Air Handling Units

SAIVER

A1(E)

ISO 14001 TÜV SÜD ISO 9001

TIBA MANZALAWI GROUP

COMPANY PROFILE

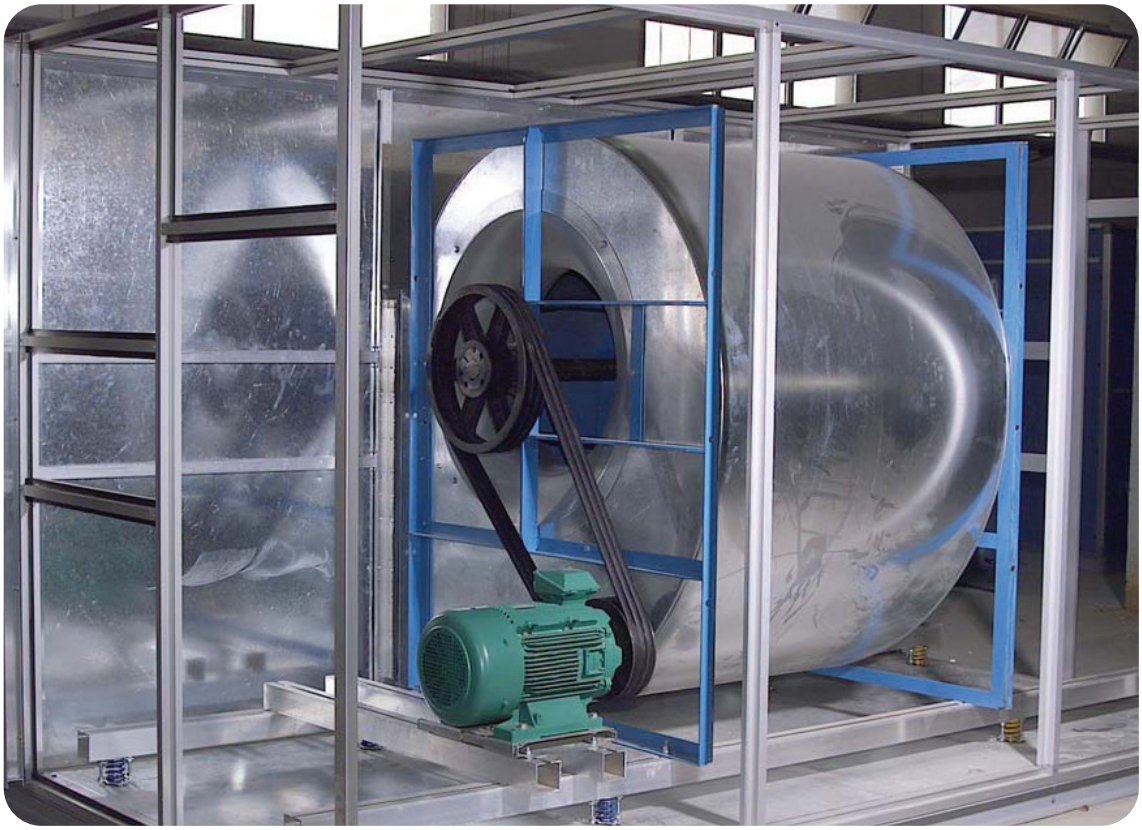
Handling air to SAIVER,
is as natural as breathing

Tiba has been manufacturing high quality Air Handling Units for More Than 40 years.

The series **A1(E)** Air handling System is the culmination of experience over the years together with continuing improvement through Research and Development.

SAIVER Air Handling units incorporate the finely tuned, value engineered cost effective design aided by computer coupled with human ingenuity.

Tiba team comprises of highly experienced Engineers and technicians totally committed to produce one of the finest double skinned air handling units range in the world to meet the requirements of most demanding cost and quality conscious customer.



Tiba has kept pace with time and has always been ahead of its competitors. with authorized production (directly from selection program), Tiba manufactures CUSTOM - MADE air handling units under license from SAIVER Italy with economically, efficiently and high quality assuringly.

SAIVER air handling units incorporate the finest corrosion resistant materials, such as Stainless Steel, Marine Aluminium Alloy and Copper to ensure long years of trouble free operation in the most adverse conditions.

