

# Product Highlights 2024

Air coolers, fan coils and heat exchanger for advanced applications



AIR COOLERS, AIR CONDITIONERS AND  
HEAT EXCHANGERS OF THE HIGHEST QUALITY

## OUR PRODUCTS



**High-performance air cooler** for cooling and deep-freezing requirements in commercial and industrial refrigeration



Customized **heat exchangers** for your system-specific requirements



**Fan coils** for tailored and demanding air conditioning solutions in building engineering

Customized solutions...

Quality Made in Germany

## LOCATIONS

**Headquarter Germany**  
Walter Roller GmbH & Co.  
Phone: +49 (0) 7156 2001-0  
info@walterroller.de



**Sales Office - Spain**  
Mr. Luis Alberto Suarez Huergo  
Phone.: +34 (0) 627 45 62 97  
alberto.suarez@walterroller.de

**Sales Office - Thailand / HQ Asia**  
Mr. Suppasilp Lawanaskol  
Phone.: +66 (0) 2 645 3881-3  
salesco@rollerthailand.com

## ABOUT ROLLER

We develop and produce at the locations in Gerlingen our innovative air coolers. We can develop solutions for individual applications with you.

Either as standard or customized as a system solution.

Walter Roller offers with its broad product range of heat exchangers and air coolers for a wide performance range and every application in refrigeration technology the optimal solution.

...for your refrigeration requirements

Your partner for more than 75 years

## COMPANY DEVELOPMENT

- 2022** — Plant III goes into operation
- 2021** — Optimized fin system for CO<sub>2</sub> deep-freeze applications
- 2020** — Expansion of production capacity at Plant II
- 2015** — Own foothold in Asia
- 2008** — New warehouse and logistics centre opened
- 2006** — Upgrade to EC ventilator technology
- 1998** — Increased performance due to inner finned tubes
- 1996** — CO<sub>2</sub> evaporator for Supermarket refrigeration
- 1968** — Development of air conditioning units
- 1958** — Manufacture of the first high-performance evaporator
- 1946** — Walter Roller founds the company

## OUR MARKETS



HVAC



Refrigeration



Logistics



IT



Process



Energy



Marine



Offshore



Heat recovery

## FLAT DUAL DISCHARGE CEILING AIR COOLER

# DHNI/DHNIIT

❄️ Cooling capacity from 10 to 45 kW  
HFC | CO<sub>2</sub> | Water | Brine

# The all-rounder

### Heat exchanger

- High efficiency, strong fins for high mech. resistance
- Proven aligned Roller pipe system with large surfaces
- CO<sub>2</sub> evaporator block with PS 80 bar

### Fans

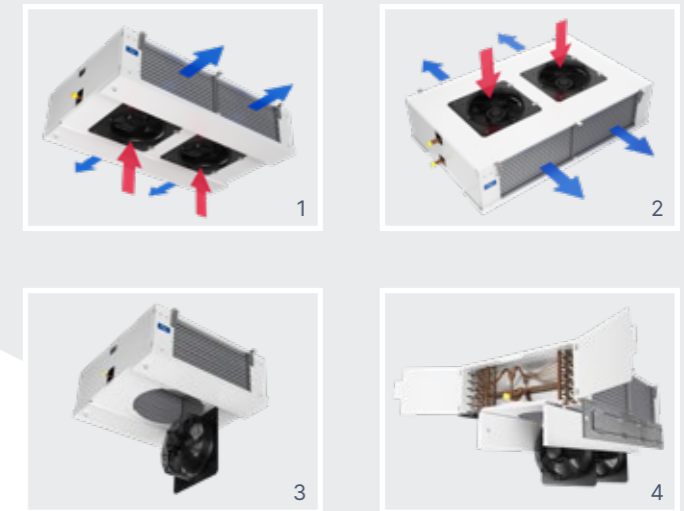
- Pressure-stable, high-efficiency EC fans of the latest design, AxiEcoDiagonal
- Low noise level, stepless speed control depending on load
- Service friendly hinged fans

### Installation

- Ceiling flush stainless steel suspension
- Swiveling side covers, large side spaces
- Drip tray drain position flexibly reversible

### Options

- Textile hose connection nozzles for even air distribution, as well as shut-up
- Electric air-conditioning heating for reheating the air (dehumidification)
- T-design with built-in electric defrost suitable for deep-freeze applications
- Brine defrost
- Block defrosting via MS heating rods



1. Air intake from below for logistics, storage and freezer rooms
2. Air intake alternatively also from above for commissioning and working areas
3. Pressure-stable AxiEco Diagonal EC fans hinged as standard
4. Large inspection openings, swivel-mounted fans and hinged drip trays

For detailed information  
about DHNI, see:  
[www.walterroller.de/en/dhni](http://www.walterroller.de/en/dhni)



