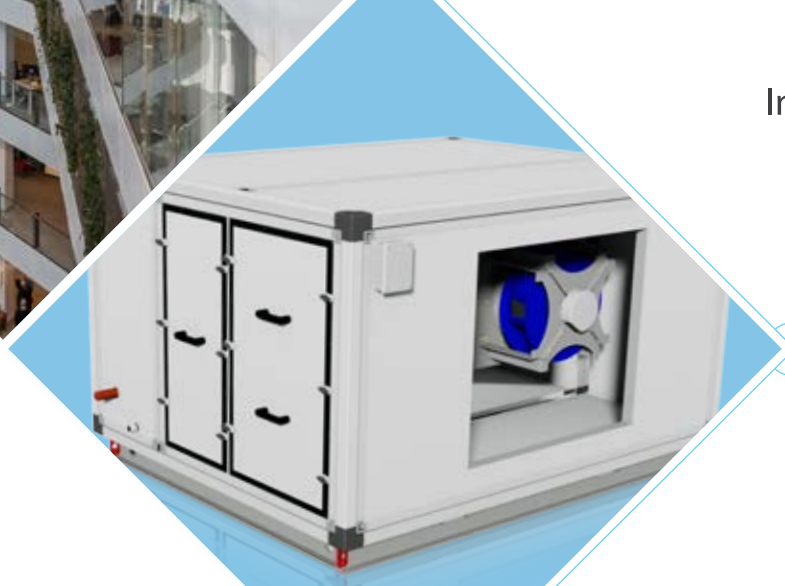
AirDesign®
Indoor Air Quality Solutions

Efficient Indoor Air Quality Solutions



FANTECH
Intelligent Ventilation

Version 1.0

Trusted brand

Committed Fantech team

The Air Design brand originated in Queensland in 1980 when mechanical engineer Derick Gattegno began sourcing commercial ventilation products from interstate suppliers and local custom-design manufacturers.

Right from the start the business built its reputation on supplying the highest quality products and employing a skilled team that focused on delivering exceptional customer service and technical support.

In late 1995 Air Design began developing an industry-leading range of Air Handling Units to complement the quality range of Fantech fans and Q-Tech silencers. Three years later they launched the Australian designed and manufactured MODUtherm range of Central Plant Air Handling Units in Sydney. A growing understanding of customer needs followed which resulted in further product development and the addition of the MINItherm range of Compact Air Handling Units and the SM Series Fan Coil Units.

AirDesign®
Indoor Air Quality Solutions

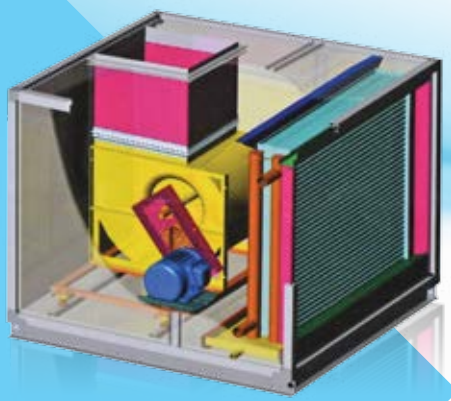
This new catalogue is a comprehensive resource that showcases the extensive Air Design range of Air Handling products. It includes MODUtherm Air Handling Units, MINItherm Compact Air Handling Units, as well as the SLIMtherm and SM Series Fan Coil Units.

There is also information on the Fantech AirLink integrated VAV system. It combines Air Design Air Handling/Fan Coil Units, Fantech axial fans with Vacon VSDs and Rickard VAV diffusers.

Dedicated customer focus

The Air Design range has built a strong reputation based on quality products and a highly trained team that is committed to delivering air management solutions. Experienced staff have in-depth knowledge of the product range, their performance capabilities in different environments and suitability in various applications. More importantly, staff are trained to provide this detailed information to customers in a way that is easy to understand so accurate product selections can be made.

Our technical staff are committed to understanding the specifications and requirements of each project and providing the most effective, most suitable high quality solution.



Early Solid Works 3D model of the first MODUtherm unit launched in 1998

FANTECH
Intelligent Ventilation

Contents

VCCC - Image by Pete Glenane courtesy of Plenary Group

World-class facilities

Air Design products utilise modern technologies that optimise performance and efficiency. This has led to the design and development of some of the most reliable, energy efficient and cost effective air movement solutions on the market.

To ensure the highest standard of air handling and fan coil units is maintained, the Fantech team diligently manage the design, fabrication, prototyping and product testing. These strict quality controls and focus on engineering excellence ensure dependable products with reliable performance are delivered every time. Each product range has been tested for air tightness and casing thermal resistances (as defined in BS EN 1886:2007) in our fully calibrated in-house test rigs.

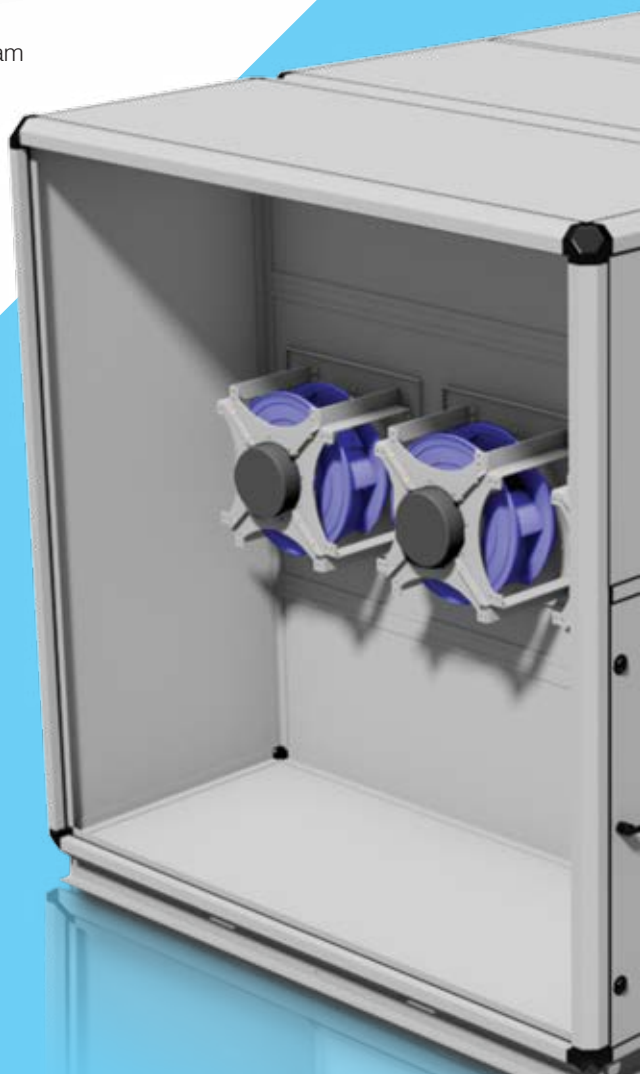
The Air Design product range utilise technologies such as three-dimensional CAD modelling of physical product. This capability enables the team to assess the air flow performance, noise levels and ease of installation of a new product, and refine it, before significant investments are made in production and market launch.

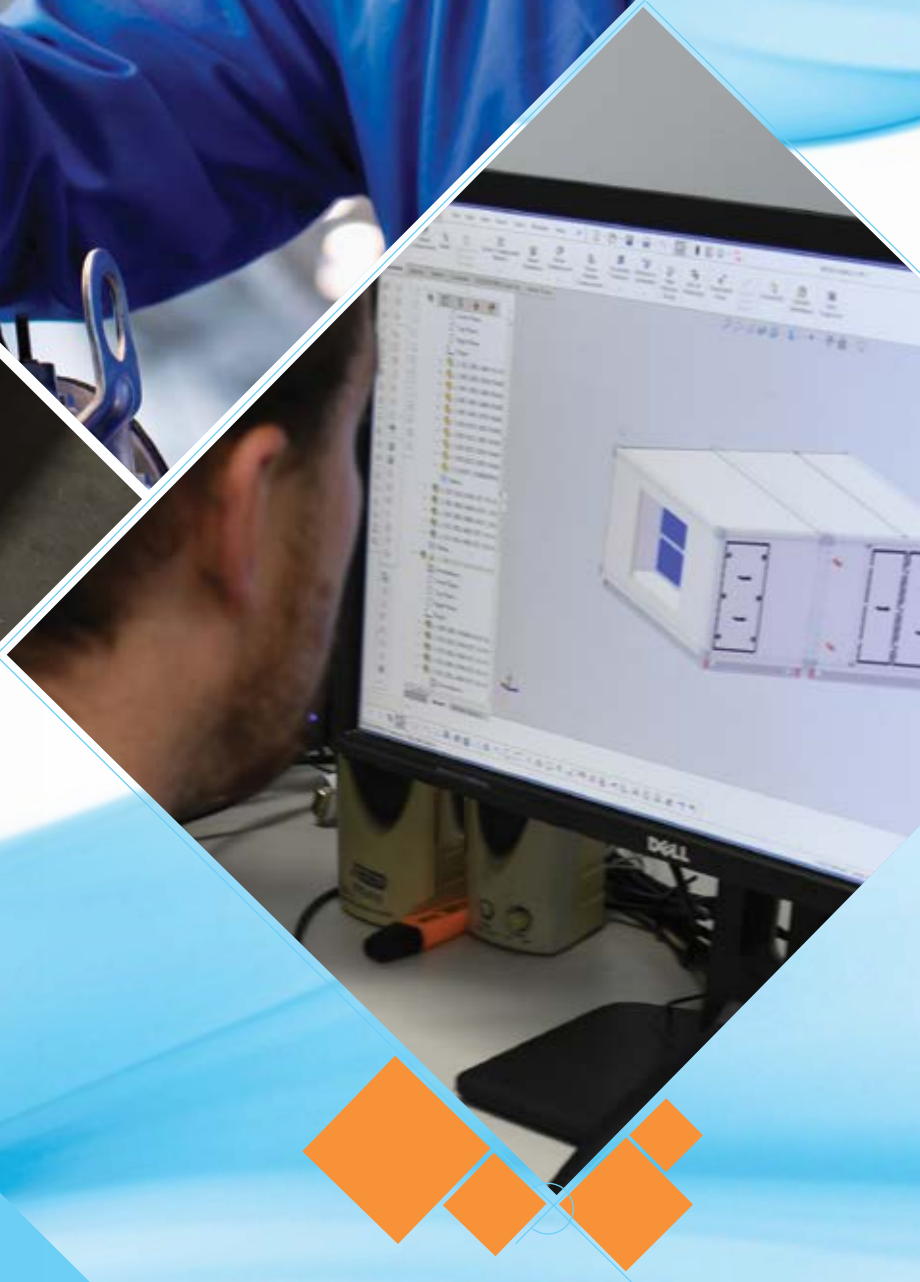
Sophisticated 3D Revit drawings are available for all Air Design products. When combined with electrical data and air flow rates, the 3D drawings are crucial for architects, engineers and builders in the design and planning process of projects. They are used to create a single digital model of a building which is reviewed well before construction commences to eliminate clashes of components and systems during the building stage and avoid costly remedies that can follow.

The manufacturing process of the Air Design range is linked to a fully integrated resource management system. This dynamic system tracks the progress of an order from the time it is placed until delivery, allowing customers to be informed by an Air Design team member on its progress.

Air Design's manufacturing capability is being developed through a program of continuous improvement to meet the demands of developers, building owners and the HVAC industry.

3D Revit Drawing





CAD model of MODUtherm unit

Air Design AHU Clip 'n' Lock casing construction

Committed to innovation and improvement

The Air Design product development team deliver innovative Air Handling Units and Fan Coil Units for the commercial HVAC market. This high quality and energy efficient plant equipment integrates technologies such as AHU CLIP 'n' LOCK casing construction and Electronically Commutated (EC) plug fans to optimise product performance.

All Air Design units are manufactured to exacting standards with quality being assured by rigorous checks prior to being despatched from the factory. This focus on quality is supported by a strong, collaborative staff culture throughout the organisation via a process of empowerment, education and training.

Inspired by Australia's harsh climatic extremes, Air Design engineers are continually testing new technologies. This testing looks for ways to optimise the performance of their air handling units and explores designs that could make them more compact, more efficient and easier to maintain.

The Air Design team has developed the AHU CLIP 'n' LOCK case construction system. It is a modular, thermally broken aluminium frame that achieves both the highest degree of air tightness, rating "L1", and the highest resistance to condensation, rating "TB1", as defined in BS EN 1886:2007. Panels can be easily removed for maintenance of internal components without removing screws or fasteners.

The unique AHU CLIP 'n' LOCK fastening system ensures panels can be easily removed. Further innovations to the Air Design range include casing panels that have zero ozone depleting potential (0% ODP) and lifting eyes that improve a unit's manoeuvrability on site.

Today, most Air Design air handling units are fitted with highly efficient fans with EC motors. They feature fully integrated, infinitely variable speed control, which can result in considerable energy savings being made. The EC fans are mounted on an internal wall structure that can reduce unit dimensions and therefore minimise the space needed for installation in plant rooms and ceilings.

Fantech offers expert advice and engineering support to help customers select the most efficient, most effective Air Handling Unit. The team combine their extensive product knowledge and application experience to provide customers with an optimal, Air Handling solution.

By combining innovative product design, technical expertise and proven performance, the Air Design product range is now extensively distributed throughout Australia, New Zealand and Papua New Guinea.

...achieves the highest degree of air tightness, rating "L1."

A dedicated network of air management specialists

Fantech has an extensive network of dedicated ventilation and air management specialists that are committed to providing exceptional customer service in every capital city and region of Australia and New Zealand. The network consists of Fantech facilities as well as agents in northern and southern New South Wales, northern Queensland, Canberra and Tasmania. Fantech is also part of a broader international network Elta Group, a UK-based family business with operations in seven countries on four continents.

...developed to satisfy stringent demands for low energy consumption.

Energy efficient solutions

There is a growing need for products that help create comfortable indoor spaces while maintaining a healthy and productive working environment. At the same time, new government policies and the dramatic increase in energy costs have created greater demand for products and systems that utilize energy efficient technologies. These new demands are now being driven by architects, engineers and developers to create buildings that offer the optimal working conditions while saving energy consumption and reducing greenhouse gas emissions.

Fantech is committed to developing innovative and energy efficient products and systems that are designed to optimise the indoor environment while lowering power consumption. More efficient, cost effective ventilation solutions that have lower energy requirements can lead to a reduction in a building's running costs and have less environmental impact.

ECO Range

Most Air Design Air Handling Units have been developed to satisfy stringent demands for low energy consumption. Heating and Cooling Coils, casing panels, motors and fan units have all undergone extensive testing, both in the product development facility and out in the field, to ensure compliance with current and future demands for low energy consumption.

Air Design's Air Handling Units and Fan Coil Units are also a critical component of Fantech's fully integrated VAV system called AirLink. The AirLink VAV system combines Fantech axial fans with VSDs, Rickard VAV diffusers, the Air Design range of AHUs and FCUs, and even pressure duct design. AirLink is a more adaptive VAV system that minimises energy consumption and can provide capital savings in almost all HVAC system designs. More detailed information on the AirLink VAV system is featured later in this catalogue.

Noteworthy performance

The high quality and superior performance of Air Design AHUs is sought after for many of the major commercial construction projects within Australia.

Past projects include the world famous Sydney Opera House; Lady Cilento Children's Hospital that provides specialised care for hundreds of kids each year; and the Advanced Engineering Building at the University of Queensland which has been designed to connect students, researchers and industry.

More recent projects include the Victorian Comprehensive Cancer Centre, a world class clinical treatment, research and education facility; Mater Health/University of Queensland's Whitty Building, a modern teaching facility in a heritage-listed building; the multi-million dollar upgrade of Darwin International Airport; and the state-of-the-art new Royal Adelaide Hospital, South Australia's single largest infrastructure project.

The opportunity to be involved in such iconic projects comes from the company's reputation amongst consulting engineers and mechanical contractors. They know Air Design will provide trusted service and support, focused expert advice, and high quality, reliable products for their air management requirements.

Sydney Opera House

Lady Cilento Children's Hospital Queensland

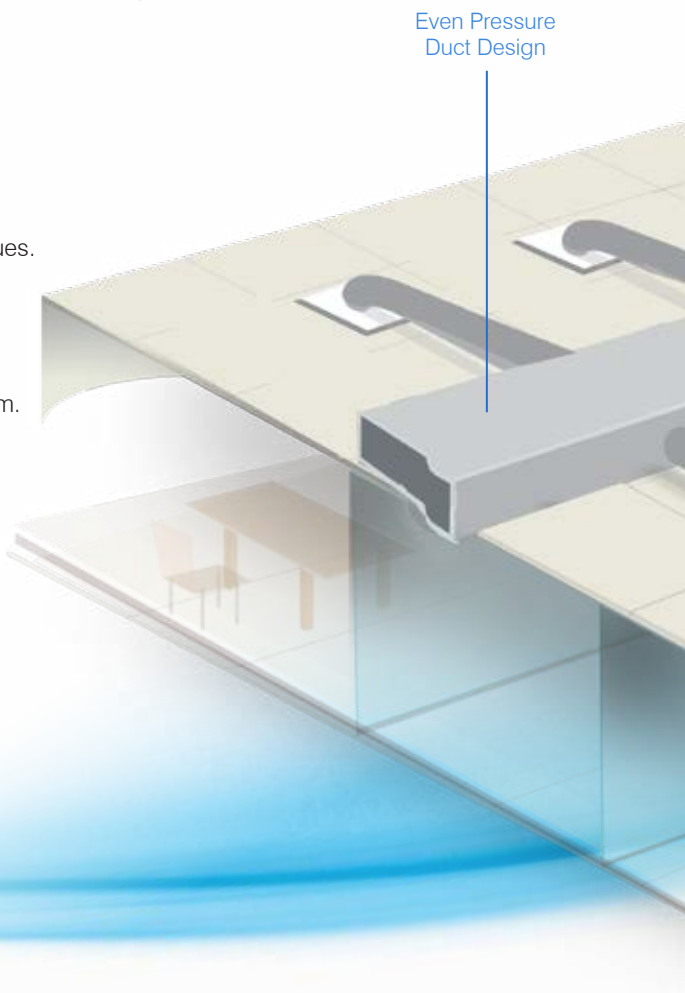
Advanced Engineering Building, University of Queensland

AirLink - an efficient cost saving solution

AirLink is a new and more flexible Variable Air Volume (VAV) system that integrates multiple technologies including Air Design Air Handling Units and Even Pressure Duct Design. It is helping consultants and contractors take the next step in HVAC system efficiency, whilst having the potential to save capital costs.

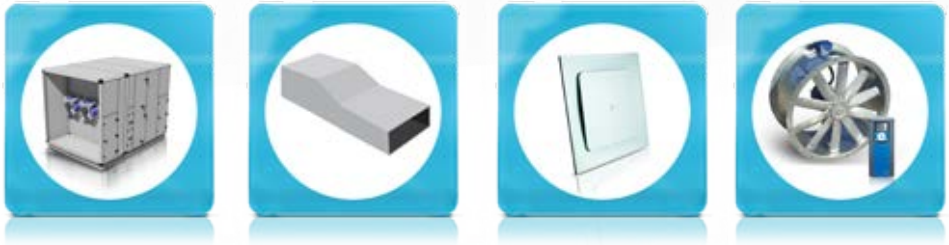
For the past 30 years VAV systems have been the preferred air distribution method. Traditionally these have incorporated an Air Handling Unit or Fan Coil Unit with AC fans. These units are connected to a high-pressure duct network that delivers air through an inefficient VAV box with a fixed geometry diffuser. More recently EC fans have helped to improve the energy efficiency, but the system remains only moderately efficient and is limited in that it cannot be adapted to system layout changes and has the potential for noise issues.

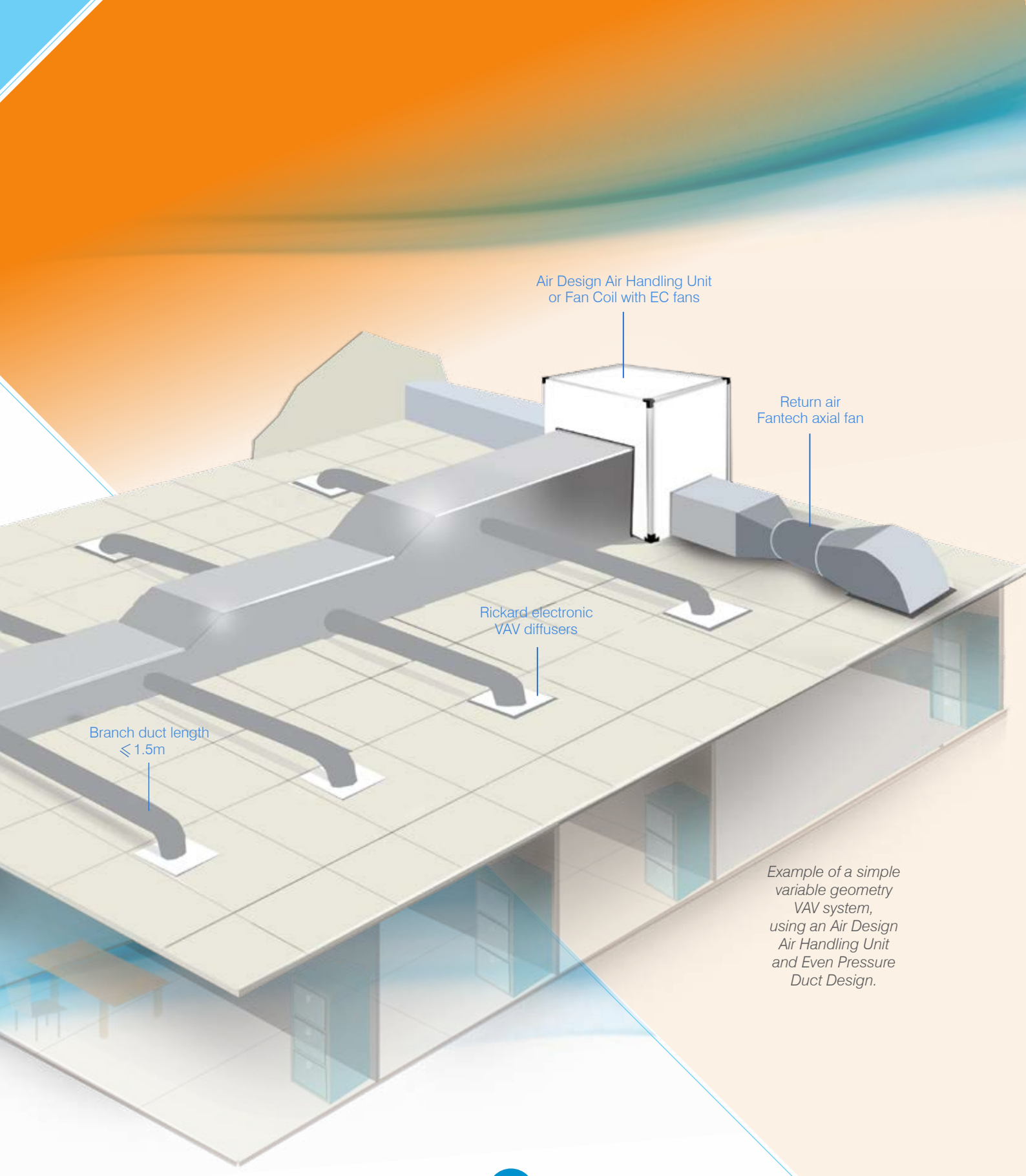
The AirLink VAV System minimises energy consumption and can provide capital savings in almost all HVAC system designs. AirLink delivers a more efficient, more adaptive air distribution solution to help create a healthier, more comfortable indoor space. This flexible VAV system is capable of precise air delivery to every room. AirLink is also easy to re-zone and changes to the system layout can be made quickly if required.



