



# New Industrial Cubic Unit Coolers



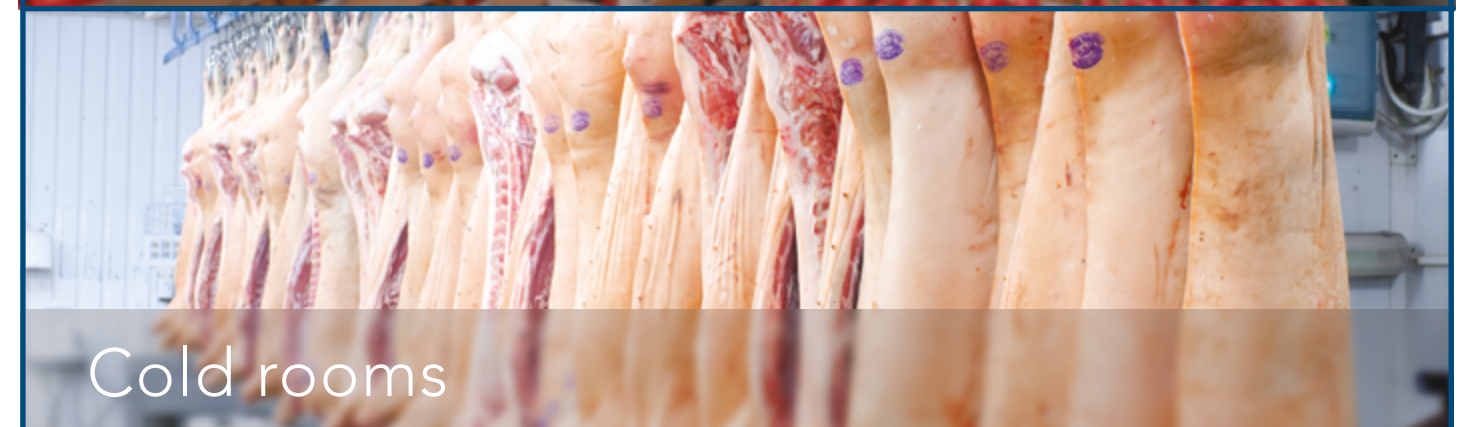
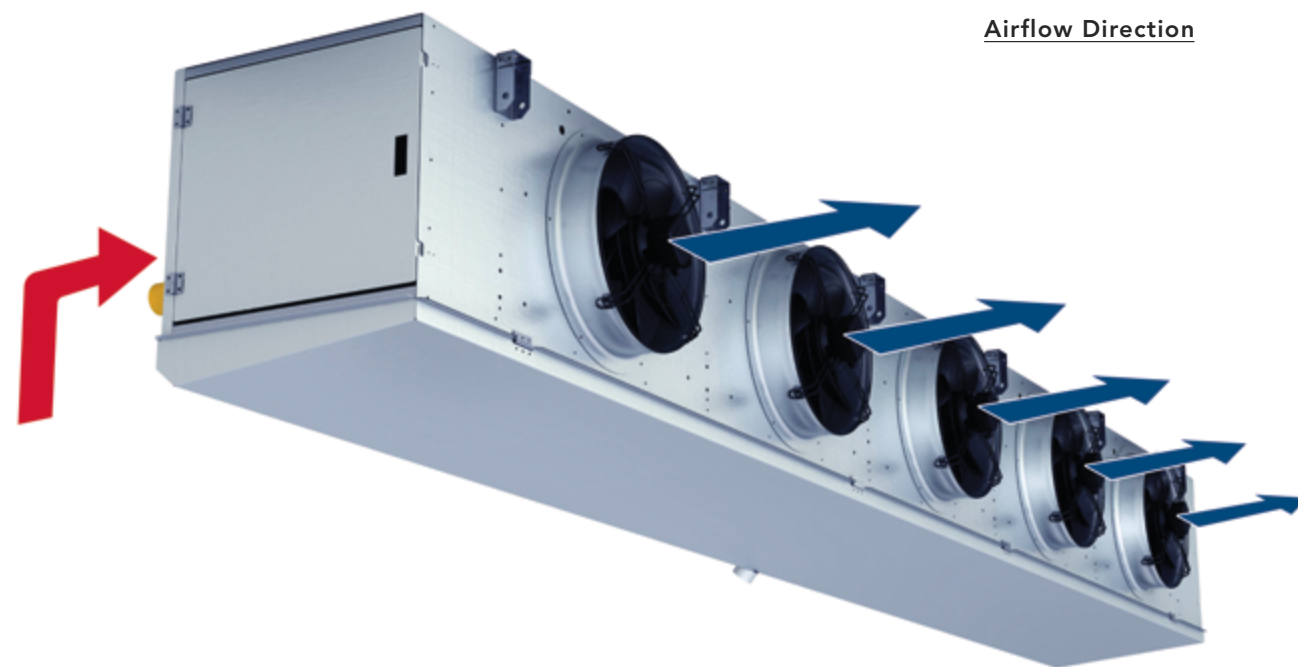
**One single smart platform  
offering a wide range of solutions**



## Applications

Thanks to a considerable air flow and an optimal air distribution, the new Cubic Units have been designed in order to be installed in industrial refrigeration of food market, in medium and large cold storage rooms or refrigerated warehouses, for the preservation of fresh and frozen products, for aging process, for long time preservation and for the air conditioning of medium and large processing rooms.

All units are equipped with high efficiency fan motors, and the new cubic design allows the best air performances.

