

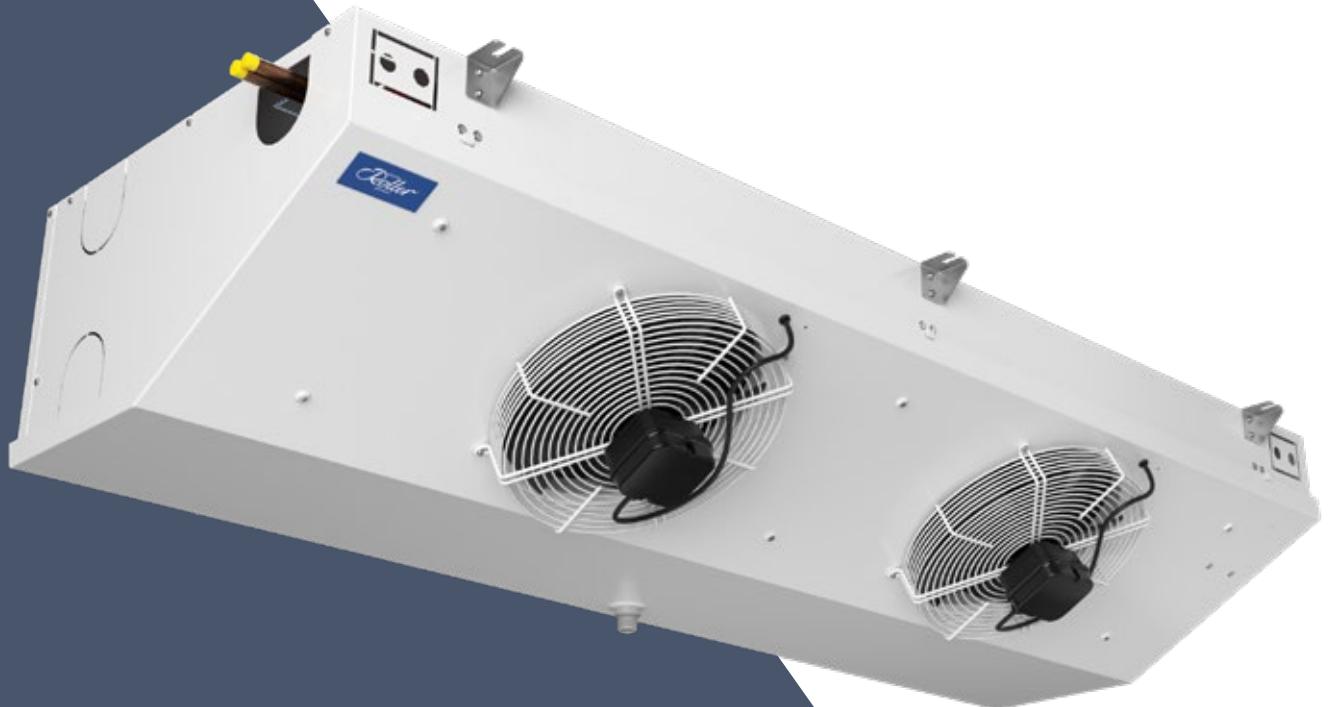


WALTER  
*Roller*  
GERMANY

Flat ceiling air coolers  
for demanding applications

# DLK/DLKT

HFC | CO<sub>2</sub> | A2L | A3 | Water | Brine



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

## 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.

## OUR MARKETS



HVAC



Refrigeration



Logistics



IT



Process



Energy



Marine



Offshore



Heat recovery

Customized  
solutions...

