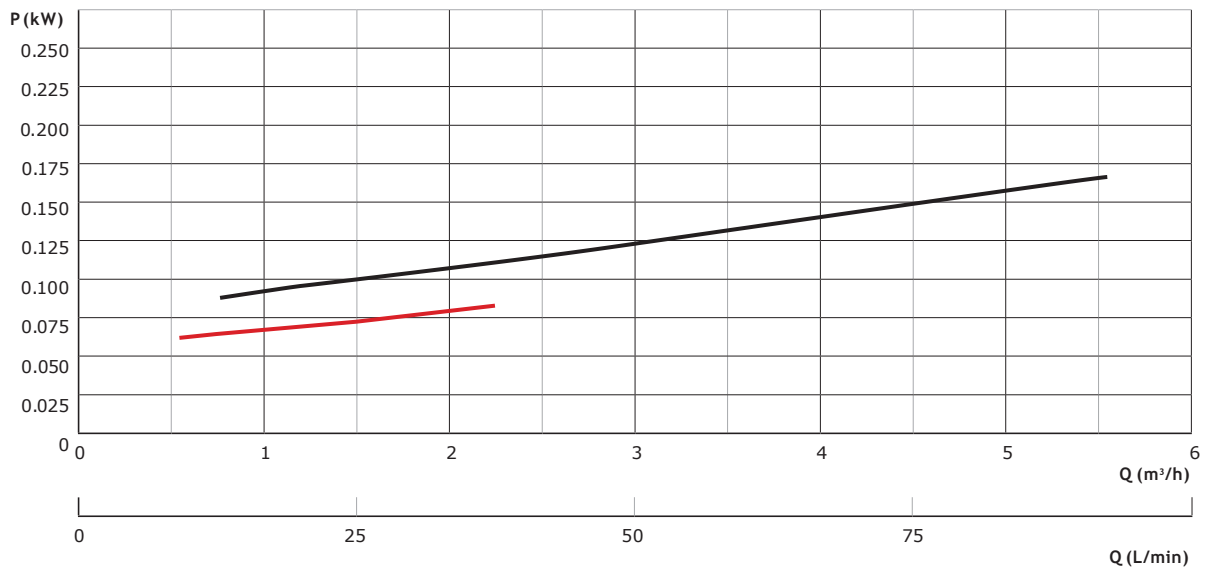
Characteristics	<ul style="list-style-type: none"><li>· Pump housing: Stainless steel 1.4571 (316Ti)</li><li>· Elastomers: FKM, EPDM, FFKM</li><li>· Material of mechanical seal: PTFE/Al<sub>2</sub>O<sub>3</sub>, carbon/Al<sub>2</sub>O<sub>3</sub>, SiC/SiC, SiC/carbon</li></ul>
Standard motors (available from stock)	<ul style="list-style-type: none"><li>· Three-phase motors: D230/Y400 V-3ph @50 Hz, D277/Y480 V-3ph @60 Hz, IP 55, Ins.-Cl. F, also with PTC</li><li>· All motors from 0.75 kW have energy efficiency class IE3</li><li>· Single-phase motors (up to 1.1 kW: 230 V-1ph, 50 / 60Hz, IP 55, Isol.-Kl. F)</li><li>· ATEX-certified motors (temperature rating T3)</li></ul>
Special motors (available on re- quest, for example)	<ul style="list-style-type: none"><li>· Special voltages and frequencies</li><li>· ATEX-certified motors (temperature rating T4 or T5)</li><li>· Three-phase motors with integrated drive/frequency converter</li><li>· Four-pole motors with 1450 rpm @50 Hz / 1650 rpm @60 Hz</li><li>· UL- and CSA-certified motors</li><li>· Special types of protection, e.g. IP 65</li><li>· Special insulation classes, e.g. tropical insulation</li><li>· Multi-voltage, e.g. D220-290 / Y380-500 V, 50 Hz; D220-332 / Y380-575 V, 60Hz</li><li>· Direct-current motors (DC or BLDC)</li></ul>
Operating conditions	<ul style="list-style-type: none"><li>· Flow rate up to 30 m<sup>3</sup>/h</li><li>· Maximum head up to 40m</li><li>· Temperature: -10 to 150 °C</li><li>· Ambient temperature from -10 up to 40 °C</li><li>· Pumps can be adapted to high-density liquids (up to 2.0)</li></ul>