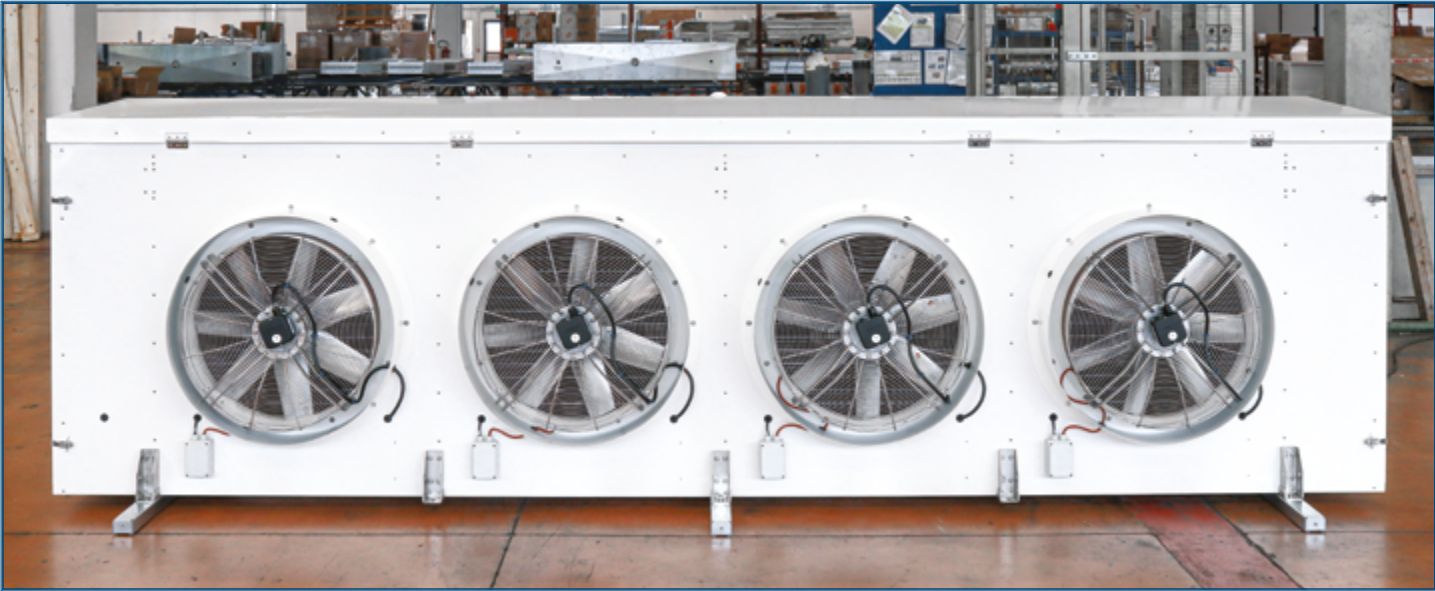




OPERATION TYPES AND PERFORMANCES

- **ICX evaporator for standard refrigerants (range from 6 kW to 141 kW) in standard condition:**  
R404A, Te= -8° C, T1= 0°C, RH= 85%
- **ICB standard Brine Unit Coolers (range from 7 kW to 166 kW) in standard condition:**  
GE 30%, Ti= -10° C, T1= 0°C, RH= 85%
- **ICN Ammonia Unit Cooler (range from 10 kW to 200 kW) in standard condition:**  
R717, Te= -8° C, Tr= 0°C, RH= 85%, 4 recirculations
- **ICC carbon dioxide evaporators (range from 6 kW to 150 kW) in standard condition:**  
R744, Te= -8° C, Tr= 0°C, RH= 85%

Model: ICC 6341108, 4x630 fan motors



MODEL DIMENSIONS

- Models with **500 mm** fan diameter, from 1 to 5 fan motors, finned pack module 1000 mm, 12 tubes and 6-8-10 rows heat exchanger.
- Models with **560 mm** fan diameter, from 1 to 5 fan motors, finned pack module 1000 mm, 18 tubes and 6-8-10 rows heat exchanger.
- Models with **630 mm** fan diameter, from 1 to 5 fan motors for the evaporators finned pack module 1000 mm, 24 tubes and 6-8-10 rows heat exchanger.

TK Archimede  
precision and reliability

ThermoKey's Archimede software guides you in selecting the most suitable air heat exchangers and automatically elaborates a technical data sheet.

More than 600 models Industrial Cubic Unit Coolers can be selected

**YOU CAN DOWNLOAD THE SOFTWARE**

scan the QR code or use the website link  
[www.thermokey.com/download/software](http://www.thermokey.com/download/software)





# Product features

## FINNED PACK

- Standard finned pack made of aluminium fins and copper or stainless steel tubes.
  - grooved copper tubes for ICX models
  - smooth cooper tubes for ICB models
  - smooth stainless steel tubes for ICN models
  - smooth copper tubes for ICC models
- Aluminium endplates to avoid copper tubes damage.
- A wide standard range of fin spacing: 4,5 mm, 6 mm, 7mm, 8 mm, and up to 11mm for low temperature applications.

