



Air Handling Units

**ELTA**



Privately owned and managed with enthusiasm, drive and determination, Elta is an internationally recognised brand committed to leading the world in product and technical ingenuity through our operations in Europe, Asia and Australasia.

**Elta has been designing and manufacturing market-leading ventilation products for over five decades.**

With a long history in air handling, we design and manufacture everything from compact ceiling void units to fully bespoke two-deck systems. Built in the UK or through our exclusive UK & Ireland partnership with Euroclima in Italy, our combined capability ensures we can meet a full range of air handling and heat recovery needs.

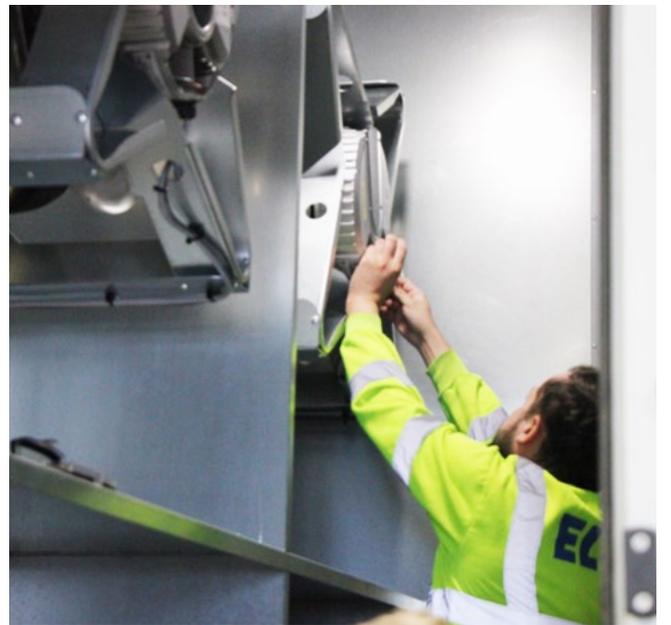
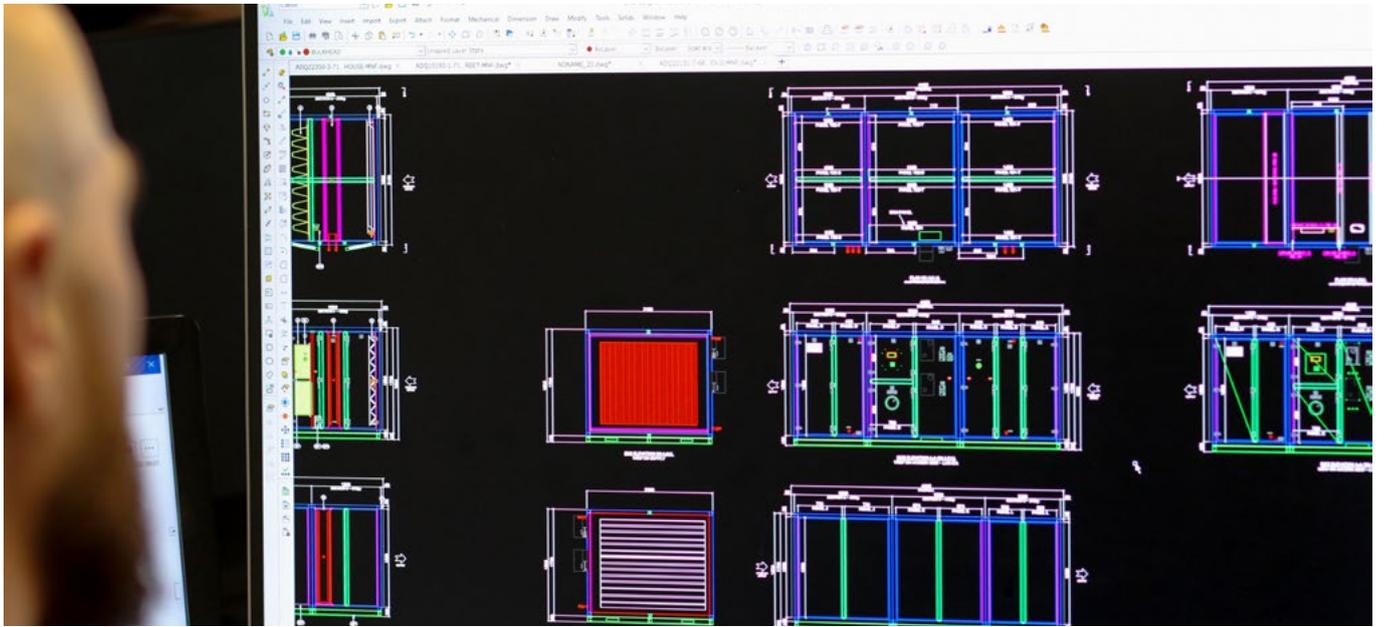
#### **PRODUCTS**

Bespoke & Specialist  
HTM Specification / Corridor Units  
Low Void  
Two Deck  
Supply Only  
Vertical Arrangement  
Heat Recovery  
MVHR  
Integrated DX Heat Pump Units  
Integrated Custom Controls  
Site Services including Flat Pack  
Hygiene & Process

#### **APPLICATIONS**

Commercial  
Industrial  
Retail  
Hospitals  
Schools & Education  
Marine  
Data Centres  
Swimming Pools  
Residential  
Custodial  
Hotels, Sports & Leisure  
Mixed Use Development





# OUR MANUFACTURING CAPABILITY

Our engineering team uses advanced design software to configure AHUs that can be delivered pre-assembled, in modular sections, or flat-packed to suit site conditions. From our dedicated West Midlands factory, we produce units up to 40m<sup>3</sup>/s, with integrated controls and optional services such as performance testing and on-site commissioning.

With 9,000m<sup>2</sup> of manufacturing and warehousing in Kingswinford, all production is managed under one roof. This ensures consistent quality, shorter lead times, and strong support from our UK supply chain.

We work with you to plan deliveries around project schedules, helping to overcome logistical challenges and keep installations running smoothly.

From unit placement and specification compliance to leakage testing and thermal insulation, every unit is carefully designed and constructed with all critical project considerations in mind.

# SELECTION

Our in-house AHU selection software provides a powerful platform for designing, configuring, and managing air handling units with speed and accuracy. The system enables rapid 3D visualisation of units, seamless component selection from customised databases, and automatic generation of technical documentation such as drawings, performance data, and bills of materials. With built-in production outputs, integration with CAD/BIM tools, and support for certification standards, the software ensures consistency from sales through to manufacturing. By unifying design, sales, and production workflows in one environment, it reduces errors, shortens lead times, and gives our customers confidence that every unit is built to precise specifications.

