

# **FINEAMIN<sup>®</sup>**

*The FINEST way of water treatment!*



# FINEAMIN<sup>®</sup> – the clean solution for water - steam systems

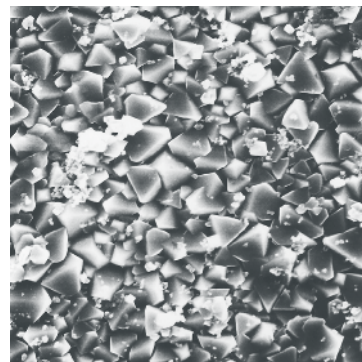
The treatment of boiler feed water in the food industry has a major role. For a failure-free operation of the boiler plant not only a treatment of the raw water is necessary, also the protection of the water and steam circulation against corrosion and deposits. To ensure the quality and purity of the produced groceries, the used chemicals for the production of steam for the production of aliment/ food cannot consist of any steam-volatile corrective chemicals.

For that our range of products FINEAMIN<sup>®</sup> offers custom-made solutions for application in the food industry. Conventional chemical treatment products consist of phosphate and sodium hydroxide, which increase the salt loading of the boiler water and lead to an increase of blow-down. The proven and constantly developed FINEAMIN<sup>®</sup> technology is a salt-free alternative - effective, cost-saving, and environment-friendly.

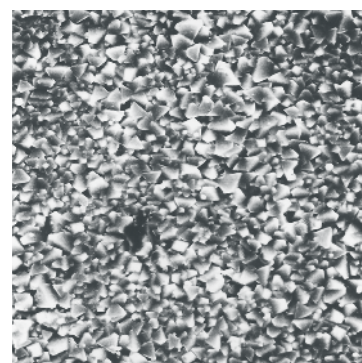
## Prevention instead of after treatment

The effect of FINEAMIN<sup>®</sup> is based on a preventive protection of the affected surface. In contrast to conventional methods which are based on after-treatment of purified water, polyamines and polyacrylate, which are dispersing, cleaning, and alkalizing, eliminate and prevent effective deposits and corrosion and improve the heat transfer.

FINEAMIN<sup>®</sup> disperses existing oxide layers and deposits and removes them gently. Through the affinity of FINEAMIN<sup>®</sup>, a metal surface is protected, so that new deposits cannot be built up. The surface-active substances form an inhibitory protection layer on the internal walls of the steam generator and pipe systems. This avoids corrosion. Some products are steam-volatile and through that the steam and condensate areas are protected too.



Growing and irregular magnetic layer of conventional chemical treatment products



After the adjustment to FINEAMIN<sup>®</sup>, the smooth, very thin, and stable magnetic layer optimizes the heat transfer and corrosion protection.

# What can FINEAMIN® do better than conventional chemical treatment products?

## **FINEAMIN® is salt free, effective and sustainable**

- FINEAMIN® defends water and steam systems effective and lasting from deposits and corrosion
- Clean steam generators and pipe systems are more effective and consume less valuable resources
- FINEAMIN® increases the reliability and durability of the facility
- No corrosion means less maintenance
- FINEAMIN® does not increase the salt content in the system

## **We provide you licensed products for the chemical treatment of steam systems in the food industry :**

- Corrosion and fouling inhibitor
- Oxygen scavenger to avoid oxygen corrosion
- Antiscalant for cleaning and avoiding iron oxide and hardness deposits
- Alkalizing medium for pH-value cleaning

## **FINEAMIN® saves costs**

- Through salt free products the water and steam systems is not additionally loaded – This leads to a lower blow down waste
- Less water, energy and chemicals are necessary
- A facility which is not polluted and corroded is highest-performance and last longer – maintenance and repair costs increase
- Less labor input means lower labor costs
- Only low required quantity is needed
- We deliver the products in returnable containers and take the empty ones back.  
This means for you: no effort, no storage costs and no disposal



Shell boiler before the application of FINEAMIN®



Shell boiler with the application of FINEAMIN®

# FINEAMIN® works with environment friendly technologies

## **FINEAMIN® protects the environment**

- FINEAMIN® does not consist of phosphate, hydrazine and other polluting chemicals
- FINEAMIN® is toxicological and ecological harmless
- FINEAMIN® is up to 82% bio-degradable and can be lead in the sewerage without problems
- FINEAMIN® is certified by the hygiene institution DIN EN 1988 and DIN EN 1717:2000 and is authorized for heating tap water in district heating heating systems
- FINEAMIN® saves valuable recourses like water and energy
- The low dosing quantity minimizes the chemical usage, reduces sewerage quantity and protects the environment