Features

- Capital savings are achievable when an AirLink VAV system is combined with Even Pressure Duct Design
- System components are matched for maximum energy efficiency
- Adaptive solution means re-zoning and changes to system layout can be easily made
- Compact design of AHUs makes them ideal for plant rooms with limited space and restrictive ceilings
- Helps create a more comfortable indoor space
- Provides individual room comfort control
- Lowers running costs by minimising energy consumption
- Helps maintain a healthy and productive working environment
- Compatible with all Building Management Systems
- Precise control and monitoring of room air delivery
- Variable geometry of a VAV diffuser ensures there is no air dumping even at low air flows





Example of a simple variable geometry VAV system, using an Air Design Air Handling Unit and Even Pressure Duct Design.

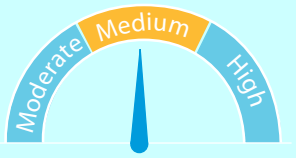
AirLink

INTEGRATED VAV SYSTEM

AirLink
INTEGRATED VAV SYSTEM

Energy efficiency comparison

Current VAV system



Energy Efficiency Meter

Air Handling Unit or Fan Coil Unit with EC fans mismatched to a high pressure duct network that delivers air through an inefficient VAV box with a fixed geometry diffuser.

Potential result

- Energy efficiency - medium
- Potential noise issues
- Not adaptive to system layout changes

Traditional VAV system

Energy Efficiency Meter

Air Handling Unit or Fan Coil Unit with AC fans connected to a high pressure duct network that delivers air through an inefficient VAV box with a fixed geometry diffuser.

Potential result

- Energy efficiency - moderate
- Potential noise issues
- Not adaptive to system layout changes

Future of HVAC AirLink VAV system

Energy Efficiency Meter

Air Handling Unit or Fan Coil Unit with EC fans matched to an efficient low pressure duct network that delivers air through an intelligent electronically controlled VAV diffuser.

Potential result

- Energy efficiency - high
- Quiet, low noise operation
- Easy to re-zone and modify system layout
- Significantly lowers fan power usage
- Capable of precise air delivery to every room
- Smaller thermal zone control

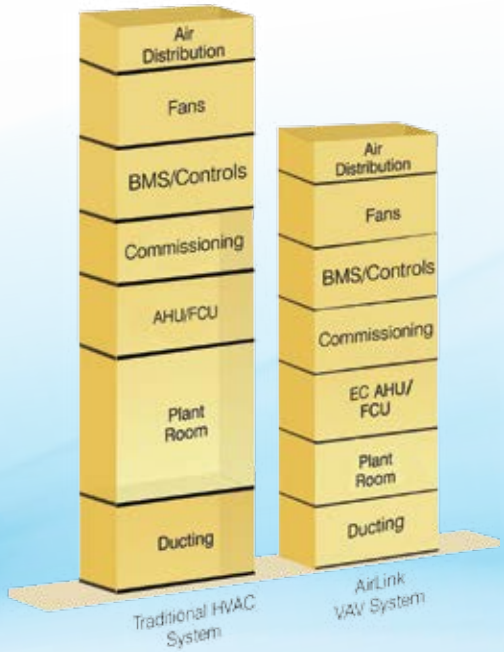
Can help achieve capital savings

An AirLink VAV system combines Even Pressure Duct Design, electronic VAV diffusers and Air Handling Units/Fan Coil Units with EC fans, to achieve capital savings in almost all building types. Independent analysis that supports this has been produced based on a range of different building types in Australia.

The AirLink VAV system can help achieve savings in the following areas:

- A reduction in ducting due to no duplication of duct runs
- Smaller plant rooms required as a result of more compact AHUs/FCUs with EC fans
- Lower AHU/FCU installation costs due to no VSDs, shielded cables or motor overload protection being required
- Reduced commissioning time because an Even Pressure Duct Design system is self-balancing
- Reduced BMS costs as AirLink is a low cost stand-alone system

In addition to the initial capital savings, Air Design's AHUs and FCUs can provide lower "lifetime" costs. Their fully integrated and compact EC fans are faster and easier to replace than traditional DWDI fans. This can potentially eliminate the need for cranes or gantries and reduce on-site labour costs.



Capital Cost Comparison

Helps maintain a healthy & productive environment

The AirLink Integrated VAV System is very effective in applications where the occupancy level and conditions vary throughout the day. The ventilation rate automatically adjusts to meet the changing requirements of the area; this minimises energy consumption and helps to maintain a healthy and productive indoor environment.

The extensive range of sizes for each component make the AirLink VAV system suitable for a vast range of commercial buildings, including schools and universities, hospitals, convention centres and office blocks.

AirLink
INTEGRATED VAV SYSTEM

Air Design Air Handling Units with Efficient EC fans

The Air Design Air Handling Units and Fan Coil Units featured in this catalogue are a critical component of the Fantech AirLink VAV system. The AirLink system combines Fantech axial fans with VSDs, Rickard VAV diffusers, the Air Design range and Even Pressure Duct Design.

1

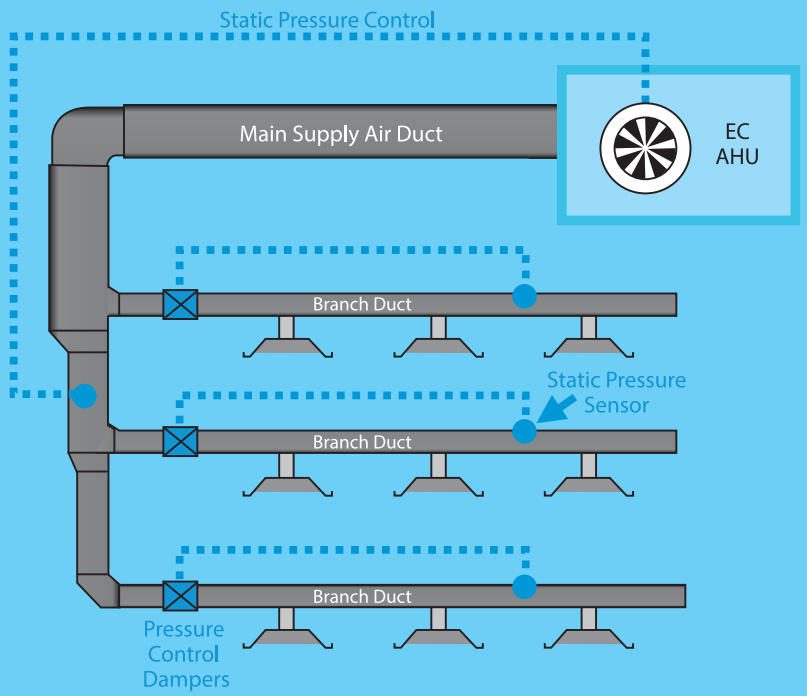
AirDesign
Indoor Air Quality Solutions

The AirLink VAV system includes four key components

Even Pressure Duct Design

The objective of Even Pressure Duct Design is to achieve the same static pressure throughout the duct run. This means the duct design must have an even static pressure from the first diffuser take off. Any duct design method can be adopted for the main supply air duct.

The static pressure should be the same before every VAV diffuser and at each branch. The pressure at each diffuser does not need to be perfectly even as the VAV diffuser can manage a ±10% tolerance with ease.



4

2

Fantech Adjustable Pitch Axial Fans with VSDs

The extensive range of Fantech Adjustable Pitch Axial fans is an essential part of the integrated AirLink system. Their high performance impeller blade harnesses the latest construction and design technologies to deliver enhanced pressure development, energy efficiency and reduced noise levels.

They are available in sizes ranging from 315 to 2000mm diameter and feature an adjustable pitch impeller that ensures the precise air flow and static pressure requirements of the application are delivered.

Fantech axial fans can also be supplied with Vacon variable speed drives, providing variation of fan speed and therefore air flow volume. They can be pre-configured with parameters for specific applications to maximise energy efficiency and improve controllability.

FANTECH
Intelligent Ventilation

3

Rickard Electronic Variable Air Volume Diffusers

The Rickard Electronic VAV Diffuser range is an intelligent modular system that is zoned into independently controlled comfort areas. The system can be centrally monitored and tuned from the one location via a BMS, as well as adjusted within the occupied space. It can be used in most building types and sizes due to the simplicity of its design and flexibility of the system software.

- Rickard VAV Diffusers provide the occupant with personalised temperature control
- Smaller thermal zones are achievable that can reduce the risk of over cooling and over heating
- Ability to turn-down air flow to 10% provides further energy savings
- Available with occupancy sensing built into the diffuser or wall thermostat to further reduce heating, cooling and lighting running costs
- Optional air flow sensor simplifies commissioning and provides accurate air flow calculations. Air flow sensors can also be used in multi-tenanted buildings for accurate energy metering

RICKARD
INTELLIGENT COMFORT CONTROL

MODUtherm

The MODUtherm® range of quality Air Handling Units feature state-of-the-art high efficiency EC plug fans and the latest airtight casing construction.

Victorian Comprehensive Cancer Centre (VCCC)

Located in the prestigious Melbourne Biomedical Precinct, the Victorian Comprehensive Cancer Centre is a purpose-built centre-of-excellence for cancer research, treatment, education and care. The $1 billion, 130,000-square-metre centre is home to cancer research, clinical services and educational facilities for Peter MacCallum Cancer Centre, Melbourne Health and the University of Melbourne.

The complex HVAC needs were met through the collaboration of D&E Air Conditioning and Elta Group members – Fantech, Air Design and Airepure. This made better use of equipment and time, and ensured the challenging project progressed smoothly. More than 300 MODUtherm and almost 200 SM series Air Design Air Handling Units were chosen for their quality and reliability. They were installed throughout the facility for both clinical and research spaces including operating theatres and PC3 suites. Fantech fans and specialist filters from Airepure Australia were also supplied.

Location: Melbourne, Victoria
Consultant: LCI
Mechanical contractor: D&E Air Conditioning

MODUtherm®

Projects

180 Brisbane

Winner of the 2016 MBA Project of the year award for Commercial Building over $5 million, 180 Brisbane has raised the bar for buildings in the CBD. Its striking 34-storey façade pays homage to the Brisbane river while inside the focus is on providing a healthy work environment. This is achieved with floor-by-floor fresh air intakes and steeped ceilings that maximise natural light. Other environmental initiatives include bicycle racks for tenants, rainwater and greywater recycling and a tri-generation plant for energy generation. These helped the building achieve a rating of 6 Green Stars by the Green Building Council of Australia and a 5.5 Star NABERS Energy rating.

A range of Air Design MODUtherm Air Handling Units were installed in the building. These are helping to create an environment that is healthy and productive to work in.

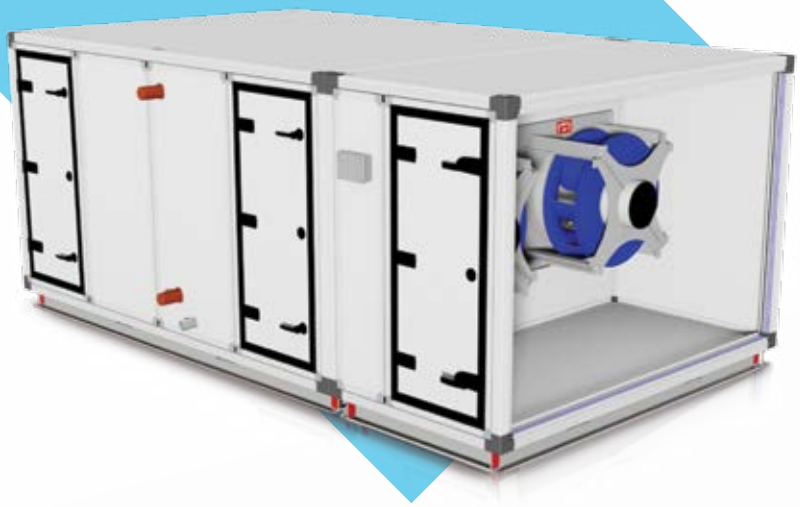
Location: Brisbane, Queensland
Consultant: Floth
Mechanical contractor: AE Smith

VCCC - Image by Pete Glenane courtesy of Plenary Group

180 Brisbane

MODUtherm

Modular Air Handling Units with EC fan motors. Up to 19,000 Litres/Sec.



MODUtherm® fully integrates multiple technologies to minimise energy consumption and deliver reliable, trouble-free performance. Their modular design and construction reduces overall unit dimensions making them ideal for plant rooms with limited space. The high quality range features state-of-the-art high efficiency EC plug fans and the latest airtight casing construction.

MODUtherm's innovative design incorporates EC fans that operate in parallel and are mounted adjacent to each other on an internal wall. The design provides inherent fan redundancy and will continue to operate even if there is a fault with one fan. The fans can be controlled by MODBUS or 0-10V signal and run independently or integrated into most building management systems.

The units are constructed with 50mm thick insulated panels that are fitted with the revolutionary AHU CLIP 'n' LOCK fastening system. This airtight system includes a synthetic cord and aluminium capping that give the unit a strong, rigid structure and allows the panels to be removed easily for maintenance and cleaning. AHU CLIP 'n' LOCK also provides a high thermal performance which reduces condensation and minimises energy loss. The high quality modular casing construction achieves both the highest degree of air tightness, rating "L1", and the highest resistance to condensation, rating "TB1", as defined in BS EN 1886:2007.

Features

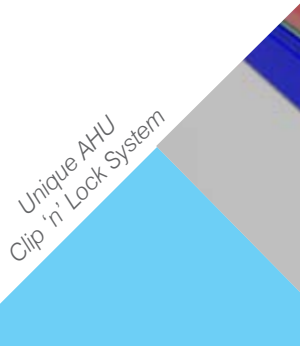
- High quality double skin Colorbond 50mm polyurethane panel construction that complies with National Construction Code insulation specification J5.2
- Panels have zero ozone depleting potential (0% ODP)
- High efficiency EC plug fans with integrated speed control, current overload and motor phase protection, reverse polarity, locked rotor protection and soft starting
- EC plug fan motors exceed EU's minimum level of efficiency for electric motors (IE4)
- To minimise on-site installation time fan motors are pre-wired to a junction box
- Chilled water cooling coils available with 3, 4, 5, 6, 8 or 10 rows and 315, 394 or 472 fins per metre
- Hot water heating coils available with 1 or 2 rows and 315, 394 or 472 fins per metre
- Cooling and heating coil separation with access door also available
- Matching filter plenums are available
- Upper and lower condensate tray manufactured from quality 304 grade stainless steel (316 grade stainless steel option also available)

Construction

Units incorporate the unique AHU CLIP 'n' LOCK system where the removable casing panels clip into a continuous aluminium locking strip with an EPDM closed cell foam underseal. The locking strip is secured into position with a continuous synthetic cord, forming an airtight seal. MODUtherm units include a modular, thermally broken aluminium frame construction with double skin, 50mm thick polyurethane-filled panels. The unit case has a Class L1 leakage rating and TB1 thermal bridging rating. Casing construction complies with National Construction Code insulation specification J5.2 (all areas except for alpine areas).

Each unit is complete with a lift-off access panel on the coil pipe side. Access to the fan section and filter plenum is by hinged door. The upper and lower condensate trays are of a non-ponding design manufactured from grade 304 stainless steel.

Units incorporate multiple, high efficiency EC plug type fans mounted adjacent to each other on an internal wall. The number of fans vary depending on the model.



Unique AHU Clip 'n' Lock System

MODUtherm®

Fans

- EC motors are 3 phase 415V 50-60Hz
- Bearings are sealed for life ball type
- Integrated EC controller provides infinite speed control
- IP54-rated

Internal Thermal Protection

Integral thermal overload protection is supplied as standard. Protection will not prevent fans from functioning in fire mode as required by AS/NZS1668.1:2015

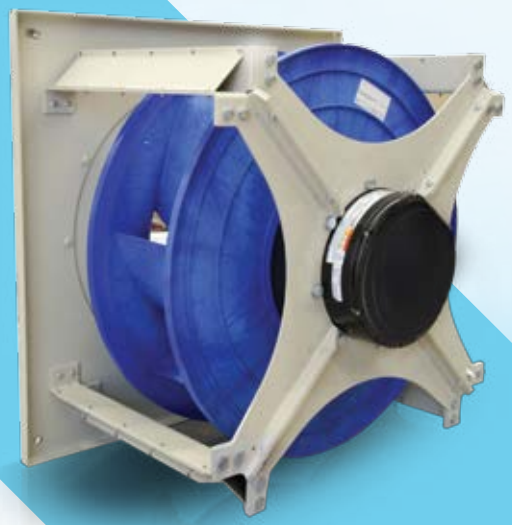
Suggested Specification

The Air Handling Units shall be of the MODUtherm series as designed by Fantech and be of the model numbers shown on the schedule/drawing.

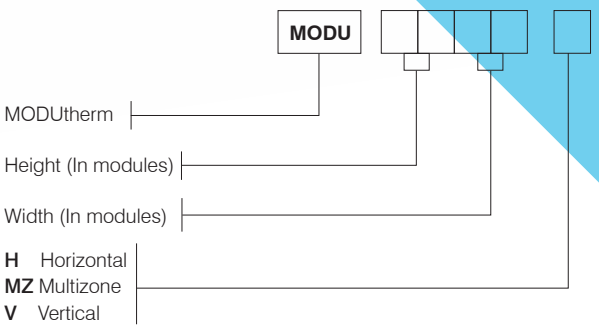
Units shall incorporate a modular, thermally broken, aluminium frame construction with double skin, 50mm thick, polyurethane filled panels that achieve the highest degree of air tightness, rating “L1”, and the highest resistance to condensation, rating “TB1”, as defined in BS EN 1886:2007. Panels shall also comply with the National Construction Code insulation specification J5.2 and have zero ozone depleting potential (0 % ODP).

Unit casings shall incorporate AHU CLIP ‘n’ LOCK removable panels that are sealed airtight by the use of a continuous clip in aluminium locking strip with a continuous EPDM closed cell foam underseal. The panels are locked into the strip with a continuous synthetic cord. The panels shall be removable without the need to remove screws or fasteners. Cooling and heating capacities and external static pressures shall be as shown on the schedule.

Units shall incorporate multiple EC plug fans operating in parallel with motors exceeding EU’s minimum efficiency level (IE4) and complying with IP54 protection. Fans shall be pre-wired to an external terminal box.



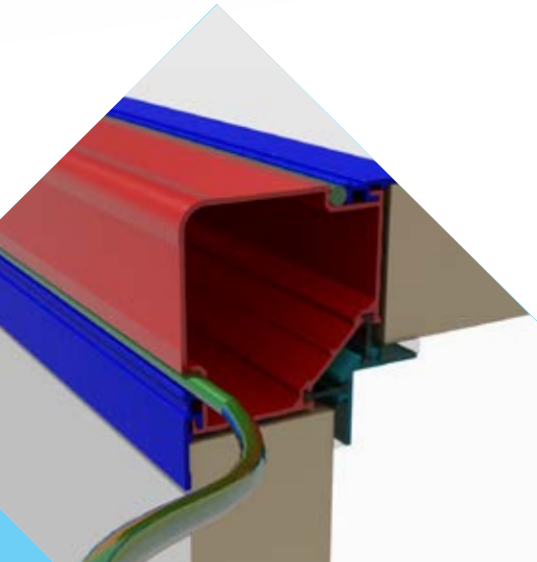
How to order



Select unit based on air flow.

Fantech to complete selection with customer, based on the required cooling coil and heating coil data.

One Module = 305mm



Ancillary Equipment

Available for the MODUtherm & MINItherm Units

Magnehelic® Differential Pressure Gauges

Magnehelic's easy to read gauges measure filter resistance, air velocity and pressure drop in a range of applications with high accuracy. They feature a mirrored overlay as standard in order to eliminate any parallax error when taking measurements.

- IP67 for protection against dust and water ingress
- Certified with 6 point calibration

AHU Lights

Lights wired to individual switches on the exterior of Air Handling Unit. These robust lights come with Polypropylene base mount, glass diffuser and are protected with an external wire frame.

- IP44 for protection against water ingress
- 8W compact fluorescent bulb equivalent to 40W incandescent

Polycarbonate Viewports

Clear Polycarbonate double viewport is mounted to the AHU door allowing internal components to be viewed without the need to shut down unit during operation.

- 220mm diameter viewport with rubber gasket seals
- Flush mounted to the inside wall

Weatherproof Roof

Sheet metal roof allows protection from the weather. Includes 90° ridges to help clear water.