## AIR COOLER FOR SPECIAL APPLICATIONS

# KBK/KBKT

❄️ Cooling capacity from 1.5 to 20 kW  
HFC | CO<sub>2</sub> | Water | Brine



1. Air-conditioning heating inside, for dehumidification operation (optional)
2. Repair switch for maintenance (optional)
3. 8 rows of tubes in depth for minimum dehumidification
4. Swivelling fans (optional)

# Extremely flat!

## 432 mm only

### Application area

- Air cooler for careful air conditioning of sensitive refrigerated goods, e.g. bakery products and dough pieces, fermentation interrupters. The main focus is on the minimum possible dehumidification.
- Particularly flat, modular design, high power density with a range of 1-6 fans

### Heat exchanger

- Aligned pipe system with large surfaces, up to 8 rows of pipes installed in air direction
- Optimized for CO<sub>2</sub>, PS 80 bar

### Installation

- Housing removable left/right, large side spaces
- Removable drip tray
- External junction boxes for heating rods and fans

### Energy efficiency

- Large dimensioned heat exchanger surface for minimal dehumidification
- Roller tube system for high efficiency
- Powerful EC fans as standard
- Load-dependent air volume adjustable via 0 - 10V signal
- Heating elements inserted into aluminum tubes to avoid steam vapor

### Fans

- Highly efficient, powerful EC fans, swingable for cleaning
- Load-dependent stepless control

### Optionen

- Corrosion protection of the heat exchanger
- Interior electric heater for dehumidification operation
- Electronic expansion valve installed
- Brine defrosting
- Main switch accessible from the front
- Swivelling fans

FLAT CEILING AIR COOLERS FOR DEMANDING APPLICATIONS

## DLK/DLKT *Next*

❄️ Cooling capacity from 0.5 to 10 kW  
HFC | A2L | A3 | CO<sub>2</sub> | Water | Brine



1. Series of units from 1 to 4 fans
2. Ceiling flush stainless steel suspension
3. Housing with extremely generous breakthrough options

# New flexibility!

### Application area

- Air coolers for commercial refrigeration use, gas station stores, supermarkets.

### Heat exchanger

- High flexibility, 4 or 6 tube rows, fin thickness 0.3 mm for high mech. load resistance
- Compact tube system with small tube volume
- CO<sub>2</sub> up to 12 mm fin spacing

### Fans

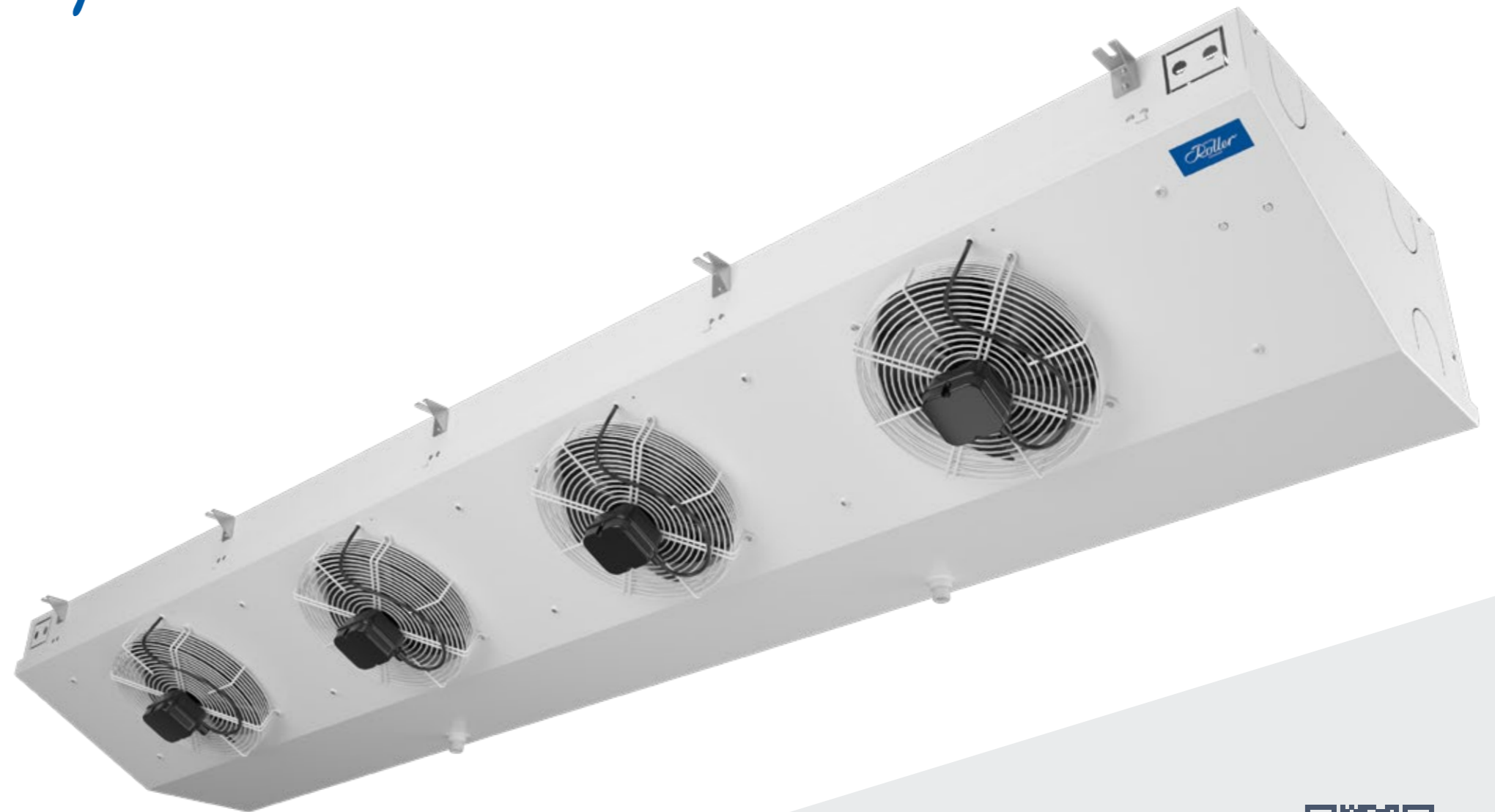
- High-efficiency EC fans as standard
- Load-dependent multistage fan control