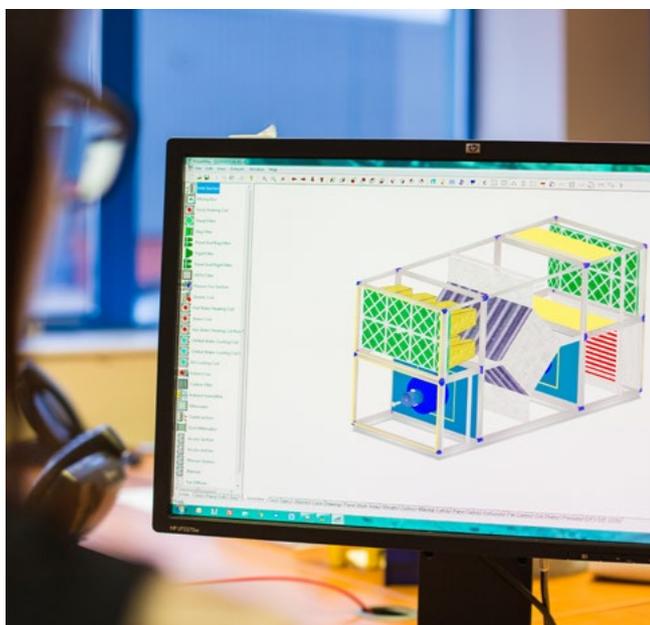
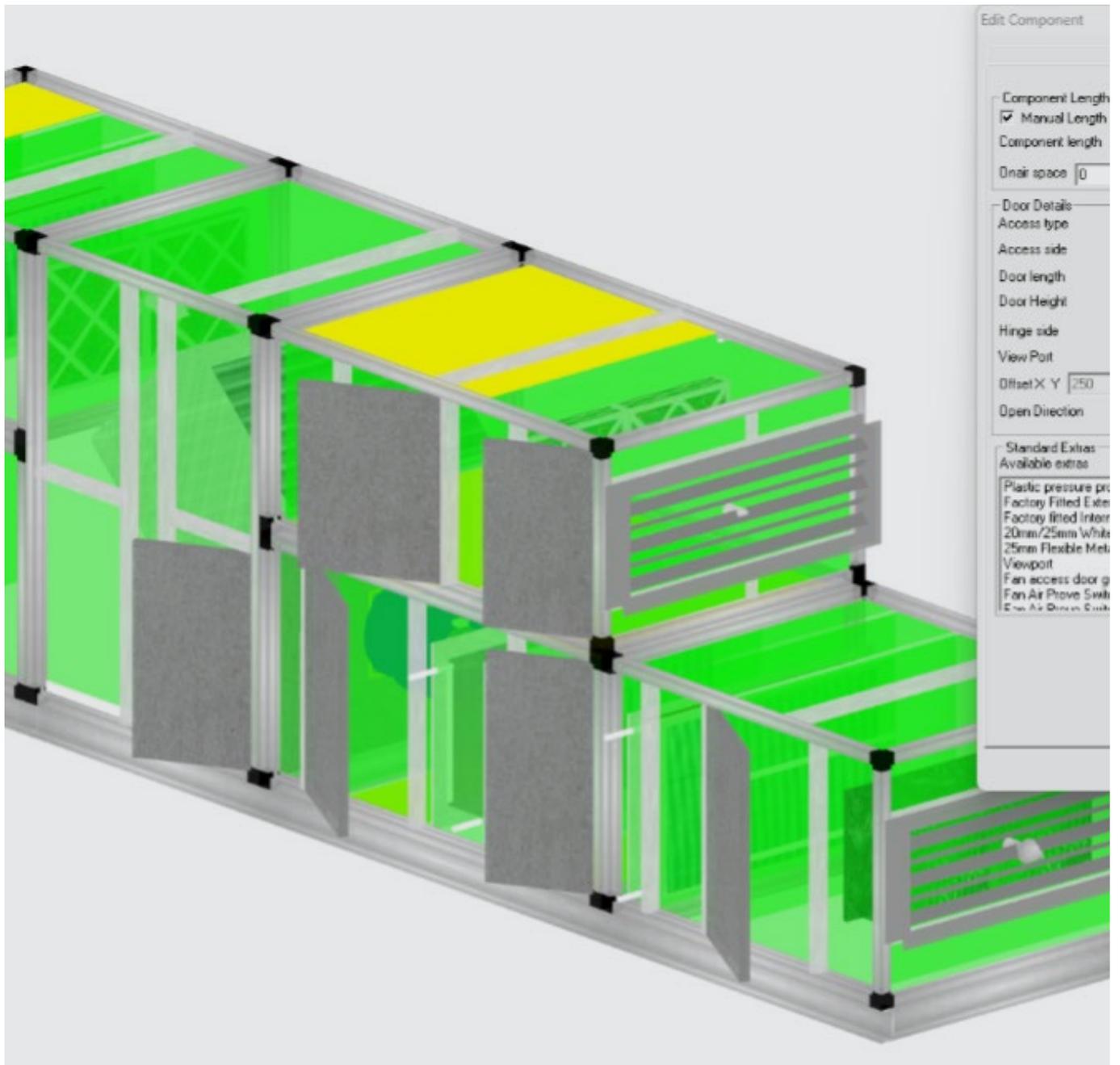
Rapid 3D unit  
visualisation

Custom  
component  
database

Automatic  
technical  
documentation

Integrated  
CAD/BIM  
compatibility

Seamless  
sales-to-  
production  
flow





# TRULY BESPOKE UNITS

Our range incorporates the latest advancements in component technology — including plug fans with variable speed drives, EC motor-controlled fans, high-efficiency thermal wheels, plate-to-plate heat recovery systems, and plug-and-play control options.

From unit placement and specification compliance to leakage testing and thermal insulation, every unit is carefully designed and constructed with all critical project considerations in mind.

