



New Industrial Dual Flow Unit Coolers





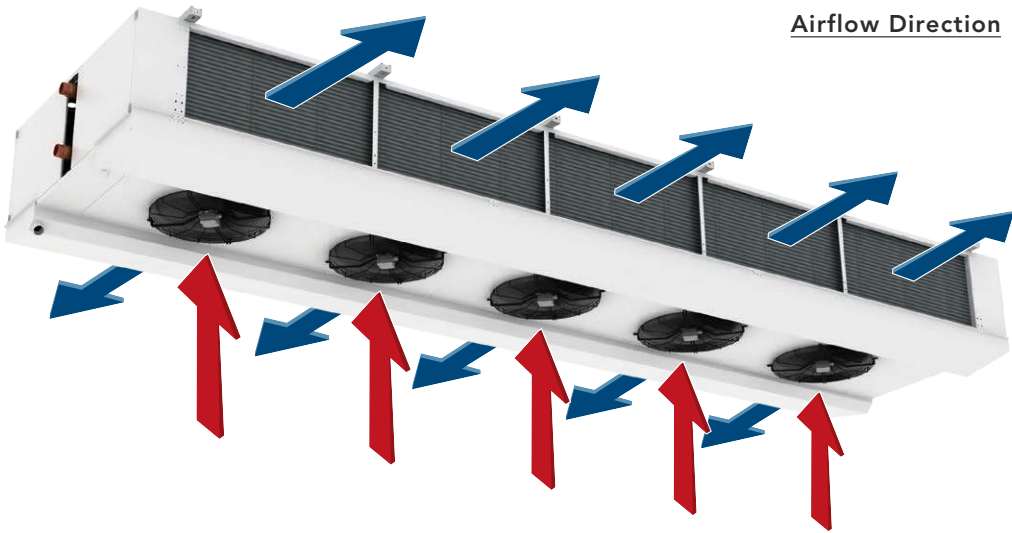
**One single smart platform
offering a wide range of solutions**

Applications

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

All units are equipped with high efficiency fan motors.

The dual flow design allows the best air distribution also in limited height rooms and gives a good choice when air ducts can't be used or are not planned.



OPERATION TYPES AND PERFORMANCES

- DFX evaporator for standard refrigerants (range from 7 kW to 105 kW) in standard condition: R404A, Te= -8° C, T1= 0°C, RH= 85%
- DFB standard Brine Unit Coolers (range from 10 kW to 130 kW) in standard condition: GE 30%, Ti= -10° C, T1= 0°C, RH= 85%
- DFN Ammonia Unit Cooler (range from 10 kW to 175 kW) in standard condition: R717, Te= -8° C, Tr= 0°C, RH= 85%, 4 recirculations
- DFC carbon dioxide evaporators (range from 6 kW to 108 kW) in standard condition: R744, Te= -8° C, Tr= 0°C, RH= 85%