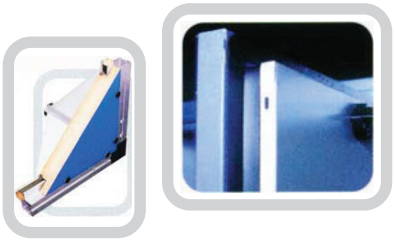
FEATURES

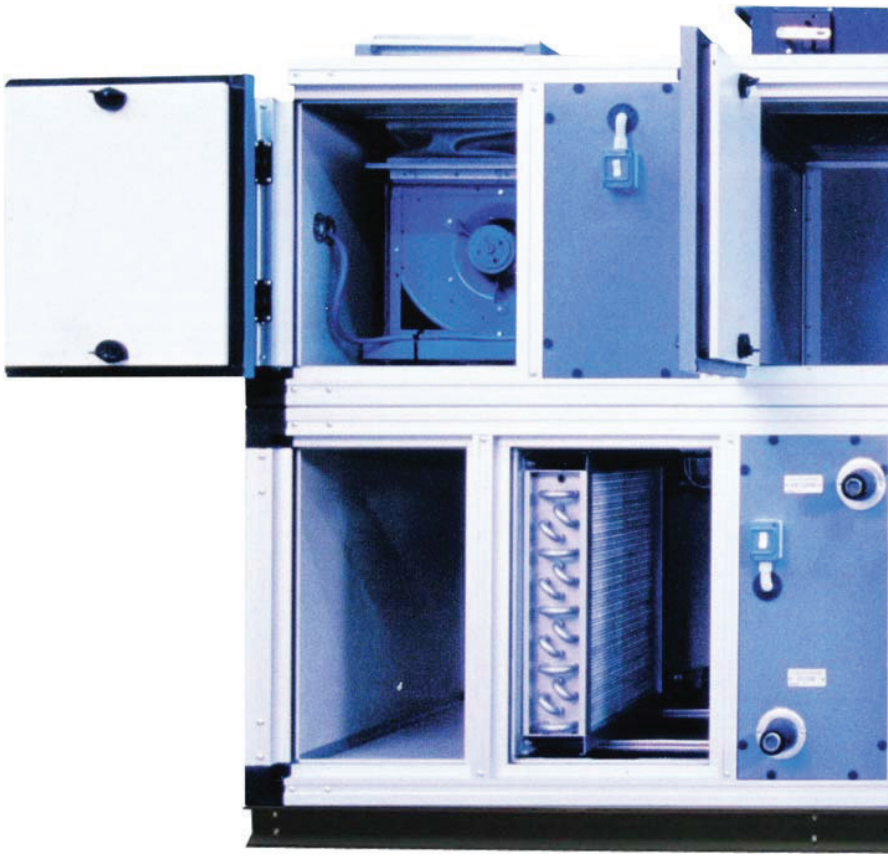
The Frame

Saiver Unique frame design has inherent strength stability. The modular framework utilize a corrosion resistant, extruded marine aluminum alloy, patented twin box section with true Standard construction. The entire module is subsequently mounted on a heavy sectional V Channel

Infill Panels

Standard 60mm thick infill panels are of double skinned construction from pressure injection polyurethane foam insulation with 'K' value of 0.02 Watts/m°C and density 40 kg/m3, sandwiched between galvanized steel with optional preplasticised or pre-painted finish.



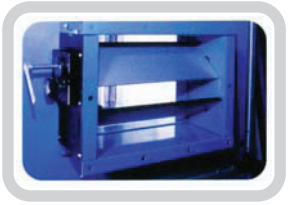


Accessibility

Filter, Coils, Air Washers and Fan Sections requiring regular maintenance and inspection, have hinged or fully removable access panels. These are fitted to the frame with easy release, half-turn nylon handles and cam locks. Handles can be operated internally for additional safety. Hinges are of heavy duty, load-bearing design with stainless steel pivot. Other panels can be detached, if necessary for access by removing screws with simple hand tools.

Inlet Section/Mixing Box

Plenum completed with dampers are specifically designed to minimize the stratification of entering air streams for maximum efficiency. Dampers are assembled within a rigid extruded aluminium frame, flanged and pre-drilled for easy fitting to connecting ductwork. Dampers are opposed blade type and available in both flat and double skinned aerofoil sections. Blades are formed from extruded aluminum with edge interlocks. Gaskets are provided to minimized leakage of air.

