

FINEAMIN[®]

The FINEST way of water treatment!



FINEAMIN® – the clean solution for water-steam systems

The water treatment in steam generators plays a major role in the industry and energy production. For a undisturbed running boiler plant not only a purified water is necessary also the protection of the water and steam circuit against corrosion and deposits is needed.

Conventional chemical treatment products and dosing chemicals contain among others phosphate, sulfite, ammoniac, caustic soda or hydrazine. The additional salt loading of boiler water leads to higher blow down of the steam generator. This is complex, expensive and pollutes the environment. The proven and constantly further developed FINEAMIN® technology is a salt free alternative. It is effective, cost saving and environment friendly.

Prevention instead of after treatment

The effect of FINEAMIN® is based on a preventive protection of affected surface. In contrast to the 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® disperses existing oxide layers and deposits and removes them gently. Through the affinity of FINEAMIN® a metal surface is prohibit, that new deposits cannot be build up. The surface active substances form a inhibit protection layer on the internal walls of the steam generator and pipe systems. This avoids corrosion. Same products are steam-volatile and because of that the steam and condensate areas are protected too.



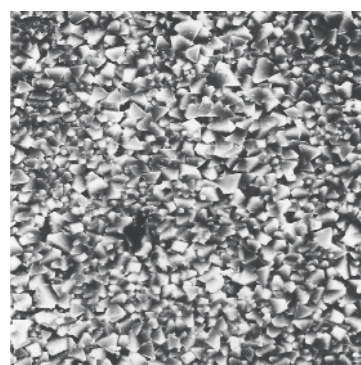
Steam turbine 29 MW



Growing and unregular magnetic layer of conventional chemical treatment products



Steam drum boiler 98 bar



After the adjustments to FINEAMIN® the smooth, very thin and stabile 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

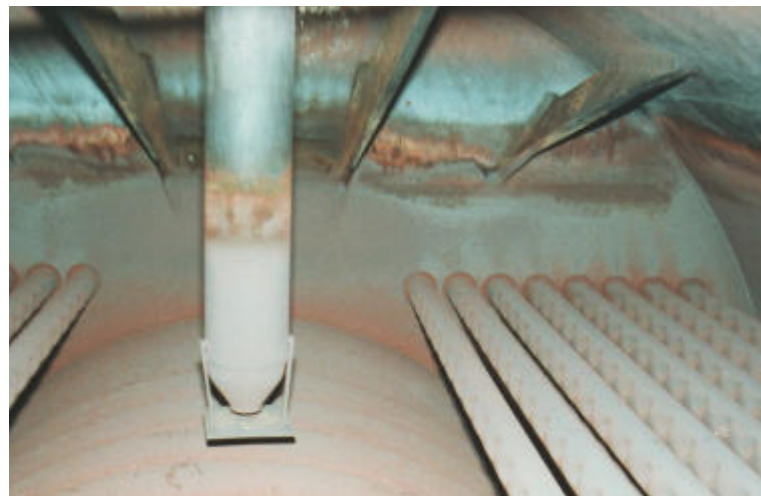
- FINEAMIN® defends water and steam systems and lasting from deposits and corrosion
- Clean steam generators and pipe systems are more effective and consume less valuable resources
- FINEAMIN® increases the reliability and durability of the facility
- No corrosion means less maintenance
- Steam volatile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



Boiler before the FINEAMIN® treatment

FINEAMIN® saves costs

- Through salt free products the water and steam systems is not additionally loaded - This leads to lower blow down waste.
 - Less water, energy and chemicals are necessary
 - A facility which is not polluted and corroded is highly-productive 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



Boiler using FINEAMIN®

	FINEAMIN®	Phosphate	Sodiumhydroxid	Ammoniak	Hydrazine / Levoxin	Sodiumsulfite
Alkalization(solid)	+	+	+	-	-	-
Alkalization(volatile)	+	-	-	+	+	-
Cleaning/Dispersion	+	-	-	-	-	-
Hardness-stabilization	+	+	-	-	-	-
Oxygen scavenger	+	-	-	-	+	+
Magnetit/Stabilization	+/+	-	-	+/-	+/-	-
Salt-free	+	-	-	+	+	-
Disadvantages		self deposit, saline, polluting, hide-out-effect	risk of stress corrosion caustic-brittleness saline		carcinogen	saline

FINEAMIN® works with ecofriendly 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 and 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

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

FINEAMIN® is easy to handle and safe

- No complicate blending, the products is delivered as 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.

Efficient performance and high lasting of your facility with FINEAMIN®

Putting the condensing turbine under service with FINEAMIN®



Before the application of FINEAMIN®



After the application of FINEAMIN®

Company philosophy

The CWB Wasserbehandlung GmbH stands for innovative product solutions in the field of water treatment and water chemical treatment.

With the know-how of 20 years' experiences of application of corrosion and fouling inhibitor we offer custom-made solutions for treatment in water, sewerage and steam systems.

Thereby we consciously specialized in the proven Swiss corrosion and fouling inhibitor FINEAMIN®. It is superior to conventional chemical treatment products. Its alkalized surface active polyamine function not only effective and sustainable but also is economically wise and ecologically advisable.

Please contact us. We are happy to help.

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 stand by 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 products 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 the local staff
- We retrieve the empty drums

References

et al. raf?nery, petro chemistry, heating plant, wood industry, steel industry, paper industry, chemical industry, printing plant, waste incineration, public utility company, laundry, brewery, food industry

Product example: FINEAMIN 15, 06, 90, 88, 18, 24



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