- Made from 0.8mm powder coated sheet metal
- Support frame angled away from the access side of the air handling unit

MODUtherm®

Technical Data

Model Number	Air Flow	External Static Pressure	Total Cooling Capacity	Sensible Cooling Capacity	Heating Capacity	Coil Quantity	No.of Fans	Absorbed Power	Fan Speed	Motor Power	Motor Full Load Current
	L/s	Pa	kW	kW	kW			kW	rps	kW	Amps
MODU0202H / MZ / V	597	450	17.3	11.4	11.8	Single	1	0.74	2888	0.8	3.7
MODU0203H / MZ / V	984	450	30.5	19.7	21.1	Single	1	1.26	2884	2.5	3.8
MODU0204H / MZ / V	1372	450	42.2	27.4	30.3	Single	1	1.65	2110	2.4	3.7
MODU0303H / MZ / V	1600	450	49.5	32.0	34.3	Single	1	1.94	2246	2.4	3.7
MODU0205H / MZ / V	1759	450	53.6	34.9	39.4	Single	1	2.17	2348	2.4	3.7
MODU0304H / MZ / V	2230	450	68.7	44.5	49.2	Single	1	2.68	1708	5.4	8.2
MODU0305H / MZ / V	2860	450	87.2	56.7	60.3	Single	1	3.58	1917	5.4	8.2
MODU0404H / MZ / V	3086	450	95.0	61.6	68.1	Single	1	3.58	1563	5.0	7.7
MODU0306H / MZ / V	3490	450	104.2	68.2	74.7	Single	1	4.11	1653	5.0	7.7
MODU0405H / MZ / V	3958	450	120.6	78.4	88.6	Single	2	2.38 x 2	1635	5.4 x 2	8.24 x 2
MODU0307H / MZ / V	4116	450	125.4	81.6	90.8	Single	2	2.47 x 2	1656	5.4 x 2	8.24 x 2
MODU0406H / MZ / V	4829	450	151.7	97.7	103.4	Single	2	2.91 x 2	1767	5.4 x 2	8.24 x 2
MODU0505H / MZ / V	4841	450	147.5	95.9	102.1	Dual	3	2.92 x 3	1551.0	5.4 x 3	8.24 x 3
MODU0407H / MZ / V	5701	450	173.7	113.0	125.8	Single	2	3.29 x 2	1517	5.0 x 2	7.68 x 2
MODU0506H / MZ / V	5907	450	176.3	115.4	126.5	Dual	2	3.42 x 2	1538	5.0 x 2	7.68 x 2
MODU0408H / MZ / V	6572	450	203.4	131.6	145.0	Single	2	3.83 x 2	1605	5.0 x 2	7.68 x 2
MODU0507H / MZ / V	6973	450	208.1	136.2	149.3	Dual	3	2.8 x 3	1738	5.4 x 3	8.24 x 3
MODU0606H / MZ	6980	450	208.3	136.4	149.5	Dual	3	2.8 x 3	1739	5.4 x 3	8.24 x 3
MODU0508H / MZ / V	8039	450	248.8	161.0	177.4	Dual	4	2.42 x 4	1643	5.4 x 4	8.24 x 4
MODU0607H / MZ	8239	450	251.1	163.3	181.8	Dual	3	3.17 x 3	1498	5.0 x 3	7.68 x 3
MODU0509H / MZ	9104	450	274.6	179.2	203.8	Dual	3	3.52 x 3	1554	5.0 x 3	7.68 x 3
MODU0608H / MZ	9499	450	294.0	190.2	209.6	Dual	3	3.68 x 3	1580	5.0 x 3	7.68 x 3
MODU0707H / MZ	9815	450	299.1	194.5	216.6	Dual	4	2.84 x 4	1446	5.0 x 4	7.68 x 4
MODU0609H / MZ	10759	450	324.5	211.8	240.9	Dual	4	3.11 x 4	1488	5.0 x 4	7.68 x 4
MODU0708H / MZ	11316	450	339.5	221.9	249.7	Dual	4	3.26 x 4	1513	5.0 x 4	7.68 x 4
MODU0610H / MZ	12018	450	370.0	239.9	273.0	Dual	4	3.48 x 4	1548	5.0 x 4	7.68 x 4
MODU0709H / MZ	12817	450	386.6	252.3	287.0	Dual	4	3.72 x 4	1588	5.0 x 4	7.68 x 4
MODU0710H / MZ	14317	450	367.8	244.8	325.2	Dual	5	3.3 x 5	1520	5.0 x 5	7.68 x 5
MODU0711H / MZ	15818	450	447.3	298.3	359.3	Dual	6	3.04 x 6	1478	5.0 x 6	7.68 x 6
MODU0712H / MZ	17318	450	497.8	330.2	393.4	Dual	6	3.33 x 6	1524	5.0 x 6	7.68 x 6
MODU0713H / MZ	18819	450	543.9	360.0	433.6	Dual	6	3.64 x 6	1574	5.0 x 6	7.68 x 6

Air flow and coil performance are at 2.5m/s coil face velocity.
Cooling capacities are based on 8 row 472fin/m coils with entering air conditions of 26/19°C and water temperatures of 6/12 °C.
Heating capacities are based on 1 row 394fin/m coils with entering air at 12°C and water temperatures of 80/65 °C.
Absorbed power, motor power and current (per fan x no of fans).
H = Horizontal MODUtherm, MZ = Multizone MODUtherm, V = Vertical MODUtherm.

MODUtherm

Acoustic Data

Model Number	Air Flow	External Static Pressure	Sound Power Spectrum dB*							
	L/s	Pa		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
MODU0202H/MZ/V	597	450	InDuct	71	66	76	74	75	74	69	65
			Breakout	60	52	58	54	52	44	36	32
MODU0203H/MZ/V	984	450	InDuct	70	70	80	78	82	80	75	72
			Breakout	59	56	63	58	58	50	41	38
MODU0204H/MZ/V	1372	450	InDuct	68	67	78	76	78	75	71	69
			Breakout	57	54	61	56	54	44	37	35
MODU0303H/MZ/V	1600	450	InDuct	69	68	82	78	80	77	73	74
			Breakout	58	54	64	57	56	46	38	40
MODU0205H/MZ/V	1759	450	InDuct	71	70	83	79	82	80	74	77
			Breakout	60	56	66	59	57	49	39	43
MODU0304H/MZ/V	2230	450	InDuct	74	79	85	83	81	77	73	68
			Breakout	63	65	68	64	56	46	38	33
MODU0305H/MZ/V	2860	450	InDuct	76	83	80	78	77	73	70	64
			Breakout	65	69	63	58	52	42	35	28
MODU0404H/MZ/V	3086	450	InDuct	74	82	87	84	81	76	74	71
			Breakout	63	68	70	64	56	44	38	35
MODU0306H/MZ/V	3490	450	InDuct	73	80	81	79	78	74	70	65
			Breakout	62	67	64	59	52	42	35	29
MODU0405H/MZ/V	3958	450	InDuct	76	83	86	84	82	78	74	69
			Breakout	65	69	69	64	56	46	39	33
MODU0307H/MZ/V	4116	450	InDuct	77	83	86	84	83	79	75	70
			Breakout	66	69	70	64	57	47	39	34
MODU0406H/MZ/V	4829	450	InDuct	76	87	83	83	81	77	73	69
			Breakout	65	73	66	63	55	44	37	33
MODU0505H/MZ/V	4841	450	InDuct	77	85	84	81	81	77	73	67
			Breakout	66	70	66	61	54	44	37	31
MODU0407H/MZ/V	5701	450	InDuct	76	86	87	86	83	78	76	72
			Breakout	66	72	70	65	56	45	39	35
MODU0506H/MZ/V	5907	450	InDuct	77	86	88	86	84	78	76	72
			Breakout	65	71	71	65	57	45	39	36
MODU0408H/MZ/V	6572	450	InDuct	78	85	93	88	86	79	78	76
			Breakout	67	71	76	68	59	47	42	39
MODU0507H/MZ/V	6973	450	InDuct	79	84	91	88	86	82	78	74
			Breakout	68	69	74	67	59	49	41	36
MODU0606H/MZ	6980	450	InDuct	79	84	91	88	86	82	78	74
			Breakout	68	69	74	67	59	49	41	36
MODU0508H/MZ/V	8039	450	InDuct	79	86	89	87	86	82	78	72
			Breakout	68	72	72	66	58	48	40	35
MODU0607H/MZ	8239	450	InDuct	78	88	87	86	84	79	76	72
			Breakout	67	74	70	65	56	46	39	35
MODU0509H/MZ	9104	450	InDuct	78	87	91	88	86	80	78	75
			Breakout	67	73	74	67	58	46	41	37
MODU0608H/MZ	9499	450	InDuct	79	86	93	89	86	80	79	76
			Breakout	68	72	76	67	59	47	41	38
MODU0707H/MZ	9815	450	InDuct	81	88	96	91	89	82	81	79
			Breakout	70	73	79	70	61	48	43	41
MODU0609H/MZ	10759	450	InDuct	79	90	88	88	85	81	78	73
			Breakout	68	76	71	66	57	47	40	36
MODU0708H/MZ	11316	450	InDuct	79	89	89	88	86	81	78	74
			Breakout	68	75	73	66	58	47	40	37
MODU0610H/MZ	12018	450	InDuct	80	88	92	90	87	81	79	76
			Breakout	69	74	76	67	59	47	41	38
MODU0709H/MZ	12817	450	InDuct	81	88	95	91	88	82	81	78
			Breakout	70	74	79	69	60	48	43	40
MODU0710H/MZ	14317	450	InDuct	80	90	91	90	87	82	80	76
			Breakout	69	76	74	67	59	47	41	37
MODU0711H/MZ	15818	450	InDuct	82	90	96	92	90	84	82	79
			Breakout	71	76	79	70	61	49	44	41
MODU0712H/MZ	17318	450	InDuct	83	89	97	94	91	85	84	82
			Breakout	73	75	80	71	62	50	45	43
MODU0713H/MZ	18819	450	InDuct	82	90	96	92	89	84	82	79
			Breakout	71	76	79	69	60	49	43	40

* Sound power includes multiple fans where applicable.
H = Horizontal MODUtherm, MZ = Multizone MODUtherm, V = Vertical MODUtherm.

MODUtherm®

Performance Data
Heating Coil

Model Number	Air Flow	Heating Coil	Air On DB	Air Off DB	Total Capacity	Water Flow	Entering/ Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows / (Fins/m)	°C	°C	kW	L/s	°C	kPa	Pa
MODU0202H / MZ / V	597	1 / 394	12	28.2	11.8	0.2	80 / 65	1	18.0
MODU0203H / MZ / V	984	1 / 394	12	29.5	21.1	0.4	80 / 65	3	18.0
MODU0204H / MZ / V	1372	1 / 394	12	30.1	30.3	0.5	80 / 65	7	18.0
MODU0303H / MZ / V	1600	1 / 394	12	29.5	34.3	0.6	80 / 65	3	18.0
MODU0205H / MZ / V	1759	1 / 394	12	30.3	39.4	0.7	80 / 65	13	18.0
MODU0304H / MZ / V	2230	1 / 394	12	30.1	49.2	0.8	80 / 65	8	18.0
MODU0305H / MZ / V	2860	1 / 394	12	29.3	60.3	1.0	80 / 65	2	18.0
MODU0404H / MZ / V	3086	1 / 394	12	30.1	68.1	1.1	80 / 65	7	18.0
MODU0306H / MZ / V	3490	1 / 394	12	29.5	74.7	1.2	80 / 65	3	18.0
MODU0405H / MZ / V	3958	1 / 394	12	30.3	88.6	1.5	80 / 65	13	18.0
MODU0307H / MZ / V	4116	1 / 394	12	30.1	90.8	1.5	80 / 65	5	18.0
MODU0406H / MZ / V	4829	1 / 394	12	29.5	103.4	1.7	80 / 65	3	18.0
MODU0505H / MZ / V	4841	1 / 394	12	29.3	102.1	1.7	80 / 65	2	18.0
MODU0407H / MZ / V	5701	1 / 394	12	30.1	125.8	2.1	80 / 65	5	18.0
MODU0506H / MZ / V	5907	1 / 394	12	29.5	126.5	2.1	80 / 65	3	18.0
MODU0408H / MZ / V	6572	1 / 394	12	30.1	145.0	2.4	80 / 65	7	18.0
MODU0507H / MZ / V	6973	1 / 394	12	29.5	149.3	2.5	80 / 65	3	18.0
MODU0606H / MZ	6980	1 / 394	12	29.5	149.5	2.5	80 / 65	3	18.0
MODU0508H / MZ / V	8039	1 / 394	12	30.1	177.4	2.9	80 / 65	7	18.0
MODU0607H / MZ	8239	1 / 394	12	30.1	181.8	3.0	80 / 65	5	18.0
MODU0509H / MZ	9104	1 / 394	12	30.3	203.8	3.3	80 / 65	10	18.0
MODU0608H / MZ	9499	1 / 394	12	30.1	209.6	3.4	80 / 65	7	18.0
MODU0707H / MZ	9815	1 / 394	12	30.1	216.6	3.6	80 / 65	5	18.0
MODU0609H / MZ	10759	1 / 394	12	30.3	240.9	4.0	80 / 65	10	18.0
MODU0708H / MZ	11316	1 / 394	12	30.1	249.7	4.1	80 / 65	7	18.0
MODU0610H / MZ	12018	1 / 394	12	30.6	273.0	4.5	80 / 65	14	18.0
MODU0709H / MZ	12817	1 / 394	12	30.3	287.0	4.7	80 / 65	11	18.0
MODU0710H / MZ	14317	1 / 394	12	30.6	325.2	5.3	80 / 65	14	18.0
MODU0711H / MZ	15818	1 / 394	12	30.6	359.3	5.9	80 / 65	19	18.0
MODU0712H / MZ	17318	1 / 394	12	30.6	393.4	6.5	80 / 65	24	18.0
MODU0713H / MZ	18819	1 / 394	12	30.9	433.6	7.1	80 / 65	30	18.0

Air flow and coil performance are at 2.5m/s coil face velocity.
H = Horizontal MODUtherm, MZ = Multizone MODUtherm, V = Vertical MODUtherm.

MODUtherm

Performance Data
Cooling Coil

Model Number	Air Flow	Cooling Coil	Air On DB / WB	Air Off DB / WB	Total Capacity	Sensible Capacity	Water Flow	Entering / Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows / (Fins/m)	°C	°C	kW	kW	L/s	°C	kPa	Pa
MODU0202H/MZ/V	597	8 / 472	23 / 17	10.1 / 10.1	13.1	9.4	0.5	6 / 12	7	253
		8 / 472	26 / 19	10.3 / 10.3	17.3	11.4	0.7	6 / 12	11	253
		8 / 472	35 / 24	10.8 / 10.7	29.5	17.7	1.2	6 / 12	28	253
MODU0203H/MZ/V	984	8 / 472	23 / 17	9.4 / 9.3	23.6	16.4	0.9	6 / 12	27	253
		8 / 472	26 / 19	9.6 / 9.6	30.5	19.7	1.2	6 / 12	41	253
		8 / 472	35 / 24	10.7 / 10.6	48.9	29.3	1.9	6 / 12	35	253
MODU0204H/MZ/V	1372	8 / 472	23 / 17	9.4 / 9.3	32.9	22.8	1.3	6 / 12	22	253
		8 / 472	26 / 19	9.7 / 9.6	42.2	27.4	1.7	6 / 12	34	253
		8 / 472	35 / 24	11.5 / 11.4	65.0	39.5	2.6	6 / 12	17	253
MODU0303H/MZ/V	1600	8 / 472	23 / 17	9.4 / 9.3	38.4	26.6	1.5	6 / 12	26	253
		8 / 472	26 / 19	9.6 / 9.6	49.5	32.0	2.0	6 / 12	41	253
		6 / 472	35 / 24	11.5 / 11.4	75.8	46.0	3.0	6 / 12	16	253
MODU0205H/MZ/V	1759	8 / 472	23 / 17	9.3 / 9.3	42.7	29.5	1.7	6 / 12	41	253
		8 / 472	26 / 19	9.8 / 9.7	53.6	34.9	2.1	6 / 12	30	253
		6 / 472	35 / 24	10.9 / 10.9	86.1	51.7	3.4	6 / 12	32	253
MODU0304H/MZ/V	2230	8 / 472	23 / 17	9.4 / 9.3	53.5	37.1	2.1	6 / 12	23	254
		8 / 472	26 / 19	9.7 / 9.6	68.7	44.5	2.7	6 / 12	35	254
		8 / 472	35 / 24	11.5 / 11.4	105.7	64.1	4.2	6 / 12	16	254
MODU0305H/MZ/V	2860	8 / 472	23 / 17	9.3 / 9.3	69.4	47.9	2.8	6 / 12	42	254
		8 / 472	26 / 19	9.8 / 9.7	87.2	56.7	3.5	6 / 12	29	254
		8 / 472	35 / 24	10.9 / 10.9	140.0	84.1	5.6	6 / 12	30	254
MODU0404H/MZ/V	3086	8 / 472	23 / 17	9.4 / 9.3	74.1	51.3	2.9	6 / 12	21	253
		8 / 472	26 / 19	9.7 / 9.6	95.0	61.6	3.8	6 / 12	33	253
		8 / 472	35 / 24	11.5 / 11.4	146.2	88.7	5.8	6 / 12	15	253
MODU0306H/MZ/V	3490	8 / 472	23 / 17	9.4 / 9.3	83.8	58.0	3.3	6 / 12	32	254
		8 / 472	26 / 19	10.0 / 10.0	104.2	68.2	4.1	6 / 12	20	254
		8 / 472	35 / 24	11.1 / 11.1	168.8	101.8	6.7	6 / 12	33	254
MODU0405H/MZ/V	3958	8 / 472	23 / 17	9.3 / 9.3	96.0	66.3	3.8	6 / 12	40	253
		8 / 472	26 / 19	9.8 / 9.7	120.6	78.4	4.8	6 / 12	28	253
		8 / 472	35 / 24	10.9 / 10.9	193.8	116.4	7.7	6 / 12	28	253
MODU0307H/MZ/V	4116	8 / 472	23 / 17	9.2 / 9.2	100.9	69.4	4.0	6 / 12	49	253
		8 / 472	26 / 19	9.8 / 9.7	125.4	81.6	5.0	6 / 12	30	253
		8 / 472	35 / 24	12.3 / 12.2	185.1	114.3	7.3	6 / 12	27	253
MODU0406H/MZ/V	4829	8 / 472	23 / 17	9.4 / 9.3	115.9	80.3	4.6	6 / 12	31	253
		8 / 472	26 / 19	9.4 / 9.4	151.7	97.7	6.0	6 / 12	49	253
		8 / 472	35 / 24	11.0 / 10.9	235.8	141.8	9.4	6 / 12	30	253
MODU0505H/MZ/V	4841	8 / 472	23 / 17	9.3 / 9.3	117.4	81.1	4.7	6 / 12	42	254
		8 / 472	26 / 19	9.8 / 9.7	147.5	95.9	5.9	6 / 12	28	254
		6 / 472	35 / 24	10.9 / 10.9	237.0	142.4	9.4	6 / 12	26	254
MODU0407H/MZ/V	5701	8 / 472	23 / 17	9.2 / 9.2	139.8	96.1	5.5	6 / 12	48	253
		8 / 472	26 / 19	9.8 / 9.7	173.7	113.0	6.9	6 / 12	28	253
		6 / 472	35 / 24	10.8 / 10.7	281.2	168.6	11.2	6 / 12	45	253
MODU0506H/MZ/V	5907	8 / 472	23 / 17	9.4 / 9.3	141.8	98.2	5.6	6 / 12	31	254
		8 / 472	26 / 19	10.0 / 10.0	176.3	115.4	7.0	6 / 12	17	254
		8 / 472	35 / 24	11.1 / 11.1	285.6	172.2	11.3	6 / 12	28	254
MODU0408H/MZ/V	6572	8 / 472	23 / 17	9.4 / 9.3	157.8	109.3	6.3	6 / 12	26	253
		8 / 472	26 / 19	9.6 / 9.6	203.4	131.6	8.1	6 / 12	41	253
		8 / 472	35 / 24	12.0 / 11.9	301.9	185.0	12.0	6 / 12	32	253

MODUtherm®

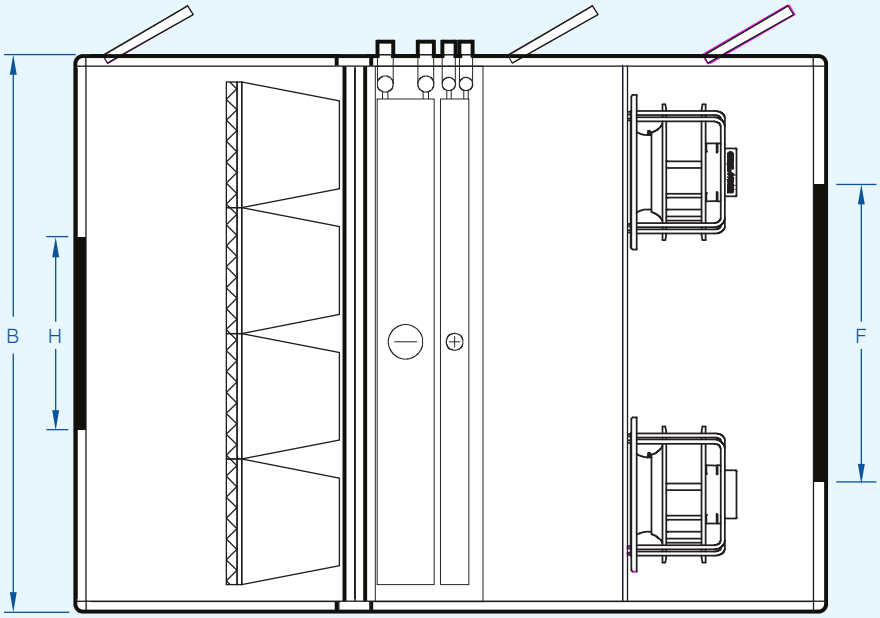
Performance Data
Cooling Coil

Model Number	Air Flow	Cooling Coil	Air On DB / WB	Air Off DB / WB	Total Capacity	Sensible Capacity	Water Flow	Entering / Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows / (Fins/m)	°C	°C	kW	kW	L/s	°C	kPa	Pa
MODU0507H/MZ/V	6973	8 / 472	23 / 17	9.4 / 9.3	167.4	115.9	6.6	6 / 12	32	253
		8 / 472	26 / 19	10.0 / 10.0	208.1	136.2	8.3	6 / 12	20	253
		8 / 472	35 / 24	11.0 / 10.9	340.6	204.7	13.5	6 / 12	34	253
MODU0606H/MZ	6980	8 / 472	23 / 17	9.4 / 9.3	167.5	116.0	6.7	6 / 12	32	254
		8 / 472	26 / 19	10.0 / 10.0	208.3	136.4	8.3	6 / 12	20	254
		8 / 472	35 / 24	11.1 / 11.1	337.5	203.5	13.4	6 / 12	33	254
MODU0508H/MZ/V	8039	8 / 472	23 / 17	9.4 / 9.3	193.0	133.6	7.7	6 / 12	25	254
		8 / 472	26 / 19	9.6 / 9.6	248.8	161.0	9.9	6 / 12	39	254
		8 / 472	35 / 24	12.0 / 11.9	369.3	226.3	14.7	6 / 12	28	254
MODU0607H/MZ	8239	6 / 472	23 / 17	9.2 / 9.2	202.0	138.9	8.0	6 / 12	49	254
		8 / 472	26 / 19	9.8 / 9.7	251.1	163.3	10.0	6 / 12	30	254
		8 / 472	35 / 24	12.3 / 12.2	370.5	228.8	14.7	6 / 12	27	254
MODU0509H/MZ	9104	6 / 472	23 / 17	9.4 / 9.3	218.5	151.3	8.7	6 / 12	34	254
		8 / 472	26 / 19	9.9 / 9.8	274.6	179.2	10.9	6 / 12	32	254
		8 / 472	35 / 24	11.6 / 11.6	427.0	259.9	16.9	6 / 12	38	254
MODU0608H/MZ	9499	8 / 472	23 / 17	9.4 / 9.3	228.0	157.9	9.1	6 / 12	28	254
		8 / 472	26 / 19	9.6 / 9.6	294.0	190.2	11.7	6 / 12	44	254
		8 / 472	35 / 24	12.0 / 11.9	436.4	267.4	17.3	6 / 12	38	254
MODU0707H/MZ	9815	8 / 472	23 / 17	9.6 / 9.5	230.6	160.9	9.2	6 / 12	22	253
		8 / 472	26 / 19	9.8 / 9.7	299.1	194.5	11.9	6 / 12	35	253
		8 / 472	35 / 24	11.8 / 11.7	456.1	278.5	18.1	6 / 12	41	254
MODU0609H/MZ	10759	8 / 472	23 / 17	9.3 / 9.3	261.0	180.2	10.4	6 / 12	38	254
		8 / 472	26 / 19	9.9 / 9.8	324.5	211.8	12.9	6 / 12	37	254
		8 / 472	35 / 24	11.6 / 11.6	504.6	307.2	20.0	6 / 12	51	254
MODU0708H/MZ	11316	8 / 472	23 / 17	9.4 / 9.3	271.6	188.1	10.8	6 / 12	32	253
		8 / 472	26 / 19	9.9 / 9.9	339.5	221.9	13.5	6 / 12	34	253
		8 / 472	35 / 24	12.0 / 11.9	520.4	318.9	20.6	6 / 12	52	254
MODU0610H/MZ	12018	8 / 472	23 / 17	9.3 / 9.2	292.3	201.5	11.6	6 / 12	50	254
		8 / 472	26 / 19	9.7 / 9.6	370.0	239.9	14.7	6 / 12	50	254
		6 / 472	35 / 24	13.24 / 13.00	511.40	319.45	20.3	6 / 12	57	190
MODU0709H/MZ	12817	8 / 472	23 / 17	9.3 / 9.3	310.9	214.6	12.3	6 / 12	43	253
		8 / 472	26 / 19	9.9 / 9.8	386.6	252.3	15.3	6 / 12	45	253
		6 / 472	35 / 24	13.55 / 13.30	533.54	336.18	21.2	6 / 12	59	190
MODU0710H/MZ	14317	8 / 472	23 / 17	9.4 / 9.3	343.7	238.0	13.6	6 / 12	38	253
		8 / 472	26 / 19	10.8 / 10.7	395.8	266.2	15.7	6 / 12	31	253
		6 / 394	35 / 24	14.50 / 14.06	561.35	358.98	21.2	6 / 12.3	60	155
MODU0711H/MZ	15818	8 / 472	23 / 17	9.4 / 9.3	379.7	262.9	15.1	6 / 12	47	253
		8 / 472	26 / 19	10.6 / 10.5	447.3	298.3	17.7	6 / 12	40	253
		6 / 315	35 / 24	15.85 / 15.08	566.59	370.49	21.1	6 / 12.4	60	128
MODU0712H/MZ	17318	8 / 472	23 / 17	9.3 / 9.3	378.1	271.3	15.0	6 / 12	29	253
		8 / 472	26 / 19	10.4 / 10.4	497.8	330.2	19.8	6 / 12	50	253
		6 / 315	35 / 24	15.99 / 15.22	611.95	402.53	20.8	6 / 13	59	128
MODU0713H/MZ	18819	8 / 472	23 / 17	9.3 / 9.2	413.3	296.0	16.4	6 / 12	35	253
		8 / 472	26 / 19	10.3 / 10.3	543.9	360.0	21.6	6 / 12	60	253
		6 / 315	35 / 24	16.29 / 15.51	646.75	430.66	20.8	6 / 13.4	60	128

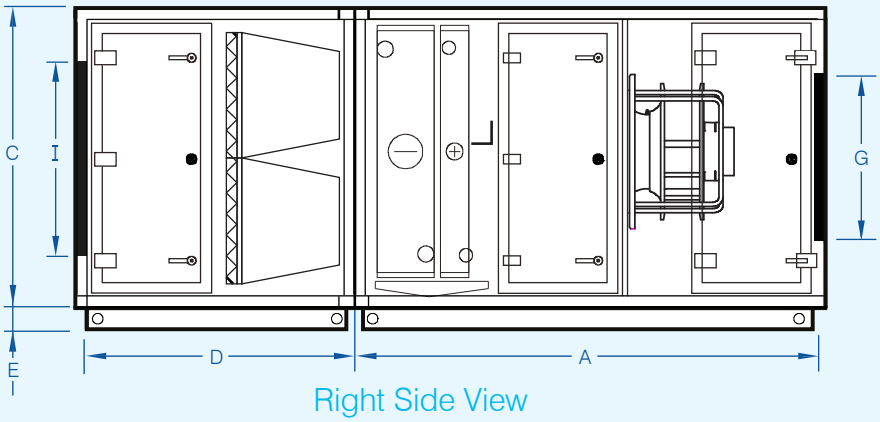
Air Flow and coil performance are at 2.5m/s coil face velocity.
H = Horizontal MODUtherm, MZ = Multizone MODUtherm, V = Vertical MODUtherm.