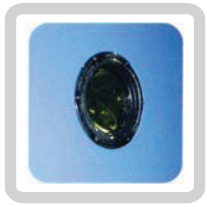


Coil Section

Coils are computer selected to obtain optimum psychometric eficiency with low air and water pressure drops. Chilled water, direct expansion, hot water and steam coils are constructed from copper tubes, mechanically bonded to aluminium fins as standard. Other fin materials are available including vinyl coated aluminium, copper, tinned copper and galanized steel. For corrosive flow media, stainless tubes and fins are available as an option, the coil assembly completed with carbon steel headers is located within the coil section on aluminium support for easy withdrawal from either sides.

lamp switch

buckhead lamp



inspection window

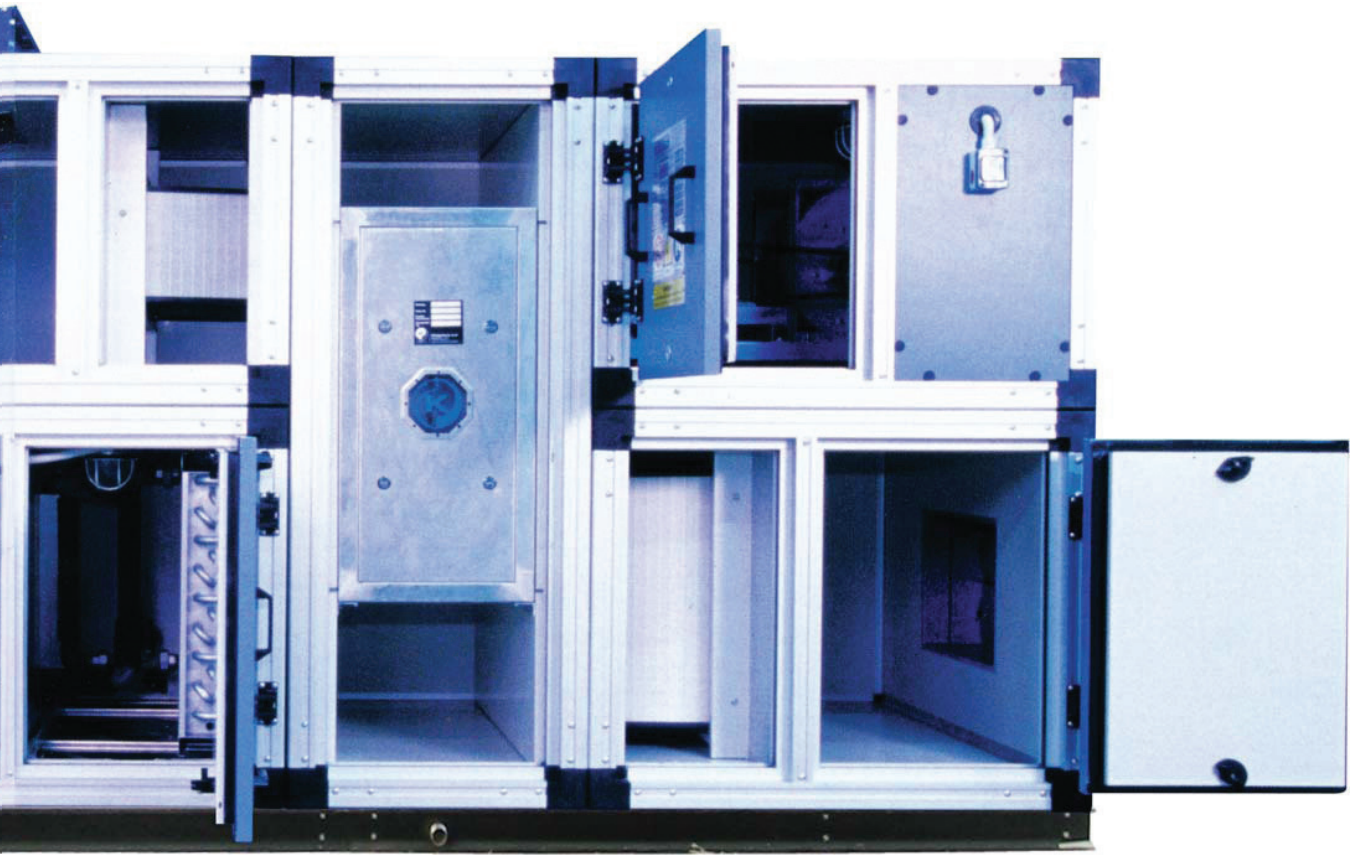
On Site Assembly

The lightweight construction material and modular nature of the units make them particularly suitable for lifting and maneuvering in difficult or confined locations.

