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# Clever AHU's Product Overview

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**Temperzone Talks** - October 2019

**NZ's No1 Premier, Fully Customized, NZ Made, Air Handling Units**



**clever**  
**A I R H A N D L I N G**



# History / Sales / Benefits

- Originated from “**Clever srl**”, an AHU manufacturer from Milan, Italy
- Manufactured in New Zealand **since 1996**
- Built **>8,000** individual AHU’s to date
- Total Value in excess of **\$80 million dollars** to date
- Hamilton Factory capable of **30 – 50 AHU’s per month**
- Typically **20% LIGHTER** than other steel AHU’s.
- NZ’s Only **FULL ALUMINUM** Air Handling Unit for NZ coastal conditions.
- **POWDER COATED** and **ANODIZED** finish as standard

# Markets

## MAJOR CUSTOMERS

- Hospitals & Health Care
- Universities & Schools
- Schools
- Swimming Pools
- Hotel, & Accommodation

## No. Sold to Date

- > 1,000 AHU's
- > 900 AHU's
- > 300 AHU's
- > 100 AHU's
- > 150 AHU's

## OTHERS

- Recreation Facilities
- Data Centres
- Commercial Offices
- Process & Food Industry
- Agriculture

## LOCATIONS

- Auckland > 2,000 AHU's
- Hamilton > 900 AHU's
- Rotorua > 150 AHU's
- Wellington > 1,300 AHU's
- Christchurch > 1,200 AHU's
- Australia > 250 AHU's

# SB Series

## LARGE CUSTOMIZABLE FAN COIL UNIT

- Basic fan coil unit
- 46 mm panel G4 filter in channel
- Stock 3/8" water cooling / heating coils [1 row / 3 row]
- Electric Heating Elements,
- EC Plenum Fan & potentiometer
- Marine Grade aluminium double skin insulated panels

## FEATURES

- Quick delivery & High Quality
- High static pressure
- Economical
- Sold > 1,300 FCU's to date

Model	Max L/S	Width	Height
SB015	420	800	450
SB020	620	1100	450
SB025	850	1400	450
SB030	1050	1400	550
SB040	1250	1650	550
SB050	1500	1800	550



# MC Series

## CUSTOMIZABLE AIR HANDLING UNIT

- Full range completely customized
- Air Volume < 21,000 L/s @ Max 2000 Pa [TSP]

## FEATURES

- 23 / 43 mm panels
- High Quality
- 4 – 6 Week Quick Delivery
- Sold > 5,000 AHU's to date



Model	Max L/S	Width	Height	Base
MC013	500	730	685	100
MC016	550	775	685	100
MC020	630	820	685	100
MC025	730	820	760	100
MC030	900	1000	760	100
MC040	1,150	1090	830	100
MC050	1,350	1180	900	100
MC060	1,800	1360	960	100
MC080	2,250	1675	960	100
MC100	2,650	1675	1055	100
MC120	3,150	1810	1175	100
MC150	4,150	1810	1400	100
MC190	5,000	2125	1400	100
MC240	6,000	2125	1660	100
MC300	7,500	2395	1800	100
MC360	9,000	2860	2000	140
MC460	12,500	3400	2200	140
MC580	14,000	3800	2300	140
MC720	17,500	4400	2400	140
MC1000	21,000	Max 5120	2400	140

# MT Series – Standard AHU

NEW

## TEMPERZONE AIR HANDLING UNIT

- Standard AHU Range, **INDOOR APPLICATION**
- Inlet F/A & R/A Dampers
- G4 Panel & F7 Bag Filters + Gauge
- 6 Row cooling Coil + 2 Row Heating Coil
- EC Plenum Fan & potentiometer
- Marine Grade aluminium double skin insulated panels

### FEATURES

- Fixed layout
- Quick delivery
- Lower price
- Economical via bulk purchase of parts

Model	Max L/S	Width	Height	Base
<b>MT015</b>	<b>450</b>	730	685	100
<b>MT030</b>	<b>900</b>	1000	760	100
<b>MT050</b>	<b>1,350</b>	1100	830	100
<b>MT060</b>	<b>1,800</b>	1360	960	100
<b>MT120</b>	<b>3,200</b>	1810	1175	100
<b>MT190</b>	<b>5,000</b>	2050	1400	100
<b>MT250</b>	<b>7,000</b>	2050	1800	100
<b>MT350</b>	<b>9,000</b>	2435	2200	140
<b>MT500</b>	<b>13,000</b>	3400	2200	140

# MT Series – Standard AHU

NEW

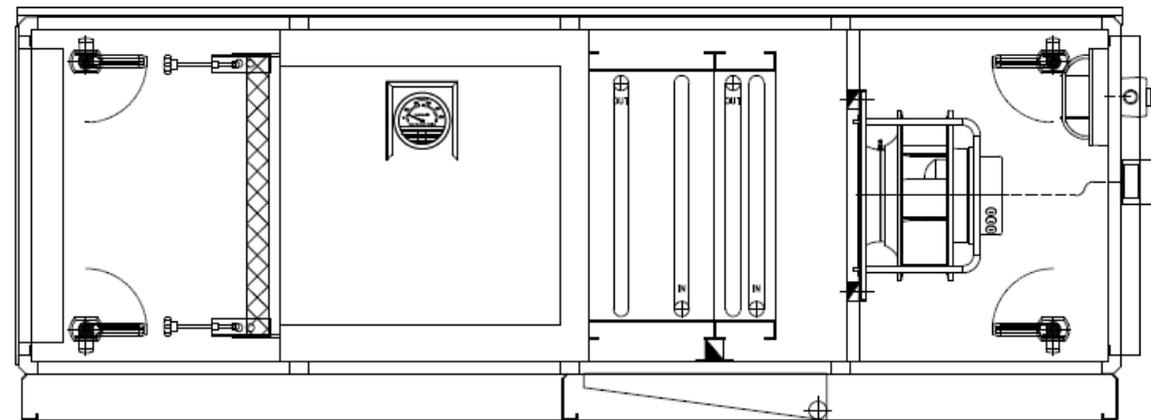
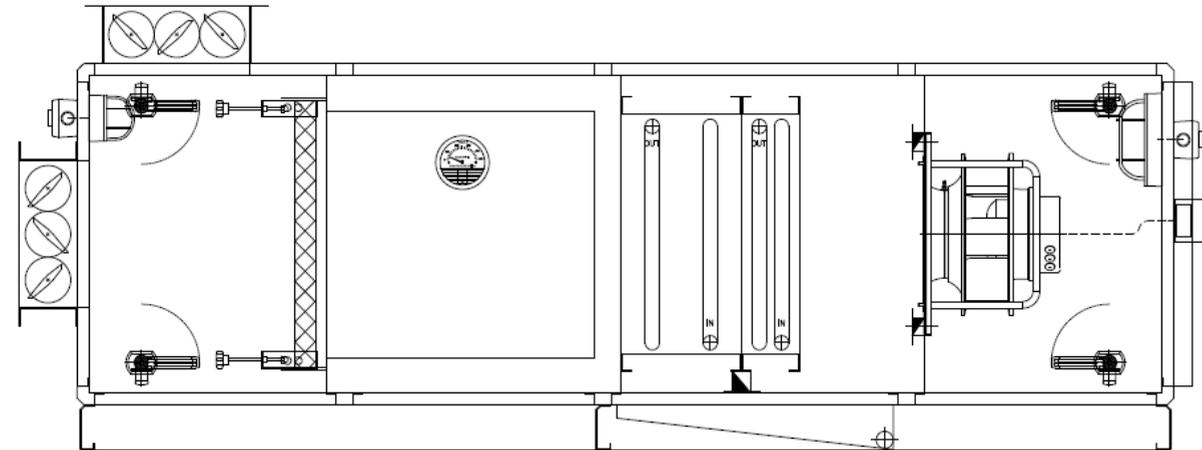
## TEMPERZONE AIR HANDLING UNIT

