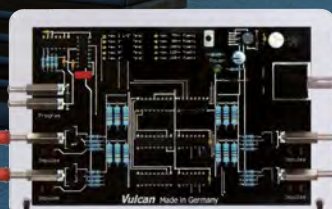




The Electronic Anti-Scale System Condominiums and Large Buildings



Salt-Free
Chemical-Free
Magnetism-Free



MADE IN

GERMANY





The eco-friendly alternative to water softeners

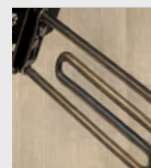
Managing a large building demands constant observation of all technical equipment, sanitary stations, outdoor areas, etc.

Vulcan helps to improve manageability, sustainability and profitability in many areas.

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



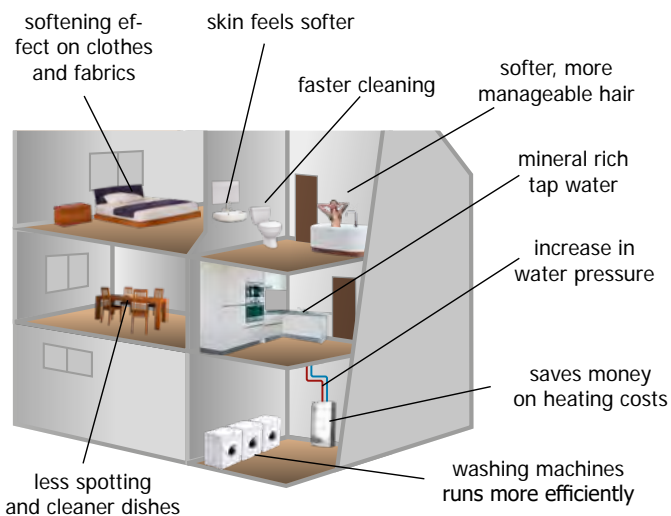
- ▶ Machinery and equipment perform more reliably
- ▶ Reduces scale deposits in the piping system
- ▶ Less time and effort on maintenance in building and facilities
- ▶ Faster cleaning of kitchens and bathrooms
- ▶ Filters, shower heads and sinks stay cleaner
- ▶ Considerable savings on cleaning agents
- ▶ Cleaner sprinkler nozzles for garden irrigation
- ▶ Food and beverages keep their natural taste
- ▶ Important minerals remain in the water



Hot water heating element



Piping system

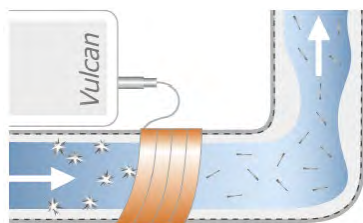


The solution to scale and rust

Vulcan gently reduces already existing deposits in the piping system. The scale 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 will wash away with the water.

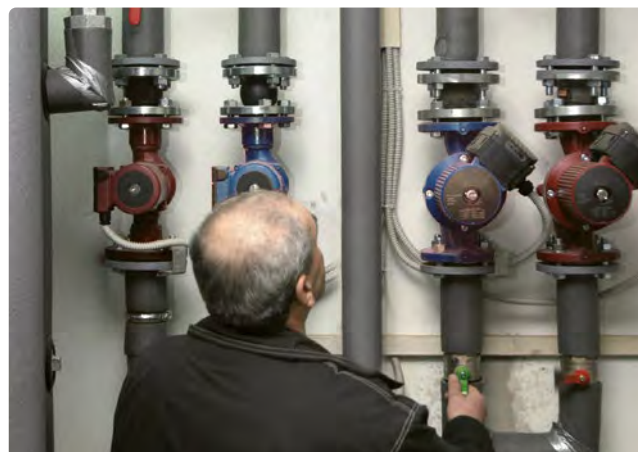
- ▶ Prevents scaling in pipes and appliances
- ▶ Gently sanitizes the piping system
- ▶ Reduces rust damage and perforation

The Vulcan-Impulse-Technology



The Vulcan-Impulse-Technology treats the water with special electronic impulses that take away the adhesive power of the scale particles.

Scale components are simply 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.





