LDT GMBH
DOSIERTECHNIK | HAMBURG

Disinfection of drinking water pipes by LDT proportional dosing pump and OXILITE®

The desire and the demand for hygienically safe drinking water is supported by applicable EC directives, the Drinking Water Ordinance (TrinkwV) and hygiene regulations according to DIN / DVGW. Agriculture also needs clean drinking water for livestock to maintain animal health and for irrigation of plant cultivation and horticulture.

Measures against contamination are important throughout the entire process chain - in the extraction, processing and distribution of drinking water: if the resource is well protected, less technical treatment is required. If distribution systems are built, maintained and operated according to the technical rules, they will not cause contamination by the release of substances from the materials or by the growth of legionella.

Critical therefore in maintaining the highest possible quality of drinking water is the effective management of these systems. The operators are responsible for this - ie water suppliers and owners as well as operators of buildings. The state supervision is carried out by the health authorities is the responsibility of the countries and municipalities.

To clear and maintain the cleanliness of the water-carrying lines of harmful bacteria, viruses and germs, which are also responsible for legionella, LDT Dosiertechnik GmbH offers a simple, compact but still safe solution. The combination of a non-electric LDT proportional dosing pump and the disinfectant OXILITE® safely and permanently disinfects water pipes as well as all downstream devices and fittings.

Operating principle

A LDT proportional dosing pump is simply connected to the water network and uses only the water pressure as the driving force. No electricity is needed.

The dispenser works with a volumetric hydraulic motor and allows continuous injection of the liquid or soluble concentrate. The concentrate is drawn in independently and mixes with the drive water. This resulting solution flows through the device.

The dosing quantity is directly proportional to the water flow rate, according to the manually set dosing rate, even in case of possible throughput and pressure fluctuations in the water supply network.

Pipe lengths also have no effect on the dosing accuracy and allowing the unit to be installed wherever required.

The continuous and immediate mixing in the mixing chamber ensures a homogeneous and ready-to-use solution for immediate use, e.g. for applying a disinfectant and cleaning solution. The risk of overdosing is eliminated through the design of the unit.

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OXILITE® - Sodium hypochlorite as biological disinfectant

The used disinfectant **OXILITE®** is a special sodium hypochlorite.
It is purely biological and is produced from water, salt and electricity in a special electrolytic process (membrane cell electrolysis). It is neither toxic nor corrosive.

Compared with other methods of disinfecting drinking water, like as chemically e.g. with chlorine dioxide, sodium hypochlorite, peroxide compounds, or by means of UV irradiation, ultrasonic treatment or thermal treatments, no disadvantages are known in **OXILITE®**.

The advantages, however, clearly dominate:

- It permanently destroys the biofilm
- fast and timely efficiency with depot effect
- less time for disinfection as no rinsing or dwell time is required
- economical in consumption
- disinfects the entire piping system including the sampling points
- high energy saving potentials by lowering the temperature
- high efficiency even at low temperatures and cold water
- no special personnel training required
- not dangerous, as it is not a chemical
- official approval for human consumption
- odorless and tasteless
- without harmful by-products
- without alcohol, preservatives or fragrances
- degrades to 100%
- neither toxic nor corrosive

Mobile or stationary disinfection station

The areas of application are:

- drinking water hygiene in schools, sports halls, hotels, hospitals and nursing homes, like for the elimination and prevention of Legionella, e.g. in the shower water
- disinfection of standpipes, drinking water hoses, system separators, water meters in the mobile and temporary drinking water supply at funfairs, trade shows, public events; at military, technical aid organizations, fire department; in coaches, on ships and in airplanes
- commercial service water area, such as in the food industry, chemical industry, etc.
- humidification systems and air conditioning systems
- agricultural culture, e.g. in horticulture, floriculture and vegetable growing
- livestock farming for animal health, e.g. disinfection of pipes, odor control, wound irrigation
- surface disinfection

OXILITE® fulfills the requirements for:

- DIN EN 901, DIN EN 1275, DIN EN 1040 according to Drinking Water Ordinance §1
- approved according to Drinking Water Ordinance §11
- DVGW worksheets W551, W296, W623
- dermatest certificate 2018 with "very good"

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