NEW RANGE

eViking Air Handling Unit Range

Features and Benefits

- A+ energy class design
- Highly efficient heat recovery even above 80%
- IE2 efficiency Motors, Optional EC Motors
- Minimized pressure drop of built-in assemblies
- Excellent casing tightness L2
- Optimized Footprint

Creative Casing Design

This new range of eViking Air Handling units have been designed to meet the latest European Regulations.

eViking features not only offers significantly better performance and technical parameters but also greater reliability and a reduced footprint

The new eViking air-handling units offer enhanced levels of quality and set a new, higher standard.

Unique Panel Construction

Laminated Wall

- High strength and Air tightness
- Incoporating low density insulation offering excellent performance without using aluminium frames
- Construction offering wasteless and low energy consumption production
- The new eViking air-handling units offer enhanced levels of quality and set a new, higher standard
- Excellent Mechanical and Physical Properties

Self-contained Panel

- High mechanical strength and tightness of the casing contributes to energy savings
- Very good thermal insulation
- Excellent casing attenuation

Casing Mechanical Performance in accordance with EN 1886-2008

Mechanical strength of casing	D2
Casing air leakage	L2
Filter bypass leakage	< 0.5% (F9)
Thermal insulation	T3
Thermal bridging	TB3
Operating temperature	-40 to +50°C
Acoustic insulation of casing (dB / octave band) 9/63Hz, 13/125Hz, 20/250Hz, 25/500Hz, 32/1kHz, 32/2kHz, 34/4kHz, 37/8kHz	

eViking air-handling units are also suitable for coastal and Swimming Pool Applications.

Tailored to Your Needs

Different locations - different customers – different needs.

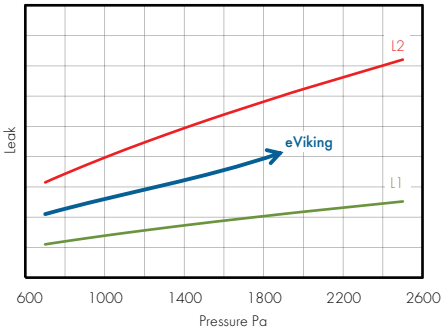
The laminated eViking concept allows you to select the unit height and width for air-handling units in the vertical or horizontal according to your actual space requirements.

Module Dimensions (mm)

Module size	Width	Height	Height with 85mm baseframe
6x4	1998	1332	1417
7x4	2304	1332	1417
8x4	2610	1332	1417
9x4	2916	1332	1417
4x6	1386	1944	2029
5x6	1692	1944	2029
6x6	1998	1944	2029
7x6	2304	1944	2029

Excellent casing tightness L2

- Without the need for additional adaptation
- Across wide pressure range



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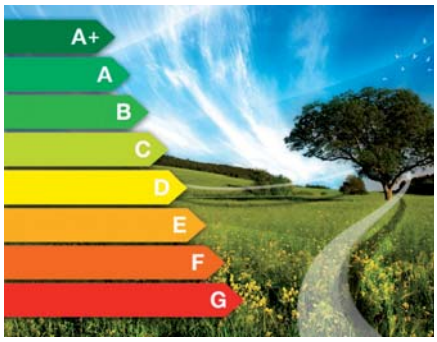
Energy rating is just the beginning



Casing

- Casing tightness L2
- Thermal bridging TB3
- Thermal insulation standard T3

Fans

- Highly efficient fans
- Motor efficiencies IE2 (EFF1)
- Optional EC motors

Heat Recovery

- Heat recovery as needed even above 80%
- Designed for maximum efficiency with
- minimum pressure loss

Result: A+ Class Efficiency

Furthermore.....

Excellent Access - Service and Cleaning

We have also focussed on providing excellent access to the internal space when designing the service side of these new air-handling units.

We have considered both service access to individual internal components as well as easy cleaning of the unit internal space for hygienic applications.

- Double door
- Easy-to-remove panels
- Possibility to deliver disassembled units
- Easy connection to associated services.

Important Standards and Directives for the Design of Air-handling Systems

When developing eViking air-handling units, we have closely adhered to the requirements of technical standards and directives to give you the right product with maximum energy efficiency whilst complying with demanding hygiene and environmental requirements.

