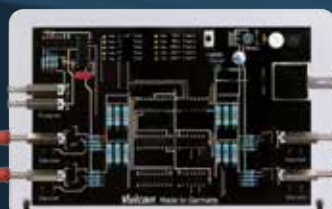




# The Electronic Anti-Scale System For Restaurants and Kitchens



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



**MADE IN**  
  
**GERMANY**





## Vulcan – The alternative to water softeners

Restaurants and kitchens go through a large quantity of water on a daily basis, such as drinking water and food preparation in the kitchen.

Vulcan ensures all appliances which come in contact with water will obtain their maximum life expectancy as well as significantly reducing their maintenance requirements.

Vulcan is a perfect salt-free, eco-friendly and cost-saving solution to your hard water problems.



- ▶ **Reduces scale deposits in the piping system**
- ▶ **Longer life and improved performance of water based appliances**
- ▶ **Less time and effort spent on cleaning**
- ▶ **Considerable savings on cleaning agents**
- ▶ **Food and beverages keep their natural taste**
- ▶ **Minimizing overall operating costs and maintenance expenses**
- ▶ **Fewer maintenance visits required on water heaters, dishwashers, coffee machines, etc.**



a) Without treatment



b) With Vulcan treatment

Restaurant kitchens often have problems with scale deposits, bacterial growth or unpleasant odors. Several studies explain the benefits of Vulcan in applications such as ice machines, grease traps and kitchen equipment.

Pictures a/b show the results in a grease trap before and after treatment. As Vulcan works without chemicals or salt, the natural taste of water is preserved. Vulcan reduces the amount of scale deposits. It offers you a permanent solution without ongoing costs, repairs or replacements.

## Eco-friendly water treatment

The Vulcan - Impulse - Technology treats the water with special electronic impulses that take away the adhesive power of the scale particles. This is 100% eco-friendly and works without any chemicals or salt. Scale components are simply washed away with the water as a fine powder. Vulcan also reduces already existing deposits. In addition, Vulcan generates a protective layer that prevents rust and pitting corrosion.





## Prevents scale and rust

- ✓ Reduction of existing scale in the piping system
- ✓ Installation without cutting the pipe
- ✓ From 1/2" up to 40" pipe diameter
- ✓ Works on all pipe materials – iron, copper, plastic, stainless steel, PVC, compound pipes, PE-X, etc.
- ✓ 100% maintenance-free
- ✓ Eco-friendly solution without salt or chemicals
- ✓ Prolongs life of machinery and equipment
- ✓ Important minerals remain in the water
- ✓ Long life – fully cast in acrylic
- ✓ 25 year international warranty

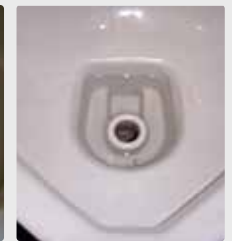
## Visible results of Vulcan water treatment – before and after



Piping system



Grill plate in a restaurant



Toilet bowl



Ice machines operate more efficiently and ice cube formation is enhanced.



Dishwasher scale is reduced significantly and dishware is now spot-free.



Grease traps have reduced odors and more consistent, less cluttering grease.

## Quality – Made in Germany

- ▶ Manufactured by Christiani Wassertechnik GmbH (CWT) in Germany
- ▶ Over 40 years of experience in physical water treatment
- ▶ Successful in more than 70 countries worldwide
- ▶ 25 years international warranty



More information about Vulcan you will find online at [www.cwt-vulcan.com](http://www.cwt-vulcan.com)



**McDonald's Ukraine Ltd.**

Kiev

[www.mcdonalds.ua](http://www.mcdonalds.ua)

Dear Mr. Christiani,

Thank you very much for your service to "McDonald's Ukraine Ltd."

From our side, we're very grateful for your cooperation and support throughout the last 10 years.

Our company began to operate in Ukraine in 1987. Since then, we've already opened 57 McDonald's restaurants.

In all of these restaurants, we have installed the Vulcan Descaler by CWT International, which has delivered consistent results throughout each site.

The Vulcan range is easily installed and has been a very useful addition to our company.

I would like to add that the support of CWT International is very important to us here at McDonald's Ukraine.

Best regards,

Eugene Molodid

Equipment Coordinator  
McDonald's Ukraine Ltd



Mövenpick Restaurant  
Potsdam



Christiani Wassertechnik GmbH

Reference Letter

Dear Sir,

Our Mövenpick Restaurant opened in January 2000. After a short period, we noticed a high level of limescale developing on the ice-cream makers. These calcifications could only be cleared bit by bit which is a time-consuming process. To avoid potential losses, a short-term limescale filter was installed. The operating time of this filter is limited however and thus resulted in high costs.