### Installation

- Removable side covers, large side spaces
- Removable and hingable drip tray
- Housing cut-outs for all installation variants
- Ceiling flush stainless steel suspension

### Options

- Corrosion protection of the heat exchanger
- Electric heating for air post-heating (dehumidification)
- Suitable for deep-freeze applications
- Retrofitting of block defrosting with MS heating rods



For detailed information  
about DLK, see:  
[www.walterroller.de/en/dlk](http://www.walterroller.de/en/dlk)

# Air cooler for flammable refrigerants

## A2L/A3

Producing and installing future-safe products is a particular challenge for manufacturers, plant engineers and operators against the background of rapidly changing market situations and legislation. For low-hazard operation of air coolers with flammable low-GWP refrigerants of class A2L and A3 (flammable), additional modifications must be made in addition to the high standards for HFO series units.

### Roller air coolers today already meet the high requirements in terms of safety for use with flammable refrigerants:

- Special heating elements with reduced specific heat capacity
  - Revised defrosting concept for block and tray to maintain max. permitted surface temperatures
  - Optimized and tested heater placement for consistent defrost reliability
  - Single leak test
    - Improved grounding concept against electrostatic charging of the housing
    - Design tested for potential ignition sources and conforming to standards

### Application

- Air coolers for commercial refrigeration applications
- Use in normal and deep-freeze rooms possible

### Benefits

- Corrosion protection approved and independently tested
- Same dimensions as standard units, same installation as usual

### Heat exchanger

- Compact pipe system with low internal volume
- Fin spacing with 4 and 6/7 mm

### Fans

- High-efficiency EC fans
- Switchable in several stages depending on load

### Options

- Extensive and proven corrosion protection variants
- Built-in overheating controller EVD-ice



## AIR COOLER ALSO WITH ELECTRIC DEFROST (T-VERSION)



## AIR COOLER WITHOUT DEFROST HEATER, FOR CONVECTION DEFROSTING



### Corrosion protection more important than ever:

When flammable refrigerants are used, the permanent tightness of all system components becomes even more important. For this reason, various types of corrosion protection are optionally available to withstand the chemical stresses caused by substances in the ambient air and subsequently prevent refrigerant loss.

## BUILT-IN ELECTRONIC EXPANSION VALVE AND SUPERHEAT CONTROLLER

# EVD-ice

Selecting, installing and parameterising a suitable expansion valve for a refrigeration system is a challenge that costs a lot of time and money in consideration of the different system parameters. Roller offers you a pre-installed, electronic expansion valve with superheat control for commercial refrigeration evaporators, regardless of the refrigerant used. And that for 40 pre-parameterised refrigerants, incl. CO<sub>2</sub>!