Custom-  
engineered to  
project needs

UK-built with  
assured quality

Factory-tested  
for proven  
performance

Solutions for  
critical sector  
applications

Flexible  
configurations  
and support

# FEATURES



## Construction

- High-quality insulated anodised aluminium (6060-T6) pentapost system
- Cast aluminium corner pieces for strength and durability
- Double-skinned galvanised panels with mineral wool insulation (25mm–60kg/m<sup>3</sup> or 50mm–45kg/m<sup>3</sup>), Alternative infills available on request
- Extruded gaskets for airtight performance
- Double-seal access door system with EPDM corner infills
- Supplied with perimeter base-frame and lifting slots for safe handling and installation
- Units delivered in modular sections for easy transport and on-site assembly
- Supported with certified drawings and full O&M instructions

## Fans

Our fan sets are versatile and can be installed in various orientations, allowing flexibility in system design. By directly integrating the fan into the AHU plenum, it contributes to the overall efficiency of the AHU system. They provide a compact and space-saving solution, minimising pressure losses.

## Filtration

Applying appropriately selected, efficient air filters in ventilation systems can significantly reduce the impact of particulate matter exposure. When determining filtration efficiency for the desired indoor air quality, it's crucial to consider both outdoor air quality and indoor air emissions. Our units are available with filtration options ranging from coarse particulate filtration to fine, offering versatile solutions tailored to your needs.



### Heat Recovery

Heat recovery is a process of capturing and reusing heat that would otherwise be lost. This improves energy efficiency, reduces energy consumption and operating costs. We can provide numerous methods of Heat recovery from Rotary and Counter flow to run around coils.



### Heating & Cooling Coils

Each unit is fitted with blanking plates to prevent bypass air to ensure maximum efficiency and performance. Coils are mounted on galvanised rails for easy installation and removal, while pipe penetrations are sealed with cover plates to maintain airtightness and protect against air leakage.



### Controls

Leveraging over 50 years' experience in design and supply, we can build control panels tailored to your exact specifications. Whether your project demands precise climate control or intricate ventilation management, our bespoke controls are designed to meet the unique requirements of each application.



### Smarter AHU Controls, Powered by Partnership

iACS provides next-generation control solutions for our air handling units, designed to simplify integration, reduce costs, and improve efficiency across all types of projects. With over 15 years of development behind their control platform, iACS delivers a standardised yet flexible solution that works seamlessly with our AHU systems.



# HTM SPECIFICATION

HTM 03-01 (2021) sets out the design, installation, validation, operation, and maintenance requirements for ventilation systems in healthcare facilities across the UK. It applies to hospitals, operating theatres, isolation rooms, ICUs, wards, and critical healthcare environments, and provides design standards for air changes, pressure regimes, filtration, and system resilience.

It is the authoritative reference for ventilation in UK healthcare buildings. Compliance ensures the protection of patients, staff, and visitors through infection control.

Elta can provide hospital-grade Air Handling Units with HEPA filtration and redundancy, supported by isolation/theatre-specific units and monitoring systems.

# DATA CENTRE COOLING

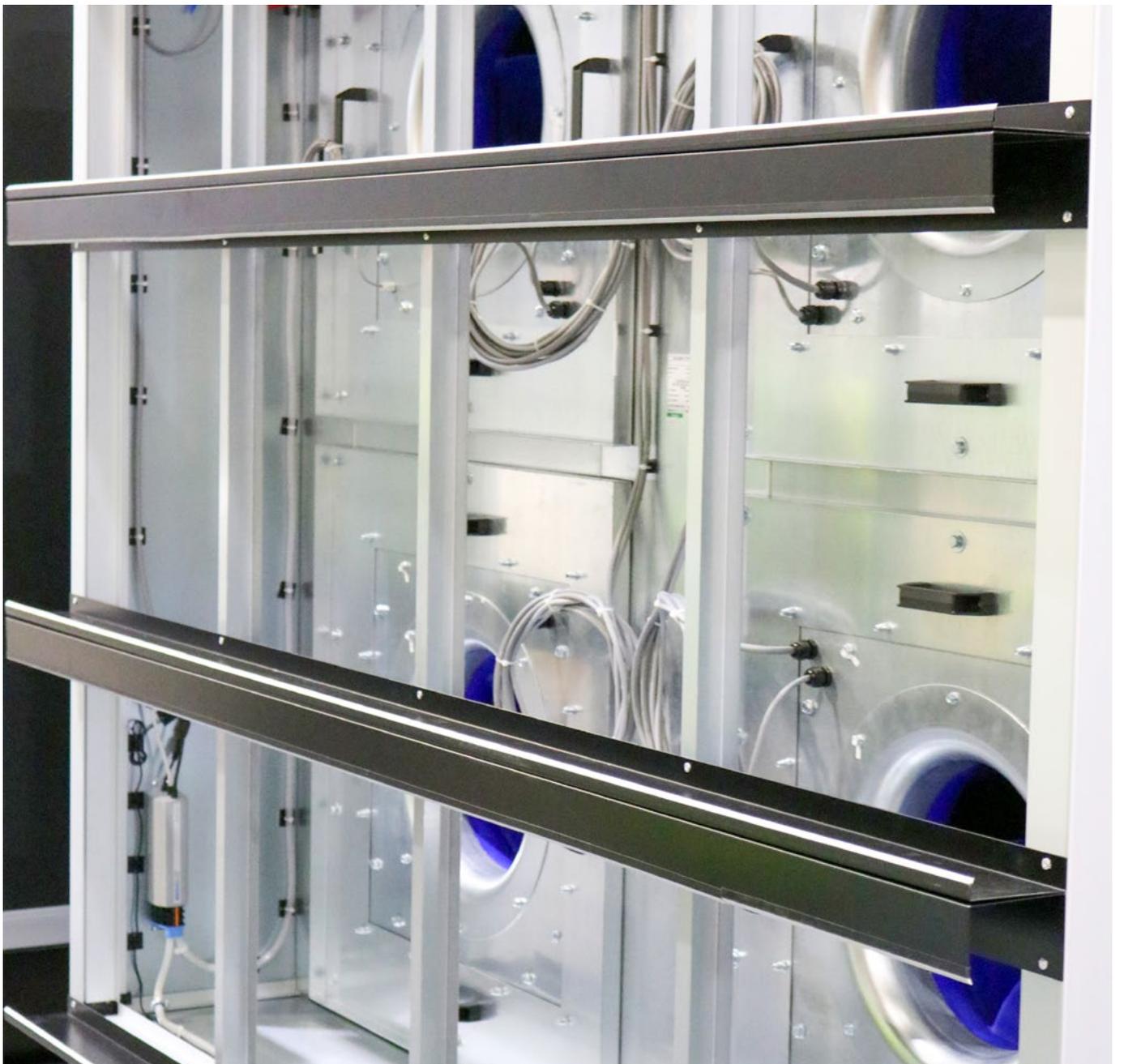
In the modern business world, data centres are essential to provide the critical infrastructure needed to store, process, and manage vast amounts of data.