MODUtherm

Dimensional Drawing
Horizontal Series



Top View



Right Side View

* Dimension for EC fans on drawing are for fan arrangement only.
EC plug fans selected on above drawing.
Belt driven or AC plug fans to be selected on request.
Fan box dimensions to be longer for belt driven and AC plug fans.
All dimensions in mm.

MODUtherm®

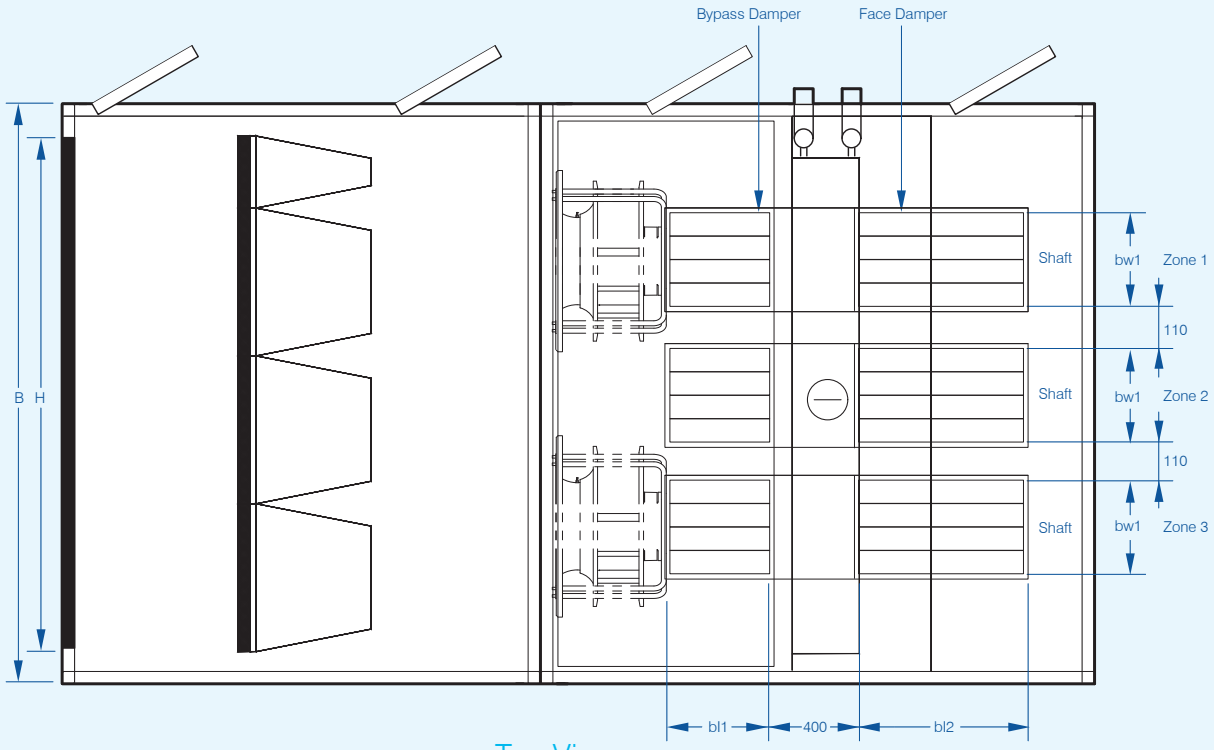
Dimensional Data
Horizontal Series

Model Number	Length	Width	Height	FPL Length	Base Height	S/A Opening*		R/A Opening#		Weight
	A	B	C	D	E	F	G	H	I	kg
MODU0202H	2230	810	810	1315	100	350	600	250	550	311
MODU0203H	2230	1115	810	1315	100	655	600	555	550	383
MODU0204H	2230	1420	810	1315	100	960	600	860	550	462
MODU0205H	2230	1725	810	1315	100	1265	600	1165	550	510
MODU0303H	2230	1115	1115	1315	100	655	905	555	855	491
MODU0304H	2230	1420	1115	1315	100	960	905	860	855	604
MODU0305H	2230	1725	1115	1315	100	1265	905	1165	855	690
MODU0306H	2230	2030	1115	1315	100	1570	905	1470	855	726
MODU0307H	2230	2335	1115	1315	100	1875	905	1775	855	814
MODU0404H	2230	1420	1420	1315	100	960	1210	860	1160	704
MODU0405H	2230	1725	1420	1315	100	1265	1210	1165	1160	848
MODU0406H	2230	2030	1420	1315	100	1570	1210	1470	1160	946
MODU0407H	2230	2335	1420	1315	100	1875	1210	1775	1160	1056
MODU0408H	2230	2640	1420	1315	100	2180	1210	2080	1160	1158
MODU0505H	2230	1725	1725	1315	100	1265	1515	1165	1465	1487
MODU0506H	2230	2030	1725	1315	100	1570	1515	1470	1465	1541
MODU0507H	2230	2335	1725	1315	100	1875	1515	1775	1465	1225
MODU0508H	2230	2640	1725	1315	100	2180	1515	2080	1465	1283
MODU0509H	2230	2945	1725	1315	100	2485	1515	2385	1465	1378
MODU0606H	2230	2030	2030	1315	100	1570	1820	1470	1770	1222
MODU0607H	2230	2335	2030	1315	100	1875	1820	1775	1770	1405
MODU0608H	2230	2640	2030	1315	100	2180	1820	2080	1770	1536
MODU0609H	2230	2945	2030	1315	100	2485	1820	2385	1770	1669
MODU0610H	2230	3250	2030	1315	100	2790	1820	2690	1770	1837
MODU0707H	2230	2335	2335	1315	100	1875	2125	1775	2075	1681
MODU0708H	2230	2640	2335	1315	100	2180	2125	2080	2075	1746
MODU0709H	2230	2945	2335	1315	100	2485	2125	2385	2075	1897
MODU0710H	2230	3250	2335	1315	100	2790	2125	2690	2075	2046
MODU0711H	2230	3555	2335	1315	100	3095	2125	2995	2075	2267
MODU0712H	2230	3860	2335	1315	100	3400	2125	3300	2075	2415
MODU0713H	1620	4165	2335	1925	100	3705	2125	3605	2075	2574

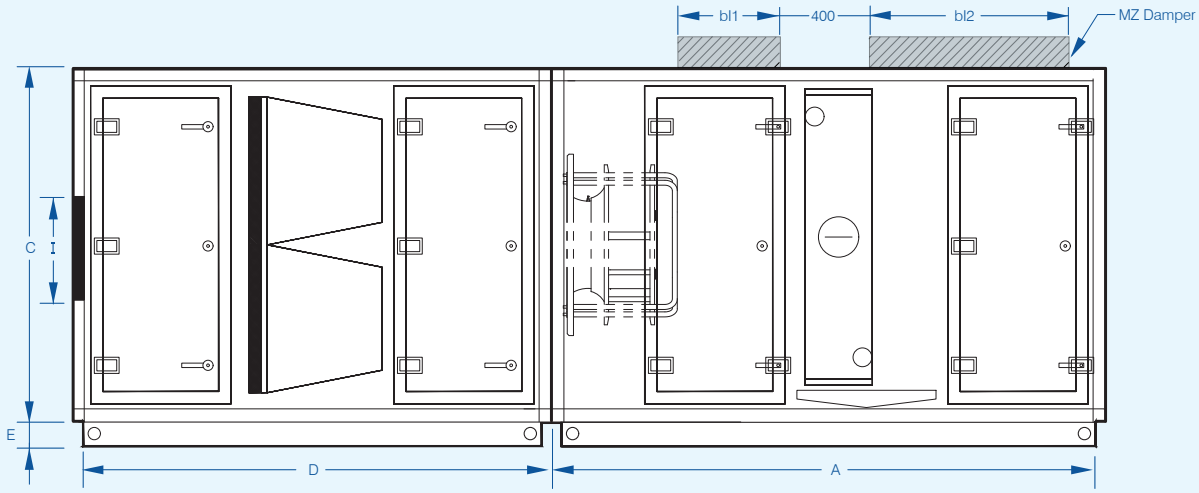
All dimensions in mm.
Weights are an approximation only.
* S/A Opening = Outlet # R/A Opening = Inlet.

MODUtherm

Dimensional Drawing
Multizone Series



Top View



Right View

* Dimension for EC fans on drawing are for fan arrangement only.
EC plug fans selected on above drawing.
Belt driven or AC plug fans to be selected on request.
Fan box dimensions to be longer for belt driven and AC plug fans.
All dimensions in mm.

MODUtherm®

Dimensional Data
Multizone Series

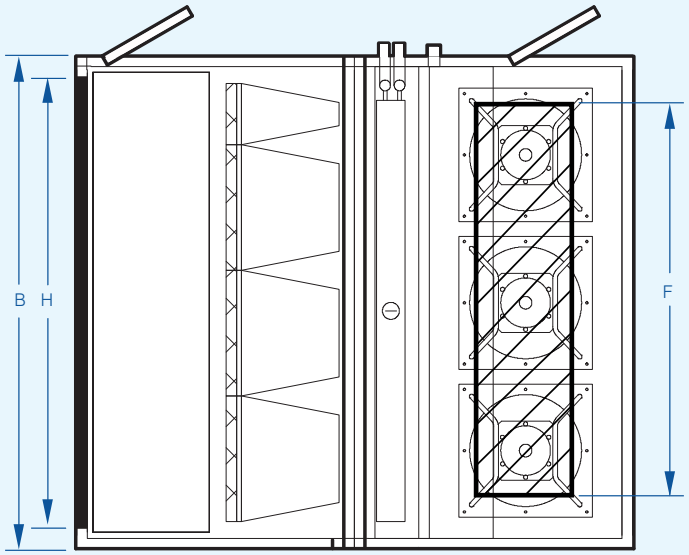
Model Number	Length	Width	Height	FPL Length	Base Height	Supply Air				Return Air		Weight
						BYPASS DAMPER (Zone 1,2,3)		FACE DAMPER (Zone 1,2,3)		R/A Opeing *		
	A	B	C	D	E	Blade Length (bl1)	Blade Witdh (bw1)	Blade Length (bl2)	Blade Width (bw1)	H	I	kg
MODU0202MZ	2230	810	810	1925	100.0	-	-	-	-	250	550	436
MODU0203MZ	2230	1115	810	1925	100.0	160.0	210	300	210.0	555	550	508
MODU0204MZ	2230	1420	810	1925	100.0	220.0	210	450	210.0	860	550	587
MODU0205MZ	2230	1725	810	1925	100.0	300.0	210	550	210.0	1165	550	635
MODU0303MZ	2230	1115	1115	1925	100.0	250.0	210	500	210.0	555	855	616
MODU0304MZ	2230	1420	1115	1925	100.0	250.0	310	500	310.0	860	855	729
MODU0305MZ	2230	1725	1115	1925	100.0	300.0	310	600	310.0	1165	855	865
MODU0306MZ	2230	2030	1115	1925	100.0	300.0	410	550	410.0	1470	855	901
MODU0307MZ	2230	2335	1115	1925	100.0	350.0	410	650	410.0	1775	855	989
MODU0404MZ	2230	1420	1420	1925	100.0	350.0	310	650	310.0	860	1160	879
MODU0405MZ	2230	1725	1420	1925	100.0	320.0	410	650	410.0	1165	1160	1023
MODU0406MZ	2230	2030	1420	1925	100.0	300.0	510	600	510.0	1470	1160	1121
MODU0407MZ	2230	2335	1420	1925	100.0	370.0	510	700	510.0	1775	1160	1306
MODU0408MZ	2230	2640	1420	1925	100.0	350.0	610	700	610.0	2080	1160	1408
MODU0505MZ	2230	1725	1725	1925	100.0	400.0	410	750	410.0	1165	1465	1737
MODU0506MZ	2230	2030	1725	1925	100.0	380.0	510	750	510.0	1470	1465	1791
MODU0507MZ	2230	2335	1725	1925	100.0	450.0	510	800	510.0	1775	1465	1475
MODU0508MZ	2230	2640	1725	1925	100.0	450.0	610	800	610.0	2080	1465	1533
MODU0509MZ	2230	2945	1725	1925	100.0	450.0	710	820	710.0	2385	1465	1628
MODU0606MZ	2230	2030	2030	1925	100.0	450.0	510	820	510.0	1470	1770	1522
MODU0607MZ	2230	2335	2030	1925	100.0	450.0	610	820	610.0	1775	1770	1705
MODU0608MZ	2230	2640	2030	1925	100.0	450.0	710	820	710.0	2080	1770	1836
MODU0609MZ	2230	2945	2030	1925	100.0	450.0	810	820	810.0	2385	1770	1969
MODU0610MZ	2230	3250	2030	1925	100.0	450.0	910	820	910.0	2690	1770	2137
MODU0707MZ	2230	2335	2335	1925	100.0	520.0	610	820	610.0	1775	2075	1981
MODU0708MZ	2230	2640	2335	1925	100.0	500.0	710	820	710.0	2080	2075	2096
MODU0709MZ	2230	2945	2335	1925	100.0	500.0	810	820	810.0	2385	2075	2247
MODU0710MZ	2230	3250	2335	1925	100.0	500.0	910	820	910.0	2690	2075	2396
MODU0711MZ	2230	3555	2335	1925	100.0	500.0	1010	820	1010.0	2995	2075	2617
MODU0712MZ	2230	3860	2335	1925	100.0	500.0	1110	820	1110.0	3300	2075	2815
MODU0713MZ	2230	4165	2335	1925	100.0	550.0	1210	820	1210.0	3605	2075	2974

All dimensions in mm.

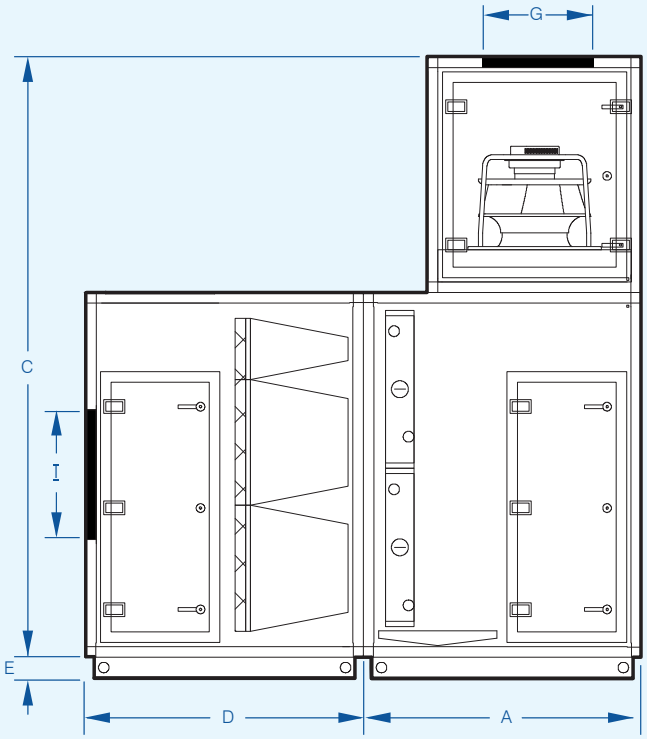
Sizing of multizone damper based on 3 zones. Check damper sizing for suitability. Damper sizing to be 5 m/s coil on & 10 m/s coil off side.
Equal air flow on each zones. Typical arrangement for 3 Zone AHU.
Weights are an approximation only * R/A Opening = Inlet.

MODUtherm

Dimensional Drawing
Vertical Series



Top View



Rig View

* Dimension for EC fans on drawing are for fan arrangement only.
EC plug fans selected on above drawing.
Belt driven or AC plug fans to be selected on request.
Fan box dimensions to be longer for belt driven and AC plug fans.
All dimensions in mm.

MODUtherm®

Dimensional Data
Vertical Series

Model Number	Length	Width	Height	FPL Length	Base Height	S/A Opening*		R/A Opening#		Weight
	A	B	C	D	E	F	G	H	I	kg
MODU0202V	1315	810	1620	1315	100	300	650	250	550	311
MODU0203V	1315	1115	1620	1315	100	605	650	555	550	383
MODU0204V	1315	1420	1620	1315	100	910	650	860	550	462
MODU0205V	1315	1725	1620	1315	100	1215	650	1165	550	510
MODU0303V	1315	1115	2230	1315	100	605	650	555	855	491
MODU0304V	1315	1420	2230	1315	100	910	650	860	855	604
MODU0305V	1315	1725	2230	1315	100	1215	650	1165	855	690
MODU0306V	1315	2030	2230	1315	100	1520	650	1470	855	726
MODU0307V	1315	2335	2230	1315	100	1825	650	1775	855	814
MODU0404V	1315	1420	2535	1315	100	910	650	860	1160	704
MODU0405V	1315	1725	2535	1315	100	1215	650	1165	1160	848
MODU0406V	1315	2030	2535	1315	100	1520	650	1470	1160	946
MODU0407V	1315	2335	2535	1315	100	1825	650	1775	1160	1056
MODU0408V	1315	2640	2535	1315	100	2130	650	2080	1160	1158
MODU0505V	1315	1725	2840	1315	100	1215	650	1165	1465	1487
MODU0506V	1315	2030	2840	1315	100	1520	650	1470	1465	1541
MODU0507V	1315	2335	2840	1315	100	1825	650	1775	1465	1225
MODU0508V	1315	2640	2840	1315	100	2130	650	2080	1465	1283

All dimensions in mm.
Weights are an approximation only.
* S/A Opening = Outlet # R/A Opening = Inlet.

MINItherm

The unique design of the MINItherm® fan coil range offers the latest double skin construction in a compact air handling unit. They are available in Horizontal or Vertical configurations making them ideal for ceilings spaces and plant rooms where space is limited.

Mater Whitty Building

The original Mater Misericordiae Public Hospital in Brisbane, now known as the Whitty Building at Mater Hill, has returned to a clinical role thanks to a $30 million redevelopment. Mater Health Services and the University of Queensland partnered in an Alliance Agreement to transform the heritage-listed building into a modern teaching facility. With new education and teaching spaces, administrative offices and student amenities, the former hospital has transformed to a clinical teaching environment delivering customised UQ/Mater nursing and midwifery programs.

Air Design MINItherm Air Handling Units were chosen for their advanced EC technology. Furthermore, Fantech's reliability and on-time delivery was paramount as the hospital remained in operation for the duration of the project.

Location: Woolloongabba, Queensland
Consultant: Aurecon
Mechanical contractor: Cockram Construction

MINItherm®

Projects

Flinders Medical Centre

Facilities for patients and visitors at Adelaide's Flinders Medical Centre are much improved following a $185.5 million investment. The public teaching hospital and medical school has a new rehabilitation centre; a new centre for the Older Persons' Mental Health Service; a dedicated orthogeriatric service; and new space for Southern Adelaide Palliative Services. A new multi-deck carpark provides 1,220 additional car spaces and brings visitors and patients closer to the hospital.

The upgrade has enabled improved patient safety and privacy. New gyms, a hydrotherapy pool and access to shared garden spaces add to patient wellbeing, aiding recovery and rehabilitation. Air Design MINItherm, MODUtherm and SM series air handling units optimise the indoor conditions and occupant comfort.

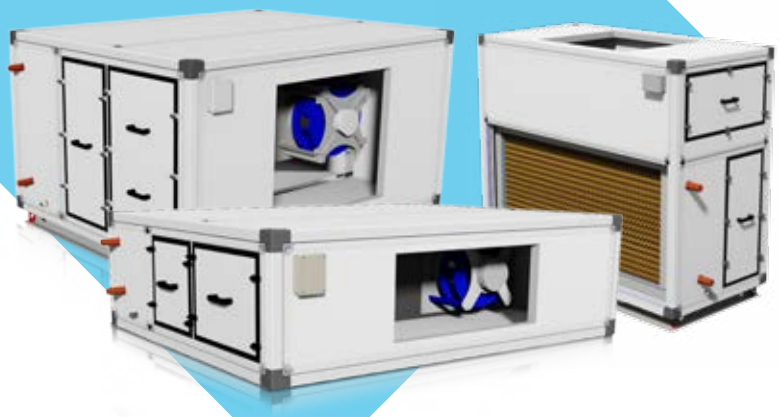
Location: Bedford Park, South Australia
Consultant: BCA Engineers
Mechanical contractor: West Side Mechanical

Mater Whitty Building.
Image courtesy of idec Solutions

Flinders Medical Centre

MINItherm

Modular Fan Coil Units with EC fan motors. Up to 9,500 Litres/Sec.