Prevents scale and rust

- ✓ Reduction of existing scale in the piping system
- ✓ Eco-friendly solution without salt or chemicals
- ✓ Installation without cutting the pipe
- ✓ Works on all pipe materials
- ✓ Long life – fully cast in acrylic
- ✓ 100% maintenance-free

High quality standards



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



Easy Do-It-Yourself installation

Vulcan is a Do-It-Yourself product and easily installed without the need to cut pipes. Also no tools are required. Vulcan should be placed at the main water supply – this is usually close to the water meter.



Application examples

Apartment houses
 Condominiums
 Dormitories
 Hospitals
 Student Homes
 Retirement homes

Nursing homes
 Large living buildings
 Kitchens
 Pools
 Heating systems
 ...

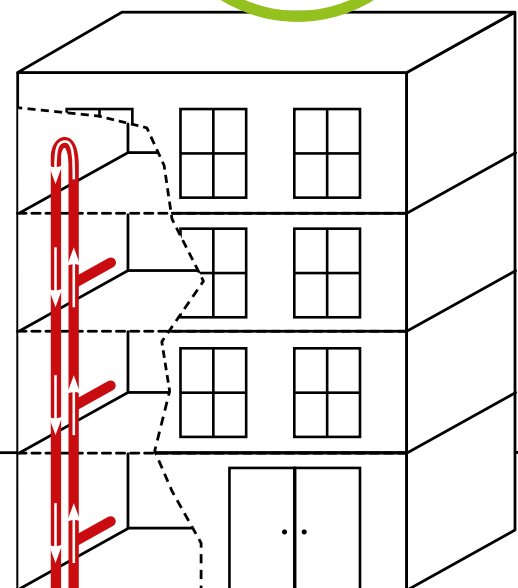


How to install Vulcan in condominiums and large buildings

In larger buildings there are always different areas to consider.

Below is an example of a typical Vulcan installation in a large building.

Installation areas are often the main building cold water supply (1), one or several hot water circulations (2) for the higher floor levels, pool operations (3), etc.

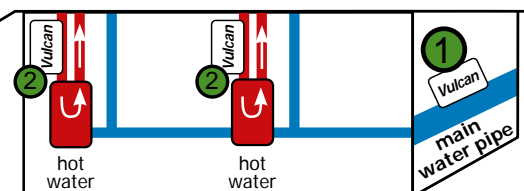
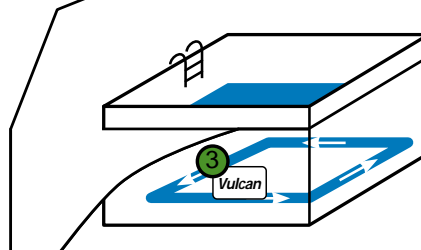


Each water circulation needs a separate Vulcan.

Requirements

The iron/metal content should best not exceed 1 ppm and manganese should be below 0.1 ppm.

Vulcan works best with heating element surface temperatures of max. 203°F (95°C). Higher levels or temperatures might hinder the treatment strength in some cases.



REPORT OF USING VULCAN



2 Apartment Buildings in Etagnières, Switzerland



Installation of 2 x Vulcan S25

Installation Place: Cold water main pipe

Pipe diameter: 50 mm



Results before and after the Vulcan installation

Kitchen Kettle

Before (without Vulcan): A layer of scale had accumulated at the bottom over time, it was impossible to remove it with a plastic spatula. We could only leave vinegar to let it act for a long time, so that the scale could be removed.

After (with Vulcan): Scale is easy to be removed, even with a finger or a damp cloth.

External surfaces of pots and pans

Before: If you do not wipe off water right away, the water would leave spots and it would be difficult to remove afterwards. You can only clean with dishwashing detergent again, and wipe off water without delay.

After: Even the pot has been dry for 30 minutes, it is still easy to remove spots with a damp cloth. If it is left to dry for a longer period, e.g. 1 night, the spots disappear after rubbing the surface for several times with increased pressure but still without detergent.

Sink (stainless steel)

Before: Quick greasy fouling, especially after removing residues from cooking oils with rinse water from cooking tools. Rough sponge and brush with degreasing detergent needed.

