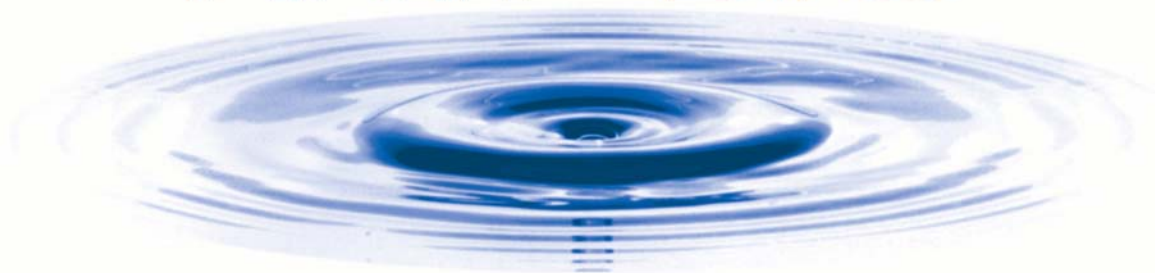


# ANTI BIO



PURIFYING THE ESSENCE OF LIFE

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## INTRODUCTION:

Anti Bio has developed what is believed to be a revolutionary technique in water treatment, which has enormous implications for the global water treatment industry.

The Anti Bio System uses micro electronic technology to produce a programmed series of sweeping sound frequencies that are transmitted through water. Years of testing have resulted in a product that provides significant cost savings and cleaner water, reduces waste and chemical, usage, and benefits the environment.

The Anti Bio technology has enormous potential for use in a wide range of industries by enhancing equipment performance in areas related to water. Likely benefits include improved quality of town water supplies and air conditioning towers, prevention of bio film build up in piping, and reduction of barnacle and other problem marine growth on hulls and marine structures.

These applications have substantial environmental advantages as they reduce the existing use of chemicals, which also leads to significant cost savings.