# UP/UP-DO

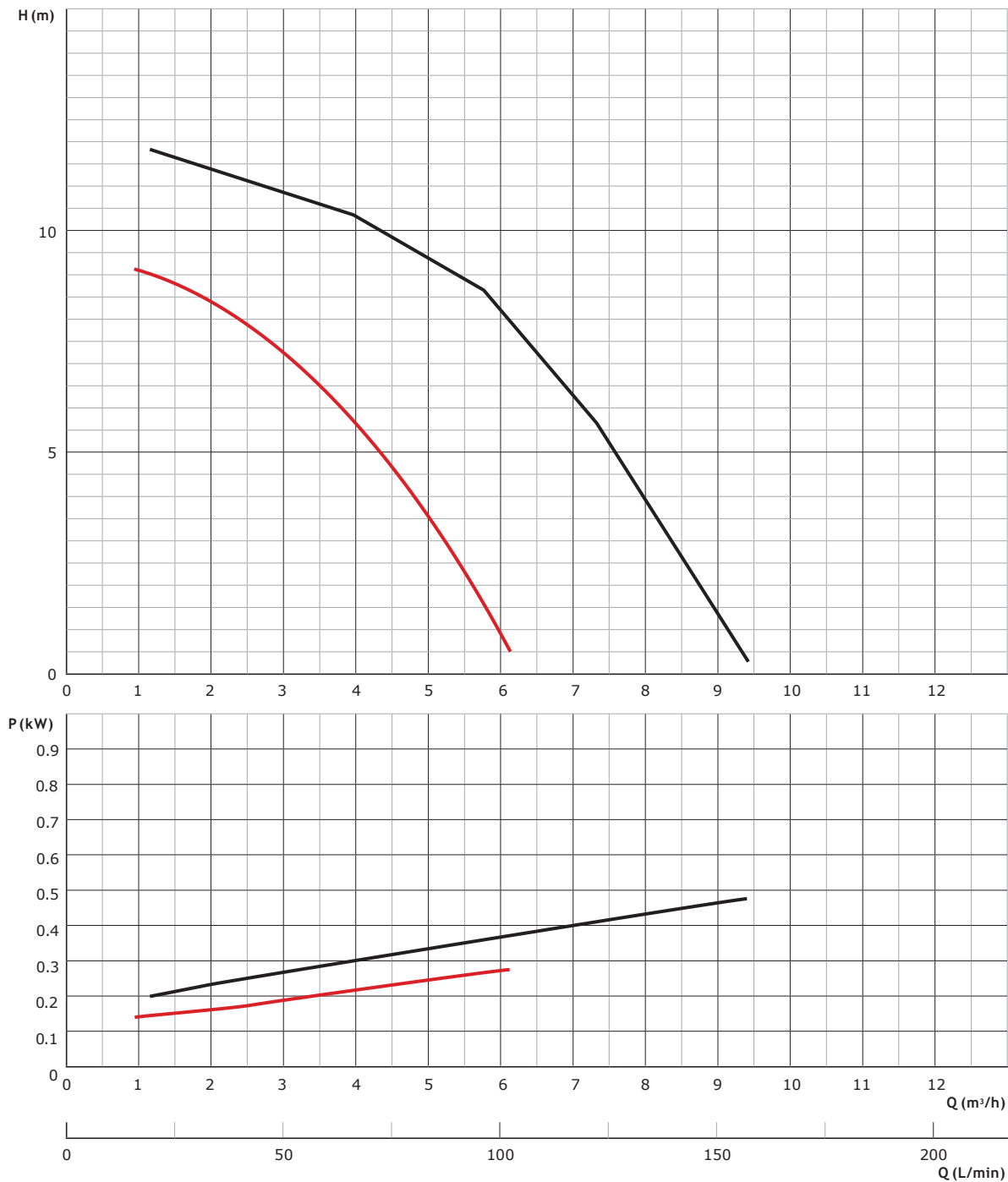
Stainless steel centrifugal pump with single or double mechanical seal