## FANS

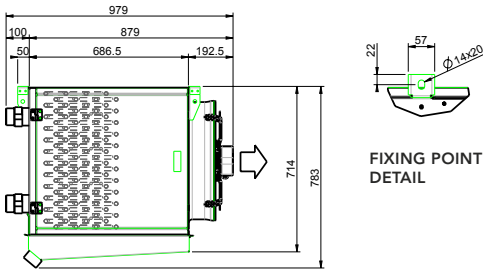
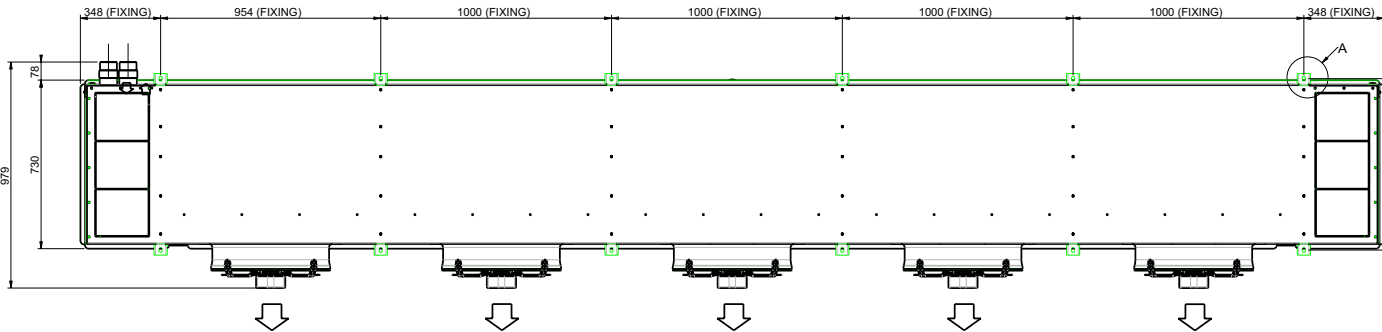
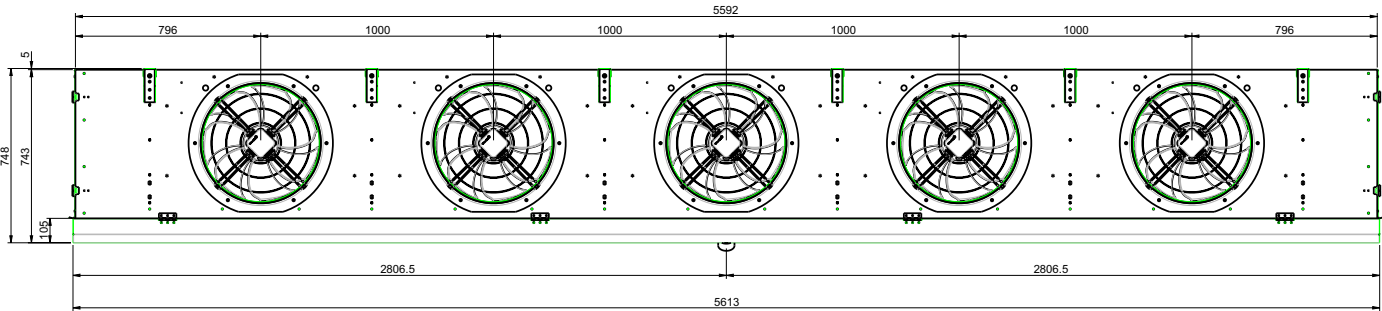
- Suction high efficiency fan motors, ErP compliant, Ziehl-Abegg or EBM brand, IP54 grade
- Fan motor full bell mouth, ErP compliant, design made of galvanized steel, epoxy-polyester powder coated RAL 9006/9010, environmental resitance class C3
- Standard dual speed fan motors 4+4 poles, supply 400V/3/50Hz
- Delta connection for high speed, star connection for low speed

## STRUCTURAL CHARACTERISTIC

- All panels are made of AlMg3 magnesium aluminium alloy (Peraluman 5754) to ensure the maximun combination of lightness, mechanical strength and corrosion resistance
- External panels are 80 micron RAL 9010 powder coated for a best easy cleaning and hygienic maintenance, on request
- Ceiling fixing brackets are made of stainless steel AISI 304 ensuring more structural safety over time
- Stainless steel bolts A2-70
- Stainless steel structural rivets