As the demand for cloud computing, streaming services, and digital storage grows, so does the need for reliable data centres.

These facilities generate significant amounts of heat, which, if not properly managed, can lead to overheating and equipment failure. Effective cooling systems are essential to maintain optimal operating temperatures within data centres.

We understand the unique challenges of data centre cooling. Our air handling units are specifically designed to provide efficient, reliable, and scalable solutions tailored to the needs of modern data centres.

Our AHUs are engineered to deliver precise temperature and humidity control, ensuring optimal performance and energy efficiency.



## PROJECTS



## PRODUCTION FACILITY

4 externally mounted double deck AHUs. Controls, 3way mixing box, humidification. On site start-ups.  
Airflows: 28m<sup>3</sup>/s; 11m<sup>3</sup>/s & 2.57m<sup>3</sup>/s.



## HOSPITAL (HTM SPEC)

Hospital HTM 03-01 compliant unit, with access corridor.



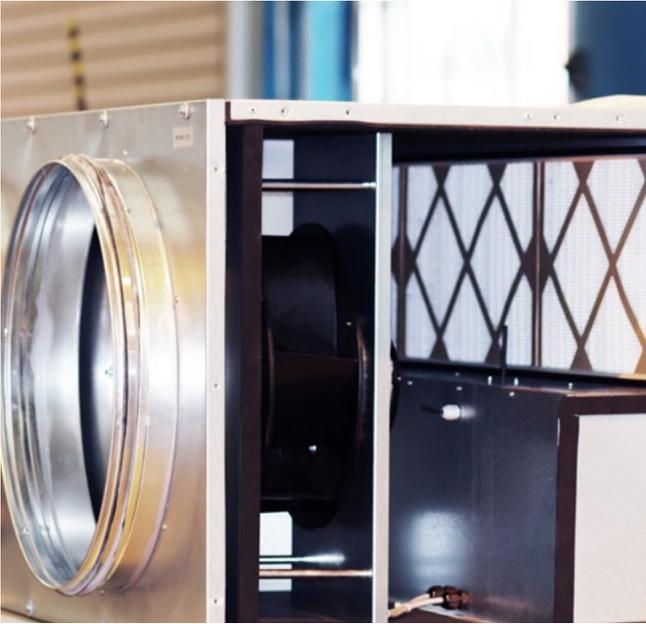
## BEVERAGE MANUFACTURING

External Mounted supply Air Handling units with Louvres, High efficiency filters, EC Fans and Shut off damper.



## POWER GENERATION

Supply & Extract AHU complete with Inlet damper Filters and 2 stage Axial Fan for a design air volume of 7.40 m<sup>3</sup>/s @ 2500 Pa.



# COMPACT HEAT RECOVERY UNITS

Elta's Compact Heat Recovery Units have been designed with features focused on comfortable ventilation, regulations compliance and ease of use, whilst boasting high efficiency energy recovery capabilities. These units are manufactured for effective ceiling void mounting and low pressure ventilation systems. Installation and maintenance has been made easier with a frameless, compact structure which has been developed on all sizes. All units are manufactured in the UK, undergoing vigorous quality checks at every stage.

## **Lightweight & Slimline**

Despite their compact size, which helps to reduce building and maintenance costs, the units have a strong, solid construction with reduced environmental footprint and enhanced acoustic performance.

## **Controls made easier**

Supplied with a multi-function LCD Display control panel for control and convenience incorporating speed selection, bypass setting, filter replacement, signal to pre / post heating and Modbus capability

## **Efficient Fans & Motors**

All units have a free running, high performance backward curved impellers that provide reduced rotational tone. The EC fans within the units are the most efficient in converting electrical power input into air power, resulting in low energy consumption and significant economic benefits for the end user.

## **Counterflow Heat Exchanger**

Thermal energy exchange is enhanced by the large surface area of the heat exchanger resulting in high efficiency rates of thermal energy recovery. All units are fitted with a bypass damper. The bypass damper operates dependent on temperature parameters and values set via an LCD controller display to offer free heating mode in winter.

## **Particulate Filters**

Available in a range of media grades, the supply particulate filter improves Indoor Air Quality by always providing filtered, healthy air.

## APPLICATIONS



### SCHOOLS & OFFICES

Failure to correct poor Indoor Air Quality within an educational or working environment can lead to increased illness and absences and reduced cognitive function. Our Commercial Heat Recovery range helps to maintain comfortable working

temperatures by recovering thermal energy from the already warm air inside the occupied space to raise the temperature of the incoming fresh air. ISO ePM1 55% filters are fitted in the unit to remove pollutants and provide clean air that encourages concentration and productivity.



### RESTAURANTS, HOTELS & LEISURE CENTRES

In building spaces with a high volume of guests and visitors, maintaining a comfortable and healthy indoor environment without increasing energy bills, can prove to be a challenge.

The units maintain good Indoor Air Quality and comfortable temperature levels by efficiently transferring thermal energy from the stale air to the incoming new air.



## CONTROLS

The unit is supplied with a multi-function LCD display (CTRL-DSP) for automatic control and convenience, providing:

- 3 speed settings (adjustable)
- Boost option
- Holiday mode
- Night mode
- Weekly timer
- Bypass setting
- Airflow balancing
- Filter replacement and fan failure indicator
- Working hour counter
- Setting saving and loading
- Suitable for remote ambient sensors
- Modbus interface
- Connection to remote pre/post heating element
- Connection to remote water coil for Heating

The units can also be supplied without control for customer integration.