### INDOOR UNIT – Series MT

- Plantroom location
- Economizer, Filters, Coils & EC Fan

### OPTIONS

- HANDING [Left / Right Hand]
- OUTDOOR
  - TWS Louver, & Sloping Roof



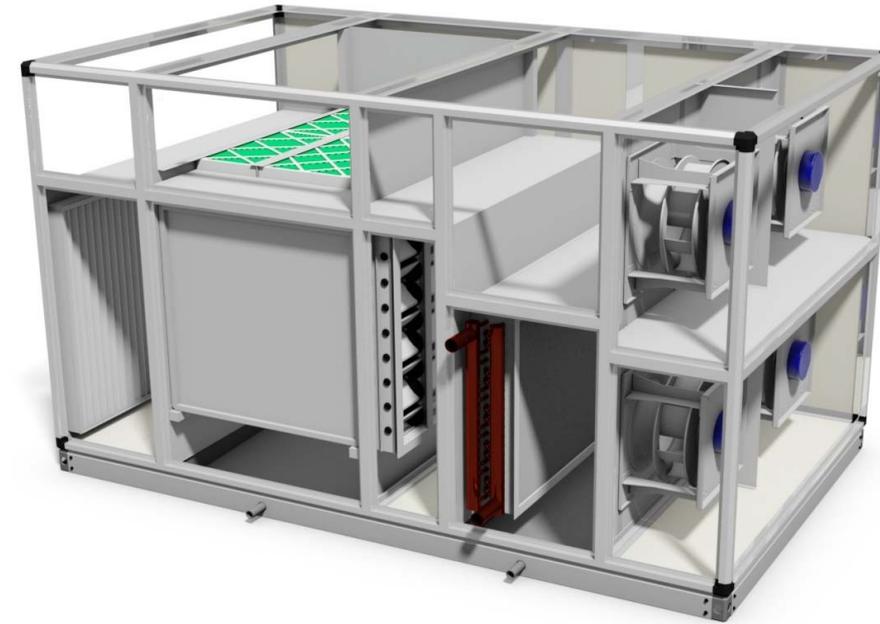
# MXR Series

## HEAT RECOVERY AIR HANDLING UNIT

- Air / Air plate heat exchanger
- 23 / 43 / Tropical Panels & Profiles

### FEATURES

- Compact Size, small footprint
- Indoor / Outdoor location
- Sold > 20 MXR AHU's to date
- Typical Installations
  - Swimming Pools
  - Open Plan Schools
  - Building Heat Recovery

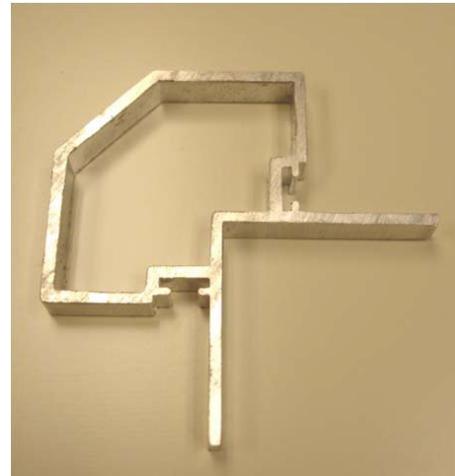


Model	Max L/S	Width	Height	Base
<b>MXR030</b>	<b>900</b>	1840	1175	100
<b>MXR060</b>	<b>1,810</b>	1840	1500	100
<b>MXR100</b>	<b>2,780</b>	1840	1710	100
<b>MXR150</b>	<b>4,170</b>	2260	1900	100
<b>MXR200</b>	<b>5,560</b>	2260	2200	100
<b>MXR275</b>	<b>7,640</b>	2900	2240	140
<b>MXR360</b>	<b>10,000</b>	3440	3200	140

# Standard AHU Profiles

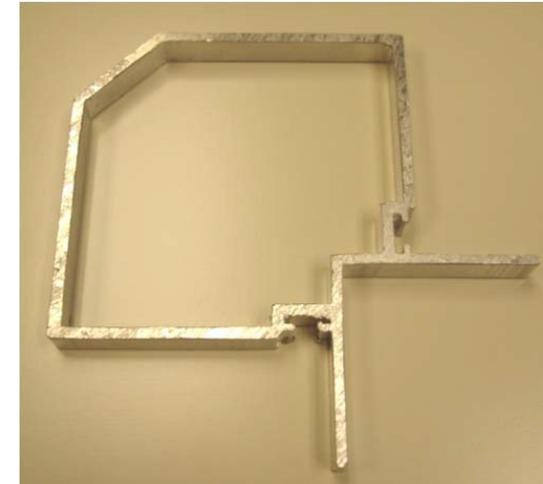
## STANDARD 40X23

- Small Aluminium Profile
- < 9000 l/s <MC300
- 40 mm Profile
- 23 mm Panels Nylon Corner Node
- Mech. Fixed Door Rubber



## STANDARD 60X43

- Large Aluminium Profile
- > 9000 l/s >MC360
- 60 mm Profile
- 43 mm Panels Nylon Corner Node
- Mech. Fixed Door Rubber



# Tropical Profile – Thermal Break

NEW

## T2 / TB2 TROPICAL 60X45

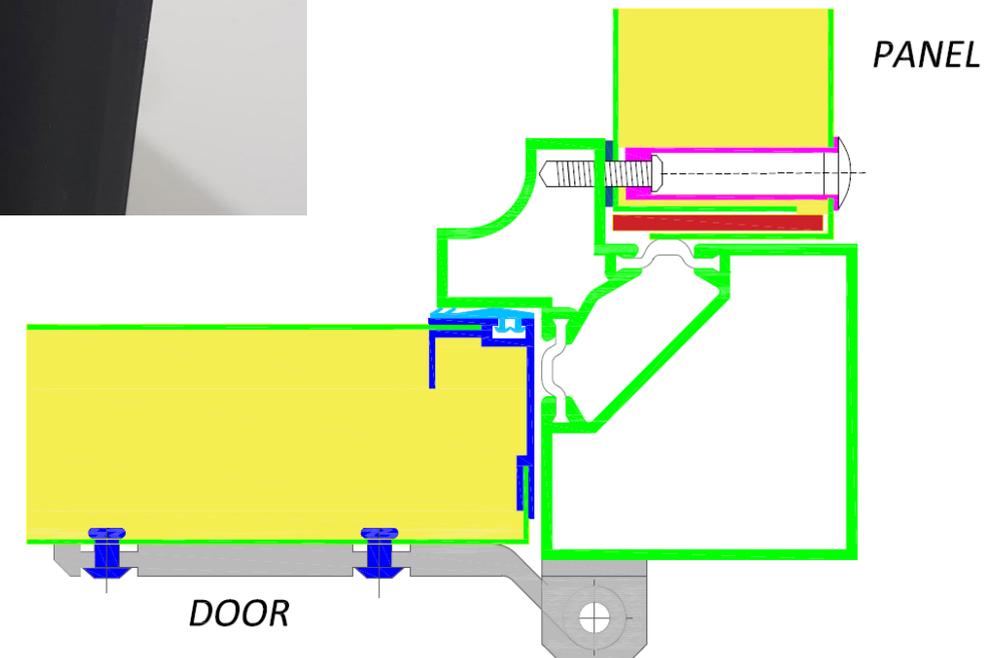
- Thermal Break 60 mm Profile & 45 mm Panels
- Nylon Corner Node
- Door Extrusion with integral seal

### FEATURES

- Greatest Thermal Performance available
- System tested to DIN EN 1886
- Suit very low S/A temperatures < 9°C in Humid Areas



Mechanical Strength	D1	D2	D3	D4
Air Leakage	L1	L2	L3	L4
Thermal Transmittance	T1	T2	T3	T4
Thermal Bridging	TB1	TB2	TB3	TB4



# Base Channel

## 100 MM CHANNEL

- Anodized Aluminum
- 100 x 36 mm Channel
- Cast Aluminum Corner Nodes [Painted Finish]



