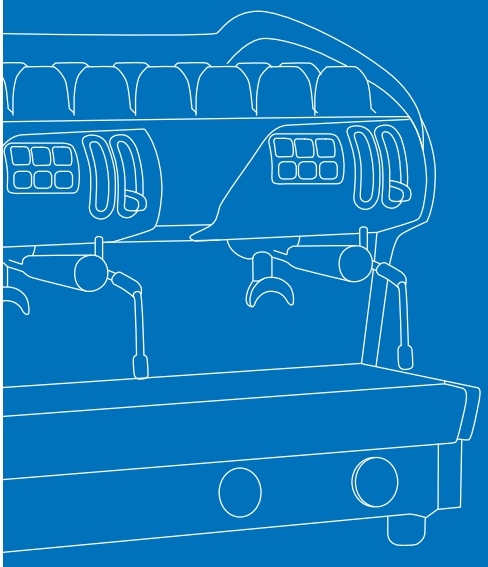


IDROPRO

by KALKI

INFORMATION MANUAL

Ceramics Water Scale Removing

CWSR – Ceramics Water Scale Removing

COMPLIANT WITH NSF 61 / D.M. 174 / D.M. 25

- NO ADDITION OF CHEMICAL SUBSTANCES
- NO REGENERATION
- NO RINSING
- NO NEED FOR A SYSTEM COMMAND VALVE
- NO ELECTRICITY
- NO MAINTENANCE

Water contains two different types of hardness ions, though only one of them is a direct cause of limescale. The calcium ion (dissolved limescale) that causes encrustation passes through a layer of ceramic beads rated safe for food use, which converts the ion into a non-limescale form and forms calcium crystals. In turn, the crystals attach to the beads and when they reach a certain size are released into the water and then captured by the post-filter.

The result is a permanent physical change, where the limescale cannot, even over time, re-aggregate even on surfaces where friction or other accessory elements inside the pipes might facilitate its development. The water loses its limescale-forming potential and also takes on a descaling action, offering many benefits to users, so much so that IDROPRO guarantees a stable pH and a control against corrosion for all types of water. It is the only product on the market to offer this guarantee.

FURTHER INFORMATION

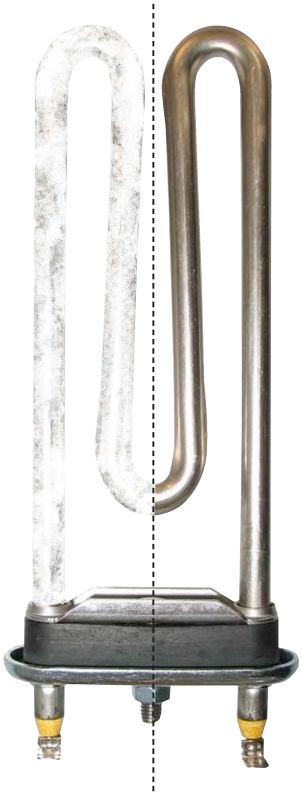
CWSR has an efficient working life of between 3 and 5 years depending on the conditions of the water. (3 years of guarantee), according to the quality and purity of the entering water supplied by the system.

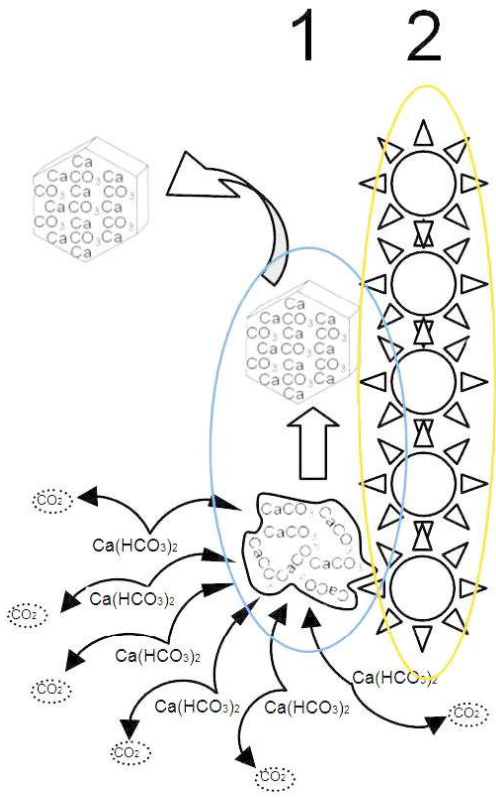
All the models are also guaranteed for exclusive use with potable water.

All the plants must include a post-filter (cartridge) which can collect the calcium crystals, to be replaced once every six months. This can be directly connected to the unit or be remotely mounted, according to the various types of installation.

Illustration of a system configuration

- Calculation of the quantity of Resin – Food Service / Commercial
- Below 450ppm – 1 litre of CWSR resin is equivalent to 330 lpm with a 3/4 year duration
- Above 450ppm – 1.25 litres of CWSR resin is equivalent to 330 l/h with a 3/4 year duration





Frequently asked questions

Can I replace a traditional softener with the new IDROPRO system and what's the difference in terms of performance that I should see between the two systems?

