

# THE MK 3100®

Purified tannin-based additives  
for water treatment in steam boilers.

Reduce  
the cost of your  
steam production  
right from  
day one.

IT'S EASY AND REQUIRES NO INVESTMENT.



**Servivap**  
CANADA

# Increase your thermal efficiency

PRODUCE THE SAME AMOUNT OF STEAM  
BY HEATING LESS WATER

- Go from 2000-4000  $\mu\text{S}/\text{cm}$  to a steady 8000-10 000  $\mu\text{S}/\text{cm}$  with no chemical carryover
- Cut your current blowdown rate by 50 to 80% from day one.
- Save money without having to invest.
  - Reduce feed-water consumption by up to **25%**
  - Reduce energy consumption by up to **15%**

## Did you know that...

According to Energy and Environmental Analysis inc. (U.S.A.), boiler energy consumption represents **40%** of the total energy costs in the industrial and commercial sectors?

Source: Characterization of the U.S. Industrial Commercial Boiler Population, May 2005

Using Servivap Canada's MK 3100<sup>®</sup> will significantly cut your energy expenses.

# No contamination risk

NO FOAMING,  
NO CHEMICAL CARRYOVER

- Organic, non-volatile product.
- High-quality steam (2-10  $\mu\text{S}/\text{cm}$ ) and non-corrosive.

DISSOLVES DEPOSITS AND  
BLOCKAGES FROM THEIR BUILD-UP

- Dissolves current deposits between 6-18 months.
- Protects every part of the boiler that comes in contact with water with a uniform 0.1 mm iron tannate film.
- Could double the lifespan of your boiler.
- Eliminates shock-treatment cleaning methods.

*"At 14 bars (203 PSI) [...], the boiler is fed [...] without a thermal degasser, it operates between 6 500 and 7 000  $\mu\text{S}/\text{cm}$  of conductivity with no priming phenomena (entrainment of vesicular liquids in the steam). [...] Results: no scaling, no corrosion."*

Excerpt of a testimonial letter by the Messier-Bugatti Company  
Maurice Souchier, Head of Maintenance, and Pierre Deschler, Purchasing Service

# Respect the environment

BE PROACTIVE IN DEALING WITH  
YOUR BLOWDOWN AND THEIR TOXICITY

- Natural biodegradable product, purified tannin and lignin sulfonate-based.
- No danger in handling.
- Replaces toxic-based products (sulfites, phosphates, phosphonates, amines, caustics, and others).
- Reduces greenhouse gas emissions by up to 15%.
- Qualify for the issuing of carbon credits.

*"Blowdown rate (was) around 9%. [...] We notice (today) that our blowdown rate has dropped to 2-2.5% [...], the inside of our boilers is almost like new [...], gas consumption has fallen significantly [...] from 3 280 MWh PCS (314 880 m<sup>3</sup> of natural gas)."*

Excerpt of a testimonial letter from Continental France SNC  
Marc Sénéchal, Head of Energies

# Proven, guaranteed solutions

MORE THAN 200 INDUSTRIAL PLANTS  
ALREADY DO BUSINESS WITH SERVIVAP

**Canada** Beaulieu Canada, Emco BP, Sapporo-Unibroue,  
Correctional Service of Canada, Hôpital Louis-Hyppolite-Lafontaine, Locweld...

**Europe** Ahlstrom, Greenfield (Groupe Cascades), Eckes Granini, Ricard,  
Sucrierie Erstein, Continental France, Dunlop France, Goodyear France, Messier Bugatti,  
Plastic Omnium, Saint-Hubert, Cytec...

**Sectors of expertise** Pulp and paper, petrochemicals,  
rubber, textile, agro-food, lumber, institutional, hospitals, cogeneration,  
metal works, construction, plastics, cement, etc.

## PERFORMANCE GUARANTEED

Servivap Canada will issue a written commitment  
on performance parameters after analyzing water samples  
that are drawn in the power plant process.



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*"We have reduced our blowdown rate to 0.5%,  
prevented deposit build-ups, simplified the product  
dosage in the feed water tank and made it easier  
to do a follow-up analysis of the boilers."*

Excerpt of a testimonial letter from Eckes Granini France  
Philippe Trommetter, Head of Environment / Safety

# Easy system integration

## ONLY ONE PRODUCT TO MANAGE

- Replaces all traditional chemical products.
- Low dosage of between 3 and 25 g per m<sup>3</sup> of feed-water.
- Simple analysis, eliminates excess tests of traditional chemical products.
- No investment required, existing equipment is used.
- No stoppage in production to get the system up and functioning.
- Treatment costs are comparable to the traditional products.
- Less handling, less storing.