## 140 MM CHANNEL

- Anodized Aluminum
- 140 x 37 mm Channel
- 6.0 mm profile-cut Aluminum Corner Nodes [Anosided Finish]



## TRANSIT BRACKET

with timber pallet base



# Hot Press Panels

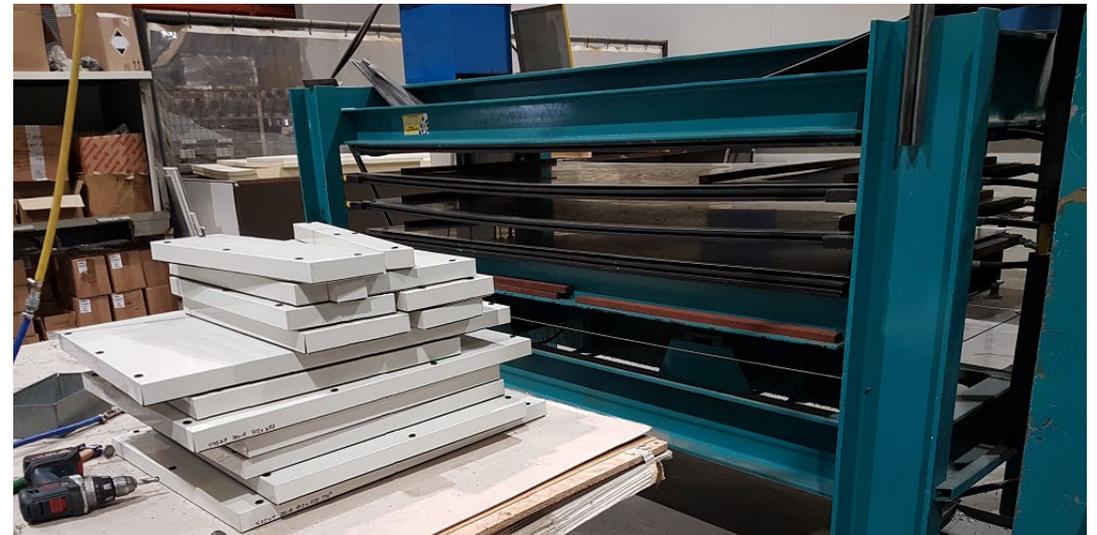
## DOUBLE SKIN PANELS

### STANDARD

- Two layers of metal trays with pre-cut foam infills
- Standard 18, 23, & 43 mm thick
- Rigid Polyurethane Foam Insulation, Density - 40 kg/m<sup>3</sup>
- Water activated, heat curing 100% glue process in 15 minutes

### TROPICAL

- 45mm Thermal Break Panel with Insulated Spacer



# Panels Linings

## PANEL LININGS

### STANDARD

- Outer - Marine Grade Aluminium Powder Coated  
Standard colour - "Titania"
- Inner – Unpainted Marine Grade Aluminium

### OPTIONS

- "Colorsteel" Powder Coated "Titania"
- Stainless Steel 304 / 316
- Wet Spray Painted Finish [Any colour]
- Epoxy Coated [Pools, High Corrosion]
- M/G Alum. Perforated Lining over additional 25/50 mm  
Acoustic Insulation.



# Plenum Fans – AC Motors

## ZIEHL-ABEGG TYPE ER

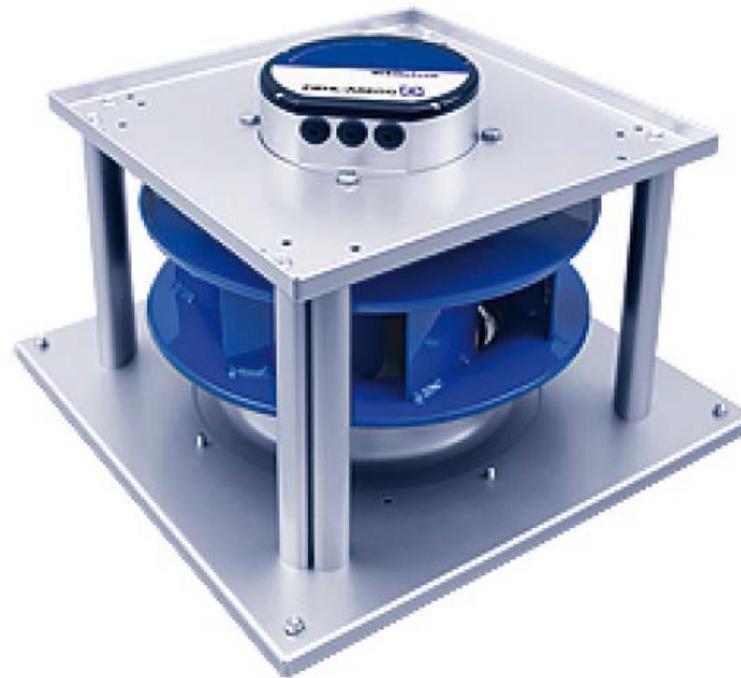
- Backward Curve Centrifugal Impellor
- 0.55 to 55 kW **AC Motor** [2, 4, 6 & 8 pole]
- 220ø to 630ø Composite Impellor
- 710ø to 1100ø Metal Impellor
- Must be Operated via V.S.D.



# Plenum Fans – EC Motors

## ZIEHL-ABEGG TYPE GR

- Backward Curve Centrifugal Impellor **EC Motor**
- Operated via 0-10 VDC Signal from 0-10 Ohm Potentiometer or BMS or Digital Controller
- On / Off Relay Facility
- 220 ø to 630ø Composite Impellor
- 0.49 kW 1 Phase to 5.6 kW 3 Phase
- Alarm Fault Relay
- Fault LED Indicator
- All Fans Wired to External Terminal Block



# DIDW Centrifugal Fan

## BELT DRIVEN NICOTRA FANS

- Forward Curve type AT & ADH
- Backward Curve type RDH
- Drive Belt Transmission
- Laminar & 3D impellor
- Direct Coupled
- Nicotra DIDW Replacement Fans



# Coils

## COIL OPTIONS

- Chilled water, LTHW, Glycol Solution Mixture
- DX Refrigerants, R410A, R32
- Evaporator & Condenser
- Steam [M&I Certified]

## FEATURES

- 3/8" & 5/8" Copper Tube & Headers BSP Nipples
- Epoxy Pre-coated Aluminium Fins & Framework

## OPTIONS

- Stainless Steel Tube & Framework
- Blygold / Heresite Spray & Dip Coated Coils
- NZ / Overseas Coil Suppliers
- Easi-flo Solder for H2S Environments



# DX Coils – Temperzone OSA

NEW

## CUSTOMISED DX HEAT PUMP COIL & TEMPERZONE OSA OUTDOOR UNIT

- DX Heat Pump Coil [Cooling & Heating] 3/8" copper tube coil customised to match duty.
- R410A Refrigerant



# DX Coils – Hitachi DX – AHU Kit

NEW

## SPECIALISED DX COIL / PAC AHU CONTROLLERS

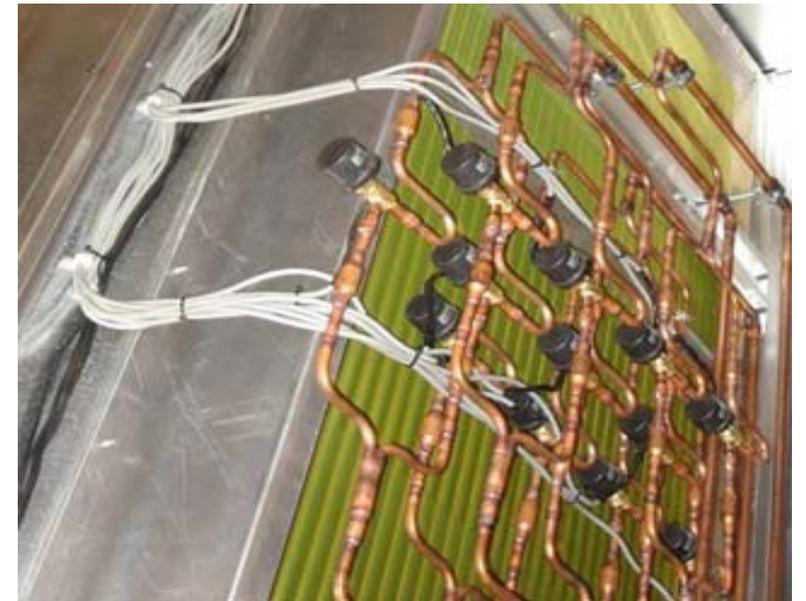
- DX Heat Pump Coil [Cooling & Heating] AHU  
Digital Controller, Thermocouples Sensors fitted.
- R410A Refrigerant
- Electronic Control Valves [ELV's]