Modules can be easily aligned on site and locked together by sturdy stainless steel bolts, located in factory pre-drilled assembly holes. Continuous gaskets between each section ensure an airtight seal and thermal insulated. All fixing and gaskets are concealed within the unit.

Accessories

outdoor weather proof canopy



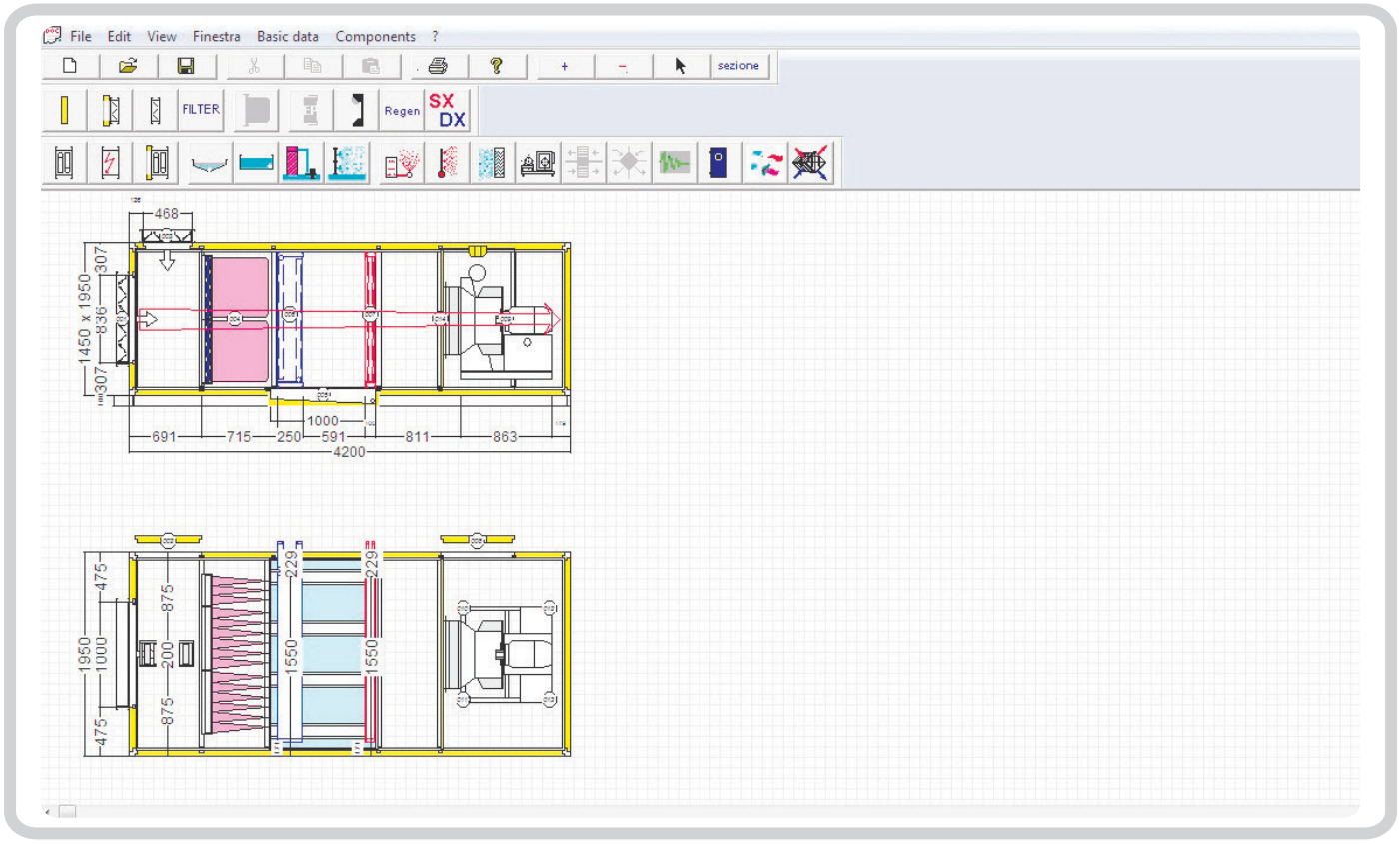
Filter Section

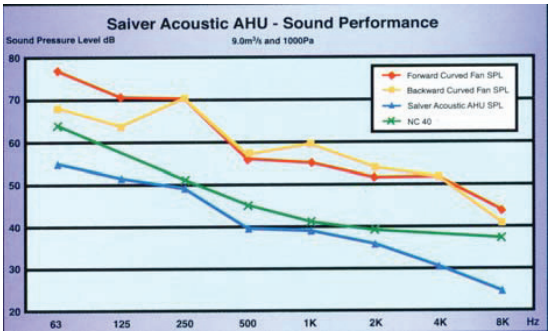
Fully sealed filter sections are designed for easy withdrawal and renewal of filter cells and, are constructed to house any type of primary or secondary filters of different media with varies efficiencies. In areas of particular importance, such as hospitals and clean rooms, absolute filters can be provided to ensure safe human and machine environments.

Fan and Motor Section

SAIVER manufactured fans from the heart of all systems. Forward curved or backward configurations. All fan wheels and pulleys are individually tested and precision balanced, statically and dynamically, and keyed to the shaft. Motors, mounted on sllide rails with provision for easy belt tensioning, drive the fan with heavy duty V-belts. Combination spring and rubber vibration isolators are selected to match the power/weight ration of each fan for maximum isolation.

