



HVAC SPECIALISTS

DESIGN * INSTALL * SERVICE * MAINTAIN

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Company Profile

Established in 1996, we are a second generation, family owned and operated, Queensland HVAC company.

We design and maintain air conditioning, mechanical ventilation and associated systems to sustain specified temperature, humidity and air quality requirements of each application. Our ethos is to design and service these systems in a manner which protects the environment, maximises system longevity and conserves valuable resources.

We effectively support other industries by providing *cost effective HVAC solutions* without compromising system performance, regulatory requirements, workmanship or safety.

While we service a variety of industries through the construction process and beyond, our core business has been built on meeting the more complex technical needs of the pharmaceutical, food processing and aged care industries. We are proud of the enduring relationship we have enjoyed with many clients in these industries. The knowledge and experience gained through these relationships has proven invaluable when designing HVAC solutions for any application.

We have delivered quality systems, backed up by effective preventative maintenance and efficient breakdown service for more than 20 years in the Brisbane region. This is testament to our integrity and expertise.

Work Area:

South-east Queensland

Industries served:

- √ Manufacturing
- ✓ Health and aged care
- ✓ Commercial, residential accommodation
- ✓ Building Management
- Education, Arts and recreation
- ✓ Building & Construction

Products and Services

We offer a complete HVAC service for commercial, industrial and residential facilities. This includes the design, supply, installation, service and maintenance of all HVAC and associated systems, including:

- ✓ Clean air systems
- ✓ Dehumidifiers and humidifiers
- ✓ Medical gas and compressed air
- ✓ Air and water cooled chillers
- ✓ DX systems
- ✓ Electrical switchboards
- ✓ MSSB Thermography testing
- ✓ Building management systems
- ✓ Air purification and pressurization
- ✓ Building fire & smoke control commissioning & testing
- ✓ VRV and VRF heat recovery systems
- ✓ Rooftop package units
- ✓ Split and ducted air conditioning
- ✓ Ventilation Systems, CO₂ monitoring and compliance reporting
- ✓ Cold rooms and freezers.



Design, Install & Commission

With QBCC Unlimited HVAC Design, Plumbers' and Electrical Contractors' Licences, our in-house design team engineers HVAC solutions of unrestricted size and capacity to our clients' unique specifications and requirements, including electrical engineering and building management systems. We provide value-for-money alternatives based on proven experience, expert product knowledge, whole-of-life considerations and cost / benefit modelling.

Our practical industry experience is demonstrated through the systems we have designed and installed which remain effective, efficient and dependable some 20 years later.

We directly employ experienced teams of qualified, licensed professionals including engineers, refrigeration technicians, electricians, mechanical plumbers and duct installers to maintain consistent high quality workmanship on every installation job, big or small.

Each installation is tested and commissioned by our fully-qualified staff and backed by our policy of providing 12 months' installation warranty on all new installations in addition to the manufacturer's warranty.

Integrate

We have integrated new and upgraded equipment to existing systems seamlessly through experienced planning and design processes, minimising any disruption to the system and the buildings' occupants .

Retrofit & Improve Energy Efficiency

Energy efficiency is factored into all our designs. We have extensive experience in successfully retrofitting systems in a variety of applications to maximise energy efficiency and system performance. We test and identify energy waste in accordance with AS3598 2014 and recommend solutions to improve energy efficiency.

For example, we designed and installed three (3) DX Split Ducted systems for a critical temperature server room with emergency extraction and intricate controls to ensure fail safe operation without disruption to the client's operations. Further examples of our work experience in this area are provided on pages 10-14 of this document.

Service and Preventative Maintenance

We currently service and maintain over 50 sites across the Brisbane region. These sites incorporate a variety of mechanical services and refrigeration equipment including central plant systems, direct refrigeration air conditioning systems, commercial refrigeration plant and self contained unitary air conditioning systems. Our sites include GreenStar and NABERS rating installations, specialised manufacturing such as pharmaceuticals and food, aged care facilities including residential accommodation, commercial and general industrial facilities, some of which operate 24 hours per day, 365 days per year.

We employ a dedicated team of qualified, experienced technicians, including dual trade refrigeration technicians/electricians and apprentices in a fleet of fully equipped service vehicles.

We promote life-long learning and invest in the continued training and professional development of our staff. This, together with our integrated systems ensures all employees' qualifications, licences and knowledge are kept up-to-date.

