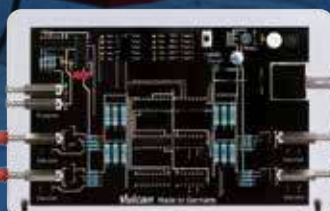




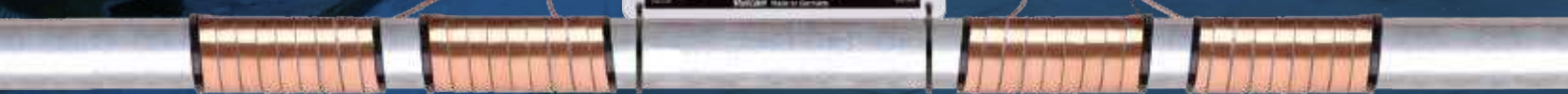
The Electronic Anti-Scale System For Commercial and Industrial Boilers



**Salt-Free
Chemical-Free
Magnetism-Free**



**MADE IN
GERMANY**





The **eco-friendly** anti-limescale system for boilers and heating systems

An industrial boiler serves for manufacturing plants, hospitals, and refineries by providing the necessary hot water or steam for many processes. The effective management of limescale is essential to the smooth operation of a boiler. The presence of hard limescale in boilers impedes heat transfer, reducing efficiency and increasing fuel costs, and leads to additional maintenance time and costs.



- ✓ **Improvement of boiler efficiency**
- ✓ **Savings in cleaning and maintenance costs**
- ✓ **Maximizing the service life of water heating equipment**
- ✓ **Reduction in electricity consumption**
- ✓ **Chemical savings of at least 30% up to 100% possible**
- ✓ **Reduction in fuel consumption**
- ✓ **No production loss during installation – no downtime**
- ✓ **A fast pay-back of acquisition costs**



Vulcan improves boiler operation

Vulcan helps to reduce the scaling and extends cleaning intervals. Water tanks in the primary and secondary circuit will need less cleaning and the frequency of cleaning periods will be extended.

- ✓ **Reduces energy costs**
- ✓ **Reduces or even eliminate chemicals**
- ✓ **Reduces maintenance costs**
- ✓ **Reduces fuel consumption**



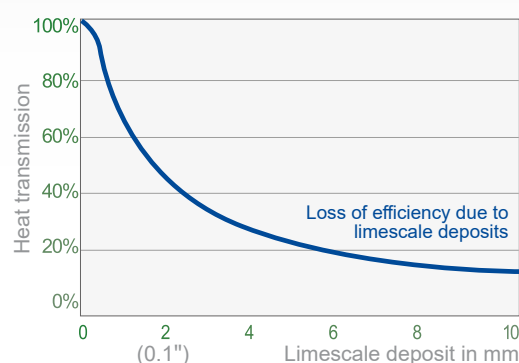
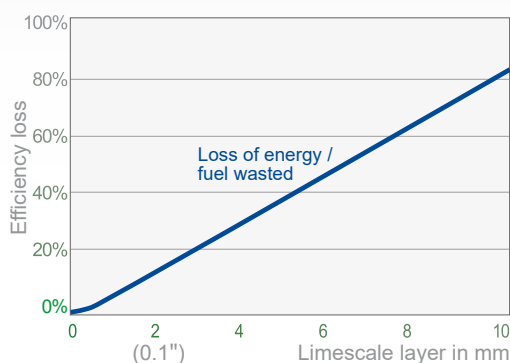
Chemical-free • **Salt-free**
Maintenance-free • **Magnetism-free**



Limescale problems in boilers

When water is heated with oil, gas, electric or solar heating technologies, limescale settle on heating elements and heat exchangers. This layer causes a great reduction in the capability of the heat to transfer.

Only 2 mm (0.1 inches) layer of limescale can increase energy consumption by more than 15 %. The increase in heating time leads to a tremendous rise in power consumption.