# DX Coils – Mitsubishi Electric

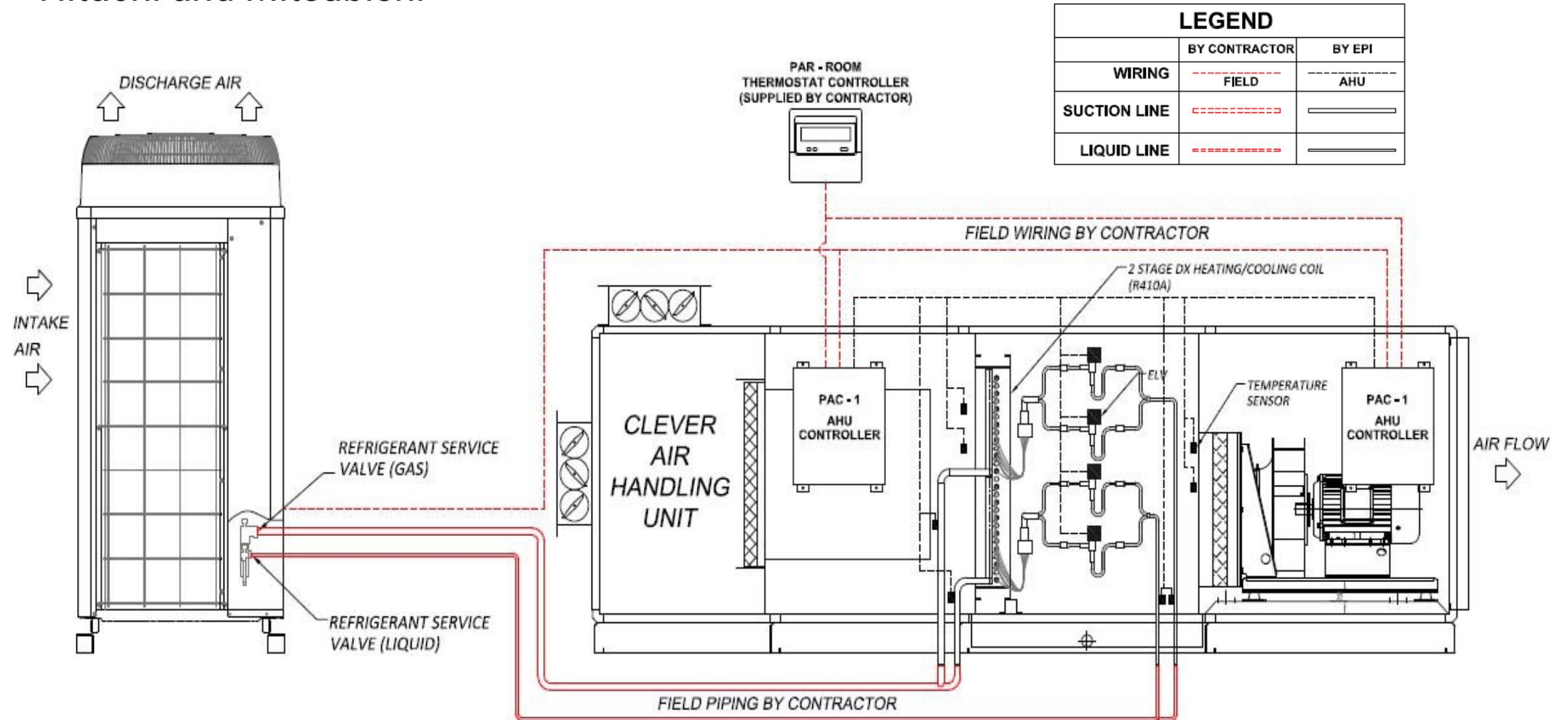
## SPECIALISED DX COIL / PAC AHU CONTROLLERS

- DX Heat Pump Coil [Cooling & Heating] PAC-AH Digital Controller Thermocouples Sensors fitted.
- R410A Refrigerant
- Electronic Control Valves [ELV's]
- > 500 PAC-AH Controllers fitted to date
- No need for electric pre-heat  
[Heats @ -15 C with full fresh air onto coil]
- Exported to Australia and more....



# DX Arrangement – Typical AHU

TYPICAL SETUP – Hitachi and Mitsubishi



LEGEND		
	BY CONTRACTOR	BY EPI
WIRING	---	---
SUCTION LINE	----	----
LIQUID LINE	----	----

# Filters

## ALL FILTER MEDIA AVAILABLE

### DEPTH

- 22, 44, 96 mm Panels
- 96 & 292 mm Rigid Cartridges
- 380 & 600 mm Bag Filters

### MEDIA

- ISO 16890 Standard Certified media



Class	ISO ePM1	ISO ePM2.5	ISO ePM10	ISO Coarse
G3	-	-	-	> 80
G4	-	-	-	> 90%
M5	-	-	> 50%	-
M6	-	50 - 65%	> 60%	-
F7	50 - 65 %	65 - 80%	> 85%	-
F8	65 - 80 %	> 80 %	> 90%	-
F9	> 80 %	> 95 %	> 95%	-

# Filters – Panel Filters

## WASHABLE PANEL FILTER C/W SEALED CHANNEL

### FEATURES

- Purpose Design Aluminium Filter Channel
- Brush Seal Tape Mechanically Mixed
- Great Filter Sealing thus Less By-pass
- Suits 46 mm Panel Filters



NEW

# Filters – Holding Frame

## FILTER FRAMES

### FEATURES

- Stainless steel - Rust resistant
- 97mm Panels
- M8 Retaining Bolts [Standard]
- S/S Clip [Optional]
- Factory poured integral seal
- One frame fits ALL filter media



# Molecular Filters

## CARBON FILTERS

- Purafil
- Camcarb

## MODELS

- PK-18, PK-12, VG440

## MEDIA

- Range of CAMFIL / PURAFIL Media to suit Airports, Museums, Art Galleries, Archival Storage, Commercial Building, etc.
- Proven experience with Hydrogen Sulphide locations, i.e. Rotorua



# Weather Louvres

## TWS “TRIPLE WEATHER STOP”

- Purpose built for AHU’s
- Proven performance to **CLASS A**
- Pressure drop < 100 Pa
- 45 mm Blade Spacing x 100 mm Deep Flange Frame
- Anodised Aluminium
- Independently Tested to AMCA 500 Standard