## **FINEAMIN® is all-purpose**

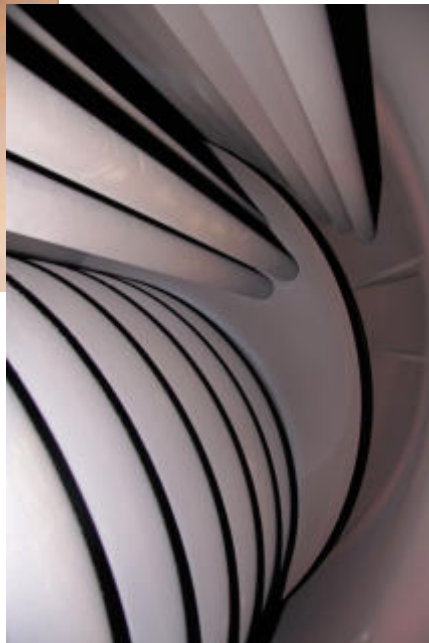
- We offer custom-made FINEAMIN® adjusted to the boiler plant, water treatment and water quality
- Through the combination of different salt free organic amines, polyamine and polyacrylate other dosing chemicals can be replaced
- 80% of the requirements are covered by the FINEAMIN®-standard mixture
- FINEAMIN® stays stable even under difficult temperature and pressure conditions
- Applicable:
  - Steam boiler plant of all pressure stages
  - Low pressure steam plant
  - High-speed steam - raising boiler of all kinds
  - Shell boiler (3-pass-boiler)
  - Water tube boiler with turbine drive up to 160 bar, 540°C
  - In boiler plants with salted, low-salt and salt free operation mode
  - Boiler plant with AVT-operation mode
  - Process steam systems
  - Steam generators in the food industry
  - For boiling out and cleaning of boiler plants
  - Downtime conservation of steam generators

## **FINEAMIN® is easy to handle and safe**

- No complicate blending- the product is delivered necessary, already blended
- The treatment is easy and uncomplicated
- No special storage and dosing instructions are required
- The application does not need complex analysis methods
- FINEAMIN® is not unhealthy
- FINEAMIN® is produced and controlled by regulations and controls of the EU. The production according to the ISO-norm guaranties a consistent quality and quantity of the product as well as a save integration into the production processes.

# Boiler Cleaning with FINEAMIN®

Shell boiler with deposits and corrosion



After 6 months of FINEAMIN® 24 application

## Cleaning of boiler plants with FINEAMIN® - products

Beside the products for alkalization, hardness stabilization and oxygen scavenger offers CWB water treatment GmbH also special cleaning chemicals for removal of deposits and corrosion residues in steam boilers. In the picture on the left hand side you see a shell boiler with hardness and rust deposits. The boiler was treated with conventional chemical treatment products like sodium hydroxide and sulfite over several years. Like clearly to see in the picture the surfaces which are touched by water and steam are rusted and have deposits.

The plant has been changed to FINEAMIN® and again be controlled by TÜV after a half year. Like visual in the second picture all deposits are removed and a closed magnetic protection layer is build up. The boiler has been cleaned during this process and the corrosion has been stopped as well the heat transfer had been improved.

Because of the application of our salt free and environment friendly chemical treatment products energy and water had been saved and the conservation of value of the plant has been secured.

## Advantages of FINEAMIN® at a glance:

- Increases the reliability and durability of the facility
- Optimization and increase of capability
- Decreasing the costs of maintenance and operation
- Reliable protection against corrosion and deposits
- Application of environment friendly technologies
- Cleaning of the plant during operation
- Protection against downtime corrosion
- Compliance with conductivity according to VGB



# Customer Service: custom-made, personal, at the face and from one



Each steam system is different. Therefore we would like to get an idea of the local situation and talk with our customers before we advise a product.

- We offer a complex consulting and supervision in the areas of internal water treatment and water treatment
- According to requirements we analyze the water at the face in our portable labor
- We check the water treatment and dosing technique and analyze deposits in the labor
- We discuss all relevant technical parameter with the customer and adjust it to our products
- We deliberate detailed on a matter of application, dosing and detection of FINEAMIN®
- We develop economic efficiency calculation by the change from conventional chemical treatment chemicals to FINEAMIN®
- We check and keep record of the plant condition (e.g. during boiler opening) before and after the treatment with FINEAMIN®
- We train local staff
- We retrieve the empty drums

## References

Dairy, cheese dairy, brewery, distillery, butcher shop, beverage producer, aggregate for the pharmacy, hospitals with sterilization, producer of pet food, heating plant, paper industry, laundry



### **CWB Wasserbehandlung GmbH**

Glienicker Weg 95  
D-12489 Berlin  
Tel.: +49 (0)30 6789-3751  
Fax: +49 (0)30 6789-3821  
info@cwberlin.de  
www.?neamin.de



### **h2o facilities sa**

8 av. Grandes Communes  
CH-1213 Petit Lancy | Switzerland  
Tel.: +41 22 879 95 00  
Fax: +41 22 879 95 09  
info@h2o-f.ch  
www.?neamin.com