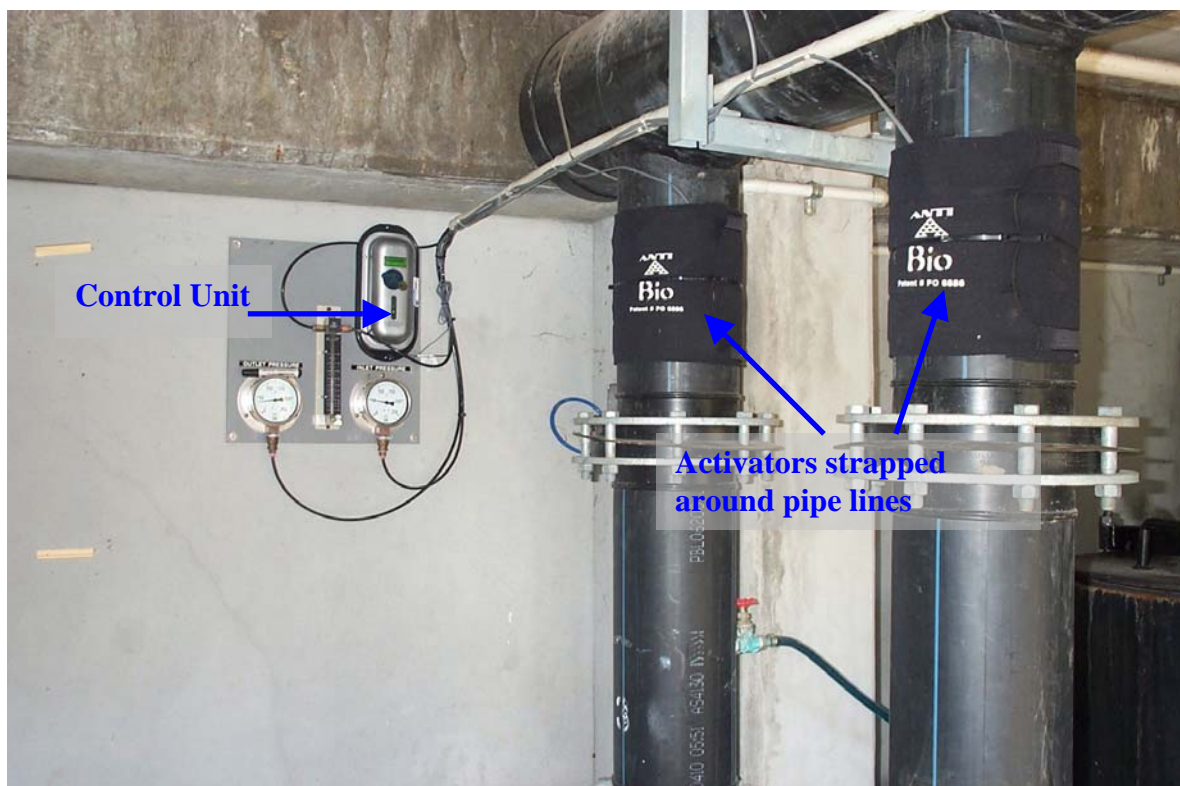
*Bø Sommarland*

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### **How the Anti Bio system works:**

The Anti Bio System comprises two main elements - a control unit and activator Unit. The control unit houses a circuit board incorporating a programmed microchip which causes the emission of both an electro-magnetic field and a sonic pulse by the activator/s.

Activators are mounted on the outside of the pipework, near the filtration system. No part of the system is in contact with the water, but the water passes through an electro-magnetic field and low kilohertz SSF's (Sweeping Sound Frequencies) emitted from the activator.



*Anti Bio in place*

### **The Product Series**

Two series of the Anti Bio System are available comprising of 3 models in each series. Each model has been designed to treat specific water volumes that will maximize the treatment process, catering for the needs of our Clients and their environment. Both series incorporate unique technology providing benefits to all bodies of water.

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ABS 1000 - 2000 - 5000 - Commercial volumes of water <math><600\text{m}^3</math> to > <math>1200\text{m}^3</math>  
ABT 1000 - 2000 - 5000 - Domestic volumes of water <math><400\text{m}^3</math>

### Current Applications

The company now has its product installed in more than 1,300 commercial and public sites, mostly swimming pools/water parks in: Australia, New Zealand, Great Britain, USA, Korea, Japan, Thailand, Poland, Puerto Rico, Malaysia, Canada, Finland and Norway. Customers report significant reductions in chemical usage, superior water clarity, improved efficiency of plant operating equipment and consequential substantial cost savings.

Swimmers and coaches are enthusiastic about the improvement of water quality in terms of chlorine odour and chemical irritation to eyes and skin.

Positive outcomes of testing on bacteria and parasites indicate that the Anti Bio Technology has potential to set new standards in the public health arena, and identify new markets and product applications.

Anti Bio is an official supplier to the Australian Institute of Sport and our clientele range from Swim Centres through to Exclusive Hotel chains, Resorts, Public & Private schools, Councils and Water Parks.

Research indicates that the system acts to retard cell growth, which in turn allows chemicals already present to perform their task. In other words, the chemicals work more efficiently which means that chemical consumption is significantly reduced and the swimmers can enjoy a safer swimming environment.



*Rica Park Hotel, Sandefjord*

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## OTHER APPLICATIONS:

The potential applications of the Anti Bio System are virtually endless. As part of its R&D Program, Anti Bio is pursuing the following applications.

- *Water Treatment/Town Water Supply*  
The Anti Bio System has potential to improve or replace current apparatus used to treat water. Tests have already shown positive results on water supply to suburban areas.
- *Air-conditioning*  
The System has been installed on cooling towers for evaluation purposes, in a number of working environments including the Australian Sports Commission.
- *Marine*  
Current field testing data has confirmed reduction of barnacle growth, indicating that elimination is possible in the near future.  
The System has been installed on a supply vessel trading in the North Sea. Results show a significant reduction in algae growth in the sea water intake (installed on pipe line after sea chest). The system to be installed on a second supply vessel shortly. Field testing to be started on treatment of drinking water tanks on board vessels and on the diesel bug shortly.
- *Processing industry*  
Algae growth in cooling water is a well known problem. A more than one year test (in Norway) have shown a significant reduction in bio film and the algae growth is minimal.
- *Piping*  
Trials have assessed the reduction of biofilm which accumulates on the inside of piping to be from 50-70%. Significant improvements in efficiency and cost savings may be achieved in many aspects of industrial usage.