After: The degreaser is still necessary but the cleaning is easier and less work.

Dishwasher (internal wall is stainless steel)

Before: White layer of scale adherent (on the bottom and on the door) was difficult to remove; anti-scale product was required.

After: The white powder on these surfaces is easy to remove with a wet sponge (no special cleaning product).

Chrome faucet

Before: Scraping scales with a knife onto the spray heads was necessary because the outlet holes of the spray heads were stuck by scales.

After: If scale builds up on these elements, it can be easily removed without an anti-scale product.

Filter holder of faucets and filters (kitchen and bathroom)

Before: Limestone was strongly stuck on the circumference of the rings and also visible in the plastic filters (inner side). To remove the scale by soaking in vinegar is necessary. The outlet holes in the spray head (kitchen) were frequently blocked by hard-to-remove scale deposits.

After: No deposit was found inside the filters or on the outside rings. The water comes out of the shower head without any obstacle, and no new deposit accumulates in the holes of the spray head.

Worktops (granite surfaces)

Before: Accumulation of a layer of scale left by the water around the tap; After drying the surface appeared dull and dirty. No anti-limestone (acid) product should be used on this mineral surface. Natural stone care products are only effective on a scale-free surface. Scraping of the stone surface with a metal spatula after using the steam cleaner at the maximum pressure.

After: The cleaned and treated surface regains the original shine and brightness; Its maintenance is no longer a problem: the limestone powder is easily removed with a damp cloth. The stone care product is used from time to time with better efficiency.

Washbasins (bathroom)

Before: "Rust" fast and sticky. The deposits could only be removed with an abrasive sponge + degreasing detergent and sometimes an anti-scale product.

After: The deposits are easy to remove with a damp cloth. The use of soap only serves to ensure the hygiene of the surfaces.

Drain pipes for washbasins

Before: A cylindrical brush (white synthetic threads) was pushed in rotation and under running water to the bottom of the collector, was charged with a black sludge deposit when removed from the pipe (weekly cleaning). It is still a proof of this surface bonding power that characterized "hard enough" water.

After: When the brush is removed, the threads return to a state of whiteness almost without black deposits.

Toilet (Ceramic)

Before: Even after using the w.c. brush, the "traces of marks" had a tendency to clog especially to the bottom of the bowl. "Hygo WC maximum power gel" cleaning products were necessary to ensure proper hygiene.

After: These spots are now easy to "erase." Even if it is necessary to use cleaning products for reasons of hygiene or for routine maintenance, it still saves the use.

Fittings

Before: The deposits of scale were less around these elements because they were less accentuated on the ceramic than on the granite. An anti-lime product helps to eliminate scales around the linings (easy knife scraping).

After: Wet wiping is already sufficient, even without anti-scale product.

Shower heads

Before: The water outlets were often blocked by scale deposits.

After: There are no more obstructions and the water flows smoothly.

Shower cabin (glass)

We have not noticed a great difference between before and after at the level of the glass walls: glass is the material on which the scale attaches the least, especially since they are vertical walls on which water flows easily. Another co-owner found that the stains on the glass walls were easier to remove than before.

Shower enclosure frame (aluminum)

Before: It was necessary to scrape the deposits of scale accumulated at the junction of the shower tray with the knife, an anti-lime product (acid) can not be in contact with this metal.

After: The deposits are removed with ease.

Evaporation of water in a saucer and a glass

A) Glass saucer with flat bottom. **Before:** The scale clogged strongly to the bottom and vinegar was necessary to remove it. **After:** Scale still clings to the bottom, but can be removed only by rubbing, if necessary with a plastic spatula, but without using vinegar.

B) Water glass. **Before:** The scale was formed on the wall of the glass, difficult to remove (vinegar necessary). **After:** The limescale spot is less broad and less compact, but it is still difficult to remove without vinegar.

These scenarios are not the same as water flowing along a vertical glass wall and leaving few traces (walls of the shower cabin).

Installation details

Location: a condominium in Colombier, Neuchâtel, Switzerland

Model:  Vulcan S50



REMINDER: At the last general assembly, a study was requested on the quality of water with a high limestone content and on possible measures to reduce scaling.

