

PROFESSIONAL,

APPLICATIONS

COLD WATER AND SANITARY HOT WATER

ECO-FRIENDLY SOLUTION

the new way of treating water ®

dropsoN



dropsoN PROFESSIONAL

New generation of anti-scaling systems

ENERGY, THE CHALLENGE FOR LEISURE AND TOURISM COMPANIES.

The cost of energy

The **cost of energy is constantly increasing** and becoming a real challenge for the firm's profitability, highly dependant on energy.

The firms that consume significant amounts of sanitary hot water, such as **hotels, leisure centres, geriatric hospitals, public swimming pools, campsites,** deal continually with the increase of operating costs.

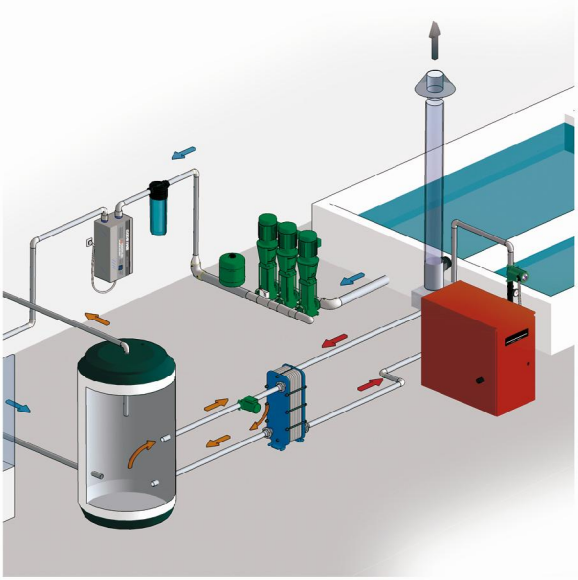
The installation of water-saving systems are insufficient to avoid the hidden losses due to the quality of potable water.

Overconsumption, sanitary hot water production stoppage and the continuous maintenance needs all have a factor in common: **limescale**

Responsible for the **loss of millions of Euros** in all activity sectors, limescale is a pernicious factor which presence influences negatively in multiple existing parameters in your installations.

Traditional solutions in fighting against limescale can not fulfil the new economical and ecological needs.

DROPSON has developed new solutions **better adapted** to the user's needs.



THE IMPACT, OF WATER QUALITY IN ENERGY BILLS

Limescale and overconsumption.

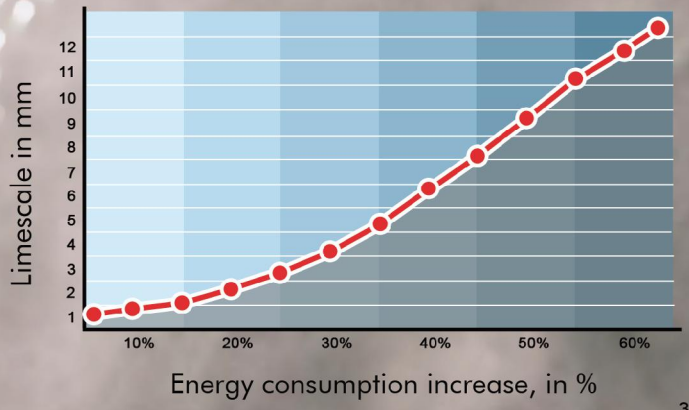
The use of energy efficient technologies, such as solar energy, low temperature boilers, heat pumps, etc., is rapidly becoming widespread.
However, **the unknown factor of the energetic equation still remains the quality of the water.**

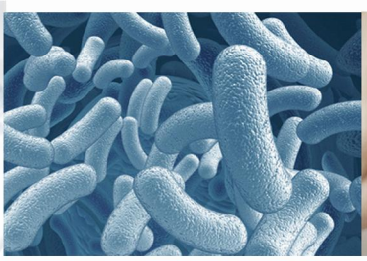
3mm of limescale between the heat exchange system and the water mains **results in a 30% increase in energy consumption.**

10 mm of limescale equals to over 50% increase in consumption!

APPLICATIONS

Water quality has considerable effect in the performance of heat exchange systems, as well as the energy bill.





dropsoN PROFESSIONAL

New generation of anti-scaling systems

CONTROLLING, THE EXPENSES

Save energy.

DROPSON is guaranteed energy saving. It avoids scaling in heat exchange elements and guarantees a maximum and continuous performance of the installations.

