

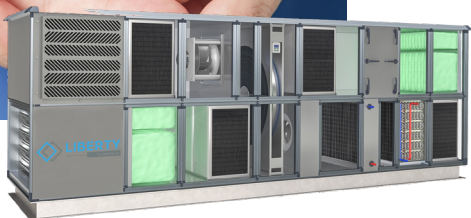
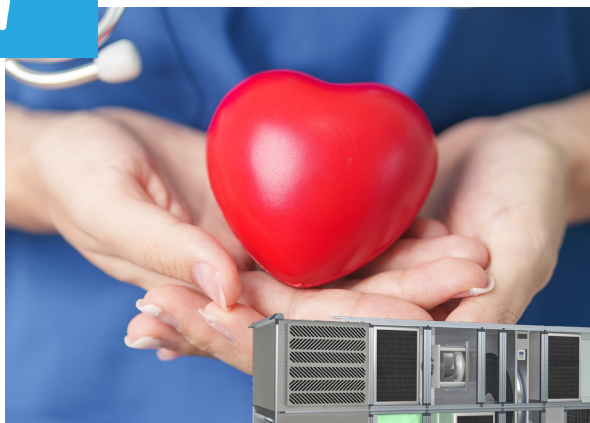


LIBERTY COMPOSITE AIR HANDLING UNITS





LIBERTY | HEALTHCARE



CLEAN SAFE AIR IN HEALTHCARE ENVIRONMENTS

As versatile and complex as the healthcare sector can be, the wishes and variations for air handling can be diverse and specific as well. We can translate your wishes into technical solutions without compromising on quality by using our Liberty composite air handling units.

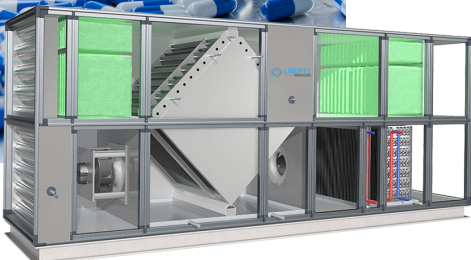
A completely smooth PET inner wall, double hygienic (VDI 6022) sealing, high corrosion resistance, maximum leak tightness (L1) and 70 mm wall thickness are basic properties that make our Liberty air handling units so suitable for the healthcare sector.

EXPERT IN AIR HANDLING

Over the years, clean safe air has proven to be an even more essential part of the many challenges facing the entire medical sector. Expertise in air handling is therefore more important than ever. At Liberty, we are happy to help you translate your wishes into technical requirements.



LIBERTY | PHARMA



CREATING SUSTAINABLE AND SAFE WORKING ENVIRONMENTS

Safe and sustainable protection of both people and the environment is at the heart of the design for laboratory and pharmaceutical air treatment systems. In addition, the systems task is to create a robust environment for the process. An last but not least, a comfortable and healthy working environment for employees.

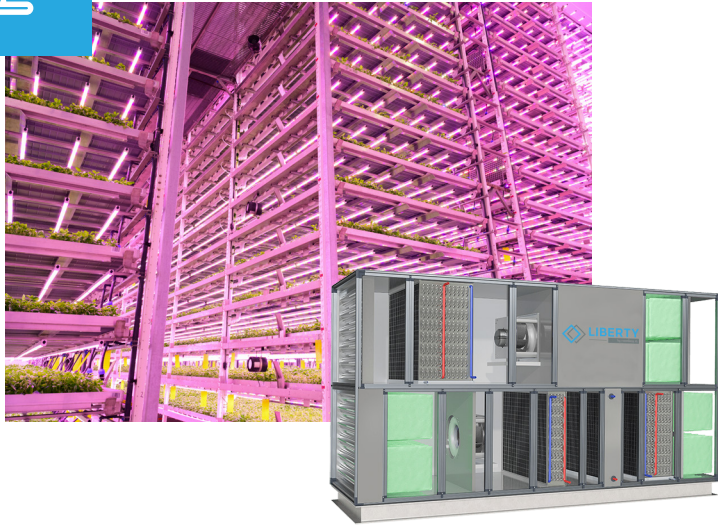
BIO SAFETY LEVELS

Every type of laboratory has specific ventilation requirements. The ventilation rates and filter classes are classified depending on the Bio Safety Levels (BSL) classified in NEN-EN 12 128. A sufficient supply of fresh air and correct pressure differences per room or facility ensure polluted air is discharged and does not flow into the rest of the building.