## PERFORMANCE CURVE UP 80 (0.18 kW) / UP 100 (0.18 kW)





## PERFORMANCE CURVE **UP 115** (0.25 kW) / **UP 130** (0.55 kW)



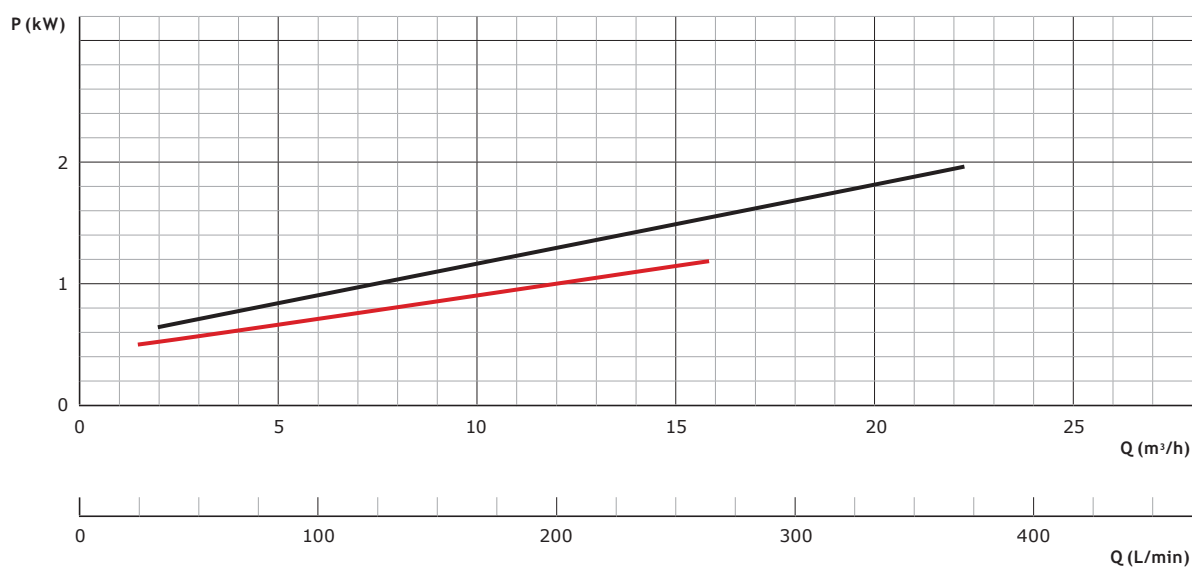