...for your  
refrigeration  
requirements

WALTER  
*Roller*  
GERMANY

Quality  
Made in  
Germany

Your partner  
for more than  
75 years

## LOCATIONS

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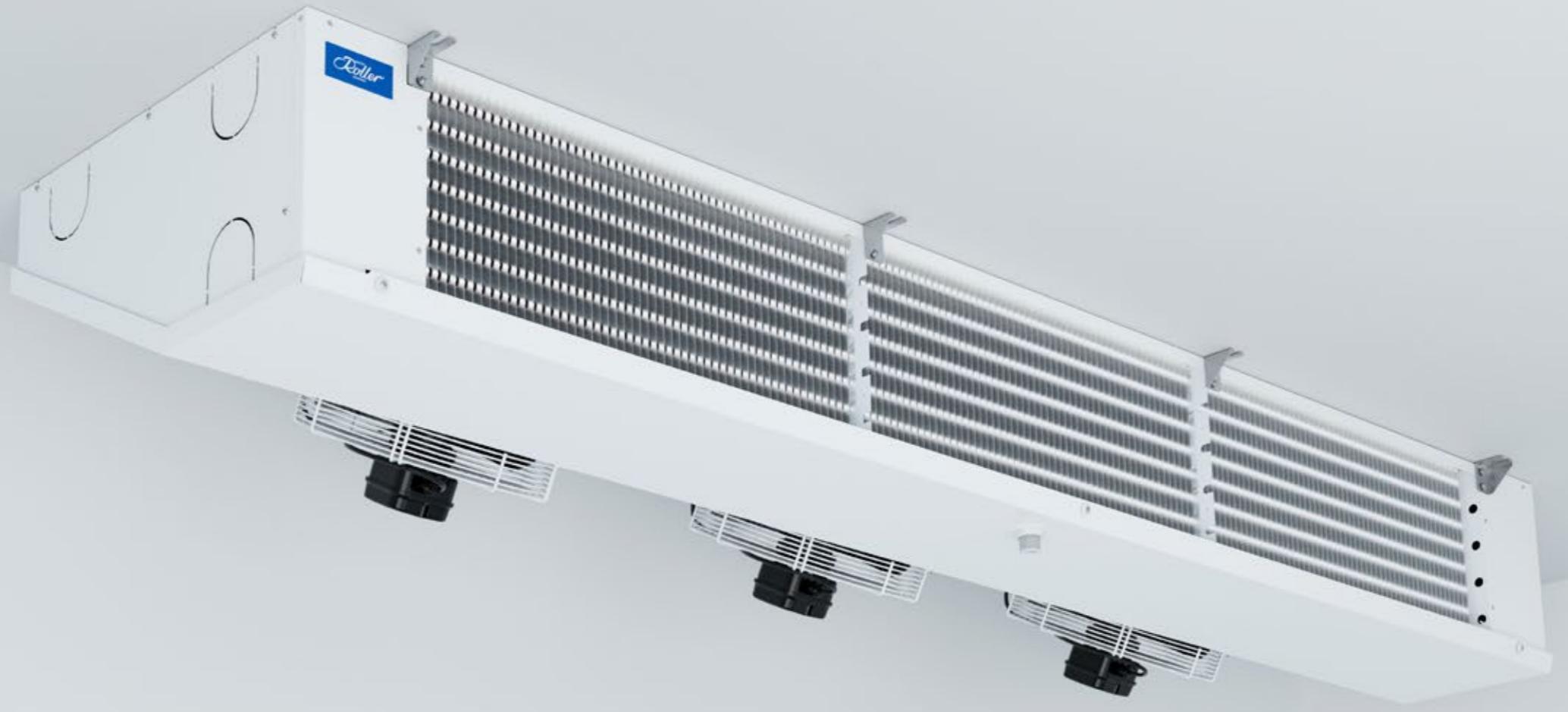
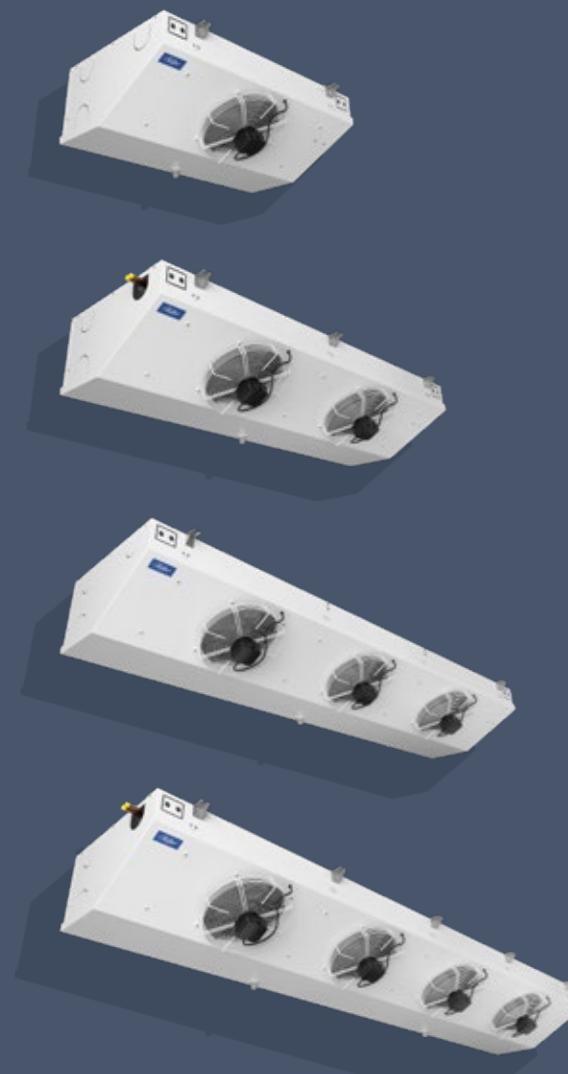
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## COMPANY DEVELOPMENT

