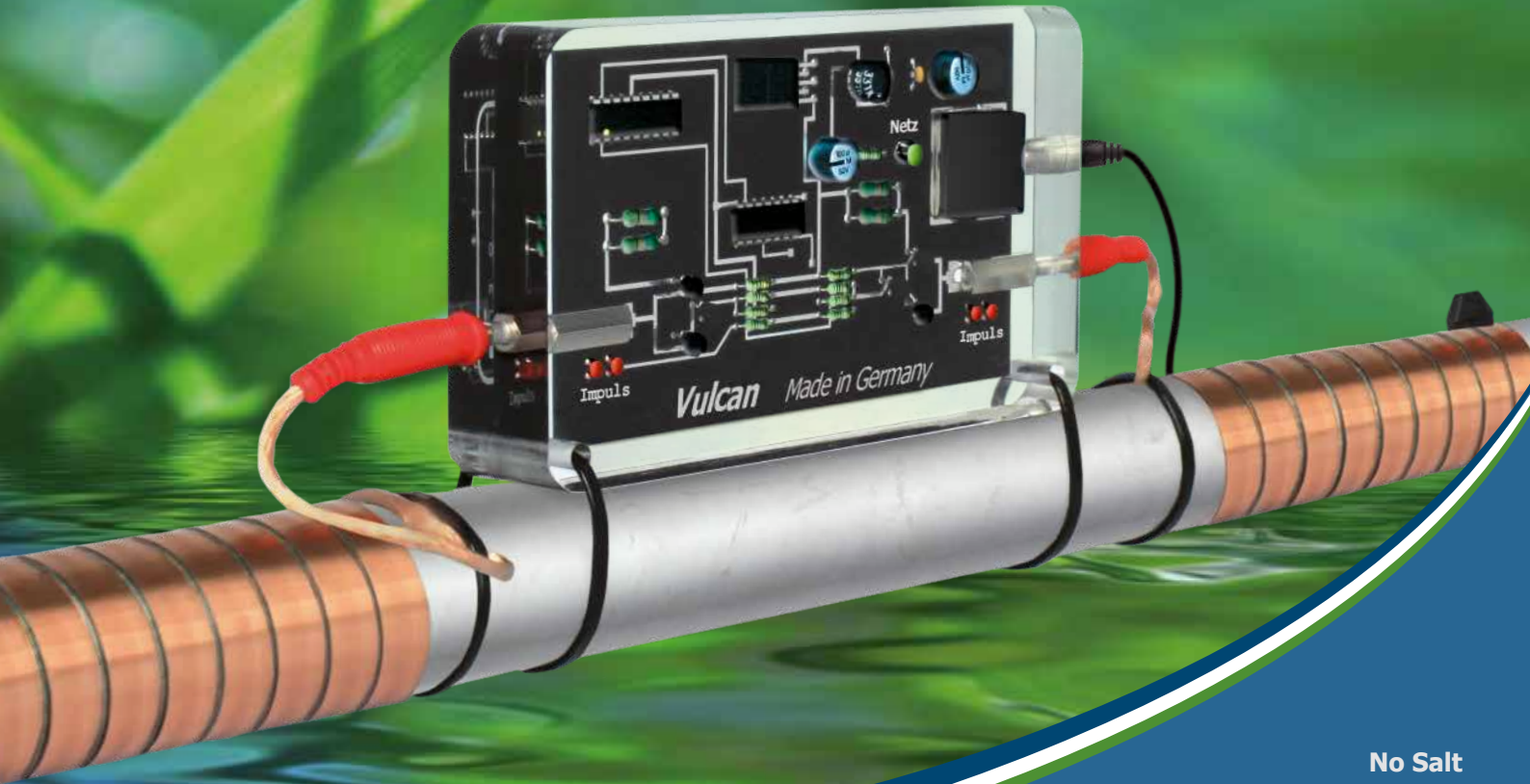




# The electronic anti-scale system

The green alternative to water softeners



No Salt  
No Chemicals  
No Maintenance

German Technology  
Absolutely Magnetism-Free



## FAQs - Frequently asked questions

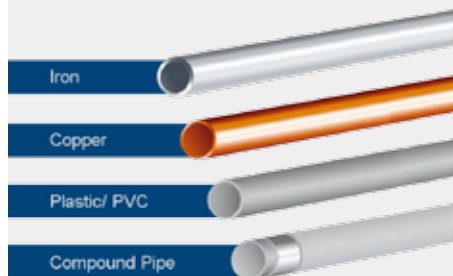
**How do I choose the right model size?** Please check the pipe diameter in the area where you want to install Vulcan. Then choose the unit that is designed for this size.

