



WALTER
Roller
GERMANY

Product Highlights 2023

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

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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 CO₂ 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 | CO₂ 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/DHNIT

❄️ Cooling capacity from 10 to 45 kW
HFC | CO₂ | Water | Brine

The all-rounder

Heat exchanger

- High efficiency, strong fins for high mech. resistance
- Proven aligned Roller pipe system with large surfaces
- CO₂ evaporator block with PS 80 bar

Fans

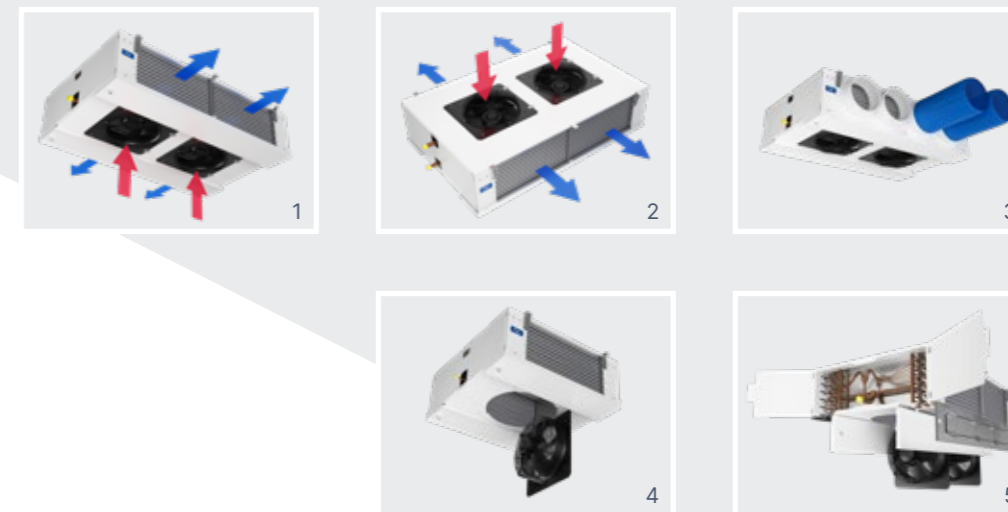
- Pressure-stable, high-efficiency EC fans of the latest design, AxiEcoDiagonal
- Low noise level, stepless speed control depending on load
- Service friendly hinged fans

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
- Direct expansion also with CO₂
- 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. Textile hose adapter for connecting further Air handling equipment
4. Pressure-stable AxiEco Diagonal EC fans hinged as standard
5. Large inspection openings, swivel-mounted fans and hinged drip trays



For detailed information
about DHNI, see:

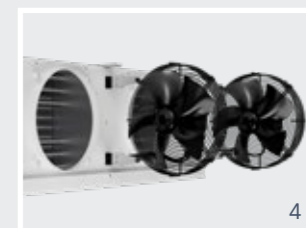
www.walterroller.de/en/products/air-cooler-evaporator/dhni



AIR COOLER FOR SPECIAL APPLICATIONS

KBK/KBKT

❄️ Cooling capacity from 1.5 to 20 kW
HFC | CO₂ | Water | Brine



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

Extremely flat!

419 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 CO₂, PS 80 bar

Installation

- Housing removable left/right, large side spaces
- Removable drip tray
- Main switch accessible from the front

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

FLAT CEILING AIR COOLERS FOR DEMANDING APPLICATIONS

DLK/DLKT

* Cooling capacity from 0.5 to 10 kW
HFC | A2L | CO₂ | Water | Brine

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
- CO₂ up to 12 mm fin spacing