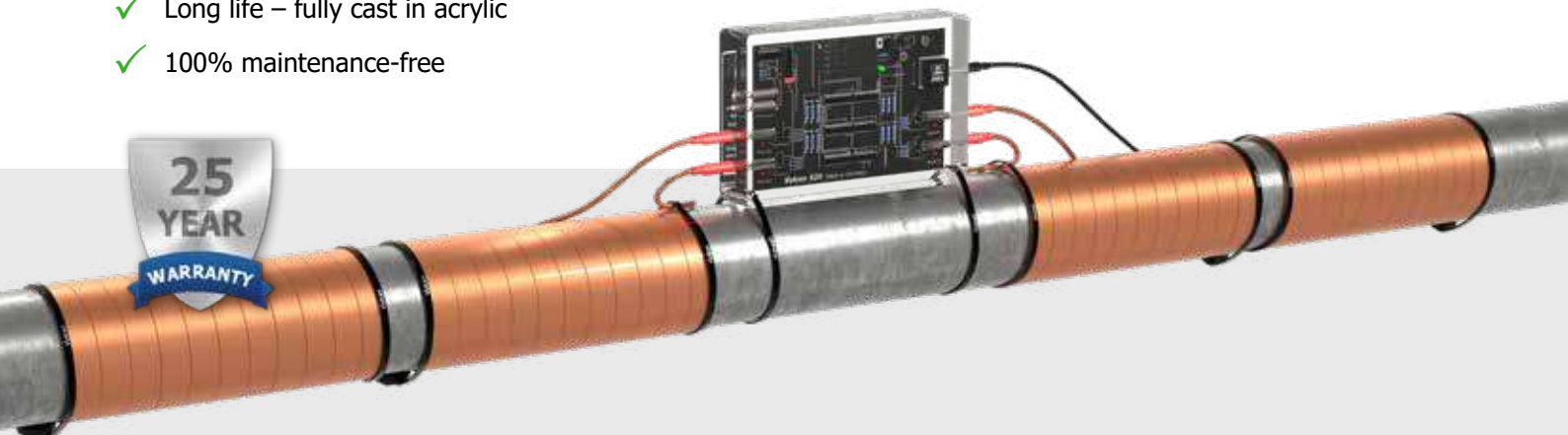
Anti-Scale System

High quality product



- ✓ Reduction of existing and new limescale
- ✓ Eco-friendly solution without chemicals
- ✓ No plumbing or cutting of pipes required
- ✓ Works on all pipe materials
- ✓ Long life – fully cast in acrylic
- ✓ 100% maintenance-free

- Manufactured by Christiani Wassertechnik (CWT) – Made in Berlin, Germany
- More than 40 years of experience in physical water treatment
- Successful in more than 70 countries worldwide



Typical installation

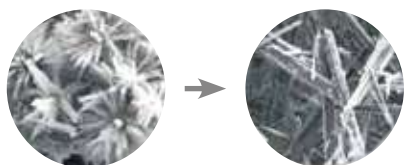
Vulcan should be installed on the water feed to the boiler. Optionally, an additional unit can be installed at the deaeration tank/preheater.

Blowdown can be temporarily increased after installing Vulcan, to accelerate the removal of scale deposits.

Once the cleaning process is complete, blowdown can be reduced again.

1. Vulcan effect

Vulcan modifies the structure of the calcium crystals.



2. Vulcan effect

Vulcan reduces limescale deposits in the piping system.



3. Vulcan effect

Vulcan produces a protective metal-carbonate layer.



The **green** Vulcan-Impulse-Technology against limescale and rust

The eco-friendly Vulcan-Impulse-Technology gently reduces already existing limescale deposits in the piping system.

Vulcan treats the water with special electronic impulses that take away the adhesive power of limescale particles. The limescale build-up process is reversed and the pipes gradually become cleaner again.



This take-out process will not block up your pipes or drain because the treated crystals are microscopic in size and are washed away with the water as a fine powder.

In addition, the electronic Vulcan impulses generate a metal-carbonate protective layer that prevents pitting corrosion.



Ay Fide continues to work continuously with the aim of providing the best service to Turkish farmers with its expert staff in production, marketing and management, which prioritizes customer satisfaction and increases its quality day by day, applying the developing technology.

www.ayfide.com

INSTALLATION DETAILS

- Installed at:** Ay Fide Production Plant in Antalya, Turkey
- Model:**  Vulcan S10 for osmosis system
 Vulcan S50 for the boiler
- Purpose:** Solving limescale problems at our 15 m³/h osmosis system. The membranes need to be exchange every 6 months, because of limescale.
- Results:** Maintenance intervals and costs have decreased. Membrane service life has been extended.



Since the installation of our osmosis systems, we have continued to use antiscalant continuously to protect the systems against limescale problems. Within a period of six months, the osmosis membranes became unusable and we had to replace them.

We have installed the Vulcan Physical Water Treatment System to purify our 15 m³/h osmosis system in our production plant in Antalya to solve the limescale problems caused by hard water.

After the installation of the Vulcan system our osmosis system continues to operate in a healthy condition. Now, we use less of the antiscalant chemical. With Vulcan, which we have been using for about 11 months, we have not made any changes in our membranes. Both our maintenance intervals and maintenance costs have decreased. The membrane service life has been extended.

The fact that no maintenance is required since the use of Vulcan and the warranty period of 25 years was also our reason to choose the eco-friendly Vulcan anti-scale treatment system.

Our heating boiler works with (coal). We have been using it for many years. Our boiler and pipe systems are old and over the years, there was an increase in heat losses and coal consumption. We installed the Vulcan System in the return water line of our boiler system. In the 18-month trial period, we have noticed that our boiler started to work healthier and transfer the heat much better. There was a decrease in the amount of coal used. Corrosion and limescale problems in our boiler and heating pipes are no problems anymore. We use pipes for heating in the nursery. Our pipes and system are now working more efficiently.

We thank Vulcan Turkey family for protecting our osmosis system and our boiler system.



AY TOHLANCULUM GÜBRE VE TAS. EML. İNG.
TAR. ÜSTEM SAK. PAZ. A. TİC. A.Ş. LTD. ŞTİ.
KARADENİZ ÜNİVERSİTESİ İZMİR İZMİR İZMİR
TAR. ÜSTEM SAK. PAZ. A. TİC. A.Ş. LTD. ŞTİ.
TAR. ÜSTEM SAK. PAZ. A. TİC. A.Ş. LTD. ŞTİ.
TAR. ÜSTEM SAK. PAZ. A. TİC. A.Ş. LTD. ŞTİ.