**Do copper or synthetic pipes need a scale protection device at all?** Yes. Copper and plastic pipes are prone to calcifications, too. The smoother a surface is the longer it can resist the process of calcification, but once a first layer of scale has built up, the incrustation process proceeds just as fast as on any other surface.

**Up to which degree of water hardness can Vulcan be applied?** Vulcan operates within a high performance frequency range. It can thus be successfully applied even on water with a particularly high degree of hardness.

**Does the Vulcan treatment have a softening effect on the water?** As the water treated by Vulcan does not lose any minerals, such as calcium and magnesium, the composition of the water remains unaltered. It feels noticeably softer, though. You are sure to feel this effect when showering or washing your hair. The treatment does not change the measured water hardness, but modifies the shape of its components.

**How long does it take Vulcan to sanitize the pipes?** Vulcan removes scale and rust slowly without negatively affecting the pipes. The cleaning process takes about as long as it took the incrustations to develop.



**Which pipe materials are the devices suitable for?** Vulcan is suitable for all pipe materials: iron, copper, plastic, stainless steel, PVC, compound pipes, PE-X, etc.

**Which voltage range is the electronic plug-in power supply unit suitable for?** All Vulcan power supply units are suitable for voltage ranges between 87 Volt – 260 Volt and 50 Hz – 60 Hz. They operate on 24 VDC.

**What are the power costs of Vulcan per year?** Vulcan is completely maintenance-free. The cost of electric energy per year amounts to approx. USD 3 - 7 (2-6 €).

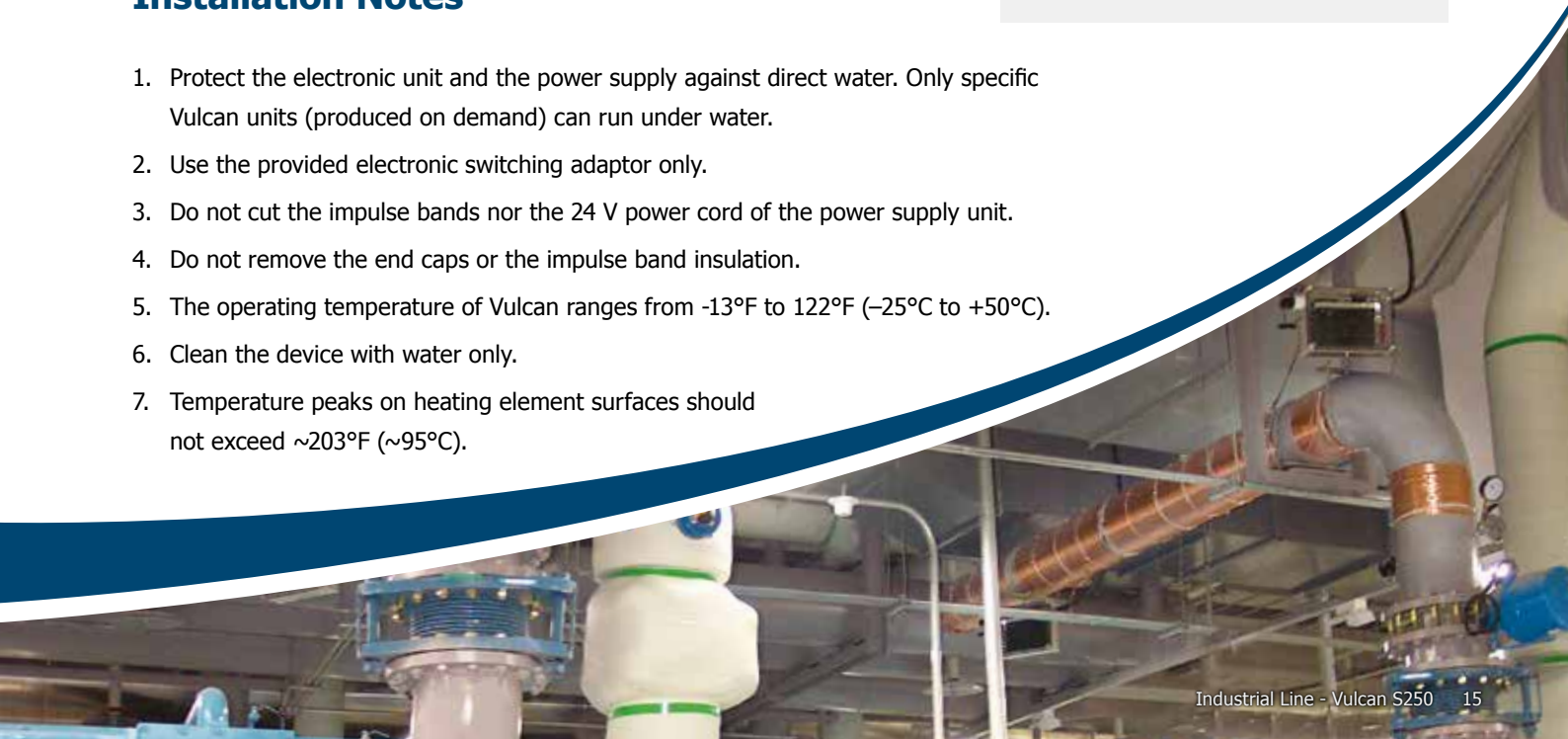
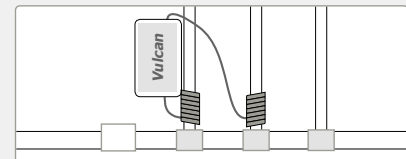
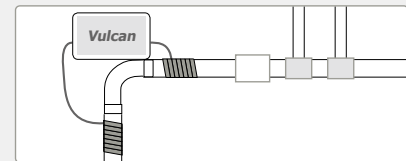
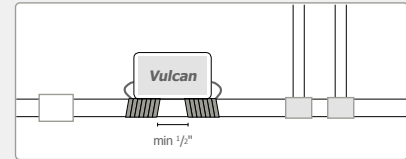
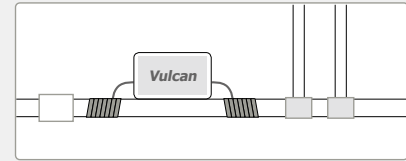
## Installation Examples