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

# DLK/DLKT

With its flat, robust design, the DLK is suitable for all cold rooms with special requirements. With uniform air distribution, it ensures a stable room temperature and meets the strictest hygiene requirements owing to its corrosion resistance.



## Simply the best basic scope

### Installation & Maintenance

- Big side compartments
- Simple to access, easy cleanable
- Drip tray hinged and removable
- Housing corners and drip tray with large radii for better cleaning
- Heating rods and fans wired to terminal box

### Housing

- Corrosion-resistant aluminium casing, powder coated
- Edge-enclosing, scratch-resistant powder coating
- Double pan construction to prevent outside condensate formation

### High efficient heat exchanger

- Thick fins (0.3 mm) for great stability during cleaning
- Optimized, in-line tube configuration with planar fins guarantee low air side pressure loss and provide high air volume
- Fin spacing: 4 / 6 / 7 mm

### Defrosting

- Large heat exchanger surfaces lead to less dehumidification and to less defrost cycles
- Heater rods made of stainless steel sleeve tube with special vulcanisation (T-Version)
- Heater rods inside the coil block for reliable defrost, inserted into aluminium sleeve tubes to avoid steam formation

### Fans

- Energy-saving EC fans as standard
- Air cooler energy efficiency up to class "A"
- ERP compliant fans

# DLK flatline

## DLK FLATLINE IN A PARTICULARLY FLAT DESIGN

Due to its flat and robust design, the DLK *flatline* is suitable for all cold rooms that are subject to special requirements. With uniform air distribution, it ensures a stable room temperature and withstands the highest hygiene requirements due to its corrosion resistance.



## THESE FEATURES COMPLEMENT THE DLK FLATLINE:

### Application area

- Air coolers for use in commercial refrigeration, petrol station stores, supermarkets.
- Particularly flat design (only 278 mm) for maximum use of room height
- Normal and deep freezing (T-version)
- Also suitable for A2L refrigerants

### Fans

- High-efficiency EC fans as standard
- Two-stage adjustable EC fans (standard)
- Load-dependent two-stage adjustable
- Stepless control via optional Plug-on module possible

### Easy assembly

- Covers left/right removable, generous side spaces
- Housing openings to the side and upwards
- Flat hanging rails made from stainless steel
- Wall mounting thanks to additional drip pan (option)

### Heat exchanger

- Compact tube system with low pipe volume for use with CO<sub>2</sub> up to PS 80 bar

## The DLK *flatline* at a glance

### PERFORMANCE RANGE

HFC	1 – 8 kW	Brine	1 – 8 kW
CO <sub>2</sub>	1 – 7 kW	A2L / A3	1 – 8 kW

### HEAT EXCHANGER

Tube system	aligned
Tubes DX	Internally grooved
Fin spacing	4 / 6 / 7 mm

### DEFROSTING

	Block	Drain pan
Electrical	✓	✓
Hot gas	✓	✓
Brine	✓	

### REFRIGERANTS / FLUIDS

	Normal cooling	Deep freezing
HFC	✓	✓
CO <sub>2</sub>	✓	✓
A2L/A3	✓	✓
Brine	✓	✓

### FANS

EC-Technology	✓
Two-stage controllable	✓
Variable speed	✓
Diameter	250
Number	1 / 2 / 3 / 4

# DLK Next

## THE DLK NEXT WITH INCREASED VERSATILITY

The DLK Next features an easy-to-install housing with particularly generously dimensioned cut-out options for high flexibility, as well as stainless steel suspension brackets for mounting flush with the ceiling. The evaporator blocks are available in 4 and 6 tube rows for a higher variance, which means a correspondingly large heat exchanger surface and a wide capacity range.

With the optimized core tube, CO<sub>2</sub> direct evaporation is also possible at PS 80 bar.