DROPSON directly affects energy consumption, assuring optimal conditions between primary and secondary circuits of a heat exchange system.

Minimize production stoppage.

DROPSON prolongs the installation's life and of those different elements sensitive to scaling

DROPSON minimizes maintenance costs, dismantling and unforeseen repairs. It does not produce any salt waste in the sanitary mains, such as those generated by traditional water-softeners, which increase corrosion in the installations

MINIMIZE, THE RISKS.

Minimize the sanitary risks.

Legionnaire's disease is a major concern for companies. Limescale is a preponderant parameter for the proliferation of these bacteria.

DROPSON avoids limescale incrustation and simultaneously dissolves existing limescale deposits in the installation. This decrease in limescale deposits has a direct impact in the prevention of Legionnaire's disease, as it gradually reduces its biotope

DROPSON is an additional help for the installation's hygiene, although it does not replace sanitary protocols, such as thermal shocks, nor maintenance regulated by public organizations.

Whereas traditional water-softeners need strict monitoring and regular disinfection of the resin deposits to avoid bacteria proliferation, **DROPSON** does not need sanitary maintenance, does not use any type of resin and its 316L stainless steel treatment cell conforms to food regulations.



APPLICATIONS

ADAPTED, TO YOUR ACTIVITY AND BUDGET.



Adapted to your installations.

DROPSON adapts easily to your installation.
Our calculation software allows us to quickly size up the adapted model to the peak flow of your installation and needs.
DROPSON is typically installed at the main cold water inlet and must be installed with a sediment filter.
DROPSON does not cause any head loss, neither does it decrease existent water flow rate.

Economic and quickly cost-effective.

DROPSON is a highly competitive product, of great quality and exceptional performance. It avoids the constant and periodic provision of chemical products or salt. It does not require connection to the drain.
It does not waste water neither does it generate any type of pollution. The energy consumption is minimum, comparable to that of an energy-efficient light bulb.

Limescale is a preponderant parameter for the proliferation of Legionnaire's disease.