Fans

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

Installation

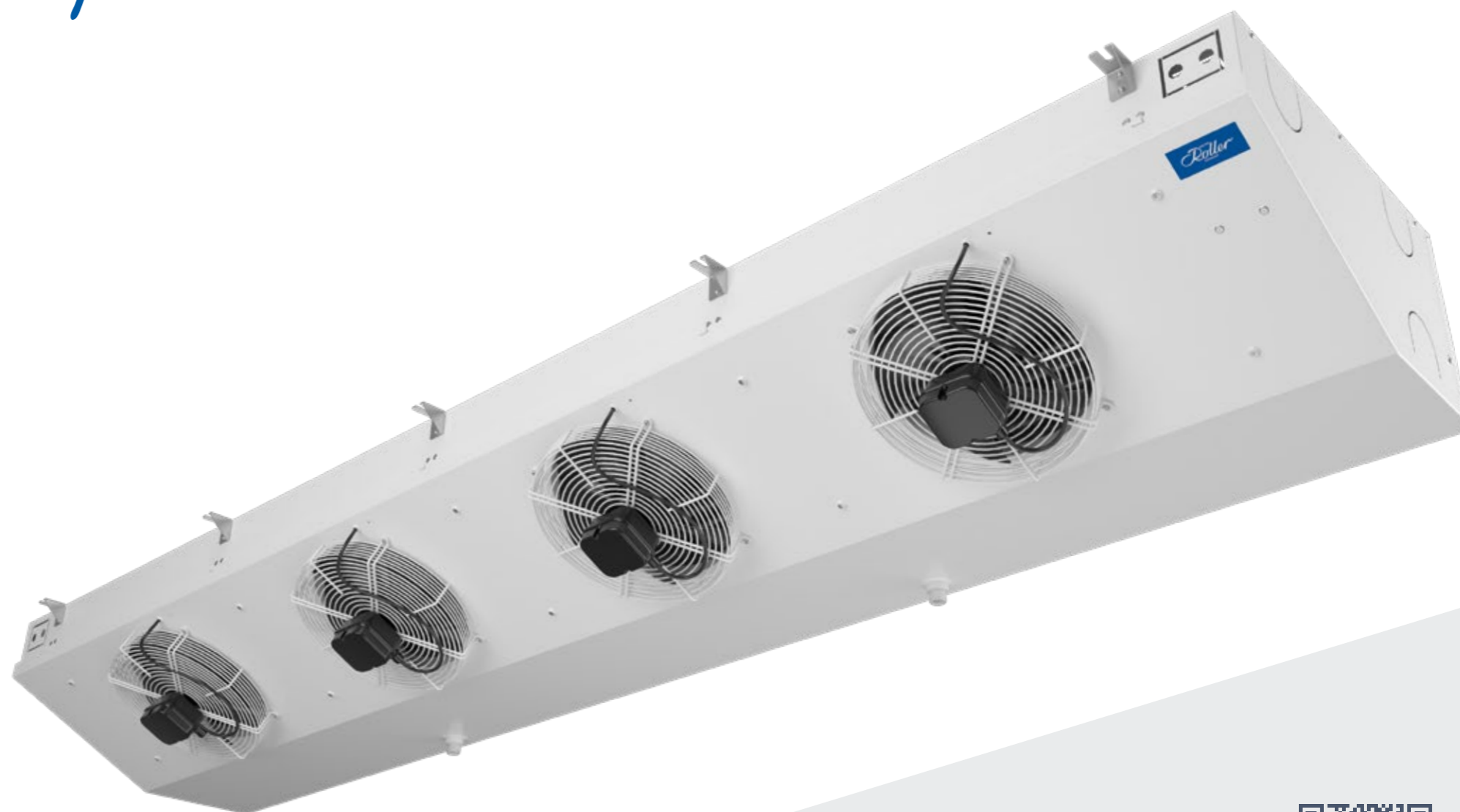
- Removable side covers, large side spaces
- Removable and hingable drip tray
- Housing cut-outs for all installation variants
- Ceiling flush stainless steel suspension

