



PRODUCT RANGES

The Fan Coil Industries range of air handling and fan coil units have been designed to provide compact, rugged units offering versatility in layout, handings, complete accessibility and smooth uncluttered lines.



[Conventional \(steel/fibreglass\) Air Handling/Fan Coil Units](#)



[Sandwich Panel Modular Air handling/Units](#)



[Remote Air Cooled Condensers](#)



[Pharamaceutical \(External motor air handling unit\)](#)





PRODUCT RANGES

Conventional (steel/ fibreglass) Air Handling/ Fan Coil Units

Features of our conventional units include: -

- Continuous galvanised steel panel work.
- 25mm fibreglass insulation with 450 perforated aluminium foil lining (optional 50mm)
- 0.9mm thick Stainless Steel drain trays to AS 3666.
- T.E.F.C. Motors.
- Man sized access panels on both sides.
- Internally mounted motors to allow a complete fan, bearing and motor combination, rigidly assembled, into one common sub assembly (resilient mounted)
- Forward curved centrifugal fans D.W.D.I constructed from galvanised steel.
- Ripple aluminium finned, copper tube A.R.I 410 Rated cooling and heating coils. Each coil selected to meet the specified duty.
- All standard units will provide their maximum air flow at 1200pa total pressure.



Options

- Single zone or multi zone
- Electric heating
- Powder coated external/ internal finish
- Spark proof fan wheels
- 50mm Insulation
- Fully lined
- Filter/ mixing box
- Acoustic lining
- Direct Drive - Variable speed motors to 2000 L/S as standard.
- Flame proof motors
- Stainless steel Construction
- Stainless steel shafts
- Stainless steel wheels.
- Backward Curved Fans



- Sectionalised construction or complete knockdown.

Technical Details

Casings: Standard construction incorporates the use of continuous galvanized sheet steel in flanged panels. Panels are "cross broken" to prevent drumming. Minimum gauge is 1.2mm (up to model 400) and 1.6mm on larger units. All internal surfaces are insulated with a minimum of 25mm semi rigid fibreglass covered on the air side with 450 sisalation aluminum foil. Assembly is MIG welded. Units are available as single zone vertical and horizontal or multi-zone type with hot and cold deck dampers or cold deck bypass.

COILS: All units incorporate ripple finned staggered tube design with tub diameters of 10mm, 12.5mm or 16mm. Each coil is selected to provide optimum performance for the specific duty. Materials of construction are copper tube aluminium fins; Optional materials:- cupro nickel tubes, copper fins, brass casings and passivated, acrylic or electrotinned finish. Coils can be supplied to operate with chilled or hot water, refrigerant, steam brine or heat transfer fluid.

FANS: Base units include D.W.D.I. forward curved centrifugal fans resiliently mounted fabricated from galvanized steel. They are mounted on mild steel fan shafts with ball bearings. Units up to model 150 are standard with direct drive fans. Optional fans are - medium pressure forward curved, laminar blade backward curved or air foil blade backward curved wheels.

MOTORS: Direct driven units utilize multispeed single phase drip proof motors. Belt driven units have 3 phase 4 pole T.E.F.C. aluminium frame motors. All motors are located within the unit casing allowing the construction of an integral fan motor sub assembly to ensure structural soundness.

FILTERS: All filters are optional, however we offer a wide variety of dry media and disposable types, from 25mm flat panel to 50mm pleated or vee form with media of your choice. Filter sections can be combined with a return air/ fresh air mixing box complete with volume control dampers.

ELECTRIC ELEMENTS: Are black heat zincoloy sheath type sized to the required wattage. Standard fitments are casing lined with asbestos free fire rated Kao-board to AS 1668 and safety thermostat. As an optional extra we provide an electrical pack including motor and heater contactors, relays and fuses all wired to a common terminal strip.

DRAIN TRAYS: All F.C.I. Fan coil and air handling units feature 0.9mm thick stainless steel drain trays externally insulated with 25mm high density polystyrene foam and are installed to AS 3666.





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Sandwich Panel Air handling/ Fan Coil Units.

Sandwich panel or double skinned units of modular construction and built to prevent cold tracking, provide a clean surface inside and out making these units attractive for use in applications where "clean air" is required.

Due to the 2 layers of metal casing, sandwich panel provides an excellent barrier against break out noise.