# Fan motor casing dimensions

## 5X500 FAN MOTOR CASING DIMENSIONS

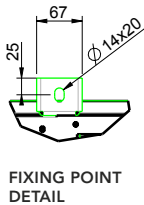
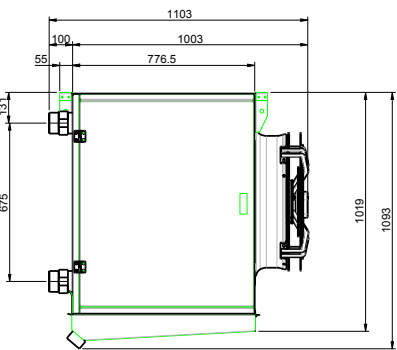
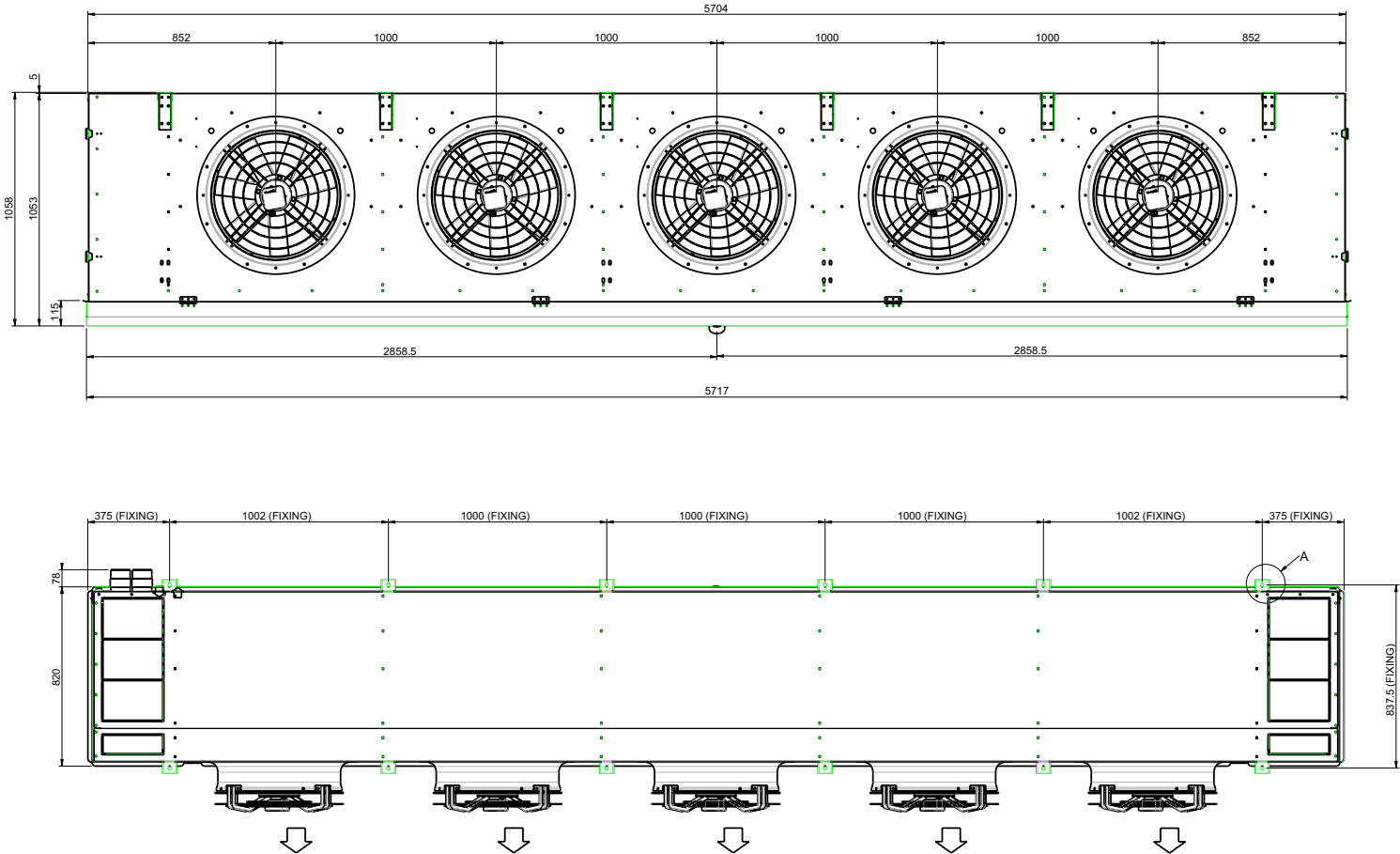


## MODELS WITH 500 MM FAN DIAMETER

- from 1 to 5 fans
- finned pack module 1000 mm
- 12 tubes and 6-8-10 rows heat exchanger