The Vulcan system was installed on June 18. The users were contacted on 19 August. Their main comments are listed below. (The numbers correspond to people who gave their opinions.)

1. TEST : Saucepan

Boil water in a saucepan. Let cool. Repeat the operation at least 5 times in a row. Limescale that has settled in the pan can be easily cleaned with a damp cloth or sponge.

Benefit: Vinegar or lemon acid products are no longer useful.

Comment :

"Tested and true."

"I confirm that for the pots and the kettle, the limescale is easily cleaned without extra product."

2. TEST : The bathroom

Do not clean the taps for 4-5 days. Limestone deposits will simply be removed with a damp cloth, without any other product.

Benefit: Expensive and strong descaling products become useless.

Comment :

"I usually squeegee after every shower... and we clean the cabin thoroughly every two weeks. Despite this, limestone marks had appeared on the edges and in some places. These marks no longer exist since the installation of the new system. Impressive!"

"The taps and the cabin are much easier to clean. The same goes for the glass walls."

3. TEST : Evaporation

Fill a small container with water and let it evaporate. Limescale deposits will be visible at the bottom of the container and will be simply easy to remove. Simple and safe visualization of efficiency.

Comment :

"True."

"...I did this test and frankly the limescale hardly clings and you just had to use a sponge to clean the glass..."

4. TEST : Reduction of cleaning and maintenance products

Aggressive and chemical cleaning agents to remove lime stains, as well as water softeners can be reduced considerably. This saves you money and also helps to protect the environment.

Comment :

"Cleaning products are still necessary but less."

You yourself know the limescale problem areas in your house or apartment best. Pay special attention to these areas and you will soon see the difference (coffee machine tank, shower cabin, etc.).

Comment :

1. "... the water tank of our coffee machine stays **clean** longer and the taste of water in the kitchen is better! We didn't drink it any more because of the unpleasant taste, and I've been drinking it again recently... .."

2. "... Indeed the corners of the shower cabin are easier to wash ..."

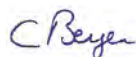
3. "... Overall we are satisfied and for the conservation of this device. ..."

4. "... For our part we find that there is a difference thanks to the Vulcan, even if we expected perhaps even more ... we find that the skin is less attacked after the shower ... So we are in favour of keeping it ..."

5. "I am in favor of this purchase. "

6. "... The water tank of the coffee machine does not build up limescale any more; it is easy to clean without any product ... I am in favor of this purchase."

Christian Berger
Administrator




Parfait

Parfait Wenhua Apartment

Parfait Wenhua Apartment is a modern youth apartment that integrates intelligence and sharing. The community is equipped with unmanned supermarkets, intelligent logistics, coffee machines, charging stations and other supporting facilities, which are managed by intelligent systems.



Installation Details

Location: Parfait Wenhua Apartment

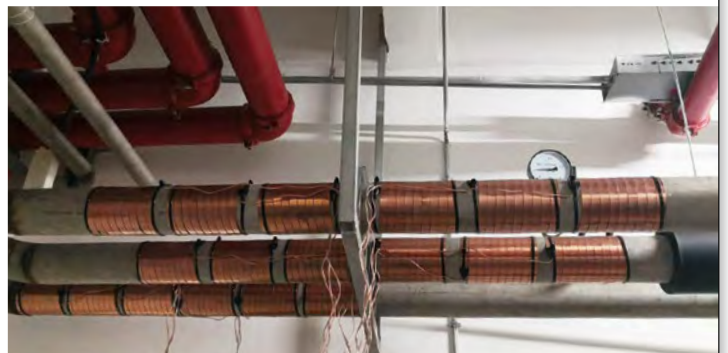
Suzhou, Jiangsu, China

Model: S100 x 9 Units

Purpose: The apartment's hot water system is a new renovation project that aims to solve the scaling problems of heat exchangers, tanks, and pipes and improve the residents' experience.