## LARGE AHU WEATHER LOUVRE

- High Air Volume
- Low Pressure Drop < 30 Pa



# Dampers

## EL100 OPPOSED BLADE DAMPERS

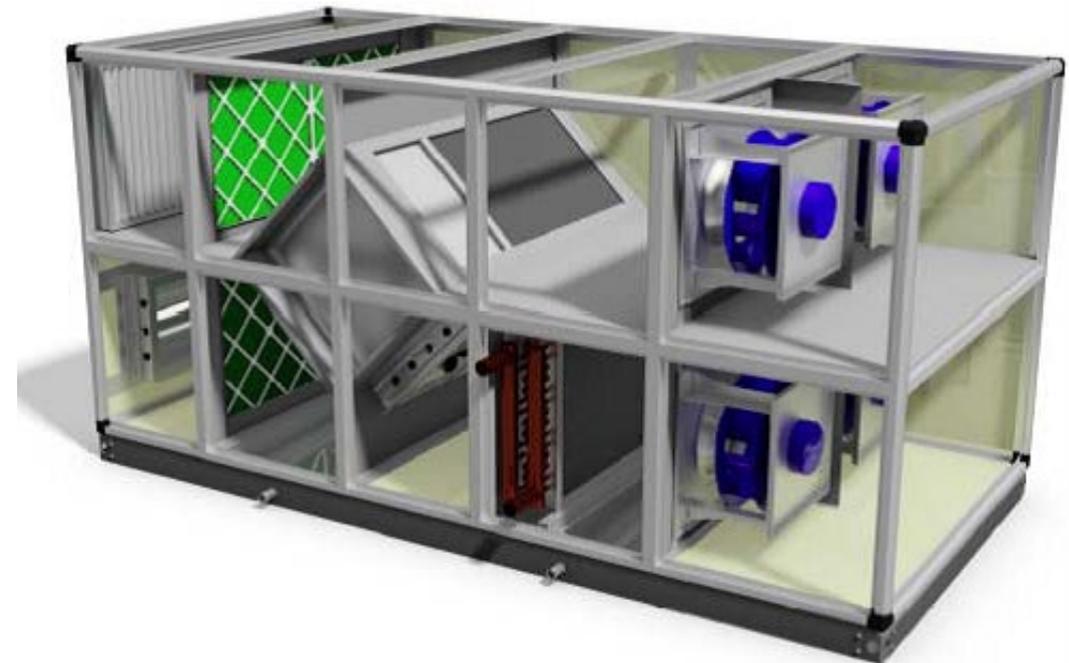
- Manual Quadrant
- Motorized with Shaft for Actuator
- Standard Sizes 124, 226, 328, 430...
- Rubber Blade Seals
- Heat Exchanger Face & By-pass Dampers



# Heat Recovery

## AIR / AIR HEAT EXCHANGERS

- Imported from Recuperator in Italy
- PLATE HEAT EXCHANGER  
[Sensible only]
- HYGROSCOPIC HEAT WHEELS  
[Sensible & Latent Heat Transfer]
- **Heat Recovery Performance to EN13053**
- Eurovent performance certification No. 03.01.242
- Minimum 60% efficiency CLASS H3.
- Importing Heat Exchangers since 2003
- Used in Clever MXR European style AHU's



# AHU Hardware

## CLEVER AHU DOOR HANDLES & HINGES

Arosio Lever Handle [Lockable]



Access Panel Blocks



Aluminium Hinge



# AHU Hardware

## CLEVER AHU ACCESSORIES

External Switches



LED Bulkhead lights



Differential Filter Gauge



Windows



# Fan Controller – EC Motors

## POTENTIOMETER

- External terminal block standard
- Manual Speed Setting via 0-10 Ohm



## ZIEHL-ABEGG MODULES

- CPG-AV Controller - Pressure & Volume
- CTG-AV Controller – Temperature
- MODBUS Controller
- Bluetooth Mobile App



# Clever Quality Features

## DOOR GUARDS

- Mechanically Fixed Aluminium Mesh Door Guard



## SLOPING DRAIN TRAYS

- Stainless Steel
- 2 way slope to single point - Zero water ponding



# Clever Quality Features

## SLOPING ROOF – Do Not Walk on the Roof

- Centrally Pitched for Water Run Off



- Long Run “Colorsteel” Roofing – Large AHU’s



# Clever Quality Features

## INTERNAL DOORS

- Inwards Opening Door against Fan Pressure



## INTERNAL CABINETS

- Accessible Cabinets integral part of AHU, Digital Controllers, etc. Weather Proof



# Clever Quality Features

## ELECTRIC HEATING ELEMENTS

- 1 / 3 Phase Elements in Multi-stage Arrangement
- Safety Devices [Auto + Manual Klixon Reset] and Air Pressure Switch
- Digital Controller, Contactors & Relays, MCB's, Run-on Timer, etc, Controlled via S/A Sensor



## VARIABLE SPEED DRIVE

- Variable Speed Drive located in Integral Cabinet with External Access Door
- Wired from Motor to V.S.D. with Screened Cable.
- Earthed assembly to prevent bearing failure.



# Clever Quality Features

## PACKAGING

- Full Wooden Pallet for freight protection



## LIFTING FACILITY

- Corner Lifting Eye's



# Clever Quality Features

## KITSET SITE ASSEMBLY

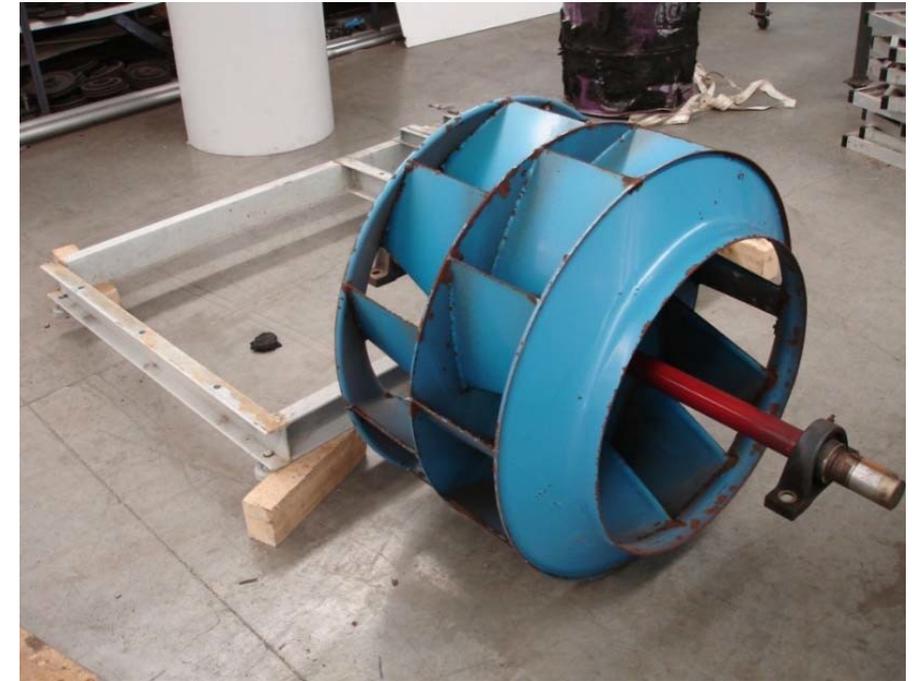
- Partial or complete KITSET
- Delivered to Site. Contractor man handles parts into Plantroom
- Site Safe Certified Site Staff
- Installation typically 1 day / AHU



# AHU Refurbishment - Repair

## EXISTING AHU REPLACEMENT / REFURBISHMENT

- Refurbishment of Old AHU's, Fans
- Un-assemble, Clean, Repaint, Replace Parts, etc. New Panels
- Upgrade Fans DIDW to EC Plenum