IDROPRO is the best alternative to the traditional softener because it gives catalysis stable pH and converts the calcium ions in a nano-crystallisation process without addition of sodium to the water. A traditional softener removes all the calcium and magnesium from the water. The CWSR medium converts the calcium into crystals without altering water hardness.

Is there a limit of water hardness that CWSR can effectively work in?

The CWSR system can treat water hardness above 1000ppm. As all calcium/limescale systems are based on a hardness of about 450 ppm, this is also why CWSR covers 98% of the total of installations in its category in the whole world.

What's the maximum working temperature of the compound?

CWSR can tolerate water entering at above 90°C/194°F and when the water is treated, the crystals will remain unchanged up to above 380°C before reconverting to ions.

What's the minimum working temperature of the compound?

Water can begin freezing at around 2°C, especially in very cold climates. With this consideration in mind, we recommend that IDROPRO is not subjected to contact with water at below 4°C/39°F.

What pH does this product normally work at?

CWSR works best at between 6.5 and 8.5 pH.

IMPORTANT: Before using the CWSR product leave it to soak for at least 15 minutes so that the catalytic action can commence

What can I hope for in the bathroom?

In just a few weeks the existing limescale in the shower and washbasins will have dissolved, contributing to a more powerful water flow. The treated calcium is of nano-dimensions and will not adhere to surfaces, as happens with non-treated water.

It's a revolutionary system, because it's ....

Approved for aquariums, for food use or human use, for animals, plants, heating systems and heat convectors, irons. It can be installed in only two hours and no electrical supply is needed, nor any addition of salt, discharge tubes or tap and no "overflow" system either (for drainage into the floor).

Using the CWSR medium IDROPRO transforms the calcium ions into calcium crystals which adhere to the inner post-filter cartridge, which must be replaced once a year.

Why we consider IDROPRO THE BEST

- There are no pH changes; the pH value of the water remains the same. This factor means that the treated water is good for almost every use and prevents corrosion.

- IDROPRO prevents calcium precipitation and aids early removal of formations by crystal abrasion during water flow..

- During water flow, IDROPRO rapidly spreads in the water and interacts with the limescale surface, dissolving any collections of limescale and causing release of a small quantity of CO2 which forms micro-bubbles that aid destruction of bacterial colonies in the water, acting as a biocide, especially in closed spaces (boilers, pipes etc.).

- Mineral conservation: IDROPRO adds no salt (sodium chloride) or any other chemical compound to the water but simply conserves the calcium and magnesium content already present in it, enabling probably the healthiest possible treatment.

- Both calcium and magnesium are important for the nervous system and are indispensable for good muscle and organ functions.

- IDROPRO prevents calcium precipitation and aids early removal of crystal formations by crystal abrasion during water flow. What is more, during the flow micro-bubbles release a small quantity of CO2, which spreads rapidly in the water and interacts with the limescale surface, especially in closed spaces (boilers, pipes etc.) and causes the limescale already present on these surfaces to be gradually removed.

- The process creates the conditions for the water to dissolve collections of CO_3 which form micro-bubbles that behave like biocides to destroy bacterial membranes.

ADVANTAGES of IDROPRO

- No need for salt (NaCl) for regeneration
- No need for backflushing
- No need for regeneration with stepped cycles
- Removes calcium precipitate from the pipes
- No need for maintenance. No extra costs to be added
- No use of chemical agents for disinfecting the system
- No cables or electrical connections to add
- No drainage or pipes required
- No control valves
- Easy to install

Technical data

CHARACTERISTICS	
Appearance of Granules	White
Composition	Modified polymeric ceramic
Weight Volume	(kg/l) 0.8
Size of particles	(mm) 0.55 – 0.75
Change of volume	Above 60%
Moisture content	10 – 25%

WATER PARAMETER REFERENCE	
Working temperature	From 3 to 90
pH range	From 6.5 to 9.5
Maximum hardness in ppm	1400
Maximum salinity in ppm	35000
Maximum iron in ppm	0.5*
Maximum manganese in ppm	0.05
Maximum free chlorine in ppm	3
Maximum copper in ppm	1.3
Oil	Free
Hydrogen sulphate	Free
Phosphate	Free

APPLICATIONS

DOMESTIC APPLICATIONS: taps, water pipes, showers, bathrooms and toilets. All potable water systems, dishwashers, ice-makers, small spin dryers.

APPLICATIONS: central heating plants, air conditioners, hot water plants, dehumidifier plants, coffee and tea machines, solar heating systems, water heating.

BOILERS: hot water boilers, central heating boilers, combination boilers, catering boilers, swimming pool heaters, industrial radiators, hot water boilers.

COMMERCIAL APPLICATIONS: Wine industry, car-washes, process water, food and drink, injection units, personal cosmetic use, reverse osmosis and pre-treatment.

ADVANTAGES AND BENEFIT OF

- The catalysing process converts calcium and magnesium into inert micro-crystals
- Prevention of limescale formation
- Removal of EXISTING calcium sediment from pipes
- No additional costs for use or maintenance
- NO chemical agents for disinfecting
- Compact and easy to install