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



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



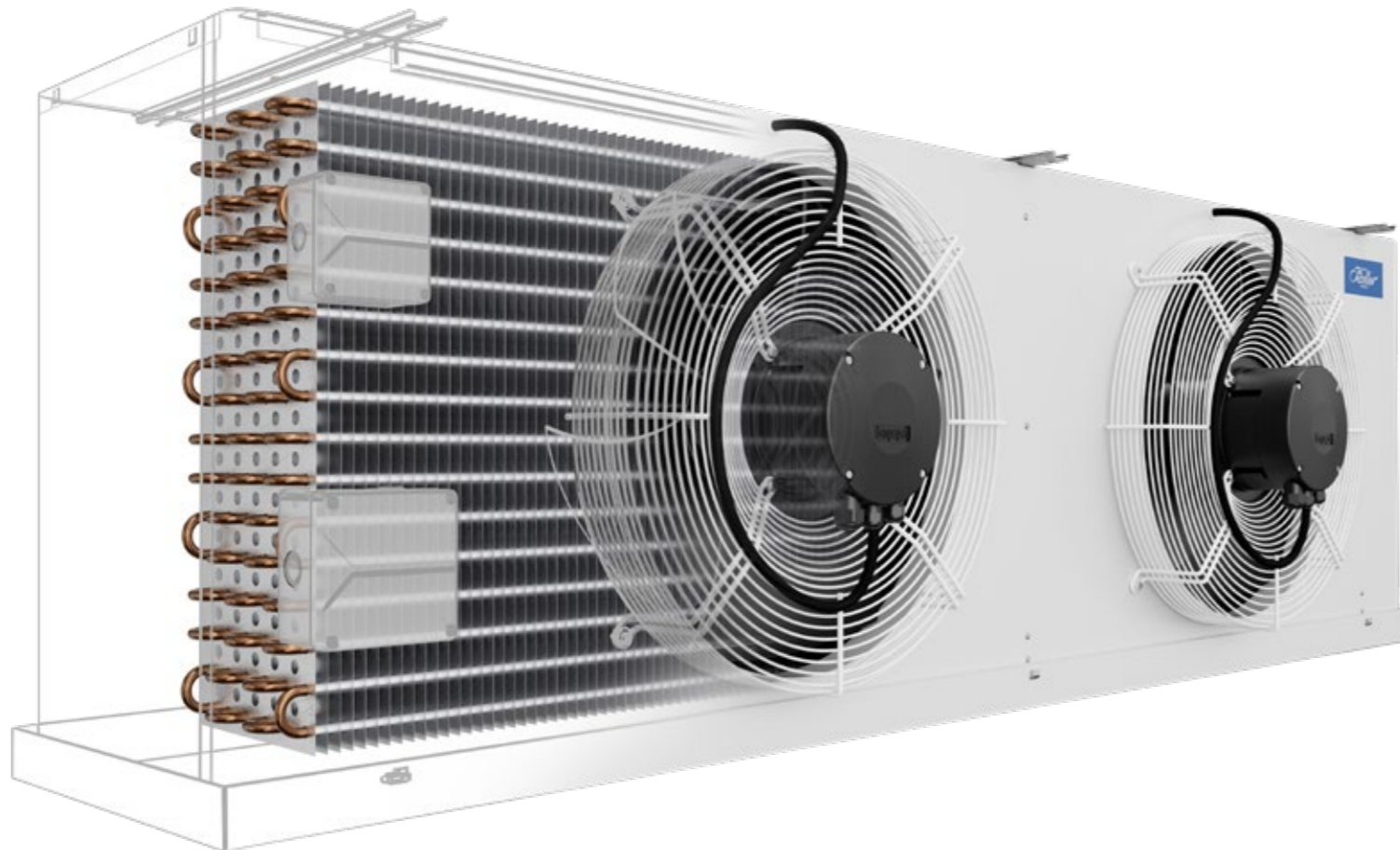
For detailed information about DLK, see:

www.walterroller.de/en/products/air-cooler-evaporator/dlk-dlkt

THE NEW FHV/FHVT - NOW ALSO MODULAR IN DEPTH

FHV/FHVT

❄️ Cooling capacity from 4.5 to 29 kW
HFC | CO₂ | Brine



Modularity³

New

- New version replaces 3 previous types with fan Ø 450
- New sizes with 6 rows of tubes in depth additionally available
- Fans and heaters wired to external junction box in new type sizes
- All FHV/T - CO₂ units extended by 12mm fin spacing

Application area

- Air coolers for use in commercial refrigeration
- Cooling rooms with high humidity load
- Supermarkets with high foot traffic

