

System Details

Each industrial *Scalewatcher* unit comes with the necessary hardware required for each particular application. Installation is completely non-invasive, with no re-plumbing or cutting of pipes required.

Material: *Scalewatcher* units are supplied in rugged enclosures, designed for use in production environments, and are resistant to vapors, moisture and impact. Stainless steel enclosures are optional.

Power Consumption: Less than 50 watts.

Temperature: Industrial *Scalewatcher* units are designed to operate between 0°C and 60 °C (32 °F and 140 °F)

Safety: There is no electrical contact between the unit and the fluid system or pipe. The output voltage is low and the unit is completely insulated, preventing the possibility of electrical shock to personnel.

Customization: Units to suit specific needs including alternate power requirements, explosive environments and remote sensing and measuring of output signal are optional.

Application Details

Pipe materials: *Scalewatcher* units are designed to operate with any pipe material, including (but not limited to) PVC, copper, steel and glass.

Pipe dimensions: *Scalewatcher* units are available for pipe sizes from one inch in diameter to 80 inches in diameter.

Flow rate: The patented frequency modulation of the signal of the *Scalewatcher* units is designed to handle flow rates of all typical processing and industrial equipment.

Warranty:

All *Scalewatcher* units are covered by a five year manufacturer's warranty.



QUALITY SERVICE - BACKUP & EXPERIENCE

Effectively developing and supporting new technology calls for an understanding of the application. *Scalewatcher* success stems from its commitment to the elimination of scale since 1988. More importantly, this experience was gained by working directly with customers from all sectors of industry. Many of the applications often required *Scalewatcher* units to be tailored to the customers individual needs, e.g. the safe use in explosive atmospheres, or for treatment of fluid streams containing alternate mineral ions such as ferric aluminum, sulfate, calcium oxalate, calcium silicates, phosphoric acid, seawater etc.

Covered by the following patents:

USA Patent No. 5074998,
South African Patent No. 92-3469,
European Patent No. 0357102.

The manufacturer has a policy of continuous product improvement, and reserves the right to amend product specification without prior notice.

Website: <http://www.scalewatcher.com>



Scalewatcher[®]
Electronic Scale Elimination



Scalewatcher[®]

Electronic Scale Elimination



Conserving the environment

Scalewatcher® *The Solution for Treating Scaling in all Industries*



Scaling costs companies each year millions in down time, lost production, early replacement of capital equipment and increased energy usage. Companies are under increasing pressure not only to cut costs and become more efficient, but to do so in environmentally friendly ways. Compounding this problem is

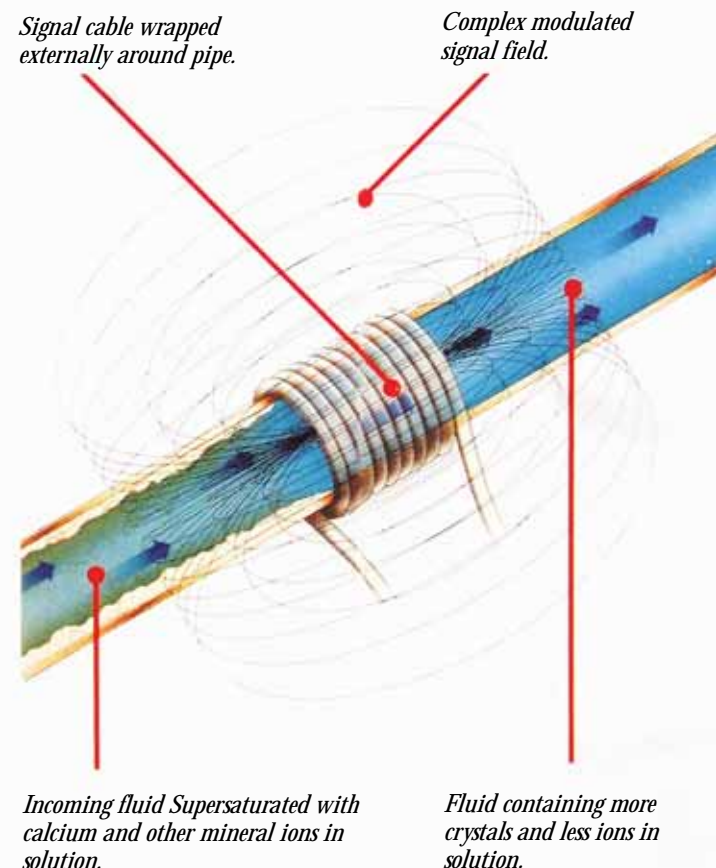
the public's increasing focus on environmental concerns and the ever-expanding government legislation in this area.

To aid in the solution of this dilemma, **Scalewatcher** Electronic Descaling Systems have been developed from many years of experience in treating scaling problems throughout the world. They are specifically designed to provide today's industry with an effective proactive and environmentally friendly alternative to chemical scale build-up prevention or mechanical descaling. Companies find that solving their scaling problems with a **Scalewatcher** Electronic Descaler provides the benefits of scale prevention and reduction of old scale layers without the disadvantages of traditional methods.

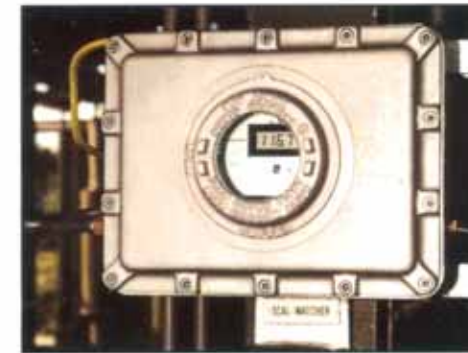
How it works

Scalewatcher Electronic Descaling units apply the principles of electric fields and physical chemistry. A wire is wrapped around the outside of the pipe work to be treated. Using **Scalewatcher's** patented frequency modulation technology, the current through the coil changes direction several thousand times a second creating an alternating magnetic field within the pipe. The change of the direction of this field with time creates an induced electric field inside the fluid which affects the electrically charged, dissolved ions of scale-causing minerals.

Reacting to the alternative electric field, the crystal growth of scaling minerals is promoted within the fluid. (Controlled precipitation). These grown crystals remain suspended in the solution and can no longer contribute to the build-up of hard scale deposits on downstream equipment and pipes. Existing hard scale deposits are often softened, loosened and flushed out by fluid flow.



Scalewatcher has been used successfully in treating scale problems in a wide range of industries. These included chemical plants, plastic manufacturers, paper mills, agriculture, shipping, oil production, cement plants, sugar refineries, etc...In addition to preventing scale build-up in boilers and cooling towers, **Scalewatcher** has also eliminated scaling problems in compressor, water-fed plant and machinery, steam ovens, de-inking plants, liquor lines of paper mills, condensers and air conditioning plants. Lime scale, gypsum, and bacterial scaling are examples of deposits which have been treated with **Scalewatcher** technology.



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Easily fitted and requiring no plumbing or maintenance, **Scalewatcher** benefits include:

- Completely non-invasive, no cutting of pipes.
- No chemicals required.
- Maintenance free operation.
- Low operation costs.
- Short term payback.
- Environmentally friendly and hazard free.
- Increases life span of capital equipment.
- Production levels will rise.
- Reduces mechanical failure of process equipment.
- Water saving of more than 50% is possible for cooling towers.

SIMPLY EFFICIENT