# UP/UP-DO

Stainless steel centrifugal pump with single or double mechanical seal

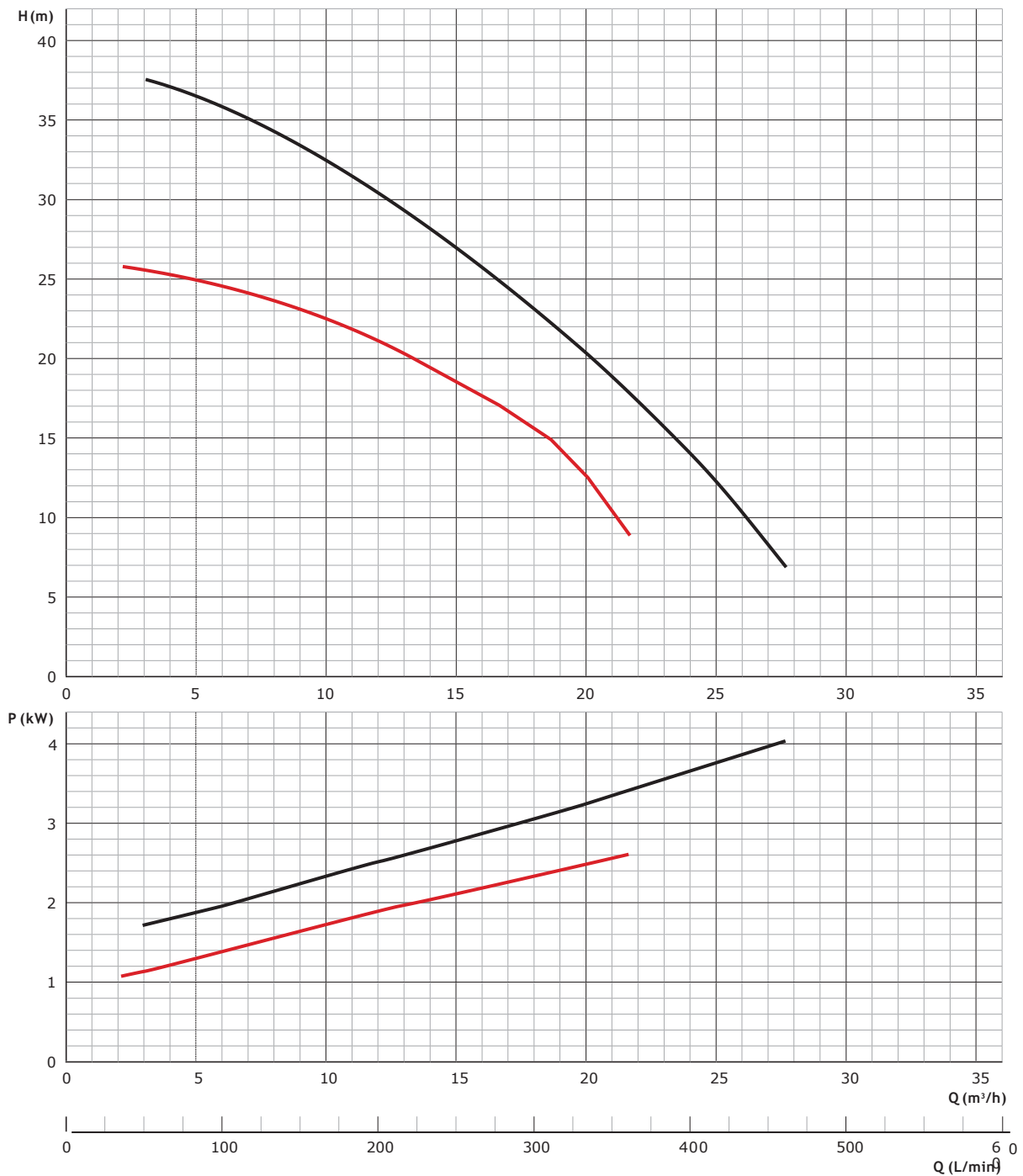
## PERFORMANCE CURVE **UP 150** (1.1 kW) / **UP 170** (2.2 kW)