Reference

FOOD PROCESSING PLANT FOR SAUSAGE PRODUCTS



INSTALLATION DETAILS

- APPLICATION:** Food processing plant *delicatessen*, in Morocco
- MODELS:**  3000 for the boilers
 3000 for the heat exchanger
 5000 for 2 sterilizers
- PROBLEM:** Limescale problems in the steam boilers, the sterilizers and the heat exchanger. The client had to use water softener.
- RESULT:** The water softener is replaced with Vulcan and old scale becomes soft.
- INSTALLED BY:** STE ETCT INDUSTRIE, Morocco

Vulcan 3000 treats the heat exchanger



Watch the video results:
http://y2u.be/4i_PIKk2ipI



Vulcan 3000 treats the steam boilers



Before using Vulcan, the steam boilers were non-stopping running for more than 1 year and a small layer of 0.5 mm limescale was found. After 2 months treating with Vulcan, the limescale can be removed easily by a finger.



Vulcan 5000 treats 2 sterilizers



Limescale has been built for 15 years. It was not cleaned before installing Vulcan.
After 3 months with Vulcan, we already see the limescale coming out.





ibis Budget – Makassar Airport

Smart choice economy hotel, open to everyday adventurers

Located in the heart of Sultan Hasanuddin Airport, it offers simple and functional new bedding of 119 new cocoon rooms.

Installation Details

Location: Ibis Budget - Makassar Airport Indonesia
Model: Vulcan S25
Area: Guest rooms — bathroom water heating elements
Installer: PT Biosolutions www.biosolutions.co.id



Picture 1. Vulcan installation process at the main incoming water line.

"Before" Vulcan Installation

Several rooms were monitored before Vulcan was installed and had large amounts of scale chunks on the heating element and at the reservoir sump (see pictures 2 & 3). Vulcan was installed at the main incoming water line to eliminate this problem (see picture 1).



Pictures 2 & 3. Scale previously coating the heating element and reservoir sump. (Picture taken from one of the rooms at IBMA hotel)

"After" Vulcan Installation

Scale gradually disappeared from the elements and reservoir sump. After 3 months scale is entirely gone from water heater elements and the reservoir sump.



Pictures 4 & 5. Three weeks after Vulcan installation, initial scale has been eliminated.

Vulcan has shown to successfully reduce time, energy and capital required by the hotel for water system maintenance. All pictures were taken from one out of ten rooms that were monitored before and after Vulcan was installed, and all rooms' water heater elements were also found to be free of scale.



Pictures 6 & 7. Twelve weeks after Vulcan installation, no scale at all.



After 3 months, scale deposits had been removed on the heating element and there was no sign of new scale deposits.

You can find more than 400 additional references at:
www.cwt-vulcan.com

SHENGLI OILFIELD

Installation details

Model: Vulcan S25
Location: Station 20, Xian-he oil production plant, Sinopec Shengli Oilfield
Area: The water inlet of heating furnace

Installation purpose

The gas heats the water in the furnace, then the hot water heats the tubes, so that the water temperature in the tubes rises from 40 °C to 70 °C. The water in the tubes passes through the pump, transported to various wells.

However, the heat exchanger efficiency is decreasing because of scale in the tubes. More gas has to be used to heat the furnace, so that the energy consumption is increased.

The calcium (Ca) content in the water is 1469.09 (mg/L), which is extremely high. The tubes are scaled badly because a variety of cleaning agents are added constantly and also the tubes are kept at a high temperature of 60 °C - 70 °C. Every 3 months, the heating efficiency will be reduced down to 50% or even less. After running 1 year, the whole pipelines and the tubes need to be cleaned up manually, which is time consuming and costly, and reduces production capacity.

Therefore, before installing Vulcan, the scale of the tubes was removed. Then Vulcan S25 was installed to see how it performs.

Installation observation

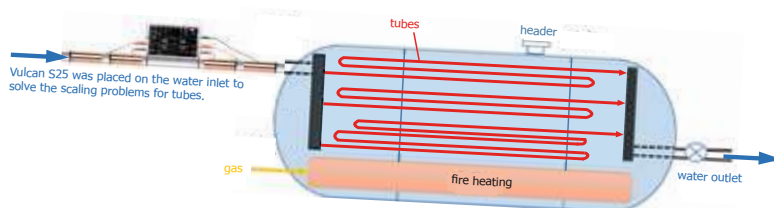
After installing the Vulcan S25 for 6 months, we found that there is no additional electricity usage, and the overall heat exchanger efficiency is still at 80%. We approved Vulcan and will make the follow-up purchase for the whole project.



The front door of the station 20, Xian-he oil production plant.



The water inlet of heating furnace.



In order to heat the water in the tubes, the water temperature of the heating furnace is 70 °C ~ 80 °C. The tubes are marked in red and have scaling problems. The tube diameter is 80mm.



Before installing Vulcan, the rust and pipe insulation were removed, and the impulse bands were wound on the pipe. Then, the outer insulation was put back.



Outdoor installation with self-made cover, to protect the unit from the wind and sun.



