

Clean Rooms

Whether used in Healthcare, scientific research or manufacturing settings, the controlled environment of a clean room is essential in excluding airborne contamination to maintain the integrity of activities performed within them.

Along with specialised air filtration systems, clean rooms demand strict temperature and humidity control and often contain specialist equipment that also require consideration. Maintenance of the HVAC and air filtration systems serving clean rooms is critical in their performance

Features of our Clean Room offering:



Air filtration and system hygiene



Compliance with regulatory standards and codes



Close control of system operations



Cost reductions through improved efficiency and minimisation of interruptions



Workplace safety, for Airmaster staff, customer's representatives, general public and site visitors



Providing an optimised, comfortable environment

Recognising the complex and critical clean room environment, Airmaster offers the technical capability to deliver planned service and maintenance programs, as well as testing and validations services, designed around the pillars of compliance, hygiene, system performance, safety and reliability.

Integration at every level

	HVAC	FIRE	BMS	ELECTRICAL
Core Services				
Maintenance	✓	✓	✓	✓
Service and Repairs	✓	✓	✓	✓
Projects, Retrofits and Installations	✓	✓	✓	✓
Advisory Services				
Energy	✓		✓	✓
Design	✓	✓	✓	✓
Commissioning	✓	✓	✓	✓

From the Service and Maintenance of mechanical and building services including HVAC, to the delivery of Fire and Essential Services, and the implementation of Smart Building Automation, our solutions are designed to reflect your specific needs.

Whether your aspirations are to optimise system performance, reduce energy consumption or meet regulatory compliance requirements, Airmaster Advisory brings together the full suite of the company's expertise and knowledge to support the whole-of-life management of our customers' properties.

Restarting and operating facilities in a COVID-19 world

With facilities having an eye to a future operating within a COVID-19 environment, it is clear that there are new operational challenges to face. Airmaster is ensuring that we work closely with our customers to develop a strong, measured, and tactical COVID-19 risk mitigation plan that combines the latest technologies with new maintenance practices.

Acknowledging the challenges faced in this new environment, Airmaster offers a suite of technologies and enhancements to traditional services that ensures risks are mitigated and efficiency is maintained.

IAQ Monitoring and Occupant Information

Existing BMS infrastructure can provide the ability to measure and verify indoor air quality parameters by adding sensors where there are gaps in the required data.

The information and intelligence gained from these sensors can then be utilised to change control parameters in the HVAC system and to provide instant feedback and information by way of easily accessible dashboards for employees, occupants and visitors.

Ventilation and Filtration

Considered vital in providing healthy spaces within facilities, ventilation strategies, such as demand control ventilation (DCV) can ensure humidity is kept in the ideal range of 40-60%. Through multi-faceted sensor technologies and existing BMS control algorithms, DCV strategies are further enhanced by actively monitoring key contaminants that vary the amount of ventilation air in order to meet pre-determined optimal dilution levels, ensuring occupant safety and comfort.

Advanced People Counting Intelligence

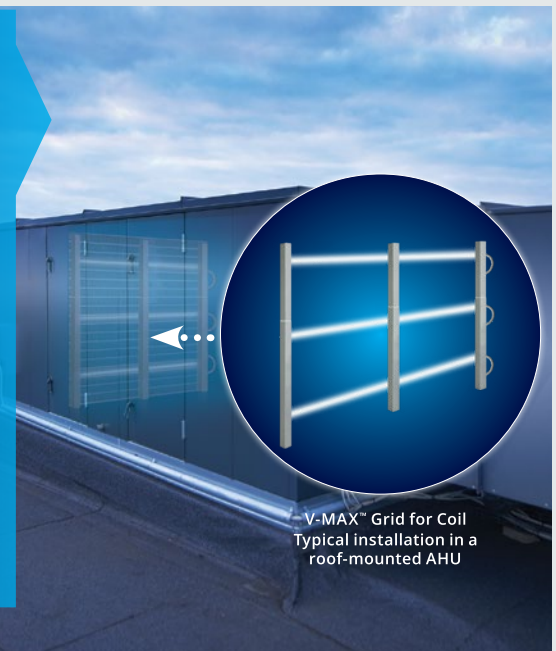
By combining anonymous imaging with the latest sensor and data analytics capabilities, people counting and situational awareness intelligence allows facilities to accurately calculate people density in order to pre-empt overcrowding or bottlenecks. By connecting to building automation systems, access control, signage systems and lift management systems, this technology can provide orderly queuing, entry and exit of both virtual and physical infrastructure.

Air Scrubber Technologies

The latest generation of air scrubber technologies use phase change or absorbent materials that automatically regenerate when saturated. These systems clean and recycle internal air and remove pollutants without the energy impact, since ventilation air is reduced to the minimum design rate. The key to these new generation of air scrubber technologies is the advancement in absorbent materials that are highly effective but also able to regenerate using low temperature heat.

UV Lighting Disinfection Systems

The deployment and treatments delivered by UV-C technology eliminates HVAC systems as a potential source of coronavirus infection. With a 98%+ kill rate of coronavirus, the added benefit in a well designed UV-C application is the continuous cleaning of cooling and heating coils, with a resultant decrease in pressure drop and a subsequent reduction in fan energy consumption.





Managing Risk and Reliability to Critical Assets

In such a critical environment, the effective maintenance and operation of assets such as HVAC and refrigeration systems has a direct impact on the ongoing health and wellbeing of occupants.

Along with specialised air filtration systems, Airmaster understands that clean room facilities demand strict temperature and humidity control and often contain specialist equipment that also requires consideration.

Improve the life expectancy of your clean room assets

eValue is a fully-hosted solution in asset identification, life cycle and capital expenditure planning. By providing and assessing a detailed analysis of facility assets, eValue develops a thorough service, maintenance and capital replacement plan.



Turn your plant room into a value-generating asset

In clean room facilities, HVAC is an energy intensive system, accounting for a significant amount of the total energy consumption. Every efficiency improvement in HVAC performance can significantly reduce the energy profile of the facility, turning HVAC optimisation into a value generating opportunity.

Energy saving opportunities are often missed in this complex technical arena. Created with an in-depth understanding of all thermodynamic variables involved in managing plant room HVAC equipment, PlantPRO enables optimum control of every device and its integration into a single synergistic system.



Use the power of data to improve the way your facility operates

Powered by data and analytics, Intelligent Maintenance collects data from a building, where it is analysed, prioritised and actioned. Data provides a continuous stream of actionable intelligence streamlining maintenance and reactive service calls.

By analysing the large amounts of data generated by the building, the platform continually identifies faults and inefficiencies in the operation and condition of the building's operation. Once a fault has been determined, the Intelligent Maintenance platform then directs technicians via smartphone notifications to diagnose and manage repairs proactively, before the issue becomes a critical issue or tenant complaint.



About Airmaster

Airmaster is an award-winning building services company, providing HVAC&R management, smart building solutions and fire services across Australia, New Zealand and South-East Asia. Founded in Melbourne in 1988 and with 13 branches across Australia and New Zealand, Airmaster's holistic approach to building management makes for a comprehensive range of service offerings.



1300 247 627 | airmaster.com.au/cleanrooms