INTELLIGENT PACKAGE

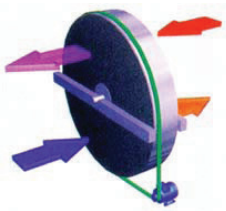


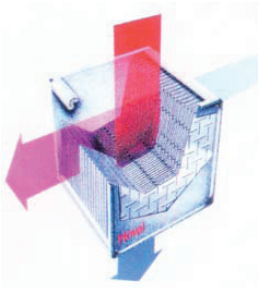


IAQ PACKAGE

Heat Recovery Unit

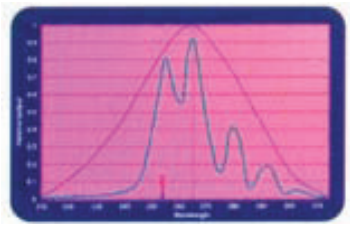
To improve indoor air quality (IAQ), one of the best solutions is to increase the fresh air quantity.
However, fresh air is always expensive no matter in winter & summer condition.
A rotary heat recovery unit allows energy exchange between supply and exhaust between air streams.
This high efficiency heat exchanger can reduce the annual energy consumption in AHU by as much as 90%. (Latent & sensible Heat Recovery). Alternatively, heat plate is also one of the best heat recovery device which totally elimenates the potential problem of cross contamination.

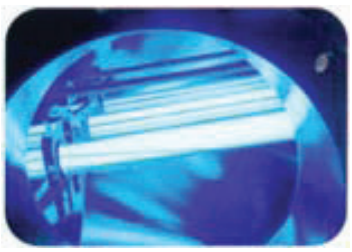




UV Sterilizing Light

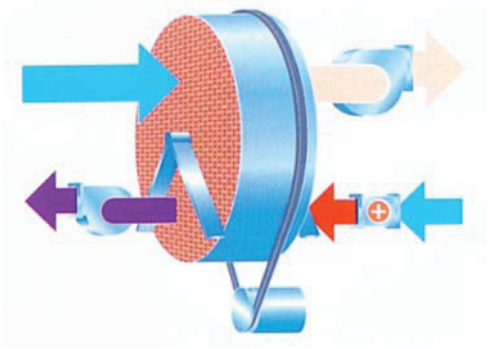
An UV system intends to "capture and kill" airborne pathogens, improve IAQ and worker safety. The germicidal UV lamps in our Saiver air handler disinfect the air by irradiation and provide full coverage of the target surface. Installation sights include coils, drain pans, filters, exhaust systems, or anywhere mold, bacteria and pathogens can breed.