INSTALLATION DETAILS

Location: Four season Village
Ulaanbaatar, Mongolia

Application: The Vulcan Anti-Scale Systems has been installed on all four-block buildings of the Four Season Village.

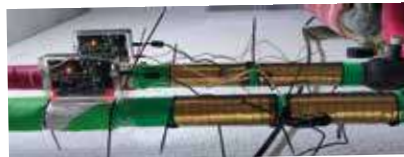
Models: 2 x Vulcan S10 is installed on the domestic hot water line from the plate heat exchanger.

1 x Vulcan S25 is installed on the central cold water line.

Purpose: Not only is the household's water supply is rusty, the internal piping systems are also clogged due to rust.

Results: After a period of 3 months, the limescale deposits and rust on the boiler plates were successfully flushed out and removed.

The water feels softer now and the limescale problems are gone. Also the hardened rust in the pipes has softened, making the layers thinner.



Vulcan S10



Vulcan S25



Boiler equipment before using Vulcan



Boiler equipment after 3 months using Vulcan



King Salman Hospital
in Riyadh, Saudi Arabia

Boiler Room:
To treat the boiler and hot water lines
Vulcan S25

Pump Room:
To treat the central air conditioning & chillers
Vulcan S100

Pump Room:
To treat the swimming pool water
2 x Vulcan S10

Woodsham for Trading & Contracting Est.



Vulcan S25



Vulcan S100



Vulcan S10



Furama Hotel Dalian

A luxurious five-star hotel with a long history in northeast China, the 30-storey building has a total of 620 rooms.



Installation details

Location: Furama Hotel Dalian
www.furamahoteldalian.com

Model/Area: Vulcan S25 installed on the inlet pipe of the hot water volumetric heat exchanger on the 31st floor of the West Building to solve the scale problem on the 12th to 25th floors.

Scale problems: Rusty water from the hot water pipes for bathing, scale build-up on the surface of the shower heads in the guest room, scaling of fins in heat exchangers.

Installer: Dalian Jiayifang
www.vulcan-jiayifang.com



Vulcan S25 installed on DN80 copper pipe.

Visible results after 10 months – before and after

Heating elements in the heat exchanger

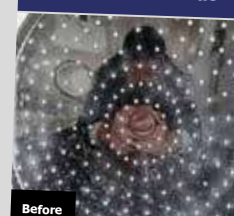


The hard scale between the fins affected the heat transfer efficiency and rusting caused problems with rusty water.



The fins were not cleaned before installing the Vulcan S25. 10 months later, the hard scale between the fins was removed and some areas were clean and even revealed the original colour of the copper tube. Vulcan has improved the water quality and saved energy and manual cleaning costs.

Shower heads



After using shower heads, a layer of scale would build up on the surface, giving it a dirty look.



No more scale build-up on the surface of the shower heads, and the water outlet is no longer blocked, which saves the cost of replacing and cleaning nozzle.



Days Hotel Beijing New Exhibition Center

It is an international 4 star business hotel managed by the Days Hotel Group America. The superior rooms range in size from 32 to 83 square meters. The hotel is ideally located close to the New International Exhibition Center and only 5 minutes away from Beijing Capital Airport by car.

Installation Details

Model: Vulcan S10

Location: Days Hotel Beijing New Exhibition Center

Installation area: Installed in the hot water system of the hotel to solve the scaling problems of the plate heat exchanger and the sprinkler heads

Treatment area: 193 business hotel rooms and suites, a gym, 2 meeting rooms, 2 exhibition areas

Installed by: Beijing Vulcan Water





Dairy Cattle Stable Nuevo León

VULCAN INSTALLATION DETAILS

Location: Dairy cattle stable Nuevo León in Torreón, Coahuila, México

Model:  Vulcan S10 Anti-Scale System is installed on the 2" main water line



Vulcan S10



Limescale deposits in the water pipe

PURPOSE

The high concentration of calcium in the water causes problems in the cooling tower and mainly in the small boiler. This causes to have to be opened the boiler every 45 days and remove the hard limescale mechanically.

SOLUTION

The eco-friendly and chemical-free Vulcan S10 Anti-Scale System is installed on the main water inlet pipe of the building complex to reduce and prevent limescale build-up.



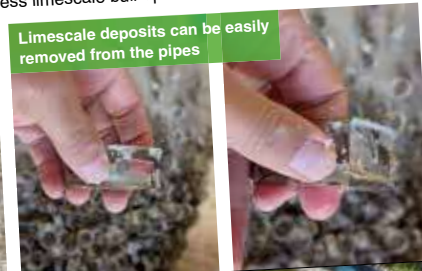
After using Vulcan

RESULTS

After installing Vulcan, the boiler was opened after 45 days. „Vulcan works very well.“ We have observed that the limescale became smooth and was easy to remove, which makes maintenance and cleaning much more easier and save a lot of time. „We have less limescale build-up.“



Limescale is easy to remove from the boiler



Limescale deposits can be easily removed from the pipes



Holiday Resort Lombok
absolutely leisure

Reason for Vulcan installation

Engineering had to manually remove scale from pumps, valves, kitchen equipment and from the 102 individual electric hot water heaters every 6 months because the property relies entirely on hard ground water which caused significant scale issues year after year.