The unique design of the MINItherm® fan coil range offers the latest double skin construction in a compact air handling unit. The units are available in Horizontal or Vertical configurations making them ideal for ceilings or plant rooms where space is limited.

MINItherm units are purpose-built to enable easy access for servicing and are well suited to projects where performance and value are important. They include high efficiency EC plug fans that can be controlled by MODBUS or 0-10V signal. The fans can run independently or integrated into most building management systems.

The units are constructed with 50mm thick insulated panels that are fitted with the revolutionary AHU CLIP 'n' LOCK fastening system. This airtight system includes a synthetic cord and aluminium capping that gives the unit a strong, rigid structure and allows the panels to be removed easily for maintenance and cleaning. AHU CLIP 'n' LOCK also provides a high thermal performance which reduces condensation and minimises energy loss. The high quality modular casing construction achieves both the highest degree of air tightness, rating "L1", and the highest resistance to condensation rating "TB1", as defined in BS EN 1886:2007.

Features

- High quality double skin Colorbond 50mm polyurethane panel construction that complies with National Construction Code insulation specification J5.2
- Panels have zero ozone depleting potential (0% ODP)
- High efficiency EC plug fans with integrated speed control, current overload and motor phase protection, reverse polarity, locked rotor protection and soft starting
- EC plug fan motors exceed EU's minimum level of efficiency for electric motors (IE4)
- To minimise on-site installation time fan motors are pre-wired to a junction box
- Commissioning is easier with speed controller located on the coil pipe side adjacent to fan discharge
- Chilled water cooling coils available with 3, 4, 5, 6 or 8 rows and 315, 394 or 472 fins per metre
- Hot water heating coils available with 1 or 2 rows and 315, 394 or 472 fins per metre
- Combined maximum of 8 cooling and heating coil rows per unit
- Matching filter plenums are available
- Drain tray manufactured from quality 304 grade stainless steel with 10mm polyethylene insulation (316 grade stainless steel option also available)
- Intermediate tray for stacked core is manufactured from quality 304 grade stainless steel (316 grade stainless steel option also available)

Construction

Units incorporate the unique AHU CLIP 'n' LOCK system where the removable casing panels clip into a continuous aluminium locking strip with an EPDM closed cell foam underseal. The locking strip is secured into position with a continuous synthetic cord, forming an airtight seal. MINItherm units include a modular, thermally broken aluminium frame construction with double skin, 50mm thick polyurethane-filled panels. The unit case has a Class L1 leakage rating and TB1 thermal bridging rating. Casing construction complies with National Construction Code insulation specification J5.2 (all areas except for alpine areas).

Each unit is complete with an access panel on the coil pipe side. The condensate tray is of a non-ponding design manufactured from grade 304 stainless steel. Fans are high efficiency EC plug type in a single or dual arrangement depending on the model.

Fans

- EC motors are 3 phase 415V 50-60Hz or single phase 240V 50-60Hz
- Bearings are sealed for life ball type
- Integrated EC controller for infinite speed control
- IP54 rated

Thermal Protection

Integral thermal overload protection is supplied as standard. Protection will not prevent fans from functioning in fire mode as required by AS/NZS1668.1:2015.

Suggested Specification

The Air Handling Units shall be of the MINItherm series as designed by Fantech and be of the model numbers shown on the schedule drawing.

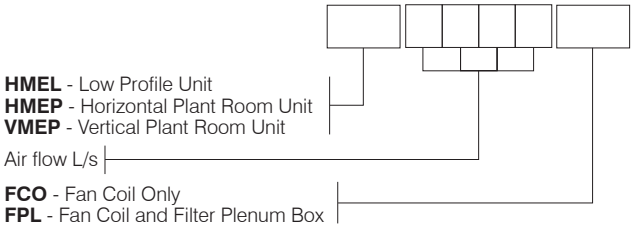
Units shall incorporate a modular, thermally broken, aluminium frame construction with double skin, 50mm thick, polyurethane-filled panels that achieve the highest degree of air tightness rating “L1”, and the highest resistance to condensation, rating “TB1”, as defined in BS EN 1886:2007. Panels shall also comply with the National Construction Code insulation specification J5.2 and have zero ozone depleting potential (0 % ODP).

Unit casings shall incorporate AHU CLIP ‘n’ LOCK removable panels that are sealed airtight by the use of a continuous clip in aluminium locking strip with a continuous EPDM closed cell foam underseal. The panels are locked into the strip with a continuous synthetic cord. The panels shall be removable without the need to remove screws or fasteners. Cooling and heating capacities and external static pressures shall be as shown on the schedule.

Units shall be complete with filter plenums with filter frames fitted. Filter plenums shall have the same construction as the Air Handling Unit.

Fans shall be backward curved centrifugal type, driven by EC motors with an IP54 rating. Fan motors shall be pre-wired to an external terminal box.

How to order



Select unit based on air flow.
Fantech to complete selection with customer, based on the required cooling coil and heating coil data.

MINItherm
Low Profile Horizontal (HMEL Range)
Features a low height of only 620mm making it ideal for mounting in ceiling spaces.

MINItherm
Plant Room Horizontal (HMEP Range)
Features a horizontal configuration and discharge. Suited to floor mounting in a plant room.

MINItherm
Plant Room Vertical (VMEP Range)
Features a vertical configuration and discharge. Suited to floor mounting in a plant room where minimum footprint is required.

MINItherm

Technical Data
Low Profile
Horizontal Series

Model Number	Air Flow	External Static Pressure	Total Cooling Capacity	Sensible Cooling Capacity	Heating Capacity	No. of Fans	Absorbed Power	Fan Speed	Motor Power	Motor Full Load Current
	L/s	Pa	kW	kW	kW		kW	rps	kW	Amps
HMEL0450	450	450	12.2	8.2	8.9	1	0.5	44	0.8	3.7
HMEL0750	740	450	19.7	13.3	15.9	1	0.7	49	0.8	3.7
HMEL1000	1030	450	26.9	18.3	22.7	1	1.2	48	2.5	3.8
HMEL1300	1320	450	35.7	24.0	29.6	1	1.8	56	2.5	3.8
HMEL1600	1610	450	43.5	29.3	36.6	2	0.9 x 2	43	2.5 x 2	3.84 x 2

Air flow and coil performance are at 2.5m/s coil face velocity.
Cooling Capacities are based on 6 row 472fin/m coils with entering air conditions of 26/19°C and water temperatures of 6/12°C.
Heating Capacities are based on 1 row 394fin/m coils with entering air at 12°C and water temperatures of 80/65°C.
Absorbed power, motor power and current (per fan x no of fans).

Acoustic Data
Low Profile
Horizontal Series

Model Number	Air Flow	External Static Pressure	Sound Power Spectrum Db*							
	L/s	Pa		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
HMEL0450	450	450	In Duct	72	68	76	72	73	72	66	63
			Breakout	63	55	61	53	52	45	35	32
HMEL0750	740	450	In Duct	71	66	76	75	76	74	70	67
			Breakout	62	54	60	57	55	47	38	35
HMEL1000	1030	450	In Duct	70	70	80	79	82	80	75	72
			Breakout	61	58	65	61	60	52	44	40
HMEL1300	1320	450	In Duct	76	74	82	85	87	85	80	77
			Breakout	67	63	68	68	65	57	49	45
HMEL1600	1610	450	In Duct	70	70	79	78	82	80	75	71
			Breakout	63	60	65	62	60	52	43	40

* Sound power includes multiple fans where applicable.

MINItherm®

Performance Data
Cooling Coil
Low Profile Horizontal Series

Model Number	Air Flow	Cooling Coil	Air On DB / WB	Air Off DB / WB	Total Capacity	Sensible Capacity	Water Flow	Entering / Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows / (Fins/m)	°C	°C	kW	kW	L/s	°C	kPa	Pa
HMEL0450	450	6/472	23 / 17	10.6 / 10.5	9.4	6.8	0.4	6 / 12	30	192
		6/472	26 / 19	11.1 / 11.0	12.2	8.2	0.5	6 / 12	47	192
		6/472	35 / 24	13.4 / 13.2	18.9	11.9	0.8	6 / 12	16	192
HMEL0750	740	6/472	23 / 17	10.8 / 10.6	15.1	11.1	0.6	6 / 12	15	191
		6/472	26 / 19	11.3 / 11.1	19.7	13.3	0.8	6 / 12	24	191
		6/472	35 / 24	13.1 / 12.8	31.9	19.8	1.3	6 / 12	20	191
HMEL1000	1030	6/472	23 / 17	10.4 / 10.3	22.1	15.8	0.9	6 / 12	37	190
		6/472	26 / 19	11.4 / 11.3	26.9	18.3	1.1	6 / 12	18	190
		6/472	35 / 24	13.0 / 12.8	44.6	27.7	1.8	6 / 12	22	190
HMEL1300	1320	6/472	23 / 17	10.7 / 10.5	27.3	19.9	1.1	6 / 12	23	190
		6/472	26 / 19	11.1 / 11.0	35.7	24.0	1.4	6 / 12	36	190
		6/472	35 / 24	13.6 / 13.3	54.9	34.6	2.2	6 / 12	16	190
HMEL1600	1610	6/472	23 / 17	10.4 / 10.3	34.5	24.7	1.4	6 / 12	40	190
		6/472	26 / 19	11.1 / 11.0	43.5	29.3	1.7	6 / 12	29	190
		6/472	35 / 24	12.9 / 12.7	70.1	43.4	2.8	6 / 12	28	190

Air flow and coil performance are at 2.5m/s coil face velocity.

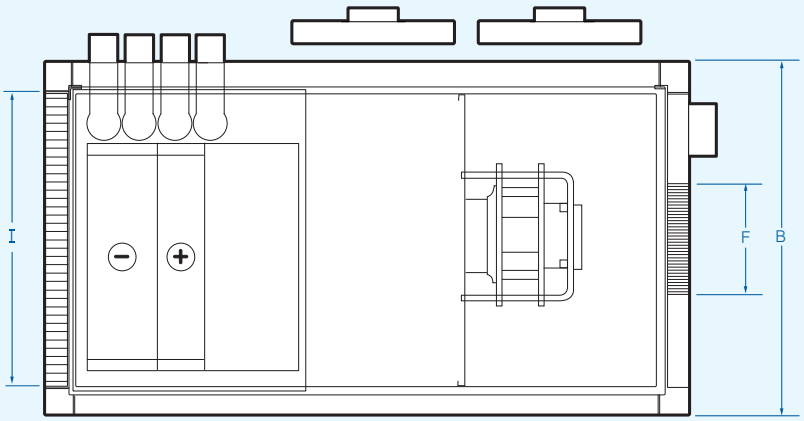
Performance Data
Heating Coil
Low Profile Horizontal Series

Model Number	Air Flow	Heating Coil	Air On DB	Air Off DB	Total Capacity	Water Flow	Entering/ Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows / (Fins/m)	°C	°C	kW	L/s	°C	kPa	Pa
HMEL0450	450	1 / 394	12	28.2	8.9	0.2	80 / 65	1	18
HMEL0750	740	1 / 394	12	29.5	15.9	0.3	80 / 65	3	18
HMEL1000	1030	1 / 394	12	30.1	22.7	0.4	80 / 65	7	18
HMEL1300	1320	1 / 394	12	30.3	29.6	0.5	80 / 65	13	18
HMEL1600	1610	1 / 394	12	30.6	36.6	0.6	80 / 65	22	18

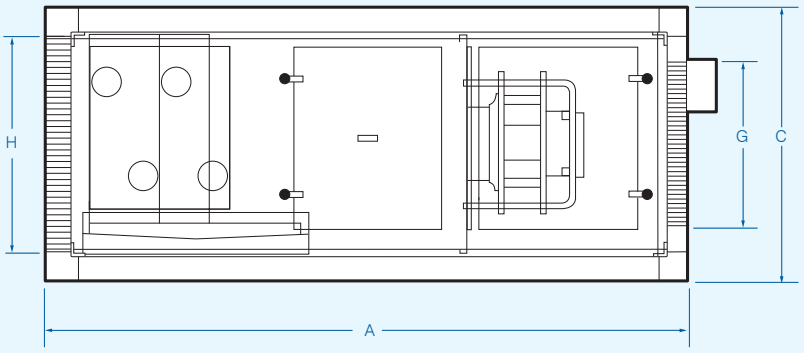
Air flow and coil performance are at 2.5m/s coil face velocity.

MINItherm

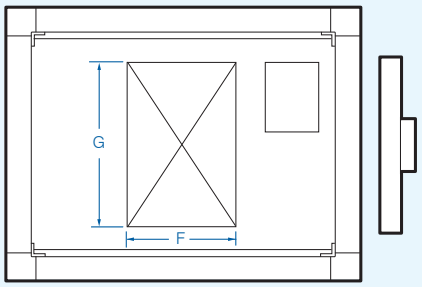
Dimensional Data
Low Profile Series



Top View



Right Side View



Back View

Model Number	Length	Width	Height	S/A Opening*		R/A Opening#		Weight
	A	B	C	F	G	H	I	kg
HMEL0450-FCO	1468	810	620	300	380	470	660	117
HMEL0750-FCO	1468	1115	620	605	380	470	965	145
HMEL1000-FCO	1468	1420	620	910	380	470	1270	182
HMEL1300-FCO	1620	1725	620	1215	380	470	1575	230
HMEL1600-FCO	1620	2030	620	1520	380	470	1880	266

All dimensions in mm.
*S/A Opening = Outlet.
R/A Opening = Inlet.

MINItherm®

Technical Data
Horizontal & Vertical Plant Room

Model Number	Air Flow	External Static Pressure	Total Cooling Capacity	Sensible Cooling Capacity	Heating Capacity	No. of Fans	Absorbed Power	Fan Speed	Motor Power	Motor Full Load Current
	L/s	Pa	kW	kW	kW		kW	rps	kW	Amps
HMEP / VMEP 0650	670	450	16.2	11.4	13.5	1	0.8	49	0.8	3.7
HMEP / VMEP1100	1100	450	29.7	20.0	23.9	1	1.4	50	2.5	3.8
HMEP / VMEP1550	1540	450	40.9	27.7	34.5	1	1.7	36	2.4	3.7
HMEP / VMEP1950	1980	310	51.6	35.2	45.0	1	2.1	40	2.4	3.7
HMEP / VMEP2400	2410	450	65.1	43.8	55.5	2	1.6 x 2	53	2.5 x 2	3.8 x 2
HMEP / VMEP3500	3630	450	94.3	63.4	79.3	2	2 x 2	38	2.4 x 2	3.7 x 2
HMEP / VMEP3100	3086	450	81.4	55.3	68.1	1	3.7	33	5.4	8.2
HMEP / VMEP3950	3958	420	106.9	71.9	88.6	1	4.4	29	5.0	7.7
HMEP / VMEP4800	4829	450	130.5	87.8	109.7	2	2.7 x 2	29	5.4 x 2	8.2 x 2
HMEP / VMEP5900	5902	450	159.5	107.3	134.1	2	3.5 x 2	32	5.4 x 2	8.2 x 2
HMEP / VMEP7000	6975	450	188.5	126.8	158.4	2	3.8 x 2	27	5 x 2	7.7 x 2
HMEP / VMEP8300	8234	450	214.7	146.4	181.7	2	4.8 x 2	30	6 x 2	9 x 2
HMEP / VMEP9500	9493	450	252.0	170.7	209.5	3	3.4 x 3	26	5 x 3	7.7 x 3

Air flow and coil performance are at 2.5m/s coil face velocity.
Cooling Capacities are based on 6 row 472fin/m coils with entering air conditions of 26/19°C and water temperatures of 6/12 °C.
Heating Capacities are based on 1 row 394fin/m coils with entering air at 12°C and water temperatures of 80/65 °C.
Absorbed power, motor power and current (per fan x no of fans).
HMEP= Horizontal MINItherm EC Plantroom, VMEP=Vertical MINItherm Plantroom.

Acoustic Data
Horizontal & Vertical Plant Room

Model Number	Air Flow	External Static Pressure	Sound Power Spectrum dB*							
	L/s	Pa		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
HMEP / VMEP0650	670	450	In Duct	70	65	75	74	76	74	69	66
			Breakout	61	52	60	55	54	46	38	34
HMEP / VMEP1100	1100	450	In Duct	71	71	80	80	83	81	77	73
			Breakout	62	58	65	61	61	53	45	41
HMEP / VMEP1550	1540	450	In Duct	68	68	80	77	79	76	72	73
			Breakout	60	56	65	59	57	47	40	41
HMEP / VMEP1950	1980	310	In Duct	73	75	86	81	84	82	76	82
			Breakout	65	63	72	64	62	53	44	50
HMEP / VMEP2400	2410	450	In Duct	76	76	83	86	88	86	82	78
			Breakout	68	65	69	69	65	57	49	45
HMEP / VMEP3500	3630	450	In Duct	79	81	90	88	88	82	79	77
			Breakout	70	70	75	70	64	52	45	43
HMEP / VMEP3100	3086	450	In Duct	71	69	84	79	82	78	73	77
			Breakout	61	57	69	61	58	48	40	44
HMEP / VMEP3950	3958	420	In Duct	79	83	92	89	86	80	80	80
			Breakout	70	70	77	71	62	50	46	47
HMEP / VMEP4800	4829	450	In Duct	78	83	90	87	85	81	76	73
			Breakout	70	71	75	69	62	51	43	39
HMEP / VMEP5900	5902	450	In Duct	81	84	92	90	90	84	81	79
			Breakout	73	72	77	72	65	54	47	45
HMEP / VMEP7000	6975	450	In Duct	79	85	93	89	86	80	79	78
			Breakout	70	73	79	71	62	49	45	43
HMEP / VMEP8300	8234	450	In Duct	85	86	96	93	90	85	83	82
			Breakout	77	75	82	74	65	54	48	47
HMEP / VMEP9500	9493	450	In Duct	79	88	91	89	86	80	79	76
			Breakout	71	77	77	70	61	49	44	42

* Sound power includes multiple fans where applicable.
HMEP= Horizontal MINItherm EC Plantroom, VMEP=Vertical MINItherm Plantroom.

MINItherm

Performance Data
Cooling Coil
Horizontal & Vertical Plant Room

Model Number	Air Flow	Cooling Coil	Air On DB /WB	Air Off DB / WB	Total Capacity	Sensible Capacity	Water Flow	Entering / Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows /(Fins/m)	°C	°C	kW	kW	L/s	°C	kPa	Pa
HMEP / VMEP0650	670	6/472	23 / 17	10.4 / 10.3	14.4	10.3	0.6	6 / 12	43	189
			26 / 19	12.1 / 11.9	16.2	11.4	0.6	6 / 12	6	189
			35 / 24	13.4 / 13.2	28.2	17.7	1.1	6 / 12	17	189
HMEP / VMEP1100	1100	6/472	23 / 17	10.8 / 10.6	22.5	16.4	0.9	6 / 12	15	188
			26 / 19	11.1 / 11.0	29.7	20.0	1.2	6 / 12	25	188
			35 / 24	12.9 / 12.7	47.9	29.7	1.9	6 / 12	23	188
HMEP / VMEP1550	1540	6/472	23 / 17	10.4 / 10.3	33.0	23.7	1.3	6 / 12	38	189
			26 / 19	11.3 / 11.1	40.9	27.7	1.6	6 / 12	22	189
			35 / 24	12.9 / 12.7	67.0	41.5	2.7	6 / 12	27	189
HMEP / VMEP1950	1980	6/472	23 / 17	10.6 / 10.4	41.7	30.1	1.7	6 / 12	27	190
			26 / 19	11.4 / 11.3	51.6	35.2	2.1	6 / 12	19	190
			35 / 24	13.6 / 13.3	82.3	51.9	3.3	6 / 12	25	190
HMEP / VMEP2400	2410	6/472	23 / 17	10.4 / 10.3	51.7	37.0	2.1	6 / 12	45	189
			26 / 19	11.1 / 11.0	65.1	43.8	2.6	6 / 12	33	189
			35 / 24	12.9 / 12.7	104.9	65.0	4.2	6 / 12	42	189
HMEP / VMEP3500	3630	6/472	23 / 17	10.4 / 10.3	74.9	53.6	3.0	6 / 12	42	190
			26 / 19	11.1 / 11.0	94.3	63.4	3.7	6 / 12	31	190
			35 / 24	12.9 / 12.7	151.9	94.1	6.0	6 / 12	34	190
HMEP / VMEP3100	3086	6/472	23 / 17	10.4 / 10.3	66.2	47.4	2.6	6 / 12	37	190
			26 / 19	11.3 / 11.2	81.4	55.3	3.2	6 / 12	19	190
			35 / 24	13.0 / 12.8	133.6	82.9	5.3	6 / 12	23	190
HMEP / VMEP3950	3958	6/472	23 / 17	10.7 / 10.5	81.9	59.5	3.3	6 / 12	23	190
			26 / 19	11.1 / 11.0	106.9	71.9	4.2	6 / 12	36	190
			35 / 24	12.4 / 12.2	178.0	109.1	7.1	6 / 12	44	190
HMEP / VMEP4800	4829	6/472	23 / 17	10.4 / 10.3	103.6	74.2	4.1	6 / 12	40	190
			26 / 19	11.1 / 11.0	130.5	87.8	5.2	6 / 12	30	190
			35 / 24	12.9 / 12.7	210.2	130.2	8.3	6 / 12	31	190
HMEP / VMEP5900	5902	6/472	23 / 17	10.4 / 10.3	126.6	90.7	5.0	6 / 12	42	190
			26 / 19	11.1 / 11.0	159.5	107.3	6.3	6 / 12	29	190
			35 / 24	12.9 / 12.7	256.9	159.2	10.2	6 / 12	30	190
HMEP / VMEP7000	6975	6/472	23 / 17	10.4 / 10.3	149.6	107.2	5.9	6 / 12	42	190
			26 / 19	11.1 / 11.0	188.5	126.8	7.5	6 / 12	31	190
			35 / 24	12.9 / 12.7	303.6	188.1	12.0	6 / 12	34	190
HMEP / VMEP8300	8234	6/472	23 / 17	10.4 / 10.3	176.6	126.6	7.0	6 / 12	31	190
			26 / 19	11.4 / 11.3	214.7	146.4	8.5	6 / 12	20	190
			35 / 24	12.9 / 12.4	366.3	225.3	14.5	6 / 12	52	190
HMEP / VMEP9500	9493	6/472	23 / 17	10.4 / 10.3	203.6	145.9	8.1	6 / 12	44	190
			26 / 19	11.3 / 11.1	252.0	170.7	10.0	6 / 12	29	190
			35 / 24	12.3 / 12.1	431.5	263.5	17.1	6 / 12	76	190

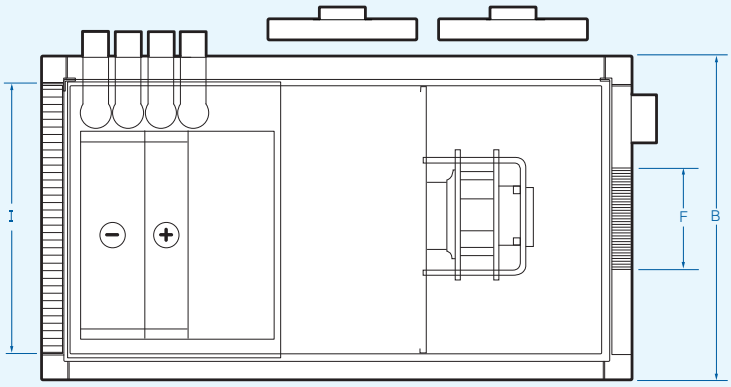
Air flow and coil performance are at 2.5m/s coil face velocity.
HMEP= Horizontal MINItherm EC Plantroom, VMEP=Vertical MINItherm Plantroom.

