FRESH AND BACTERIAFREE WATER

Cost-effective and environmentally friendly technology for combating bacterial growth and Legionella

Apurgos M3 system prevents establishment of bacteria and gives clean and bacteria free water for consumption. If the bacteria are allowed to establish themselves, they will grow rapidly and make room for growth of other harmful bacteria, such as, for example, the legionella-bacteria. In pipe-constructions, there are often optimum conditions for the bacteria to grow. The Legionella-bacteria finds «residence» in other bacteria and utilizes these to reproduce itself. There is a continuous eruption of new Legionella-cases. It is no more a question of «if», but rather of «when» and «how» it will hit us again. Once you have unwanted bacterial growth and an outbreak of Legionella, it requires a very cost- and resource-draining process to re-adjust. Choose the Apurgo M3 system for a secure, cost- and environmentally effective solution. We give you assurance for fresh and bacteria free water.

The Technology

The Apurgo M3 system is based on ionization of silver- and copper, a solution that has been known for many years. The unique thing about the Apurgo M3 system is the merger of individual silver- and copper cells and a fully automated regulation system. The system is module-based and can easily be adapted to any water consumption. The control functions can be monitored and controlled locally, or via laptop, tablet and cellphone. All operational data are supervised and logged in its own database, and the system can be managed and kept under surveillance by Apurgo.

Apurgo M3 system enables you to:

- Avoid being hit by legionella and other harmful bacteria
- Escape huge operational- and maintenance costs
- Save energy costs and environment, by lowering the water temperature
- Avoid costs and time spent on cleaning and maintenance or pipes, water- and showers
- Avoid usage of expensive and environment damaging chemicals
- Get off having to close buildings and water installations when cleaning the plant
- Secure all installations, such as showerheads, water taps, air conditions, Jacuzzis, indoor fountains, humidification installations etc. for bacterial growth and legionella

Apurgo M3 is especially suited for schools, universities, hotels, hospitals, homes for elderly people and nursing homes. This gives their students, guests, patients and employees a security for pure and bacteria free water for consumption.

APURGO mainly means pure water, Aqua purgo.

Our solution is developed in close cooperation with NTNU (Norway's leading technological university) and SINTEF (Norway's leading research institute). Apurgos solution is approved by the Norwegian Food Safety Authority, which is approved by the European Union. It is designed for optimum security in risk-exposed buildings where there is a need for guarding against legionella in the internal water supply network.

Apurgo M3 anlegg

Automatisk styresystem

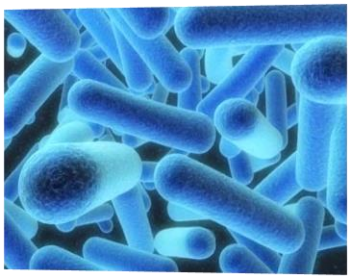
Miljøvennlig og kostnadseffektivt

The Delivery

The system is simple to implement and maintain. You choose yourself if Apurgo or your local Heating, Ventilation and Sanitation-supplier should do the installation. We have good manuals and routines for the installation. Apurgo offers full surveillance, service and maintenance of the plant.

APURGO
Clean Water Preservation

What is Legionella?



- A legionella-infection can cause the **Legionnaires' Disease**; a serious pneumonia with high mortality rate, and **Pontiac-fever,** that usually gives influenza-like symptoms without pneumonia.
- The bacteria grows and reproduces best at temperatures between 20 and 50 °C. The pathogenic abilities of the bacteria increase at temperatures above 35 °C. Experiences show that at temperatures above 60 °C, the bacteria will not establish itself or grow.
- The bacteria grows preferably in biofilm, in company with other organisms that exist in water systems. It is stated in the latest research that Hot Water flushing and Chlorine does not eliminate the bacteria inside an amoeba.
- Is transferred with polluted water, via water vapor/water drops (aerosols) that enter the respiratory passages, usually from showerheads, water taps, air conditions, Jacuzzis, indoor fountains, humidification facilities etc.

For further information, contact your local distributor:
Email:
Phone/Fax:

Alternative areas and assessed effect of treatment solutions

Method	Apurgo	Chlorination	Chlorine Dioxide	Ozone	UV	Heat
Description of method	*Combining the strengths of non-oxidizing biocides (ionization) and oxidants*	*Adding Chlorine to the water*	*Adding Chlorine Dioxide to the water*	*Adding Ozone to the water*	*Subjecting the water to UV radiation*	*Subjecting the water to > 85 degrees Celsius*
Antimicrobial properties in general	Good	Fair	Fair	Good	Good	Excellent
Legionella prevention	Excellent. Will penetrate biofilm. Long lasting residual effect	Low	Low	None.	None.	Only if high temperature (> 70 degrees) is maintained
Legionella Treatment	Good	Good	Good	None	None	Good
Growth prevention (inside tank and pipes)	Good	Low	Fair	None	None	NA.
Residual effect	Excellent (long lasting effect)	Fair	Fair	None	None	None.
Storage tank embedded application strength	Excellent	Fair	Fair	NA.	NA.	NA. Not practical for potable water
Handling hazard	None	High. harmful chemical	High. harmful chemical	None	None	None
Harmful byproducts	None	Moderate	Moderate	Low	None	None
Energy efficiency	High	None	Low	None	None	None
Total cost of ownership	Medium	Medium	Medium	Medium/High	High	High