

CELTIC NATURE

# CAS WT-02



**Water purification system**  
ECOLOGICAL CRISIS, FLOODS, MILITARY



## CASCADE Technology

The proposed system is very useful as an outdoor potable water supply especially for the military and fire brigades. CAS WT-02 compact portable water treatment system is characterized by small dimensions, high performance and easy portability. It can be used for water treatment of various origins: wells, rivers, lakes, surface water and groundwater, and even extremely contaminated water. The device improves the taste and structure of water, protects against bacteriological and chemical contamination, removes radionuclides, e.g. radon, and ensures the highest quality drinking water.

List of selected, potentially dangerous substances causing water pollution, which are removable by devices CAS WT 02:

- Heavy metal cations: iron Fe, manganese Mg, copper Cu<sup>+2</sup>, nickel Ni<sup>+2</sup>, lead Pb<sup>+2</sup> etc. Also highly toxic such as mercury Hg<sup>+2</sup>, cadmium Cd<sup>+2</sup>, thalium Tl<sup>+2</sup>, arsenic, AS<sup>+3</sup> etc.)
- anions: nitrate NO<sup>-3</sup>, nitrite NO<sup>-2</sup>, phosphates PO<sup>-3</sup>, chromates CrO<sup>-2</sup>, cyanides CN<sup>-</sup> (metal cyanide complexes), arsenides ion AsO<sup>-3</sup>, arsenates ion AsO<sup>-3</sup>, sulphides S<sup>-2</sup> and many other inorganic and organic anions such as phenolates, anionic detergent anions R-SO<sup>-3</sup> etc.
- harmful and dangerous microorganisms: bacteria, fungi, viruses, algae, protozoa (as well as types of bacteria such as clostridia and *Cryptosporidium*)
- and many more

These 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.

## Technical specification

The device works 20 hours a day. It is produced in several versions for different types of vehicles such as fire or military with special adjustments. The individual versions offer the capacity of potable water supply from 3000 to 5 000 people. The weight depends on the equipment and ranges from 350 kg (CAS WT 02). In case of highly polluted water it is necessary to count with input filtration of insoluble mechanical particles.

Dimensions: height 115 cm, length 126 cm, width 60 cm (version for fire brigades). The size for the army purposes is different, because it depends on the structural design of the equipment. It can be made of stainless steel or carbon fibre. The equipment is possible to be made of bulletproof Kevlar for military purposes. In terms of transportation it can be prepared in container version or truck trailer version.

Energy supply is 2 kW, power consumption 1460 watts (CAS WT 02). The pressure is 6 bars. Water can be pumped from a depth of 8 m and a height of 60 m.

In case of requirements for special effectiveness and characteristic of our devices do not hesitate to contact us.