Lindab Air Movement
Product overview Air Handling Units
We simplify construction

At Lindab we are driven by a strong desire to continuously generate improvements and to simplify construction. We do that by developing products and systems that are easy to use and energy efficient, together with industry-leading knowledge, support, logistics and efficient availability.

We want to simplify everything – from designing, ordering, delivery, goal achievement and installation to the entire way of doing business with us. By simplifying in every stage of the construction process, we also contribute to energy-efficiency.

A good thinking company
Good thinking is a deeply rooted philosophy that guides us in everything we do. We firmly believe that good thinking makes good solutions to the challenges we all face. Taking responsibility for what we do and how we do things is therefore important to us. Because good thinking is not only about making life easier and more comfortable for our customers and end users. It is also a matter of thinking in a global perspective, all the time. Knowing that we at Lindab are helping to make the world a better place.

Air Handling Units

Tailor-made services
Commitment to our customers and high-quality interaction during complex project work allows us to build long-term relationships with excellent results. Saving time for designers and architects through good communication, our own detailed selection software and an experienced technical support team is important. A rapid response and the quick delivery of a completed system solution is our top priority.

Custom solutions with guarantee
The reliability of our standard and custom solutions is proven by practical tests and measurements at our own R&D centre, the Lindab Institute Klima – including measurements of indoor air quality, noise levels, heating and cooling capacities and other technical characteristics. The performance of our units according to European and international standards is certified also by independent certification institutions, such as Eurovent.
Modular Air Handling Units

Over 40 years of experience in manufacturing modular air handling units and numerous custom-made solutions for demanding projects worldwide have positioned us among the top European suppliers of ventilation systems. 38 standard sizes and over 50 functional sections allow immense flexibility and adaptation to individual project requirements.

TopAir
Modular air handling units TopAir are intended for central air preparation, allowing all basic functions including: heating, cooling, filtration, humidification, dehumidification, heat recovery and regeneration. With air flow volume rates of 1000 m³/h up to 100 000 m³/h they boast excellent thermal and sound insulation, as well as housing solidity and a custom selection of functional elements.

The units are designed for both indoor and outdoor installation. Beneath the basic execution, suitable for ventilation of residential, public or office buildings, also dedicated versions are available, such as hygienic type or swimming pool air handling units, units in explosion proof version and various industrial applications.

TopAir Plus
Covering the same air flow volume rates and application field as TopAir models, TopAir Plus air handling units boast an even better thermal bridging class (TB2), and also better thermal transmittance (T2), acc. to EN 1886.

Outstanding flexibility due to a broad selection of heat recovery systems, adjustable modular construction and various assembly options allow adaptation to any project demands. Additional anticorrosion powder-coating or use of stainless material ensure extended service life. The air handling units can also be fitted with the complete control equipment for automatic operation, including a start-up of the unit in the factory or on-site.

Optima2
“Quality made simple” was our guideline when creating the new modular air handling unit Optima2 with an optimum price/performance ratio and air flow volumes from 1 000 m³/h up to 19 800 m³/h. Optima2 is suitable for hotels, sports halls, business and public buildings.

Main advantages: easy selection, modular construction, easy installation, as well as simple interconnection of sections. Optima2 is distinguished by low energy consumption, good thermal insulation and air-tightness of housing.
Hygienic type air handling units

Hygienic type air handling units (KHN) are applicable in hospitals, food industry, pharmaceutical industry and other clean room applications.

Main features:
- Construction without grooves and sharp edges;
- all functional elements (fans, coils, heat recovery units, humidifiers …) are easy removable for maintenance, cleaning and service;
- all used elements are corrosion resistant;
- all components and materials are resistant to disinfectants;
- seals are smooth, abrasion-resistant, closed-pore;
- build-in components are tested and recognised as effective in accordance with the list of the Robert Koch Institute (RKI) or the disinfectant media list of the Association for Applied Hygiene (VAH).

The internal panels of the housing are made of painted sheet steel, while the bottom is made from stainless sheet steel 1.4301. On special request the internal panels are available in stainless sheet steel 1.4301.

All external panels are made of galvanised sheet steel, while all the joints between the frame and panels are sealed with clean room application putty.

Filtration:
- First filtering stage: class M5 filters (compact, bag filters)
- Second filtering stage: class F7 filters (bag or panel filters)
- Third filtering stage: class H13 HEPA filters

The units feature plug-in high efficiency fans, epoxy coated coil frame and fins, run-around coil high efficiency system and dampers for increased tightness requirements (class 4 according to EN 1751). Sound attenuators are made of abrasion-resistant and waterproof material.

AHU with adiabatic cooling

On customer's request an adiabatic cooling section can be integrated to ensure significant savings of cooling energy with a short payback period. The use of the cooling power of ordinary tap water is also an environmentally friendly solution, as the chiller capacities can be reduced accordingly.

