



Prevents Scale and Rust

# Physical Water Treatment For Snow Production

The Vulcan **eco-friendly** water treatment system works without salt or chemicals. Improves the water quality and maximizes your snow production for better snow that lasts longer.



The quality and quantity of snow in snow production is largely affected by the water quality. The Vulcan Electronic-Impulse-Technology changes the typical crystal structure of scale - from a chaotic clutter into a well aligned mono-crystal. The water droplets are finer, which allows you to produce more snow with a better snow crystal structure that will last longer.

## Better water characteristics for snowmaking

- ▶ Water surface tension decreases by 15 - 20%
- ▶ Vulcan produces mono-crystal nucleuses in the water that form organized, more stable ice and snow crystals
- ▶ Soft-water-characteristics result in finer mist and pulverization with finer droplets
- ▶ Vulcan prevents scale buildup in the pipe and the nozzles

## Improvement of your snow production

Improvement of snow structure, water content, density, snow temperature and grain size

- ▶ Vulcan prevents scaling up of the cannon's spray nozzles
- ▶ Maximized production output with less water loss
- ▶ Finer snow crystals with a decrease of diameter (-20%) and a decrease of volume (-45%)
- ▶ The finer water droplets freeze earlier
- ▶ Snow is dryer as it contains less unfrozen water
- ▶ Smaller and dryer crystals have a lower temperature of approx.  $-2.5^{\circ}\text{C}$  /  $-4.5^{\circ}\text{F}$



## What do you see on the slope?

- ▶ Snow production is already possible with a higher temperature
- ▶ Dryer snow for a better skiing comfort
- ▶ Less icing with a more compact slope
- ▶ The finer crystals reflect more sunrays and therefore last longer in sunlight
- ▶ Rain water penetration is minimized
- ▶ Warm-air infiltration is minimized

## Quality - Made in Germany



- ▶ Manufactured by Christiani Wassertechnik GmbH (CWT) Berlin
- ▶ Over 30 years experience in physical water treatment
- ▶ Available in more than 70 countries



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## Water as it should be for your snow production

### Vulcan is specially designed for outdoor operation

as the electronic unit is protected by a 1.5" (~3.2 cm) thick solid acrylic cast. It is suitable to operate in very low temperatures, humidity, snow, ice and water. The installation of Vulcan is simple, as it sits outside of the water pipe.



**How it works:** The Vulcan-Impulse-Technology is based on the principle of physical water treatment. Special electronic impulses change the crystallization of the water elements. This minimizes the adhesiveness of the scale particles and at the same time produces mono-crystals that are ideal cores for snow crystal formation.



## Vulcan - Prevents Scale and Rust

Vulcan is the eco-friendly water treatment system which protects your pipes and equipment against scale and rust.

- ▶ Eco-friendly solution without chemicals or salt
  - ▶ Reduction of existing scale in the piping system
  - ▶ Maximum working life of machinery and equipment
  - ▶ Important minerals remain in the water
  - ▶ Long life – fully cast in acrylic
  - ▶ Maintenance-free
  - ▶ 10 year international warranty
- ▶ Easy installation without cutting the pipe
  - ▶ From 1/2" up to 20" pipe diameter
  - ▶ Works on all pipe materials – iron, copper, plastic, stainless steel, PVC, compound pipes, PE-X, etc.



Vulcan S25



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