



HOTEL INDUSTRY

Grand Hotel Terme di Comano Biofilm & Legionella Control Case Study

Trentino, Italy

Hydropath treatment, supported by thermal shock and purging, brought reported Legionella levels below 10 CFU/L, with results remaining within limits for seven months.

<10 CFU/L Legionella in All Samples	✓ Cleaner Hot-Water System	7 months Legionella Within Limits	↓ Biofilm
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BEFORE & AFTER

BEFORE - Legionella repeatedly exceeded limits - Sanitisation gave only temporary control - Biofilm was indicated within pipework	AFTER ✓ All certified samples were below 10 CFU/L ✓ Results remained compliant for seven months ✓ Plumber reported significantly cleaner system
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BEFORE
Jet breaker blocked by biofilm



AFTER
Jet breaker cleared of biofilm

OVERVIEW

Grand Hotel Terme di Comano is a 55-room hotel across four floors in Trentino. Legionella repeatedly returned in its hot-water network after sanitisation, with readings reaching 10^3 – 10^4 CFU/L. Chlorine and high-temperature sanitisation provided only temporary control, while evidence of biofilm within the pipework indicated an ongoing source of contamination.

CHALLENGE

Recurring Legionella made long-term control of the hotel's hot-water system difficult despite repeated sanitisation.

- Legionella periodically reached 10^3 – 10^4 CFU/L
- Sanitisation provided only temporary reduction
- Persistent biofilm remained within the pipework

SOLUTION

HydroFLOW® units treated the hot-water manifolds. Thermal shock and system purging formed part of the programme.

UNITS INSTALLED

1x HydroFLOW® C100 and 2x HydroFLOW® P60

C100 INSTALLATION POINT

Main incoming water supply

P60 INSTALLATION POINTS

Two hot-water delivery manifolds after boilers

EVALUATION PERIOD

6-month evaluation

RESULTS

All Samples Below 10 CFU/L

Certified June testing reported Legionella below 10 CFU/L in every sample.

Seven Months Within Limits

The October update reported compliant levels seven months after the last thermal shock.

Cleaner Hot-Water System

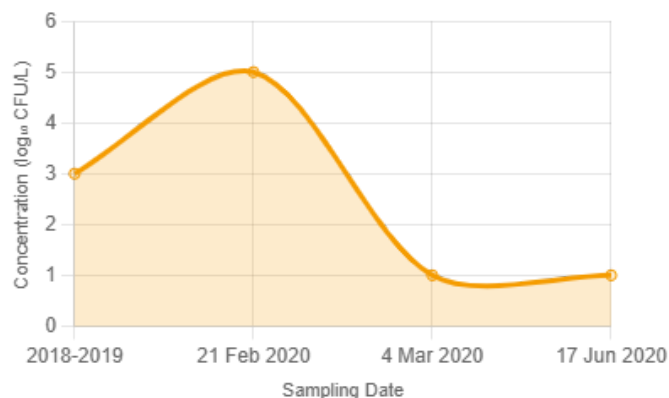
Plumber reported cleaner boilers, pipes, filters and shower heads.

Biofilm Material Removed

Programme released accumulated organic material from pipework, seen in temporary spike

GRAPHS

Legionella Results Across the Treatment Programme



Following HydroFLOW® installation before Feb 2020, levels spiked indicating biofilm removal, following which Legionella fell below 10 CFU/L in all reported samples.

Recurring Legionella had returned after previous sanitisation. Three *HydroFLOW*® units were installed as part of a programme combining Hydropath treatment, thermal shock and purging. Certified testing later found Legionella below 10 CFU/L in every sample, while the plumber reported a significantly cleaner hot-water system. Levels remained within limits seven months later.

<10 CFU/L

LEGIONELLA IN ALL SAMPLES

7 months

LEGIONELLA WITHIN LIMITS



CLEANER HOT-WATER SYSTEM

RELATED CASE STUDY

Hotel Cooling Tower Case Study

Oahu, Hawaii

A hotel on Oahu, Hawaii installed *HydroFLOW*® on its cooling tower system, achieving a 75% reduction in chemical usage and 50% reduction in blow-down water waste. The system delivered \$43,233 in annual savings with a one-year return on investment.

75% Chemical Cut

Significant reduction in chemical dosing for cooling tower treatment

50% Blow-down Cut

Halved water waste through reduced blow-down frequency

\$43K Annual Savings

Total yearly savings from reduced chemicals, water and maintenance