

Air Technologies

Case Study Booklet

Advanced UVC & Ozone Air Purification Solutions for Homes and
Businesses Across New Zealand

Why Indoor Air Quality Matters

1 in 3

NZ DAMP HOMES

Nearly 1 in 3 New Zealanders live in damp homes.

700k

RESPIRATORY ILLNESS

700,000 Kiwis live with respiratory illness.

**70+
Yrs**

UV-C TECHNOLOGY

UV-C technology has been used for over 70 years to combat airborne pathogens.

99.9%

MICROBIAL INACTIVATION

Properly designed UV-C systems can achieve over 99.9% microbial inactivation in HVAC applications.

**39
ACH**

AIR CHANGES EQUIVALENT

UVGI can provide the equivalent of up to 39 additional air changes per hour.

AT10 UVC Air Purification Installation

Project Overview

Air Technologies recently installed an AT10 UVC Air Purification System into a residential heat pump and air conditioning system in Tauranga for homeowner Ken T. Following a bone marrow transplant, Ken was particularly conscious of the quality of the air circulating through his home and the potential health risks associated with airborne bacteria, mould, and other contaminants. The goal was to create a cleaner indoor environment and provide an additional layer of protection for his health.

The Challenge

Like many homeowners, Ken was unaware of what was accumulating inside his heat pump and air conditioning system over time. During an inspection, our team identified significant bacterial and microbial contamination within the indoor unit. While often invisible to homeowners, these contaminants can circulate throughout the home whenever the system operates. For someone with a compromised immune system, maintaining high indoor air quality was especially important.

The Solution

Air Technologies recommended the installation of our AT10 UVC Air Purification System. The AT10 is designed to be installed directly within a heat pump and air conditioning unit, where it continuously treats the internal coil and airflow using germicidal UVC light technology.

The system works to:

- Reduce bacteria, mould, and other microorganisms within the unit
- Help prevent microbial growth on coils and drain trays
- Improve indoor air quality
- Support cleaner system operation
- Provide continuous protection whenever the system is running

TECHNICAL BRIEF

CLIENT

Ken T

LOCATION

Tauranga, New Zealand

PRODUCT INSTALLED

AT10 UVC System

INSTALLATION TYPE

Residential Retrofit

Results & Testimonial

Improved Indoor Air Quality

The UVC system actively helps reduce airborne biological contaminants that may otherwise circulate throughout the home.

Cleaner Heat Pump & AC System

The AT10 helps keep the internal components cleaner, reducing the conditions that allow bacteria and mould to thrive.

Ongoing Health Support

For homeowners concerned about respiratory health and indoor air quality, the system provides continuous protection.



"Levi showed us the bacteria in our old unit – it was disgusting. He recommended installing the UVC lamp which gets rid of the bacteria. Since my bone marrow transplant my immune system has not been as good. I have not been sick at any stage since the UVC lamp installation. This has been very successful for my situation."

— KEN T, TAURANGA, NEW ZEALAND

Client Outcome: The AT10 installation provided Ken with a cleaner indoor environment and greater confidence in the air circulating throughout his home. While every situation is unique, this project demonstrates how UVC technology can be an effective addition to heat pump and air conditioning systems, particularly for homeowners focused on maintaining the highest possible indoor air quality.

WHY AIR TECHNOLOGIES

- Continuous air treatment
- Reduced microbial contamination
- Cleaner systems
- Professional support
- Proven UVC technology

From Council Warning to Clean Air: How Air Technologies Helped a Christchurch Restaurant Solve Persistent Kitchen Odour Issues

PROJECT OVERVIEW

A Christchurch restaurant was experiencing significant issues with cooking odours being discharged from its commercial kitchen extraction system. The odours had become a concern for neighbouring businesses and residents, resulting in attention from the local council and a warning that corrective action would be required.

The restaurant engaged Beattie Air to help identify an effective solution. Beattie Air subsequently partnered with Air Technologies to implement our AT 500-1 Ozone Kitchen Kit within the kitchen extraction system.

The objective was to dramatically reduce odours being emitted from the exhaust system while also helping minimise grease accumulation within the extraction hood and ducting. Following installation, odour emissions were significantly reduced, helping the restaurant address council concerns and improve its relationship with neighbouring businesses.

As an added benefit, the ozone system assists in breaking down grease and organic contaminants within the extraction system, reducing fire risk, lowering maintenance requirements, and helping to minimise costly duct and hood cleaning.

The result was a satisfied restaurant owner, happy neighbouring businesses, a positive outcome for council compliance, and another successful project delivered in partnership with Beattie Air.