## THESE FEATURES COMPLEMENT THE DLK NEXT:

### Application area

- Air coolers for use in commercial refrigeration, petrol station stores, bakeries, supermarkets.
- Particularly flat design (only 346 mm) for maximum use of room height

### Easy assembly

- Covers left/right removable, generous side spaces
- Wide range of housing openings for all installation variants
- Flush ceiling suspensions made of stainless steel

### Fans

- High-efficiency two-speed EC fans as standard
- Fans with speed control optionally available

### Heat exchanger

- High flexibility due to block variants with 4 / 6 RR in depth
- Rohrsystem mit geringem Rohrvolumen für Einsatz mit CO<sub>2</sub> bis PS 80 bar
- Fin spacing up to 12 mm on request

## The DLK Next at a glance

### PERFORMANCE RANGE

HFC	1 – 15 kW	Brine	1 – 31 kW
CO <sub>2</sub>	1 – 14 kW		

### HEAT EXCHANGER

Tube system	aligned
Tubes DX	Internally grooved
Fin spacing	4 / 7 mm

### DEFROSTING

	Block	Wanne
Electric	✓	✓
Hot gas	✓	✓
Brine	✓	

### REFRIGERANTS / FLUIDS

	Normalkühlung	Tiefkühlung
HFC	✓	✓
CO <sub>2</sub>	✓	✓
A2L/A3		
Brine	✓	✓

### FANS

EC-Technology	✓
Two-stage controllable	✓
Variable speed	✓
Diameter	300
Number	1 / 2 / 3 / 4

# Options & accessories



## MS HEATING RODS

Easily retrofittable: for coil defrosting ( $t_R > 0^\circ\text{C}$ ) (IP66)



## DEFROSTING BY BRINE CIRCUIT

Energetically useful defrosting method of the heat exchanger block due to the high energy density of the defrosting medium.



## FIN SPACING WITH 12 mm ON REQUEST

Increased frost storage minimizes the number of defrosting cycles.



## DEFROST SAFETY THERMOSTAT (AST)

Interrupts electric defrosting if the defrost control system malfunctions.



## CONDENSATE DRAIN PIPE HEATING (SI)

Ensures the drainage of the condensate in the external condensate drain pipe from the cold room.



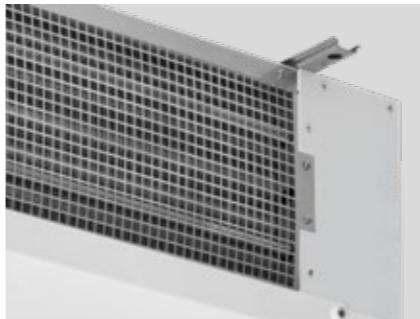
## STAINLESS STEEL DESIGN

For increased corrosion protection.



## DEHUMIDIFICATION OPERATION

by additional electric heating rods as air conditioning heating.



## PROTECTION GRILLE

for the subsequent heating rods of the air-conditioning heating system.



## STEPLESS SPEED CONTROL

250 mm fan: EC plug-on module:  
300 mm fan: Special motor for 0-10V control



## WALL VERSION

Vertical wall mounting with additional drip tray (flatline only)

## EXACT VALVE SIZING – WHATEVER THE REFRIGERANT

# BUILT-IN Electronic E-Valve

### BUILT-IN ELECTRONIC EXPANSION VALVE AND EVD-ice SUPER-HEAT CONTROLLER FOR QUICK AND EASY START-UP ON SITE

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:

- HFC
- Low GWP
- A2L/A3
- CO<sub>2</sub>
- Free, variable space for future refrigerants

#### Application range

- Operating conditions: -30 °C to 40 °C
- IP65 protection class due to fully encapsulated housing of EVD-ice and Ultracap
- Integration into a monitoring system

#### Simple and quick start-up on site

- Pre-assembled controller, valve and sensors ex works
- Ready-to-use presetting of the control according 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)
- RS485 interface for monitoring (Modbus protocol) to monitor operating conditions (real-time operating conditions, alarms, messages)
- Pressure and leak test of the control components together with the evaporator are already done in the factory
- Power supply: 230V



Selected by mouse click

Reliably pre-assembled

Fast start-up

Energy-efficient in operation

#### Delivery scope

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



Detaillierte Informationen  
zum EVD-ice finden Sie unter:  
[www.walterroller.de/en/products/accessories/evd-ice](http://www.walterroller.de/en/products/accessories/evd-ice)

# Optimal corrosion protection

## 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. Be it salt, vinegar, smoke or even cleaning substances - it is important to know the effect of these influences on corrosion. 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.