Control and Communication

Our computerised job management and safety management systems guarantee efficient installations, effective routine maintenance attendance and timely response to service calls.

Our bespoke software is an asset management tool for our clients keeping a comprehensive historical record of all installations and works performed on each piece of plant and equipment. In addition, our service reports provide complete details of the work performed at each service that is fully costed and include recommended remedial works where applicable.

All reports and system history may be viewed in real time through an established client portal to our system.

Service and Preventative Maintenance

Value Add

Our effective preventative maintenance program for HVAC systems increases equipment longevity, improves efficiency and reliability while reducing energy and water consumption.

Each of our best practice maintenance programs is tailored to individual client needs while ensuring compliance with the applicable legislation and Australian Standards. We also perform additional associated services as required, such as:

- ✓ Duct cleaning
- ✓ Cooling tower water testing and remediation
- ✓ Carpark ventilation maintenance, testing & compliance

After-hours breakdowns are quickly responded to by our on-call team.

Carpark carbon monoxide (CO) sensor calibration is a vital maintenance and in accordance 2012.

The following is a snap shot of maintenance clientele. In addition, we have completed major design and installation works for all of these clients.

- ✓ Sanofi-Aventis Healthcare Virginia site since 1996
- ✓ Wesley Mission Queensland since 2000
- ✓ Lite n' Easy since 2016

Health, Safety, Environment and Quality

We have a 'zero harm' at work policy. We ensure our workers identify hazards and implement effective preventative risk controls and mitigation strategies through ongoing training, integrated systems and communication.

Our Integrated Management System has been prepared and is maintained in accordance with the the following standards:

- ✓ AS/NZS 4801:2001 Occupational Health and Safety Management Systems Specification with guidance for use
- ✓ AS/NZS ISO 14001:2016 Environmental Management Systems – Requirements with guidance for use
- ✓ AS/NZS ISO 9001:2016 Quality Management Systems – Requirements

Implementation and control

Our electronic safety & HR system is cost-effective and efficient. It controls and records all pre-start checks, risk assessments, electrical testing and incidents. It minimises wasted time while ensuring all safety protocols are followed to alleviate risks. It provides easy access to all company safety documents and maintains regulatory compliance.

It is a 'live' system providing valuable communication between our office, field staff and clients.

Lone workers

We have implemented control measures to eliminate and / or reduce the risk posed to staff working in isolation in a high risk environment.

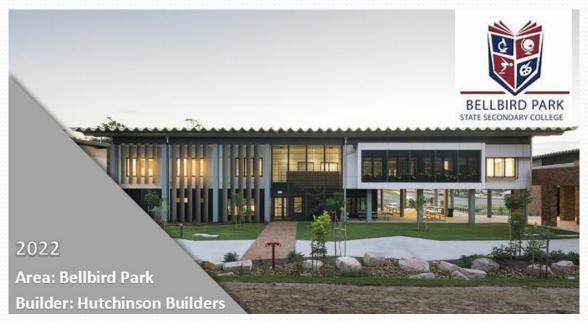
Our staff wear devices which are continuously monitored to safeguard their wellbeing and provide a personal emergency response tool.

Qualifications

Our staff are appropriately trained and hold current licences and certificates to perform all designated tasks. Our systems monitor the expiration dates of all staff qualifications to confirm currency is continuously maintained.

Because of the nature of some sites, we also warrant our staff hold Queensland Police security clearances.





Bellbird Secondary State College

Client: Hutchinson Builders

Completed: 2022

Contract Value: \$512K

Made up of three separate buildings. B-Block Building – Hospitality GLA, Storeroom, Prep room, Kitchen and hospitality room, amenities, communications room A-Block Building – Woodwork and technical Storeroom, PWD toilets, Outdoor Space with welding bays and machinery Workshop GLA, Communications room1-C Building – General Learning Areas Multiple GLA, Prep rooms, Staff rooms, PWD amenities, Plant rooms, communications rooms, HOD spaces



Indooroopilly Shopping Centre

Client: ATG

Completed: 2021

Contract Value: \$833K

The Mini Major 2 Tenancy (MM2) base build has been constructed as part of the Indooroopilly Shopping Centre Mini Major Project which sees the provision of 3 new Mini Major TenanciesMM1, MM2 and MM3, as well as a Level 5 and 6 service center and modification works to the



Ulton Office Fit Out

Client: Archway

Completed: 2021

Contract Value: \$69K

The Ulton fit out is served by Daikin ducted VRV Heat Recovery systems enabling any unit the ability to heat or cool at any stage of operation. Temperature are referenced by proprietary remote temperature sensors. Outside air are introduced to the tenancy through the use of Co2 sensors and motorized dampers.