Holiday Resort Lombok, Indonesia

189 Bungalows / various types of guest rooms / extensive landscaped gardens / 2 Swimming Pools / several Food and Beverage outlets
www.holidayresort-lombok.com

Result installation of Vulcan S25

The Chief Engineer reported after an initial 6 months following installation of the electronic anti-scale system Vulcan S25 they were able to easily flush out already dislodged scale from each tank heating unit – instead of scraping away hard scale from the elements. After a second inspection the units were found to be almost entirely free of scale. Future inspections have now been reduced to annual, random inspections only – which is felt to be sufficient to ensure overall domestic water piping system cleanliness.



Anti-Scale System Vulcan S25 installed

Inspection after 6 months

One of the water heaters at a Sea View Bungalow (photo) was opened for inspection and showed much dislodged scale particles at the bottom of the tank, with some easily removed soft scale still present on the element only. This water heater unit had not been scheduled for random inspection since installation of the Vulcan unit at the Resort.



The little remaining scale is soft and easily flushed out since installation of the Vulcan Anti-Scale System.

Additional benefits reported

The General Manager and CE reported that shortly after the Vulcan had been installed, the linen being washed at the inhouse Laundry plant was softer and whiter. In addition, Food and Beverage staff reported brighter glass ware with the detergents working much better. Housekeeping staff reported that the usual white spots on bathroom tubs, counters and floors had entirely disappeared and that outlets of showers and taps needed no longer special attention with only basic wiping being sufficient to maintain their shine.



Al Ahram
Beverage Company
Since 1987

Al Ahram Beverage Company

ABC operates five world-class production facilities in Egypt, all ISO certified. Highly motivated and well-trained employees, passion for quality and use of best practices in Production and Logistics ensure the delivery of high-quality products to our consumers.

Installation Details

Location: Al Ahram Beverage Company

Model:  Vulcan S10
 Vulcan S25

Purpose: Chill & Tubes Boiler

Installer: SOLARIS, Egypt



Installation details

Location: Jizhong District Heating Company
Model/Area: **1 x S500** installed in the heat exchange station
(The primary water temperature of the equipment is 65 °C, the secondary water temperature is 45 °C)
1 x S250 installed in domestic hot water system
(The primary water temperature of the equipment is 80 °C, the secondary water temperature is 60 °C)
Testing time: 4 months in total, one winter (November to March)
Problem: The water source is groundwater, and the plate heat exchanger was scaled badly.
Installed by: Beijing Vulcan Water

Jizhong District Heating Company



Jizhong Energy Group is based on "central heating" as its main business and integrates energy to develop centralized heating industries. Jizhong District Heating Company, as its subsidiary company, founded in 2010, provides safe and stable heating.



Vulcan S500 was installed in the heat exchange station.

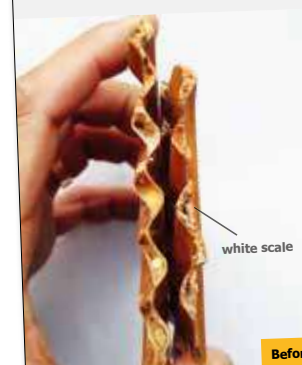
The heat exchange station — Vulcan effect on the plate heat exchanger



After 4 months

The water is underground well water. Vulcan S500 was installed after cleaning the plate heat exchanger. After 4 months, no white scale was seen, only yellow rust was left. Although there were still substances in the plate heat exchanger, they had been softened.

The domestic hot water system — Vulcan effect on the plate heat exchanger



Before

Without Vulcan S250, the plate heat exchanger was scaled badly, and it was almost blocked every month, must be cleaned manually. The scale was hard, could not be removed by hands.



After 4 months

We stopped using any additional chemicals to treat the water. After installing Vulcan S250 for 4 months, the effect was very clear. Although there were still substances in the plate heat exchanger, they had been softened and could be easily removed by hands. There are no more white scales, only yellow-brown impurities left.



Installation Details

Location: Vulcan Antiscale System installed at a commercial laundry in San Antonio Texas.

Vulcan Model:  Vulcan S25



Installed by: Techno Mechanical

Installation details

Location: IBIS Hotel Surabaya Indonesia
Model:  S25
Area: water main
Installer: PT Biosolutions
www.biosolutions.co.id



Vulcan S25 was installed on the main water pipe.



Hotel Water System

Purpose

The system was installed to prevent limescale build-up inside the boiler, thereby enhancing its operational efficiency.

The objective is to enhance efficiency and streamline the annual cleaning process.

Results:

The obsolete saltwater softener was removed and several modifications were made to the pipe system.

Despite the passage of a year, the customer continues to be satisfied with the Vulcan system and has recently contacted us to enquire about acquiring an additional system for her residence.

Vulcan has been installed for the new boiler. The removal of the water softener will also facilitate the annual cleaning process.



ibis Surabaya City Center Hotel

Economy hotel for business and leisure

The 224 modern and minimalist rooms feature the new ibis bedding. 4 modern High Tech meeting rooms, a lobby bar and restaurant. Perfect for business and leisure travelers.

