

THE TREATMENT OF DRINKABLE WATER:

Legislation and solutions

“Salus per Aquam” - health through water.

So said the ancient Romans. This is of course still true, above all when we are talking about the treatment of potable water.

In order to protect our health, there is a legal obligation to safeguard the integrity of mains water intended for human consumption, right through to the tap or point of use.

A number of international epidemiological studies have confirmed that Calcium, Magnesium, Potassium and Fixed

Residue must be present in water for human consumption, as they protect us from various degenerative pathologies such as cardiovascular diseases.

In the ambit of civil and food industry installations, all water intended for human consumption must be conveyed by a specific pipeline and segregated from contact with water intended for technical use.



On the contrary to treatments used in a pipeline intended for technical use, which are not required to comply with sanitation regulations, there are to extremely stringent sanitation regulations imposed on water in a pipeline intended for human consumption.

Water for human consumption that originates from aqueducts must respect a regulatory protocol that imposes the presence of Minerals in the water, essential for the health of our body, with the concentration values specified in Ministerial Decree no.31 of 02/02/2001, which are transposed from the specifications in Council Directive no. 98/83/EC on the quality of water for human consumption.

The general legislation currently in force imposes sanitation obligations on both the supply of water being sanitary and

safe at the point of entry and on the maintenance of the same quality right through to the tap or point of use.

In other terms, if the aqueduct company has to supply water containing the right mineral content at the point of entry, the user, for its part, also has the obligation to maintain the same mineral composition, unaltered, right through to the final point of use of their hydraulic system.

To enforce compliance, there are severe penalties against those who infringe these regulations, both in terms of distributing and maintaining, without alteration, the quality of water intended for human consumption.

Legislation on the treatment of water intended for human consumption

- Council Directive 98/83/EC on the quality of water for human consumption.
- Legislative Decree no. 31, February 2, 2001 in implementation of Council Directive 98/83/EC.
- Italian Ministerial Decree No. 25, February 7, 2012 on technical regulations concerning devices used for the treatment of water intended for human consumption.
- 20/03/2013 Guidelines on treatment devices used on water intended for human consumption pursuant to Ministerial Decree No. 25, February 7, 2012.
- HACCP (Hazard-Analysis and Critical Control Points): EC REGULATION 852/2004 published on 29 April 2004.

Compliance currently concerns the following private and public subjects:

- Owners of homes and apartment blocks;
- Apartment block administrators and water supply system managers;
- Managers of restaurants, hotels, hospitals, communities;
- Food companies and all businesses whose systems supply water intended for human consumption or contact with food.

At this point, once compliance with sanitation regulations has been achieved, we also know that during the heating stage the mineral content in this water forms solid mineral deposits that reduce the energy efficiency of heating devices.

Having to maintain the quality of mains water unaltered, means that there are very few types of treatments that are able to combine protecting public health and energy efficiency.



Physico®: drastically reduces the total bacteria count and build-up of deposits, without altering the chemical composition of the water



It is possible to drastically reduce the production of mineral deposits, at the same time maintaining the chemical composition of the distributed water, with PHYSICO, a treatment that has been tested by leading Italian research laboratories and thousands of applications in multiple countries and application sectors.

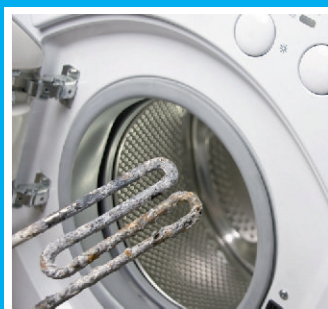
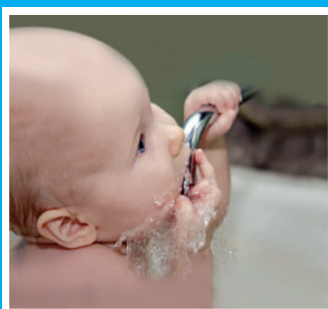
This treatment works without chemical additives, without salt, without maintenance and with constant effectiveness over time.

It is able to reduce the total bacteria count present in the water by 60/70% and therefore there is no risk of bacteria proliferation, as is the case with other types of treatment.

By making it possible to put the water back into the environment exactly the same as when it was received, this treatment considerably improves the environmental impact of the restoration of wastewater.

Physico® therefore prevents:

- The deterioration and inefficiency of pipelines and any consequent ruptures of the same;
- Incrustation on resistors in household appliances such as washing machines and dishwashers, which leads to greater energy consumption and therefore lower efficiency;
- Incrustations on heat exchangers and other boiler components that produce sanitary hot water and central heating, which leads to inefficiency and maintenance costs;
- The inefficiency of cooling equipment (cooling towers, condensers for refrigerating units, etc...).





Physico®

MAINTENANCE
FREE WATER
TREATMENT

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