We have accurate operating systems that we programme ourselves. We can provide communication with other installation components or with the central BMS for you.



LIBERTY | VERTICAL FARMING



WHERE TECHNOLOGY MEETS SUSTAINABILITY

Vertical farming is the future of sustainable food production; growing and processing fresh produce indoors, pesticide-free and without dependence on the weather. With ultra-high yields, minimal water usage and a dramatically reduced carbon footprint, vertical farming is reshaping agriculture as we know it. In this controlled environment, maintaining precise climate conditions is essential. That's where Liberty composite AHUs come in.

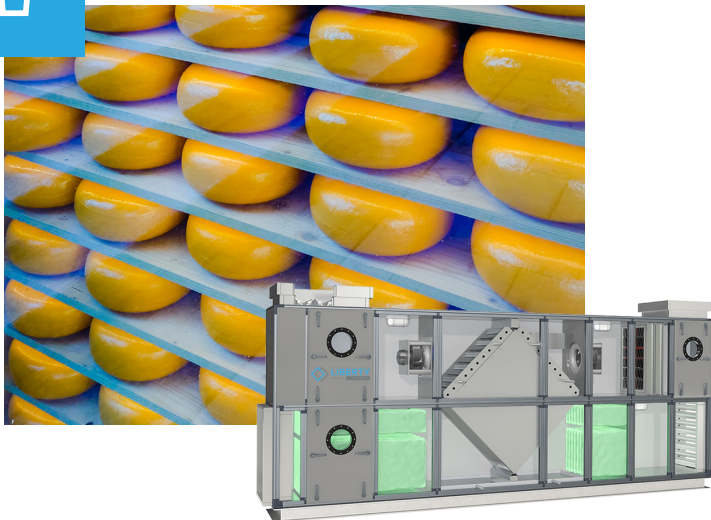
Designed for high-humidity, corrosive and high-temperature environments, our composite air handling units offer unparalleled corrosion resistance, hygiene, airtightness and energy efficiency. Making them the perfect fit for vertical farms.

DESIGNED FOR LONG-TERM PERFORMANCE WITH MINIMAL MAINTENANCE

The durable, corrosion-resistant (classification CX) construction of the Liberty AHUs withstands aggressive moisture and harsh conditions. Furthermore, the hygienic and airtight design prevents contamination, ensuring a safe and clean environment. The Liberty solution is energy-efficient and reduces operational costs while optimizing climate control. With over 200 Liberty Composite AHUs already in use across vertical farms worldwide, we are proud to support the next generation of food production.



LIBERTY | NUTRITION



YOUR FOOD SAFETY IS NUMBER ONE

Consumers rightly place high demands on the food and drinks they and their pets consume on a daily basis. The conditions under which food is produced, processed, packaged or stored have a direct influence on its quality. Hygiene is no longer a "nice to have", but an integral part of the product. Well-conditioned clean and bacteria-free air is a necessary condition for a high-quality end product.

RELIABILITY OF YOUR PRODUCTION PROCESS

"Down time" of the air treatment system represents risks, disrupts your processes, and costs time and money. It can be prevented with the right system choices and the use of high-quality materials. The construction and layout of the components in the air handling unit is also essential, like a sufficient number of inspection sections between the components to enable proper cleaning. Your systems can also be designed redundant for the highest operational reliability so your production can continue undisturbed in the event of a breakdown. Proper preventive maintenance also increases operational reliability.



LIBERTY | SWIMMING POOLS



SUSTAINABLE, ENERGY EFFICIENT AND CORROSION RESISTANT

An air handling unit within a swimming pool environment is exposed to many challenges. The high humidity, presence of chlorides in the air, varying temperature differences and high vapor pressure require specific solutions. In addition to corrosion resistance, such an air handling unit must also be sustainable and energy efficient, which contributes favorably to the operating costs. Our Liberty air handling units for swimming pools are the answer to all these issues. Both the inside and outside of these unique air handling units are made of high-quality composite. Within the design, it was also decided to make the base frame of the same material. This means that corrosion has no chance in the Liberty air handling units. The specific cabinet wall construction has a “high” lifespan according to ISO 12944-2 in the highest corrosion load category: CX extreme.

