Block cluster pumping station

Block cluster pumping station (BCPS) is designed to pump water into productive formations in the reservoir pressure maintenance system of oil fields.



Characteristics

Part of the equipment:

- -shelter blocks;
- -pumping units for pumping water;
- -piping, filters, shut-off and control valves, check valves;
- -automation equipment, instrumentation and cable products;
- -automatic fire extinguishing system;
- -means of protection against vibration;
- -system for collecting leaks from pumps and drainage;
- -lifting mechanisms and withdrawable devices;
- -service platforms;
- -water distribution unit
- -power supply unit;

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-switchgear block 6 kV;-block of transformers;-frequency control unit;
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-Control block.

• The BCPS premises are made of modules with dimensions of 9x3x2.95 m or 3x12x2.95 m, which are connected and completed in any variant at the request of the Customer. Complete technological equipment is determined when ordering in accordance with the binding project.

The BCPS building is equipped with systems of water or electric heating, lighting, ventilation, automatic fire extinguishing system, primary fire extinguishing means, fire alarm.

BCPS is completed with pumping units, depending on the requirements of the Customer. Depending on the design features of the pumping units, the BCPS can be equipped with a lubrication and cooling system for bearing assemblies, with air or water cooling of the working agent, which is located in a separate block or in meter-long inserts between modules.

The BCPS drainage system, at a separate request of the Customer, can be equipped with drainage tanks for collecting: leaks, waste oil, as well as an oil reserve storage tank. Drainage tanks are pumped out by semi-submersible pumps installed on the tanks themselves, or by CNS type drainage pumps through a vacuum tank located in a separate block as part of the BCPS building.

Additional equipment of pumping units with control and alarm control devices is carried out at a separate request of the Customer.

Designation when ordering

Block cluster pumping station BCPS-25-2-600-1400-HL1, where:

25 - productivity of one pumping unit, m3/hour;

2 - the number of pumping units;

600 - productivity of the pumping station m3 / day.

1400 - developed pressure, m.

HL1 - climatic version

* When ordering, specify the number of units and climatic version - U, UHL, HL.

Technical details

Station designation BCPS	Pumped fluid	Head, m	Productivity of one pump, m3/hour	Productivity of the pumping station, m3/day	Qty. pumps, pcs.	Pump designation	Power motor voltage, kW/V	Block dimensions length x width, m
25-2-600-1400	Prepared bottom water, degassed water from water wells	1400	25	600	2 (1 working and 1 backup)	25-1400	400/6000	9x12
40-2-960-1000		1000	40	960		40-1000	315/6000	
40-2-960-1400		1400				40-1400	500/6000	
40-2-960-1800		1800				40-1800	630/6000	
63-2-1512-1000		1000	63	1512		63-1000	500/6000	
63-2-1512-1400		1400				63-1400	630/6000	
63-2-1512-1800		1800				63-1800	800/6000	
63-2-1512-1900		1900				63-1900		
90-2-1920-1000		1000		1920		90-1000	630/6000	
90-2-1920-1400		1400	90			90-1400	800/6000	
90-2-1920-1800		1800				90-1800	1000/6000	
180-2-4320-1000		1000	180	4320		180-1080	800/6000	
БКНС 180-2-4320-1400		1400				180-1440	1250/6000	
БКНС 180-2-4320-1900		1900				180-1900	1600/6000	
БКНС 240-2-5760-1000		1000	240	5760		240-1000	1250/6000	
БКНС 240-2-5760-1440		1440				240-1440	1600/6000	
БКНС 240-2-5760-1900		1900				240-1900	2000/6000	
БКНС 300-2-7200-600		600	300	7200		300-600	800/6000	9x6

Block cluster pumping station with two pumping units ESP WP 63-1900 (example)