### Increased energy efficiency through

- Precise control of the refrigerant flow
- Reduced compressor running times
- Sliding suction pressures
- Minimum room temperature differences
- Short defrosting times due to reduced ice formation
- Stable operation even under deep-freeze conditions

### Pre-parameterised for 40 refrigerants

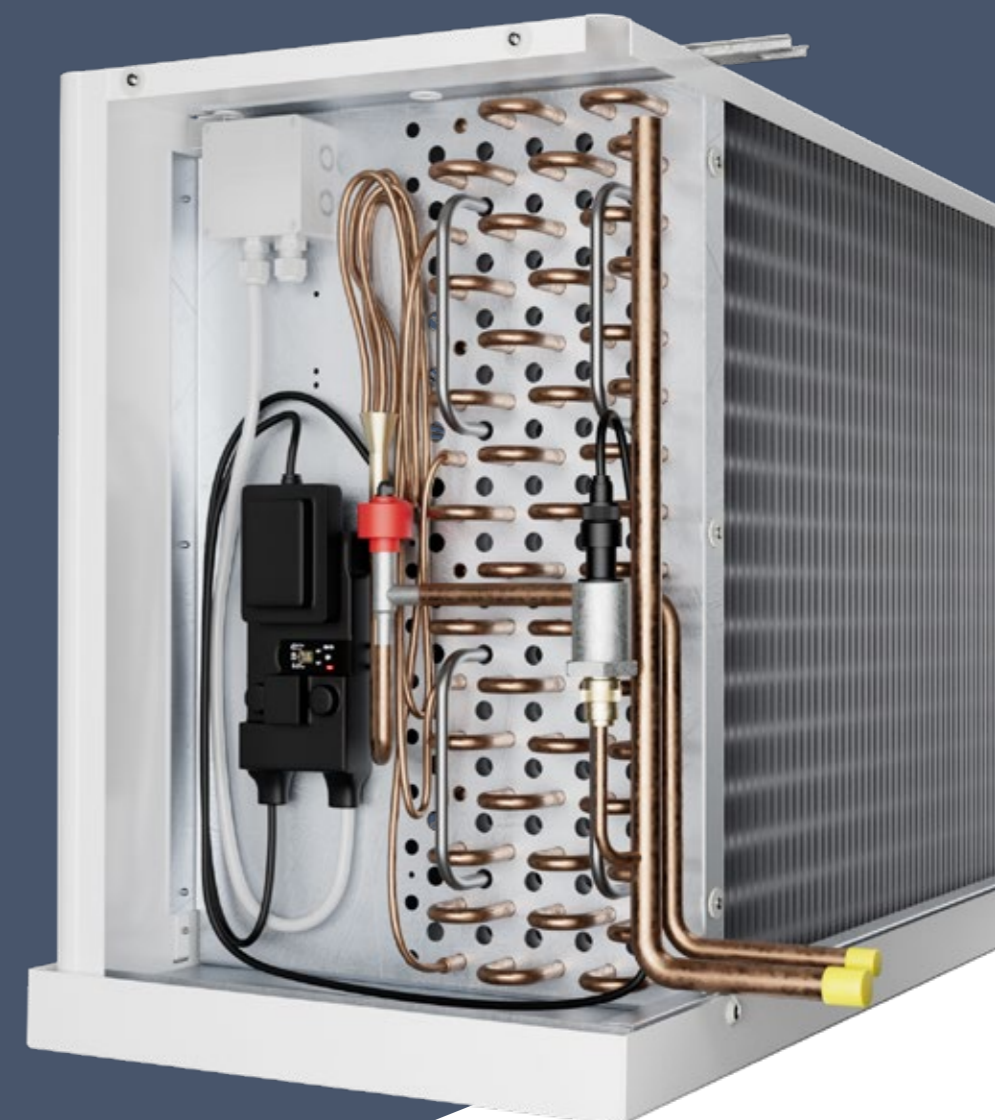
Among others for the following refrigerants:

- R134a, R404A, R407A, R407C, R407F
- R449, R452A, R513A
- R744 (CO<sub>2</sub>)
- Free, variable space for future refrigerants

### Your benefits

- Simplified assembly on site
- Pre-assembled controller, valve and sensors ex works
- Optimized adjustment of the components to the unit size, evaporator capacity and refrigerant
- Fast start-up with only three parameter settings on site (type of refrigerant, operating mode of the cold room, desired superheat)
- Nozzle insert can be replaced separately
- Pressure and leak test of the control components together with the evaporator are already done in the factory

Exact valve sizing  
—  
whatever the  
refrigerant



### Application range

- Operating conditions: -30°C to 40°C
- IP65 protection class due to fully encapsulated housing of EDV-ice and Ultracap

### Delivery scope

- Carel E2V expansion valve
- EVD-ice superheat controller
- Pressure sensor
- Ultracap module (optional)

1. Available for: FHV/FHVT High performance air cooler
2. Available for: DLK/T Ceiling air cooler
3. Available for: DHN Dual air cooler



For detailed information  
about EVD-ice, see:

[www.walterroller.de/en/products/accessories/evd-ice](http://www.walterroller.de/en/products/accessories/evd-ice)

