

WALLENIUS COOLANT SYSTEM

Chemical-free bacterial control in metalworking fluids





Effective bacterial control

Sooner or later, fluids used in metalworking become affected by the growth of microorganisms, posing risks to the work environment and impairing the function of the fluids. Wallenius Coolant System reduces these microorganisms without the addition of harmful biocides. This results in positive health and environmental effects, and helps improve profitability through fewer operational shutdowns and lower fluid handling costs.

Health and the environment

Bacteria and fungi thrive in metalworking fluid, and without bacterial control the fluid soon degrades and its function is impaired. Microorganisms also pose a health risk and give off an unpleasant smell in the workshop. The most common way of purifying metalworking fluids is currently to add biocides, which can be harmful to both human health and the environment. Common health problems that can be linked to microorganisms and biocides include

infections, respiratory problems and allergies.

A growing number of companies are trying to reduce their use of chemicals and tougher legislation is expected in 2014. This aims to reduce the use of biocides that are harmful to human health and the environment. Wallenius Coolant System helps provide a safer work environment by reducing microorganisms and the use of biocides, and requires less disposal of fluid.

Productivity and cost savings

Retaining market competitiveness places tough demands on productivity. Wallenius Coolant System constantly reduces the microorganisms in the metalworking fluid, ensuring that fluid quality remains consistently high. Extending the life of metalworking fluid reduces purchasing costs, and requires less disposal of fluid and fewer unplanned operational shutdowns. Maintaining a consistent pH level also reduces the risk of

In addition to improving the work environment, installing Wallenius Coolant System also offers financial advantages. Increased metalworking fluid life is one such advantage.



Control in metalworking fluids

corrosion within the system, which leads to lower costs for repairs and purchasing new equipment. Healthier staff also means less absence due to sickness and creates a more attractive workplace.

The system in action

SSAB, a leading producer of high tensile steel, has a strong environmental profile and is constantly looking to reduce its use of hazardous chemicals. One of the company's aims has been to avoid or drastically reduce the use of biocides in metalworking fluid since they are harmful to human health and the environment. In addition to the health and environmental aspects, the metalworking fluid had to be changed several times a year which led to high costs for unplanned shutdowns, decontamination and fluid disposal.

"We are delighted with the results since we know what a challenge it is to keep metalworking fluid in good

condition and free from bacteria," says Assistant Machine Workshop Manager Anders Jacobsson.

How it works

The system is based on Wallenius AOT technology, an intelligent combination of UV disinfection and active oxygen that imitates nature's way of breaking down microorganisms. Instead of using chemical additives, Wallenius Coolant System purifies metalworking fluids by activating the oxygen that is dissolved in the fluid. No harmful by-products are created during the process.

Installing Wallenius Coolant System is quick and straightforward. The system is either installed in line with the existing main flow or as a separate circulating unit. Each installation is customised based on a detailed needs and system analysis. The investment is often recouped within one to two years, although this varies depending on the specific circumstances.



Wallenius Coolant System.



High levels of microorganisms and biocides in metalworking fluid often lead to high levels in the air, which in the long term can lead to infections and allergies.



QUICK FACTS

- Safer work environment
- Reduces downtime
- Increases productivity
- Effective biocide-free purification of metalworking fluid
- Profitable system with a fast return on investment
- Easy to maintain

WALLENIUS WATER

Wallenius Water is a Swedish environmental technology company active within the field of chemical-free water purification. Our innovative water purification products are used to purify water in everything from kitchen tap to the world's oceans. We help players in the energy, marine, industrial and property segments obtain pure water, while helping enhance their profitability and reduce their environmental impact.

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