"EKOLIT-B"
Water Purification Systems

EKOLIT

Parameters and dimensions of standart systems "EKOLIT-B"

Model type*	Drinking water output, m^3/h	Productivity of ozone, g/h	Consumed power, kWt**	Maximal linear dimensions (LxBxH), m***	Maximal weight, kg
EKOLIT-B-1.0	1	1-10	1.0-1.5	0.7x0.7x1.2	80
EKOLIT-B-4.0	4	15-25	1.5-2.0	1.8x0.7x2.2	280
EKOLIT-B-8.0	8	20-30	2.5-3.0	2.3x0.7x2.2	490
EKOLIT-B-12.0	12	25-35	3.5-4.0	2.9x0.7x2.2	700
EKOLIT-B-16.0	16	35-45	4.5-5.0	2.3x1.4x2.2	830
EKOLIT-B-20.0	20	40-50	5.5-6.0	2.9x1.4x2.2	1000

* Systems with output exceeded 20 m^3/h are produced by special order.

** Consumed power values given in table are approximate ones and depend from pump productivities that should be specified in dependence from water supply system parameters.

*** Linear dimensions depend from system's inside arrangement, and could be changed.

"EKOLIT-B" advantages in front of similar ones on sale at the World Market

- Ozone generator produces ozone not directly from environment air, but from 90-94% oxygen, which is produced by oxygen concentrator from environment air. Such a technology with compare to the using of simple ozonizers, working directly with environment air, ensure production of high concentrated ozone and the process doesn't depend on humidity of the atmosphere. In addition to this, we use our "know-how" to rich full dissolving of ozone in the output water.

- The output redox potential sensor is controlling the quantity of the used ozone automatically on a so called "return principle". Such a method gives possibility to control income of ozone to the System in dependence of waste quantity in the initial water.

- The "Hydrocyclone" technique of centrifugal sedimentation of suspended particles in the initial water is used in a pre-filter block. This technique is characterized by low hydrodynamic resistance, by easy and faultless cleaning process and by high solids take-up capacity. It ensure a possibility to purify even very dust water.

- The technique of disk filtration is used in the "EKOLIT-B-1.0" System with the output 1 m^3/h of drinkable water (mobile system). This technique ensures a small size, low weight and easy transportability of the device.

- Sand filters with air-water cleaning is used in the Systems with output of drinking water 4 m^3/h and more. This technique, with compare to common water back-flush cleaning, provides near 100% effectiveness of sand regeneration and allows to the System to work without periodical sand changing.

- All Systems are equipped with automatic valves and taps made from special ozone resistant material with electric actuators. It gives a possibility to switch the System from a "working" to the "cleaning" regime and back automatically. Other words – "EKOLIT-B" is a fully automatic System.

- Integration of GPRS module to the System for transmission of data from a System controller to the Central Server is available as an additional option. It also gives a possibility of a very quick reaction on possible faults in the water supply systems.

Designed and produced by the "Ekolit Ltd." Company Water Purification Systems "Ekolit-B" provides cleaning of highly polluted surface and subsurface water to its drinking standard as well, as provides neutralization of a water poisoning terrorist actions and an additional sterilization of drinking water from urban water-supply systems.

The "EKOLIT-B" Systems ensure continuous water treatment without any chemicals in a 24 hours automatic regime by the way of defecation, decolouration, deferrization, demanganesation and disinfection of water as well, as deep wastewater purification from oil products, radiation, suspended substances, capillary active substances, fats, partially organic contaminants and others.

Field of the System's application

- Camps, settlements, villages;
- Single buildings and different installations;
- Hotels and health resorts;
- Industrial facilities;
- Boiler heat-supply stations;
- Emergency Control Ministry units;
- Ministry of Defense special units and so on.

Main Technical Principles

The saturation of water by concentrated ozone is used in "Ekolit-B" Systems as the most effective method of water purification. Main advantages of ozonation technique over the common water chlorination are absence of:

- reagent and other consumables demands;
- toxic organochloride compounds in purified water;
- chlorine smell in purified water.

Ozone eliminates viruses and bacteria in 7-19 times and eukaryotic unicellular parasites in 80 times more effective with compare to chlorine. More so, if some microbes are resistant to chlorine treatment, there isn't any microbe, which is resistant to ozone. Ozone effectively oxidizes organic molecules disintegrating them and ions of metals transferring them into non-soluble forms.

Performances

- Organic compounds elimination efficiency >90%
- Metals elimination efficiency >99%
- Mechanical contaminant elimination efficiency >99%
- Biological contaminant elimination efficiency 100%

Scheme of the System