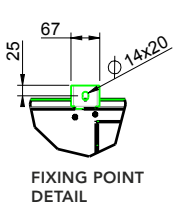
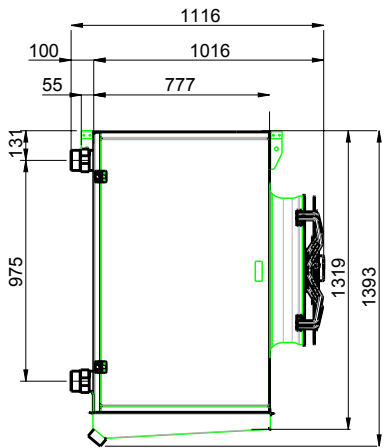
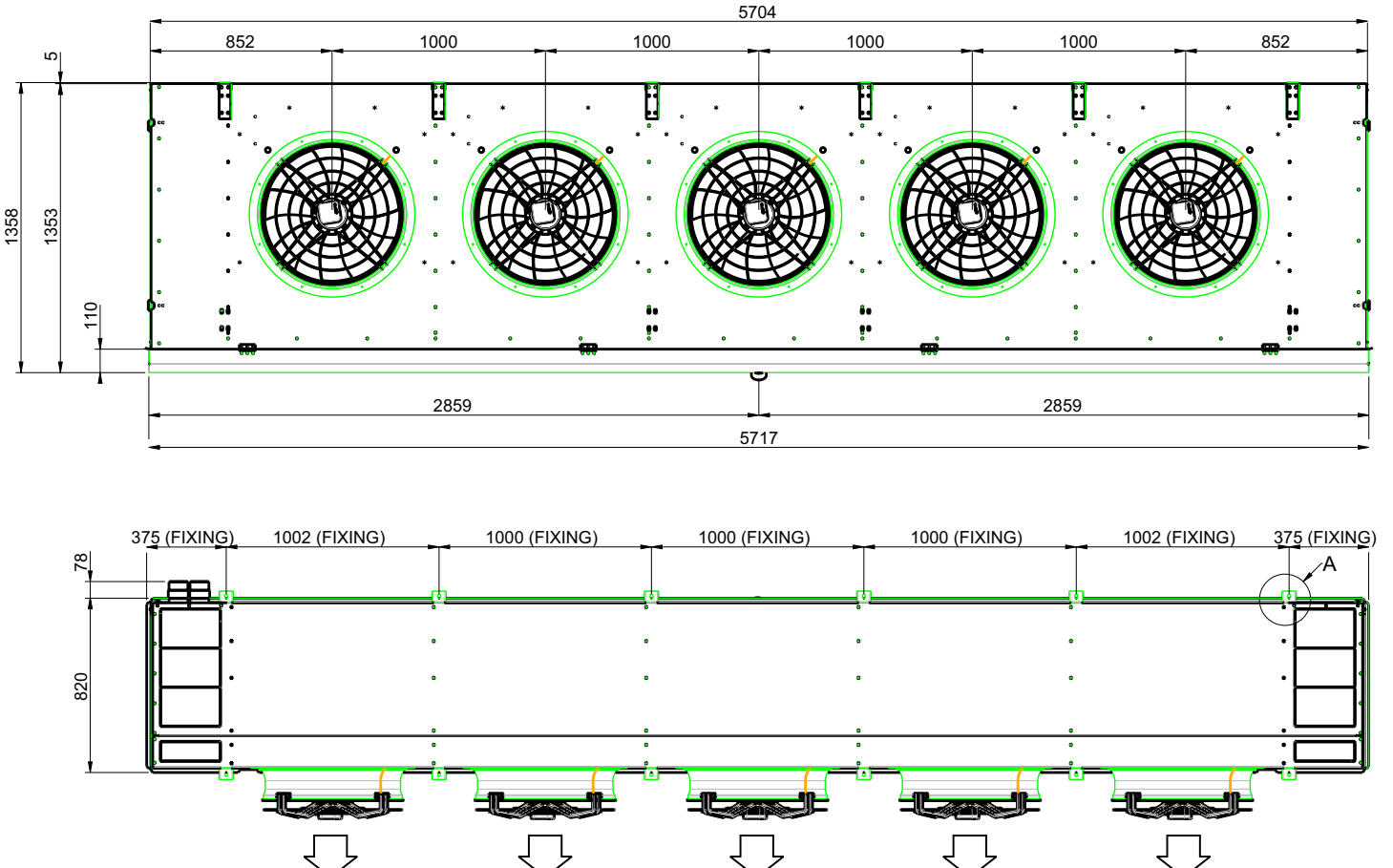


5X560 FAN MOTOR CASING DIMENSIONS



- MODELS WITH 560 MM FAN DIAMETER**
- from 1 to 5 fans
  - finned pack module 1000 mm
  - 18 tubes and 6-8-10 rows heat exchanger

5X630 FAN MOTOR CASING DIMENSIONS



- MODELS WITH 630 MM FAN DIAMETER**
- from 1 to 5 fans
  - finned pack module 1000 mm
  - 24 tubes and 6-8-10 rows heat exchanger

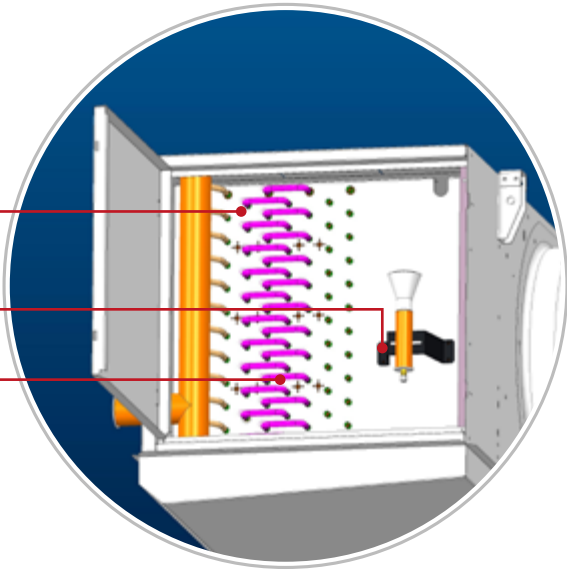


Structural features

PERALUMAN STANDARD ENDPLATE

(INTERNALLY) DISTRIBUTOR FIXED ON ENDPLATE (ONLY FOR DX MODE)