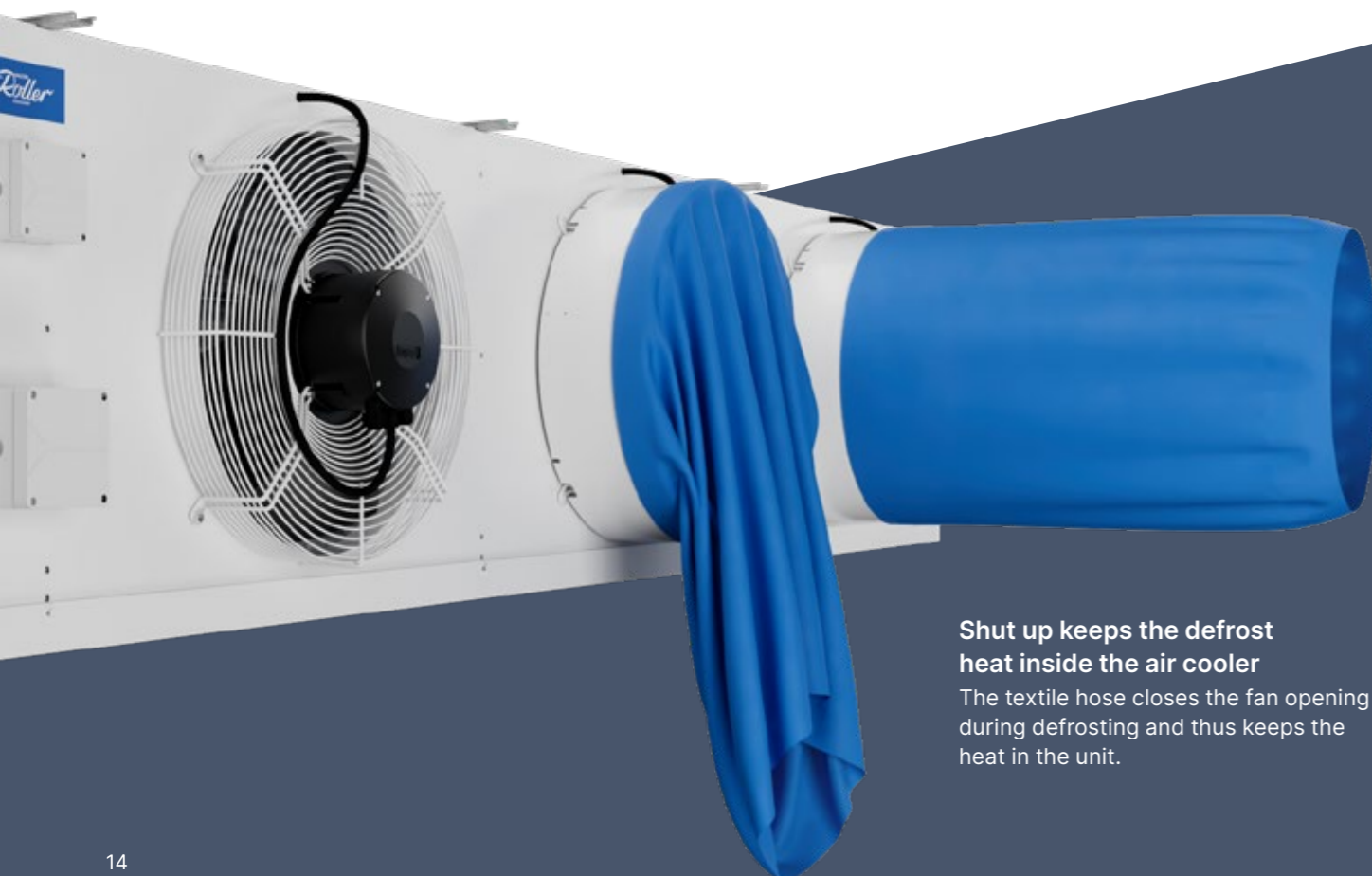
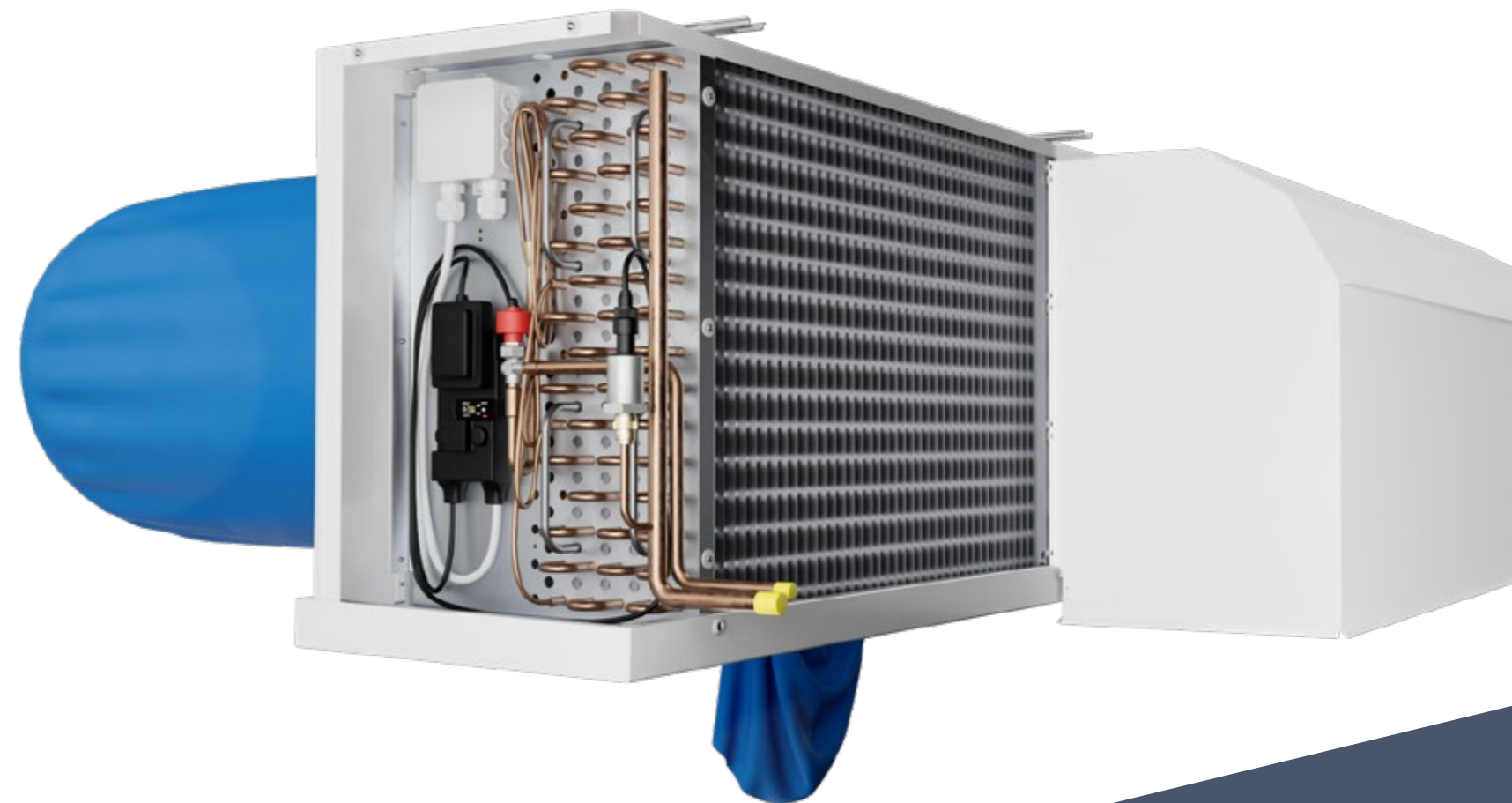
# Raise defrosting efficiency Reduce energy costs by 75%