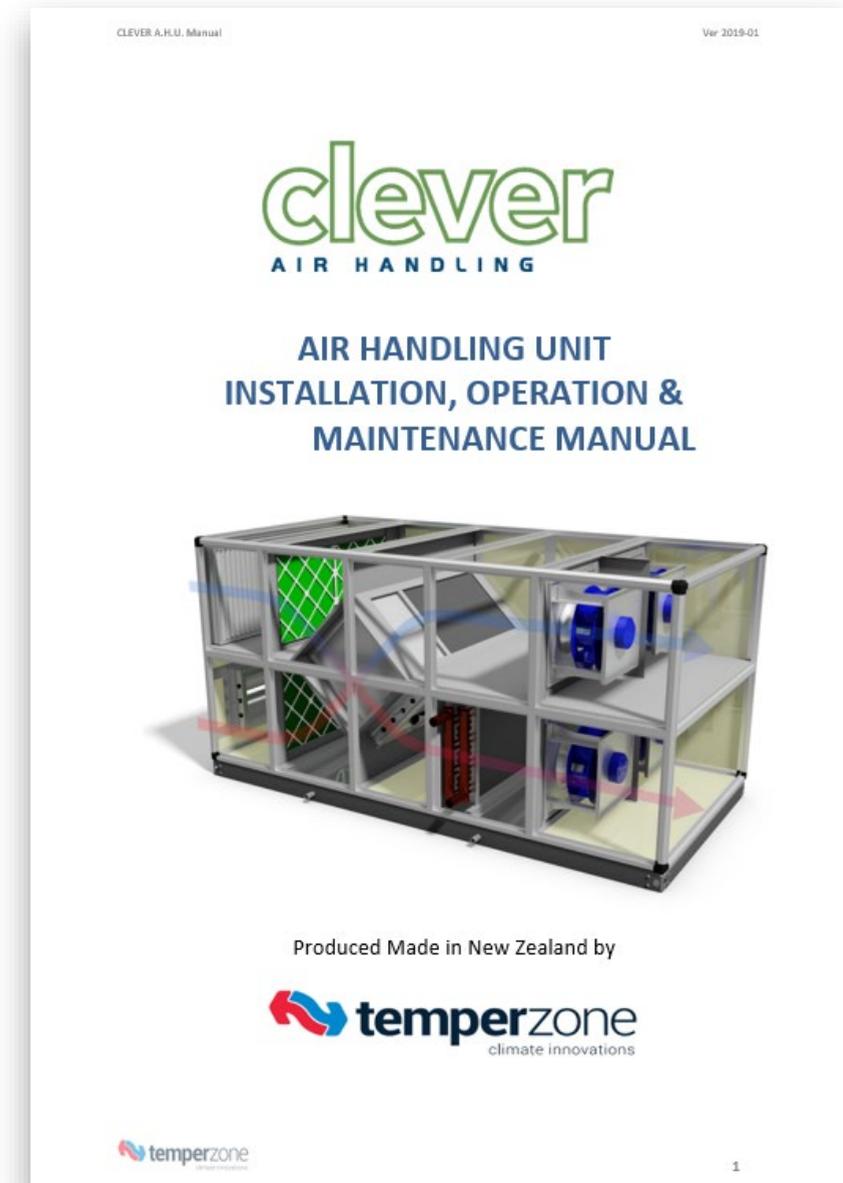
# Documentation

## INSTALLATION, OPERATION & MAINTENANCE MANUAL

- Delivery & Handling Instructions
- Unloading & Lifting Suggestions
- Commissioning Recommendations
- Wiring Diagrams
- Maintenance Procedures

## PANEL CLEAR PROTECTIVE FILM

- The external clear protection film on the external panels **MUST BE REMOVED WITHIN 30 DAYS OF DELIVERY**



# Design & After Sales Service

## QUICK SELECTION GUIDE

- Clever "Tick" Sheet
- AHU Pre-select for custom built AHU

**temperzone** climate innovations  
**clever** AIR HANDLING

**AHU SELECTION TICK SHEET**

Project: \_\_\_\_\_ Sales Person: \_\_\_\_\_  
 Customer: \_\_\_\_\_ Freight Location: \_\_\_\_\_  
 Local Ref: \_\_\_\_\_ Total Airflow L/S: S/A \_\_\_\_\_ L/S \_\_\_\_\_  
 CRM Quote No.: \_\_\_\_\_ Mixing Box L/S: F/A \_\_\_\_\_ L/S \_\_\_\_\_  
 Default Selection:  Standard Option:

**LOCATION & CONSTRUCTION:**

**LOCATION:** PLANTROOM:  Inside  Outside  
 EXPOSED:  Outside  Pitched Sloping Roof  
 TWE Weather Louver  Goswami Cool

**CASE CONSTRUCTION:** PANEL THICKNESS: 18 mm  20x28 "10" FCU   
 23 mm  40x23 "MC" AHU   
 43 mm  60x43 "MC" AHU   
 45 mm  60x43 "MC" Tropical Hygiene Construction

**OUTER LININGS:** M/G Aluminium "Titanium"   
 Coloured - Titanium

**INNER LININGS:** M/Glode Aluminium Unpainted   
 M/G Aluminium "Titanium"   
 Coloured - Titanium   
 GMS Unpainted   
 304 Stainless steel

**PANEL INSULATION:** Polyurethane foam   
 Anodised Aluminium 300/40mm

**INLET TYPE:**  Slit Only  Slit Only  
 FEATURES:  Mixing Box (P/A & S/A)  Inlet Damper (L/S)  Rear Filter Access

**COMPONENTS:**

**FILTERS:** PANEL FILTER: VEE-BUG  22 mm  G1  48 mm  G2  96 mm  Washable  Disposable

FINAL FILTER: M5  96 mm  M6  252 mm  F7  380 mm  F8  500 mm  F9  600 mm

Ultrasonic Panel  Rigid Cartridge  Bag Filter  U/S Frame W57MM  Hepa H13  Hepa H13  Molecular Carbon Filter Module

**COOLING COIL:** COIL TYPE: Chilled  DX / BDT  Air Conditions: E.A.T. \_\_\_\_\_ °C db L.A.T. \_\_\_\_\_ °C db  
 Total Cap. \_\_\_\_\_ kW Sensible Cap. \_\_\_\_\_ kW E.W.T. \_\_\_\_\_ °C db L.W.T. \_\_\_\_\_ °C db  
 Drain Tray  Alum  S/Steel  Water Conditions: \_\_\_\_\_ °C \_\_\_\_\_ °C  
 Epoxy Coated Fin

**HEATING COIL:** COIL TYPE: LTHW  Electric  Air Conditions: E.A.T. \_\_\_\_\_ °C db L.A.T. \_\_\_\_\_ °C db  
 DX / BDT  # Stage \_\_\_\_\_ Phase \_\_\_\_\_ E.W.T. \_\_\_\_\_ °C db L.W.T. \_\_\_\_\_ °C db  
 Total Cap. \_\_\_\_\_ kW Water Conditions: \_\_\_\_\_ °C \_\_\_\_\_ °C  
 Epoxy Coated Fin

**FAN SECTION:** PLINUM FAN: Plenum Fan AC Motor  L/A EXTERNAL STATIC PRESSURE: \_\_\_\_\_ Pa  
 Plenum Fan EC Motor  Dbar: \_\_\_\_\_ Pa Fan to be operated by: V.S.D.   
 D/DW FAN:  D/DW Backward Curve RDH  Potentiometer   
 Belt Driven  CPG Module  Direct Coupling  B.M.S.

## SERIAL NUMBERS

- After Sales Service
- Detailed list of all Clever AHU's Sold from 1996
- Full parts service available