# RESIDENTIAL MVHR

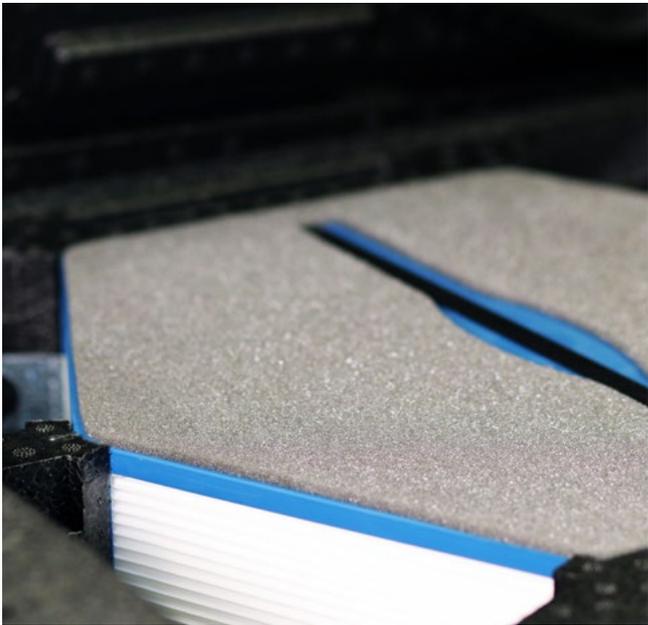
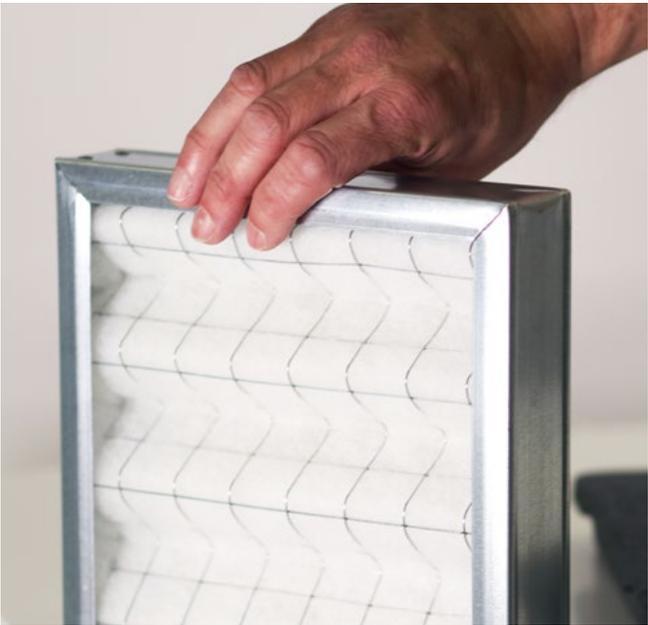
Many modern properties are built to be highly airtight, resulting in insufficient ventilation, which can lead to poor indoor air quality, excess humidity, and condensation issues. Our HAVA systems are specifically designed to address these challenges by continuously supplying filtered, pre-warmed air while extracting stale, moisture-laden air, ensuring a healthy and energy-efficient living environment.

Continuously supplying filtered, pre-warmed air while extracting stale, moisture-laden air, ensuring a healthy and energy-efficient living environment.

Models are available for ceiling, false-ceiling, or vertical wall installations with compact, low-profile designs.

Multi-functional remote-control panel for speed selection, boost mode, filter reset, and alarm management.

Highly efficient units with very low energy use and high heat recovery efficiency to Energy Consumption Class A or A+.



## HAVA MODELS



### HAVA 120HV MVHR

#### Heat Recovery Ventilation Unit with Enthalpic Heat Exchanger

Whole-house heat recovery unit, suitable for 1 or 2-bedroom dwellings, hotel rooms, and student accommodations suitable for horizontal and vertical mounting.



### HAVA 180H MVHR

#### Horizontally Mounted Heat Recovery Ventilation Unit

Whole-house heat recovery unit, suitable for ceiling or false-ceiling installation, for horizontal mounting.



### HAVA 280V MVHR

#### Vertically Mounted Heat Recovery Ventilation Unit

Whole-house heat recovery unit, suitable for vertical installation. Can be installed in a cupboard or narrow spaces thanks to its compact size.



### HAVA 340H MVHR

#### Horizontally Mounted Heat Recovery Ventilation Unit

Whole-house heat recovery unit, suitable for ceiling or false-ceiling installation, for horizontal mounting.



### HAVA 400V MVHR

#### Vertically Mounted Heat Recovery Ventilation Unit

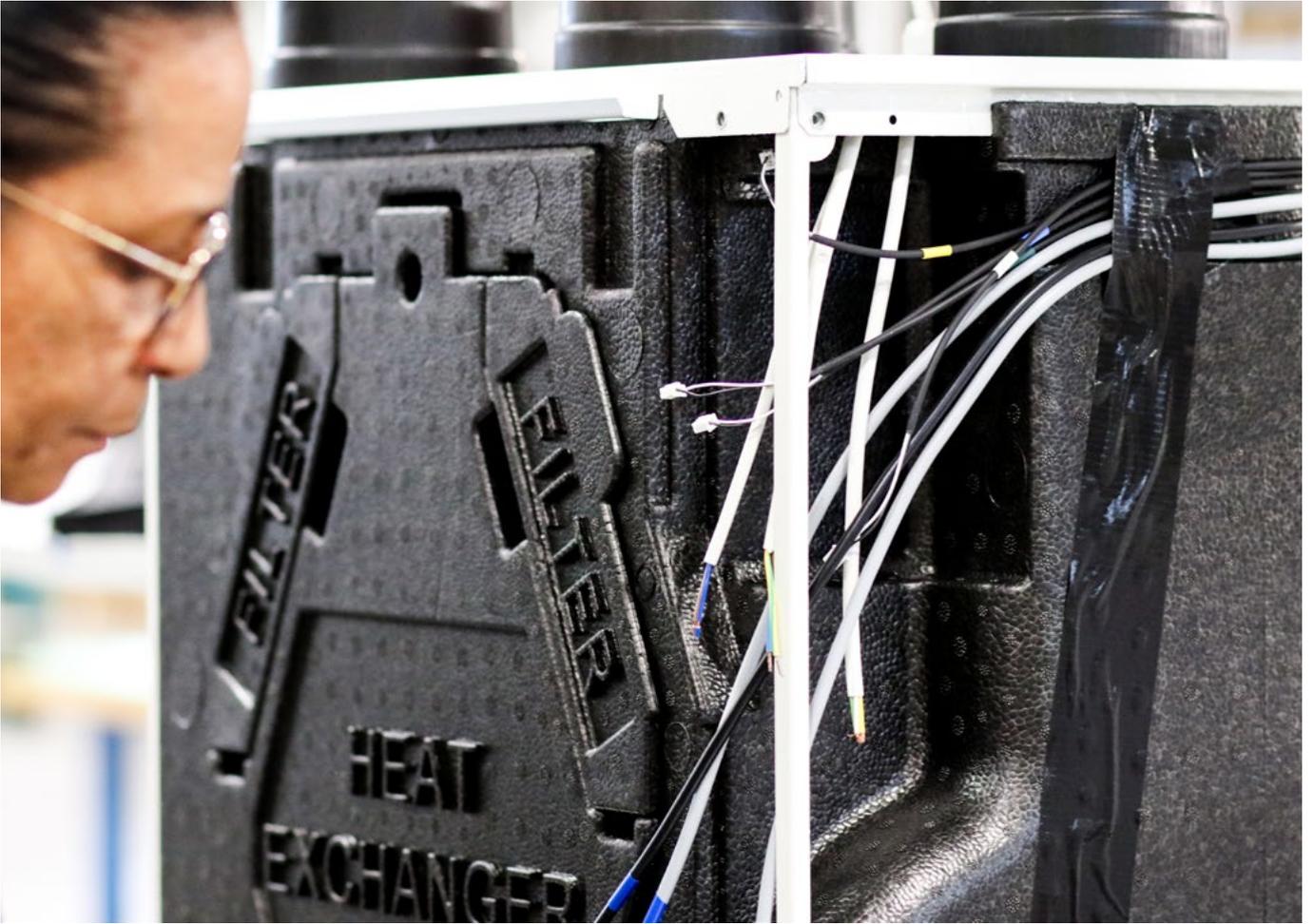
Whole-house heat recovery unit, suitable for vertical installation.



