

# WATCH<sup>®</sup> FILTERSORB<sup>®</sup> SP3

## FILTERSORB<sup>®</sup> SP3 for Heat Exchangers

### General:

**FILTERSORB<sup>®</sup> SP3** can be used very successfully in all types of Heat Exchangers. The Major applications are for Heat Exchangers in cooling loops, Heat Exchangers for air conditioning systems, Heat Exchangers for compressors and also can be integrated for Heat Exchangers for mold forms, all different kind of machines and small or big motors.

**FILTERSORB<sup>®</sup> SP3** is may be the best solutions for heat exchangers in the oil field industry where hydrocarbons are either heated or cooled. Even on very critical heat exchanging applications **FILTERSORB<sup>®</sup> SP3** has shown great results.



Before using FILTERSORB<sup>®</sup> SP3



After 8 months of use

*\*The Images are collected from the heat exchanger system of a power plant at Recowatt Co. Ltd., Malta, showing the result of using FILTERSORB<sup>®</sup> SP3 after 8 months. [Click here to see full report.](#)*

Fouling, scale and corrosion in the heat exchangers and pipes are causing heavy costs for cleaning and sometimes even replacements of the equipments. Using FILTERSORB<sup>®</sup> SP3 the cleaning costs are more than 80% less and mostly the lifetime of the equipments increases significantly.

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**WATCH FILTRATION TECHNOLOGY**

Leading Manufacturer of Filtration Media for Water Treatment

# WATCH<sup>®</sup>

# HEAT EXCHANGERS

## WATER TREATMENT

The most important and significant parameters first, water treatment and second, the temperature in the heat exchangers are responsible for fouling or scaling inside the heat exchangers.

The design of water loop along with the heat exchanger Material, open or closed loop system and blow-down are the major and significant influence in cleaning cycles.

**FILTERSORB<sup>®</sup> SP3** can stop or at least reduce the process of fouling in all types of cooling tower and heat exchanging systems, depending on the application and the design of the system to be treated.

**FILTERSORB<sup>®</sup> SP3** can be installed either directly on the feed-water line of the Heat Exchanger or even in many cases of a entirely treated cooling loop. It is absolutely not necessary to treat each of the single heat exchanger separately. But it is very important that an effective blow down schedule must be maintained to ensure that the conditioned crystals are removed from the heat exchangers.

## **How do dissolved or suspended solids affects hard scale and corrosion?**

Dissolved solids such as chlorides and sulfates are particularly the primary reason for forming hard scale (permanent scale). These dissolved solids can affect the corrosion reaction by increasing the electrical conductivity of the water. Higher the concentration of these dissolved solids, greater shall be the conductivity and more is the likelihood of corrosion and hard scale. Addressing this problem, **dosing the I-SOFT<sup>®</sup>** (from WATCH<sup>®</sup>) **is very important**. To prevent corrosion the Heat exchanger water needs to be somewhat alkaline and not acidic.

## **How does I-SOFT<sup>®</sup> corrosion inhibitor work?**

**I-SOFT<sup>®</sup>** stops corrosion by interfering with corrosion mechanism. It inhibits the anions and the anionic corrosion by establishing a protective film. **I-SOFT<sup>®</sup>** is proven to be the most effective corrosion inhibitor and it is **100% Biodegradable**.

**FILTERSORB<sup>®</sup> SP3 Treated Water shows significant improvement in the Heat Exchanging system**



*Image courtesy: Recowatt Co. Ltd., Malta*  
[Click here to see full report.](#)

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In heat exchangers the loss of heat transfer is very bad, specially at the end of the cycle, before a shut down and mechanical cleaning is done. **FILTERSORB<sup>®</sup> SP3** has shown great results to prevent scaling, fouling. There is absolutely no corrosion and the efficiency of the heat exchangers increased just after the installation of **FILTERSORB<sup>®</sup> SP3** systems.

The efficiency of the energy used in a re-boiler is greatly improved while keeping it stable and clean for a long time, throughout the process.