### Corrosion protection - Variant "C"

The protection variant consists of a combination of **copper core tube** and **coated fin package**. The block, which is completely coated with 2-component lacquer, offers reliable corrosion protection against aggressive substances such as organic acids, amines, and cleaning chemicals.



### Corrosion protection - Variant "D"

For applications in a more aggressive atmosphere, where the copper tube must also be additionally protected, the corrosion protection variant "D" is recommended. It consists of a **copper core tube** with **additional tin coating** and a **fin package** coated with 2-component lacquer.



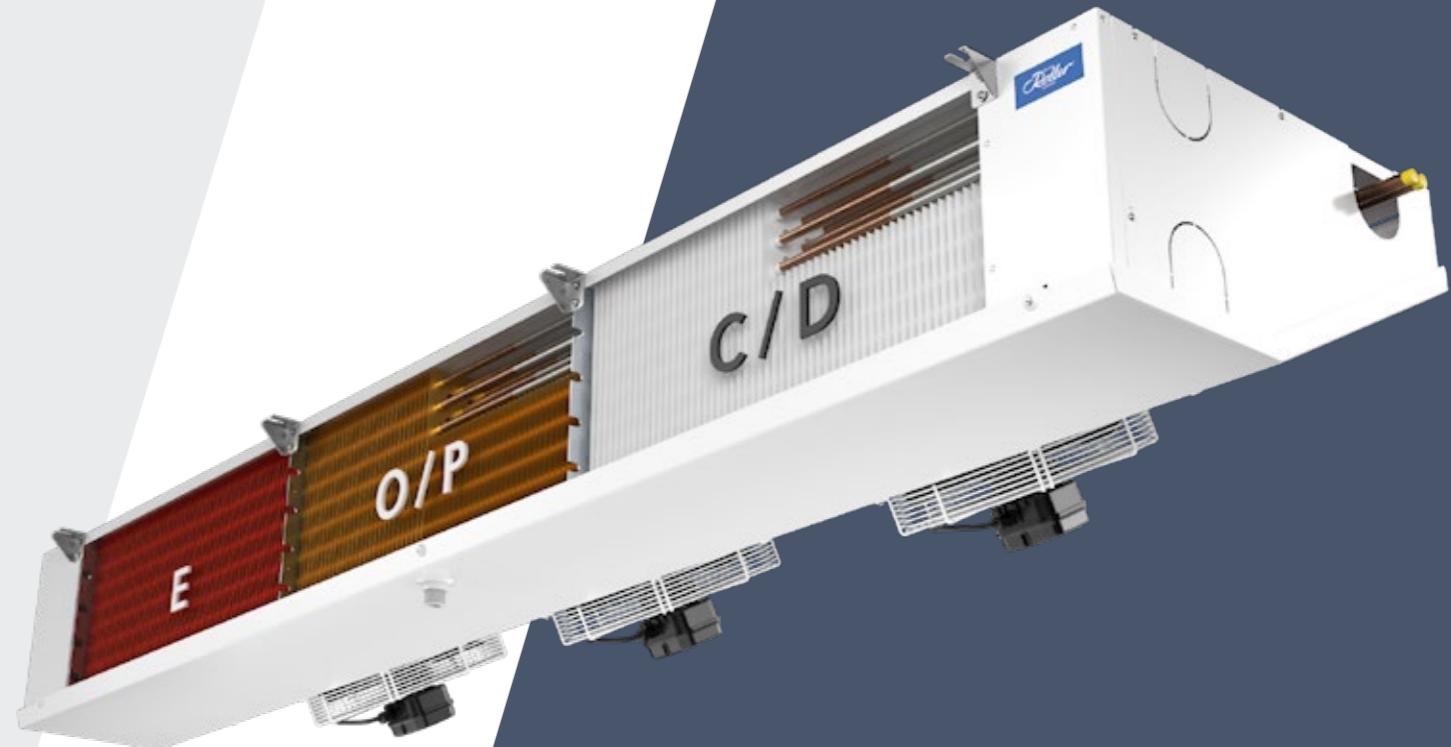
### Corrosion protection - Variant "O and P"

PET coated fins are used wherever corrosion protection against atmospheres containing ammonia or acetic acid and cleaning chemicals must be guaranteed. The corrosion protection variant "O" forms a combination of **copper core tube** and **PET coated aluminium fin**. The corrosion protection variant "P" combines the properties of variant "O" and is supplemented by additional protection of the copper tube. Here, the copper core tube is additionally equipped with a **tin coating** and offers itself as a sacrificial anode.