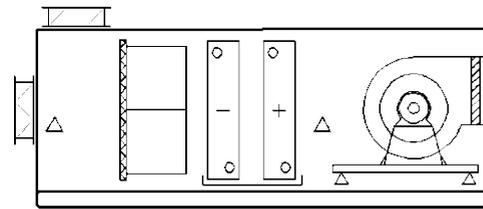
SERIAL\_NUMBER\_LIST.xls

AIR HANDLING UNITS - Serial Numbers								
Serial No.	Clever	AHU Ref.	Quote No.	Contractor/Customer	Project	Location	FINAL PRICE	Dispatch
AQCL6972	MC190	AHU-13.03	052127	Aquaheat - Christchurch	St Pauls Project	Wellington	\$ 32,101	May-17
AQCL6973	MC190	AHU-13.04	052127	Aquaheat - Christchurch	St Pauls Project	Wellington	\$ 32,101	May-17
AQCL6974	MC060	AHU-1	052505	Aquaheat - Auckland	FCC Rebar	Auckland	\$ 9,930	Mar-17
AQCL6975	MC040	AHU-1	052695	Refrigeration & Mechanical HB Ltd	ARL External Cooler Compartment	Napier	\$ 17,940	Mar-17
AQCL6976	MC013	SAF-2A	051314	Refrigeration & Mechanical HB Ltd	Analytical Research Lab	Napier	\$ 2,890	Feb-17
AQCL6977	MC150	AHU-1	052378	Advanced Building Services	WWC City Gallery	Wellington	\$ 21,460	Mar-17
AQCL6978	MC100	AHU-1	052686	David Browne Contractors Ltd	University of Otago - Temporary Trace Metals Lab	Dunedin	\$ 15,170	Mar-17
AQCL6979	MC020	AHU-1	052768	Temperature Solutions Ltd	Airways Corp Lab	Wellington	\$ 8,140	Apr-17
AQCL6980	MC020	AHU-1	052724	Climatezone 2007 Ltd	W.D.H.B. Negative Pressure Room	Hamilton	\$ 3,620	Mar-17
AQCL6981	MC040	AHU-1	052760	Air Res Comm Ltd	Sheratt Warehouse	Auckland	\$ 18,660	Mar-17
AQCL6982	MC150	AHU-1 S/A	052570	NCS Acoustics Ltd	Henderson Compressor Station	Auckland	\$ 13,700	Apr-17
AQCL6983	MC060	AHU-2 S/A	052570	NCS Acoustics Ltd	Henderson Compressor Station	Auckland	\$ 6,050	Apr-17
AQCL6984	MC060	AHU-1	051450	Air Res Comm Ltd	Taiwanese Presbyterian Church	Auckland	\$ 14,330	Apr-17
AQCL6985	MC1000	AHU-1	051877	Chillex Services Ltd	St Lukes Shopping Centre - HVAC AHU Upgrades	Auckland	\$ 103,010	Jun-17
AQCL6986	MC580	AHU-2	051877	Chillex Services Ltd	St Lukes Shopping Centre - HVAC AHU Upgrades	Auckland	\$ 66,810	Jun-17
AQCL6987	MC1000	AHU-4	051877	Chillex Services Ltd	St Lukes Shopping Centre - HVAC AHU Upgrades	Auckland	\$ 101,890	Jun-17
AQCL6988	MC720	AHU-5	051877	Chillex Services Ltd	St Lukes Shopping Centre - HVAC AHU Upgrades	Auckland	\$ 45,350	Jun-17
AQCL6989	MC360	AHU-9	051877	Chillex Services Ltd	St Lukes Shopping Centre - HVAC AHU Upgrades	Auckland	\$ 56,820	Jun-17
AQCL6990	MC360	AHU-10	051877	Chillex Services Ltd	St Lukes Shopping Centre - HVAC AHU Upgrades	Auckland	\$ 58,260	Jun-17
AQCL6991	MC240	AHU-1	052730	Aircon Services Ltd	Pukekohe Wastewater Pump Station	Auckland	\$ 18,320	Apr-17
AQCL6992	MC030	AHU-2	052730	Tech Mechanical Services	HBRRP 32G	Hastings	\$ 8,140	Apr-17
AQCL6993	MC150	AHU-1 - AHU-PB-G-10	052516	Economech Services Ltd	Auckland International Airport - Pier B Extension	Auckland	\$ 42,834	Jul-17
AQCL6994	MC080	AHU-2 - AHU-PB-G-11	052516	Economech Services Ltd	Auckland International Airport - Pier B Extension	Auckland	\$ 22,452	Jul-17
AQCL6995	MC100	AHU-3 - AHU-PB-G-12	052516	Economech Services Ltd	Auckland International Airport - Pier B Extension	Auckland	\$ 26,126	Jul-17
AQCL6996	MC040	AHU-4 - AHU-PB-G-13	052516	Economech Services Ltd	Auckland International Airport - Pier B Extension	Auckland	\$ 15,046	Jul-17
AQCL6997	MC100	AHU-5 - AHU-PB-G-14	052516	Economech Services Ltd	Auckland International Airport - Pier B Extension	Auckland	\$ 28,824	Jul-17
AQCL6998	MC080	AHU-6 - AHU-PB-G-15	052516	Economech Services Ltd	Auckland International Airport - Pier B Extension	Auckland	\$ 24,098	Jul-17
AQCL6999	MC100	AHU-7 - AHU-PB-G-16	052516	Economech Services Ltd	Auckland International Airport - Pier B Extension	Auckland	\$ 26,126	Jul-17
AQCL7000	MC040	AHU-8 - AHU-PB-G-17	052516	Economech Services Ltd	Auckland International Airport - Pier B Extension	Auckland	\$ 15,046	Jul-17
AQCL7001	MC190	AHU-13 - AHU-PB-G-22	052516	Economech Services Ltd	Auckland International Airport - Pier B Extension	Auckland	\$ 48,287	Jul-17
AQCL7002	MC080	AHU-14 - AHU-PB-G-23	052516	Economech Services Ltd	Auckland International Airport - Pier B Extension	Auckland	\$ 28,436	Jul-17
AQCL7003	MC120	AHU-1	052556	Economech Services Ltd	Telecommunication Container Ventilation - Stage 1	Fiji	\$ 30,610	May-17
AQCL7004	MC040	AHU-1A	052756	Aircon Direct Ltd	66 Alison Street Operating Theatres	Hamilton	\$ 8,040	Apr-17
AQCL7005	MC040	AHU-1B	052756	Aircon Direct Ltd	66 Alison Street Operating Theatres	Hamilton	\$ 8,040	Apr-17
AQCL7006	MC013	AHU-1	052811	Justice Building Services	Fonterra Dry Food Storage Stage 2	Palmerston North	\$ 10,840	Apr-17
AQCL7007	MC460	AHU-1	052357	Airco service & Systems Ltd - Dave Bright	Jamestronk Can Production Facility	Christchurch	\$ 90,560	May-17
AQCL7008	MC030	AHU-1	052695	All Seasons Air Conditioning	Gym Rooftop Fresh Air Unit	Hamilton	\$ 4,960	May-17
AQCL7009	MC013	AHU-1	052878	Menzies Group Ltd	Timaru Medical	Timaru	\$ 3,540	Apr-17
AQCL7010	MC013	AHU-2	052878	Menzies Group Ltd	Timaru Medical	Timaru	\$ 3,540	Apr-17
AQCL7011	SB015	FCU-7	051826 B	Modern	57 Willis Street	Wellington	\$ 2,390	Apr-17
AQCL7012	SB015	FCU-8	051826 B	Modern	57 Willis Street	Wellington	\$ 2,390	Apr-17
AQCL7013	SB015	FCU-9	051826 B	Modern	57 Willis Street	Wellington	\$ 2,390	Apr-17

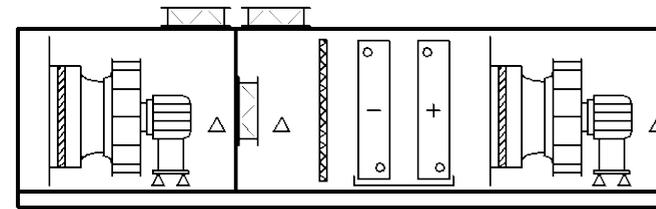
# AHU Customisation – Clever MC

## AHU SPECIALIST

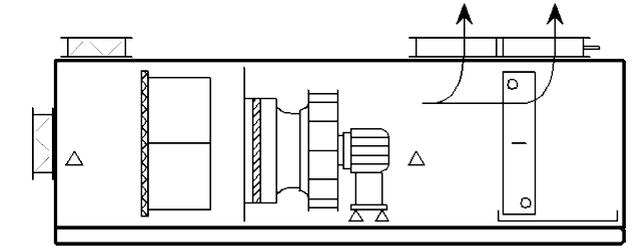
- ANY size,
- ANY shape,
- ANY features,
- Just ASK !