At a trade fair visit, we consulted the company Christiani Wassertechnik GmbH about other possibilities. We installed the limescale converter Vulcan 5000 and the ice-cream makers have been functioning smoothly for 10 months now.

The limescale, which accumulates especially in the crushed ice makers, can now be easily removed as it is converted into fine-grained structures.

We wish the company Christiani further success with their excellent products.

Yours Sincerely,

Marcel Charrier  
Director

Mövenpick Zur Historischen Mühle Sanssouci  
Zur Historischen Mühle  
14469 Potsdam  
Tel.: 0331 / 78 14 93  
Fax 0331 / 281 49 50



Vulcan 5000



Vulcan protects the ice machine



Vulcan protects the ice-cream makers



Soft limescale is now easily removed

Mövenpick Restaurant, Potsdam



**The O<sub>2</sub>**

---

To whom it may concern,

We are a very busy 300-seat restaurant at the O<sub>2</sub> London Arena and have had major problems in the past with limescale in our glass and line washing machines, sinks, food warmers and toilets. We have installed various products in the past to remove this scale with little success, resulting in higher maintenance and replacement costs along with increased expenses on cleaning equipment.

Since CWT Partners Ltd installed the Vulcan S25 at our premises we have noticed a substantial and continual improvement over the past 3 months. Our food warmers, steam ovens, kitchen sinks and restrooms are clear of scale, along with cleaner crockery and cutlery. This has helped to reduce the detergent and cleaning equipment and products, which has saved us more than the cost of installing the Vulcan S25. The restaurant is now able to operate at a higher level, avoiding limescale and rewashing of dishes, with far fewer complaints from customers.

It is a pleasure to inform you that we are very satisfied with the Vulcan S25 descaling unit. Additionally, we would like to single out the professionalism of the CWT team that addressed our limescale problem and like to thank them for all their help. We highly recommend the Vulcan water treatment and urge other clients to install it.

Yours sincerely,



Chin Lam  
CEO



---

**Novari (at the O<sub>2</sub>) LIMITED**

Registered office: 23 Entertainment Avenue, The O<sub>2</sub>, Greenwich, London,  
SE10 0DY



**Installation Details**

Location: InterContinental Kunming ★★★★★  
[www.ihg.com/intercontinental](http://www.ihg.com/intercontinental)  
 Model: Vulcan S10  
 Area: The water main of the kitchen  
 Purpose: Gently solve the scaling problems of the entire kitchen water system: the reduced water volume, the increased water pressure, the clogging of the dishwasher outlet, the scaling of the steamer, the low heating efficiency, the increased maintenance and the reduced overall efficiency.



Vulcan S10 was installed in the main water pipe of the restaurant kitchen

**The untreated steamer**



The scale was in flakes and could not be drained out of the steamer's drain hole. To test the effectiveness of the Vulcan system, no cleaning process was carried out before installing the Vulcan S10.

**The steamer after using Vulcan S10 for 2 months**



The scale has been completely turned into powder, so there is no need to open it for cleaning, just by operating the regular drainage function, it can keep the hot water tank clean and free of scale. Due to the good results, the cooperation will also be carried out in the hotel's hot water supply system and central air conditioning system.



Hyatt Regency Xi'an is a five-star hotel located on the side of Qujiang South Lake. It has a lake view and is in the middle of the city with the comfort and quiet. Most rooms have a separate balcony and lake view.

### Installation details

Location: Hyatt Regency Xi'an  
Model: S10  
Area: the water main of the Chinese kitchen  
Installed by: Hengsheng Chang Environmental Protection Technology Co., Ltd

### The results

One month after the Vulcan S10 was installed, we opened the sewage outlet of the Chinese kitchen, and found that the scale scrap came out. At the same time, we compared the sewage outlet of the western kitchen without Vulcan, there is no scale coming out. The hotel manager is very satisfied with the results and is making a new purchase.

### Installation purpose

The two steamers in the Chinese kitchen had been scaled badly, they had been corroded and damaged in 2 years. The client used to clean with acid once a month, but the steamed food had the taste of citric acid, and the acid would even damage the equipment. Therefore, the client is looking for an efficient way to remove the scale without bad odour after cleaning.



Vulcan S10 was installed on the main water line of the Chinese kitchen.



The scale scrap came out of the steamer in the Chinese kitchen.







## Vulcan for Grease Traps

### 3 Months Test Report

in a cake factory in Kanagawa, Japan

Vulcan has a trouble free design and easy installation. The LED light always blinks dependably as it shows the processing conditions.

