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*Quality Par Excellence ...*



WATER TREATMENT TECHNOLOGY

## Introducing New Orbit Industrysmart Water Treatment Technology :

we are happy to introduce the all new orbit industrysmart water treatment technology . this technology helps to solve your hard water issues . as we are aware that even after using the traditional water treatments there are many hard water issues such as scalings , corrosions , deposition of biofilms . our product industrysmart treats the water with different waves spectrum which performs many changes in physical properties of water . physical changes such as conversion of calcite to aragonite . calcite attracts the bonding whereas calcite repels the bonding which results in removal of the existing scales . this device also reduces the size of particles to a great extent . this device also de-activates the activity of hard water salts . hence it is a perfect device for your industry . for brief description please go to the following pages.....



### Consider the Benefits :

- Wastewater recycling.
- It is 100% eco friendly.
- It eliminates biofilm hence controls bacteria level.
- Stops scale buildup and corrosion. on pipes and fittings.
- Just fit and forget ,no maintenance required once it is installed.
- It has no filters hence endless supply of soft water ,no flow limitation.
- Uses no chemicals. extends the life and improves performance of boilers and cooling plants.
- Keeps boiling plants, cooling towers, piping and condensers clean, thereby saving the held up time and maintenance.





## De-scaling & Scale Prevention Process Without The Use Of Chemicals :

THE treatment of Industrysmart prevents dissolved minerals from bonding together to form crystals. ULF & VLF treatment also actively breaks down chemical bonds in any existing scale that is the fitting through which treated water of the Industrysmart system passes. After several months all pipes and equipment connected to the treated flow become scale-free, and corrosion buildup is completely removed.



Scaling deposit in a condenser



When the lid was opened after 60 days all the existing scale was removed and was drained away with water without use of chemicals or efforts.



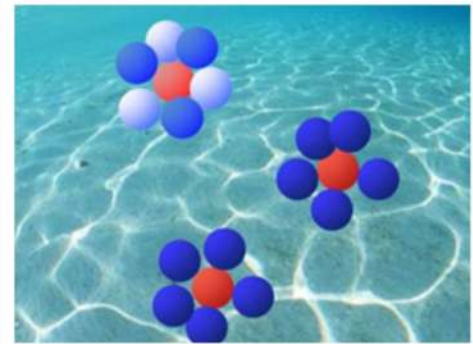
After water draining clean tubes and no scalings



## How does it work ?

The OrbitSMART Water is an in-line catalytic water treatment system. Particles, which were previously attracted to each other, now repel and separate into smaller individual particles. This allows the 'separated' mineral particles and salts to flow through the system with minimal interference.

Many Problems In Water Are Caused By Bonding Between Dissolved Minerals Or Elements. This Bonding Results In Formation Of Scale.



OrbitSMART utilizes a series of computer generated ULF and VLF TECHNOLOGY to disrupt bonding between minerals and charged compounds. This neutralizes mineral precipitation, decreases deposition of scale and oxides, and also opposes corrosion.

A OrbitSMART microcontroller unit produces ULF AND VLF that are focused on the water flow via antennae around your water pipe. There are no reject streams, no pressure losses and no flow restrictions.

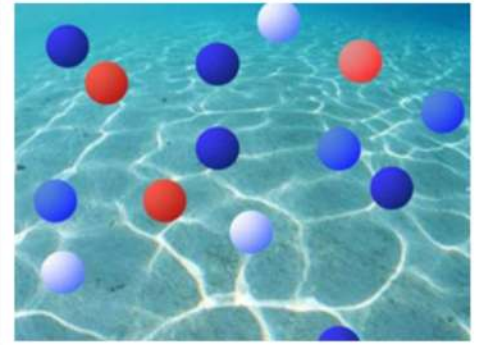
ULF AND VLF effects remain in treated water for up to 5 days and progressively break down bonds of any mineral deposits already formed. Calcium and iron scale in pipes and equipment that are connected to the treated flow becomes loosened within a period of months.

The loosened minerals then break free and exit the pipe with the water, rather than continuing to clog the pipe or equipment.