Requirements for buildings	Requirements for air-handling systems	Requirements for air-handling units
Directive 2010/31/EU on the energy performance of buildings	EN 13779 Ventilation-performance requirements for ventilation and room-conditioning systems	EN 1886 Ventilation for buildings - Air handling units - Mechanical performance
Law No. 406/2000 Sb. on energy economy, Order No. 148/2007 on the energy performance of buildings	EN 15242 Ventilation for buildings-Calculation methods for the determination of air flow rates in buildings including infiltration	EN 13053 Ventilation for buildings. Air handling units. Ratings and performance for units, components and sections
EN 15251 Indoor environmental input parameters for design and assessment of energy performance of buildings addressing indoor air quality, thermal environment, lighting and acoustics	EN 15243 Ventilation for buildings - Calculation of room temperatures and of load and energy for buildings with room-conditioning systems	VDI 6022 Hygiene requirements for ventilation and air-conditioning systems and devices
EN 15240 Ventilation for buildings - Energy performance of buildings - Guidelines for inspection of air-conditioning systems	EN 12599 Ventilation for buildings -Tests procedures and measuring methods for handing over installed ventilation and air conditioning systems	VDI 3803 Air-conditioning - Central Air-conditioning Systems - Structural And Technical Principles
EN 15239 Ventilation for buildings - Energy performance of buildings - Guidelines for inspection of ventilation systems	EN 15423 Ventilation for buildings - Fire precautions for air distribution systems in buildings	DIN 1946-4 Ventilation in buildings and health care rooms

eViking Air Handling Unit Range

Cross-section Variability

Cross-section variability is achieved by the arrangement of four and six modules (laminas) in basic heights.

Minimized Length Dimensions

The unique casing design allowed us to abandon the traditional air handling unit sections and relationship between air handling unit casing and internal components.

The eViking concept is able to "wrap" internal components with minimum spacing using a casing of optimal length.

The length dimensions of each functional part (built-in assembly) of the air-handling unit are designed in modular grid lengths equalling multiples of 102 mm.

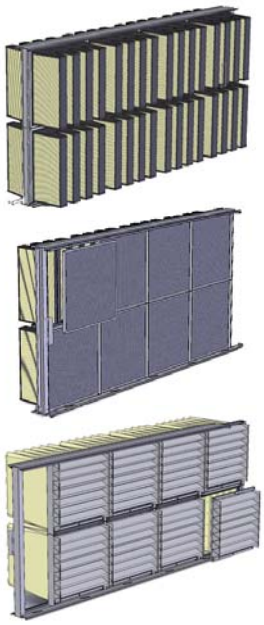
These functional parts are then integrated into assembly blocks in lengths equalling multiples of 306 mm (modular width of the lamina). This combination enables the air-handling unit to be designed to specific length requirements.

Optimized Components

The design of some built-in assemblies itself contributes to the length of units.

Combined filtration walls are a good example of this.

For example, fitting two filters into a common frame will result in maximum reduction of the length.