HEATER WITH SCREW FIXING PLATE TO AVOID HEATER MIGRATION



HIGH CONTACT SURFACE BRACKETS FOR HIGH EFFICIENCY DEFROSTING



STAINLESS STEEL FIXING BRACKETS

ALUMINIUM ALMG3 INTERNAL HINGED DRIP TRAY

ALUMINIUM ALMG3 EXTERNAL HINGED DRIP TRAY

ALUMINIUM DRAIN CONNECTIONS:  
- SLOPE WELDED  
- 2" GAS INTERNALLY THREADED

ALUMINIUM ALMG3 ALLOY ENDPLATES

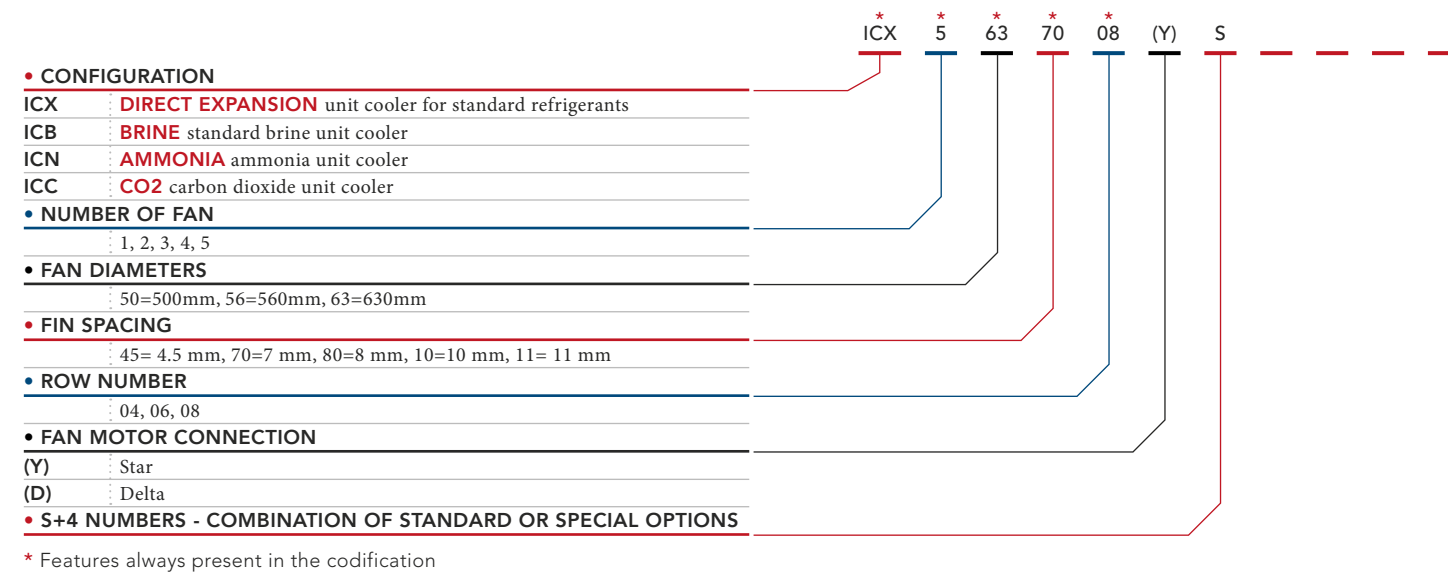
HINGED PANEL

LATCHES WITH SPRING CLIP

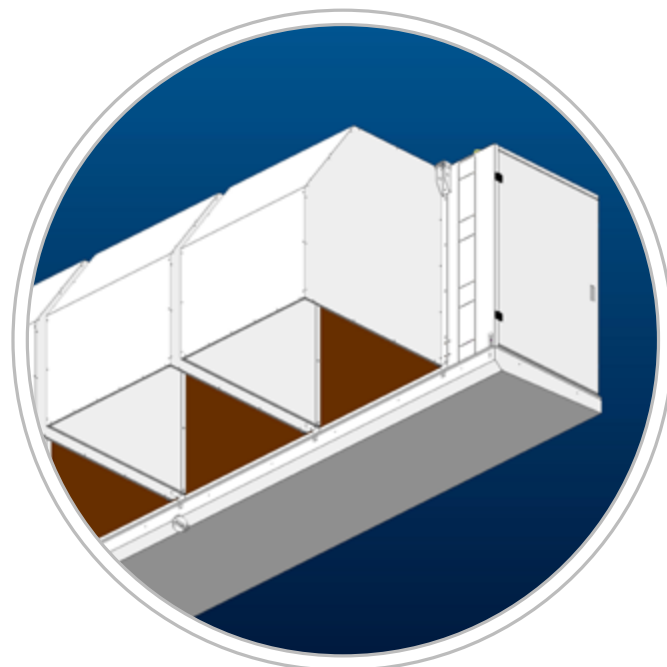




## Codification



## Available options



- Defrosting systems
  - Standard electric defrost
  - HOT GAS defrost
  - Mixed HOT GAS and electric defrost
  - Internal drip tray electric defrost
  - Fan motor full bell mouth defrost
- EC fan motors
- Aluminium prepainted heat exchanger fins
- Electric coated heat exchanger
- Double coated heat exchanger
- Double Insulated external drip tray
- Upward connected heat exchanger
- External drip tray to prevent drop projections for high humidity environments
- Flexible drain heater
- Fan motor full bell mouth heater
- Upward connection Kit
- Air intake hood

## Options and accessory chart



		ICX	ICB	ICN	ICC
PV	Prepainted fins				
CTF	Cataphoresis coil painting				
D	Double layer painting				
C	Copper fins				
SSF	Stainless steel fins				
SST	Stainless steel tubes				
SSC	Stainless steel coil				
FS x x	Specific fin space				
C x x x	Optimised coil circuits (evaporators/condensers)				
W x x x	Water coil circuits				
N x x	Flooded coil circuits				
P x x	Pump circuits				
G x x x x	Specific geometry				
SP x x	Fin thickness				
CD	Right outlet headers (standard left)				
CT	Top outlet headers				
FI	Inverted fluid direction model				
DU	Coil with heating rows				
ID	Double - insulated drip tray				
SSD	Stainless steel drip tray				
SSP	Stainless steel casing				
AN	Neutral model				
M	Single-phase motors (Standard three-phase)				
6P	6 Poles motors (Standard 4 POLES)				
60Hz	60Hz motors (Standard 50Hz)				
T3	230/3/60Hz motors				
UL	UL/CSA fan motors				
EC	Electronic commutated fan motors				
E	Standard electric defrost (Coil / internal drip tray)				
ER	Reduced electric defrost (Coil / internal drip tray)				
H	Standard hot gas defrost (Coil / serpentine under internal drip tray)				
G	Mixed hot gas defrost (Coil / electric under internal drip tray)				
ES	Electric internal drip tray defrost only				
ELB	Full bell mouth fan motor electric defrost				
WW	Warm glycol defrost (Tubes in coil / serpentine under internal drip tray)				
WE	Warm glycol defrost (Tubes in coil / electric under internal drip tray)				
R	Drain flexible heater				
DEF	Deflectors				
CDR	Air intake hood				