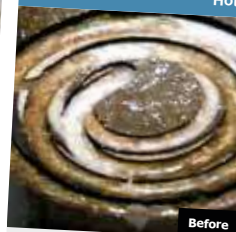
Vulcan effect — before and after

Before installing the Vulcan system, the pipeline had a lot of sedimentation of scale, the client had to do manual cleaning.

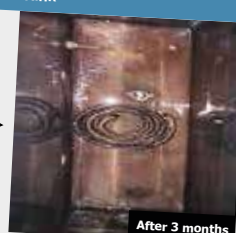
After 3 months of Vulcan, it has begun to erode and clean the scale out of the system.

The clients are happy with the performance of Vulcan.

Hot Water Tank



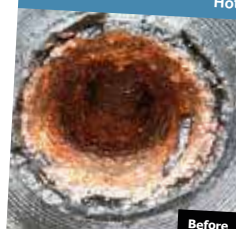
Before



After 3 months

After 3 months scale is no longer forming and the hot water tank is free of scale and sediment.

Hot Water Pipe



Before



After 3 months

After 3 months the rust in the pipe has lightened and the amount of scale is gradually reducing.



Palm Beach Club Hammamet

The hotel is located on one of the most beautiful beaches of the Gulf of Hammamet, in a magnificent 5 acres garden.

All rooms have sea, garden or pool views with terrace or balcony.

Installation Details

Location: Palm Beach Hotel Hammamet, Tunisia

Model: **Vulcan S25**

Purpose:

1. To protect the hot water circuit, the kitchen and the Spa
2. To use an eco-friendly solution, without chemicals
3. To reduce the workload of cleaning the pipes with high pressure water gun

Installer: STPE+



After Vulcan S25 had been installed for **6 months**, the boiler was opened: scale had been softer and left out.

The scale deposits were easily removed with a water gun.

The scale deposits were drained out of the boiler with ZERO chemical.

VacMet

Coating & Engraving Service
Coating of metals with plastic or resins

Dear Mr. Vestad,

I have noticed a definite improvement in the operation of our boilers. Typically, we would have several cooling coil plug ups during the hot weather season (a greatly extended season this year) and since the installation of the Vulcan, we have had zero plug ups and that translates into the saving of many hours of down time. Based on that saving alone, the Vulcan has already paid for itself.

An additional benefit has been in the greatly reduced amount of cooling tower maintenance. The calcium buildup has been miniscule and the little bit that has accumulated can be easily washed away with a garden hose and nozzle.

I have also noticed a huge reduction in the iron stains in the bathroom fixtures here at the factory as well as at home where I installed the second unit. At home, I eliminated my water softener that was running on potassium due to the ancient iron pipes that run all through the house and barn.

The water seems to feel and react just as well with the Vulcan as it did with the softener and I no longer need to buy the expensive potassium and break my back lugging around the heavy bags to reload the water softener.

Chuck Nelson, VacMet Inc. in California, USA

Central heating in Fenghe New District, Xianyang



Installation details

Location: Central Heating Company

Model: **Vulcan S100**

Area: The main water inlet for the boiler No. 2

Installed by: Shaanxi Wasser

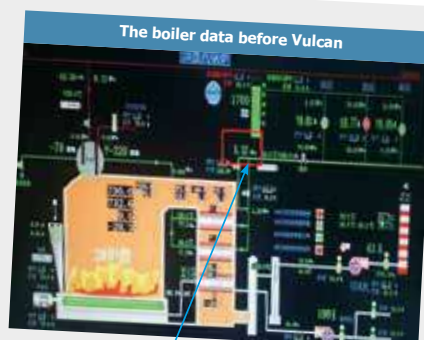
Installation purpose

Due to the scale problems, the pressure of the boiler economizer was too high, even with the water softener, it could not completely help the high load operation of the boiler. Before using Vulcan, it was necessary to clean the scale once a year: it was mainly cleaned with acid, which was not only expensive but also corroded and damaged the pipeline.

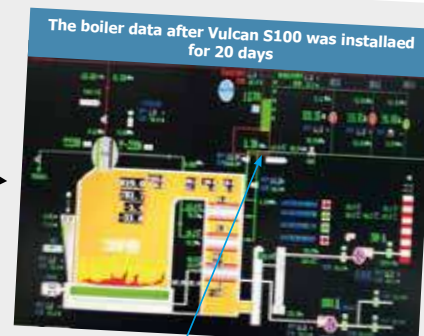


Vulcan S100 was installed on the inlet pipe of the boiler No. 2. After 20 days, the water supply pipe has been depressurized by 0.12 MPa.

You can find more than 400 additional references at:
www.cwt-vulcan.com



When the operating pressure keeps constant without Vulcan, the pressure on the main water pipe will increase with the time: because the scale will increase, the pressure will also increase.



When the operating pressure keeps the same, after 20 days of Vulcan installation, the water supply pipe has been depressurized by 0.12 MPa.



Installation details

Location: Kunshan Xingbao Plastic
www.xinbaoplastic.com

Model: S150 was installed for an injection molding workshop
 S250 was installed for an air conditioning circulating water system

Installed by: Xinriyuan

Xingbao Plastic

It covers 40,000 square meters and has about 400 employees. The major business lines include plastic injection, product assembling, painting, non-conductive vacuum metallization and mold manufacturing, and its wide ranges of products in the fields of electronics, home appliances, auto parts, medicine, and gardening are exported throughout the world.

