

Pumping station with belt drive

SN-102.30.1,4R1-05.76.15.22



PUMPING STATION WITH BELT DRIVE SERIES SN-R1-05

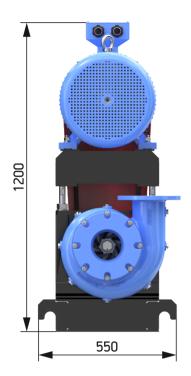
Pumping station SN-102.30.1,4R1-05.76.15.22 is intended to pump various liquids: - abrasive hydraulic fluids (clay and gravel mortars, mixtures of water and sand, ore, etc.); - flushing liquid used in the course of well drilling; - household and industrial waste waters; - for pumping drilling waste (drill cuttings, waste drilling fluid), oil-contaminated soil and process effluents from oil producing and oil refineries. Flow (l/s) 45 55 0 5 10 15 20 25 30 35 40 50 2600 RPM 100 90 2400 RPM 80 Positive suction head (wcm) 2200 RPM 70 2000 RPM 60 1800 RPM 50 1600 RPM 40 1500 RPM 1400 RPM 30 1200 RPM 20 1000 RPM 10 5 0 25 0 50 75 100 125 150 175 200 Flow (m³/h)

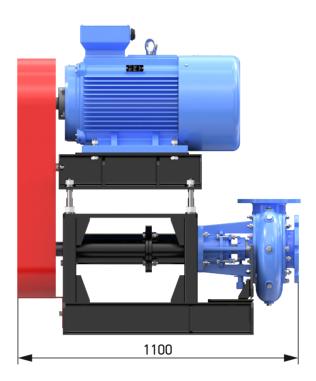
Picture 1 - Graph of the pump shaft rotation speed and power consumption* for a density of 1000 kg/m³

Total head (wcm)

^{*} When pumping a working fluid of a different density, it is necessary to recalculate the power consumption by multiplying the power consumption value taken from the graph by the specific gravity of the pumped liquid.







Picture 2 - Pumping station SN-R1-05. Dimentions.

Technical specifications of pumping station with belt drive SN-R1-05

Pumped fluid properties:

hydraulic fluid density, kg/m³ temperature, °C solid particle content solid particle maximal size, mm

Attributes:

Rated flow, m³/h (lps) at head, wcm. (bar) Max head, wcm. (bar) Pressure flange DN, mm Inlet flange DN, mm Dimentions, LxBxH, mm Station weight, kg, ±5% Equipment placement category Ambient temperature Controlled fluid temperature

Electric motor:

Power, kW Rate speed, rpm Rated current at 380/660 W, A IP Code SN-102.30.1,4R1-05.76.15.22

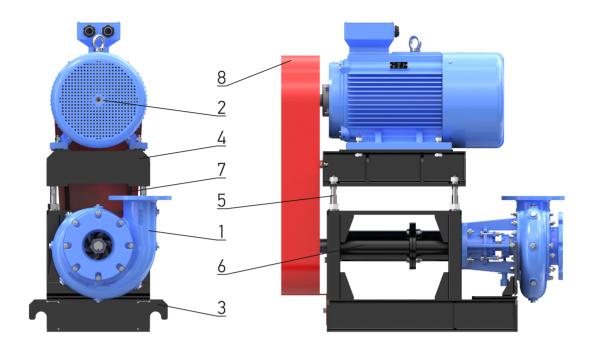
up to 1400 +5 ... +90 up to 60% at most 10

102 (28,3) / 30 (3,0) 45 (4,5) 76 (3") 100 (4") 1100x550x1200 430 NF

-45°C ... +40°C 0°C ... +80°C

22 1500 42/24 lp55





Picture 3 - Pumping station SN-R1-05. Structure.

The pumping station SN-102.30.1,4R1-05.76.15.22 consists of a centrifugal pump NC-76R1 (pos.1) with a size of 4"x3"x14", mounted on a mounting frame (pos.3). The electric motor (pos.2) is located above the centrifugal pump and is mounted to the mounting frame (pos. 4) The electric motor is raised and lowered using pins (item 5) On the pump housing there is a drive mechanism with a pulley (pos. 6) connected to the electric motor by means of belts (pos. 7) and closed casing (pos.8).

The pump housing is made of steel 40HL, the impeller (vane) is made of steel 20H13 with heat treatment. The use of these materials allows you to increase the life of the pump several times. It is also possible to manufacture the case from steel 20H13, and the impeller to be made with nitriding of the surface layer to obtain a hardness of up to 70 HRC. This combination will increase the life of the pump up to 10 times when working with abrasive mixtures.



The choice of the layout of the pumping station with a belt drive ${\sf SN-R1-05}$

Pump volute position Right Left	Name SN-102R1 SN-102LR1	Mark the desired layout	
Additional options of the pumping station with a belt drive SN-R1-05			
Pumping station control panel IP 54 (+5 +40°C)			
Frequency converter (FC) for smooth control of the speed of rotation of the motor shaft			
Dry-running protection of frequency converter shutdown by undercurrent			
Line choke to reduce interference from the frequency converter to the line			
Electrical cabinet connection cable with motor. Length meters.			
Emergency shutdown post on the frame of the pumping station			
Mating flange kit			
Mechanical seal (stuffing box is standard)			



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