1. For optimal water treatment Vulcan is best installed near the water meter or at the main water supply.
2. The impulse band windings can be placed on the left side, on the right side or underneath the electronic device. Leave a safe distance of at least  $\frac{1}{2}$ " (1 cm) between the bands.
3. Vulcan can be installed vertically, horizontally or at any other angle. If there is no space available on the pipe the electronic block can also be wall-mounted.
4. In case of limited space the windings can be placed partly on the main pipe and partly on the distributor pipe.

All these different installations are possible because the treatment impulses extend over several meters to either side of the pipes.

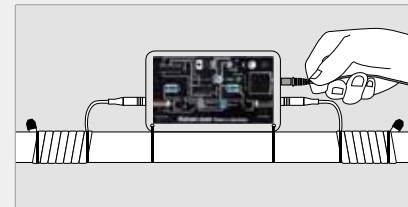
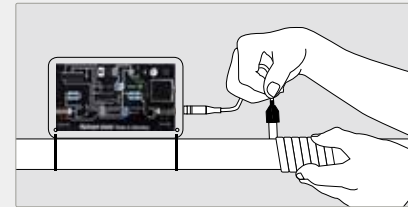
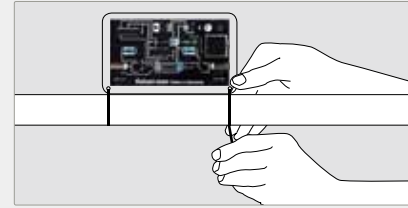
## Installation Notes

1. Protect the electronic unit and the power supply against direct water. Only specific Vulcan units (produced on demand) can run under water.
2. Use the provided electronic switching adaptor only.
3. Do not cut the impulse bands nor the 24 V power cord of the power supply unit.
4. Do not remove the end caps or the impulse band insulation.
5. The operating temperature of Vulcan ranges from  $-13^{\circ}\text{F}$  to  $122^{\circ}\text{F}$  ( $-25^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ ).
6. Clean the device with water only.
7. Temperature peaks on heating element surfaces should not exceed  $\sim 203^{\circ}\text{F}$  ( $\sim 95^{\circ}\text{C}$ ).



## Installation Instructions - Residential Line

1. Put the two cable clips through the fixing holes at the bottom of the electronic device. Now place the device onto the pipe. Use the cable clips to latch the device to the pipe.
2. Connect one of the impulse bands to the device and use another cable clip to latch it to the pipe.
3. Wind the impulse bands around the pipe producing a coil. Make sure you wind the band tightly to the pipe and place the windings close to each other.
4. Latch the end of the impulse band to the pipe using another cable clip. Now repeat the procedure with the second impulse band.
5. **First plug the connector into the upper right in-jack of the device and then connect the power supply unit with an electrical outlet.**
6. The red pilot lights will illuminate as soon as the device starts to operate. Vulcan works from now on maintenance-free.