The scaling problems and the result

The injection molding machine had been scaled badly for years, so it was always difficult to clean the pipe, especially the heat exchanger of the mold temperature controller. The traditional cleaning way is to use chemicals, but it is costly and difficult, and it also harms the heat exchangers and pipelines.

After Vulcan S150 and S250 were installed, the clients are fully satisfied with their performance because they solved the scaling and iron filing problems on injection molding machines.

One and a half years after Vulcan was installed, we opened the mold temperature controller and checked the heat exchanger.



Untreated heat exchanger for 3 years.



After installing Vulcan for 1.5 years, the scale is gone without extra cleaning.



Reference

ZABER & ZUBAIR FABRICS LIMITED

Zaber & Zubair Fabrics Ltd.
Managing Director
Pagar, Tongi,
Gazipur-1710, Bangladesh

Attention:
Mr. G. Mortuza
A.G. M Mechanical department.

Zaber & Zubair Fabrics was incorporated in 1997 with a mission to grow up as an internationally recognized home textile manufacturing company, by meeting day to day's market requirement and achieving customers satisfaction.



ROYALTON SPLASH PUNTA CANA

ALL INCLUSIVE PUNTA CANA, DOMINICAN REPUBLIC
★★★★★

RESORTS

ACCOMMODATIONS

RESTAURANTS & BARS

Location:
Memories Splash Punta Cana
Punta Cana, Dominican Republic

Application:

The Royalton Punta Cana Resort & Casino is a 1000 room resort located on the beachfront in Punta Cana, Dominican Republic.

Models installed:
2 x Vulcan S500
1 x Vulcan S100

Two Vulcan S500 were installed on the main input pipe in order to combat scale build up and increase efficiency of the three cooling towers.

A Vulcan S100 is also installed on the resorts main hot water system, in order to remove and prevent scale build up in the heaters/boilers, which provide hot water throughout the entire resort and casino.



Boiler water report after installing of Vulcan S10

Dear Sir,

We like to submit the report of the boiler water after installing Vulcan S10 scale prevention device for a kind cooperation.

Comments from Supplier:

In reference to the report from Zaber & Zubair Fabrics Ltd.

We do highlight the importance of taking water samples from correct points. When using an electronic system as Vulcan the hardness in the water is NOT removed, however the crystals are changed so that scaling and sediments will be loosened up and can be drained out, and new scaling can not be founded.

Parameters	Raw water for Boiler		Blow down water for Boiler	
	Tolerable Limit	Test Result	Tolerable Limit	Test Result
pH (ppm)	6.5 - 8.5	8.80	10.5 - 12	11.79
TDS (ppm)	100 - 200	210	4000	3750
Iron (mg/l)	0 - 1.5	0.05	0 - 1.5	0.05

Therefore it is normal that if analyses is taken from blow down water the amount of hardness and conductivity and TDS will also increase.

Blow down should be maintained = 2.30 minutes each time,
Per Day = 6 times.

Thanks with the best regards,
Md. Moniruzzaman
Jr. Executive (Sales & Marketing)

Installation of Vulcan S10



Treated boiler in Zaber & Zubair Fabrics



Yinmore Sugar Industry Co., Ltd. is the largest sugar company in Yunnan Province, mainly engaged in the manufacture and sale of white sugar, refined white sugar, alcohol, compound fertilizer and organic fertilizer.

Installation 1

Location: The inlet of the fermentation broth in the alcohol workshop
 Pipe size: 80 mm
 Model: Vulcan S25
 Result: After 2 months, the scale in the fermenter has been significantly reduced, it shows that Vulcan is also effective at the fermentation broth.



Installation 2

Location: The distiller inlet in the alcohol workshop
 Pipe size: 80 mm
 Model: Vulcan S25
 Result: After 2 months, the scale in the distillation tower has been significantly reduced.



Installation 3

Location: Power workshop of the sugar factory
 Pipe size: 100 mm
 Water flow: 80 m³/h
 Model: S100
 Purpose: To solve the scaling problems of boilers
 Result: After 2 months, the scales in the salt tank of the water softener have been reduced, and the scales from the pipe also began to fall off, so the water softener was turned off.



Installation 4

Location: The outlet of the refined syrup, the material temperature is 60 °C
 Pipe size: 150 mm
 Model: S100
 Purpose: To solve the scaling problems of the refined syrup processing equipment
 Result: The scaling problems of the syrup processing equipment and the filter have been solved, and the crystallization of sugar has not been affected.



Lhasa 21 Inn

2. The scales on the float valve in the hot water tank have been softened, they can easily be tapped off.
 See the video here: www.bit.ly/cn-tank



3. After 3 months of installation, we cleaned the hot water tank, and found a large amount of scales were drained out. The photo below is the scales removed from the water tank. Also, the heat transfer efficiency of the solar system has been significantly improved.



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Shanxi Jinshen Shaping Coal Industry Company
 Shanxi Shangchen Technology Co., Ltd.

Installed by:

Second Right Picture

Model:
 Pipe diameter:
 Installation area:

Vulcan 1 x Vulcan S150
 DN200

On the main water pipe for the office building and the dormitory to prevent the scaling problems.