Product profile

- PANEL - EXTERNAL 0.6mm CRP grade colourbond pre-painted steel. INTERNAL expanded polystyrene is impregnated with a fire retardant and is manufactured to Australian Standard AS 1366 Part 3-1992
- COILS - Selected and manufactured to A.R.I.410 Copper tubes with self spacing aluminium fins.
- FAN - Forward curved centrifugal galvanised steel construction mounted on solid mild steel shafts running in taper sleeve ball bearings.
- Motors are T.E.F.C. aluminium framed 3 phase 4 pole 50 Hz to IP55 class F insulation class B temperature rise.
- Motor and fan assembly built with galvanised steel angle isolated from casing by spring mounts and flexible duct connector.
- Drives are first quality cast iron taper lock pulleys and matched sets of A or B section vee belts.
- Bypass, multizone and volume control dampers are 3.2mm aluminium with rubber blade seals and stainless steel side seals.
- Filter section (constructed as air handler) are available with panel, V- form and extended surface area filters.
- Capacities Air flow from 1,000 l/s to 30,000 l/s



Features

- Single or multizone configuration
- 50mm Polystyrene foam sandwiched between colourbond sheet
- Aluminium perimeter frame.
- Full size hinged access doors.
- Stainless steel drain trays installed to AS 3666.
- Vibration isolated fan and motor assembly.
- TEFC Motors.

- Taper lock pulleys.
- Rippled finned cooling and heating coils.
- Forward or backward curved centrifugal fan.
- Complete line of accessories.
- Filters, Mixing Boxes, Bypass Dampers.
- Copper Finned Coils, etc.
- Stainless steel casings.
- All internal components readily removeable.
- Multi-circuit DX coils
- Protective fin coatings
- Sectionalised construction or complete knockdown.





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EXCELLENCE IN AIR



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Remote Air Cooled Condensers

Fan Coil Industries P.A.C. range of remote air cooled condensers offer every building owner or manager the freedom of choice to specify and receive the optimum unit for their property.

Our standard range is but the beginning.

In keeping with our policy of providing units to meet your requirement, variations to standard are usually inexpensive modifications.

Standard Unit Construction.

- Aluminium finned copper tube condensing coils.
- 2 speed propeller fans direct driven by 3 phase motors.
- All motors wired in lockable terminal box located on outside of cabinet.
- Galvanised steel casings.

Available Options Include.

- Custom building.
- Fluid cooler/ steam condensor.
- Optional tube materials i.e. stainless steel, cupro nickel.
- Anti vibration mounts
- Vertical condensor axial fan coolers
- Copper finned coils.
- Stainless steel cases.
- Powder coat enamel finish.
- Protective fin coatings on coils.
- Head pressure controllers - temperature or pressure activated.
- Multiple circuits designed to suit the application.
- Integral sub cooling sections - selected to suit the application
- Low noise fans.

Centrifugal fan units providing the following further options.

- Variable volume fan.
- Aerofoil fan



- Directional dampers.
- Sandwich panel case.

EXCELLENCE IN AIR...





PRODUCT RANGES

Pharmaceutical (External motor air handling unit)

Where non stop production is paramount and cleanliness cannot be compromised our external motor units with all associated bearings and drive components located out side of the air stream and interior linings suitable for cleaning is the solution.

Unit Casing

Continuous galvanised steel to AS 1397 G2 coating class Z275 formed with double folds and cross breaks to provide strong vibration free assemblies. Mig welded joints without external flanges. Insulation is 50mm thick medium density fibreglass (32kg/m³).

Internal lining is minimum 0.8mm galvabond. Rivetted and sealed to provide a flat clean surface without exposed insulation or air gaps.

Seal all penetrations in an approved method (refer coil and fan details).

Entire casing is supported on galvanised channel base frames units up to 4,000L/S 75 x 38 channel -over 4,000L/S 100 x 50 channel.

Fans

All fans are centrifugal mounted on mild steel shafts precision ground to G6 tolerance.

All bearings will be mounted on the outside of the unit casings. Self aligning ball type with taper adaptor sleeve and pillow block housing or double row roller bearings in plummer block housings.

Bearings have shaft seals at unit casing. Bearings are mounted on substantial angle framing to provide correct support for fan, shaft and drive. Belt guards are fitted on all units.

Coils

Seamless copper tubes expanded into continuous rippled aluminium fins suitable for working pressures up to 1050kpa and factory tested to 2000kpa in water.

Seals around coil connections where they pass through the casings will be



airtight.

Condensate Tray

Each cooling coil has a 0.9mm 304 grade B2 finish stainless steel drain tray. Tray is installed to AS 1668. Tray is insulated with 25mm polystyrene foam.

Motors

All motors are 3 phase T.E.F.C. with IP55 protection suitable for use with variable speed drives. Metric frames and foot mounted on adjustable slide rails.

Drives

Vee belt drive are external using cast iron taper lock pulleys and S.P. section belts.

Access

All units have a hinged and double latched access panel operable from both sides. Door seal is EDPM/ soft sponge rubber self gripping seal. Screw panels are used to allow removal of all internal components (if required).

General Notes

- a. A gap of 300mm (min.) is provided between cooling and heating coils to allow access to both sides of coils.
- b. All sealers used is food grade Hilastic 66.
- c. All units come with optional out-riggers to allow spring mounting without increasing overall unit height.