MODEL DIMENSIONS

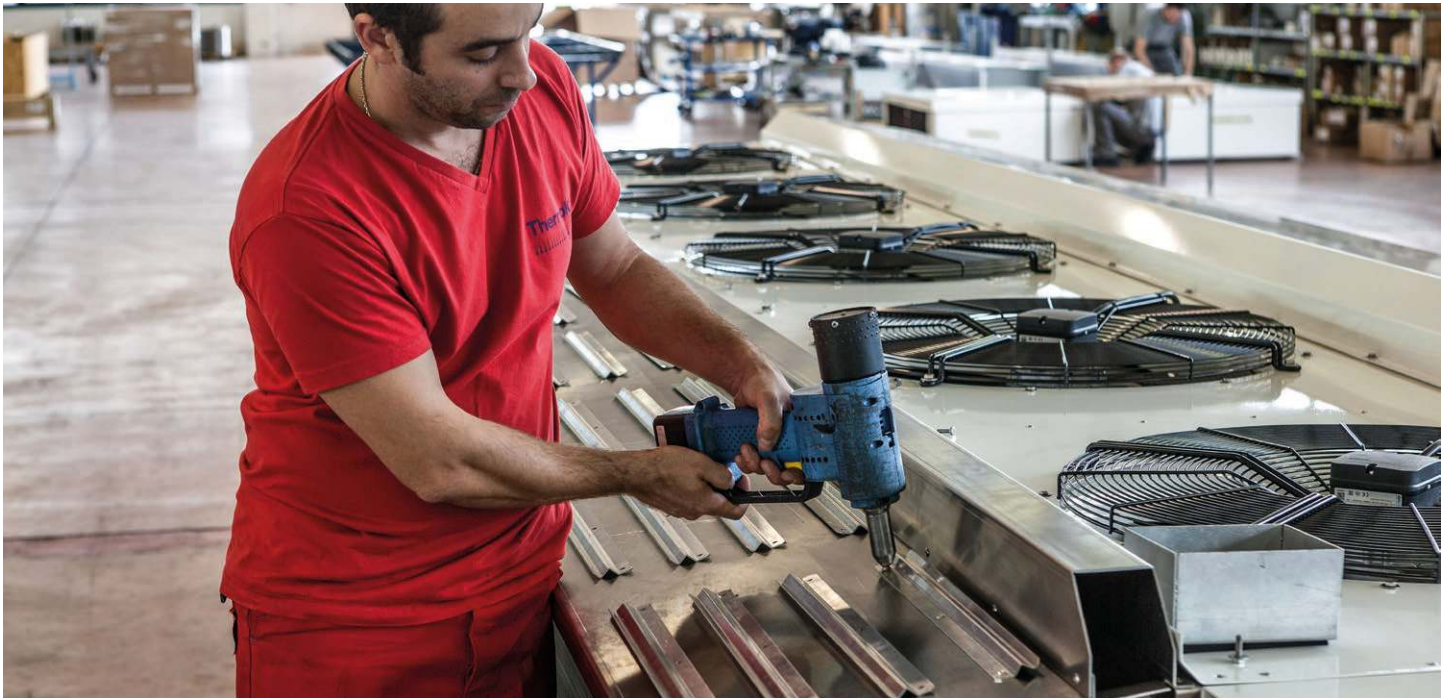
- Models with **500 mm** fan diameter, from 1 to 4 fan motors, finned pack module **1000 mm**, 8 tubes and 4-6-8 rows heat exchanger.
- Models with **560 mm** fan diameter, from 1 to 4 fan motors, finned pack module **1000 mm**, 12 tubes and 4-6-8 rows heat exchanger.
- Models with **630 mm** fan diameter, from 1 to 4 fan motors for the evaporators, up to 5 fan motors for brine coolers, finned pack module **1200 mm**, 12 tubes and 4-6-8 rows heat exchanger.

More than 800 models Dual Flow Unit Coolers can be selected



ARCHIMEDE SOFTWARE

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



Product features

FINNED PACK

- Standard finned pack made of aluminium fins and copper or stainless steel tubes.
 - grooved copper tubes for DFX models
 - smooth cooper tubes for DFB models
 - smooth stainless steel tubes for DFN models
 - smooth copper tubes for DFC models
- Aluminium endplates to avoid copper tubes damage.
- Standard fin spacing: 4,5 mm for high temperature applications, 7 mm and 10 mm for low temperature applications.