Eminence

Client: McNab Completed: 2020

Contract Value: \$1.3 Mil

Designed and construct. The base building A/C system is comprised 13 roof plant mounted condensers across 6 multi module air cooled VRV heat recovery systems serving 61 fan coil units on each level. Simultaneous heating and cooling is achieved. Car park ventilation, fire pump room, kitchen exhaust and control system.



Gold Coast Airport Hotel

Client: Condev Construction

Completed: 2020

Contract Value: \$2.2 Mil

Designed, constructed carpark ventilation, VRV systems and cooling tower.9 story building Basement carpark with CO control. Restaurant, commercial kitchen, function room, office area, meeting rooms.192 Guest rooms + Bar, function room and gym. VRV heat recovery systems.



Archer Street Apartments

Client: McNab Completed: 2020

Contract Value: \$2.2 Mil

Designed and construct. 15 Story apartment building. 219 Rooms. Basement carpark ventilation, fire pump room ventilation, laundry ventilation, GF amenities, pool equipment exhaust, stair pressurization system, roof plant, A/C system within apartments, BMS, chillers and multiple air handling units.



31 Broad Beach Apartments

Client: McNab Completed: 2020

Contract Value: \$897K

Designed, constructed carpark ventilation, MSSB, stairwell pressurization, water cooled tower, heat pump, dosing pot, DDC control, DDC pressure and CO2 sensors20 story apartment building. Each of these residential apartments is served by a dedicated water cooled VRF system consisting of 1 condensing unit and multiple FCU's.4 levels of basement 20 levels of residential apartments and a GF lobby A rooftop plant area Carpark CO control

Lotus Tower, Kangaroo Point

Client: McNab

Completed: December 2019 Our Contract Value: \$2.75m



THE PROJECT: The 24 storey Lotus Tower complex consists of four levels of basement and 19 levels of apartments, with level 20 the penthouse floor. There are an additional 12 townhouses detached from the main tower. Common areas within the precinct include a gym, golf simulator, reception and private dining area. Applied Air Services designed and installed a system to meet the individual heating, cooling and air flow requirements of all residential and commercial tenancies, as well as the building's shared amenities.

CHALLENGES: Managing power allocation for each tenancy was one of the requirements of the HVAC system. The VRF solution Applied Air Services installed enabled this to be implemented due to its power apportioning feature. All the Lotus Tower indoor units are powered from a local distribution point from the apartment, and the building has watt hour meters, monitoring the power used for all the outdoor units. Software converts power meter usage into a percentage for each tenant.

OUTCOME: The Lotus Tower project required the installation of 54 outdoor units and 533 indoor units. During installation not one unit faulted, errored or had a gas leak which is a testament to the quality of the product and the installation quality. With power apportioning managing the systems energy usage, the building management can extract reports regarding the allocation of energy usage to understand where there is wastage, and where savings can be made.

A ducted air conditioning system was installed in each townhouse, providing zone control and individual system management. A VRF heat recovery system was installed in the main tower. Applied Air used bulkhead fan coil units connected to multiple RB units located in the corridor. The bulkhead fan coil units were chosen for the compact size and internal drain pumps. The basement received CO (carbon monoxide) controlled ventilation which allows system sensors to level the CO produced by vehicles in the basement and operates ventilation fans to reduce the amount of CO, a new standard practice in the industry.

PRODUCTS USED: VRF heat recovery; VRF heat pump; ducted systems; wall hung split systems including 519 VRF indoor units, 12 ducted units, 2 wall hung split systems, 40 outdoor units, central controller with power apportionment, separation tubes (44 x 4 port RB units, 23 x single port RB units, 391 separation tubes). Total system capacity 1271.9kW of condenser cooling.

(reference: fujitsugeneral.com.au/commercial-range/case-studies)



Completed Projects - Design & Installation (contd).



Scape Student Living Vulture St, South Brisbane

Client: Hindmarsh Construction

Completed: 2018

Our contract value: \$4.5M

Designed and constructed all mechanical services, including a Daikin VRV air cooled system, to two towers of student accommodation, each 14 stories, 787 rooms, office space, gym, retail and carpark.