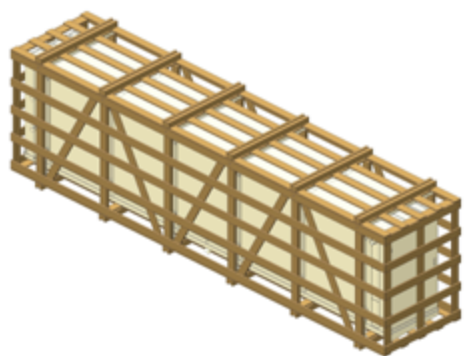




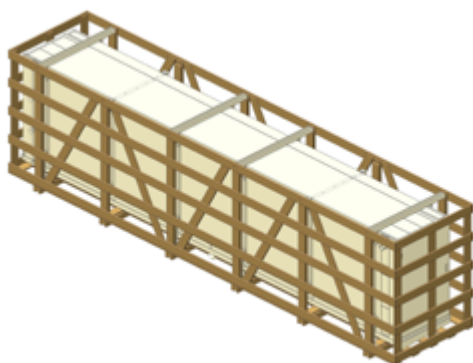


# Packaging

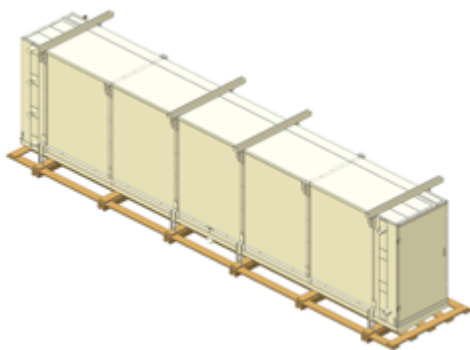
## Package disassembly sequence



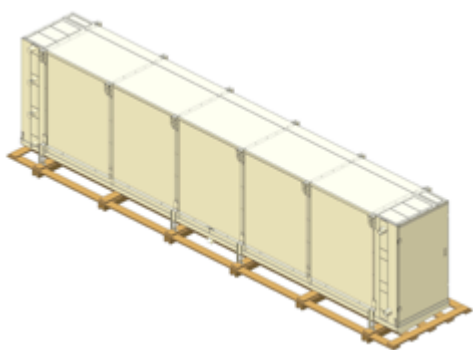
MOVE TO INSTALLATION SITE



REMOVE COVER



REMOVE SIDE PANELS



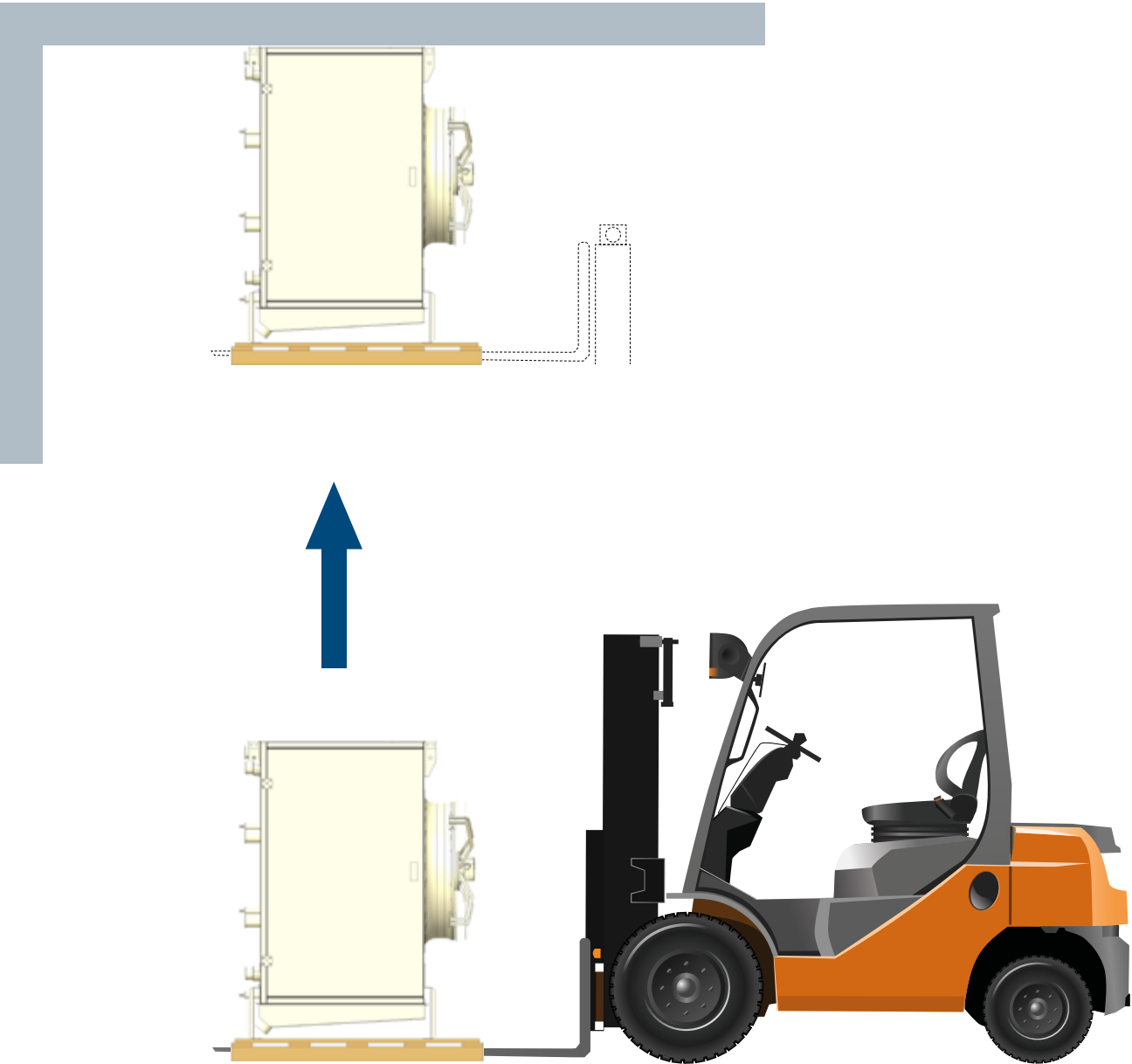
READY FOR INSTALLATION