Energy-efficient and reliable operation is essential when using air coolers in refrigeration applications. Electric defrosting, which is common in refrigeration, incurs energy costs that can be reduced by up to 75% with an optimized defrosting system. This energy-efficient defrosting concept is the result of various individual measures, which can only achieve its full savings potential when all components interact.



For detailed information on defrosting, see:

[www.walterroller.de/en/technology/defrost-efficiency](http://www.walterroller.de/en/technology/defrost-efficiency)



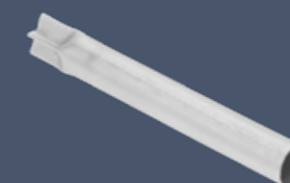
## Shut up keeps the defrost heat inside the air cooler

The textile hose closes the fan opening during defrosting and thus keeps the heat in the unit.



## Defrost Dome accumulates heat and increases defrosting efficiency

For less room load due to defrosting heat and optimization of the defrosting process.



## Sensor sleeve

Sensor sleeve pressed firmly into the block for exact placement of the defrost sensor.



## Large fin spacing for maximum frost absorption

The 12 mm fin spacing allows more frost to be absorbed, which can lead to fewer defrost cycles.



## Aligned pipe system for increased frost storage

The aligned high-performance pipe system can hold more frost in the block with less pressure loss on the air side.