### HAVA 550V MVHR

#### Vertically Mounted Heat Recovery Ventilation Unit

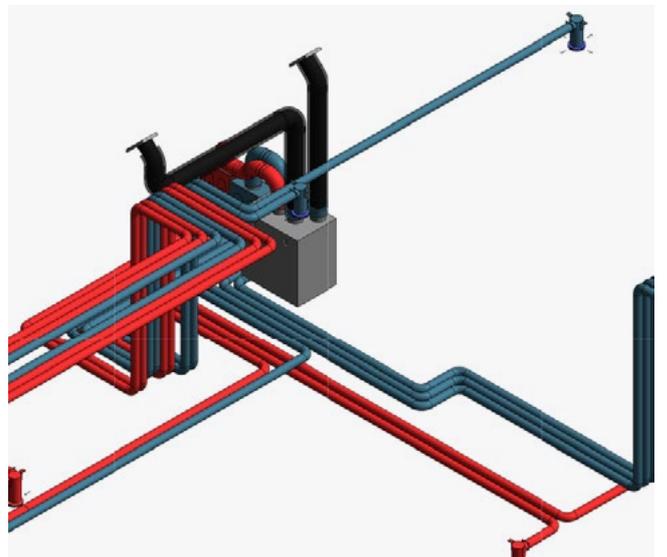
Whole-house heat recovery unit, suitable for vertical installation.



## MANUFACTURED IN OUR OWN ITALIAN FACTORY

## SYSTEM DESIGN

We offer bespoke system design and full packages for a residential MVHR system.





# EUROCLIMA

As the UK's exclusive distributor of Euroclima, our partnership allows us to expand our AHU offering even further. Developing and producing high quality air handling units for all applications, Euroclima is an international industrial business working across 5 production sites in Italy, Austria, India and the United Arab Emirates to create world-class, fully customised, air handling units from quality components.

5 production sites	530+ employees	Worldwide presence with sales and service partners	50.000 m <sup>2</sup> production area
Family company	60 years of experience	Management run with family values	

# PRODUCT & HYGIENIC CERTIFICATIONS

- DIN 1946-4 – German standard for ventilation and air conditioning in healthcare facilities (hospitals, clinics, operating theatres).
- VDI 6022 – Guideline for hygiene requirements in HVAC systems and indoor air quality.
- ATEX – EU directives governing equipment used in explosive atmospheres.
- VDI 6022 Blatt 1 – Part 1 of VDI 6022, detailing hygiene requirements for ventilation systems to protect health.
- SWKI VA 104-01 – Swiss guideline for ventilation and air-conditioning in hospitals and healthcare facilities.
- VDI 3803 – Guideline on the technical and hygienic design of AHUs and their components.
- ÖNORM H 6021 – Austrian standard for ventilation and air-conditioning in hospitals.
- DIN EN 13779 – European standard for ventilation in non-residential buildings, focusing on indoor environment and energy performance.
- DIN 1946-4 (repeat) – Healthcare ventilation standard (see above).
- SWKI 99-3 – Swiss guideline on hygiene in ventilation and air-conditioning systems.
- ÖNORM H 6020 – Austrian standard on hygiene requirements for HVAC systems.



## PRODUCT



### ZHK RECO

Based on the high-quality Eurovent certified ZHK INOVA unit casing, flat units with a total height of 420mm or 505mm can be selected. The ZHK RECO is available with many additional options, and the frameless design achieves T2/TB2 values.

- 3 Standard Models
- T2/TB2 as standard
- Components can be adapted to normal operation
- Compact design
- Available with/without control system
- Access from below



### ZHK NANO

The ZHK NANO units work with energy-efficient high performance EC fans, glass fibre bag filters on the fresh air and exhaust air side, heat recovery with a rotary heat exchanger or counterflow. Available in 4 different sizes up to 8,800 m<sup>3</sup>/h and tested in an independent test facility according to EN13053 and EN1886. Certified according to EUROVENT.

- 4 standard sizes up to 8,800 m<sup>3</sup>/h
- Remote maintenance capable
- Heat recovery with rotary or plate heat exchanger
- Very compact design
- Available with/without control

## PRODUCT



### ZHK UP

Due to its compact design with vertical airflows the ZHK UP is ideal for use where space is limited. Its narrow and at the same time low design allows the unit to be easily integrated into existing rooms without additional structural changes. The ZHK UP units are available up to 4.800 m<sup>3</sup>/h.



- 4 standard sizes
- Coloured components as options
- Minimised footprint
- Monoblock or in 3 sections available
- Eurovent certified and VDI 6022 conformity



### ZHK INOVA

The ZHK INOVA unit series is characterised by enormous flexibility. The basis for this is the ZHK INOVA casing, which meets the Eurovent-certified standard T2/TB2. We provide freely configurable unit systems and can rely on a wide range of high-quality components. The unit sizes and shapes can be perfectly adapted to the general conditions on site.

#### Casing data (MB ZHK INOVA) according to EN 1886 certified:

Mechanical casing strength: Class D1(M)

Casing leakage at -400 Pa: Class L1(M)

Casing leakage at +700 Pa: Class L1(M)

Filter bypass leakage: Class F9 (M)

Heat transmission: Class T2

Thermal bridging factor: Class TB2

- Customer specific solutions
- 50 mm double-walled casing
- Sheet thicknesses: up to 1.5 mm sheet metal
- Non-flammable mineral wool with a density up to 150kg/m<sup>3</sup>
- Available with/without control

## PRODUCT



# ZHK INOVA + KONAIR

The ZHK INOVA + KonAir solution is a factory-integrated system combining Euroclima's ZHK INOVA / ZHK VISION AHU modules with a condensing (DX) unit (the KonAir) to provide a streamlined heating and cooling package.