### PACKAGING DETAILS

- Wooden crate suitable for easy installation
- High temperature treated wood

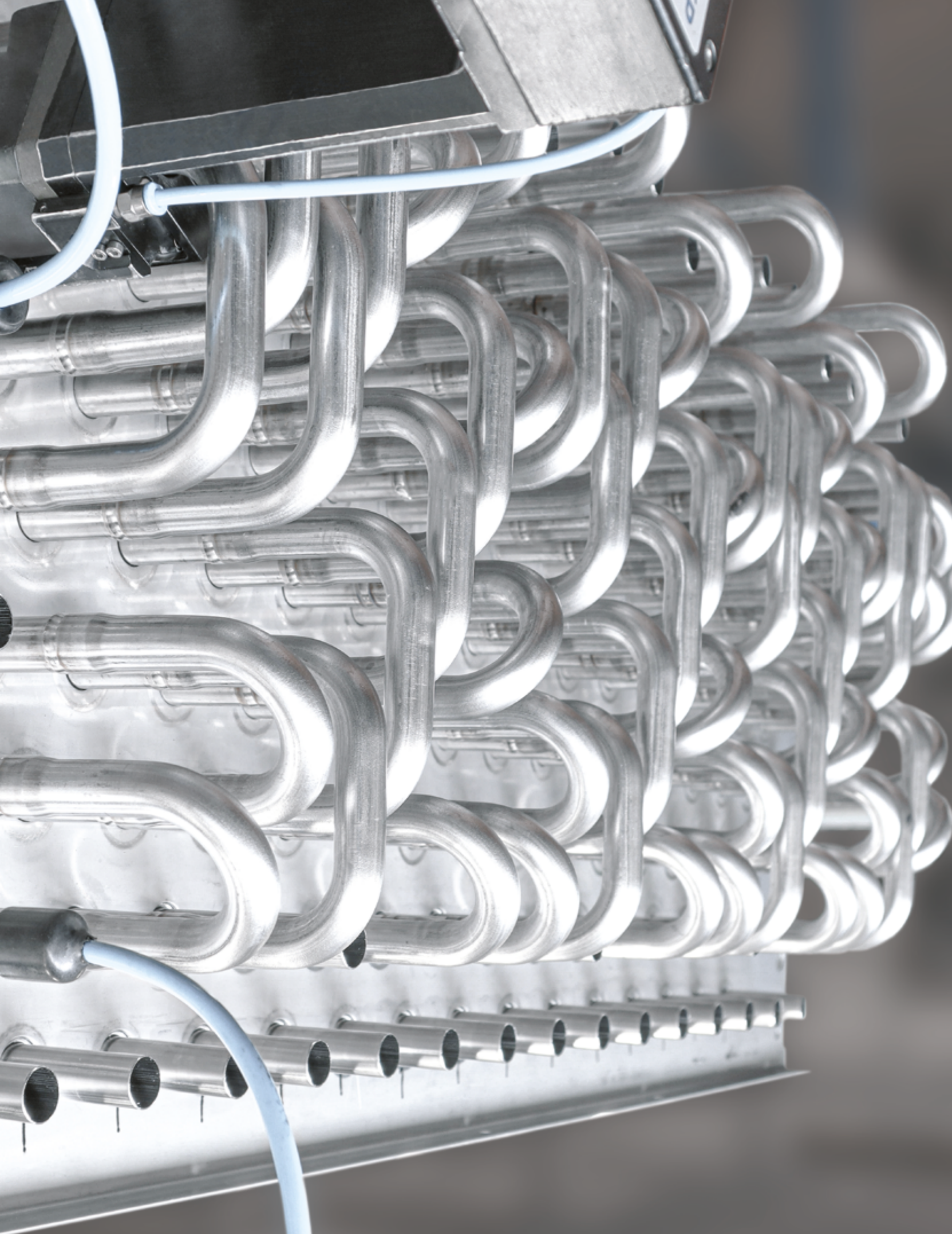
# Model positioning

## LIFT, POSITION AND FIX THE UNIT COOLER





Direction  
Acrobatik  
—  
IC1020EN



## ThermoKey®

Heat Exchange Solutions

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