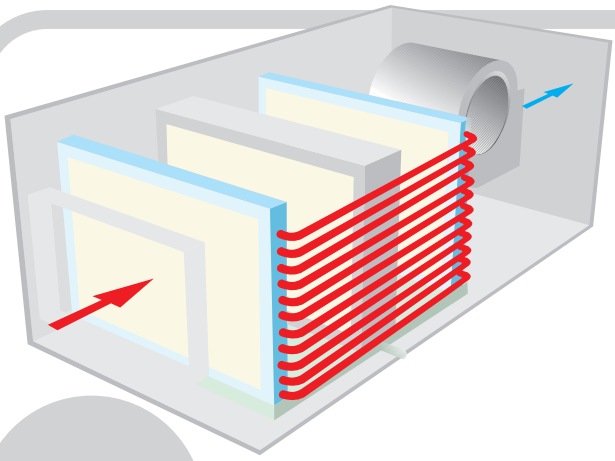




Desiccant Package

Saiver is working closely with desiccant wheel manufacturers in order to provide All-in-one dehumidification control systm (able to reach below 10% relative humidity). Desiccant dehumidification ensure a hygienic and healthy environment by preventing the formation of moulds and fungi inside airstream.



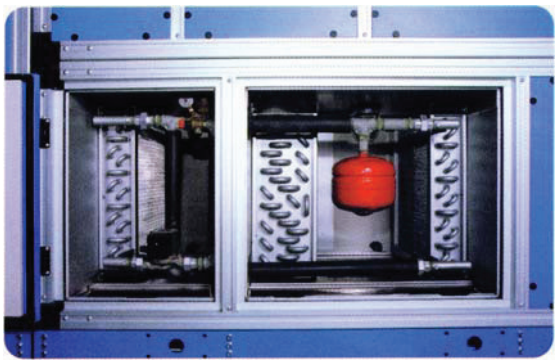


free re-heating to lower the relative humidity of supply air. As most today's primary indoor air quality concerns are humidity related, the health benefits of heat pipes are noticeable.

Run around-coil is also an alternative system to improve dehumidification load on HVAC application.

Heat Pipes

Beside the heat recovery application, heat pipes are now widely used in dehumidification. Heat pipes can increase an air handler moisture removal capability by 50% to 100%. The heat pipes not only reduced the chiller load by free precooling but also provide