Heat exchanger

- Large sized heat exchanger surface for minimum dehumidification
- Roller tube system for high efficiency
- 12 mm fin spacing for CO₂ optimized and highly efficient Roller tube system, PS 90 bar (optional)

Energy efficiency

- Maximum maturity storage volume for reduced defrosting cycles
- Energy savings of up to 75 % through optimized defrosting
- Heating element placement for best possible heat distribution and reliable defrosting, inserted in aluminum tubes to avoid steam vapors

Options

- Textile defrosting device with adapter; air intake hood for accumulation of defrosting warm air; frame heating; insulated drip tray; built-in electronic expansion valve.
- Brine defrosting
- Corrosion protection

Installation

- Removable side covers, large side spaces
- Drip tray and inner tray can be hinged down and removed
- External easily accessible terminal boxes
- Stainless steel rails for ceiling mounting

Fans

- High-efficiency EC fans as standard, load-dependent, step-less, flexible controlled



For detailed information about FHV, see:

www.walterroller.de/en/products/air-cooler-evaporator/fhv-fhvt

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. CO₂!

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

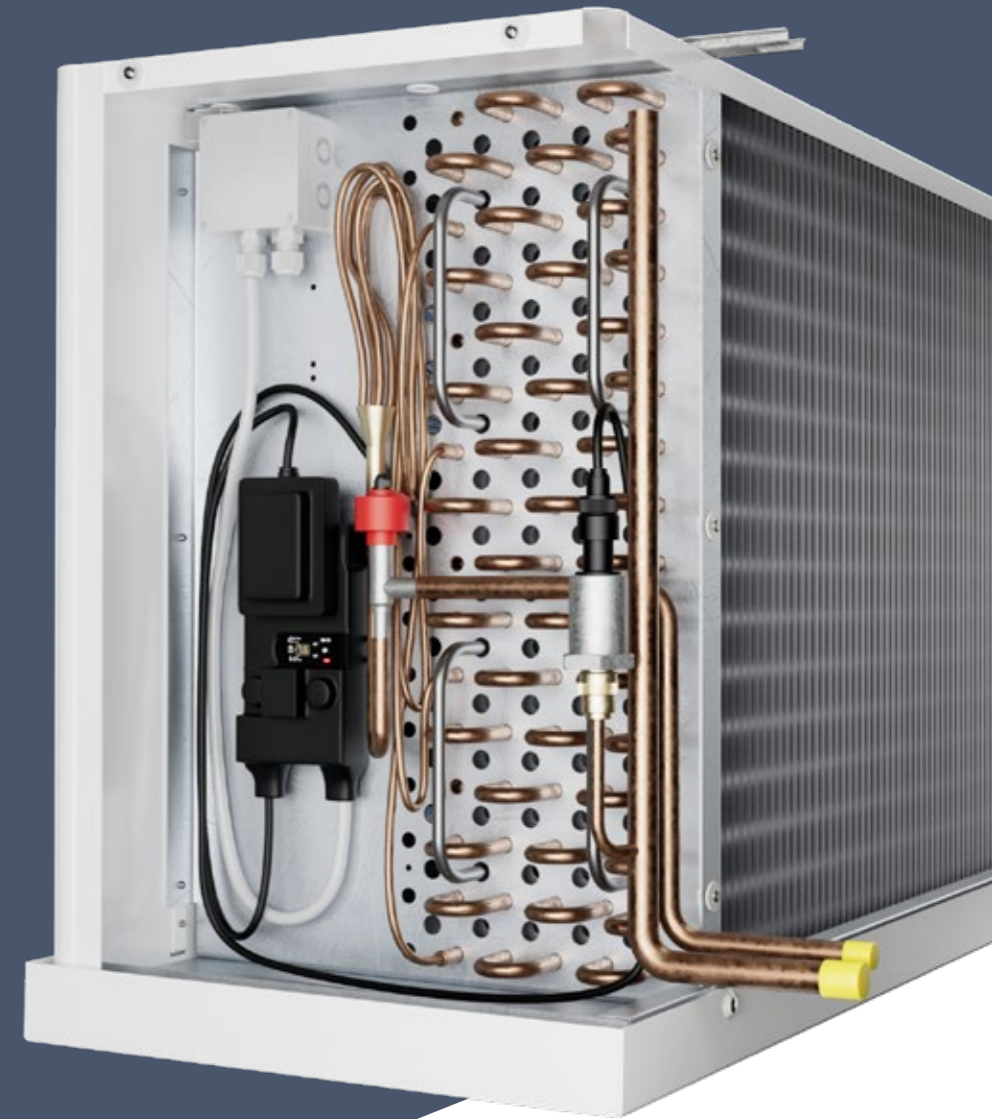
Among others for the following refrigerants:

- R134a, R404A, R407A, R407C, R407F
- R449, R452A, R513A
- R744 (CO₂)
- 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

Raise defrosting efficiency

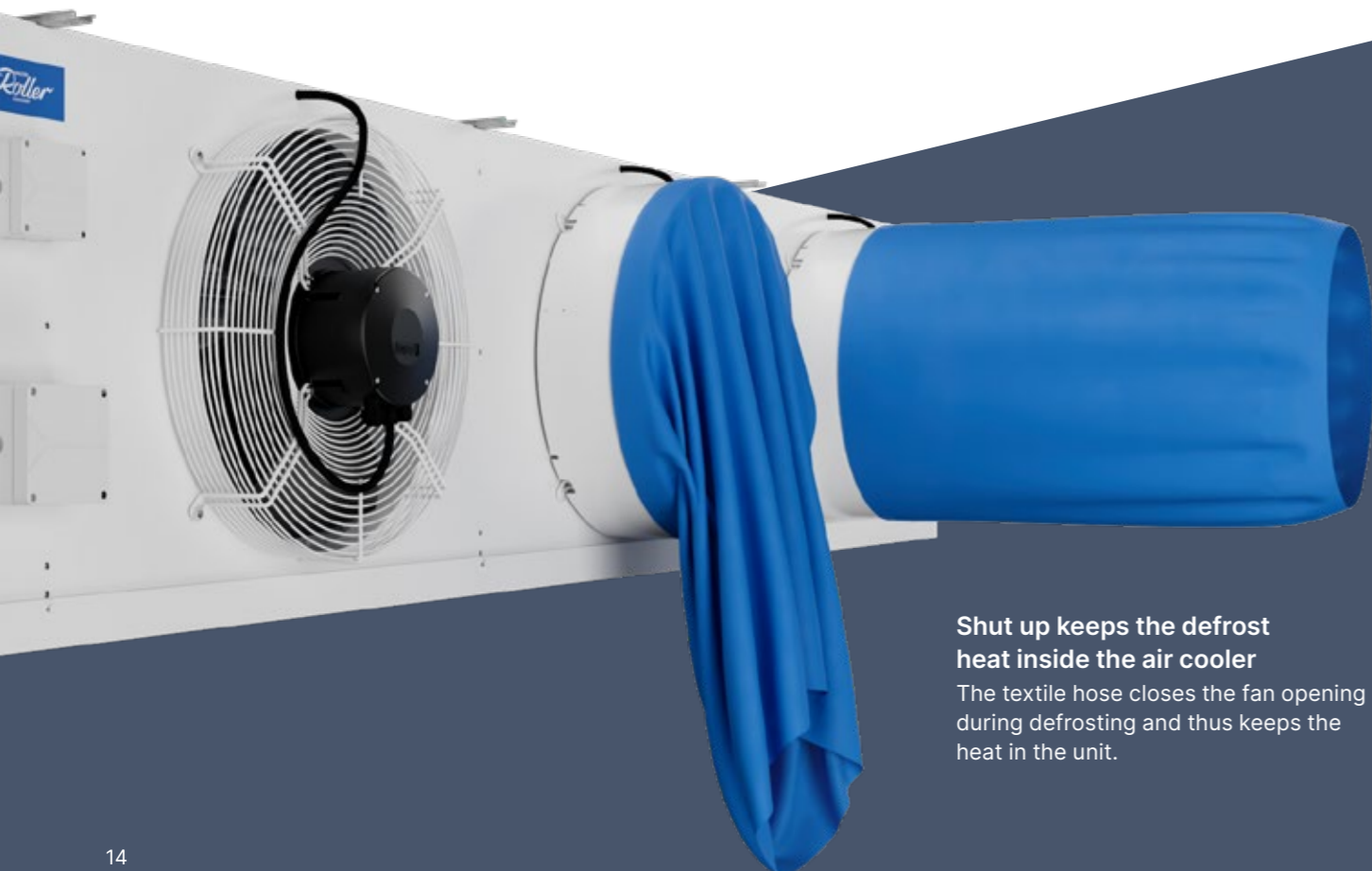
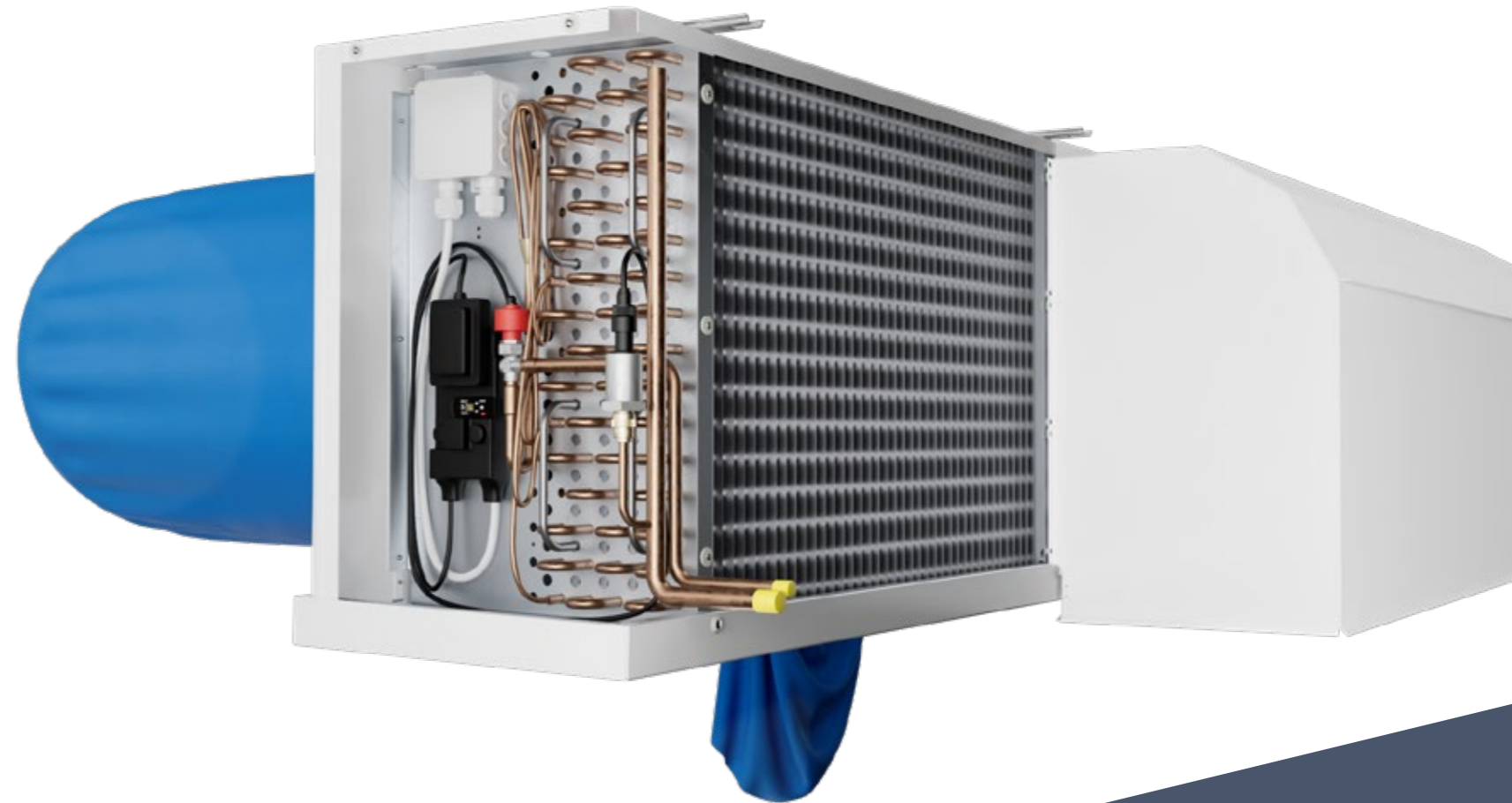
Reduce energy costs by 75%