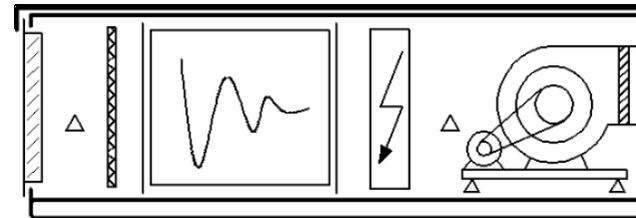
Standard DIDW



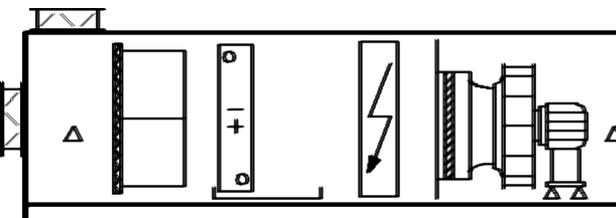
RAF & SAF PLENUM



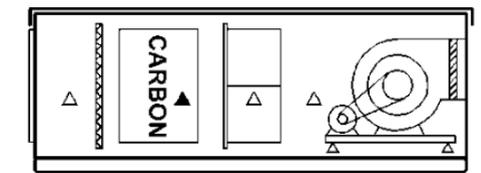
Multi-Zone



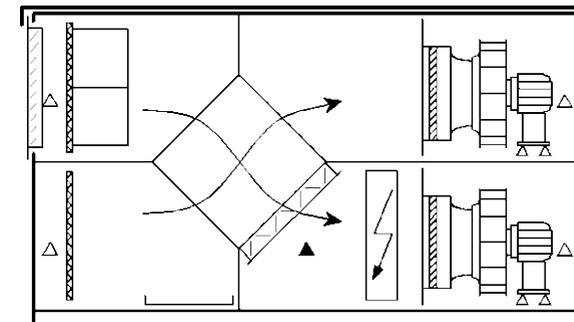
TWS Louvre & Roof



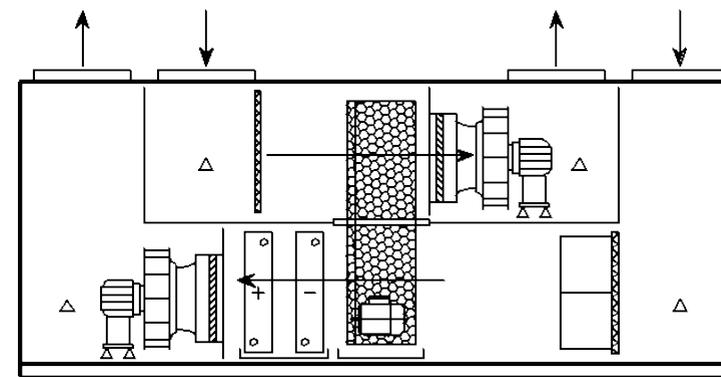
DX cooling / Heating



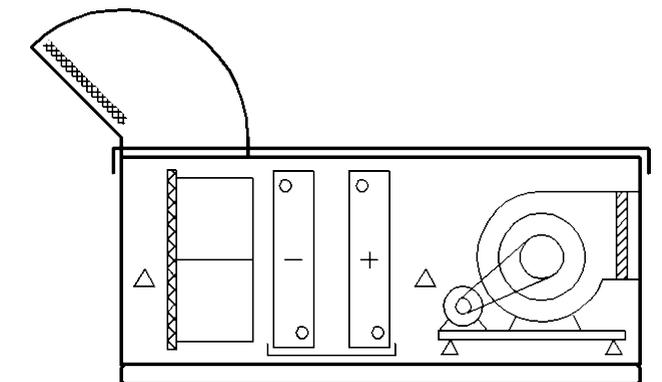
Carbon Filters



Heat Recovery



Heat Recovery



External C/ Cowl



# Clever AHU - Examples

FONTERRA WAITOA – Gooseneck Cowl



MERCEDES CAFÉ – Melbourne, DX AHU



# Clever AHU - Examples

## TOLL NEW OFFICES - Auckland – [MC460, 9050 l/s]

- Wheel Heat Exchanger
- DX Coils
- Epoxy Coating
- EC Fans – Pool Spec



# Clever AHU - Examples

WHAKATANE HOSPITAL – Multi-zone



SPARK Data Centre Auckland



# Clever AHU - Examples

DATACOM Data Centre Hamilton



ALBANY POOL - Epoxy Coated



# Clever AHU - Examples

## ST LUKE'S SHOPPING CENTRE

- Replacement AHU's
- Internal LTHW Boiler
- Helicopter delivery



# Clever AHU - Examples

## CAMBRIDGE SWIMMING POOL [MXR360, 10,000 l/s]

- Plate Heat Exchanger
- Epoxy Coating
- EC Fans – Pool Spec



# Clever AHU - Examples

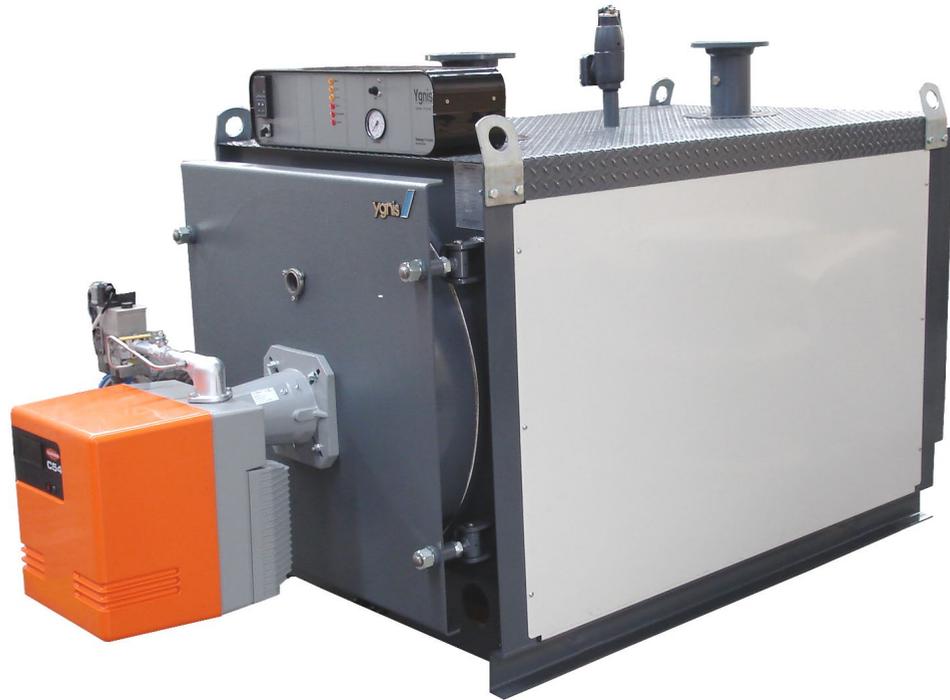
## FULL STAINLESS STEEL AHU - Tahiti

- S/S Panels & Fixings
- DX Coil



# Temperzone Hamilton – Other Product

STEEL BOILER



**aquatherm**  
BOILERS

**aquatherm**  
MODULAR FLUES

CONDENSING BOILER



**De Dietrich** 

# Temperzone Hamilton – Other Product

## CONDENSING BOILERS

### WALL MOUNT



**Gassero**  
technology for your comfort

### FLOOR



### BOILER PACKAGES



**De Dietrich** 

# Temperzone Hamilton – Other Product

## BUFFER TANKS



**aquatherm**  
STORAGE TANKS

## EXPANSION VALVES



**IMI PNEUMATEX**



**IMI HEIMEIER**

# Temperzone Hamilton – Other Product

ECONORAD RADIATORS

**aquatherm**  
ECONORAD RADIATORS



# Temperzone Hamilton – Other Product

FLEXALEN



SCHWANK



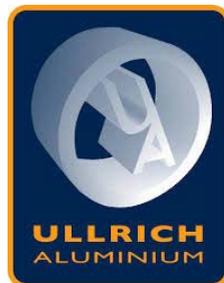
# Clever AHU's – Proudly NZ Made and NZ Sourced



**HITACHI**



**FILTERS DIRECT**



**NICOTRA** | Gebhardt