Other areas in which Anti Bio intends to develop its technology include: ·

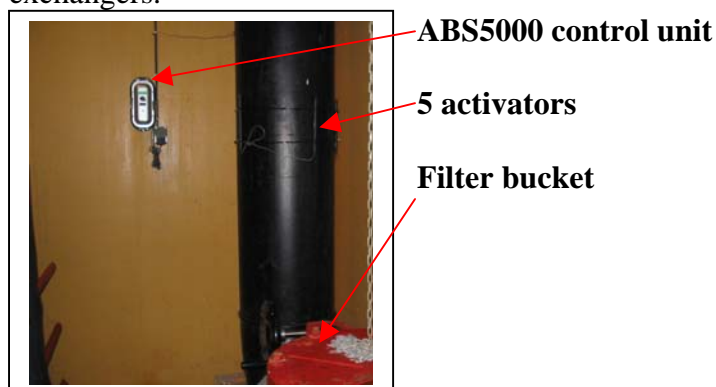
- Power Plants
- Automotive fuel treatment
- Health and Medical
- Food and Beverage



## ***Anti Bio and heat pump installation – experience from Norsk Hydro, offices at Vækerø outside Oslo***

- Heat Pump – 4 heat exchangers – 1 cooler
- Technical data pipe lines: 400 PE pipes. 15mm thick
- Water Flow: 500m<sup>3</sup>/hour
- Sea Water intake from the Oslo Fjord – depth 35m

1 ABS5000 with 5 activators installed 01.06.04 – immediately after mechanical cleaning of exchangers.



The filter bucket is controlled and cleaned every 3rd month (or when the pressure in the filter falls more than 0.3,- which has not occurred since installation of ABS)

### Findings at inspection

- 22.09.04 – common mussels in abundance, but not "slippery". Dead material only.
- 01.12.04 – common mussels in abundance, no bio film or live sea grass. Dead material only.
- 01.03.04 – the main intake pipeline and the filter at the end of the pipe line mechanically cleaned. At the same time the filter bucket was cleaned out and scrubbed. Upon inspection the results were as earlier. However, due to the extra cleaning, the findings are only noted. inntaksledningen og silen i inntaket ute i sjøen var blitt mekanisk rensset.
- 25.05.05 Dead sea weed (felt like dry carpet fibres), and a few dead common mussels. The filter bucket felt dry and non slippery, inside and out.

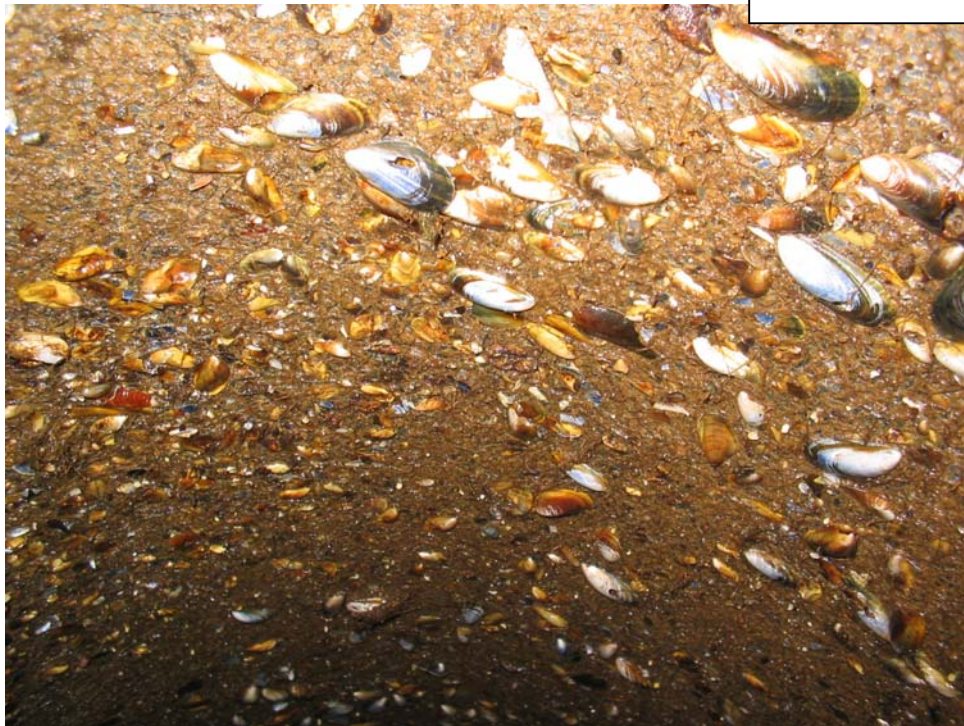
We continue monitoring the inspections. Next date for inspection 17.08.05.