FANS

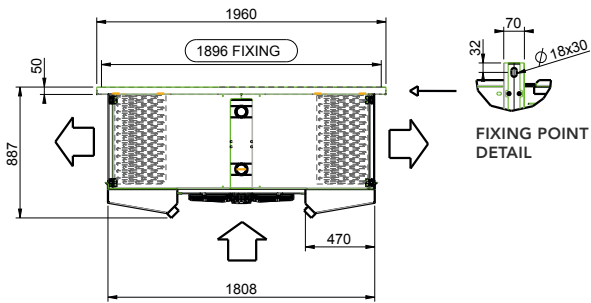
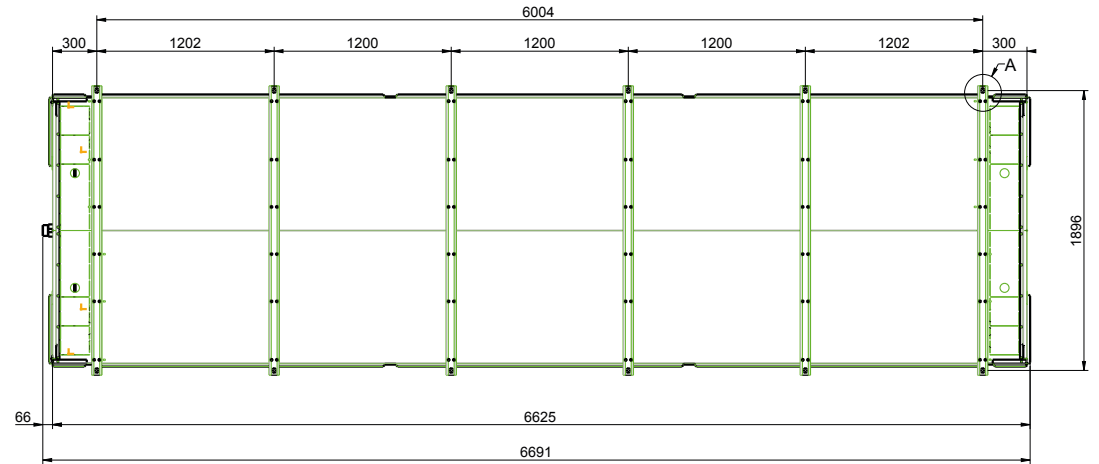
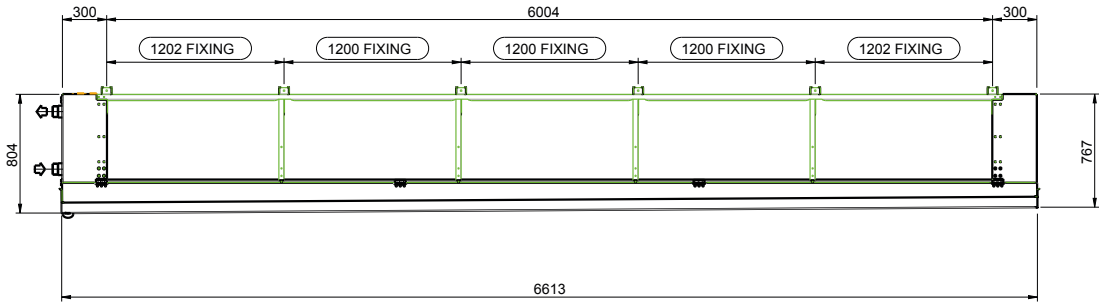
- Blow through high efficiency fan motors, ErP2015 compliant, Ziehl-Abegg or EBM brand, IP54 grade
- Fan motor full bell mouth, ErP2015 compliant, design made of galvanized steel, epoxy-polyester powder coated RAL 9010, environmental resitance class C3
- Standard dual speed fan motors 4+4 poles, supply 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.
- 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