The combination is designed for plug-and-play functionality, minimising the need for on-site refrigeration piping or complex integration. One of the key design principles is simplicity of commissioning: the system is delivered pre-tested (factory tested), and because the AHU and condensing unit are matched, fewer interfaces or integration issues arise in the field.

Control  
AHU unit &  
condensing  
unit from one  
source

100% factory  
tested before  
delivery

No more  
piping on site  
necessary

Cooling &  
Heating

## PRODUCT



### AHU FOR THE FOOD INDUSTRY

Ventilation units for the food industry, designed for maximum hygiene and ease of cleaning. Made of corrosion-resistant materials, specifically developed for use in demanding environments.

- No Joints
- Rounded Corners
- T2/TB1 Thermal Classification
- Airflows up to 50,000m³/h



### ETA POOL

Specialised HVAC/ dehumidification systems for indoor pools. Designed to maintain a healthy, comfortable indoor climate, control humidity, and prevent structural damage from moisture / condensation in pool halls.

- Special powder coating against corrosion
- Smart control concept for the lowest energy consumption
- Compact SPA 1,500-5200m³/h
- Customised Olympic 6,500-37,000 m³/h
- Multiple functional modes: Basic, Dry & Cooling
- Available in two models: Spa & Olympic

## PRODUCT



### ZHK EFFICIENCY MODULE

The ZHK Efficiency Module is a hydraulic run-around coil system that links supply and exhaust air streams via a closed water loop.

- With cold and warm water plate heat exchanger
- Redundant pump system (optional)
- For indoor & outdoor
- Including control
- With/without pipe insulation
- Airflows spatially & hygienically separated



### COMPRESSION REFRIGERATION SYSTEM (DX)

The compression refrigeration system, often known as DX (direct expansion) cooling, is a compact and efficient method of conditioning air by using refrigerant directly within the AHU to cool the supply airflow.

- Simple cooling circuits
- Reversible cooling circuits
- Up to 500 KW
- With scroll compressors
- With refrigerant R410 & R407 & R32

## PRODUCT



# CONTROL SOLUTIONS

Air Handling Units can be supplied with factory-mounted controls, complete with integrated protective functions. The package includes freely programmable control as well as management of peripheral devices such as temperature and humidity sensors, pressure switches, damper actuators, and valves. Each unit undergoes thorough factory pre-commissioning, ensuring high reliability, reduced installation time, and a smooth, trouble-free start-up for our customers. ETA MATIC software is perfectly matched to the control, No programming knowledge is required for commissioning.

Controller by  
Siemens

BMS Compatible

Cloud  
ready with  
predictive  
features

API Capability

Infinite  
applications

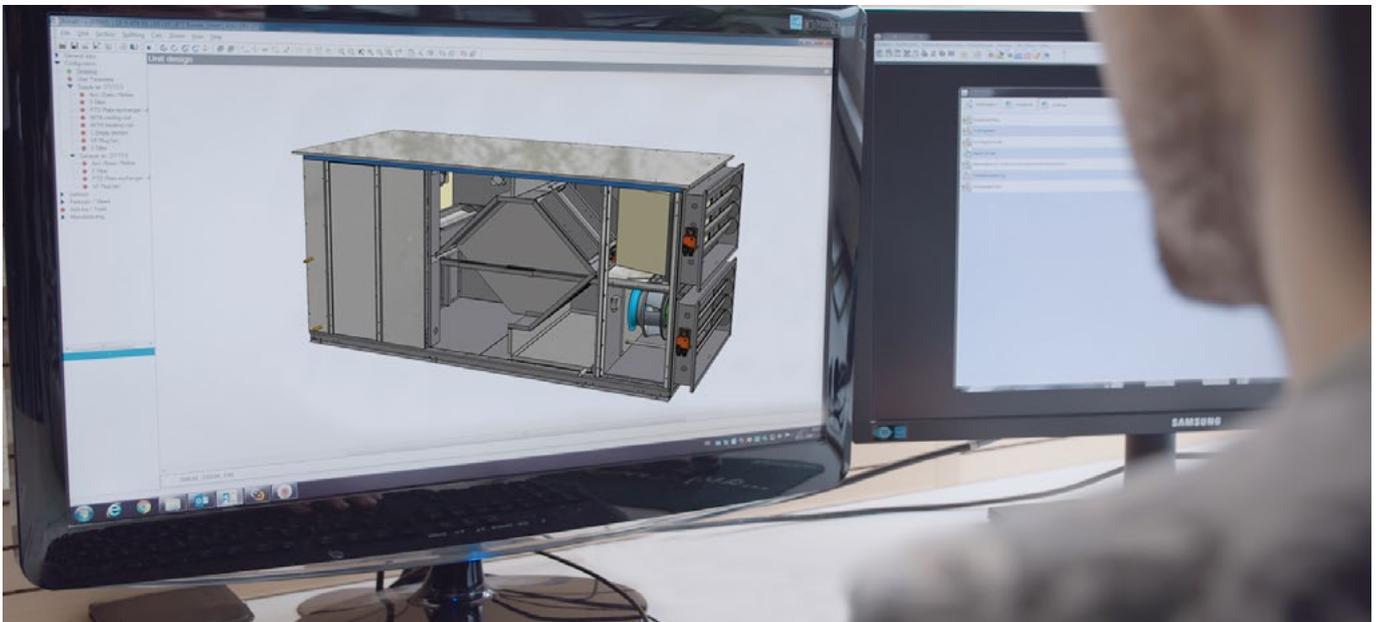
## PROJECTS



### SIEMENS CLIMATE IC CLOUD

The optional “Climatix IC Cloud” package provides cloud access to the unit. Remote monitoring and intelligent diagnostics using leading IoT analytics.

- Access from everywhere via PC, Tablet or Smartphone
- Trending, data points up to one year back
- Store all documents in the cloud
- Automatic alarm messages
- Quick service support



### AIRCALC++ SOFTWARE

AirCalc++ is a modular, multilingual software tool for selecting and designing AHUs. It enables manufacturers, system designers, and HVAC specifiers to configure units, evaluate performance, generate technical datasheets, drawings, acoustic data, cost estimates, and more.