Bottom Left Picture

Model:
 Pipe diameter:
 Installation area:

Vulcan 1 x Vulcan S25
 DN80

On the main water pipe in the boiler room. Directly after where the Vulcan S25 is installed, there are 2 branch pipes. One pipe goes to the soft water process for the steam boiler and the heating system. Another branch pipe goes to the heat exchanger for the bathing water. Vulcan was installed to solve the serious scaling problems of the heat exchanger.

Bottom Right Picture

Model:
 Pipe diameter:
 Installation area:

Vulcan 1 x Vulcan S25
 DN65

On the canteen's main pipeline to solve the scaling problems.



Shanxi Jinshen Shaping Coal Industry Company, and its main business is coal mining sales.



Vulcan S150 was installed on the main water pipe for the office building and the dormitory.

You can find more than 400
 additional references at:
www.cwt-vulcan.com



Vulcan S25 was installed on the main water pipe in the boiler room.



Vulcan S25 was installed to solve the scaling problems for the canteen.



Models and Sizes

	Vulcan Model	Max. pipe diameter	Max. capacity	Voltage	Wattage	Impulse Bands	Dimensions	Frequency range	Required Space	Programs
Residential Line	3000 	1½" (~ 38 mm)	3000 l/h (13 gpm)	48 Volt	2.2 Watt	2 x 1 m (~ 2 x 39") 10 mm (~ 0.4")	125/80/30 mm (4.9/3.1/1.2")	3-32 kHz	~ 250 mm (~ 10")	1
	5000 	2" (~ 50 mm)	8000 l/h (35 gpm)	48 Volt	2.2 Watt	2 x 2 m (~ 2 x 79") 10 mm (~ 0.4")	150/90/30 mm (5.9/3.5/1.2")	3-32 kHz	~ 350 mm (~ 14")	1
Commercial Line	S10 	3" (~ 76 mm)	15 m³/h (65 gpm)	48 Volt	2.5 Watt	2 x 3 m (~ 2 x 118") 20 mm (~ 0.8")	190/120/40 mm (7.5/4.7/1.6")	3-32 kHz	~ 500 mm (~ 20")	3
	S25 	4" (~ 100 mm)	30 m³/h (130 gpm)	48 Volt	2.5 Watt	4 x 3 m (~ 4 x 118") 20 mm (~ 0.8")	200/130/40 mm (7.9/5.1/1.6")	3-32 kHz	~ 800 mm (~ 32")	5
	S50 	5" (~ 125 mm)	70 m³/h (300 gpm)	48 Volt	2.5 Watt	4 x 4 m (~ 4 x 13' 2") 20 mm (~ 0.8")	200/130/40 mm (7.9/5.1/1.6")	3-32 kHz	~ 900 mm (~ 35")	5
	S100 	6" (~ 150 mm)	120 m³/h (530 gpm)	48 Volt	2.7 Watt	6 x 4 m (~ 6 x 13' 2") 20 mm (~ 0.8")	230/150/40 mm (9.1/5.9/1.6")	3-32 kHz	~ 1200 mm (~ 47")	10
Industrial Line	S150 	8" (~ 200 mm)	180 m³/h (790 gpm)	48 Volt	2.7 Watt	6 x 8 m (~ 6 x 26' 3") 20 mm (~ 0.8")	230/150/40 mm (9.1/5.9/1.6")	3-32 kHz	~ 1800 mm (~ 71")	10
	S250 	10" (~ 250 mm)	350 m³/h (1540 gpm)	48 Volt	3.0 Watt	8 x 10 m (~ 8 x 32' 9") 20 mm (~ 0.8")	280/200/50 mm (11.0/7.9/2.0")	3-32 kHz	~ 2500 mm (~ 99")	10
	S350 	14" (~ 350 mm)	500 m³/h (2200 gpm)	48 Volt	3.0 Watt	8 x 20 m (~ 8 x 65' 7") 20 mm (~ 0.8")	280/200/50 mm (11.0/7.9/2.0")	3-32 kHz	~ 3400 mm (~ 11' 2")	10
	S500 	20" (~ 500 mm)	800 m³/h (3520 gpm)	48 Volt	3.5 Watt	10 x 30 m (~ 10 x 98' 5") 20 mm (~ 0.8")	310/220/50 mm (12.2/8.7/2.0")	3-32 kHz	~ 4500 mm (~ 14' 9")	10
X-Pro Line	X-Pro 1 	30" (~ 750 mm)	works independent from capacity	48 Volt	4.0 Watt	12 x 25 m (~ 12 x 82') 40 mm (~ 1.6")	340/240/50 mm (13.4/9.4/2.0")	3-32 kHz	~ 5600 mm (~ 18' 5")	10
	X-Pro 2 	40" (~ 1000 mm)	works independent from capacity	48 Volt	4.0 Watt	12 x 50 m (~ 12 x 164') 40 mm (~ 1.6")	340/240/50 mm (13.4/9.4/2.0")	3-32 kHz	~ 8200 mm (~ 26' 11")	10



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SWAROVSKI



PANDORA



HITACHI

HONDA

DAIMLER BENZ

DANONE



intel



More Vulcan references you will find online at www.cwt-vulcan.com