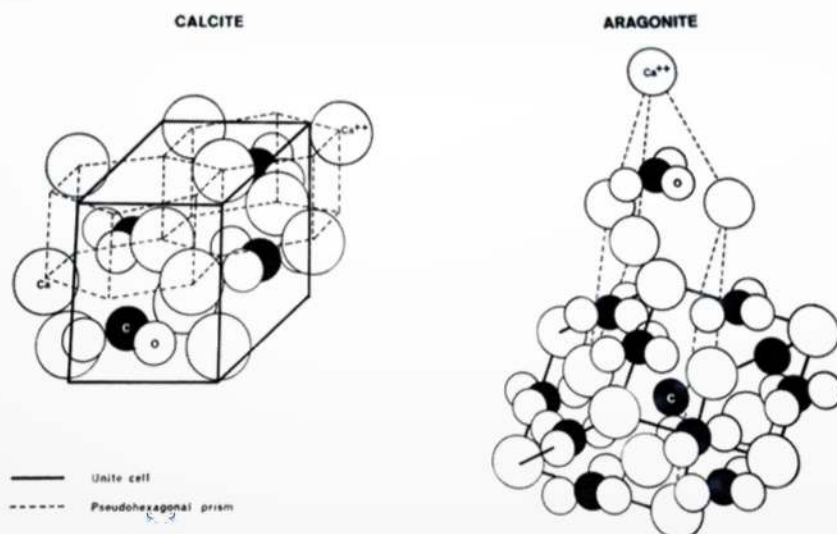
Orbitsmart Ulf And Vlf Disrupt Bondings Between Minerals and Elements Without The Use Of Chemicals.



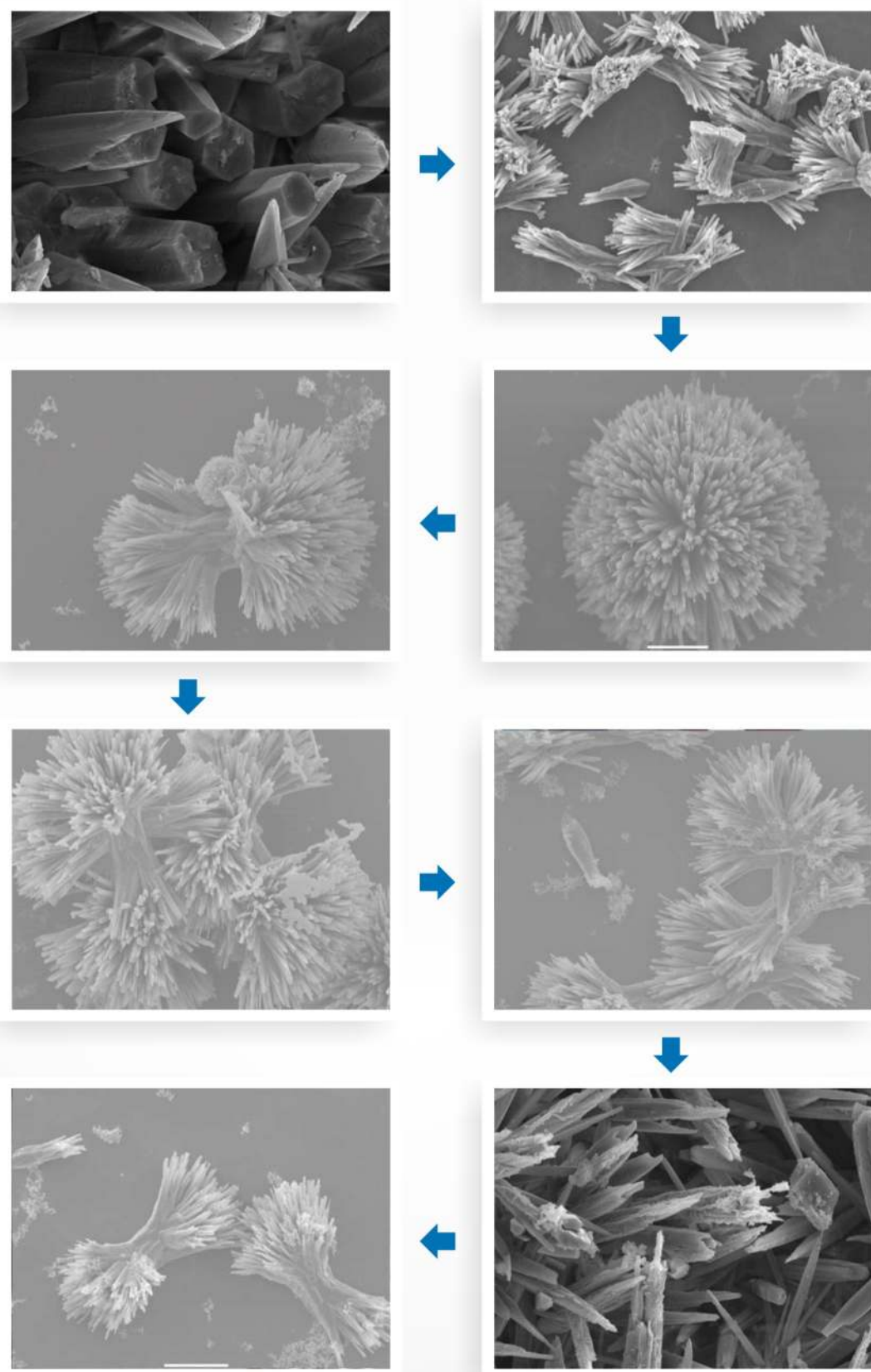
By using ULF and VLF that specifically dissolve minerals, Orbitsmart reduces crystal and particle sizes.