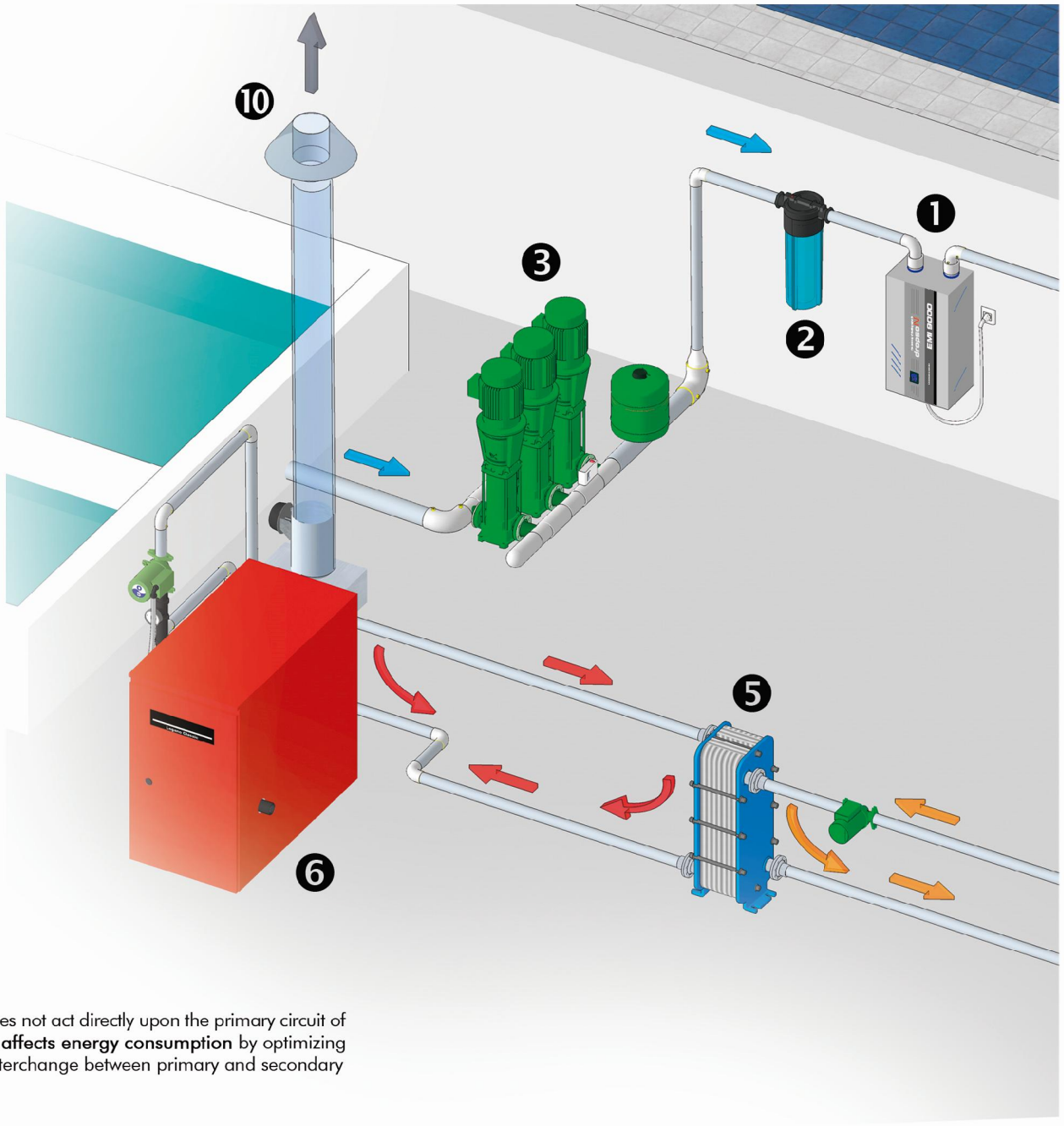
ESSENTIAL,

FOR YOUR INSTALLATION.

Diagram principle.

2

A **sediment filter** must be installed before the **DROPSON**, thus **avoiding** the installation being compromised by silicon or other suspended particles.
These particles can **block** certain sectors of the installation, further corrosion or **damage the circulators** of the recycling circuits.



6

DROPSON does not act directly upon the primary circuit of the boiler, but **affects energy consumption** by optimizing the thermal interchange between primary and secondary circuits.

10

DROPSON avoids energy overconsumption and thus **reduces CO2** emissions or greenhouse gases.

For an efficient energy administration and to achieve remarkable reduction in energy costs, **DROPSON advocates a personalized study of the installation**, aiming to integrate sanitary hot water consumption optimization technologies, or low temperature boiler operation.

5

DROPSON guarantees optimal and uninterrupted **performance** of its exchangers **avoiding limescale incrustation.**

DROPSON **guarantees energy savings.** Avoid dismantling, unforeseen maintenance and production stoppage.