## PERFORMANCE CURVE **UP 190** (3.0 kW) / **UP 210** (5.5 kW)

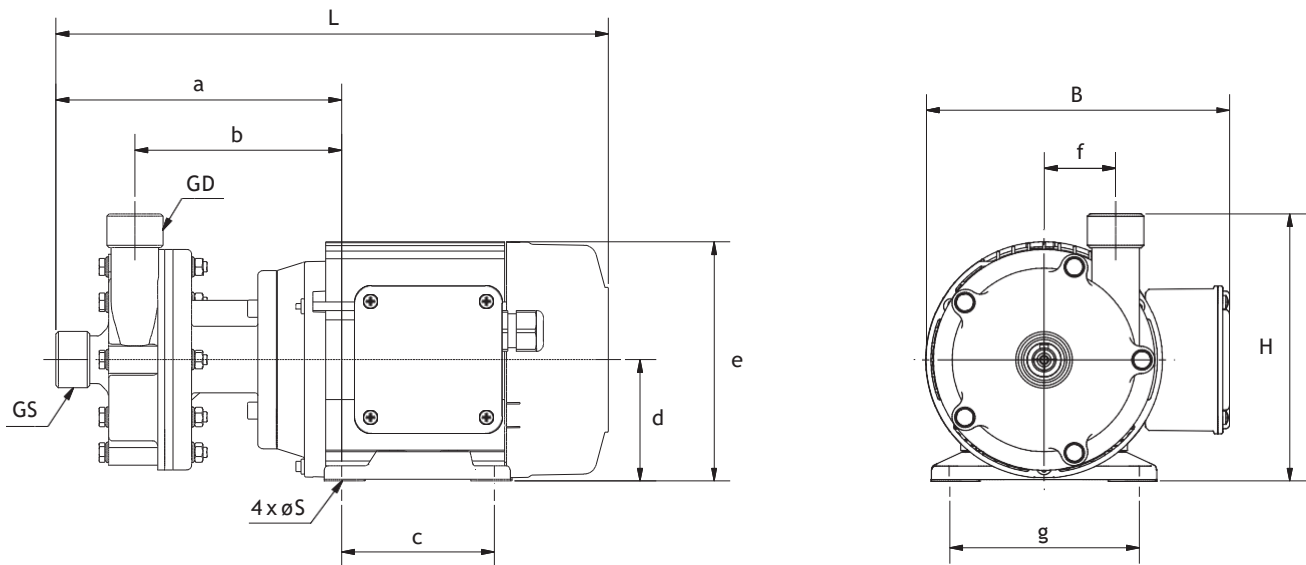




## UP/UP-DO

Stainless steel centrifugal pump with single or double mechanical seal

### DIMENSIONS UP



Typ	GS		GD		L (mm)	B (mm)	H (mm)	S (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)
	thread	DN	thread	DN											
80	G1/2"	10	G1/2"	10	269	151	124	6	145	107	71	56	112	32	90
100	G3/4"	15	G3/4"	15	273	151	126	6	149	109	71	56	112	35	90
115	G3/4"	15	G3/4"	15	291	165	141	7	167	122	80	63	126	35	100
130	G1"	20	G1"	20	326	179	159	7	168	122	90	71	141	42	112
150	G1 1/4"	25	G1"	20	412	196	176	10	204	153	100	80	159	47	125
170	G1 1/2"	32	G1 1/4"	25	493	212	200	10	234	175	125	90	178	55	140
190	G1 1/2"	32	G1 1/4"	25	519	220	220	12	242	183	140	100	197	60	160
210	G2"	40	G1 1/2"	32	564	278	242	12	253	189	140	112	221	70	190

Remark: The above dimensions are for the UP series only, dimensions for UP-DO are available on request

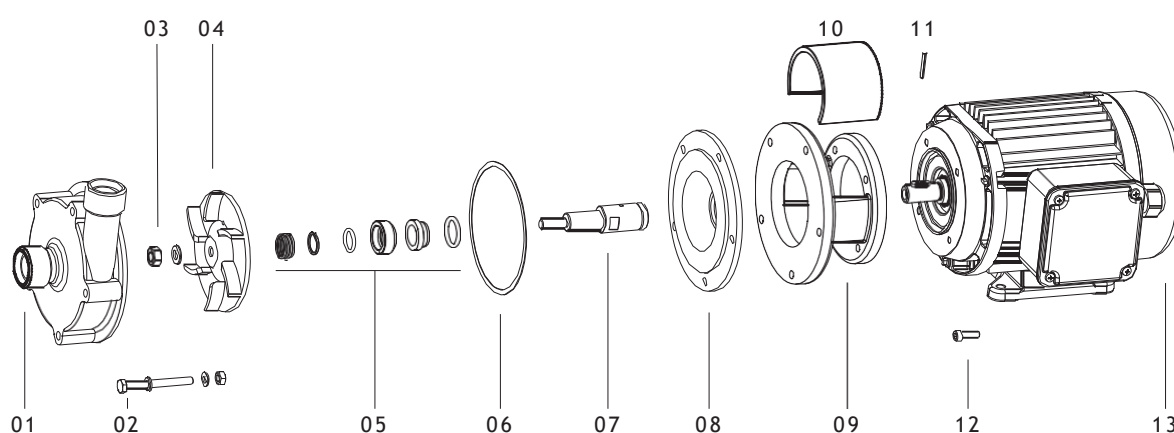
### FITTINGS

SCHMITT offers an extensive range of fittings to facilitate the installation of the pump into your system:

- flange adaptors
- hose connectors
- welding connectors for stainless steel pipes
- reducers
- NPT threaded adaptors
- inlet strainers for vertical pumps
- extension pipes for vertical pumps



## SPARE PARTS LIST UP



Position	Description	Available materials
01	Pump housing	Stainless steel 1.4571/316 Ti
02	Hexagon bolt, washer, nut	V4A
03	Locking nut, washer	V4A
04	Impeller	Stainless steel 1.4571/316 Ti
05	Mechanical seal	Various options
06	Housing seal	FKM, EPDM, PTFE, FFKM
07	Shaft	Stainless steel 1.4571/316 Ti
08	Backplate	Stainless steel 1.4571/316 Ti
09	Flange	Aluminium
10	Protection cover	PP
11	Slotted pin	V4A
12	Cylinder screw bolt	V4A
13	Motor	

Remark: Spare parts list for UP-DO available on request



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*Au service de votre matériel de pompage*

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