

ENVIRONMENT FRIENDLY WATER TREATMENT FROM FLUID DYNAMICS



REDUCING THE USE OF ENERGY AND CHEMICALS IN HARD WATER

Scale caused by hard water

What is it?

Scaling caused by hard water is one of the largest known wasters of energy in any hard water area. Scale is caused by a dissolved mineral calcium carbonate coming out of solution or dissolved state from water and forming a thick hard crust known as scale or limescale.



Where does it form?

Scale is commonly found in hard water areas which is present in a large percentage of the world. Each country will have areas of soft and hard water. Scale will form when water is heated in a heat exchanger or hot water heater or pressure change such as nozzles heads.



How does it affect a system

The accumulation of scale will cause a number of problems, the most significant is the additional cost it adds to the running of a piece of equipment in the home or a factory. Just small amounts of scale are enough to cause a rise in power consumption. Accumulation over time can add anything between 10-50% to a yearly energy bill. Scale will also contribute to equipment breakdown and failure including reducing its longevity

Treating scale using traditional methods can be costly, time consuming and can have adverse affects on the local environment. This includes chemicals and salt generated water softeners which are becoming increasingly unpopular in our more environment conscious age. Removing existing scale also costs and often requires plant shutdowns to carry this out, there is also a health and safety concern with chemicals, acids and sharp utensils used to remove build up

Fluid Dynamics Solution

- Fluid Dynamics manufactures a wide range of non-chemical products to treat hard water.
- Each solution we offer is guaranteed to reduce the cost of an existing treatment and contribute to a reduction in energy use, and reduce damaging effects on local environments.
- Fluid Dynamics offers a bespoke service unlike any other physical water conditioning company in the world. Assessing water for compatibility and customising recommended installations tailored to suit each customers needs.

Expert5 guaranteed success

Unique to Fluid Dynamics is expert 5 a computer prediction simulator which can assess the contents of a customers water and give an accurate effectiveness of how compatible their water is with our product. This gives the customer a realistic expectation and something to gauge the success of the installation from. Its simple to find out just ask for a form or send your latest water analysis to our office.

Over 100,000 of Fluid Dynamics non-chemical products have been installed on the basis of expert 5 with a 100% success rate.

Proven & Trusted Technology

Fluid Dynamics has pioneered its own technologies with the assistance of universities from around the world including Brunel, Trinity College Dublin and Aston University. There are two types of treatment, Catalytic and Magnetic.

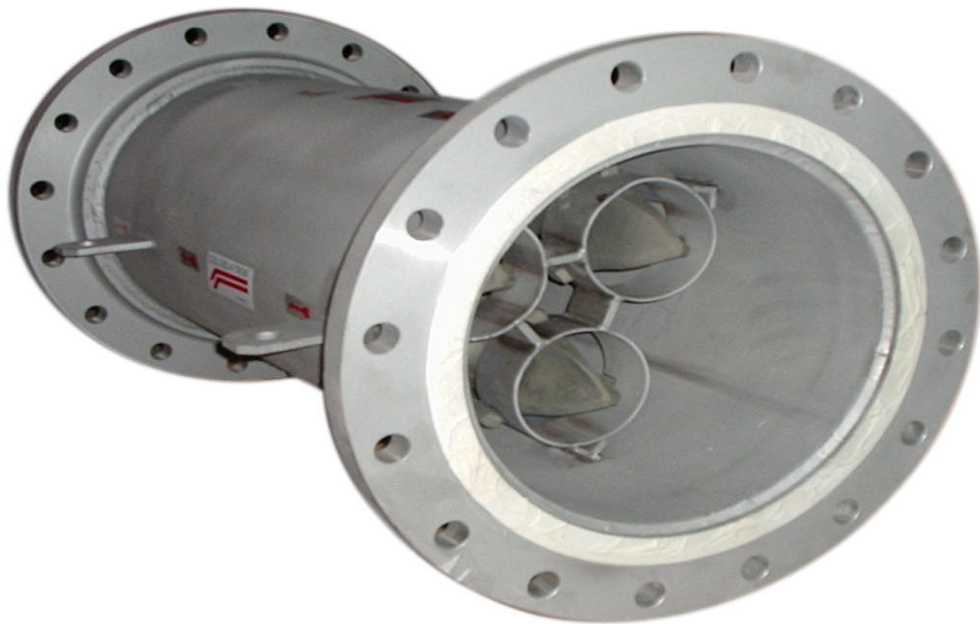
Catalytic is our most popular method and works using a unique precious metal alloy that alters the state of calcium carbonate. This mineral is retained in the water but under a different structure which cannot bond and form scale. Catalytic treatment is commonly found in commercial domestic and industrial areas. Current users: Toshiba, Guinness, Ford, Unilever and thousand more

Magnetic uses a magnetically charged internal mechanism that forces the water to pass through its magnetic field with end results similar to that of a catalytic device. There is a wide range of areas where magnetic can be used including outside of water treatment in areas like paint plant sludging. Current users, Ford, Jaguar, Coca-Cola and thousands more

Wide Range of Applications

Our non-chemical water treatment products can be used in a wide range of applications and can treat a wide range of flows.

Below is an example of a unit 400mm in diameter treating 1700 m³/h



There are hundreds of areas where our catalytic and magnetic treatment can be used. Coffee machines, cooling systems, heating equipment, compressors, humidifiers, urinals, heat exchangers, nozzles. One of the benefits of using our treatment is that it will not contaminate the water and is safe to drink and can be used for example in the food process industry

Maintenance Free

Once units are installed there is no need for further action, offering a totally maintenance free treatment. There are also a number of other benefits with Fluid Dynamics non-chemical treatment

- ❑ Offers constant supply of treated water
- ❑ Easy installation
- ❑ No need for separate drinking system
- ❑ No backwash or cleaning required
- ❑ No power source required
- ❑ Works in a variety of waters including brackish and sea water
- ❑ Reduces/removes existing scale
- ❑ Reduces algae build up



Users include:

Ford, General Motors, Toshiba, Coca-Cola,
Guinness, Hilton Hotels, Kellogg's, US Navy,
Offshore drilling platforms, whole towns and
villages and many more

NON-CHEMICAL IS THE WAY
OF THE FUTURE.

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