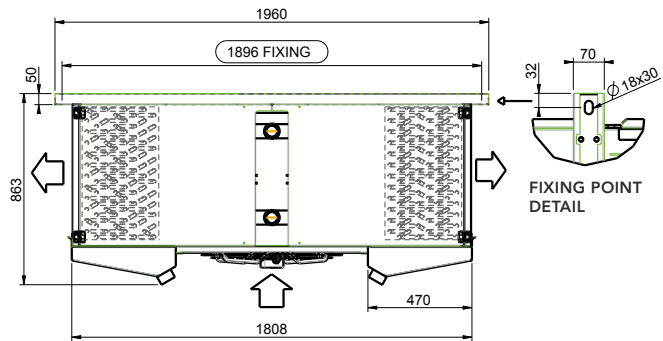
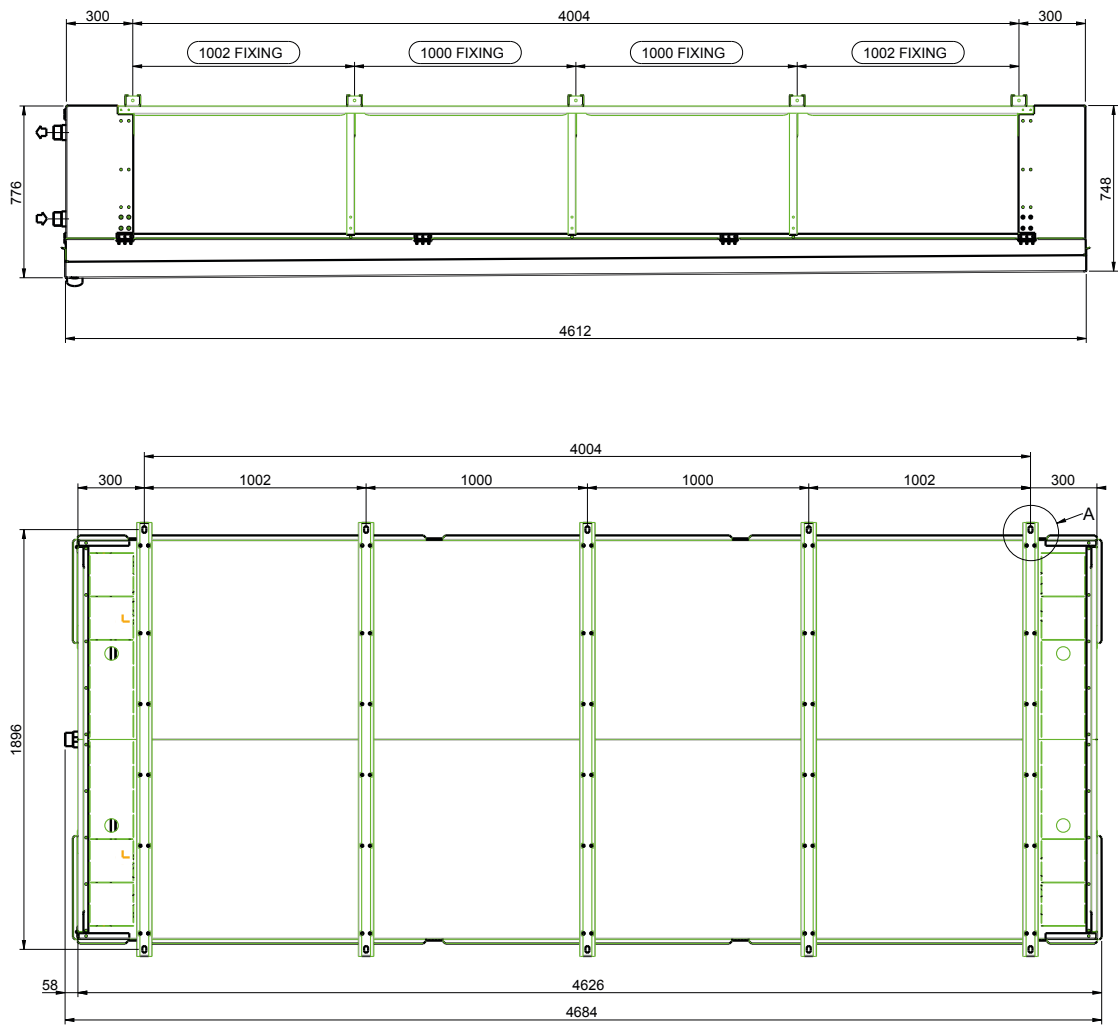
5X630 FAN MOTOR CASING DIMENSIONS



MODELS WITH 630 MM FAN DIAMETER

- from 1 to 4 fans
- up to 5 fans for Brine Unit Coolers
- finned pack module 1200 mm
- 12 tubes and 4-6-8 rows heat exchanger

