Propeller pumps

Applications

Pumps are suitable for delivering of clean or slightly dirty water, sand content <50 mg/l, temperature < 25 °C.

- irrigation and draining of agriculture areas
- regulation of water levels (land reclamation pumps and dyke draining pumps)
- circulating pumps in purification plant, enhancement of oxygen in waters for breeding of fish
- dewatering of caves and security shafts
- watering and draining of sluices and floating docks
- trimming of ships and ferries

Design

The propeller pumps **po-upl** are submersible single stage centrifugal pumps with open semi-axial impeller. The motor is a three-phase asynchronous motor with a short circuit rotor. It is designed as a wet-running motor with a watertight insulated and rewindable winding. The electrical power feeder cable with protective conductor is direct connected. The pumps are applicable in horizontal and vertical position.

- sealing of the motor by high-duty mechanical seal
- axial and radial bearings are lubricated by the motor filling, usually water
- for permanent operation, switched operation and frequency controlled use

hydraulic performance tests for acceptance according to DIN EN ISO 9906 class 2

special designs on request

Installation

- horizontal or vertical installation position
- on foundation
- in-line with piping
- with automatic coupling device
- free hanging at delivery pipe
- in ducts made of concrete or steel

Accessories (on request)

- motor starters, autotransformer, frequency transformer
- microprocessor controlled motor monitoring
- submersible cable
- heat-shrinkable hose coupling and cast-resin connectors
- rising pipes
- adapters and reductions
- cable clips
- external float switches

temperature monitoring

Subject to alterations

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Material of construction

Propeller pumps

According to DIN

components	design	
	standard	**complete bronze**
impeller	bronze CuSn10 / 2.1050	bronze CuSn10 / 2.1050
casing	gray cast iron GG25 / 0.6025	bronze CuSn10 / 2.1050
radial bearing	bronze / stainless steel	bronze / stainless steel
shaft seal	mechanical seal SiC / SiC	mechanical seal SiC / SiC
screws, nuts and bolts	stainless steel A2 / 1.4301 / 1.4303	stainless steel A4 / 1.4401

