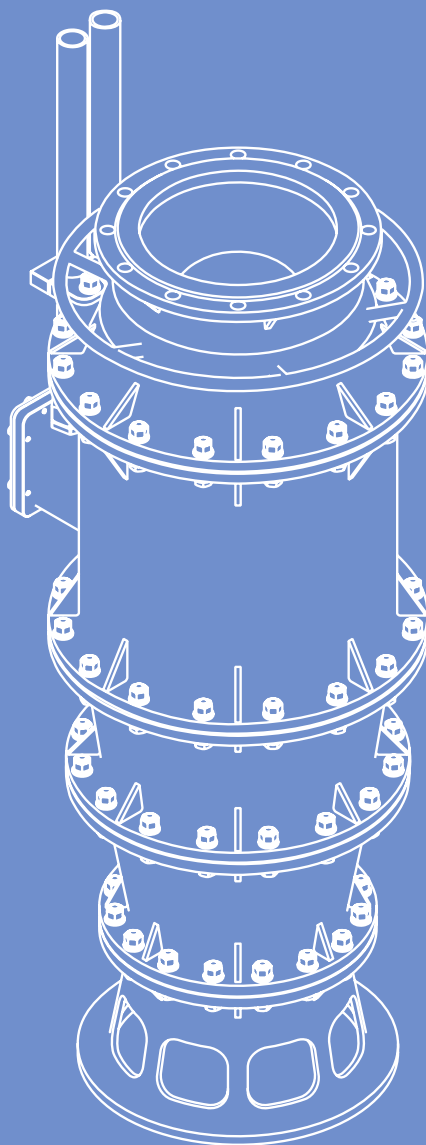


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Submersible pumping station

SN-1000.10.1.R1-03.300.15.45.2T

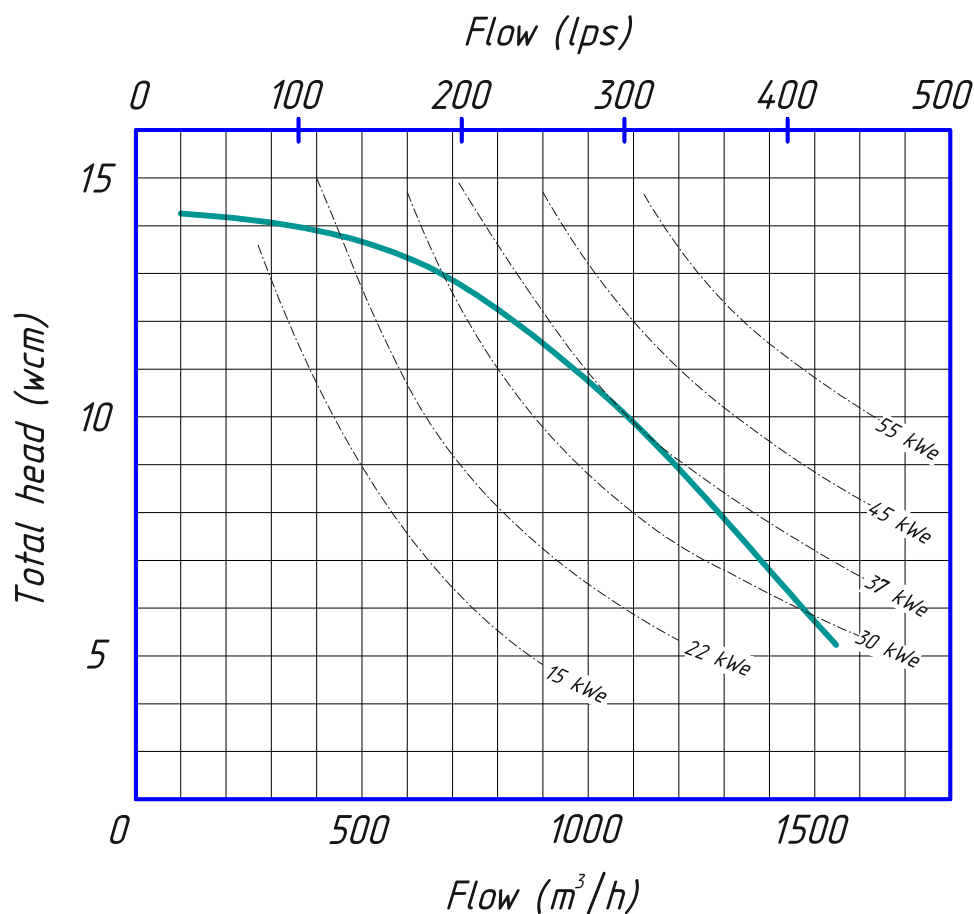
SUBMERSIBLE PUMPING STATION SERIES SN-1000.10.1.R1-03.300.15.45.2T

