

Koja SMARTAIR

Anticipate the costs
of the future



Future
air handling unit

KOJA 
Air. On land and sea.

Koja SMARTAiR

Koja SMARTAiR is an optimum energy solution for clean indoor air – with as low costs as possible

Koja SMARTAiR anticipates, ensures and supervises the power and economic use of the air conditioning system throughout the equipment and building life cycle. Savings are gained through planning, quick installation, and carefully optimised, supervised use.

USE THE INFORMATION AND CONTROL ENERGY FLOWS



Our innovative, nature-saving energy solution concept comprises Future, the most energy-efficient air handling unit on the market, the ++Design Program, KojaSave and the VAAKA calculation programme.

Saves even when consuming

The costs of clean indoor air can be anticipated. Anticipation, optimised use and information on actual operation costs help avoid surprises.

A proposal for an optimum air conditioning system can be obtained in as little as 15 minutes, including automation and equipment plans.

Proprietor

Designer

Benefits everyone

Contractor

User

Environment

We guarantee deployment even in one day! The air conditioning system is quick to construct and costs are kept under control.

No post-checks are needed, as the equipment and the automatic system are already constructed in the plant.

The users of the building have safe access to clean air 24 hours a day. The system automatically adjusts power to a suitable level.

The operation of the equipment can be controlled in real time through remote monitoring.

The optimum, reliable, automated air conditioning system considerably reduces the carbon footprint at the construction phase and along the years of use.

Koja SMARTAiR



KojaSave

"From theory to reality"

With the KojaSave system, we can measure the air handling unit's real SFP value throughout its life cycle.

SAVES EVEN WHEN CONSUMING

The Koja SMARTAiR solution comprises air handling units, automation, smart Schneider Electric automation and surveillance. Together the solutions save money throughout their life cycle.


FUTURE – VERSATILE AIR-HANDLING

The Future unit series provides suitable unit size, air flow range and component combinations to suit every situation.

A product that has superior mechanical, thermal and flow technology properties and that fulfils the structural and air tightness requirements of CEN standards, together with carefully thought out component choices match the expectations of even the most discriminating customers.

Structural factors essentially affecting the quality of indoor air, such as the tightness of the unit flange and of the filter and frame attachment, have been taken into consideration in the design of the Future air handling unit.





An accurate way of calculating consumption and costs!

VAAKA

The calculation programme compares the energy consumption of the building's heating and cooling systems based on existing data.

With the programme, it is possible to calculate the energy consumption of the building's heating and cooling system as accurately as possible.

MyKoja

With MyKoja remote monitoring, it is possible to monitor and control the operation of the equipment in real time via the Internet.

You can set alarm limit values in MyKoja.

The VAAKA calculation programme combines three existing data sources: hour-specific simulation data for building energy consumption (e.g. RIUSKA, IDA-ICE), design temperatures selected for the building and the technical properties of the equipment (e.g. EER, COP). The VAAKA calculation programme calculates the systems':

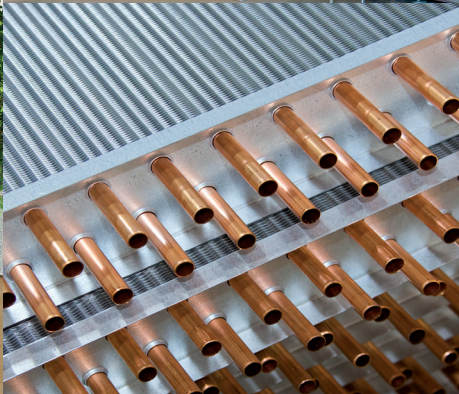
- Energy consumption
- Primary energy consumption
- CO₂emissions
- Annual energy costs
- Investment costs
- Life cycle costs

In addition to the aforementioned data, the assessed servicing and maintenance costs of different systems can be entered into the programme, which in part affect system life cycle costs.

In addition, any system replacement costs can be entered into the programme, if differences can be expected in the life cycles of different systems.

Schneider
Electric

Clean hi-tech from Finland



Did you know that choosing the right heat exchanger can affect cooler size by as much as 15 %?

The customer benefits from the innovations planned and implemented by Koja.

CAREFUL ENERGY TRANSFER

Multiple savings can be gained in the building's air conditioning system, thanks to a sorption rotor based on innovative molecular level technology:

- smaller water cooling unit
- smaller pipelines
- smaller pumping costs
- smaller cooling radiators

The system's total energy consumption is greatly improved when the Koja WF rotor is used.

**Up to
60%
lower power
demand**

KOJA BUILDS HEAT EXCHANGERS FOR UNITS

Koja's finned heat exchangers are manufactured at our Jalasjärvi plant, meaning their heating power and pressure losses are optimally designed and planned to suit your needs.

They have been designed and verified together with the Technical Research Centre of Finland VTT.

Always the best fans



ON LAND AND AT SEA

Koja offers unrivalled expertise for both land and sea: we have delivered air handling systems for some of the world's largest luxury cruise ships.

We are not dependent on the products of any single manufacturer. We can always choose the best, most energy-efficient fan motor packages (EC, PM 1E3) from leading manufacturers. If the project requires special performance, we can also manufacture the fans ourselves. We also offer solutions for facilities with explosive atmospheres, as well as for atmospheres that are susceptible to corrosion.



Koja SMARTAIR

Clean
Finnish
air.

Since
1935.

Koja is a developing, family-owned Finnish Group of companies that provides a variety of services.

It offers its customers reliable, innovative, high-quality air handling solutions, products and services for construction, industrial applications and the implementation of ship air conditioning systems. The solutions are energy-efficient and reduce overall costs throughout their life cycle.



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