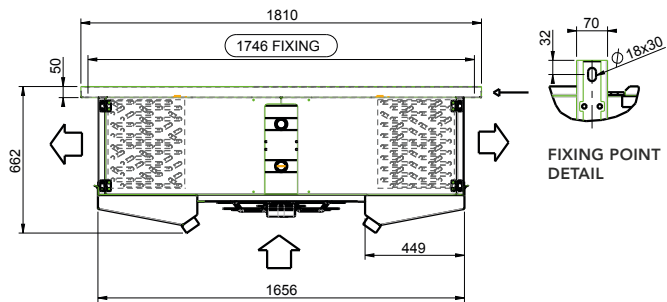
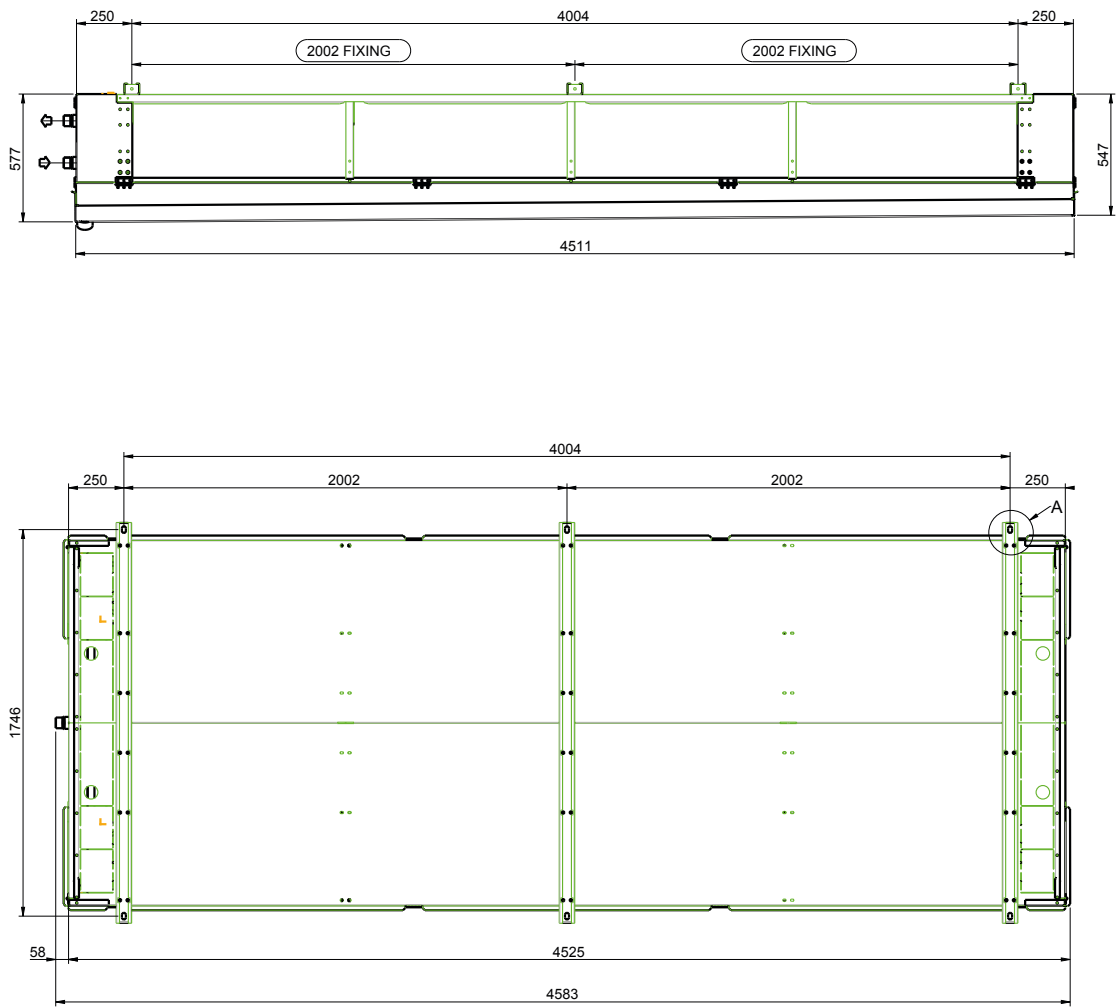
4X560 FAN MOTOR CASING DIMENSIONS



MODELS WITH 560 MM FAN DIAMETER

- from 1 to 4 fans
- finned pack module 1000 mm
- 12 tubes and 4-6-8 rows heat exchanger