PROJECT SPECIFICATIONS

Client	Beattie Air
Location	Christchurch
Product	Ozone Kitchen Kit AT-500-1
Application	Commercial Kitchen
Year	2025

THE CHALLENGE

Commercial kitchens generate a constant stream of cooking odours, airborne bacteria and organic contaminants, placing ongoing pressure on kitchen ventilation and extraction systems. Key challenges included:

- Increased cleaning and maintenance requirements
- Reduced indoor air quality for staff

Beattie Air was looking for a reliable solution that could enhance air quality while supporting the overall cleanliness and efficiency of the kitchen environment.

THE SOLUTION

Air Technologies recommended and installed an Ozone Kitchen Kit AT-500-1, specifically designed for commercial kitchen applications. The system introduces controlled ozone treatment into the extraction airflow, helping to:

- Neutralise cooking odours at their source
- Reduce airborne bacteria and microorganisms
- Assist in breaking down grease and organic contaminants
- Improve overall kitchen air quality

The installation was completed efficiently with minimal disruption to kitchen operations by working after-hours.

Results & Testimonial

Client: Beattie Air, Christchurch, 2025

THE RESULTS

Improved Odour Control

The Ozone Kitchen Kit significantly reduced cooking odours, creating a fresher environment for both staff and customers.

Cleaner Extraction Systems

By helping break down grease and organic contaminants, the system supports cleaner extraction ducting and extraction equipment, reducing maintenance demands and labour.

Enhanced Hygiene Support

The ozone treatment assists in reducing airborne microorganisms within the extraction stream, contributing to a cleaner kitchen environment.

Low-Maintenance Operation

The system provides continuous treatment, with minimal ongoing maintenance requirements, making it an effective long-term solution for commercial kitchens.



"Air Technologies supported us on a restaurant HVAC system upgrade project in Christchurch. The job required careful coordination around existing system restrictions, with after-hours work needed to avoid disruption to the kitchen operations. Jono and Levi were great to deal with throughout the project. They were responsive and supportive during the work, and continued to assist us after the job was completed to ensure the installed UV system was operating properly. Air Technologies were a pleasure to work with, and we look forward to the opportunity to work with them again."

— MAX S, BEATTIE AIR,
CHRISTCHURCH

CLIENT OUTCOME

The successful installation of the Ozone Kitchen Kit 500-1 has provided Beattie Air Christchurch with an effective odour and hygiene management solution that supports cleaner kitchen operations and improved air quality. This project demonstrates how Air Technologies' ozone solutions can help commercial kitchens create healthier, cleaner, and more efficient working environments.

Proven Performance: AT75W UV Lamp Verified

TESTED PRODUCT

AT75W UV lamp for Air Conditioning

TESTING AUTHORITY

Intertek — a world-leading, nationally accredited microbiology testing laboratory

TESTING ACTIVITY

AT75W UV lamp for Air Conditioning

TESTING REQUIRED

Technical Standard for Disinfection 2022

TEST ORGANISM

Staphylococcus aureus

>99%

REDUCTION IN TESTED BACTERIA

Verification Evidence

The AT75W UV lamp was independently tested by Intertek Parker Testing Services, one of the world's leading quality and safety solution providers. The testing was conducted in controlled laboratory conditions against the Technical Standard for Disinfection 2022.

Conclusion

The Intract AT75W UV lamp demonstrated exceptional and consistently high performance, independently verified by Intertek. The results confirm the lamp's ability to achieve significant bacterial reduction, validating the technology's effectiveness in real-world air conditioning applications.

Proven Performance: 99.4% Bacterial Kill Rate

Tested Product:	AT75W UV lamp for Air Conditioning
Testing Authority:	Intertek
Test Organism:	Staphylococcus aureus (tested at 280–285 nm flow rate)

99.4%

KEY RESULT: BACTERIAL KILL RATE

Result Breakdown

The laboratory results confirm a 99.4% kill rate against *Staphylococcus aureus* under standardised testing conditions. Samples were collected at timed intervals before and after UV exposure, confirming the lamp's consistent and reliable germicidal performance.

Conclusion

The AT75W UV lamp achieved a 99.4% bacterial kill rate in independently verified laboratory testing. These results provide confidence in the effectiveness of Air Technologies' UVC technology for reducing harmful microorganisms in air conditioning and heat pump systems.

About Air Technologies

Air Technologies provides advanced air purification solutions throughout New Zealand, specialising in UVC and ozone technologies for commercial, industrial, and residential applications. Our systems are designed to improve indoor air quality, reduce airborne contaminants, and create healthier environments for people to live and work in.

www.airtechnologies.nz