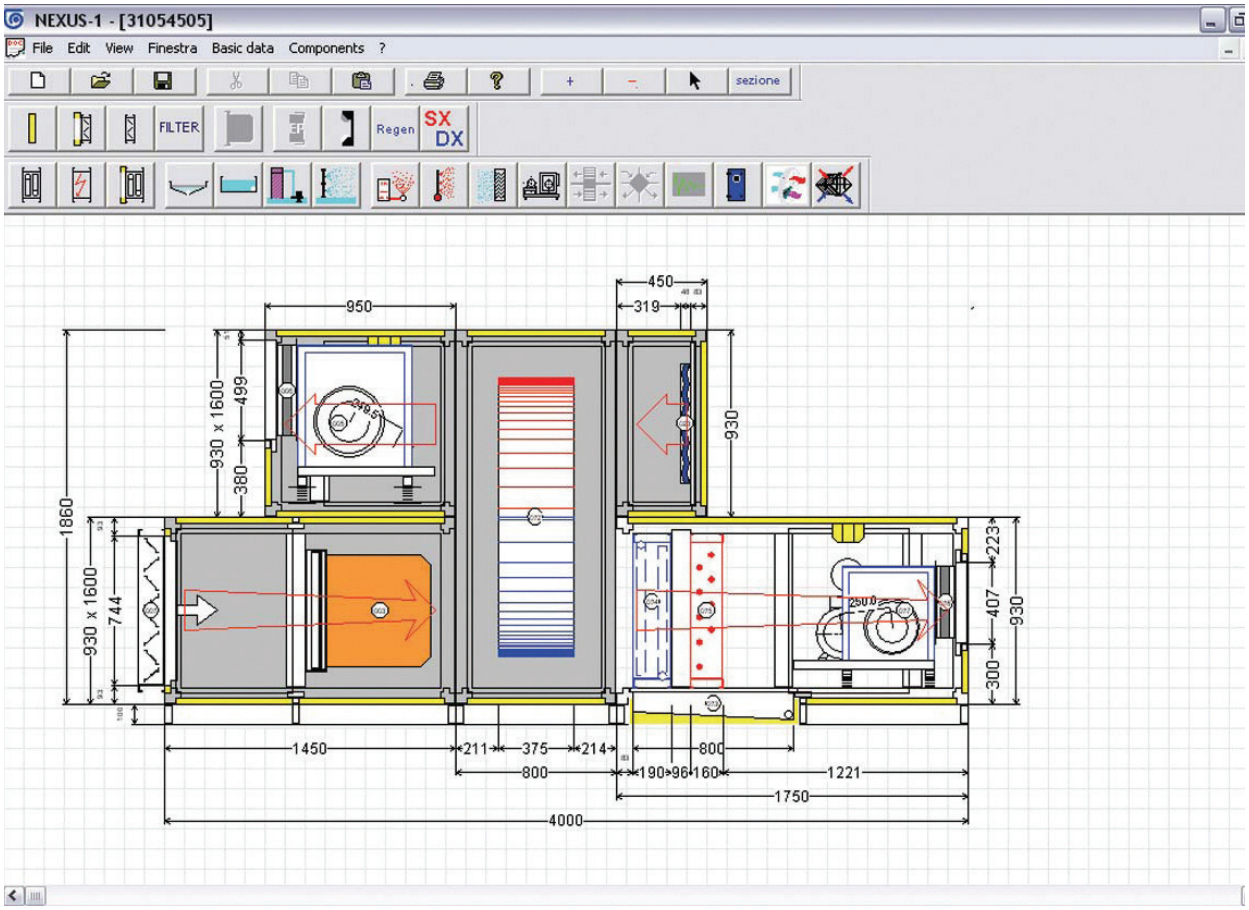
COMPUTER SELECTION PROGRAM

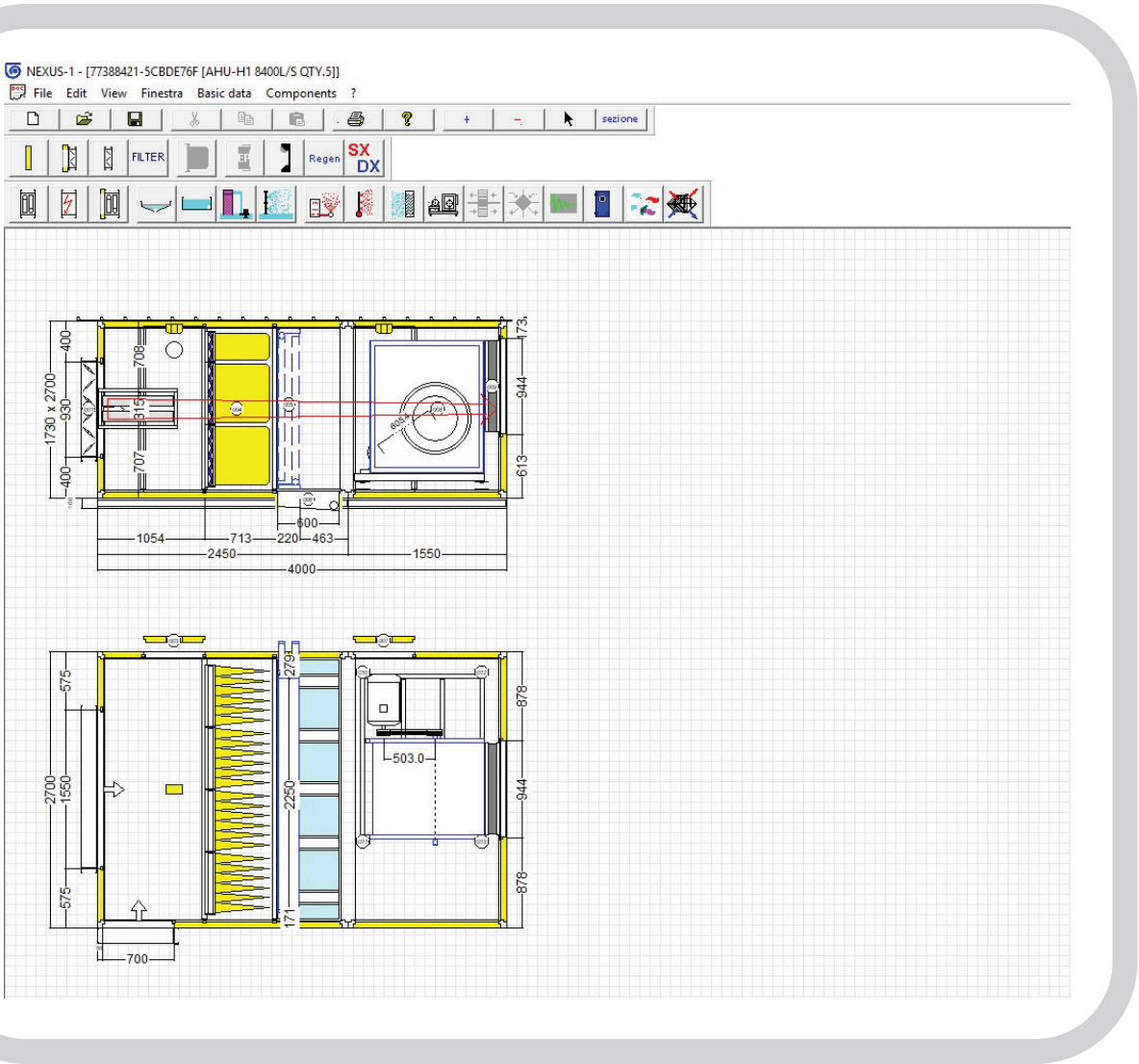
Computer Selection Program

Saiver use their own developed software program to make optimum equipment selection & submit quotation together with full technical information & drawings.

Any variables such as local climatic conditions, unusual psychometric & physical parameters, are taken into account automatically.

Clients are presented with computer generated, certified drawings for approval prior to equipment manufacturing.

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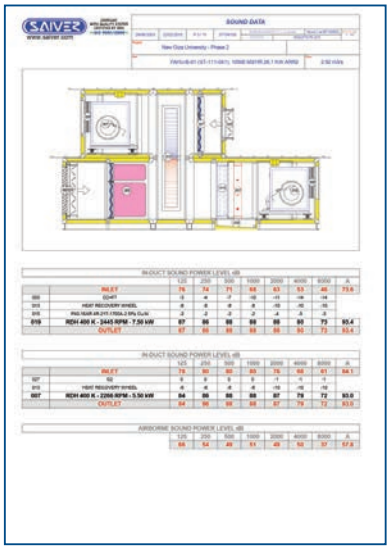

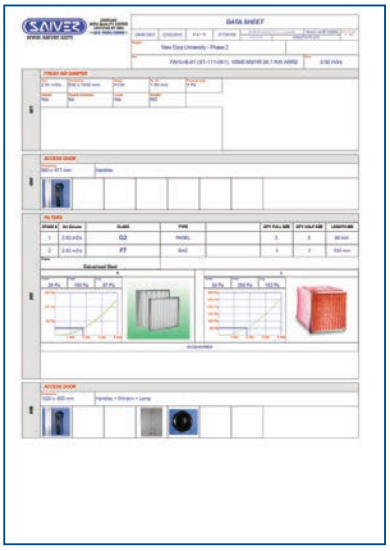

CERTIFICATE

The Certification Body
of TÜV SÜD Management Service GmbH
certifies that

Tiba Engineering Industries
Industrial Zone A4 – Blocks 132,133,134,140,141,142,143
10th of Ramadan City
Egypt

has established and applies
a Quality Management System for

Design, Manufacturing, Assembly and sales of central air conditioning and ventilation equipment.

An audit was performed, Report No. **707027685.**
Proof has been furnished that the requirements according to

ISO 9001:2015

are fulfilled.
The certificate is valid from **2018-10-10** until **2020-07-24.**
Previous certificate valid until 2018-09-14.
Certificate Registration No.: **12 100 47546 TMS.**

Product Compliance Management
Munich, 2018-10-12

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certifies that

Tiba Engineering Industries
Industrial Zone A4 – Blocks 132,133,134,140,141,142,143
10th of Ramadan City
Egypt

has established and applies
an Occupational Health and Safety Management System for

Design, Manufacturing, Assembly and sales of central air conditioning and ventilation equipment.

An audit was performed, Report No. **707027685.**
Proof has been furnished that the requirements according to

OHSAS 18001:2007

are fulfilled.
The certificate is valid from **2018-10-16** until **2021-03-11.**
Certificate Registration No.: **12 116 50271 TMS.**

Product Compliance Management
Munich, 2018-10-18

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10th of Ramadan City
Egypt

has established and applies
an Environmental Management System for

Design, Manufacturing, Assembly and sales of central air conditioning and ventilation equipment.

An audit was performed, Report No. **707027685.**
Proof has been furnished that the requirements according to

ISO 14001:2015

are fulfilled.
The certificate is valid from **2018-10-16** until **2021-10-15.**
Previous certificate valid until 2018-07-01.
Certificate Registration No.: **12 104 50271 TMS.**

Product Compliance Management
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