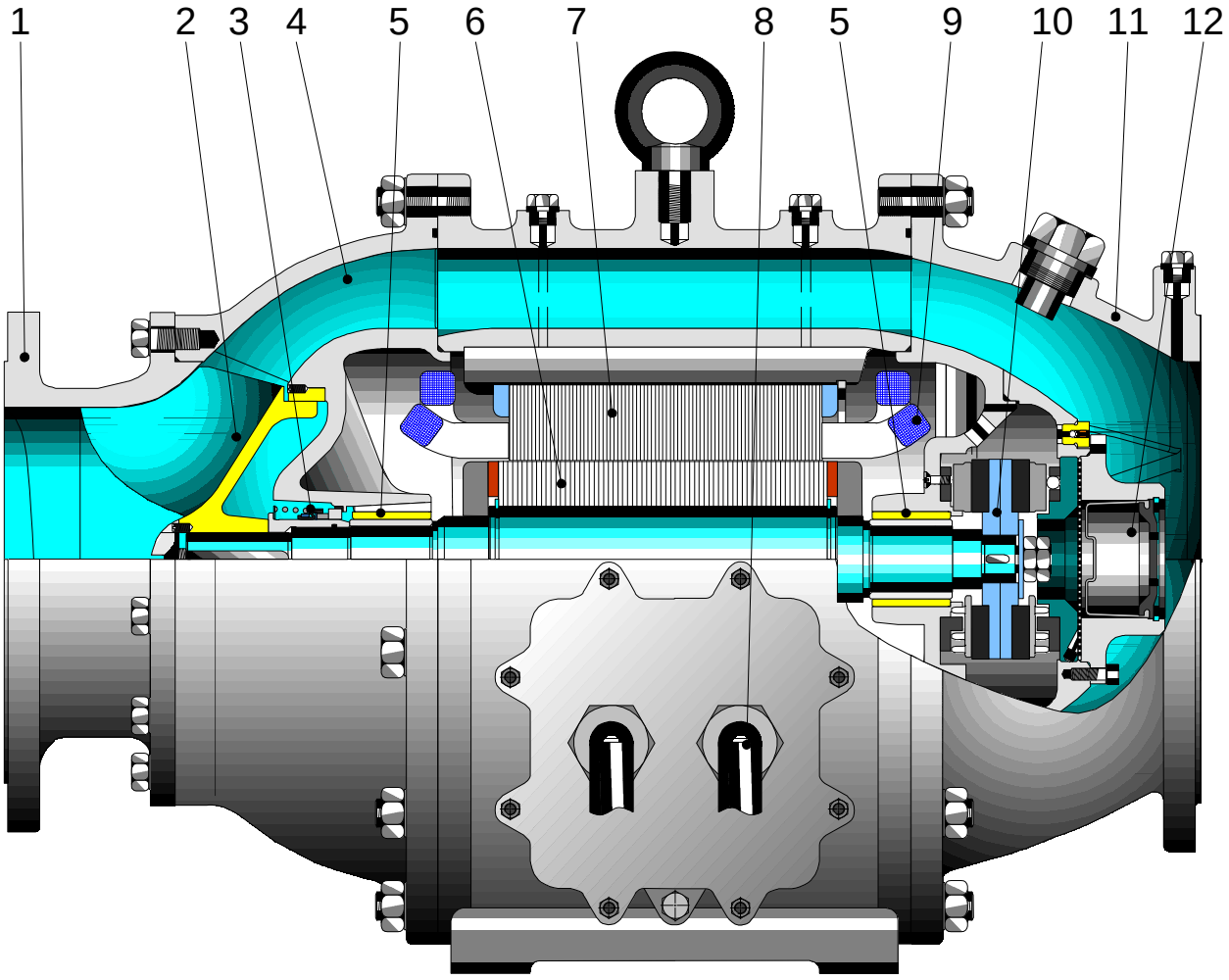
According to AISI

components	design	
	standard	**complete bronze**
impeller	bronze B584 C90500	bronze B584 C90500
casing	gray cast iron A48-40B	bronze B584 C90500
radial bearing	bronze / stainless steel	bronze B584 C90500
shaft seal	mechanical seal SiC / SiC	mechanical seal SiC / SiC
screws, nuts and bolts	stainless steel A2 / AISI 304/305	stainless steel A4 / AISI 316

oddesse reserve the right to employ construction materials following German (DIN) standard

Subject to alterations

Design:



1	suction casing	7	stator
2	impeller	8	cable
3	mechanical seal	9	rewindable stator with a watertight insulated winding
4	diffuser	10	2 × thrust bearing with self-adjusting tilting pads
5	bearings are lubricated by the motor filling	11	outlet branch
6	rotor	12	reliable pressure balance system

Subject to alterations

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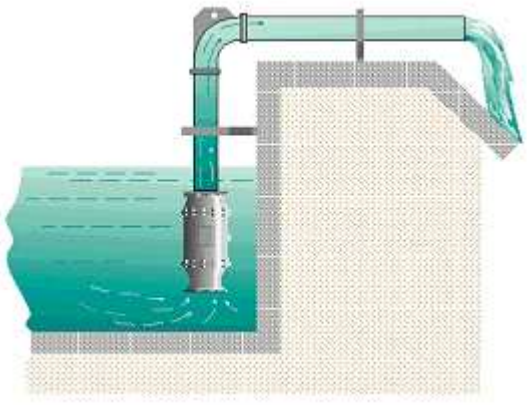
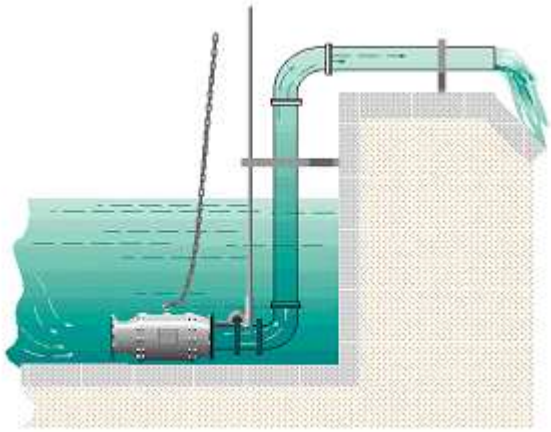
Propeller pumps