AIR CONDITIONING UNITS FOR PERFECT ROOM CONDITIONS IN BUILDINGS

## HKNW 200 - 700

❄️ Cooling capacity from 0.3 – 16 kW

🔥 Heating capacity from 0,6 – 36 kW

HFC | CO<sub>2</sub> | Water | Brine

# Now also as wall-mounted unit!

- **Reliable:** proven design, sheet metal housing with powder coating
- **Whisper-quiet:** highly efficient, quiet-running quality fans
- **Comfortable:** fan multi-stage/steplessly adjustable; high-quality filter element
- **Multiple variants:** all common operating modes with closed-loop control and valve functionality
- **Variety of applications:** vertical or horizontal, with or without housing, 2 or 4-wire water or refrigerant
- **Energy-efficient:** Minimum installation depth of 136 mm with 7 kW heat capacity (HKN/D 50)
- **Pressure-resistant:** Operating pressure up to 80 bar for CO<sub>2</sub>



For detailed information about HKN, see:

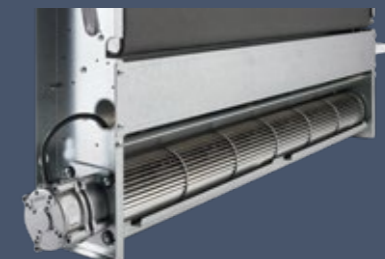
[www.walterroller.de/en/products/fan-coil-unit/hkn-d](http://www.walterroller.de/en/products/fan-coil-unit/hkn-d)

Air conditioning for medical centers, lounges, offices, Server rooms



**Compact, energy-efficient design**

With a minimum installation depth of just 136 mm, the HKN/D 50 has a 7 kW heating capacity.



**Energy-saving, extremely low-noise EC fan**

EC cross-flow fan with infinitely adjustable air volume flow (0-10 V) (size 10-50)



**Extremely high performance in a single unit**

15 kW cooling capacity or 36 kW heating capacity in a single unit (HKN/DI 1400)

# Small and powerful

AIR COOLER FOR SMALL WALK-IN COLD ROOMS

## FKN ECDS

❄️ Cooling capacity from 0.2 to 2 kW  
HFC | CO<sub>2</sub> | A2L | A3



### New:

- Pressure-stable, high-efficiency diagonal EC fan with lower noise
- ECDS: Sound-reduced design
- Airflow-optimized FlowGrid air intake grille
- Operating pressure up to 80 bar for CO<sub>2</sub>
- Suitable for use as a wall or ceiling unit
- Corrosion protection coating (standard)
- Easy to clean due to hinged housing



For detailed information  
about FKN, see:

[www.walterroller.de/en/products/air-cooler-evaporator/fkn-fknt](http://www.walterroller.de/en/products/air-cooler-evaporator/fkn-fknt)

AIR COOLER FOR REFRIGERATED CABINETS

## VW/VM/VD...EC

❄️ Cooling capacity from 0.35 bis 0.54 kW  
HFC | CO<sub>2</sub> | A2L | A3 | Water | Brine



### Bewährtes weiterentwickelt

- New, powerful EC fan with approx. 80% energy savings compared to the previous model
- Increased IP protection (IP65)
- Fan ending with unit housing
- Hygiene optimized condensate drain (VD)
- Drip tray 180° reversible (VD)
- Terminal box for individual electrical connection
- Compact housing dimensions with minimum installation depth of 95 to 110 mm
- Maximum corrosion protection even with aggressive cooling goods due to fully KTL-coated heat exchanger - standard feature



For detailed information  
about VW/VM, see:

[www.walterroller.de/en/products/furniture-cooler/vw-vm-vd](http://www.walterroller.de/en/products/furniture-cooler/vw-vm-vd)

## HEAT EXCHANGERS FOR YOUR SYSTEM SPECIFIC REQUIREMENTS

# LE/LK

Together with you, we develop customised heat exchangers for your cooling requirements. Either as standard or as a system solution for specific applications. Regardless of whether it is a question of requirements for refrigerants, energy efficiency, corrosion protection, material combinations, different fin spacings or optimised tube and fin geometries, we offer you the optimum solution for every performance range and every application.



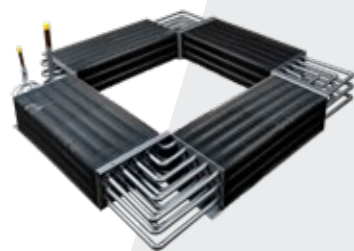
### Evaporators and Condensers, Air coolers and Air heaters

Various designs to be used in a wide range of cooling and air conditioning scenarios with almost all refrigerants.



### Multi-circuit heat exchangers

They are designed so that the circuits are arranged in intermeshing or parallel form in a heat exchanger coil. Very popular where space is limited or as a redundancy solution.