Installed by: Xinriyuan Company

www.vulcan-xinriyuan.com

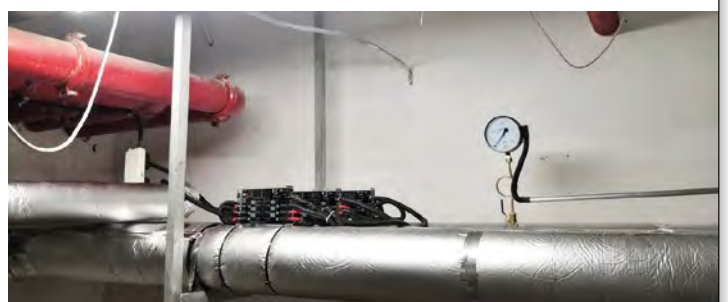


3 sets of S100 installed at the expansion tank outlet in apartment building 1



1 set of S100 installed for the air-source heat pump water heater in apartment building 2

1 set of S100 installed for the air-source heat pump water heater in apartment building 1



3 sets of S100 installed at the expansion tank outlet in apartment building 2



1 set of S100 installed for the air-source heat pump water heater in apartment building 10



Reference



Residential complex Rocamar

C'an Picafort · Balearic Islands · Spain

Project size:
18 apartments | 4 Shops

Realisation: Vulcan 3000 and 2 x Vulcan S10
Installation: December 2022



Vulcan 3000 Water deposit line with Ø 25mm



2 x Vulcan S10 Main cold water line with Ø 41 mm



Residential complex Joan Massanet Moragues

Palma · Mallorca · Balearic Islands · Spain

Project size: 18 apartments

Realisation: Vulcan S50
Installation: March 2023

Vulcan S50 Main cold water line with Ø 76 mm



AGUARIS S.L. | Distribuidor exclusivo de Vulcan en Islas Baleares e Islas Canarias | España
www.aguaris.com | www.vulcan-baleares.com





Reference



www.sarthe-habitat.fr

Installation details

Model: Vulcan S25

Location: Sarthe Habitat
58 Avenue Bollée
72000 Le Mans
France

Installed by: CWT Preval France



Vulcan S25 installed in on the heating system for 132 apartments

Sarthe Habitat

Sarthe Habitat is responsible for the construction and management of housing developments for the elderly, disabled and disadvantaged youth. Each construction integrated into Sarthe Habitat has a strong focus on urban planning with compliance and commitment to sustainable development. In total, Sarthe Habitat manages 13,891 homes, 22 businesses and 43 apartment buildings.



Vulcan S25



Les Maisons de Retraite.fr

Annuaire des établissements pour personnes âgées

Retirement Apartment House in Alençon

Surrounded by greenery, this retirement home can accommodate up to 84 elderly people. The rooms of the residents are all individual and equipped with a bathroom adapted to the handicaps of the latter. In addition, they offer a WIFI connection, a telephone, a television set and 24-hour assistance. The nursing home now uses Vulcan technology to treat its water, without having to add excessive amounts of salts to the water its guests consume.

Vulcan installed at:

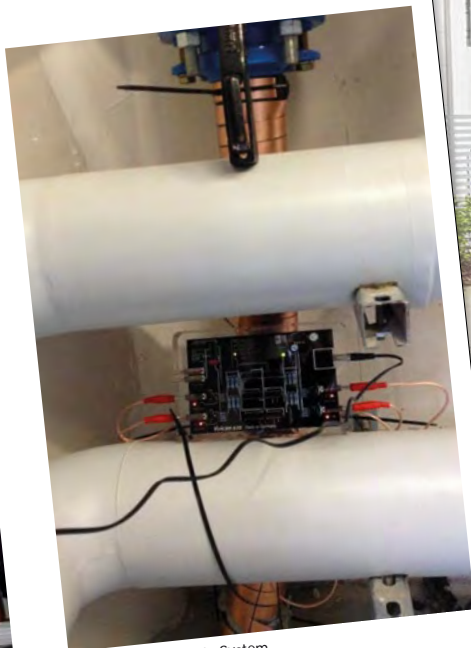
Retirement Home in France
61000 Alençon, France

Vulcan model installed:

Vulcan S25



Retirement Apartment



Vulcan S25 Anti-Scale System



Retirement Apartment House



Apartment complex in France


France, 2 Rue de la Gare, 72170, Beaumont Sur Sarthe, France, www.cwt-international.com