Submersible pumping station SN-1000.10.1.R1-03.300.15.45.2T is made on the basis of a vertical centrifugal pump NC.D-300R1 with a diagonal type of impeller and is designed to pump fluids in those areas of application where high consumption is required with a relatively low general pressure:

- agricultural irrigation and drainage;
- fluid pumping-out from flooded structures;
- water distillation and purification system;
- fish farms;
- lowering/lock filling and floating dock;
- aeration of liquids.



Figure 1.



Graph 1 - Q-H the pump performance curve when pumping liquid with a density of 1000 kg/m³ at a temperature of 20°C

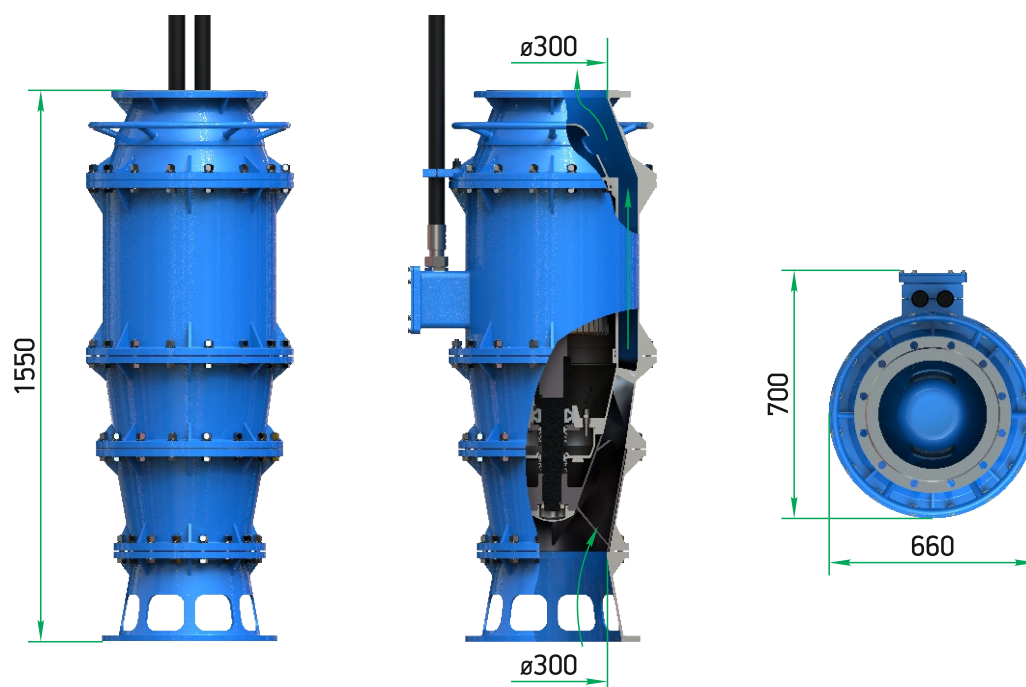


Figure 2 - Pumping station SN-1000.10R1. Dimensions.

Technical specification of pumping station SN-1000.10.1.R1

Pumped fluid properties:

hydraulic fluid density, kg/m^3
 temperature, $^{\circ}\text{C}$
 Controlled fluid

SN-1000.10.1.R1-03.300.15.45.2T

up to 1050

+5 ... +60

Water

Attributes:

Max head, wcm (bar)
 Rated head, wcm (bar)
 Max flow, m^3/h (lps)
 Rated flow, m^3/h (lps)
 Disch flange DN
 Inlet flange DN
 Dimensions, mm
 Station weight, kg, $\pm 3\%$

14 (1,4)

10 (1,0)

1500 (416)

1000 (278)

12" / 300 mm

12" / 300 mm

700x600x1550

585

Electric motor:

Power, kW
 Rate speed, rpm
 Rated current, A
 Characteristic curve

45

1500

86

380V/50Hz

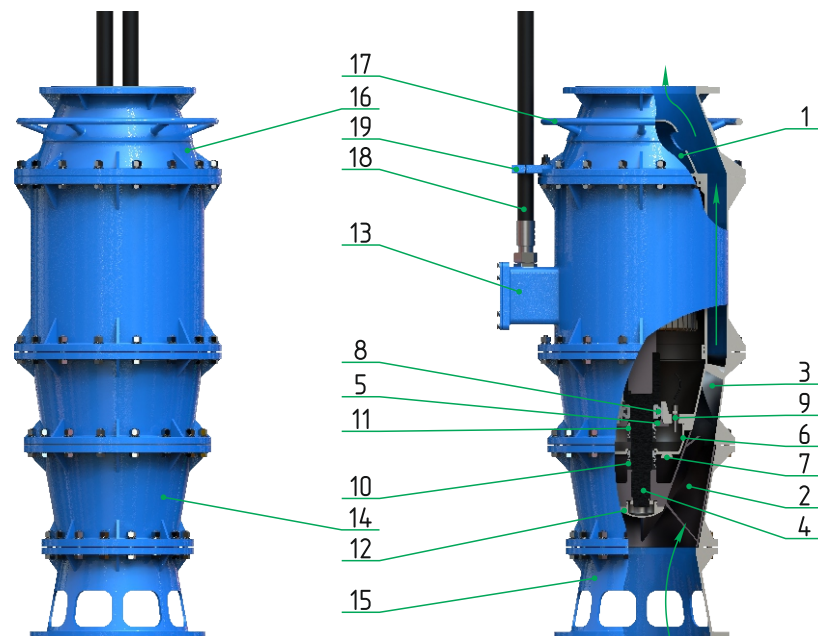


Figure 3 - Pumping station SN-1000.10R1. Structure.

Pumping station SN-1000.10.1.R1-03.300.15.45.2T (fig 3) consist of the electric engine IP68 (pos.1), a diagonal type of impeller (pos.2), straightening machine (pos.3), gear shaft (pos.4), pressure flange (pos.5), oil tank (pos.6), relief fitting (pos.7), angular contact double-row ball bearing (pos.8), primary and secondary mechanical seal (pos. 10,11), impeller's protective cover (pos.12), connection box IP68 (pos.13), thrust rings (pos.14), inlet fitting (pos.15), outlet fitting (pos.16) with a ring for attaching slings (pos.17), hose to protect cables from mechanical damage (pos.18), clamp for additional cable fixation (pos.19). Optionally, an oil humidity element(pos.9) can be installed in the oil tank (pos.6).

The standard made of pump impeller is made of corrosion-resistant steel, and the wet part other parts of the pump are made of carbon steel.

In the design of the seawater pump, the wet part, the impeller and the straightening machine are made of AISI 321 alloy. This alloy has good resistance to atmospheric and intercrystalline corrosion, including in saturated steam, during operation at high and low temperatures and in aggressive environments, in solutions of nitric, acetic, phosphoric acids, solutions of alkalis and salts, in seawater. The remaining parts that are not in contact with the pumped medium are made of carbon steel.

The shaft seal in this pump is a double mechanical seal of the "tandem" type with an oil tank. The buffer fluid (Oil) is designed to separate the primary and secondary mechanical seals, as well as to lubricate and remove heat from friction couple. Since the pressure of the buffer liquid is less than the pressure of the pumped medium, during operation, as the friction couples wear out, the pumped fluids will seep into the plenum chamber. The humidity sensor is designed to detect water entry into the plenum chamber when the primary seal fails and notify about it.

Additional options of pumping station SN-1000.10R1

Pumping station control panel IP 54 (+5...+40°C) general purpose industrial version.	☐
Frequency converter (FC) for smooth control of the speed of rotation of the motor shaft. Installed in the control cabinet. Allows you to save up to 50% of electricity in variable operating modes.	☐
Protection against dry running of switching off the frequency converter at minimum power.	☐
Cabinet heating at low temperatures (at -40°C).	☐
Motor choke to reduce interference from the frequency converter to the motor.	☐
Line choke to reduce interference from the frequency converter to the line.	☐
Electrical cabinet connection cable with electric motor, length ____ m (specify the required length of the power cable).	☐
Power cable protection from mechanical damage.	☐
The wet part is made of corrosion-resistant AISI 321 steel.	☐
Proximity water sensor in the oil tank.	☐

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