With the bonding mechanism within crystals disrupted, large mineral crystals and compounds are reduced to sub micron particles. This tiny particle size enables the flow to assume the properties of soft water and makes possible a wide range of commercial, agricultural, industrial, lifestyle and health benefits.

As well as acting on minerals, The ULF and VLF technology also acts on water directly, by affecting the natural dipole of water molecules. ULF and VLF water greatly enhances the growth of plants and also improves the health of animals. Scientific trials of this technology have been conducted on crops, showing dramatic improvements in crop health.

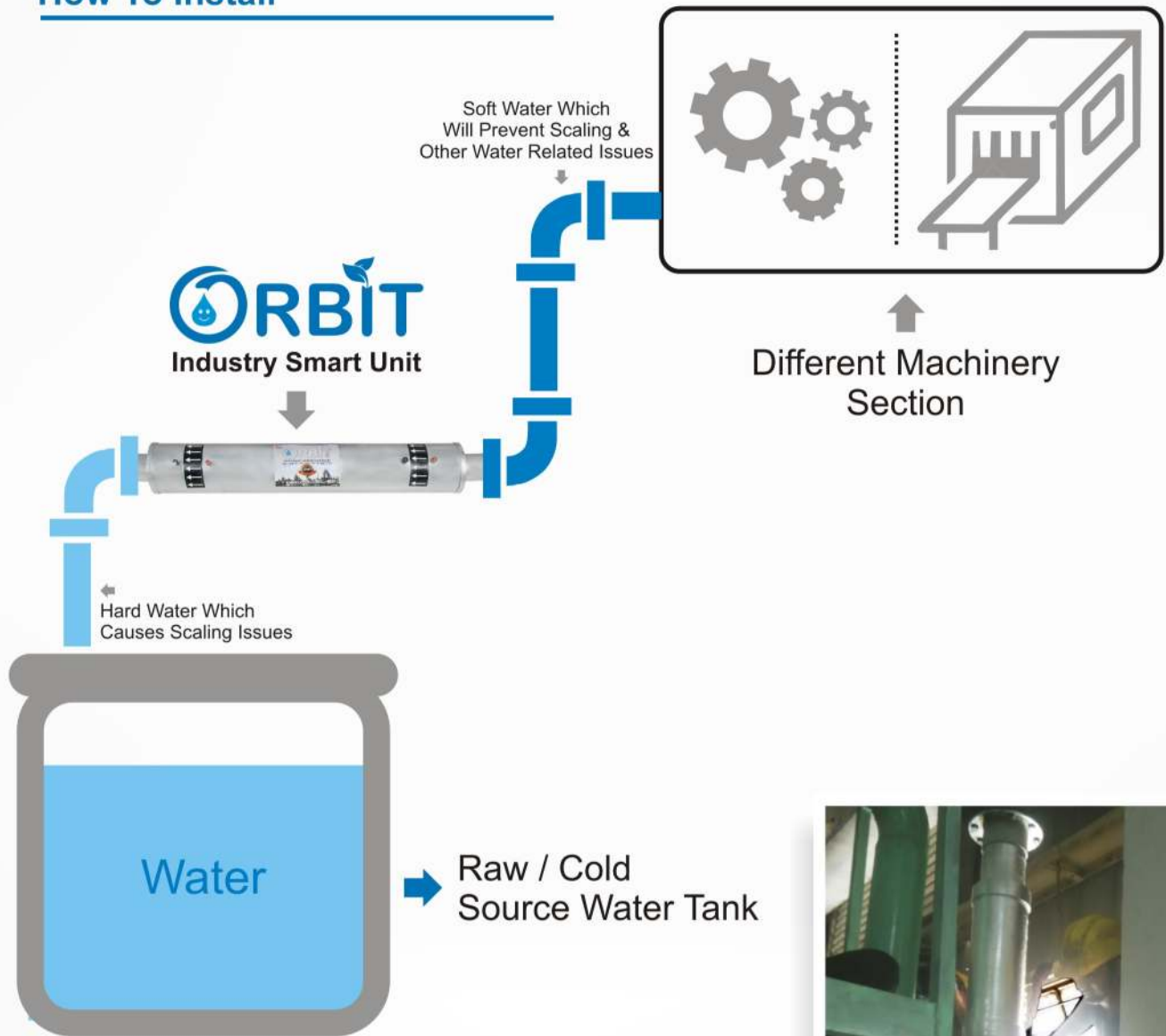


S.E.M. footage of water treated with orbit's industrysmart unit showing conversion of calcite to aragonite and the reducing particle sizes





## How To Install



Some Onsite Installations .....



## Commercial Uses :

- Commercial Industrysmart are as follows :
- Cooling Tower – efficient cooling as compressor tubes are not scaled.
- Vehicle service station - glass cleaned, reduction of salt on metallic parts.
- Hotels and restaurants - Dishwashers and equipment descaled, lathering improvement.
- Coffee cafes - less cleaning / maintenance of espresso machines, the coffee tastes better.
- For garden outside the industry - Effective growth and health of gardens, lawns, and nursery.
- Floor Cleaning - more efficient while cleaning when water softening chemicals are not used.
- Hospitals - Antiscaling and corrosion prevention in sterilizers / boiler, extended life of equipment.
- Dry Cleaning Facility - Lowered the dosing levels on dry cleaning chemicals, clothes are brighter and cleaner.
- Fittings and valves - Descaling of scales from existing plumbing and prevents further buildup, cooler pads need less frequent cleaning.

▼ BOILERS & STEAMERS



▼ COOLERS



▲ CHILLERS PLANT



LAWN IN INDUSTRY ▲