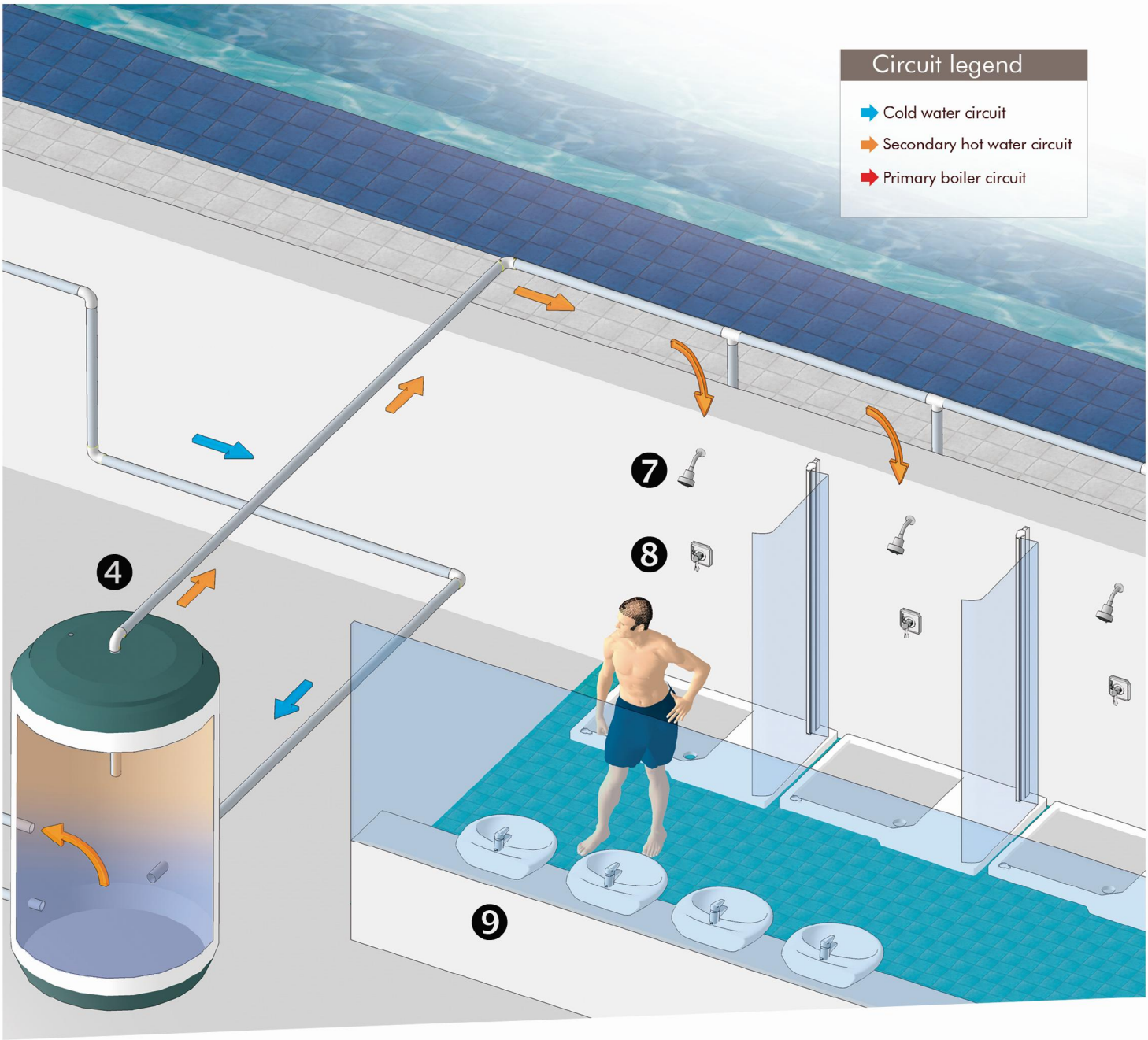
1

DROPSON is easily installed at the main cold water inlet, right **after the pressure pumps.** 3
DROPSON does not need any kind of maintenance, does not require addition of salt neither does it waste water.

Its electrical **consumption is minimum,** equivalent to that of an energy-efficient light bulb.
DROPSON does not generate any head loss in the circuit.

7 As **DROPSON avoids scaling,** the calibrated flow of the showers is maintained, dismantling and inconvenient maintenances are avoided and the satisfaction of the customer is guaranteed.

8 Treatment with **DROPSON assures the correct performance of your temporized taps.** Without limescale incrustation, the mechanisms will not jam and will maintain the original function of water and energy saving.
Limescale already present in the installation **will gradually dissolve.**



4

DROPSON is suitable for the **prevention of Legionnaire's disease proliferation,** as it prevents limescale accumulation both in installation and storage tanks, thus reducing its biotope.

DROPSON is a guarantee for the life span of your installations and accumulators, as it does not use salt as the traditional water-softeners, source of accelerated corrosion of the installation.

9 **DROPSON guarantees the performance** of your taps and **faucet aerators.**

the new way of treating water®
dropsoN

LEADER,

IN PHYSICAL WATER TREATEMENT.





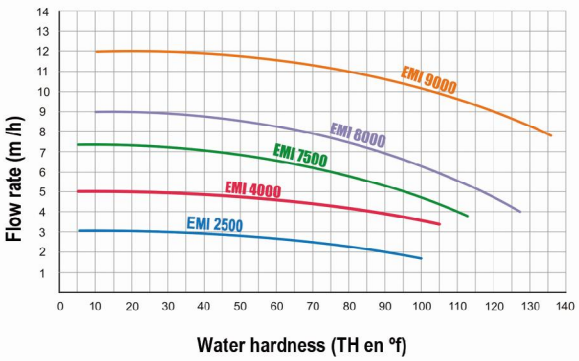
Made in EU · 10 YEARS GUARANTEE · CE · ATTESTATION DE CONFORMITE SANITAIRE ACS · GODKENDT TIL DRIKKEVAND