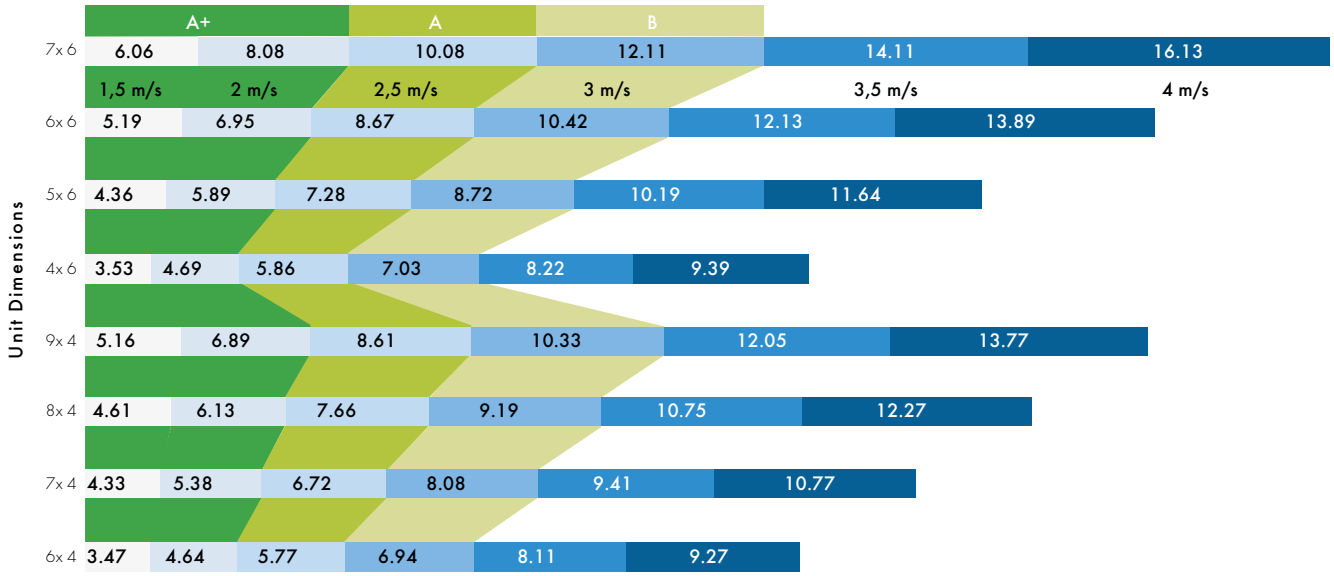


Optimized Output According to Energy Classes

Performance Range

The newly-launched eViking air-handling unit range covers a wide performance range, see table below.
Example: At the commonly used velocity of 3 m/s, an air-handling unit with a section area of 7x6 will presently provide you with an output of 12.11 m^3/s.

Energy Performance matrix comparing unit dimensions & airflow (m^3/s)



Lower outputs units can be selected from our XP Viking air-handling unit range.

Surface Finishes for any Application

eViking air-handling units are characterized by their long service life and trouble-free operation. Thanks to a wide range of surface finishing combinations (galvanized, powder coating, and stainless steel) which comply with the grade of atmosphere corrosivity in accordance with EN 12500 and corrosion resistance in accordance with EN ISO 14713, the eViking concept enables air-handling units to fulfil the requirements of the highest applicable standards.

Frame	Internal casing	External casing	Corrosivity	Application
galavanized	galavanized	galavanized	C2/C2	air-handling units for indoor environment - low corrosivity (air-handling units for outdoor environment - low corrosivity)
galavanized + powder coating RAL	galavanized	galavanized + powder coating RAL	C2/C4	air-handling units for indoor environment - low corrosivity (air-handling units for outdoor environment - low corrosivity)
galavanized	galavanized + powder coating RAL	galavanized	C4/C2	air-handling units for indoor environment - high corrosivity
galavanized + powder coating RAL	galavanized + powder coating RAL	galavanized + powder coating RAL	C4/C4	air-handling units for indoor environment - extra high corrosivity (air-handling units for outdoor environment - extra high corrosivity)
galavanized	galavanized + powder coating RAL epoxy coating	galavanized + powder coating RAL	(C4/C4)	version for pools
galavanized + powder coating RAL	galavanized + powder coating RAL stainless steel	galavanized + powder coating RAL	(C4/C4)	hygienic version
galavanized + powder coating RAL	galavanized + powder coating RAL stainless steel	galavanized + powder coating RAL	C5 economy 1/C4	air-handling units for indoor environment - extra high corrosivity (air-handling units for outdoor environment - extra high corrosivity)
galavanized + powder coating RAL	stainless steel	galavanized + powder coating RAL	C5 economy 2/C4	air-handling units for indoor environment - extra high corrosivity (air-handling units for outdoor environment - extra high corrosivity)
galavanized + powder coating RAL	stainless steel	stainless steel	C5/C5	air-handling units for indoor environment - extra high corrosivity (air-handling units for outdoor environment - extra high corrosivity)

Functions

Impellers		Backward/Forward curved centrifugal
Heating	LPHW	✓
	Electric	✓
	Gas	✓
	DX	✓
Cooler	DX	✓
	Chilled Water	✓
Heat Recovery	Plate	✓
	Wheel	✓
	RAC	✓

Humidification	Steam	✓
	Adiabatic	✓
Filtration	Panel	G3
	Bag	G3/4 – F5-9
	Grease	G3
	Compact	F6-9
Attenuators		✓
Controls		Optional

Technical Support

For a detailed selection and performance specification, please contact our Technical Support Team on 0844 856 0594.