inspection 22.09.04



From inspection 25.05.05

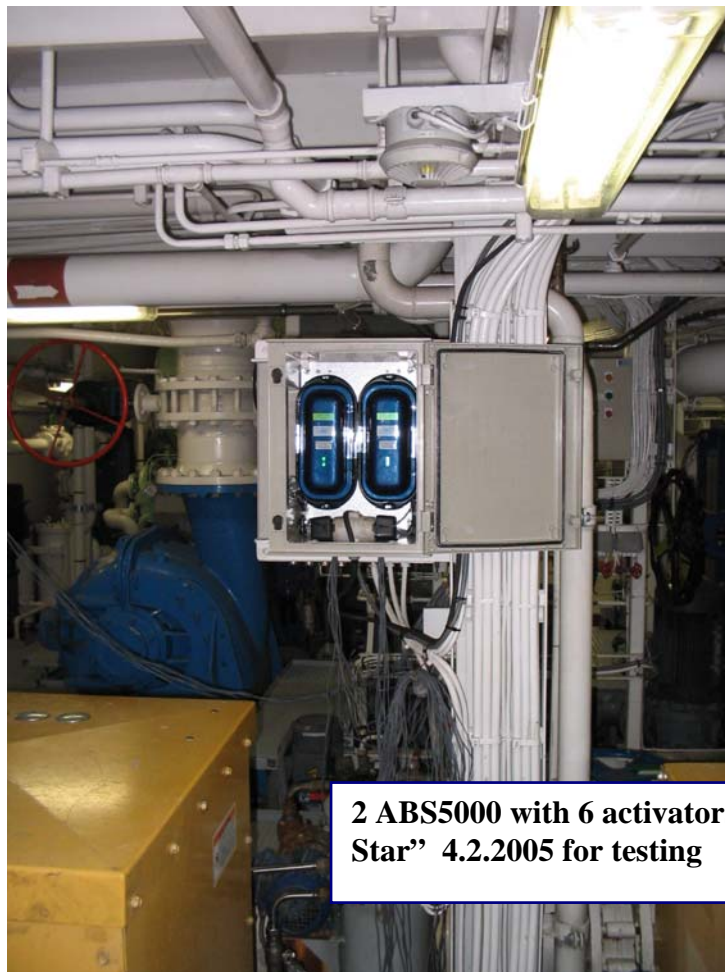




# *Anti Bio at Sea*



“Far Star”



**2 ABS5000 with 6 activators installed on board “Far Star” 4.2.2005 for testing**

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Activators fastened after sea chest.

Monthly inspections.

Results:

**End Feb.:** The “hairy” sea grass of 1.5-2 cm gone. Not slimy

**End March:** Same as above.

**End April:** Following info rcd. per e-mail:

*“Filters in central coolers containing dead shrimps and minimal algae. Low suction: dead fish, no mussels, little or no algae growth. Some under lid. High suction not in use, but usually algae growth present. Completely clean, both filter and housing. Now approaching the growth season for algae.”*

**End May:** Following info. rcd. per e-mail:

*“Only dead material in filters, only two jelly fishes alive. Looking good so far.”*

**19 June:** (per phone – with the chief on board). *No live material or algae growth.. Looking very good.*

**16 July:** By e-mail

*No mussels. Some growth on filter and filter house, plus some tiny shrimps living there. Some barnacle in the house. (comment by inspector: “significantly better compared with earlier years”).*

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