### Corrosion protection - Variant "E"

Heat exchangers consisting of a **copper core tube** and **copper fins** are used in particularly humid or chloride-containing atmospheres. This variant is therefore used in applications near the sea, swimming pools or where the fin package is exposed to increased mechanical strain.



## CORROSION PROTECTION

Standard	Alumunium	Alu fins	Copper fins and bend sides	Tin-plated core tube	Copper tube	Housing powder coating	Stainless steel (V2A) housing	Bend sides, fins and connections powder coating
Korro C	2-K-Laquer	∅	∅	∅	∅	∅	∅	∅
Korro D	2-K-Laquer	∅	∅	∅	∅	∅	∅	∅
Korro O	PET	∅	∅	∅	∅	∅	∅	∅
Korro P	PET	∅	∅	∅	∅	∅	∅	∅
Korro E	Copper	∅	∅	∅	∅	∅	∅	∅

∅ standard √ optional



For detailed information on corrosion protection, see:  
[www.walterroller.de/en/technology/corrosion-protection](http://www.walterroller.de/en/technology/corrosion-protection)

# Capacities

Model	Capacity Q <sub>0</sub> R404A		Capacity Q <sub>0</sub> R744		Capacity Q <sub>0</sub> A2L (R454C)				Capacity Q <sub>0</sub> H <sub>2</sub> O	Capacity Q <sub>0</sub> Brine (25%) Propylene glycol		Energy efficiency class R744	Energy efficiency class R507A	Surface		Air flow	Tube volume		per fan (Operating values at 230V, 50/60Hz)				Sound pressure level*
	t <sub>o</sub> = -8 °C DT1 = 8 K (SC2)	t <sub>o</sub> = -25 °C DT1 = 7 K (SC3)	t <sub>o</sub> = -8 °C DT1 = 8 K (SC2)	t <sub>o</sub> = -25 °C DT1 = 7 K (SC2)	t <sub>o</sub> = -8 °C DT1 = 8 K (SC2)	t <sub>o</sub> = -8 °C DT1 = 8 K (SC2)	t <sub>o</sub> = -25 °C DT1 = 7 K (SC3)	t <sub>o</sub> = -25 °C DT1 = 7 K (SC3)						HFC/A3	COI		HFC/A3	COI	No.	Fan Ø	Power input	Air throw	
DLK/T...EC	kW	kW	kW	kW	kW	kW	kW	kW	kW			m <sup>2</sup>	m <sup>2</sup>	m <sup>3</sup> /h	dm <sup>3</sup>	dm <sup>3</sup>	Stk.	mm	W	m	dB(A)		

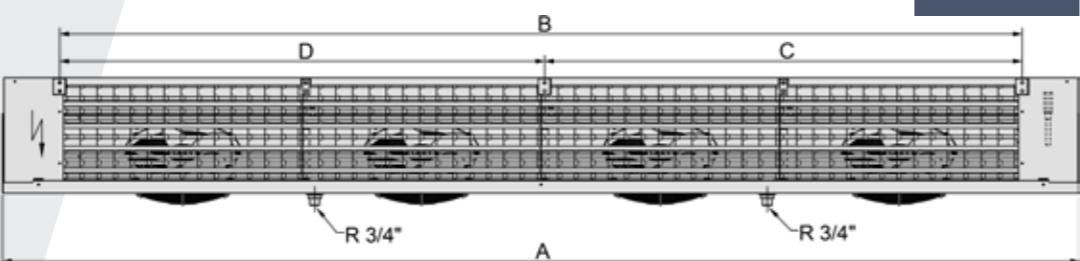
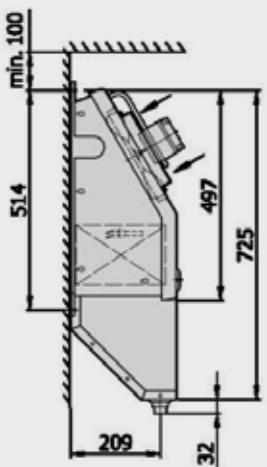
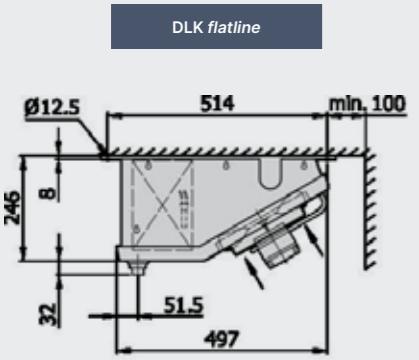
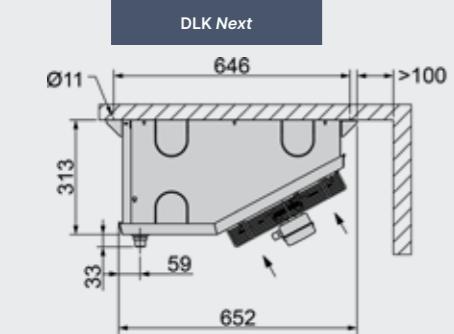
## 401 - 4864 Fin spacing: 4 mm

