

Lazur-USV set-up: general information

In the Lazur-USV integrated water purification and disinfection system with an outlet rate of up to 10 m³/day the basic principles and design characteristics of the Lazur-M model range are demonstrated.

This system is intended for purification of drinking water from natural sources or waterways contaminated with radioactive and toxic substances and bacterial pollution. It provides a reduction in the humatic content in stagnant water to the acceptable standards and effectively removes soluble oil products.

This implies that the system may be effectively used for supply of potable water in various settlements having no natural pure water resources as well as in expeditions, military units and frontier posts, and in extreme situations such as natural disasters, catastrophes, epidemics, etc. It is noteworthy that the units are easily transported by air or road.

The alternative version of the Lazur-USV system is also available (it differs from the basic version by the type of components), which allows desalination of highly mineralized water (with the initial salt concentrations of up to 20 g/l). In addition, this modified version of the Lazur-USV system provides the effective purification of water with harmful fluorides and arsenic compounds.

The standard complete set of Lazur-USV set-up includes:

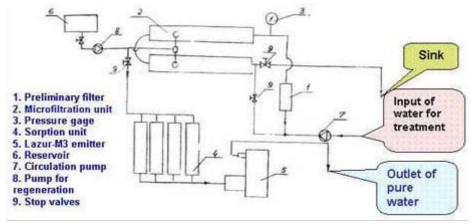
- Ultra-filter UVA-PS (1 piece)
- Sorption columns FSE-90 (FSE-30 x 3) (4 pieces)
- · Photochemical reactor with ultrasonic cavitator
- · Electric pump BN 2-40
- Hand-operated pump
- · Water intake
- Control and indication units
- · Spare parts and consumable

The main technical characteristics are as follows:

Output rate	- up to 400 <i>l/hour</i>
Replacement life - Ultra-filter UVA-PS	- 2500 hours
Replacement life - Sorption element FSE-90	- 600 hours
Replacement life - Photochemical reactor with ultrasonic cavitator	- 10 000 hours
Power supply (~220V), or car battery	400 Watts

Power consumption of BN2-40 pump	300 Watts
Power consumption of photochemical reactor	100 Watts
When Lazur-3M set-is used with hand-operated pump, the photochemical reactor gets power supply from a storage battery.	
Overall dimensions, mm	
Height	- 365
Width	- 570
Length	- 1 200
Weight of dry (without water inside) set-up, kg	- 50
Case	- protected from dust and moisture
Start up time, minutes	15
Operational Personnel	1 person

Block diagram of the Lazur-USV set-up:



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