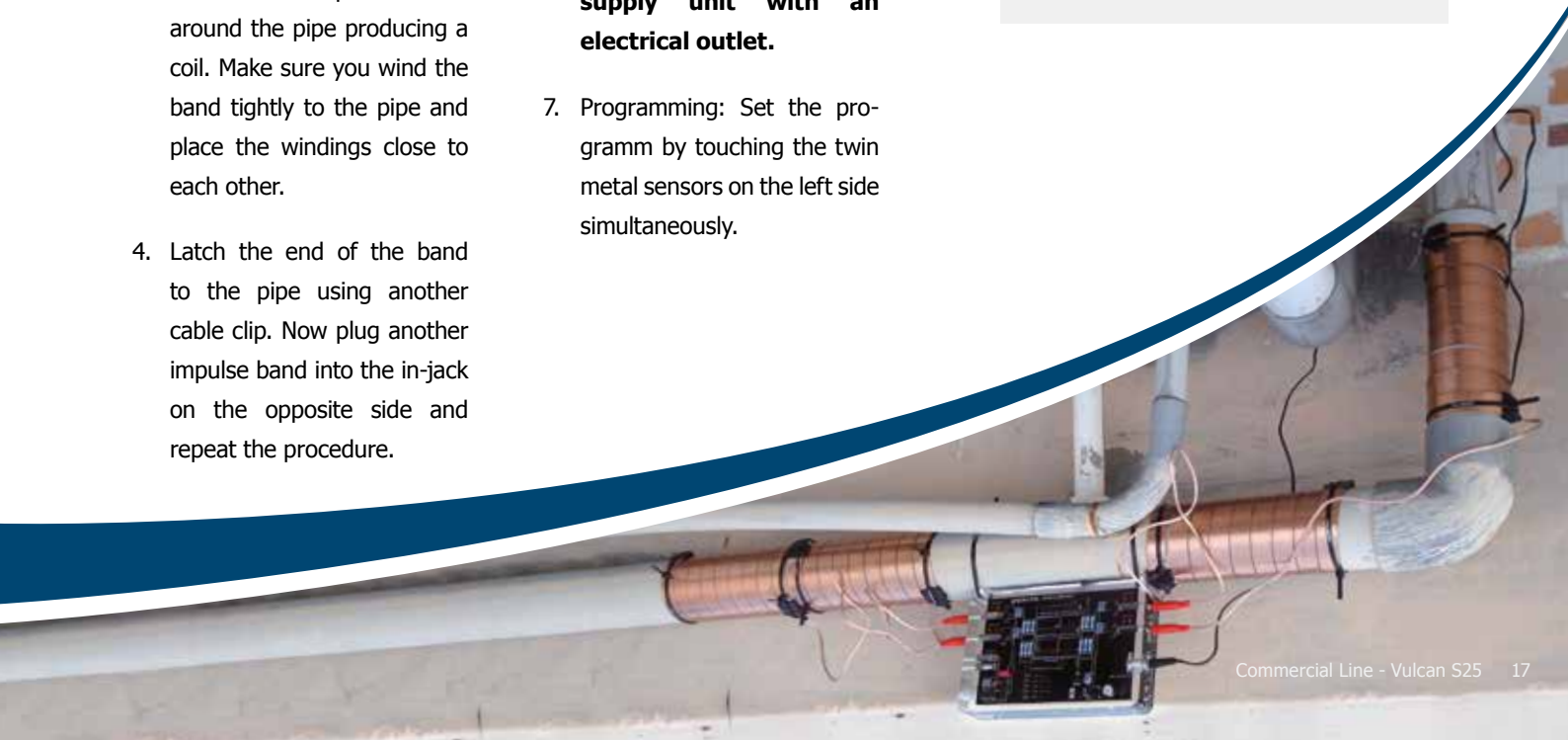
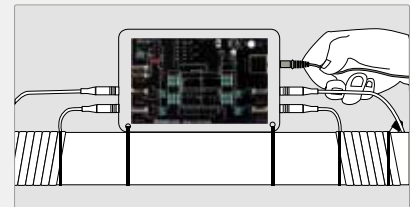
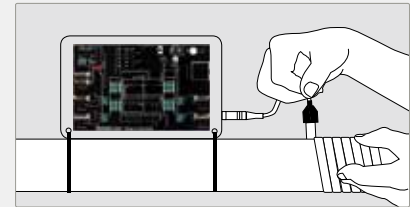
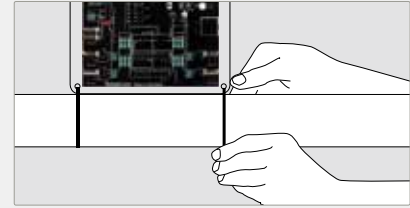
It only takes 10 minutes to  
install a Vulcan 5000.  
No tools needed.