### Specially designed heat exchangers

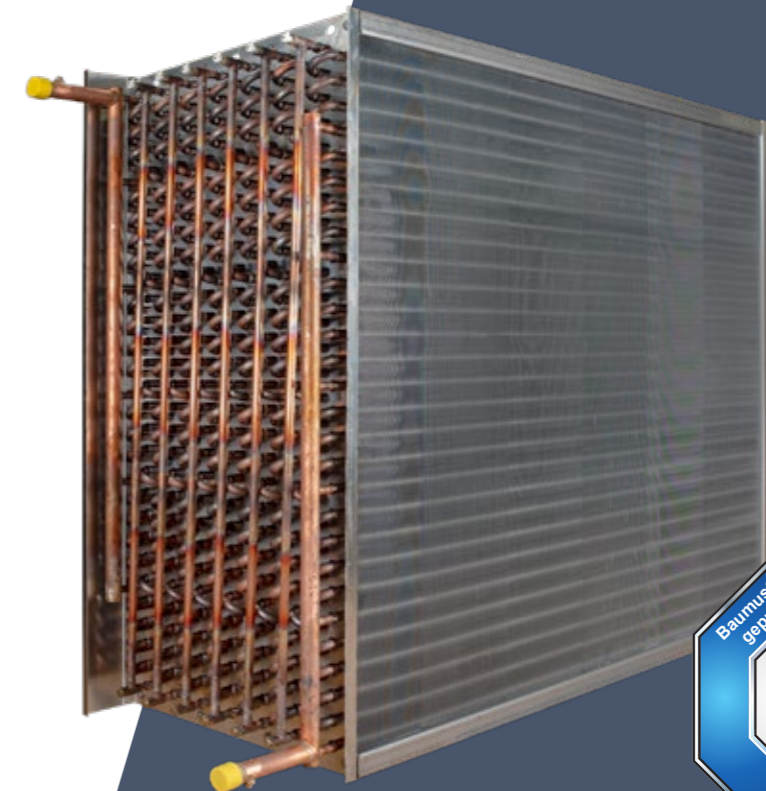
Designed for customer-specific applications (e.g. three-sided, four-sided, round/cylindrical)



### 1:1 replica -

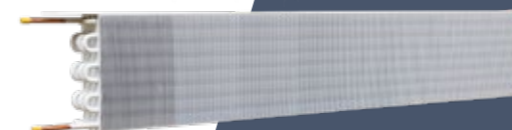
#### Fast replacement for any heat exchanger

In case of damage of your heat exchanger, no matter which brand, e.g. due to corrosion or frost damage, Roller as a manufacturer of high quality heat exchangers is at your disposal for advice and rebuilding at short notice.



### Closed-loop recycling system

Highly efficient, interconnected supply and exhaust air heat exchangers for efficiencies of up to 80% with very low air-side pressure losses - TÜV type-tested.



### Static furniture air cooler

Wide range of applications, e.g. in meat and sausage cabinets with fan-guided air circulation or free cooling.



For detailed information  
about heat exchanger, see:

[www.walterroller.de/en/products/heat-exchanger/le-lk](http://www.walterroller.de/en/products/heat-exchanger/le-lk)

More Service.  
More Performance.  
More Partnership.



#### CORROSION PROTECTION FOR ALL REFRIGERATION APPLICATIONS

There are hardly any applications where there is no corrosive influence on the refrigeration components. In cold rooms alone, heat exchangers are often exposed to a variety of different substances that influence their lifetime. Roller offers you effective corrosion protection for all applications with which you can operate the heat exchangers safely and, above all, tightly over their entire life cycle.



#### SHORT LEAD TIME GUARANTEED!

- The Roller Logistics Center stocks constantly air coolers for you!
- 2000 units in stock for you
- 3-5 days lead time on stock units
- 24 / 7 online stock information
- Well sorted spare parts store

Roller  
**EASYSELECT**

#### SELECTION SOFTWARE

- Thermodynamic calculation of the performance data
- Free calculation, without registration and password
- Web-based program with permanent data up-to-dateness
- Precise design for your application
- 5+ languages to select from
- Large range of F-gas compliant refrigerants and refrigerant media
- Input of manual fluid data for calculation with own coolants possible
- Selection of different designs, materials, options and types of corrosion protection
- Price and delivery time for calculated air coolers
- Complete documentation for the selected unit
- Quick calculation with just a few clicks
- Multiple filter function
- Optimised also for mobile devices, incl. optional app installation directly from the browser
- Clear and intuitive user interface



Roller EasySelect  
can be found at:

[www.WalterRoller.de/en](http://www.WalterRoller.de/en)



...is not only a promise  
of quality for us

- Use of the highest quality materials from primarily German brand manufacturers
- Robust products with maximum energy efficiency and durability
- Fast processing times for shortest delivery times
- Quality manufacturer with unusual flexibility
- Reliable spare parts supply at short notice
- 75 years of strong relationships with our customers



**Walter Roller GmbH & Co.**

Manufacturer of refrigeration and airconditioning equipment

Lindenstr. 27-31      Phone: +49 (0) 7156 2001 0  
70839 Gerlingen      info@walterroller.de  
GERMANY

[www.WalterRoller.de](http://www.WalterRoller.de)