TECHNOLOGY,

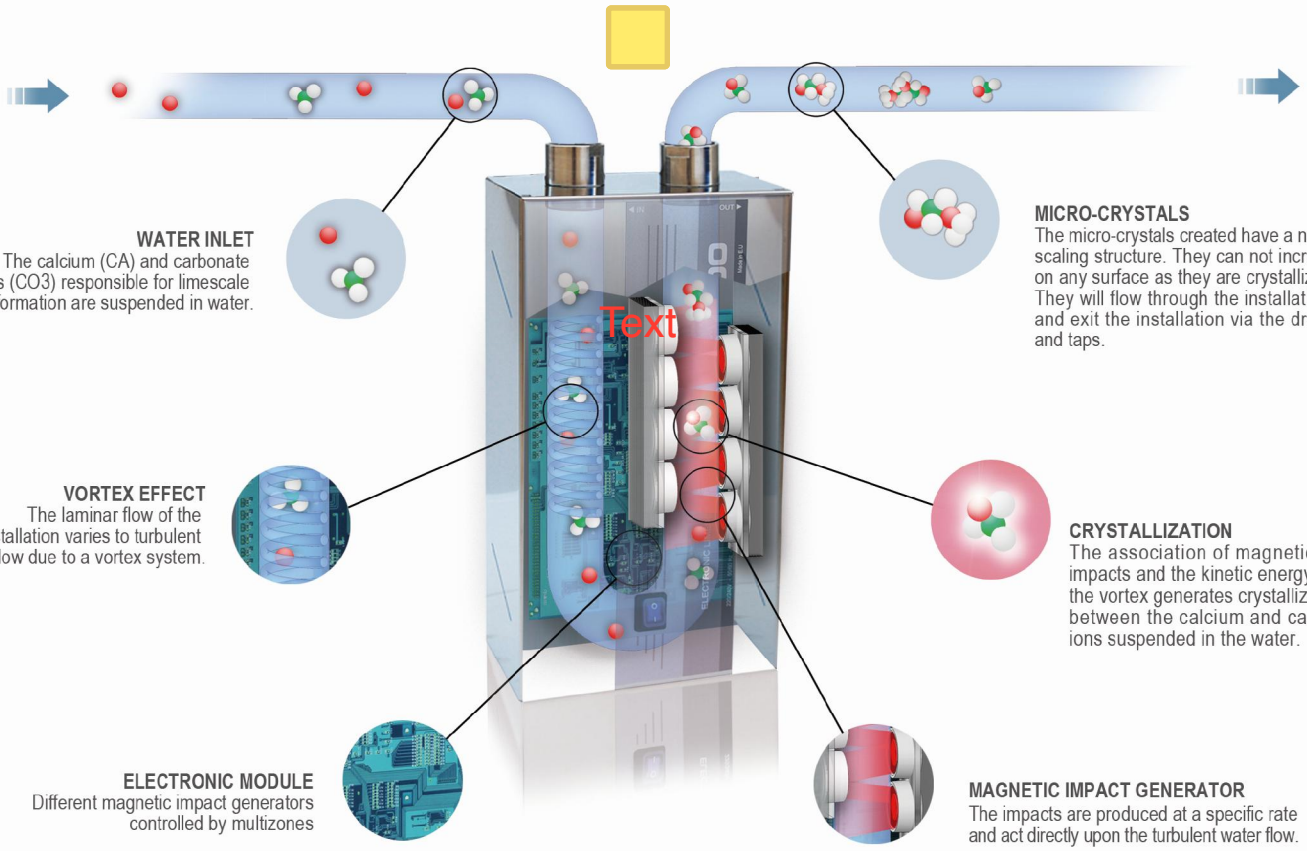
CUTTING EDGE.

Innovation and features.

The propriety technology developed by DROPSON (E.M.I), offers exceptional performance thanks to its innovative concept and the high quality materials used.
Each treatment cell is factory calibrated with great precision in order to guarantee perfect efficiency, adapting to a flow curve and a hardness scale specific for each model.



Operational principal.



WATER INLET
The calcium (CA) and carbonate ions (CO3) responsible for limescale formation are suspended in water.

MICRO-CRYSTALS
The micro-crystals created have a non-scaling structure. They can not incrust on any surface as they are crystallized. They will flow through the installation and exit the installation via the drain and taps.

VORTEX EFFECT
The laminar flow of the installation varies to turbulent flow due to a vortex system.

CRYSTALLIZATION
The association of magnetic impacts and the kinetic energy of the vortex generates crystallization between the calcium and carbon ions suspended in the water.