401	0,91	0,73	0,95	0,63	1,12	0,871	0,91	0,69	2,64	0,56		C	C	4,3	4,3	780	0,80	0,68	1	250	31	6	46
411	1,16	0,86	1,2	0,8	1,43	1,12	1,07	0,81	2,982	0,68		B	B	5,7	5,7	740	1,00	0,94	1	250	31	5	46
421	1,25	0,92	1,32	0,88	1,54	1,19	1,14	0,87	3,143	0,655		B	B	6,4	6,4	890	1,10	1,02	1	250	31	7	46
431	1,47	1,21	1,61	1,08	1,81	1,4	1,5	1,14	4,208	1,089		A	B	8,5	8,5	850	1,60	1,53	1	250	31	6	46
412	2,37	1,78	2,62	1,76	2,92	2,26	2,2	1,68	6,446	1,364		B	B	11,3	11,3	1480	2,00	1,87	2	250	31	7	49
432	3,07	2,36	3,44	2,3	3,78	2,93	2,92	2,22	8,86	1,88		A	B	17	17	1700	2,90	2,72	2	250	31	8	49
413	3,58	2,70	3,88	2,60	4,41	3,42	3,35	2,55	-	-		B	B	17	17	2220	3,10	2,89	3	250	31	9	51
433	4,66	3,48	5,31	3,55	5,73	4,44	4,32	3,29	-	-		A	A	25,5	25,5	2550	4,90	4,59	3	250	31	10	50
414	4,80	3,62	5,48	3,67	5,90	4,57	4,49	3,42	-	-		B	B	22,7	22,7	2960	4,10	4,51	4	250	31	11	51
434	6,17	4,76	7,07	4,73	7,60	5,89	5,90	4,49	-	-		A	B	34	34	3400	6,50	6,12	4	250	31	12	51
4841	2,59	2,05	3,03	2,38	-	-	-	-	7,20	2,22		A	B	11,9	12,2	1390	2,72	1,43	1	300	60	10	46
4861	3,31	2,41	3,73	2,82	-	-	-	-	8,68	2,38		A	A	18,8	18,3	1300	4,05	2,12	1	300	60	10	46
4842	5,01	3,99	6,09	4,79	-	-	-	-	14,39	4,44		A	B	23,8	24,4	2780	5,13	2,68	2	300	60	11	48
4862	6,46	4,75	7,55	5,71	-	-	-	-	17,47	4,38		A	A	35,7	36,6	2600	7,63	3,98	2	300	60	11	48
4843	7,83	5,69	9,10	6,94	-	-	-	-	20,65	6,66		A	B	35,7	36,6	4170	7,47	3,91	3	300	60	13	50
4863	9,40	7,32	11,36	8,61	-	-	-	-	24,82	5,64		A	A	53,5	54,9	3900	11,20	5,82	3	300	60	13	50
4844	9,20	7,45	11,25	8,88	-	-	-	-	27,12	5,10		B	B	44,2	45,3	5290	9,21	4,79	4	300	60	15	51
4864	12,27	9,18	13,76	10,49	-	-	-	-	31,45	6,60		A	A	66,2	68,0	4950	13,71	7,15	4	300	60	15	51