Costa Marina Building

Installation Details

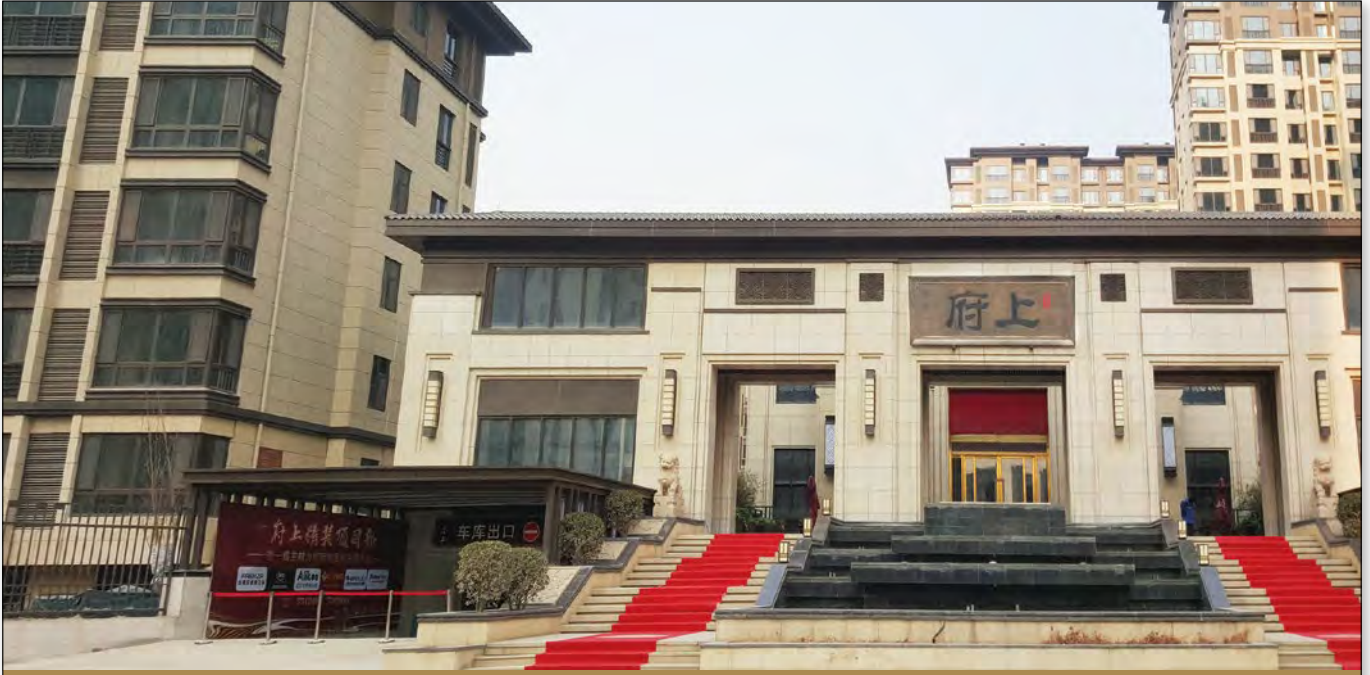
Location:	Costa Marina Building 1 Marina D'or Oropesa de Mar, Spain
Treatment area:	350 apartments
Model:	 Vulcan S250
Purpose:	To protect the water heaters and the whole pipe system
Installed by:	CWT Spain



Step 1: Install the impulse bands



Step 2: Install the S250 unit on the water main



Installation details

Location: Fushang Residence Building
High-end residential community

Model:  1 x Vulcan S150
1 x Vulcan S350

Area: Vulcan S150 was installed in the heating system in the low zone of the heat exchange station (below 6 floors); Vulcan S350 was installed in the heating system in the high zone of the heat exchange station (above 6 floors).

Purpose: To solve the scaling problem of the plate heat exchanger, to prolong the cleaning time and to improve the heat exchange efficiency.



Vulcan S150 was installed in the heating system in the low zone of the heat exchange station.