COMPOSITE AIR HANDLING UNITS: DESIGNED AND BUILT TO LAST

In order to enable a sustainable operation of a swimming pool, it is important that installations are not only energy efficient, but also sustainable and future-proof. Themes that were central to the design of our Liberty air handling units. By using specific raw materials and developing the design in such a way, our cabinets have mechanical performances that are unique within the industry. This results in air handling units with an ultra-low CO₂ footprint; we even provide a 12-year warranty on the casing. Competition pool, target group pool or recreational pool. For each type of swimming pool, we are able to supply a Liberty air handling unit that is both sustainable and energy efficient!



COLD BRIDGE FREE
EN 1886 T1/TB1



CORROSION IMMUNITY
CX EXTREME (ABOVE C5i / C5M)



LIGHTWEIGHT
40% LESS WEIGHT



ROBUST
WALL THICKNESS 70 MM



SUSTAINABLE
ULTRA LOW CARBON FOOTPRINT



HYGIENIC
EASY CHEMICAL CLEANING

KNOWLEDGE CENTER

Our Knowledge Centre collects, develops and shares knowledge with our business partners regarding installation technology, air treatment technology, control technology and legislation for applications in industry, offices, laboratories, swimming pools and multi-storey housing. Together, our Knowledge Centre consultants share over 100 years of industry experience.

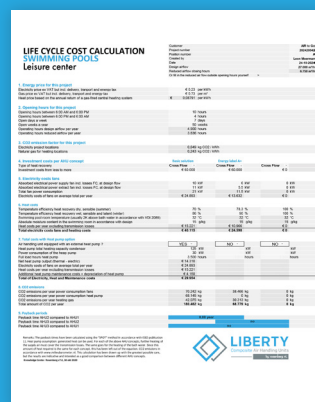
This knowledge is also available to you. We are happy to translate your climate wishes into technical requirements. We can provide solutions and customisation that we can subsequently offer to you thanks to our own production facilities. Furthermore, we can provide customisation for you with the integrated control technology supplied by us.

We can advise you of healthy solutions that take into account the reduction of any aerogenic contamination in the future. We are happy to discuss the results of this calculation (which is based on the Wells-Riley model) with you and provide you with appropriate and concrete advice. When sound technical requirements have been set, we then realise these at the lowest possible cost of ownership.

LIFE CYCLE COST CALCULATIONS






A composite air handling unit with a Eurovent energy label A is the perfect start for your sustainable and energy-efficient project. Our Life Cycle Cost calculation will give you the best running cost comparison. For example, it is easy to compare up to three different air handling units in terms of energy, maintenance and investment costs with each calculation.

We have Life Cycle Cost calculations for offices and utilities, including specialised calculations for swimming pools that we can use to design, select and test your air handling system against active legislations.



LIFE CYCLE COST CALCULATION			
SWIMMING POOLS			
Leisure center			
1. General data of the project			
Project name	Leisure center	Project location	Leisure center
Project start	2023-01-01	Project end	2023-12-31
2. Design data of the project			
Pool volume (m³)	1000	Pool surface (m²)	100
Pool depth (m)	1.5	Pool temperature (°C)	28
Pool air volume (m³)	1000	Pool air surface (m²)	100
Pool air depth (m)	1.5	Pool air temperature (°C)	28
3. Design data of the project			
Pool air volume (m³)	1000	Pool air surface (m²)	100
Pool air depth (m)	1.5	Pool air temperature (°C)	28
4. Design data of the project			
Pool air volume (m³)	1000	Pool air surface (m²)	100
Pool air depth (m)	1.5	Pool air temperature (°C)	28

THE FIRST CLASS PERFORMANCES OF LIBERTY AHUs

	THERMAL TRANSMISSION	T1	FIRST CLASS PERFORMANCES
	THERMAL COLD BRIDGE	TB1	
	MECHANICAL STRENGTH	D1	
	AIR TIGHTNESS	L1	
	FILTER BYPASS LEAKAGE	F9	

ABOUT LIBERTY

The Liberty air handling units are successfully used in our Dutch home market and abroad in both new construction and renovation projects. In addition to the chemical and food industry, we are also strongly represented in non-residential construction, swimming pools and healthcare and educational institutions.

Our company pays a lot of attention to quality and innovation. We have relevant certifications for this purpose, including ISO 9001 and Eurovent. With the use of our own assembly and production lines, we design and build custom-built air handling units.

By continuously developing the products, continuing to invest in the knowledge level of our employees and taking customer feedback to heart, we are able to supply the market with energy-saving solutions that are designed and built to last.

Since 2023, we have become a subsidiary of the HC Groep, market leader in the field of indoor climate technology in the Netherlands.



FOR YOUR CONVENIENCE:
OUR SELECTION TOOL!



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