

CASCADE AQR/AT

PROJECT POSEIDON



CAS AQR/AT

Water treatment and purification systems based on contemporary, patented technology.

The system protects against bacteriological, chemical and radioactive contamination. It guarantees potable water in highest quality. It can protect individual buildings and housing estates too. This provides a very important opportunity to manage the security of government offices, hospitals, hotels, hotel resorts and other important subjects that are connected to the water supply network. The CAS AQR/AT systems do not require additional modifications to existing systems. They work automatically and use the natural pressure of water network.

List of selected, potentially dangerous substances causing water pollution, which are removable by devices CAS AQR/AT.

- heavy metal cations: iron Fe, manganese Mg, copper Cu⁺², nickel Ni⁺², lead Pb⁺² etc. Also highly toxic such as mercury Hg⁺², cadmium Cd⁺², thallium Tl⁺², arsenic As⁺³ etc.
- anions: nitrate NO⁻³, nitrite NO⁻², phosphates PO⁻³, chromates Cr⁻², cyanides CN⁻ (metal cyanide complexes), arsenide's ion AsO⁻³, arsenates ion AsO⁻³, sulphides S⁻² and many other inorganics and organic anions such phenolates, anionic detergent anions R-SO⁻³ etc.
- harmful and dangerous microorganisms: bacteria, fungi, viruses, algae, protozoa (as well as types of bacteria such as clostridia and *Cryptosporidium*)
- and many more

The devices do not require laboratory tests of the water source; no matter what the contamination of the source is, the outcome is always high quality drinking water. It is possible to extend the effectiveness of systems for special applications. If special requirements are necessary, the user should determine the contamination to be eliminated from the treated water.

Our technology has the following characteristics:

- very high efficiency of pollution reduction up to 98%,
- selective capturing of impurities, which helps to solve specific problems in a particular area (dedicated systems),
- a very small amount of individual sewage (often only a few liters per one m³ of treated water) which can be processed into liquid mineral fertilizer,
- non-chemical method of water treatment,
- competitively small dimensions of equipment allowing for the use of existing infrastructure,

As an option we can also supply toxicity detection device (every 5 sec).

CAS AQR/AT stationary water treatment system can be applied in single-family homes, apartment blocks, as well as in larger housing estates. It does not require any additional infrastructure, works automatically based on the flow of water. Devices of the AQR series are rated for nominal capacity as follows: 1.0 m³/h (maximum 1.6 m³/h), then 2.4 m³/h (max 3.6 m³/h), 4.0 m³/h (max 6.4 m³/h), 6.5 m³/h (max 8.2 m³/h), 9.0 m³/h (max 14.4 m³/h), 16.0 m³/h (max 25.6 m³/h) and 20.0 m³/h (max 32.4 m³/h) and more.

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