Performance Data Heating Coil
Horizontal & Vertical Plant Room

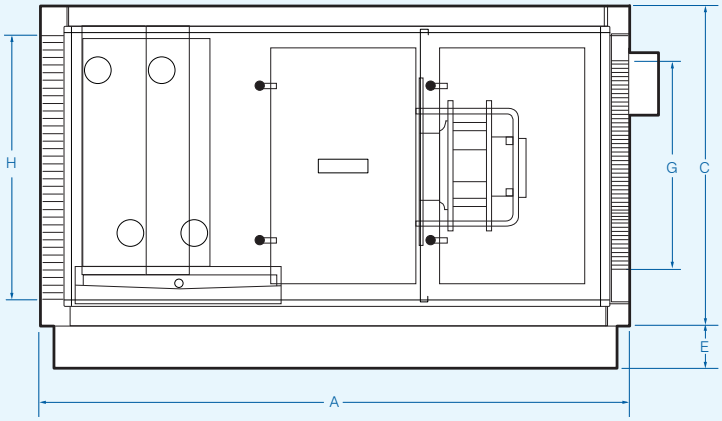
Model Number	Air Flow	Heating Coil	Air On DB	Air Off DB	Total Capacity	Water Flow	Entering/ Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows /(Fins/m)	°C	°C	kW	L/s	°C	kPa	Pa
HMEP / VMEP0650	670	1 / 394	12	28.5	13.5	0.2	80 / 65	1	18
HMEP / VMEP1100	1100	1 / 394	12	29.8	23.9	0.4	80 / 65	3	18
HMEP / VMEP1550	1540	1 / 394	12	30.3	34.5	0.6	80 / 65	8	18
HMEP / VMEP1950	1980	1 / 394	12	30.6	45.0	0.7	80 / 65	16	18
HMEP / VMEP2400	2410	1 / 394	12	30.9	55.5	0.9	80 / 65	27	18
HMEP / VMEP3500	3630	1 / 394	12	30.6	79.3	1.3	80 / 65	25	18
HMEP / VMEP3100	3086	1 / 394	12	30.1	68.1	1.1	80 / 65	7	18
HMEP / VMEP3950	3958	1 / 394	12	30.3	88.6	1.5	80 / 65	13	18
HMEP / VMEP4800	4829	1 / 394	12	30.6	109.7	1.8	80 / 65	22	18
HMEP / VMEP5900	5902	1 / 394	12	30.6	134.1	2.2	80 / 65	19	18
HMEP / VMEP7000	6975	1 / 394	12	30.6	158.4	2.6	80 / 65	25	18
HMEP / VMEP8300	8234	1 / 394	12	30.1	181.7	3.0	80 / 65	5	18
HMEP / VMEP9500	9493	1 / 394	12	30.1	209.5	3.4	80 / 65	7	18

Air flow and coil performance are at 2.5m/s coil face velocity.
HMEP= Horizontal MINItherm EC Plantroom, VMEP=Vertical MINItherm Plantroom.

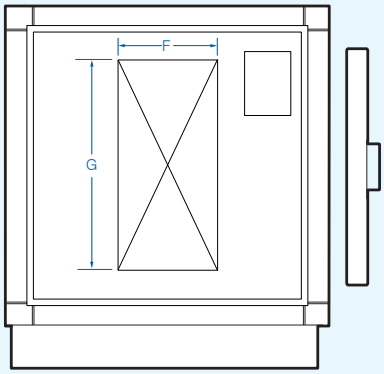
Dimensional Data
Horizontal Plant Room



Top View



Right Side View



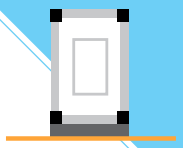
Back View

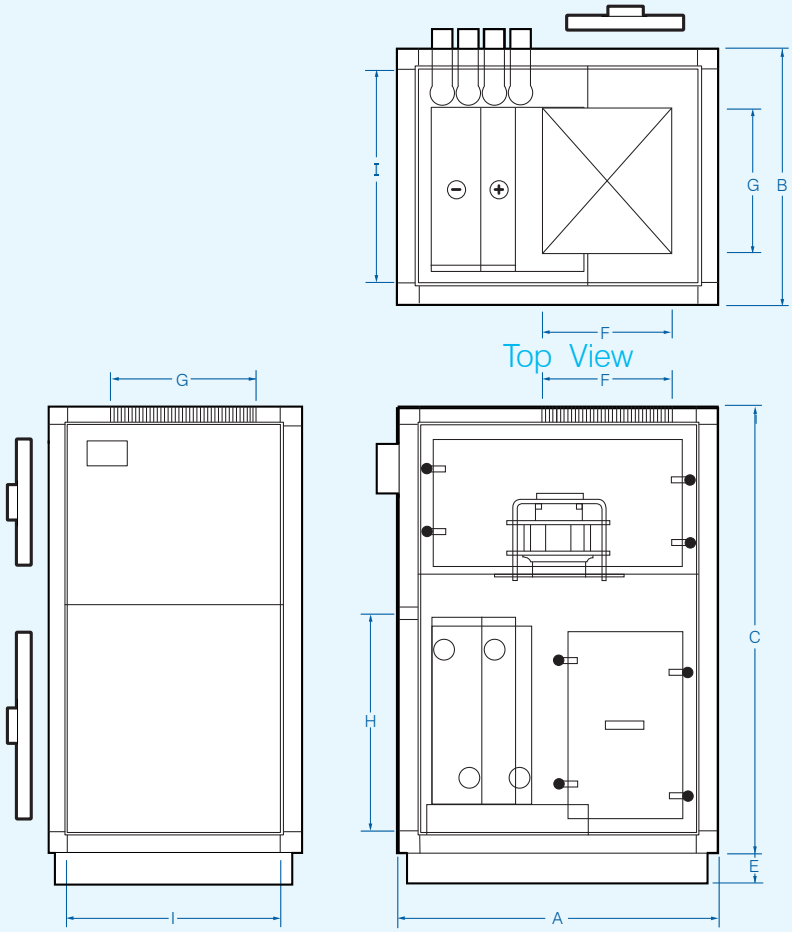
Model Number	Length	Width	Height	Base Height	S/A Opening*		R/A Opening#		Weight
	A	B	C	E	F	G	I	H	kg
HMEP0650-FCO	1468	810	810	100	300	570	660	660	177
HMEP1100-FCO	1468	1115	810	100	605	570	965	660	216
HMEP1550-FCO	1620	1420	810	100	910	570	1270	660	268
HMEP1950-FCO	1620	1725	810	100	1215	570	1575	660	309
HMEP2400-FCO	1620	2030	810	100	1520	570	1880	660	362
HMEP3100-FCO	1620	1420	1420	100	910	1180	1270	1270	406
HMEP3500-FCO	1620	2030	1115	100	1520	875	1880	965	428
HMEP3950-FCO	1620	1725	1420	100	1215	1180	1575	1270	461
HMEP4800-FCO	1925	2030	1420	100	1520	1180	1880	1270	552
HMEP5900-FCO	1925	2030	1725	100	1520	1485	1880	1575	648
HMEP7000-FCO	1925	2030	2030	100	1520	1790	1880	1880	711
HMEP8300-FCO	1925	2335	2030	100	1825	1790	2185	1880	794
HMEP9500-FCO	1925	2640	2030	100	2130	1790	2490	1880	909

All dimensions in mm.
* SA Opening = Outlet.
# R/A Opening = Inlet.

MINItherm

Dimensional Data
Vertical Plant Room



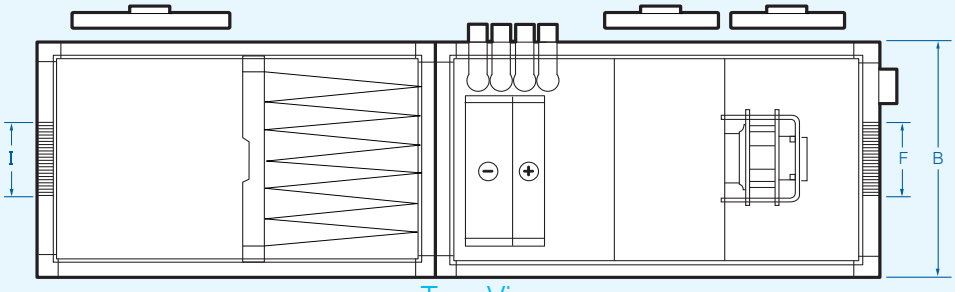


Model Number	Length	Width	Height	Base Height	S/A Opening*		R/A Opening#		Weight
	A	B	C	E	F	G	H	I	kg
VMEP0650-FCO	1010	810	1420	100	380	585	660	660	166
VMEP1100-FCO	1010	1115	1420	100	380	890	660	965	214
VMEP1550-FCO	1010	1420	1420	100	380	1195	660	1270	264
VMEP1950-FCO	1010	1725	1420	100	380	1500	660	1575	302
VMEP2400-FCO	1010	2030	1420	100	380	1805	660	1880	363
VMEP3100-FCO	1010	2030	1725	100	480	1195	1270	1270	422
VMEP3500-FCO	1010	1420	2230	100	380	1805	965	1880	446
VMEP3950-FCO	1010	1725	2230	100	480	1500	1270	1575	481
VMEP4800-FCO	1010	2030	2230	100	480	1805	1270	1880	594
VMEP5900-FCO	1010	2030	2535	100	480	1805	1575	1880	660
VMEP7000-FCO	1010	2030	2840	100	480	1805	1880	1880	716
VMEP8300-FCO	1010	2335	2840	100	480	2110	1880	2185	807
VMEP9500-FCO	1010	2640	2840	100	480	2415	1880	2490	924

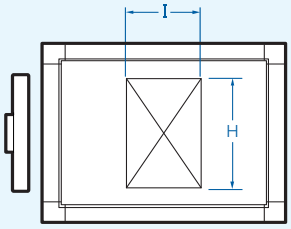
All dimensions in mm.
*S/A Opening = Outlet.
#R/A Opening = Inlet.

MINItherm®

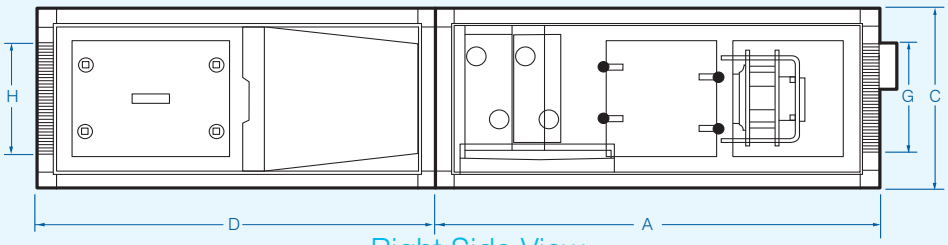
Dimensional Data
Filter & Mixing Box
Low Profile Series



Top View



Front View



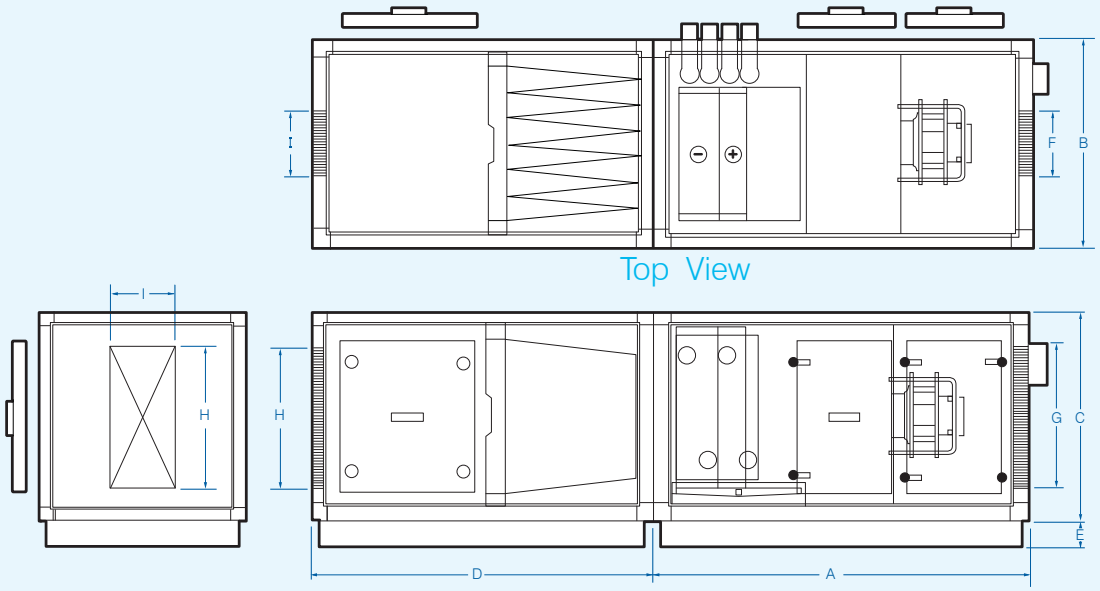
Right Side View

Model Number	Length	Width	Height	FPL Length	S/A Opening*		R/A Opening#		Weight
	A	B	C	D	F	G	H	I	kg
HMEL0450-FPL	1468	810	620	1315	300	380	380	570	66
HMEL0750-FPL	1468	1115	620	1315	605	380	380	875	79
HMEL1000-FPL	1468	1420	620	1315	910	380	380	1180	92
HMEL1300-FPL	1620	1725	620	1315	1215	380	380	1485	106
HMEL1600-FPL	1620	2030	620	1315	1520	380	380	1790	119

All dimensions in mm.
*S/A Opening = Outlet.
#R/A Opening = Inlet.

MINItherm

Dimensional Data
Filter & Mixing Box
Horizontal Plant Room



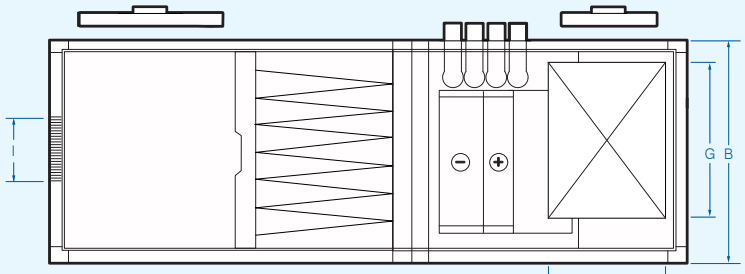
Model Number	Length	Width	Height	FPL Length	Base Height	S/A Opening*		R/A Opening#		Weight
	A	B	C	D	E	F	G	H	I	kg
HMEP0650-FPL	1468	810	810	1315	100	300	570	570	570	272
HMEP1100-FPL	1468	1115	810	1315	100	605	570	570	875	333
HMEP1550-FPL	1620	1420	810	1315	100	910	570	570	1180	412
HMEP1950-FPL	1620	1725	810	1315	100	1215	570	570	1485	475
HMEP2400-FPL	1620	2030	810	1315	100	1520	570	570	1790	557
HMEP3100-FPL	1620	1420	1420	1315	100	1520	875	1180	910	625
HMEP3500-FPL	1620	2030	1115	1315	100	910	1180	570	1790	658
HMEP3950-FPL	1620	1725	1420	1315	100	1215	1180	1180	1215	709
HMEP4800-FPL	1925	2030	1420	1315	100	1520	1180	1180	1520	849
HMEP5900-FPL	1925	2030	1725	1315	100	1520	1485	1200	1520	997
HMEP7000-FPL	1925	2030	2030	1315	100	1520	1790	1200	1685	1094
HMEP8300-FPL	1925	2335	2030	1315	100	1825	1790	1200	1825	1221
HMEP9500-FPL	1925	2640	2030	1315	100	2130	1790	1200	2130	1398

All dimensions in mm.

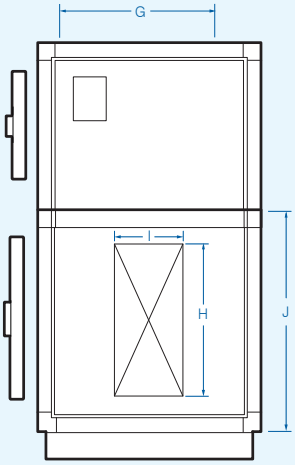
* S/A Opening = Outlet

R/A Opening = Inlet.

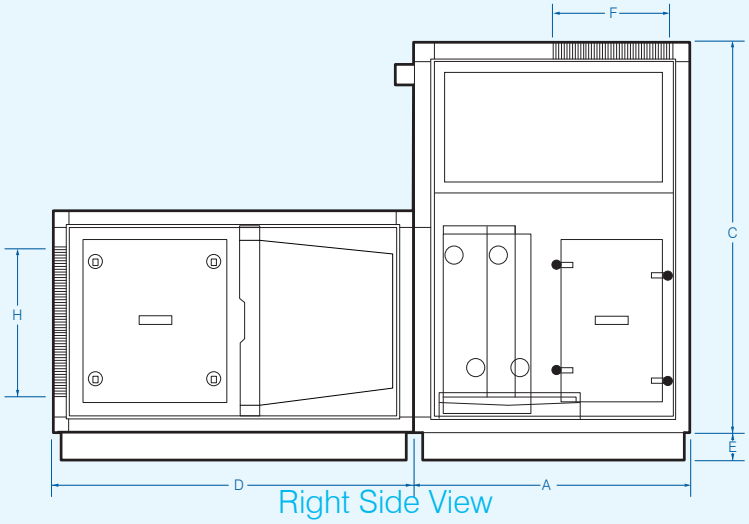
Dimensional Data
Filter & Mixing Box
Vertical Plant Room



Top View



Front View



Right Side View

Model Number	Length	Width	Height	FPL Length	FPL Height	Base Height	S/A Opening*		R/A Opening#		Weight
	A	B	C	D	J	E	F	G	H	I	kg
VMEP0650-FPL	1010	810	1420	1315	810	100	380	585	570	570	275
VMEP1100-FPL	1010	1115	1420	1315	810	100	380	890	570	875	340
VMEP1550-FPL	1010	1420	1420	1315	810	100	380	1195	570	1180	420
VMEP1950-FPL	1010	1725	1420	1315	810	100	380	1500	570	1485	480
VMEP2400-FPL	1010	2030	1420	1315	810	100	380	1805	570	1790	585
VMEP3100-FPL	1010	2030	1725	1315	1115	100	480	1195	1180	910	630
VMEP3500-FPL	1010	1420	2230	1315	1420	100	380	1805	570	1790	660
VMEP3950-FPL	1010	1725	2230	1315	1420	100	480	1500	1180	1215	725
VMEP4800-FPL	1010	2030	2230	1315	1420	100	480	1805	1180	1520	890
VMEP5900-FPL	1010	2030	2535	1315	1725	100	480	1805	1200	1520	985
VMEP7000-FPL	1010	2030	2840	1315	2030	100	480	1805	1200	1685	1022
VMEP8300-FPL	1010	2335	2840	1315	2030	100	480	2110	1200	1825	1235
VMEP9500-FPL	1010	2640	2840	1315	2030	100	480	2415	1200	2130	1310

All dimensions in mm.

* S/A Opening = Outlet

R/A Opening = Inlet.

SLIMtherm

The SLIMtherm™ range of Fan Coil Units combines the benefits of a quality double skin casing construction and an extra low profile design to make it well suited for applications where ceiling space is limited. In addition, the compact, slimline design makes the unit easier to retrofit into existing ceiling cavities that have only narrow space available.

Lismore Base Hospital

Works at Lismore Base Hospital have bolstered its ability to meet the medical needs of the region for many years to come. Construction of a 12-storey South Tower at the front of the site and refurbishment of existing areas provides larger Emergency and Renal Departments, a new ambulance drop-off, a hospital mortuary and spacious front entrance. The flexible design expands the current capacity of the hospital with access to a wider range of services, but also provides space for future growth.

Inside, a combination of Air Design SLIMtherm, MODUtherm, MINItherm and loose coils deliver conditioned air to maximise the comfort of patients and visitors. The $80.25 million project will be complemented by a four-storey North Tower to begin construction in mid-2018.

Location: Lismore, NSW
Consultant: Wood & Grieve
Mechanical contractor: Climatech

SLIMtherm™

Projects

Darwin International Airport

A multi-million dollar upgrade of Darwin International Airport has doubled the terminal capacity and ensured it has the ability to attract air services to support the territory's tourism, business and industry. The eastern and western ends of the 1991-built terminal were extended to double its capacity and meet the growing number of visitors. Customer service was also improved with better baggage systems and security screening areas, new airline lounges and retail upgrades. The Air Design extra low profile SLIMtherm Fan Coil Unit helps maintain comfortable conditioned spaces, and was easily retrofitted into the existing ceiling cavities.

Improvements to the outside include a 15,000 square metre extension to the airport apron, airside lighting upgrade, six new boarding gates and three new aircraft parking bays. The upgrades will enable the airport to handle the growing number of passengers and air services required.

Location: Darwin, Northern Territory
Consultant: Cardno
Mechanical Contractor: FRM Refrigeration

Lismore Base Hospital

Darwin International Airport

SLIMtherm

Extra Low Profile Fan Coil Units with EC fan motors. Up to 1,600 Litres/Sec.

The SLIMtherm™ range of Fan Coil Units combines the benefits of a quality double skin casing construction and an extra low profile design. Units are available in both horizontal and vertical configurations.

SLIMtherm units with a horizontal configuration are designed to be hung within a ceiling void. The extra low profile design makes the horizontally configured SLIMtherm units an ideal solution for low ceiling height applications.

SLIMtherm units in a vertical configuration are designed to minimize the plant room space needed for installation. The compact dimensions of the vertically configured SLIMtherm units makes them ideal for projects where plant room space is restricted.

The units are constructed with 25mm thick insulated panels that are fitted with the revolutionary FCU CLIP 'n' LOCK fastening system. This airtight system includes a synthetic cord and aluminium capping that gives the unit a strong, rigid structure and allows the panels to be removed easily for maintenance and cleaning. The high quality modular casing construction achieves the highest degree of air tightness, rating "L1", as defined in BS EN 1886:2007.

SLIMtherm units include high efficiency EC plug fans that can be controlled by MODBUS or 0-10V signal and run independently or integrated into most building management systems. The EC fans can be easily accessed for maintenance or replacement by removing an FCU CLIP 'n' LOCK side panel.

Features

- Extra low profile height from 410 to 540mm allows SLIMtherm to fit into limited ceiling spaces
- High quality double skin Colorbond 25mm polyurethane FCU CLIP 'n' LOCK panels
- Panels have zero ozone depleting potential (0% ODP)
- High efficiency single phase EC plug fans with integrated speed control, current overload and motor phase protection, reverse polarity, locked rotor protection and soft starting
- EC plug fan motors rated IP54
- To minimise on-site installation time fan motors are pre-wired to a junction box
- Chilled water cooling coils available with up to 6 rows
- Hot water heating coils available with 1 or 2 rows
- Combined maximum of 6 cooling and heating coil rows per unit
- Drain tray manufactured from quality 304 grade stainless steel. Also available in 316 grade stainless steel
- G4 filters provided as standard
- Optional F8 filters with filter frames

Construction

Units incorporate the unique FCU CLIP 'n' LOCK system where the removable casing panels clip into a continuous aluminium locking strip with an EPDM closed cell foam underseal. The locking strip is secured into position with a continuous synthetic cord, forming an airtight seal. Casing includes double skin, 25mm thick, polyurethane-filled removable panels. The unit case has a Class L1 leakage rating.