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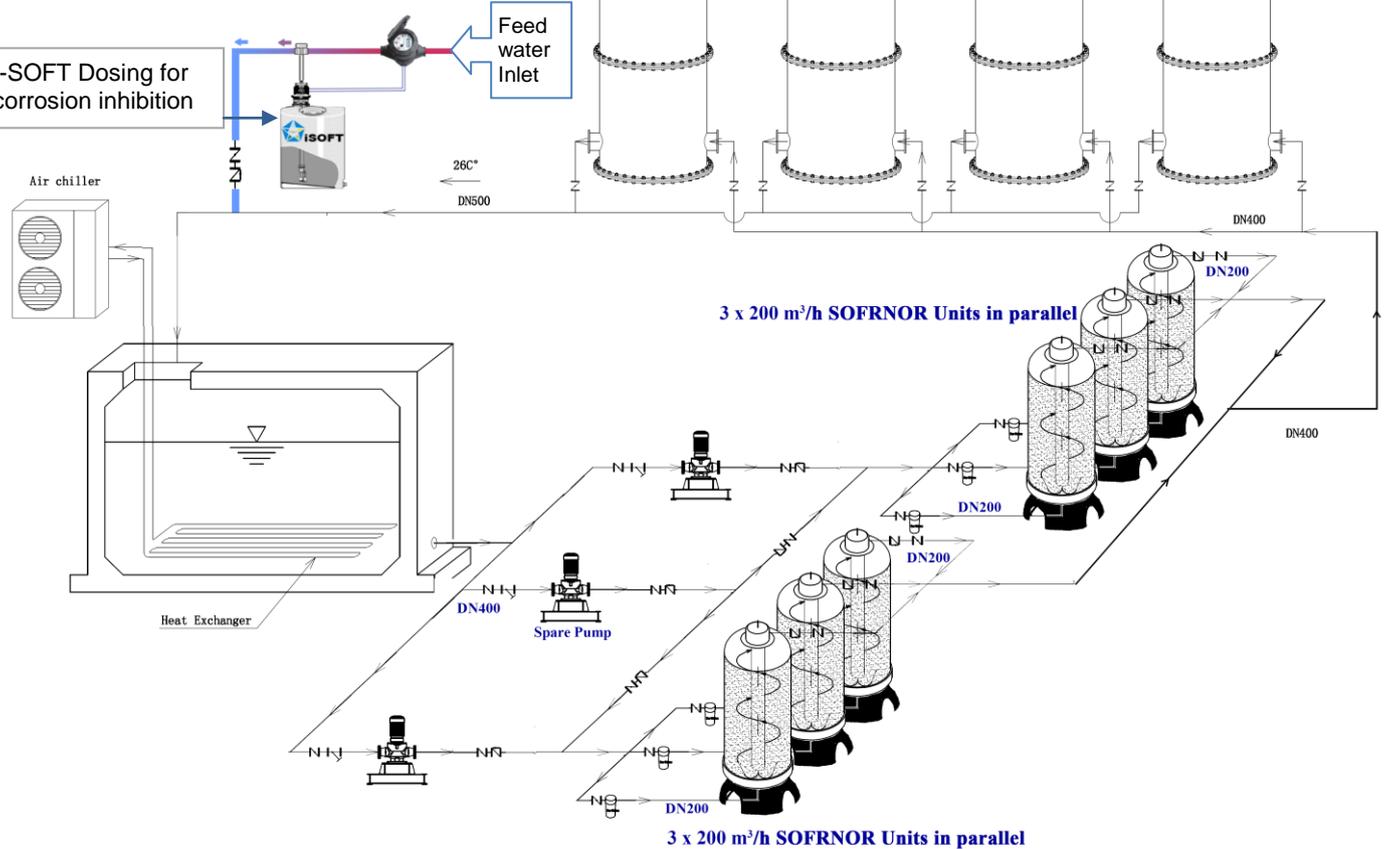
**Leading Manufacturer of Filtration Media for Water Treatment**

# FILTERSORB® SP3 for HEAT EXCHANGERS

**FILTERSORB® SP3** industrial application in heat exchangers.

**Flow rate:** 1200 m<sup>3</sup>/h (max.)  
**Water Cycle:** Closed loop  
**Unit orientation:** 2 x (3 parallel)  
**Flow rate per Vessel:** 200 m<sup>3</sup>/h (max.)  
**Vessel connections:** DN200 (Top and Bottom)  
**Corrosion control:** I-SOFT® Dosing

I-SOFT Dosing for corrosion inhibition



## System Design:

The design of a Heat Exchanger and its hydro dynamics quality are responsible for how fast and how strong fouling takes place in a heat exchanger. all tubular heat exchangers are generally very hydro dynamic design, because mostly a laminar flow inside the tubing is achieved.

80 % less or no more cleaning is required if TDS is kept at **1500 mg/l** (ppm) and the temperature is maintained within 100 °C.

At higher TDS the success rate might be lower accordingly.

The pictures on the front page taken before and after , show how good results have been achieved using FILTERSORB® SP3.

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# WATCH® FILTERSORB® SP3

## WHY FILTERSORB® SP3 ?

WATCH® WATER is one of the oldest and largest manufacturer of Nucleation Assisted Crystallization (**NAC**) to prevent temporary (carbonate) scale. With more than 350,000 units installed around the world, we have protected,

- very simple equipment like coffee machines
- thousands of water heaters and humidifiers
- whole house scale prevention systems
- In commercial buildings such as office blocks, hotels, schools, colleges, nursing homes, hospitals, banks etc. to protect their heat exchangers for air conditioning, how water heaters boilers and cooling towers.

Through our 25 years of knowledge in the water treatment industry, we are able to supply a wide range of water treatment products.

To know more about **FILTERSORB® SP3**, follow the links

Applications	Web links
Cooling Tower feed water treatment	<a href="#">Click here</a>
Boiler Water Treatment	<a href="#">Click here</a>

## Industries Served

Aerospace, Agriculture, Automobile, Chemicals and Pharmaceuticals, Defense, Energy Sector, Ground water treatment, Food and Beverages, Government, Hotels and restaurants, Swimming pool and SPA, Healthcare, Leather and Tanning, Injection molding and many more.

## BENEFITS

- Revolutionary, Proven Non-Salt Treatment System
- Simple to install, simple in service
- Energy saving, Water saving, Economical
- No storage of salt and No Environment Problems
- Long life of the media (up to 5 years)
- No regeneration, No back-wash, No man power



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