

# Chemical free water and surface hygiene within the Brew, Beverage and Dairy industries

- Pasteurizers
- Heat exchangers
- Filling rooms
- Transport belts
- Cooling towers
- Floors
- Process water
- Cooling and ice water



# Biofilm prevention in Tunnel Pasteurizers



DCW technology is highly effective at preventing the build up of Bio-films within pasteurizers which can result in expensive production stops or poor pasteurization. The presence of large bacterial colonies can also contaminate the outside of the packaging which could result in illness if the product is drunk from the package. DCW technology will effectively destroy the bio-film forming bacteria without the use of dangerous chemicals. An added benefit is that the filters do not become clogged with the debris caused by the bio-films.

pasteurization the build up of bio-films on the heat exchanger can result in both slower production and increased use of energy. DCW technology can ensure that the heat exchanger remains bio-film free. One millimetre of bio-film can reduce the efficiency of a heat exchanger by up 30%.

Cooling towers can be a source of Legionella and other airborne pathogens. These pathogens require bio-film to complete their life cycle. By ensuring that the cooling tower remains bio-film free you can ensure that your staff and the people living in the vicinity of the installation are fully protected.



## Biofilm removal and prevention on transport belts and floors

Continuous spraying of the transport belts will prevent the build up of bio-films ensuring they do not contaminate the product. It will also ensure that the floors around the belts do not become slippery and potentially dangerous for production staff.

## Process Water

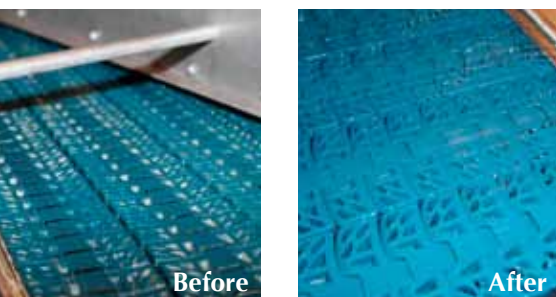
Even though the water supply to a plant may be of potable quality the pipe-work system within the plant may contaminate the water with bacteria and bio-films if it is long and complicated. This is a common problem within older plants where the cold water pipe-work may be located in the roof void or next to hot water pipes without adequate insulation. This allows temperatures to rise to 30 deg C or higher resulting in bio-films forming. The problem is often exacerbated by "dead ends" left over from alterations to the plant over the years. DCW technology can either be used to dose at low levels to ensure these bio-films do not occur or for regular slug dosing to remove them.

The spraying can be on the belt alone or on the belt and product to ensure the surface of the product is hygienic.

## Cooling towers, ice slurry water, chilling water

Where water or ice slurry is used to cool products quickly after

Biofilm



# Filling rooms

DCW technology can be used to disinfect critical surfaces within filling rooms such as starwheels, transport belts and bottlenecks. This will reduce the overall bacterial load within the filling area resulting in less risk of product contamination. Continuous disinfection can result in longer production runs between CIP cycles thus optimizing the production line usage.

DCW technology can replace the use of chlorine dioxide generators resulting in lower running costs and removing the health safety worries associated with chlorine dioxide generators.

DCW technology can be combined with other technologies such as UV light and air filtration to create hygienic fill rooms as shown here at Carlsberg in Sweden.

This installation was carried out by Optihyg our Swedish partners and was to convert a standard fill line to an hygienic fill line to enable a switch from tunnel pasteurization to flash pasteurization for a sensitive juice based product. This resulted in considerable savings and a short payback time on investment.



## About us

Danish Clean Water supplies its technology through a qualified network of installers and integrators to ensure that as an end user you have local support. All disinfectant generators come with our full manufacturers warranty plus the advantage of having a local service partner to facilitate maintenance and support. Generators have been sold into sixteen countries worldwide to such industry majors as Carlsberg, Arla, Callebaut, Heinz etc.

## About our technology

DCW disinfectant generators come in a wide range of capacities to suit most applications. Features include.

- PC bus to enable connection to command and control systems. Self diagnostics to alert operators of unexpected events.
- Trending information.
- Emergency and warning alerts via GPRS or Ethernet.
- Touch screen PLC in local language for ease of operator use.
- "All in one box concept" to ensure ease of

installation and minimum space requirement.

- Designed to run 24/7 with the minimum of human intervention.



**For full specification of our disinfectant generators please ask for our technical brochures.**

*“Our mission is to provide cost effective,  
safe, environmentally responsible  
solutions to bacterial control  
in the food and water industries”*



Danish Clean Water A/S  
c/o Danfoss A/S  
Nordborgvej 81  
6430 Nordborg  
Denmark

Phone +45 70 29 09 00  
Fax +45 70 29 09 01

info@danishcleanwater.dk  
www.danishcleanwater.dk

Your local partner:

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