Each unit is pre-fitted with G4-rated, 25mm flat panel filters mounted on an external slide rail. The condensate tray is of a non-ponding design manufactured from grade 304 stainless steel. Units incorporate multiple, high efficiency single phase EC plug fans. The number of fans varies depending on the model.

SLIMtherm™

Fans

- EC motors are single phase 240V 50-60Hz
- Bearings are sealed for life ball type
- Integrated EC controller provides infinite speed control
- IP54 rated

Thermal Protection

Integral thermal overload protection is supplied as standard. Protection will not prevent fans from functioning in fire mode as required by AS/NZS1668.1:2015.

Suggested Specification

The Fan Coil Units shall be of the SLIMtherm series as designed by Fantech and be of the model numbers shown on the schedule drawing.

Units shall incorporate a modular, aluminium frame construction with double skin, 25mm thick, polyurethane filled panels that achieve the highest degree of air tightness rating “L1”, as defined in BS EN 1886:2007. Panels shall have zero ozone depleting potential (0% ODP).

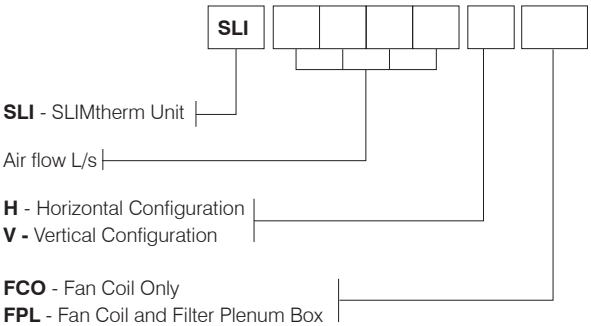
Unit casings shall incorporate AHU CLIP ‘n’ LOCK removable panels that are sealed air tight by the use of a continuous clip in aluminium locking strip with a continuous EPDM closed cell foam underseal. The panels are locked into the strip with a continuous synthetic cord. The panels shall be removable without the need to remove screws or fasteners. Cooling and heating capacities and external static pressures shall be as shown on the schedule.

Units shall be complete with filter plenums with filter frames fitted. Filter plenums shall have the same construction as the Fan Coil Unit.

Fans shall be backward-curved, centrifugal type, driven by EC motors with an IP54 rating. Fan motors shall be pre-wired to an external terminal box.

Units shall use G4 or 50mm filters.

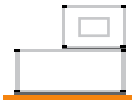
How to order



Select unit based on air flow.
Fantech to complete selection with customer based on the required cooling coil and heating coil data.

SLIMtherm Horizontal

Features a low height of only 410mm making it ideal for mounting in ceiling spaces.



SLIMtherm Vertical

Features a vertical configuration and discharge. Suited to floor mounting in a plant room where minimum footprint is required.

SLIMtherm

Technical Data
Low Profile
Horizontal Series

Model Number	Air Flow	External Static Pressure	Total Cooling Capacity	Sensible Cooling Capacity	Heating Capacity	No. of Fans	Absorbed Power	Fan Speed	Motor Power	Motor Full Load Current
	L/s	Pa	kW	kW	kW		kW	rps	kW	Amps
SLI0300H	299	250	7.3	5.1	5.9	1	0.2	39	0.5	2.4
SLI0490H	493	250	11.7	8.2	10.6	1	0.4	47	0.5	2.4
SLI0680H	686	250	17.2	11.8	15.1	2	0.3 x 2	41	0.5 x 2	2.37 x 2
SLI0880H	880	250	21.6	14.9	19.7	2	0.3 x 2	45	0.5 x 2	2.37 x 2
SLI1070H	1074	250	27.0	18.5	24.4	2	0.5 x 2	50	0.5 x 2	2.37 x 2
SLI1300H	1320	250	31.5	22.0	29.6	3	0.3 x 3	45	0.5 x 3	2.37 x 3
SLI1600H	1610	250	39.5	27.3	36.6	3	0.5 x 3	50	0.5 x 3	2.37 x 3

Air flow and coil performance are at 2.5m/s coil face velocity.
Cooling Capacities are based on 6 row 472fin/m coils with entering air conditions of 26/19°C and water temperatures of 6/12°C.
Heating Capacities are based on 1 row 394fin/m coils with entering air at 12°C and water temperatures of 80/65°C.
Absorbed power, motor power and current (per fan x no of fans).

Acoustic Data
Low Profile
Horizontal Series

Model Number	Air Flow	External Static Pressure	Sound Power Spectrum dB*							
	L/s	Pa		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
SLI0300H	299	250	In Duct	71	66	69	67	67	66	60	55
			Breakout	60	51	52	46	44	38	28	22
SLI0490H	493	250	In Duct	69	72	72	73	73	73	68	63
			Breakout	58	58	55	52	51	44	35	31
SLI0680H	686	250	In Duct	73	71	72	71	71	71	65	59
			Breakout	63	57	55	51	48	42	32	26
SLI0880H	880	250	In Duct	74	74	74	74	74	74	69	64
			Breakout	64	61	57	55	51	45	36	31
SLI1070H	1074	250	In Duct	69	76	76	77	78	78	73	68
			Breakout	60	63	61	58	55	48	40	35
SLI1300H	1320	250	In Duct	76	76	75	75	76	76	71	65
			Breakout	65	63	59	56	52	46	37	32
SLI1600H	1610	250	In Duct	71	78	78	79	80	80	75	70
			Breakout	61	64	62	60	56	49	41	36

* Sound power includes multiple fans where applicable.

SLIMtherm™

Performance Data
Cooling Coil
Low Profile Horizontal Series

Model Number	Air Flow	Cooling Coil	Air On DB / WB	Air Off DB / WB	Total Capacity	Sensible Capacity	Water Flow	Entering / Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows / (Fins/m)	°C	°C	kW	kW	L/s	°C	kPa	Pa
SLI0300H	299	5 / 472	23 / 17	11.53 / 11.25	5.6	4.2	0.2	6 / 12	21	159
			26 / 19	12.12 / 11.81	7.3	5.1	0.2	6 / 12	33	159
			35 / 24	15.13 / 14.65	11.1	7.3	0.4	6 / 12	11	159
SLI0490H	493	5 / 472	23 / 17	11.79 / 11.51	8.8	6.8	0.4	6 / 12	10	159
			26 / 19	12.38 / 12.07	11.7	8.2	0.4	6 / 12	16	159
			35 / 24	13.91 / 13.46	20.3	12.7	0.8	6 / 12	42	159
SLI0680H	686	5 / 472	23 / 17	11.44 / 11.16	13.0	9.7	0.5	6 / 12	25	158
			26 / 19	11.91 / 11.60	17.2	11.8	0.5	6 / 12	40	158
			35 / 24	14.06 / 13.61	27.9	17.6	1.1	6 / 12	34	158
SLI880H	880	5 / 472	23 / 17	11.53 / 11.25	16.4	12.3	0.7	6 / 12	16	158
			26 / 19	12.12 / 11.81	21.6	14.9	0.7	6 / 12	26	158
			35 / 24	14.67 / 14.21	34.0	21.9	1.4	6 / 12	16	158
SLI1070H	1074	5 / 472	23 / 17	11.44 / 11.16	20.3	15.2	0.8	6 / 12	27	159
			26 / 19	11.91 / 11.6	27.0	18.5	0.8	6 / 12	45	159
			35 / 24	14.22 / 13.76	43.1	27.3	1.7	6 / 12	27	159
SLI1300H	1320	5 / 472	23 / 17	11.73 / 11.44	23.9	18.2	1.0	6 / 12	12	158
			26 / 19	12.34 / 12.02	31.5	22.0	1.0	6 / 12	19	158
			35 / 24	14.67 / 14.21	51.1	32.8	2.0	6 / 12	21	158
SLI1600H	1610	5 / 472	23 / 17	11.44 / 11.16	30.4	22.7	1.2	6 / 12	21	158
			26 / 19	12.12 / 11.81	39.5	27.3	1.2	6 / 12	33	158
			35 / 24	14.22 / 13.76	64.6	40.9	2.6	6 / 12	35	158

Air flow and coil performance are at 2.5m/s coil face velocity.

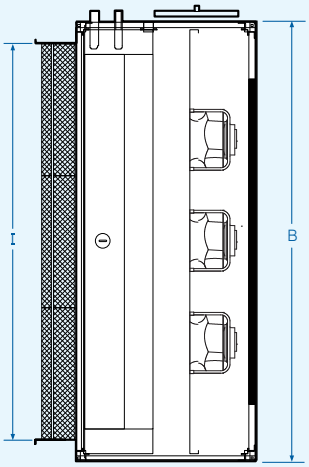
Performance Data
Heating Coil
Low Profile Horizontal Series

Model Number	Air Flow	Heating Coil	Air On DB	Air Off DB	Total Capacity	Water Flow	Entering/ Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows / (Fins/m)	°C	°C	kW	L/s	°C	kPa	Pa
SLI0300H	299	1 / 394	12	28.2	5.9	0.1	80 / 65	1	18
SLI0490H	493	1 / 394	12	29.5	10.6	0.17	80 / 65	4	18
SLI0680H	686	1 / 394	12	30.1	15.1	0.25	80 / 65	8	18
SLI0880H	880	1 / 394	12	30.3	19.7	0.32	80 / 65	15	18
SLI1070H	1074	1 / 394	12	30.6	24.4	0.4	80 / 65	26	18
SLI1300H	1320	1 / 394	12	30.3	29.6	0.48	80 / 65	13	18
SLI1600H	1610	1 / 394	12	30.6	36.6	0.6	80 / 65	22	18

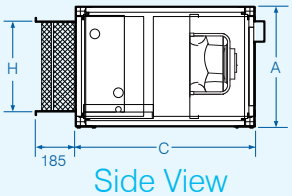
Air flow and coil performance are at 2.5m/s coil face velocity.

SLIMtherm

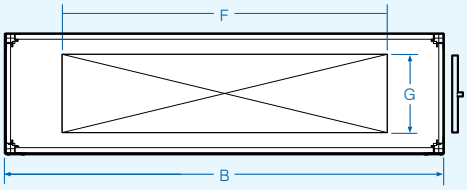
Dimensional Data
Fan Coil Unit Only (FCO)
Low Profile Horizontal Series



Top View



Side View



Front View

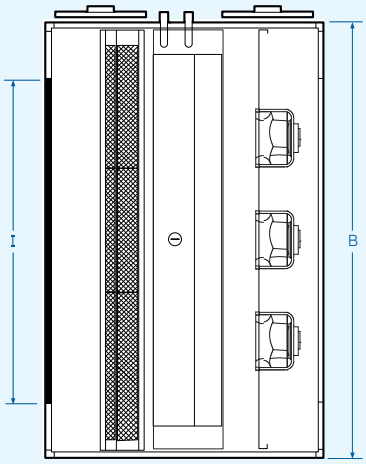
Model Number	Height	Width	Length	S/A Opening*		R/A Opening#		Weight
	A	B	C	F	G	H	I	kg
SLI0300H-FCO	410	760	808	250	220	297	595	85
SLI0490H-FCO	410	1065	808	555	220	297	887	95
SLI0650H-FCO	410	1370	808	867	220	297	1190	110
SLI0850H-FCO	410	1675	808	1165	220	297	1482	135
SLI1050H-FCO	410	1980	808	1470	220	297	1785	150
SLI1300H-FCO	540	1675	808	1165	350	399	1482	155
SLI1600H-FCO	540	1980	808	1470	350	399	1785	175

All dimensions in mm.
* S/A Opening = Outlet # R/A Opening = Inlet.

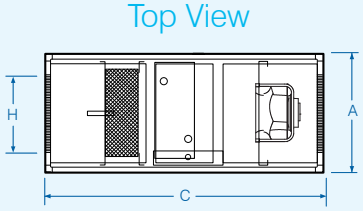
SLIMtherm™

Dimensional Data

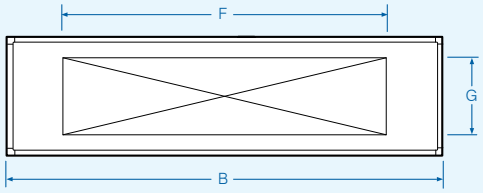
Fan Coil Unit and Filter Plenum Box (FPL)
Low Profile Horizontal Series



Top View



Side View



Front View

Model Number	Height	Width	Length	S/A Opening*		R/A Opening#		Weight
	A	B	C	F	G	H	I	kg
SLI0300H-FPL	410	760	1265	250	220	220	250	88
SLI0490H-FPL	410	1065	1265	555	220	220	555	106
SLI0650H-FPL	410	1370	1265	867	220	220	867	154
SLI0850H-FPL	410	1675	1265	1165	220	220	1165	179
SLI1050H-FPL	410	1980	1265	1470	220	220	1470	201
SLI1300H-FPL	540	1675	1265	1165	350	350	1165	212
SLI1600H-FPL	540	1980	1265	1470	350	350	1470	239

All dimensions in mm.
* S/A Opening = Outlet # R/A Opening = Inlet.

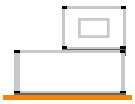
SLIMtherm

Technical Data
Vertical Series

Model Number	Air Flow	External Static Pressure	Total Cooling Capacity	Sensible Cooling Capacity	Heating Capacity	No. of Fans	Absorbed Power	Fan Speed	Motor Power	Motor Full Load Current
	L/s	Pa	kW	kW	kW		kW	rps	kW	Amps
SLI0400V	448	250	11.0	7.6	8.9	1	0.4	46	0.5	2.4
SLI0700V	739	250	17.5	12.3	15.8	2	0.3 x 2	43	0.5 x 2	2.37 x 2
SLI1000V	1029	250	25.9	17.7	22.7	2	0.5 x 2	49	0.5 x 2	2.37 x 2
SLI1300V	1320	250	31.5	22.0	29.6	3	0.3 x 3	45	0.5 x 3	2.37 x 3
SLI1600V	1610	250	39.5	27.3	36.6	3	0.5 x 3	50	0.5 x 3	2.37 x 3

Air flow and coil performance are at 2.5m/s coil face velocity.
Cooling Capacities are based on 6 row 472fin/m coils with entering air conditions of 26/19°C and water temperatures of 6/12°C.
Heating Capacities are based on 1 row 394fin/m coils with entering air at 12°C and water temperatures of 80/65°C.
Absorbed power, motor power and current (per fan x no of fans).

Acoustic Data
Vertical Series



Model Number	Air Flow	External Static Pressure	Sound Power Spectrum dB*							
	L/s	Pa		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
SLI0400V	448	250	In Duct	73	72	71	72	72	72	66	61
			Breakout	61	57	53	51	48	42	32	27
SLI0700V	739	250	In Duct	71	73	73	72	73	72	66	61
			Breakout	59	58	55	51	48	41	31	26
SLI1000V	1029	250	In Duct	67	76	76	77	78	77	72	68
			Breakout	55	61	58	56	52	45	37	33
SLI1300V	1320	250	In Duct	76	76	75	75	76	76	71	65
			Breakout	65	63	59	56	52	46	37	32
SLI1600V	1610	250	In Duct	71	78	78	79	80	80	75	70
			Breakout	61	64	62	60	56	49	41	36

* Sound power includes multiple fans where applicable.

SLIMtherm™

Performance Data
Cooling Coil
Vertical Series

Model Number	Air Flow	Cooling Coil	Air On DB / WB	Air Off DB / WB	Total Capacity	Sensible Capacity	Water Flow	Entering / Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows / (Fins/m)	°C	°C	kW	kW	L/s	°C	kPa	Pa
SLI0400V	448	5 / 472	23.00 / 17.00	11.53 / 11.25	8.4	6.3	0.3	6 / 12	21	159
			26.00 / 19.00	12.12 / 11.81	11.0	7.6	0.4	6 / 12	33	159
			35.00 / 24.00	15.13 / 14.65	16.7	10.9	0.7	6 / 12	11	159
SLI0700V	739	5 / 472	23.00 / 17.00	11.79 / 11.51	13.2	10.1	0.5	6 / 12	10	159
			26.00 / 19.00	12.39 / 12.07	17.5	12.3	0.7	6 / 12	17	159
			35.00 / 24.00	13.91 / 13.46	30.4	19.0	1.2	6 / 12	43	159
SLI1000V	1029	5 / 472	23.00 / 17.00	11.44 / 11.16	19.4	14.5	0.8	6 / 12	25	158
			26.00 / 19.00	11.91 / 11.60	25.9	17.7	1.0	6 / 12	41	158
			35.00 / 24.00	14.37 / 13.91	40.8	25.9	1.6	6 / 12	26	158
SLI1300V	1320	5 / 472	23.00 / 17.00	11.73 / 11.44	23.9	18.2	1.0	6 / 12	12	158
			26.00 / 19.00	12.34 / 12.02	31.5	22.0	1.0	6 / 12	19	158
			35.00 / 24.00	14.67 / 14.21	51.1	32.8	2.0	6 / 12	21	158
SLI1600V	1610	5 / 472	23.00 / 17.00	11.44 / 11.16	30.4	22.7	1.2	6 / 12	21	158
			26.00 / 19.00	12.12 / 11.81	39.5	27.3	1.2	6 / 12	33	158
			35.00 / 24.00	14.22 / 13.76	64.6	40.9	2.6	6 / 12	35	158

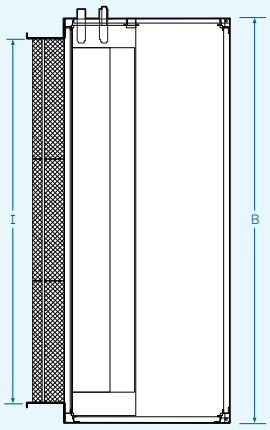
Performance Data
Heating Coil
Vertical Series

Model Number	Air Flow	Heating Coil	Air On DB	Air Off DB	Total Capacity	Water Flow	Entering/ Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows / (Fins/m)	°C	°C	kW	L/s	°C	kPa	Pa
SLI0400V	448	1 / 394	12	28.2	8.9	0.2	80 / 65	1	18
SLI0700V	739	1 / 394	12	29.5	15.8	0.3	80 / 65	3	18
SLI1000V	1029	1 / 394	12	30.1	22.7	0.4	80 / 65	7	18
SLI1300V	1320	1 / 394	12	30.3	29.6	0.48	80 / 65	13	18
SLI1600V	1610	1 / 394	12	30.6	36.6	0.6	80 / 65	22	18

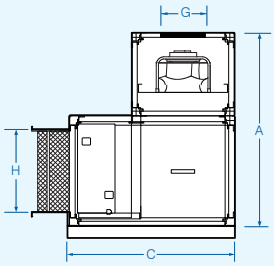
Air flow and coil performance are at 2.5m/s coil face velocity.

SLIMtherm

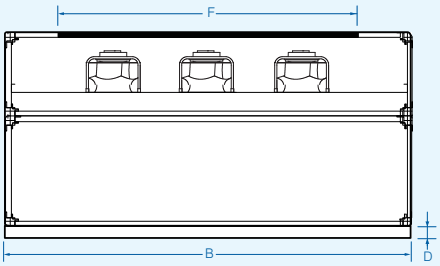
Dimensional Data
Fan Coil Only (FCO)
Vertical Series



Top View



Side View



Front View

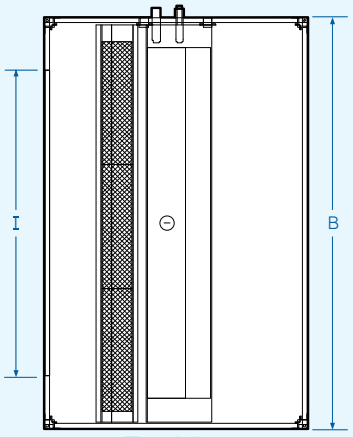
Model Number	Height	Width	Length	Base Height	S/A Opening*		R/A Opening#		Weight
	A	B	C	D	F	G	H	I	kg
SLI0300V-FCO	950	760	808	80	250	220	297	595	85
SLI0700V-FCO	950	1370	808	80	555	220	297	887	146
SLI1000V-FCO	950	1980	808	80	860	220	297	1190	171
SLI1300V-FCO	950	1675	808	80	1165	220	297	1482	211
SLI1600V-FCO	950	1980	808	80	1470	220	297	1785	237

All dimensions in mm.
* S/A Opening = Outlet.
# R/A Opening = Inlet.

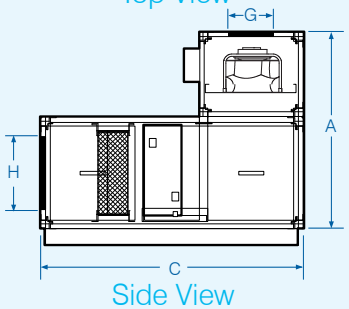
SLIMtherm™

Dimensional Data

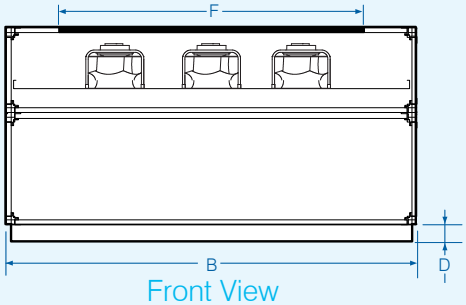
Fan Coil & Filter Plenum Box (FPL)
Vertical Series



Top View



Side View



Front View

Model Number	Height	Width	Length	Base Height	S/A Opening*		R/A Opening#		Weight
	A	B	C	D	F	G	H	I	kg
SLI0300V-FPL	950	760	1265	80	250	220	220	250	121
SLI0700V-FPL	950	1370	1265	80	555	220	220	555	162
SLI1000V-FPL	950	1980	1265	80	860	220	220	860	191
SLI1300V-FPL	950	1675	1265	80	1165	220	220	1165	234
SLI1600V-FPL	950	1980	1265	80	1470	220	220	1470	264

All dimensions in mm.
* S/A Opening = Outlet.
# R/A Opening = Inlet.

SM Series

The SM Series™ of Fan Coil Units is ideal for in-ceiling installations and includes AC or EC single phase motors.

New Royal Adelaide Hospital

South Australia's single largest infrastructure project will deliver a state-of-the-art hospital with the capacity to admit around 80,000 patients per year. Situated in Adelaide's west end medical precinct, the new Royal Adelaide Hospital is seven times the size of its neighbouring SA Health and Medical Research Institute (SAHMRI). It features the latest medical technology and has a strong focus on patient wellbeing with single patient rooms that include opening windows, natural light, and access to outdoors with over 70 internal courtyards.

Over 300 Air Design SM series fan coil units and more than 95 MODUtherm air handling units deliver filtered fresh air throughout the building. Fantech in-line fans, attenuators and JetVent car park fans complement the sustainable initiatives that make this the 'greenest' hospital in South Australia.