## APPLICATIONS OF INDUSTRYSMART

These are some of the common hard water problems faced in commercial uses. Since there are so many other problems also faced our product industrysmart solves them all. We will be your creative partners in solving your real world problems and reaching your goals set by you for us.





### Boilers And Coolers :

In boilers the users observed that heating element get completely covered by scale formation and plumbing lines got choked .On using industrysmart within few months the heating element was completely descaled and water was flowing through the plumbing lines very smoothly. In cooling towers, users observe scale and grit removal from condenser, basin and infill, with an increased efficiency of cooling tower chillers. The condenser tubes started to shine like a gun barrel. Use of industrysmart is very beneficiary to coolers and boilers as use of industrysmart reduces the time consumed in boiling and cooling the material as the scale is completely removed from heating walls and louvers.



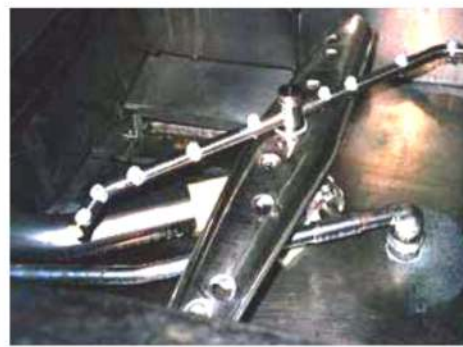
▲ BEFORE



▲ AFTER



▲ BEFORE



▲ AFTER

### Results after the use of Industrysmart



### Anti-corrosion :

Anti corrosion is one of the main role of industrysmart and continues to be its key feature. By breaking transient bonds, Industrysmart dissolves minerals more thoroughly and for longer than in untreated water. The resulting effective hydration of minerals, means they are less reactive and their corrosion activity is neutralized.



▲ With Treated & Non Treated Water



▲ With Non Treated Water



▲ With Treated Water

### Stain Removal :

On the installation of industrysmart, surfaces that are in contact with the treated water become clean and shining, including metal, ceramic, stainless steel pvc, upvc , cpvc and plastic. Stubborn streaks on benches, implements, and equipment are permanently removed from surfaces because the unit keeps functioning indefinitely.