During the adiabatic or evaporative cooling process water is sprayed through nozzles under high pressure (about 70 bar), thus creating the so-called «cold vapor» which is dispersed in the exhaust air. The coolness is then transferred to the fresh air indirectly through a double plate heat exchanger with heat recovery efficiency of over 80%. Due to the high-pressure system approx. 80% of the dispersed water actually evaporates, which means that such systems can operate only with fresh water. The solution is hygienically irreproachable and has obtained the hygienic certificate VDI 6022.
Modular Air Handling Units

Swimming pool air handling units

An appropriate air handling system as well as suitable temperature and humidity control regimes according to water attraction operation, visitors’ activity, outside air conditions and optimal energy consumption - these are the basic functional requirements for indoor swimming pool air handling units.

Main characteristics:
- anti-corrosion materials / epoxy coating;
- adjustable microprocessor controllers;
- high efficiency heat recovery;
- energy efficient heat pumps;
- dehumidification function;
- integrated cooling circuit: with hermetic compressor, all necessary control and safety equipment included;
- supply and exhaust fans with variable frequency electric motor drive;
- control system: temperature and humidity regulation with DDC control system.

Standard operation regimes:
- a) operation without dehumidification when the swimming pool is out of use;
- b) operation with dehumidification when the pool is out of use, heat pump is in function;
- c) operation with or without dehumidification when the pool is in use, heat pump is in function;
- d) operation during transitional and summer seasons with or without dehumidification, heat pump is in function;
- e) operation in summer with high outside temperatures.

AHU for industrial applications

Long-year experience in customized design and numerous references in industries such as the microelectronic, pharmaceutical, food, paper and nuclear industry allows us to fulfill any special technical demands. Beneath basic air handling functions units provide also removal of dust, gas, microorganisms and hazardous substances.

For the housing any combination of steel sheet materials is available, while built-in components, such as filters, fans, recuperators and control systems are manufactured by leading European producers.

Explosion proof air handling units

All elements are produced in accordance with ATEX directive and have all the necessary certificates.

Product suitability:
- equipment group II
- equipment category 2 and 3
- explosive atmosphere, caused by gases vapours (G)
- temperature classes T1, T2, T3, T4 (ignition temperature T≥+135 °C)
- protection based on the standard SIST EN 13463 - 1:2009 – basic methods and requirements
Compact Plug&Play Air Handling Units

Our compact air handling units impress with excellent heat recovery rates, high efficiency fans with EC motors, user friendly all-in-one solution with smartly integrated automation and high energy efficiency.

CompAir FREE
The compact air handling unit with reversible cooling/heating system CompAir CF FREE is suitable for energy-efficient ventilation of residential premises, cafes and small to medium sized commercial premises. It is available in 6 sizes and covers an air flow range from 1 000 m³/h to 10 000 m³/h. The unit is distinguished by a high degree of heat recovery - up to 90%.

In addition to the air handling unit there is no need for a separate cooling system or heating unit, which greatly reduces the cost of investment. This all-in-one compact unit for both indoor and outdoor application with complete automation boasts up to 30% less energy consumption and does not need any additional pipe connections and fittings.

CompAir CF
CompAir CF features a highly efficient counterflow heat exchanger with by-pass function, reaching up to 90% heat recovery of the exhaust air. This user friendly plug&play unit is available in 7 sizes for air flow volumes from 350 up to 10 700 m³/h and represents an ideal solution for residential premises with limited space or small to medium sized contemporary buildings with focus on energy efficient ventilation. The basic model is designed for both indoor and outdoor installation and consists of heat exchanger, inlet and outlet fans, F7 filters on the inlet side and M5/F7 filter on the outlet side. Coolers (water, DX), heaters (water, electrical) or sound attenuators can be simply added to the basic unit as a separate section. The integrated cloud-based control system is available in three different user levels: Basic, Standard and Advanced.

CompAir RW
The upgraded CompAir RW with improved housing characteristics and components features a rotary heat exchanger, reaching up to 85% heat recovery efficiency. Available in 6 sizes - in monoblock or splitted version - CompAir RW covers air flows from 910 m³/h up to 10 700 m³/h. The units boasts simple connectivity, compatibility with different BMS protocols and more flexible installation in limited spaces due to various connection placement options.
Good Thinking

At Lindab, good thinking is a philosophy that guides us in everything we do. We have made it our mission to create a healthy indoor climate – and to simplify the construction of sustainable buildings. We do that by designing innovative products and solutions that are easy to use, as well as offering efficient availability and logistics. We are also working on ways to reduce our impact on our environment and climate. We do that by developing methods to produce our solutions using a minimum of energy and natural resources, and by reducing negative effects on the environment. We use steel in our products. It’s one of few materials that can be recycled an infinite number of times without losing any of its properties. That means less carbon emissions in nature and less energy wasted.

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