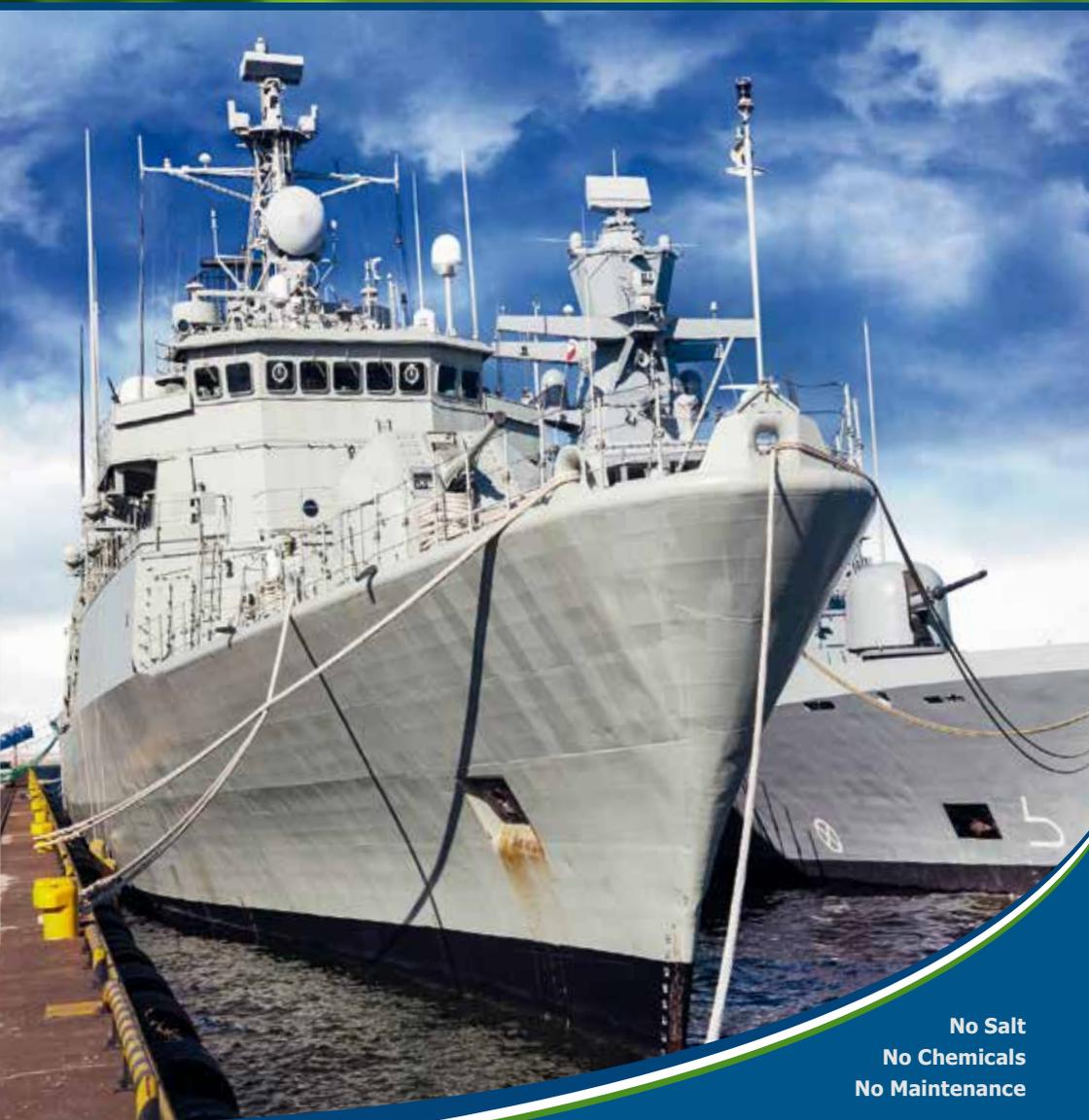


The logo for Vulcan, featuring the word "Vulcan" in a white, italicized serif font on a dark blue rectangular background.

# The Electronic Anti-Scale System

## Naval ships



No Salt  
No Chemicals  
No Maintenance

German Technology  
Absolutely Magnetism-Free



## Vulcan - The alternative to water softeners



A naval ships carries a lot of machinery and equipment, which come in contact with water. Scale deposits in the piping system can cause fatal damage to engines and turbines, which are very expensive to repair. In the daily use of water on board (in bathrooms, kitchens, etc.) Vulcan helps to eliminate problems caused by scale.



### Benefits of Vulcan:

- ▶ Reducing scale deposits in the whole piping system
- ▶ Minimizing overall operating costs and maintenance expenses
- ▶ Maximizing life of on board equipment
- ▶ Eliminating the need for salt or aggressive cleaning agents
- ▶ Leaving pH levels unchanged - preventing corrosion
- ▶ Removing the need for salt or aggressive chemicals
- ▶ Reducing hot water energy consumption



Aircraft carrier (top)

Military submarine (bottom)

**Engines:** Vulcan controls limescale deposits in the water cooled jackets, in transfer lines or coolers. Vulcan treats scale build-up in the heat exchangers and in the heat chambers in engines.

**Ballast tanks:** Ballast water is handled easier and scale deposits are reduced.

**Wastewater:** Vulcan smooths the incrustations in all wastewater transport systems.

**Potable water:** Vulcan controls scale deposits in the desalination and works with distillation or reverse osmosis equipment.



- requires less chlorine
- filters, shower heads, nozzles and sinks stay clean
- mineral rich drinking water
- more efficient use of energy consumption
- faster cleaning of kitchens and bathrooms
- controls scale deposits in desalination equipment
- reduces water consumption in cooling towers
- less spotting and cleaner dishes
- saves on cleaning agents and soap
- longer life of appliances and equipment
- softening effect on clothes and fabrics
- saves on heating costs
- increases water pressure
- reduces scale deposits in pumps and transfer lines
- washing machines run more efficiently
- prevents blocked pipes, tanks and toilet flushing problems

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. Vulcan carefully dissolves already existing deposits. In addition, Vulcan generates a protective layer that prevents rust and pitting corrosion.



Professional kitchen on board of a military ship

**Vulcan has positive effects in these applications:**

- Piping systems
- Pumps
- Valves
- Condensers
- Heat exchangers
- Air conditioners
- Cooling towers
- Chillers
- Tanker equipment
- Engines
- Potable water
- Steam turbines
- Wastewater
- Ballast tanks
- Restaurants
- Kitchens
- Sporting facilities
- Ship hospitals
- Bathrooms
- Heating systems



## Against Scale and Rust

- ✓ Reduction of existing scale in the piping system
- ✓ Easy 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
- ✓ 10 year international warranty

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



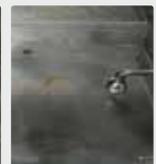
Piping system



Grease trap



Grill plate in a kitchen



### Quality - Made in Germany

- ▶ Manufactured by Christiani Wassertechnik GmbH (CWT) in Germany
- ▶ Over 30 years of experience in physical water treatment
- ▶ Successful in more than 70 countries worldwide
- ▶ 10 years international warranty