# Tannin purification: A unique expertise

MORE THAN A DECADE IN R&D

## 1970

Chemists discover the properties of tannins are analogous to phosphates. However, the initial tests using the tannins in industrial water treatment were inconclusive because the resulting protective film lacked uniformity.

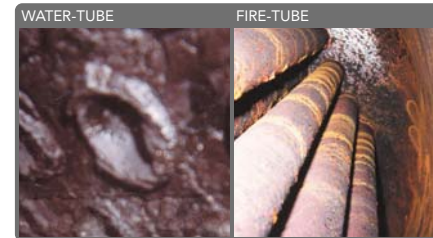
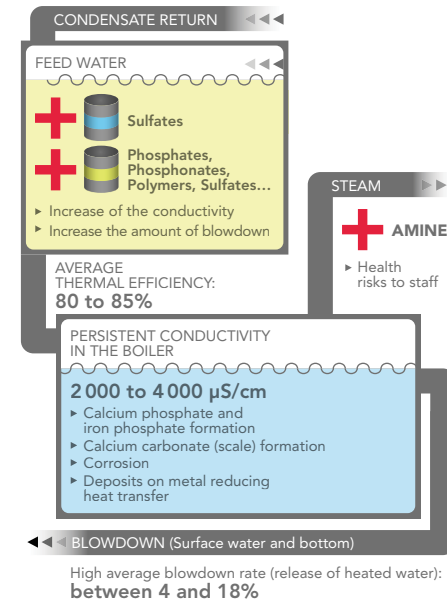
## 1989

It's discovered the tannins contain certain impurities that alter their performance. Servivap undertakes research and development efforts on the purification process. The aim was to form a protective film that would uniformly form a coating on metal.

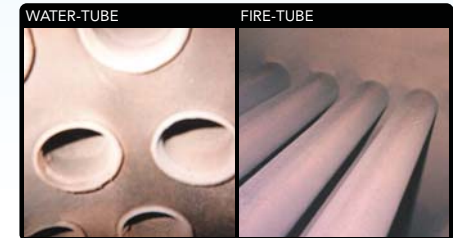
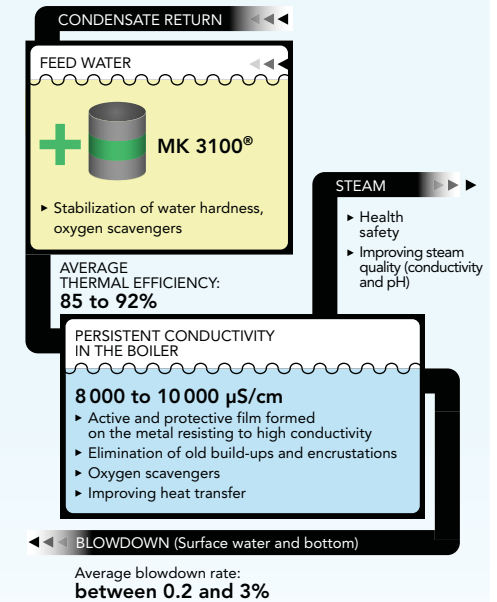
## 1998

Servivap fine-tuned an exclusive **tannin-purification process**. The MK 3100<sup>®</sup> purified tannin-based product line is unique in the world.

## Before



## After



# Energy savings by water treatment

Servivap Canada inc. works in the industrial water treatment industry. Its products, mainly purified tannin-based, are used as additives for water treatment of the following systems:

**MK 3100<sup>®</sup>** - Steam

**MK 3200<sup>®</sup>** - Cooling towers

**MK 3300<sup>®</sup>** - Hot water, superheated water and closed-circuit systems

**MK 3400<sup>®</sup>** - Hot and cold sanitary water systems

**MK 3500<sup>®</sup>** - Elimination of deposit build-ups and encrustations

**MK 3600<sup>®</sup>** - For bottle washers

**MK 3700<sup>®</sup>** - For osmoser membranes

The company also works in the following areas:

- Instrumentation and control
- Boiler and steam system equipment
- Laboratory services

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