Vulcan S350 was installed in the heating system in the high zone of the heat exchange station.

VOLTIGE

Installation Details

Location: Society Real Estate VOLTIGE
 Montreal, Canada
www.voltigemtl.ca

Model/Area: Vulcan S150 protects the whole piping System.
 Vulcan S10 protects the hot water recirculation system.

Treatment area: This is a new 27-story building with 200 apartments.

Installed by: Gestion L.B. Inc
www.calcairesolution.com



Installation



Vulcan S10 was installed on the hot water recirculation on the 27th floor. The impulse bands were covered to prevent condensation before the Vulcan unit was installed.



Vulcan S150 impulse bands were installed on the 8-inch water inlet.



Then, the impulse bands were covered to prevent condensation.



北京化工大学

Beijing University of Chemical Technology

Dear Christiani Wassertechnik GmbH (CWT),

Due to the shower head scaling problem in Changping student dormitory in Beijing University of Chemical Technology, the water was getting reduced after a month, and the shower head was blocked completely after two to three months. The scale was very hard, so we even had to use the 1.8mm driller to remove it. In addition, the drinking water heater in the student dormitory was scaled badly, two heating elements were completely scaled and no longer useful after one semester, we had to hire cleaning workers regularly, and the damage rate of heating elements was extremely high.

When I saw Vulcan products introduced by your distributor-Beijing North Xihu Mechatronics Co., Ltd, we doubted if such a simple product could solve our scaling problem. Let's try and see.

We installed 2 Vulcan to test: one S25 for shower heads in the student bathroom; one S10 for heating elements of drinking water. After 2 months, no scale was found on the shower heads, only saw a thin layer of white membrane, and it was easy to remove. Also, the scale of heating elements were significantly reduced, Vulcan greatly extends the time of manual cleaning.

Through this test, we are very satisfied with Vulcan products with no doubts. Strongly recommended!

Kind regards,



Vulcan S25 for solving the shower head scaling problem.



The student dormitory of Beijing University of Chemical Technology.

Repair Service Center
Beijing University of
Chemical Technology



After installing Vulcan for 2 months, the scale of shower head has been reduced.



ALPHA DELTA PI

Florida state university

Installation Details

Location: Alpha Delta Pi Sorority
Florida State University
Tallahassee, Florida
www.fsuadpi.com

Area: Domestic supply line

Model:  S10

Installed by: Ackuritlabs, Inc.

The Iota Chapter of Alpha Delta Pi at Florida State University was founded in 1909. Alpha Delta Pi is a home that fosters potential in young women, a place where our sisters are constantly creating unforgettable moments and sharing memories.



Purpose:

Remove scale build up and chlorine from the water system serving the commercial kitchen and bathrooms.

Action:

Installed a twin carbon filtration system to remove the chlorine and a Vulcan S10 to eliminate the scale build up.

Result:

Client is very pleased. The girls' with blond hair had an issue with their hair turning green. This is no longer the case.





Huadu Residential Building

Installation details

Location: The heating stations of the Huadu residential building, Baoding, Hebei, China

- Model/Area:
- 1 x **Vulcan S150** for the commercial zone heating system
 - 1 x **Vulcan S350** for the low zone heating system
 - 1 x **Vulcan S350** for the high zone heating system

All Vulcan units were installed on the secondary return main.

Purpose: Protects the plate heat exchangers of all new heating systems and improves heat transfer efficiency.

Huadu Residential Building

A total of 13 residential buildings: including 2 garden houses, 11 high residential buildings, a total of about 1,380 households.

Commercial zone heating system

Low zone heating system

High zone heating system



Vulcan Vulcan S150



Vulcan Vulcan S350



Vulcan Vulcan S350



Models and Sizes

	Vulcan Model	Max. pipe diameter	Max. capacity	Voltage	Wattage	Impulse Bands	Dimensions	Frequency range	Required Space	Programs
Residential Line	 3000	1 1/2" (~ 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
	 5000	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	 S10	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
	 S25	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
	 S50	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
	 S100	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	 S150	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
	 S250	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
	 S350	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
	 S500	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	 X-Pro 1	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
	 X-Pro 2	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



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