Case Study

Customer: Carnival Cruise Liners

Industry: Hospitality

Product: IPC Coilcare

During the height of the Norovirus and COVID-19 pandemics, global cruise operator Carnival Cruise Line sought an effective solution to combat the transmission of viruses and bacteria onboard their ships. Protecting the health of passengers and crew was critical, especially in the close quarters of cruise environments where recirculated air posed a heightened risk.

Addressing the Problem

Traditional cleaning and disinfection methods struggled to address airborne pathogens effectively, particularly those spread through HVAC systems. Carnival Cruise Line required a solution that not only improved infection control but also enhanced the performance of their HVAC systems, which are vital for maintaining onboard comfort.

Finding the Solution

Carnival Cruise Line implemented Biozone Scientific's IPC COILCARE®. Renowned for its strong cleaning and disinfection capabilities, this solution offered a dual benefit: neutralising airborne viruses and bacteria while simultaneously cleaning cooling coils, reducing the need for extensive HVAC maintenance.

Results and Analysis

The IPC COILCARE® system proved highly effective in reducing the transmission of viruses and bacteria via recirculated HVAC air. Additionally, it improved Delta T, enhancing the performance and energy efficiency of the HVAC system. Carnival Cruise Line was so impressed with the results that they rolled out the solution across their most popular cruise liners.

Conclusion

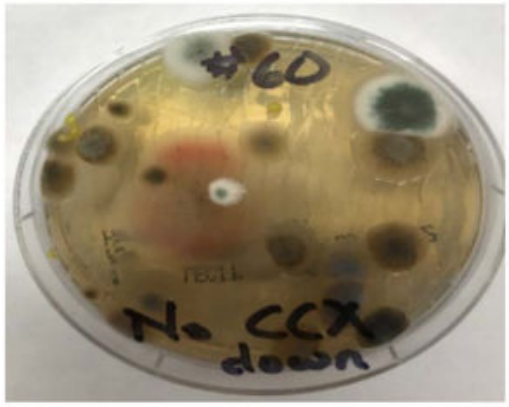
By adopting IPC COILCARE®, Carnival Cruise Line significantly improved onboard infection control and HVAC efficiency during a critical time for the cruise industry. This proactive approach underscored their commitment to passenger and crew safety while ensuring operational excellence.

Test Results

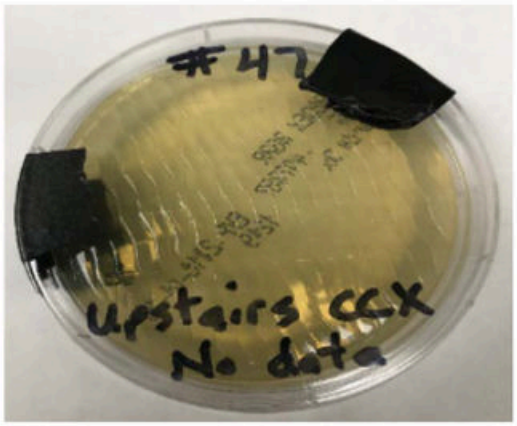
Microbe Survival Times @ 99% Disinfection Rate			
Microbe	**Type**	**K value (m2/J)**	**Max Survival (mins)**
E-Coli	Bacterium	0.15611423	0.14
Haemophilus Influenzae	Bacterium	0.5999	0.36
Listeria monocytogenes	Bacterium	0.2303	0.09
Coronavirus	Virus	0.01	2.16
Norovirus	Virus	0.030	0.71
Smallpox	Virus	0.1202	0.18

Unit 47 (With Coilcare)
Bacteria: Day 56

Unit 60 (Without Coilcare)
Bacteria: Day 56



Unit 47 (With Coilcare)
Bacteria: Day 91



Unit 60 (Without Coilcare)
Bacteria: Day 91