



FOOD INDUSTRY

Food Production Cooling Tower Case Study **Italy**

HydroFLOW® reduced bacterial counts from 12,000 to 500 CFU/ml while allowing chemical dosing to stop in a food-production cooling tower.

Client details have been anonymised at their request.

12k→500

Bacterial Count (CFU/ml)

~96%

Bacterial Reduction

Zero

Chemical Dosing

1 year

No Repeat Exchanger Clogging



BEFORE & AFTER

BEFORE

- Bacterial count remained around 12,000 CFU/ml
- Chemical water treatment in use
- Ongoing control and maintenance required

AFTER

- ✓ Bacterial count reduced to 500 CFU/ml
- ✓ Chemical dosing stopped
- ✓ Tower circuit remained clear of scaling during trial



OVERVIEW

A multinational food producer used evaporative cooling towers for equipment including compressors and turbines. Despite biocide, antiscalant and anticorrosion dosing, bacterial counts remained around 12,000 CFU/ml. The operator wanted to reduce chemical use, maintenance and bacterial load.



CHALLENGE

Chemical treatment had not reduced the persistent bacterial load.

- Reduce reliance on biocides, antiscalant and corrosion inhibitors
- Reduce monitoring and maintenance requirements



SOLUTION

A HydroFLOW® was installed on the primary circuit of the co-generation cooling tower, with operating parameters monitored throughout the evaluation.

UNIT INSTALLED

1× HydroFLOW® i160

INSTALLATION LOCATION

Primary circuit recirculation pipe



RESULTS



Bacterial Count Reduced ~96%

Reported counts fell from 12,000 to 500 CFU/ml.



Chemical Dosing Stopped

Biocide, antiscalant and anticorrosion dosing was stopped.



Tower Circuit Remained Scale-Free

No scaling was reported during the monitored 180-day trial.



Maintenance & Purge Reduced

The report states that tower maintenance and purge flow were reduced.

KEY TAKEAWAY

Summary

HydroFLOW® reduced reported bacterial counts from 12,000 to 500 CFU/ml while allowing chemical dosing to stop. The tower remained clear of scaling during the initial trial, with reduced maintenance and purge requirements. A later exchanger issue was resolved by adjusting tower drainage.

12k→500

BACTERIAL COUNT CFU/ML

Zero

CHEMICAL DOSING

1 year

NO REPEAT EXCHANGER CLOGGING

HYDROPATH

The Forefront of Sustainable Water Treatment

HydroPath Technology is a world leader in sustainable water treatment solutions, providing chemical-free alternatives for industrial and commercial applications across more than 50 countries.

50+

COUNTRIES

30+

YEARS EXPERIENCE

1M+

UNITS INSTALLED

HYDROPATH 

Looking to improve cooling-tower water management?

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