### Removal of Biofilms :

Biofilms are stains that are trapped by the mineral deposits (scale) and contain living microorganisms. Algae, fungi and bacteria are the main components of biofilms, and are breeding grounds for disease. Biofilms build up on sinks, pipes, ponds, and drains. When scale is removed, organisms lack a substrate to grow on and feed on, so bio-films are controlled. Industrysmart also activates the chlorine and, making it more efficient in killing bacteria.



▲ With Non Treated Water



▲ With Treated Water

### Foam And Wash Quality :

Hard water contains high levels of minerals which interfere with foaming of soap. By breaking up bonds between mineral particles, foaming is greatly improved. Dishes, implements and surfaces are more effectively cleaned when lather is present. This effect together with removal of existing streaks and blemishes, means surfaces shines bright.

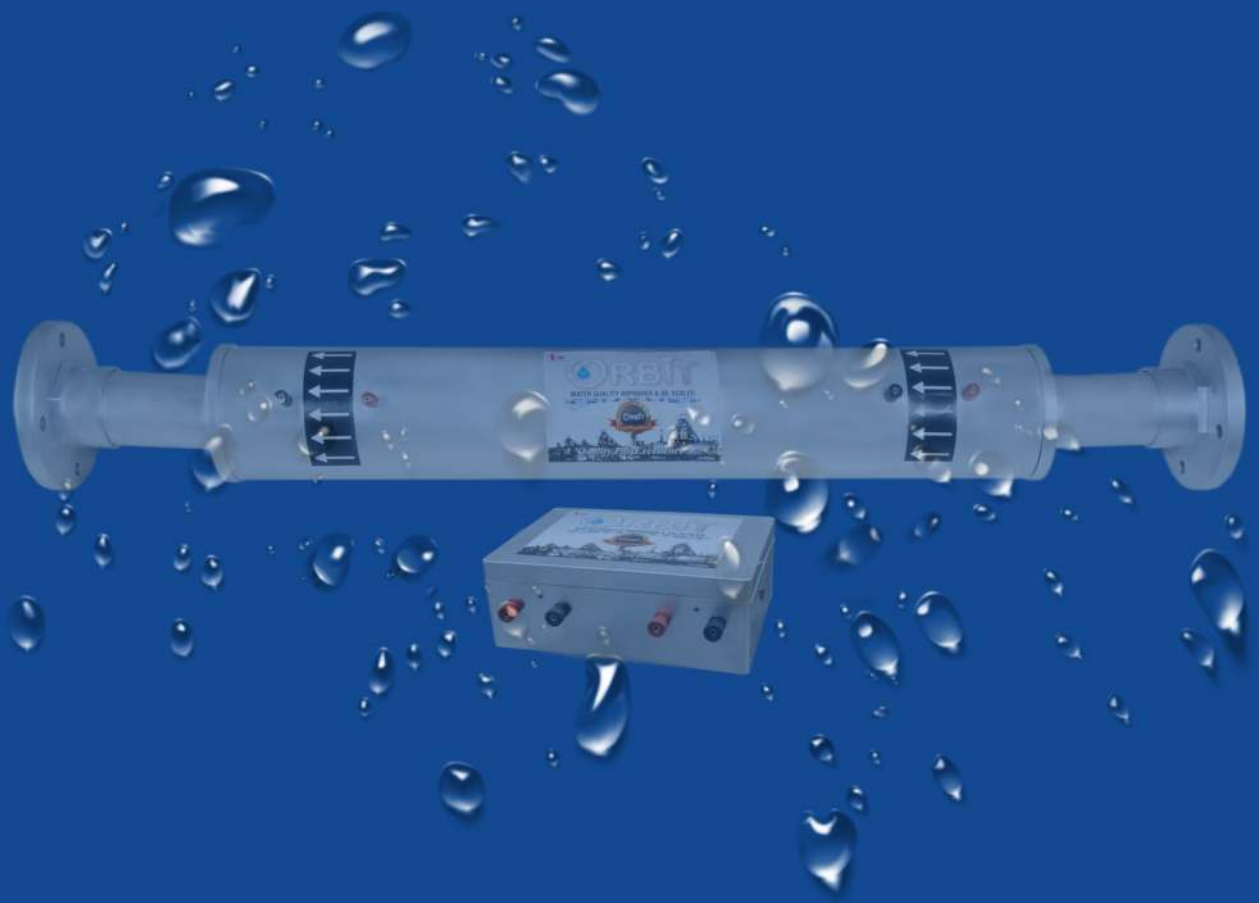


▲ With Non Treated Water



▲ With Treated Water





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