Residential Line - Vulcan 5000

## Installation Instructions - Commercial Line and Industrial Line

1. Put the two cable clips through the fixing holes at the bottom of the electronic device. Now place the device onto the pipe. Use the cable clips to latch the device to the pipe.
  2. Plug one of the impulse bands into the bottom impulse band in-jack and latch it to the pipe using another cable clip.
  3. Wind the impulse band around the pipe producing a coil. Make sure you wind the band tightly to the pipe and place the windings close to each other.
  4. Latch the end of the band to the pipe using another cable clip. Now plug another impulse band into the in-jack on the opposite side and repeat the procedure.
  5. Plug another impulse band into the next impulse band in-jack and, according to the device type, repeat steps 2 - 4 until all impulse bands are in use. All impulse bands must be wound tightly around the pipe and fastened with cable clips.
- 6. First plug the connector into the upper right in-jack of the device and then connect the power supply unit with an electrical outlet.**
7. Programming: Set the program by touching the twin metal sensors on the left side simultaneously.





## Models and Sizes

### Residential Line

### Commercial Line

### Industrial Line

**Vulcan 3000**

**Vulcan 5000**

**Vulcan S10**

**Vulcan S25**

**Vulcan S50**

**Vulcan S100**

**Vulcan S150**

**Vulcan S250**

**Vulcan S500**



Max. pipe diameter	1½" (~ 38 mm)	2" (~ 50 mm)	3" (~ 76 mm)	4" (~ 100 mm)	5" (~ 125 mm)	6" (~ 150 mm)	8" (~ 200 mm)	10" (~ 250 mm)	20" (~ 500 mm)
Max. Capacity	3000 l/h (13 gpm)	8000 l/h (35 gpm)	15 m³/h (65 gpm)	30 m³/h (130 gpm)	70 m³/h (300 gpm)	120 m³/h (530 gpm)	180 m³/h (790 gpm)	350 m³/h (1540 gpm)	800 m³/h (3520 gpm)
Voltage	24 Volt	24 Volt	24 Volt	24 Volt	24 Volt	24 Volt	24 Volt	24 Volt	24 Volt
Wattage	2.0 Watt	2.0 Watt	2.25 Watt	2.25 Watt	2.25 Watt	2.5 Watt	2.5 Watt	2.75 Watt	3.25 Watt
Impulse bands	2 x 1 m (~ 2 x 39")	2 x 2 m (~ 2 x 79")	2 x 3 m (~ 2 x 118")	4 x 3 m (~ 4 x 118")	4 x 4 m (~ 4 x 13' 2")	6 x 4 m (~ 6 x 13' 2")	6 x 8 m (~ 6 x 26' 3")	8 x 10 m (~ 8 x 32' 9")	10 x 30 m (~ 10 x 98' 5")
Band width	10 mm (~ 0.4")	10 mm (~ 0.4")	20 mm (~ 0.8")	20 mm (~ 0.8")	20 mm (~ 0.8")	20 mm (~ 0.8")	20 mm (~ 0.8")	20 mm (~ 0.8")	20 mm (~ 0.8")
Dimensions	130/80/30 mm (5.1/3.1/1.2")	150/85/30 mm (5.9/3.3/1.2")	190/120/40 mm (7.5/4.7/1.6")	200/125/40 mm (7.9/4.9/1.6")	200/125/40 mm (7.9/4.9/1.6")	240/150/40 mm (9.4/5.9/1.6")	240/150/40 mm (9.4/5.9/1.6")	295/200/50 mm (11.6/7.9/2.0")	320/220/50 mm (12.6/8.7/2.0")
Frequency range	3-32 kHz	3-32 kHz	3-32 kHz	3-32 kHz	3-32 kHz	3-32 kHz	3-32 kHz	3-32 kHz	3-32 kHz
Required space	~ 250 mm (~ 10")	~ 350 mm (~ 14")	~ 500 mm (~ 20")	~ 800 mm (~ 32")	~ 900 mm (~ 35")	~ 1200 mm (~ 47")	~ 1800 mm (~ 71")	~ 2500 mm (~ 99")	~ 4500 mm (~ 14' 9")
Programs	1	1	3	5	5	10	10	10	10



**Prevents Scale and Rust**

**German production by**

Christiani Wassertechnik GmbH  
Koepernick Str. 154  
10997 Berlin, Germany

**[www.cwt-international.com](http://www.cwt-international.com)**