I have compared the state of the grease trap before and after installing the Vulcan. Before installation, I noticed strong odors when opening the hole. When I opened the hole one month after the installation, no such odors were present.

As for the cleaning intervals, monthly cleaning may now not be required. The effect and cleaning intervals of Vulcan will require an annual observation, however, I believe the amount of cleaning will be reduced remarkably.



Vulcan 5000 was installed in the factory kitchen

#### February 16th - Start situation before Vulcan was installed



Grease Trap

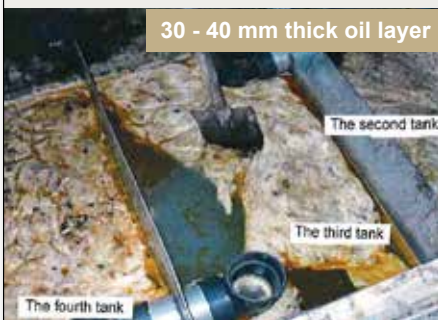


50 mm thick oil layer



Cleaned Grease Trap

#### March 22nd 1 month with Vulcan



30 - 40 mm thick oil layer

#### May 18th - 3 months with Vulcan treatment



2nd Tank - 10 mm thick oil layer



1st Tank

# Grease Trap in a Kitchen

## 3 Months Test

To alleviate the overflow of drainage out of the basket due to oil balls in the grease trap under the sink of the counter in the cookery on the fifth floor of the building. Also, to save the administrative and maintenance expenses by reducing the periodical cleanings used to be conducted several times a year.

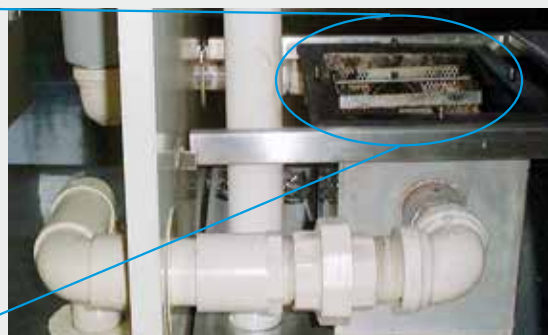
Pipe Size: 50 mm | Vulcan Model: Vulcan 5000



### June 13th | Before Vulcan installation



Usual level of standing water.



Grease trap under the countertop

### June 17th | Installation of Vulcan

For treating water in the cookery on the fifth floor, Vulcan is installed on the vertical piping in the warehouse where the nearest main water pipe is exposed. The effectiveness of the Vulcan appears in all the service water on the fifth floor that is supplied through this piping.

### Verification of the effectiveness

The status of the grease trap upon installation of the Vulcan was confirmed, and the changes of the statuses were observed for approximately five months from the start of the operation. In almost all cases, the effectiveness can be confirmed through the observation for about 3 months.

### September 12th



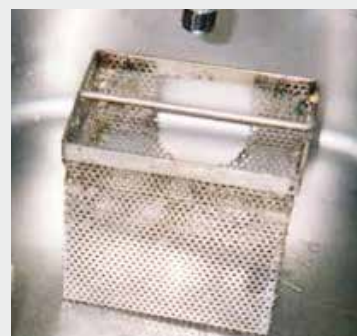
The basket after being washed by hosing. The portions usually being contacted with the treated water are cleaned easily with a water flow from the tap.

### Sept. 20th - Before cleaning



The status after being used without cleaning since the installation in June (no adhered materials are seen on the portions usually contacting with water).

### Sept. 20th - After cleaning



Grease trap was cleaned with water flow under the sink.

Similar effects have been reported at drainages in food factories, restaurants and kitchens. Many Vulcan installations showed that the treated water had substantial cleaning effect even with extremely reduction of conventionally used detergents. There were even some cases where the use of detergent (such as cationic detergent) causes a buildup of a thin film of dirt. Cationic detergents should not be used. With the portions that do not contact with the treatment water, this effect cannot be expected. Vulcan has no effect of breaking or resolving solids in drainage. Although the Vulcan has no disinfection effect, its prevention of dirt from adhering to the basket and the net contributes to the reduction of mold's food source.



**SLIDER EXPERTS  
SINCE 1921**



**Installation Details**

Location: White Castle #32  
New York, USA  
[www.whitecastle.com](http://www.whitecastle.com)

Model/Area: **Vulcan 3000** was installed on the ice machine after the carbon filters.  
**Vulcan 5000** was installed on the main inlet line.

Result: The calcium was completely removed in one area, and normal equipment cleaning schedules are prolonged.

**30 plus** White Castle have units installed. The newer restaurants have a Vulcan S10 installed on the inlet main.

Installed by: Salt-Free Water Systems LLC  
[www.vulcan-USA.com](http://www.vulcan-USA.com)



Vulcan 3000 mounted after the carbon filters



Vulcan 5000 on main water inlet



Pan before Vulcan installation, hard calcium and etched line present.