- All your information and configuration stored
- Design and planning of individual solution
- Detailed and complete specific texts
- Detailed part list of all used components
- Clear and well-arranged structure

# COMPLIANCE & STANDARDS

Manufacturing to recognised standards is more than a compliance exercise – it is a driver of business value and market confidence. For customers, it guarantees that products meet defined levels of safety, performance, and efficiency, making specification easier and reducing project risk. For manufacturers, it provides a framework to benchmark quality, innovate responsibly, and demonstrate credibility in competitive markets.

Standards such as EN 1886 and EN 13053 ensure that air handling units are verifiable against measurable criteria, building trust with consultants, contractors, and end-users. By aligning with these standards, businesses not only open access to regulated markets but also position themselves as reliable partners who deliver consistent, high-performance solutions that stand up to scrutiny.

## Applicable Standards

### Mechanical

EN 1886

### Performance

EN 13053

### Energy

EU 1253/2014

EU 2024/1834

### Safety

EN 6024-1

EN 60529

EN 12100

### Filtration

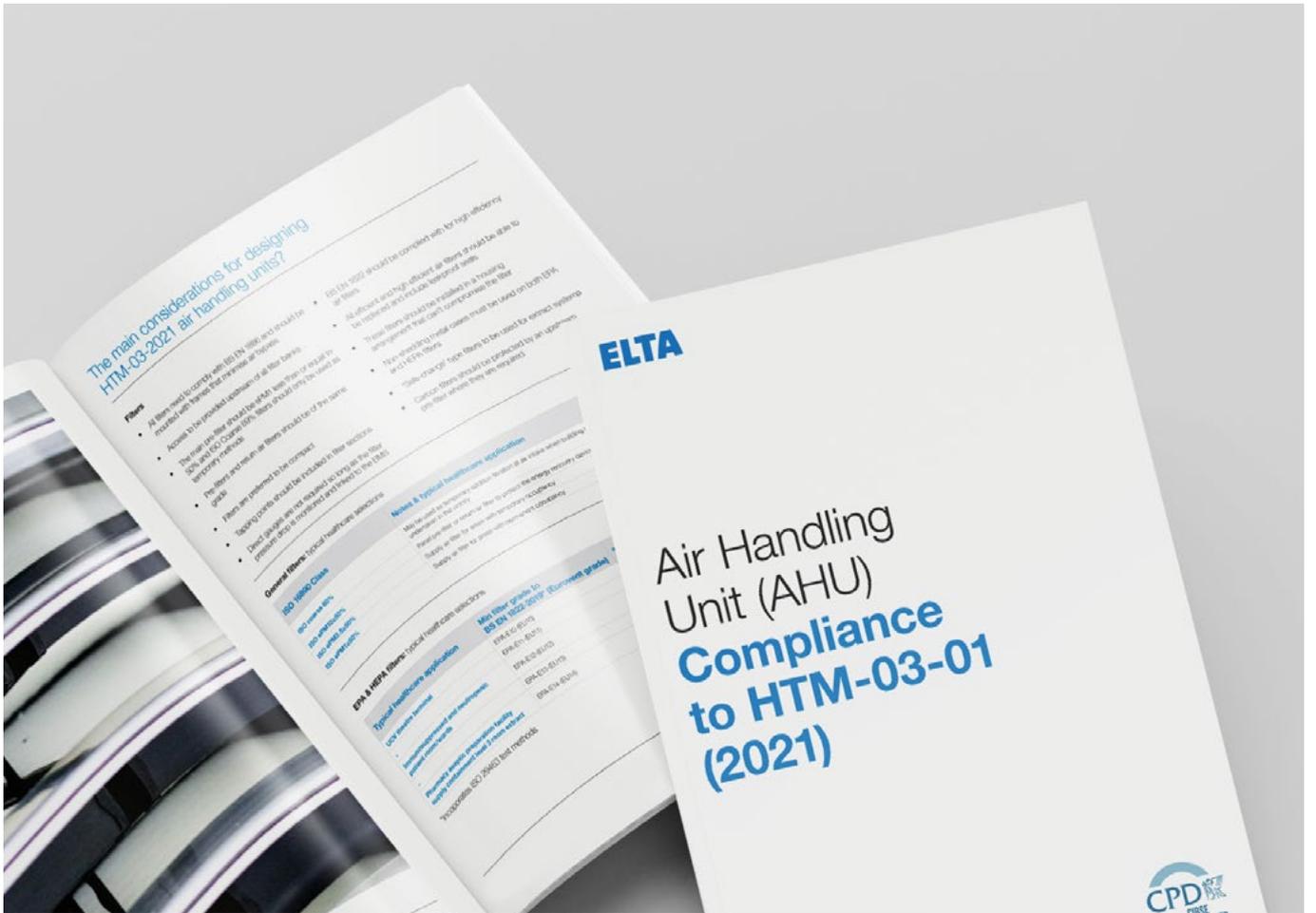
ISO 16890

EN 1822 (HEPA)

### Sustainability

ISO 14025

WEEE/RoHS



# OVERVIEW

With decades of experience in designing and manufacturing Air Handling Units (AHUs), we offer complete solutions tailored to your project's exact specifications. From compact, low void ceiling units to fully bespoke double-deck systems, our AHUs are engineered for energy efficiency, compliance, and performance in a wide range of building environments.



## MVHR

Energy-efficient ventilation with heat recovery for residential and small-scale commercial spaces, designed to deliver new, filtered air while retaining up to 92% of heat for maximum comfort and efficiency.



## COMMERCIAL

Robust and high-performance air handling solutions built for offices, retail, leisure, and educational environments. Combining efficiency, flexibility, and compliance in every design.



## EUROCLIMA

With a purpose of 'we care for better air' they are a perfect match for us here in the UK, allowing us to expand our AHU offering even further with both compact and customised units.

## BESPOKE

Tailored AHU solutions designed and built to exact project requirements for challenging or unique environments. Designed and built in our UK factory.





# PART OF ELTA GROUP

Across all of our people, in all of our businesses, on all continents on which we operate, Elta Group has one purpose: To enhance life through air.

Since 1996 we have been a proudly independent, family-owned group, but our foundations were laid in the 1960s. Our foundations were built on an entrepreneurial spirit and a clear vision of meeting market needs and improving air quality. These have seen us become a leader in high-integrity solutions that move, filter, treat and distribute air, from agriculture to building services to applied technology. We're never standing still, always living and breathing our cause, and looking to the horizon.



# ELTA

**AIR MOVEMENT  
AIR QUALITY**

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GROUP