Location: North Terrace, Adelaide
Consultant: LCI and Bestec
Mechanical contractor: BSA and Watson Fitzgerald & Associates

SM Series™

Projects

Advanced Engineering Building, University of Queensland

Engineering students at the University of Queensland's St Lucia campus will benefit from a hands-on approach to learning thanks to the unique design of the new Advanced Engineering Building. The building connects students, researchers and industry, and has earned a 5-star Green Star – Education Design v1 rating from the Green Building Council of Australia,

Designed to encourage learning, the building features exposed concrete, steel and timber components allowing the structural loads and stresses to be monitored over time. Similarly, the various mechanical services systems which include Air Design's SM series fan coil units, are in full view as a learning tool.

Screens throughout the structure show how the building adapts during the day with the self-managed energy output, water consumption and waste production.

Location: St Lucia, Queensland
Consultant: Cundall
Mechanical contractor: AE Smith

New Royal Adelaide Hospital

Advanced Engineering Building, University of Queensland

SM Series

Fan Coil Units with AC or EC fan motors. Up to 1,900 Litres/Sec.

Features

- Low profile galvanised casings with internally lined 20mm closed cell polyethylene insulation foam
- Internal insulation foam is covered with a tough and durable aluminium foil to provide a clean and neat finish.
- Available with AC or EC single phase fan motors
- High performance direct drive DWDI forward-curved fans
- To minimise on-site installation time fan motors are pre-wired to a junction box
- Chilled water cooling coils available with 4, 5 or 6 rows and 315, 394, 433 or 472 fins per metre
- Hot water heating coils available with 1 or 2 rows and 315, 394, 433 or 472 fins/per metre
- Combined maximum of 6 cooling and heating rows per unit
- Range available in 5 sizes 200-1900L/sec
- Available in horizontal or vertical configuration

The SM Series™ of Fan Coil Units is ideal for in-ceiling installations and include fans driven by AC or EC single phase motors. Their quality 1.2mm galvanised metal casing is internally lined with 20mm polyethylene insulation foam to provide resistance to condensation.

The EC direct drive fans are energy efficient (achieving IE5 efficiency levels) and can be controlled by MODBUS or a plug and play 0-10V signal.

Each side of the unit includes a sealed access panel. These units are available in 5 standard sizes with air flows from 200 to 1900 litres per second and come in both horizontal and vertical configurations.

Construction

Units are manufactured from 1.2mm galvanised sheet metal and are internally lined with 20mm polyethylene insulation foam. The insulation is covered with a tough aluminium foil.

Each side of the unit includes a sealed access panel that enables inspection and cleaning. The condensate tray is manufactured from 1.0mm thick aluminium sheet.

Fans are direct drive forward-curved centrifugal type with AC or EC motors and are in a single or dual arrangement depending on the model size.

SM Series™

Fans

High performance direct drive forward curved fans

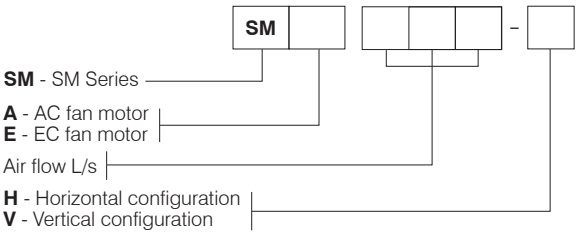
AC Configuration (SMA)

- Single phase 240V, 50Hz motor
- Three speed motor (one speed selectable)
- Thermal protection

EC Configuration (SME)

- Single phase 240V, 50Hz motor
- IE5 efficiency class
- IP54 rated
- Integrated EC controller for infinite speed control
- Overload and thermal protection

How to order



Select unit based on air flow.
Fantech to complete selection with customer based on the required cooling coil and healing coil data.

Suggested Specification

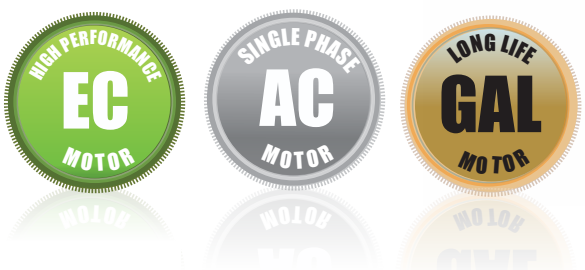
The fan coil units shall be of the SM Series as designed by Fantech and be of the model numbers shown on the schedule/drawings.

Units shall be manufactured from 1.2mm thick galvanised steel, internally lined with 20mm closed cell polyethylene. Insulation foam shall be covered with a heavy duty, bonded non-perforated aluminium foil.

Condensate Tray shall be aluminium 1.0mm thick.

Water coils shall be half inch diameter copper tubes having 0.4mm wall thickness with sine wave pattern aluminium fins 0.12mm thick. Coil frames shall be aluminium.

Direct Drive Fans shall include AC or EC Motors. Fans shall be forward-curved centrifugal type statically and dynamically balanced. Fan motors shall be pre-wired to an external junction box.



SM Series

Technical Data
Horizontal
& Vertical Series

Model Number	Motor Type	Air Flow	External Static Pressure	Total Cooling Capacity	Sensible Cooling Capacity	Heating Capacity	No. of Fans	Fan Speeds	Motor Power	Motor Full Load Current
		L/s	Pa	kW	kW	kW		rps	kW	Amps
SMA400	AC	400	250	9.0	6.5	7.3	1	21 / 19 / 18	0.4	3.3
SMA700	AC	700	250	17.0	11.9	15.0	1	22 / 20 / 19	0.4	3.6
SMA900	AC	900	250	20.9	14.8	18.7	1	23 / 22 / 21	0.8	5.8
SMA1400	AC	1400	250	33.9	23.6	30.0	1	23 / 22 / 21	0.8	5.8
SMA1900	AC	1900	250	45.1	31.6	41.9	2	22 / 21 / 19	0.55 x 2	5.6 x 2
SME400	EC	400	250	9.0	6.5	7.3	1	Variable	1.1	4.6
SME700	EC	700	250	17.0	11.9	15.0	1	Variable	1.1	4.6
SME900	EC	900	250	20.9	14.8	18.7	1	Variable	1.0	4.6
SME1400	EC	1400	250	33.9	23.6	30.0	2	Variable	1.074 x 2	4.62 x 2
SME1900	EC	1900	250	45.1	31.6	41.9	2	Variable	1.04 x 2	4.62 x 2

Air flow and coil performance are at 2.5m/s coil face velocity.
Cooling Capacities are based on 5 row 472fin/m coils with entering air conditions of 26/19°C and water temperatures of 6/12°C.
Heating Capacities are based on 1 row 394fin/m coils with entering air at 12°C and water temperatures of 80/65°C.
Motor power and current (per fan x no of fans).

Acoustic Data
Horizontal
& Vertical Series

Model Number	Air Flow	External Static Pressure	Sound Power Spectrum dB*							
	L/s	Pa		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
SMA400	400	250	In Duct	63	69	72	72	72	68	66	61
			Breakout	51	54	54	51	49	39	33	28
SMA700	700	250	In Duct	66	72	75	74	74	70	68	63
			Breakout	54	57	57	53	51	41	35	30
SMA900	900	250	In Duct	67	73	76	75	75	71	69	64
			Breakout	56	59	59	55	52	42	36	31
SMA1400	1400	250	In Duct	58	64	67	66	66	62	60	55
			Breakout	47	50	50	46	43	33	27	22
SMA1900	1900	250	In Duct	70	76	79	79	79	75	73	68
			Breakout	59	62	62	59	55	45	39	34
SME400	400	250	In Duct	68	74	83	74	72	69	65	62
			Breakout	57	60	66	54	48	39	31	28
SME700	700	250	In Duct	68	75	84	79	78	77	73	70
			Breakout	58	62	68	60	54	47	39	36
SME900	900	250	In Duct	68	78	81	72	73	73	67	62
			Breakout	58	65	65	53	49	43	33	28
SME1400	1400	250	In Duct	70	78	87	82	80	80	75	73
			Breakout	60	65	71	63	56	50	41	39
SME1900	1900	250	In Duct	68	87	88	74	74	72	69	63
			Breakout	58	74	72	55	50	42	35	29

Air flow and coil performance are at 2.5m/s coil face velocity.
SMA = AC motor range, SME = EC motor range.
* Sound power includes multiple fans where applicatble.

SM Series™

Performance Data
Cooling Coil
Horizontal & Vertical Series

Model Number	Air Flow	Cooling Coil	Air On DB /WB	Air Off DB / WB	Total Capacity	Sensible Capacity	Water Flow	Entering / Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/S	Rows / (Fins/m)	°C	°C	kW	kW	L/s	°C	kPa	Pa
SMA400 / SME400	400	5 / 472	23 / 17	12.1 / 11.76	6.8	5.4	0.3	6 / 12	6	156
			26 / 19	12.8 / 12.43	9.0	6.5	0.4	6 / 12	9	156
			35 / 24	14.4 / 13.91	15.9	10.1	0.6	6 / 12	24	156
SMA700 / SME700	720	5 / 472	23 / 17	11.3 / 11.03	13.9	10.3	0.6	6 / 12	29	156
			26 / 19	12.4 / 12.12	17.0	11.9	0.7	6 / 12	15	156
			35 / 24	15.1 / 14.65	26.8	17.5	1.1	6 / 12	9	156
SMA900 / SME900	900	5 / 472	23 / 17	11.3 / 11.03	17.4	12.9	0.7	6 / 12	29	156
			26 / 19	12.5 / 12.22	20.9	14.8	0.8	6 / 12	12	156
			35 / 24	15.0 / 14.50	33.9	22.0	1.4	6 / 12	11	156
SMA1400 / SME1400	1400	5 / 472	23 / 17	11.6 / 11.33	25.7	19.5	1.0	6 / 12	14	158
			26 / 19	12.2 / 11.91	33.9	23.6	1.3	6 / 12	23	158
			35 / 24	14.5 / 14.06	54.8	35.0	2.2	6 / 12	21	158
SMA1900 / SME1900	1900	5 / 472	23 / 17	11.3 / 10.98	36.9	27.3	1.5	6 / 12	33	157
			26 / 19	12.4 / 12.07	45.1	31.6	1.8	6 / 12	18	157
			35 / 24	13.9 / 13.46	78.1	49.0	3.1	6 / 12	48	157

Air flow and coil performance are at 2.5m/s coil face velocity.
SMA = AC motor range.
SME = EC motor range.

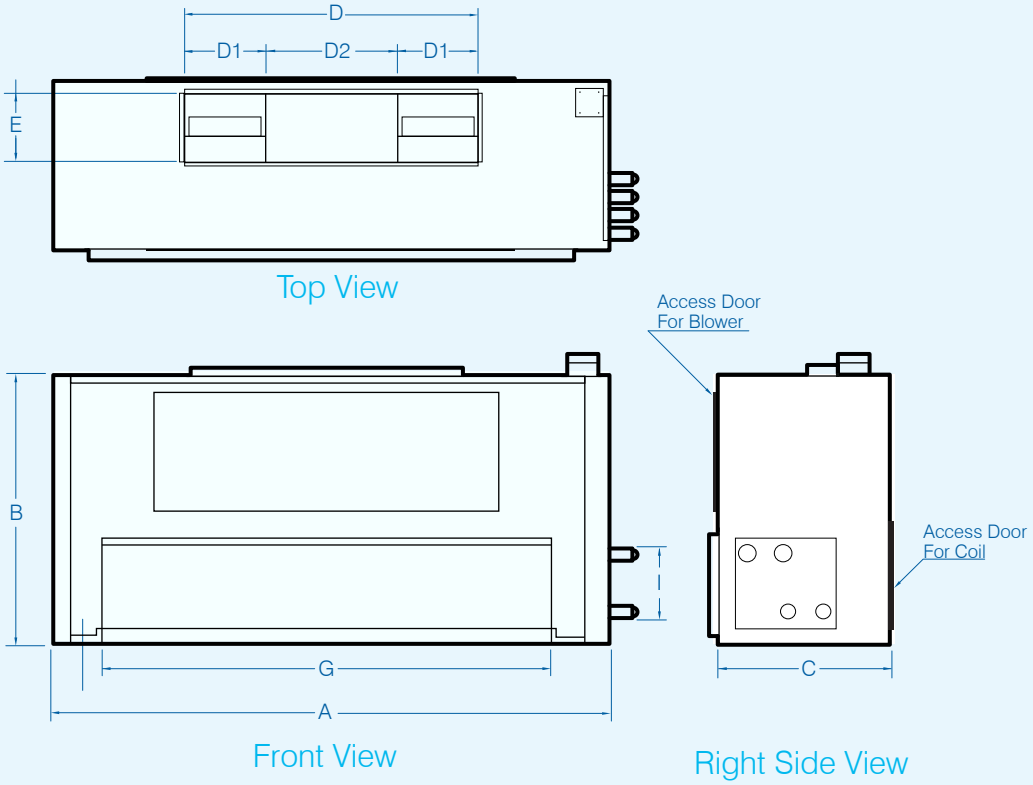
Performance Data
Heating Coil
Horizontal & Vertical Series

Model Number	Air Flow	Heating Coil	Air On DB	Air Off DB	Total Capacity	Water Flow	Entering/ Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows / (Fins/m)	°C	°C	kW	L/s	°C	kPa	Pa
SMA400 / SME400	400	1 / 394	12	26.9	7.3	0.12	80 / 65	0.2	18
SMA700 / SME700	720	1 / 394	12	29	15	0.25	80 / 65	1.0	18
SMA900 / SME900	900	1 / 394	12	29	18.7	0.31	80 / 65	1.0	18
SMA1400 / SME1400	1400	1 / 394	12	29.5	30	0.49	80 / 65	2.1	18
SMA1900 / SME1900	1900	1 / 394	12	30.1	41.9	0.69	80 / 65	4.9	18

Air flow and coil performance are at 2.5m/s coil face velocity.
SMA = AC motor range.
SME = EC motor range.

SM Series

Dimensional Data
Vertical Series

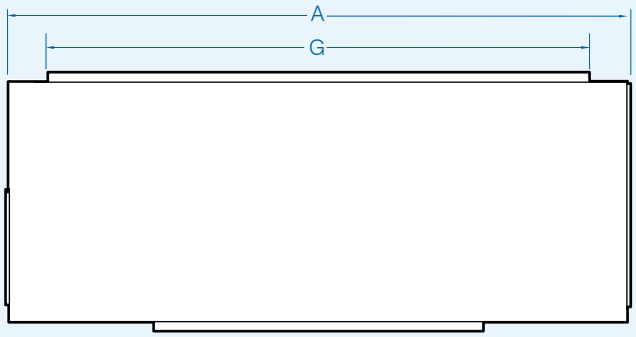


Model Number	Motor Type	Fan	Length	Height	Width	*S/A Opening				#R/A Opening		Weight
			A	B	C	D	D1	D2	E	G	I	kg
SMA040-V	AC	KDD9-7T-350W	950	1150	600	232	232	-	262	635	254	80
SMA070-V		KD29-7T-750W	1450	1150	600	697	232	233	262	1143	254	95
SMA090-V		KD29-7T-750W	1450	1150	600	697	232	233	262	1143	318	120
SMA140-V		KD29-9-1100W	1750	1150	600	948	298	352	262	1473	381	160
SMA190-V		KDD-10-10-750 W	2300	1150	600	1214	331	554	289	2007	381	170
SME040-V	EC	DDMP 7-7 STD	950	1150	600	232	232	-	209	635	254	80
SME070-V		DDMP 7-7 STD	1450	1150	600	232	232	-	209	1143	254	95
SME090-V		DDMP 9-9 STD	1450	1150	600	298	298	-	262	1143	318	120
SME140-V		DDMP 7-7 STD x 2	1750	1150	600	951	232	487	209	1473	381	160
SME190-V		DDMP 10-10 STD x 2	2300	1150	600	1216	331	554	289	2007	381	170

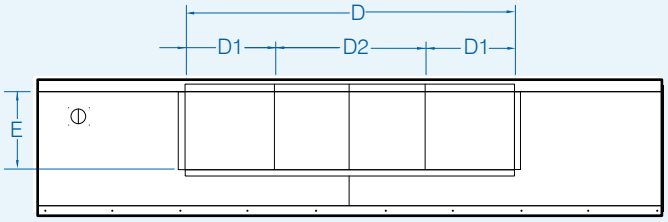
All dimensions in mm.
* S/A Opening = Outlet.
# R/A Opening = Inlet.

SM Series™

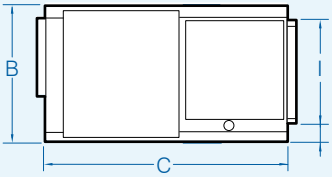
Dimensional Data
Horizontal Series



Top View



Front View



Right Side View

Model Number	Motor Type	Fan	Length	Height	Width	S/A Opening*				R/A Opening#		Weight
			A	B	C	D	D1	D2	E	G	I	kg
SMA040-H	AC	KDD9-7T-350W	950	1150	950	232	232	-	262	635	254	80
SMA070-H		KD29-7T-750W	1450	1150	1450	697	232	233	262	1143	254	95
SMA090-H		KD29-7T-750W	1450	1150	1450	697	232	233	262	1143	318	120
SMA140-H		KD29-9-1100W	1750	1150	1750	948	298	352	262	1473	381	160
SMA190-H		KDD-10-10-750 W	2300	1150	2300	1214	331	554	289	2007	381	170
SME040-H	EC	DDMP 7-7 STD	950	1150	600	232	232	-	209	635	254	80
SME070-H		DDMP 7-7 STD	1450	1150	600	232	232	-	209	1143	254	95
SME090-H		DDMP 9-9 STD	1450	1150	600	298	298	-	262	1143	318	120
SME140-H		DDMP 7-7 STD x 2	1750	1150	600	951	232	487	209	1473	381	160
SME190-H		DDMP 10-10 STD x 2	2300	1150	600	1216	331	554	289	2007	381	170

* All dimensions in mm.
* S/A Opening = Outlet.
# R/A Opening = Inlet.

Customer Feedback

Robert Anderson

Project Director, Dewpoint Air (Brisbane)

Dewpoint Air commenced work as the D&C mechanical contractor on the refurbishment of 310 Ann Street Brisbane in November 2015, and used Air Design's MODUtherm air handling units across the building's 15 office floors.

"Each floor is served by its own, gazetted AHU," said Robert Anderson. "The plant rooms are very tight so access for servicing and maintenance was a consideration, and the Air Design units catered to our needs."

The MODUtherm units were purpose-built and incorporate EC plug fans. These fans not only provide spatial savings, but also operate with fire mode at a pre-commissioned jog speed to meet the requirements set out in AS/NZS 1668.1.

Dewpoint Air conducted its own factory testing for air leakage, and "proved beyond a shadow of a doubt" the MODUtherm units were suitable for the pressures of the plug fans.

"Dealing with Mike Bradley and Air Design is a pleasure, and I'd work with those guys again any time," said Robert Anderson.

310 Ann Street reached completion in mid-2017.

> "Access for servicing and maintenance was a major consideration and the Air Design units catered to our needs."

Trevor Bracken

Project Manager, AE Smith & Son (North Queensland)

Over the last few years, the Townsville Hospital has undergone significant redevelopment. The latest stage to reach completion is the Planned Procedure Centre (PPC), which enhances the community's access to elective surgery.

Engaged as mechanical contractor on the project, AE Smith adopted the hospital's specifications and installed Air Design air handling units across the project.

"The hospital certainly had a preference for Air Design equipment," said Trevor Bracken.

"To achieve the duty and enable the units to fit in the available space within the plant room, Air Design offered EC motor fans (instead of belt-driven). Air Design was proactive, and gave us technical assistance to get this approved by the hospital."

> "The hospital certainly had a preference for Air Design."

Air Design supplied two large MODUtherm preconditioners and three MODUtherm air handling units (AHUs) for the Planned Procedure Centre, as well as three fan coil units (FCUs). Through the collaboration of AE Smith and Air Design, the project reached practical completion in August 2016.

Townsville Hospital

Joe Briguglio

Director,
DTG Mech Services (Queensland)

As one of the original 40 year old buildings at Prince Charles Hospital in Brisbane, Building 3 – Clinical Sciences still had its original air handling plant when DTG Mech Services were awarded the mechanical contracting tender for its refurbishment in October 2016.

DTG Mech Services selected Air Design's MODUtherm air handling units (AHUs) to replace the original plant on all but one of the building's five floors.

"MODUtherm had the right thermal rating, ticked all the boxes when it came to fan selections, met the performance criteria and spatially the units suited the installation very well," said DTG Mech Services Director, Joe Briguglio.

With limited access to the plantrooms, MODUtherm was also selected for its ability to be disassembled in knockdown form, transported into the plantroom and reassembled in position.

"I've been using Air Design for over 20 years. They are customer-focused, timely in their response and the quality of their drawings is excellent. All in all, it was a dream job."

Through the collaboration of DTG Mech Services and Air Design, the project was successfully completed on time in June 2017.

> "I've been using Air Design for over 20 years. They are customer-focused, timely in their response and the quality of their drawings is excellent."

Bob Harris

Project Director,
D&E Air Conditioning (Melbourne)

D&E Air Conditioning began working on the mechanical services contract for the Victorian Comprehensive Cancer Centre (VCCC) in August 2012 and immediately contacted Elta group companies Fantech, Air Design and Airepure Australia. One of the benefits of working with the group is that we could set boundaries so that Air Design and Airepure worked together, thereby reducing the number of people we needed to deal with. The collaborative approach not only made better use of equipment and time, but ensured the job progressed smoothly."

Air Design Air Handling Units were chosen for their quality and reliability and used throughout the whole facility for both clinical and research spaces including operating theatres and PC3 suites. Over 480 units were supplied which comprised MODUtherm and SM Series units of various configurations.

The job was challenging, but thanks to the collaboration of companies within the Elta Group, the HVAC component ran smoothly and was completed in time for the VCCC's completion in June 2016.

> "Air Design Air Handling Units were chosen for their quality and reliability."

VCCC - Image by Pete Glenane courtesy of Plenary Group

Recent Projects

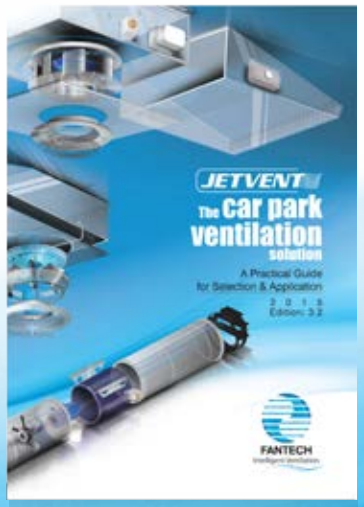
RMIT University, Melbourne

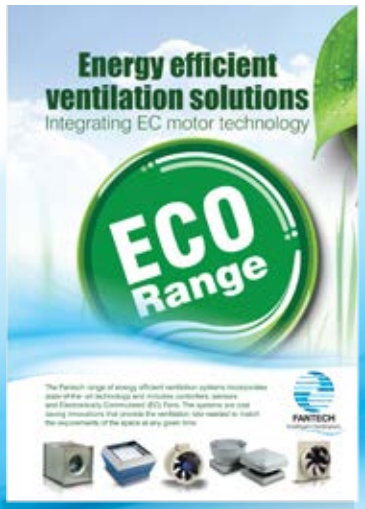
Old Treasury Building, Melbourne

Lowy Cancer Research Centre, UNSW , Sydney

MODUtherm installation Prince Charles Hospital, Queensland

Contact Fantech for information on other innovative products





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