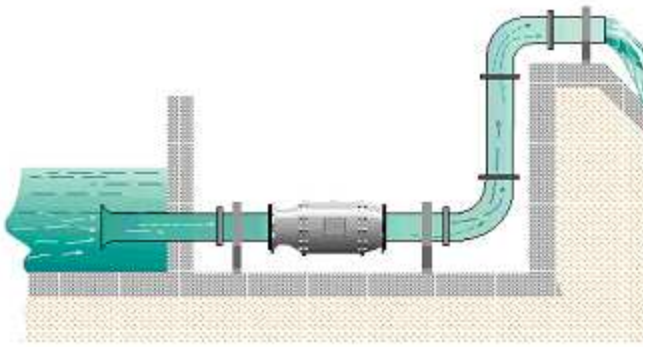
Kind of installations



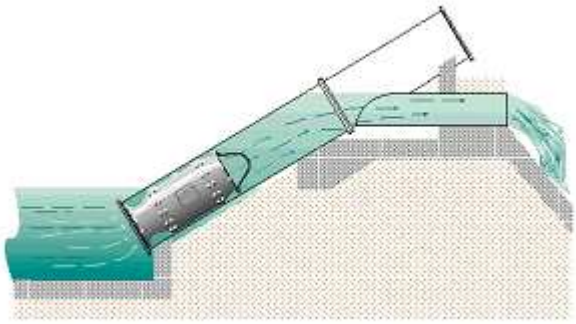
vertical, hanging at the pipe



horizontal, with automatic coupling device



horizontal, as in-line pump



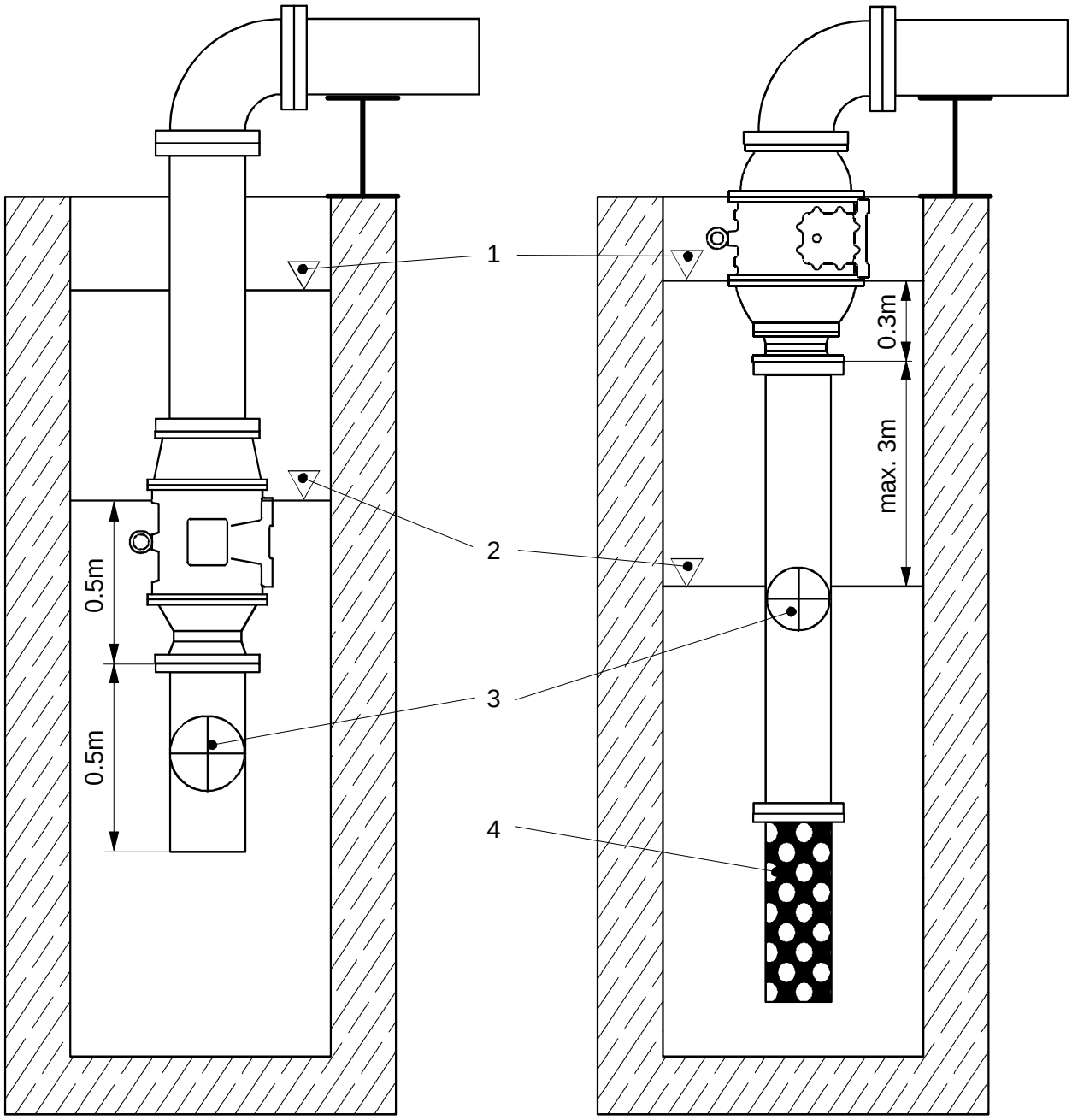
angular, in a duct

Subject to alterations

Propeller pumps

Installing conditions

po-upl 200 / po-upl 250 **po-upl 300.1**

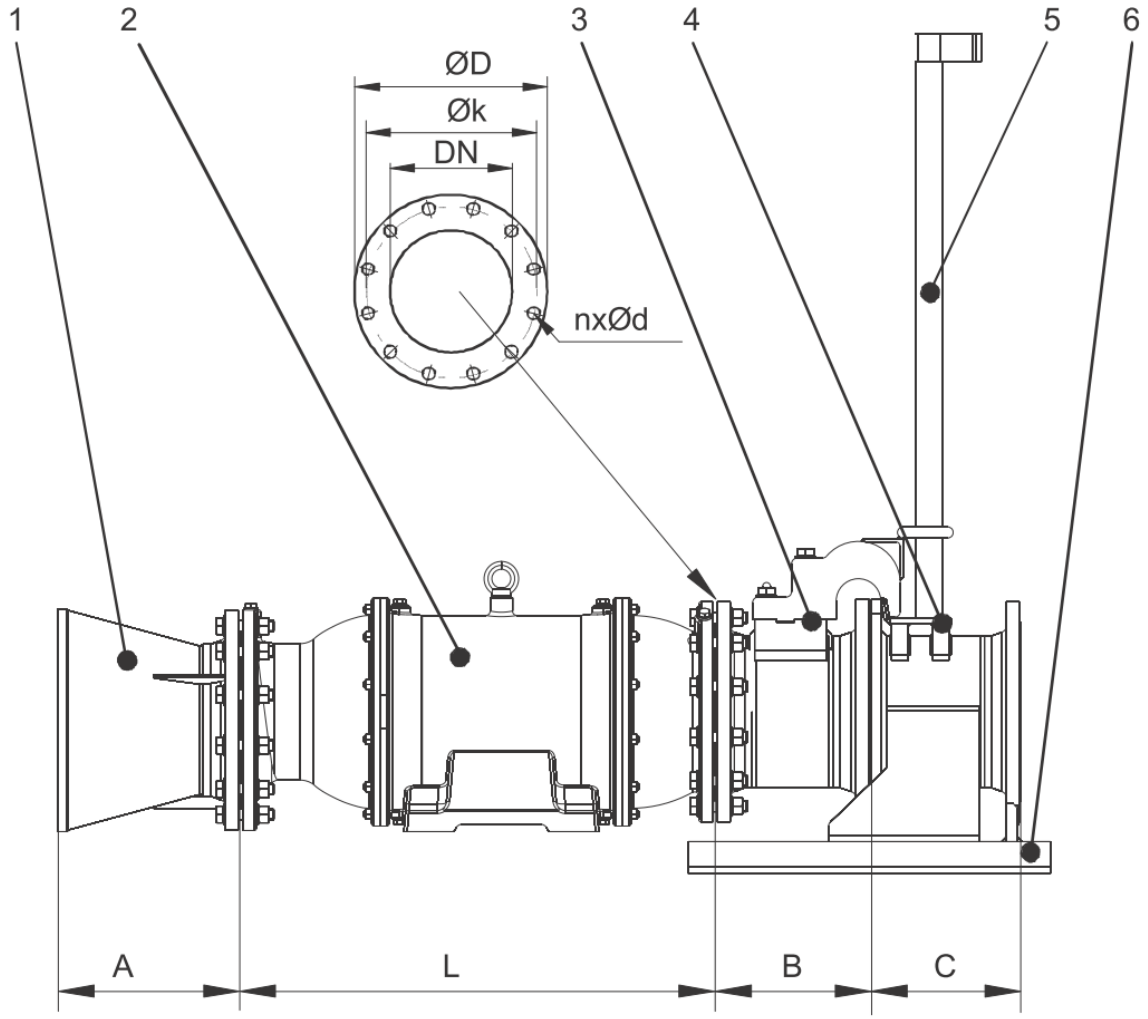


1 Static water level
2 minimum water level
3 Intake guiding pipe with guide cross / baffle
4 Inlet screen without suction valve

Changes of design reserved

Automatic coupling device

Example and dimensions:



1 Bell-mouth
2 Propeller pump
3 Coupling connection, part 1
4 Coupling connection, part 2
5 Sliding tube system
6 Base plate

Dimensions [mm]	po-upl 200	po-upl 250.1	po-upl 300.1
A	ca. 320	ca. 320	ca. 320
L	758	850	910
B	280	280	280
C	270	270	270
D	340	395	445
k	295	350	400
DN	200	250	300
n	8	12	12
d	23	23	23

subject to alterations