## 601 - 634 Fin spacing: 6 mm

601	0,70	0,55	0,77	0,52	0,86	0,67	0,68	0,52	2,06	0,49		C	C	2,9	2,9	820	0,80	0,68	1	250	31	6	46
611	0,96	0,70	1,01	0,37	1,18	0,92	0,87	0,66	2,79	0,70		B	B	3,9	3,9	780	1,00	0,94	1	250	31	5	46
621	1,03	0,75	1,09	0,73	1,27	0,98	0,92	0,73	2,86	0,67		B	B	4,4	4,4	940	1,10	1,02	1	250	31	7	46
631	1,28	0,97	1,39	0,93	1,57	1,22	1,21	0,92	3,45	0,96		A	A	5,9	5,9	910	1,60	1,53	1	250	31	6	46
612	1,95	1,44	2,21	1,48	2,40	1,86	1,78	1,35	5,59	1,72		B	B	7,8	7,8	1560	2,00	1,87	2	250	31	7	49
632	2,54	1,90	2,96	1,98	3,12	2,42	2,36	1,79	7,29	1,32		A	A	11,7	11,7	1820	2,90	2,72	2	250	31	8	49
613	2,94	2,17	3,26	2,18	3,61	2,80	2,69	2,05	-	-		B	B	11,7	11,7	2340	3,10	2,89	3	250	31	9	51
633	3,91	2,86	4,61	3,08	4,81	3,73	3,55	2,70	-	-													

# Dimensions & Weight



## DLK flatline

Model	Dimensions in mm				Weight in kg							
					HFC				COI			
	A	B	C	D	4	6/7	4	6/7	4	6/7	4	6/7
DLK/T												
X01 EC	660	420	-	-	10	9/9	11	10/10	11	10/10	12	11/11
x11 EC	660	420	-	-	11	10/10	12	11/11	12	11/11	13	12/12
x21 EC	860	620	-	-	12	11/11	13	12/12	13	12/12	14	13/13
x31 EC	860	620	-	-	13	12/12	14	13/13	14	13/13	14	14/14
x12 EC	1062	822	-	-	18	17/16	20	18/18	20	18/19	22	20/20
x32 EC	1462	1222	-	-	23	21/20	24	23/23	24	23/22	26	24/24
x13 EC	1462	1223	-	-	25	24/23	28	25/24	27	24/23	30	27/26
x33 EC	2063	1823	-	-	32	30/29	35	32/32	35	32/32	38	35/34
x14 EC	1865	1625	-	-	32	29/28	36	32/32	35	32/31	39	35/34
x34 EC	2665	2426	1223	1202	42	39/37	46	42/41	46	42/41	50	46/44
A2L/A3												
x01 EC*	660	420	-	-	10	9/9	12	11/11	-	-	-	-
x11 EC*	660	420	-	-	11	10/10	13	12/12	-	-	-	-
x21 EC*	860	620	-	-	12	11/11	14	13/13	-	-	-	-
x31 EC*	860	620	-	-	13	12/12	15	14/14	-	-	-	-
x12 EC*	1062	822	-	-	18	17/16	21	19/19	-	-	-	-
x32 EC*	1462	1222	-	-	23	21/20	25	24/23	-	-	-	-
x13 EC*	1462	1223	-	-	25	24/23	30	26/25	-	-	-	-
x33 EC*	2063	1823	-	-	32	30/29	37	34/33	-	-	-	-
x14 EC*	1865	1625	-	-	32	29/28	38	35/34	-	-	-	-
x34 EC	2665	2426	1223	1202	42	39/37	49	45/44	-	-	-	-

\*only these types are available with A2L/A3 refrigerants in T-version

## DLK Next

Model	Dimensions in mm				Weight in kg							
					HFC				COI			
	A	B	C	D	4	7	4	7	4	7	4	7
DLK/T												
x841 EC	1032	720	-	-	21	20	23	22	22	21	24	23
x861 EC	1032	720	-	-	23	22	25	24	24	23	26	25
x842 EC	1732	1420	-	-	42	39	45	42	45	42	48	45
x862 EC	1732	1420	-	-	45	42	48	45	48	45	51	48
x843 EC	2432	2120	1400	720	64	59	69	64	69	64	74	69
x863 EC	2432	2120	1400	720	68	63	73	68	73	68	78	73
x844 EC	2932	2620	1300	1320	94	87	101	94	101	94	108	101
x864 EC	2932	2620	1300	1320	99	92	106	99	106	99	113	106

More Service.  
More Performance.  
More Partnership.



#### ... 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



#### 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 as well as 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)



**Walter Roller GmbH & Co.**

Manufacturer of refrigeration and airconditioning equipment

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