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



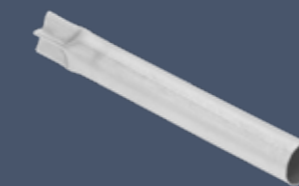
Shut up keeps the defrost heat inside the air cooler

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 maturity 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 | CO₂ | 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 CO₂



For detailed information about HKN, see:

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 | CO₂ | 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 CO₂
- Versions for CO₂, A2L and A3
- 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

AIR COOLER FOR REFRIGERATED CABINETS

VW/VM/VD... EC

* Cooling capacity from 0.35 bis 0.54 kW
HFC | CO₂ | 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

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.



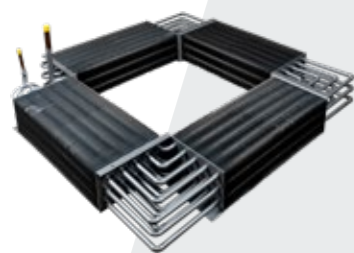
Evaporators and Condensers, Air coolers and Air heaters

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

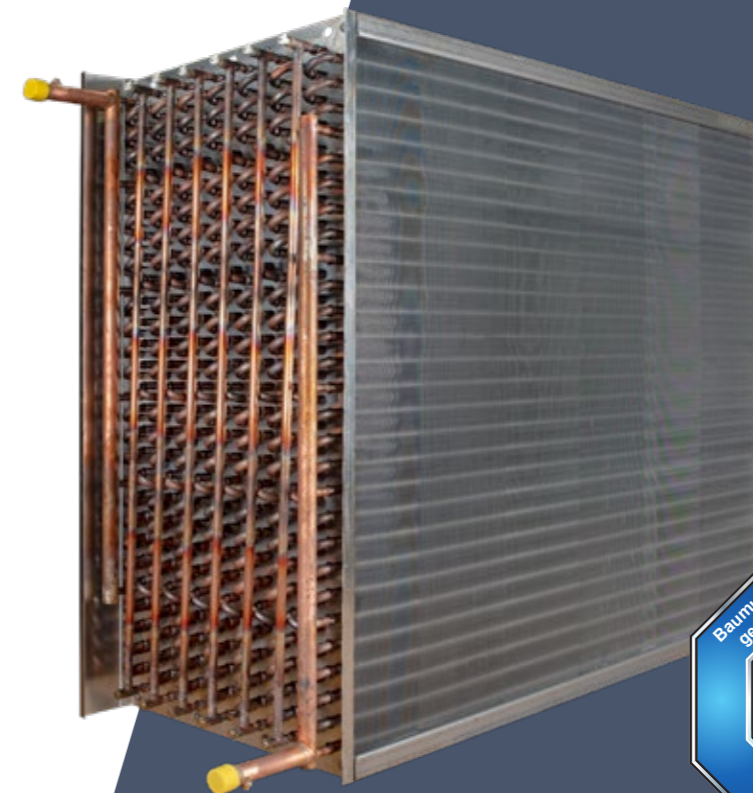
Designed for customer-specific applications (e.g. three-sided, four-sided, round/cylindrical)



1:1 replica -

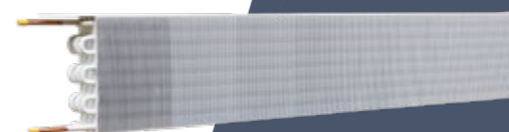
Fast replacement for any heat exchanger

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

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



...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



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Manufacturer of refrigeration and airconditioning equipment

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