Westside Apartments Indooroopilly

Client: McNab Developments

Completed: 2018

Our contract value: \$1.1M

Designed and constructed all mechanical services, including Daikin split ducted units with zone controls, to 10 stories of residential accommodation, 119 rooms and three levels of carpark.



Sanofi Healthcare, Virginia

Client: GVG Design Construct

Completed: 2018

Our contract value: \$1.2M

Designed and constructed all mechanical services TGA requirements in a new building attached to an existing manufacturing plant including the supply and installation of air handling units, chillers, dehumidifier, extraction system, chilled water system, steam and condensate lines, compressed air lines and mechanical services switchboards.

Completed Projects - Design & Installation (contd.)



Aveo, Clayfield buildings 5 & 6

Client: J Hutchinson Builders

Completed: 2016

Our contract value: \$755k Building type: retirement village

Designed and constructed all mechanical services, including Fujitsu split-ducted systems with zone controls, to twin, six story buildings and car park.



Swiss Bell Hotel, Brisbane

Client: Constructions Group

Completed: 2017

Our contract value: \$2.2M

Designed and constructed all mechanical services, including Daikin VRV heat recovery /pump system, to a 14 storey building consisting of three levels of basement, seven floors of 4.5 star hotel, four floors of apartments and three floors of luxury penthouses.



The Pad, Regent St Woolloongabba

Client: McNab NQ Completed: 2016

Our contract value: \$1.3M

Designed and constructed all mechanical services, including Daikin VRV water cooled system to a 11 storey student accommodation building consisting of 286 rooms, reception, gym and carpark.

Completed projects - Retrofit and Integration

QIMR Berghofer Medical Research Institute

2018 - Manufacturing

Problem: Clients required terminal Hepa filtration to all research laboratories which had to be completed in a tight timeframe and within the confines of the existing building creating a difficult job.

Resolution: We successfully designed, installed and commissioned three bespoke terminal Hepa modules with NATA certification within two weeks.

Steggall Nutrition – Production Room Humidity Control

2018 - Manufacturing

Problem: Loss of powdered products because products continuously tacky.

Resolution: We designed and installed a custom-made air handling unit with bypass, DX coil, EC plug fans and F7 filtration together with an electric Munters desiccant dehumidifier, fully controlled by an Innotech DDC with designated web server. This achieved 22°C @ 45%RH

Clean room side of hepa module (shown without cover)



Plantroom side of hepa module



Completed projects - Retrofit and Integration

Wesley Mission Queensland – Anam Cara

2017 - Aged Care

Problem: Intermittent system failure in a sensitive environment.

Resolution: Identified and advised client chiller showing signs of age; scheduled and planned replacement to ensure comfort of residents maintained at all times; dismantled existing plantroom roof and structure, craned redundant chiller from roof; replaced with a new, high efficiency Carrier chiller; re-installed structure and roof; commissioned system - all completed within 5 days.

Healthworld BMS Upgrade

2015 - Manufacturing

Problem: Existing controls failing, performing poorly

Resolution: Identified complete BMS change required; removed KMC brand controls and installed Innotech controls while the entire plant continued to operate; designed and built a complete new MSSB; patched over each piece of equipment one at a time and commissioned while the installation took place.

YouFoodz - Tray washer ventilation

2018 - Manufacturing

Problem: Tray washer steam heating wash room to high temperatures creating unworkable conditions for staff; client had previously engaged two other contractors who had both failed to deliver a solution

Resolution: We redesigned the system to make use of existing fans; retrofitted the tray washer with extraction points for ductwork and fans to connect to, which extracted the steam before entering the workspace.



Anam Cara new Chiller in



Healthword BMS upgrade



Completed projects - Retrofit and Integration

Chilled Water Upgrade

2013 - Manufacturing

Problem: Improve plant efficiency and temperature stability

Resolution: Designed and installed a 30,000 litre buffer tank to convert a primary chilled water system into a primary/secondary system while keeping the plant fully operational.



30,000L tank installation



Licences and contact details

QBCC Trade Contractor: Refrigeration, Air conditioning and Mechanical Services -

including Unlimited Design; Mechanical Services - Plumbing

Licence No: 1279292

Master Electricians Aust, Electrical Contractor's Licence No: 83824

Building and Asset Service Contractor Licence No: 869143

Australian Refrigeration Council,

Refrigerant Trading Authorisation: AU35459

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