After Vulcan installation — pan area is now completely scale-free. There is a slight indentation into the pan at the waterline.



### Installation Details

Model: Vulcan S25

Location: Waffle House  
Tallahassee  
Florida  
[www.wafflehouse.com](http://www.wafflehouse.com)

Area: Water main

Installed by: Ackruitlabs, Inc.





## Moriarty Travel Center



REFUEL



REPLENISH



REFRESH



REPAIR



RESCUE



REWARDS

Here in Moriarty N.M. we have extremely hard water.

In our truck stop we have to always clean up after it. The showers are a particular problem. From clogged shower heads, to constant cleaning and scrubbing to keep them clean.

It also wreaks havoc with the boilers and water heaters. After Andy and Vulcan Water Products installed the S100 unit on the main line, we noticed real soon, that the showers were becoming cleaner, and the discoloration in the water was gone too!

In our Country Pride restaurant, they noticed a dramatic change in the color and clarity of the iced tea and coffee, cleaner, spotless glassware and dishes, and the ice machine makes clean ice! We are very pleased with the results. Thank you Vulcan!

Signed,

John Hathaway GM  
Jack Reneker AGM

TA Operating LLC  
Moriarty, NM 87035



Vulcan S100 installed on the main water line





## Vulcan in a School Kitchen

Dear CWT Team,

The steam convection oven has greatly improved since the installation of the Vulcan. The water is injected via the pipe in the centre of the heating coils and a fan inside the coils blows the water through the coils and comes out as steam. The operating temperature of this device is 350F (180°C). The white material you see on the coils is a powder coating that is easily removed with a wet cloth. No more chemicals are required to clean the convection oven.

However, we have noticed even greater results in the school kitchen, which was previously using a traditional water softening system. But all in all, we can confirm the effectiveness of the Vulcan treatment, which means less work for the maintenance staff.

The Vulcan unit installed on the entire building system has also been extremely effective. No more rusty water after weekends and Christmas break. The next Vulcan will be installed on the other school buildings, which are around 20 – 25 years old.

The last Vulcan unit is installed on the main cooling tower – we have had nothing but positive news in regards to this installation. We will be seeing more orders coming from this customer very soon.

Best Regards  
Arne Vestad

International Water Treatment NA LLC  
Washington, USA



**Installation details**

**Location:** SUPER U Mamers Supermarket  
Mamers, France  
[www.magasins-u.com](http://www.magasins-u.com)

**Area:** Water main

**Pipe:** PE, 90mm

**Model:** S25

- Purpose:**
- To solve the scale problems in in the kitchens and bathrooms
  - To prevent new scale
  - For the cooking and baking areas, it is not allowed to treat water with chemicals, Vulcan is "eco-friendly" and meets the criteria

**Installed by:** CWT Preval France





Vulcan S25 was installed in the water main to treat the whole building.













**Residential Line**

Vulcan Model	Max. pipe diameter	Max. capacity	Voltage	Wattage	Impulse Bands	Dimensions	Frequency range	Required Space	Programs
<b>3000</b> 	1½" (~ 38 mm)	3000 l/h (13 gpm)	36 Volt	2.0 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
<b>5000</b> 	2" (~ 50 mm)	8000 l/h (35 gpm)	36 Volt	2.0 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**

<b>S10</b> 	3" (~ 76 mm)	15 m³/h (65 gpm)	36 Volt	2.25 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
<b>S25</b> 	4" (~ 100 mm)	30 m³/h (130 gpm)	36 Volt	2.25 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
<b>S50</b> 	5" (~ 125 mm)	70 m³/h (300 gpm)	36 Volt	2.25 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
<b>S100</b> 	6" (~ 150 mm)	120 m³/h (530 gpm)	36 Volt	2.5 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**

<b>S150</b> 	8" (~ 200 mm)	180 m³/h (790 gpm)	36 Volt	2.5 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
<b>S250</b> 	10" (~ 250 mm)	350 m³/h (1540 gpm)	36 Volt	2.75 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
<b>S350</b> 	14" (~ 350 mm)	500 m³/h (2200 gpm)	36 Volt	2.75 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
<b>S500</b> 	20" (~ 500 mm)	800 m³/h (3520 gpm)	36 Volt	3.25 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**

<b>X-Pro 1</b> 	30" (~ 750 mm)	works independent from capacity	36 Volt	3.75 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
<b>X-Pro 2</b> 	40" (~ 1000 mm)	works independent from capacity	36 Volt	3.75 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