ELECTRONIC MODULE
Different magnetic impact generators controlled by multizones

MAGNETIC IMPACT GENERATOR
The impacts are produced at a specific rate and act directly upon the turbulent water flow.

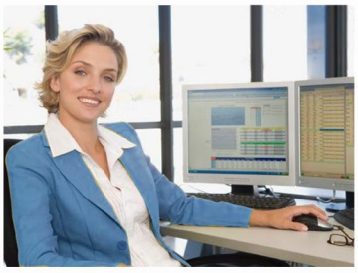
E.M.I Technology
electronic magnetic impact

MASTERY, OF TECHNOLOGY AND APPLICATIONS.



Customized research.

In collaboration with internationally renowned companies, our technology has been specifically adapted to apply in the production of cold water and sanitary hot water.
The sizing of our equipment is undertaken by our specialized software following the DB-HS4 standard to guarantee an ideal adaptability to your activity.



Customer service.

Commissioning of our systems is supervised by our distributor network. This service will guarantee the correct installation of DROPSON.
Built to last, the life span of our equipment surpasses thirty years and we offer a 10 year manufacturer warranty.

ECO-FRIENDLY,

AND ENVIRONMENTALLY RESPECTFUL.

DROPSON is eco-friendly and offers many advantages compared to traditional systems such as the water-softener. A simple comparison between both technologies serves to underscore the advantages of the anti-scaling system developed by **DROPSON.**

Comparison DROPSON - Resin water-softener

- Efficient treatment.
- Partially efficient treatment.
- Inefficient treatment.
- Contraindicated.

	Protects installations and equipment **against limescale.**	**Produces a descaling effect** on existing limescale.	**Limits** health risks and **bacteria proliferation.**	Optimizes installation's energy efficiency. **Facilitates energy saving.**	**Avoids corrosion** to installation and equipment.	**Maintenance free.** Does not require salt nor chemical products.	**Does not generate** water consumption, neither **water discharge** to the drain. Generates no pollution.	**Maintains water potability,** leaving chemical properties unmodified.	
Water softener	✔	⊗	✘	✔	✘	✘	✘	✘	Chemical treatment.
DROPSON	✔	✔	✔	✔	✔	✔	✔	✔	Physical treatment ** EMI technology*

EFFICIENT, AND AVOWED.

Some references



The **municipal swimming pool of Sitges, Barcelona,** (Spain) had serious production shut downs in the sanitary hot water circuit due to limescale accumulation in the exchangers, flow rate problems, malfunction of mechanical elements, etc.
The installation of two DROPSON EMI 9000 systems in parallel resolved all the problems caused by limescale.



The **municipal sports centre Gran Via** is one of the largest sport complexes **in Alicante,** (Spain).
The plate heat exchangers underwent continuous maintenance due to limescale incrustation.
The shower temporizers were regularly blocked and the energy efficiency was insufficient.
With the installation of a DROPSON EMI 8000 system all problems of performance loss and interrupted service were solved.



Marvel Hotel is a 4 stars hotel located in **Coma Ruga, Tarragona** (Spain), has a capacity of 236 rooms on 5 floors.
This hotel offers gym service, Spa, indoor and outdoor pool.
Mains water in this city is extremly hard. The amount of sanitary hot water used is enormous and, in spite of the traditional salt softeners used, the scale incrustation on the heat exchangers caused production standstills so damaging to the corporate image.
Three DROPSON EMI 8000 were installed in parallel in the main water supply and made disappear all the encrusting and heat exchangers loss of performance problems.


Hotel Hvide Hus Denmark

The Hotel Hvide Hus is a four star hotel located 100 meters from Køge Bay, about 45kms from the Danish capital, Copenhagen. It is equipped with 121 rooms, a gymnasium, a sauna and a terrace with magnificent views of the bay.
In this region, tap water is extremely hard. The malfunctions and the problems they generated were damaging the company's image.
Two Dropson EMI 9000 systems were installed in parallel, protected by a high performance sediment filter. After a year in operation, the heat exchangers have not had any further limescale problem, nor any performance decrease. The valves, shower heads and faucets are still working perfectly.

UNION EUROPÉENNE

DROPSON has been chosen to equip thousands of hammam in Morocco, as part of a project financed by the European Union to reduce greenhouse gases and its effect on the environment. DROPSON's EMI technology is used to protect the sanitary hot water circuits and maximize the energy efficiency of the new wood pyrolysis boilers, designed by French engineers.

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