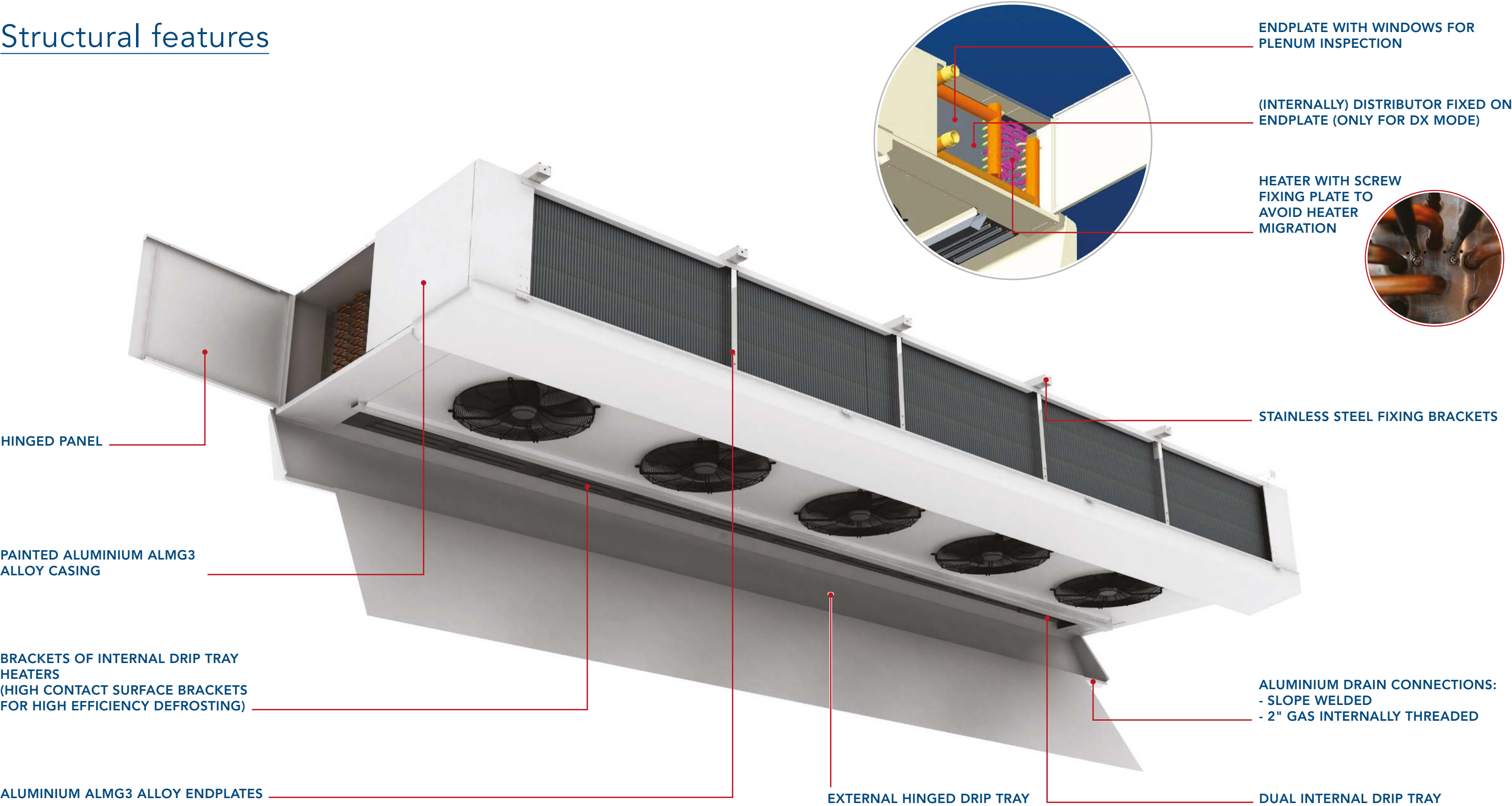
4X500 FAN MOTOR CASING DIMENSIONS



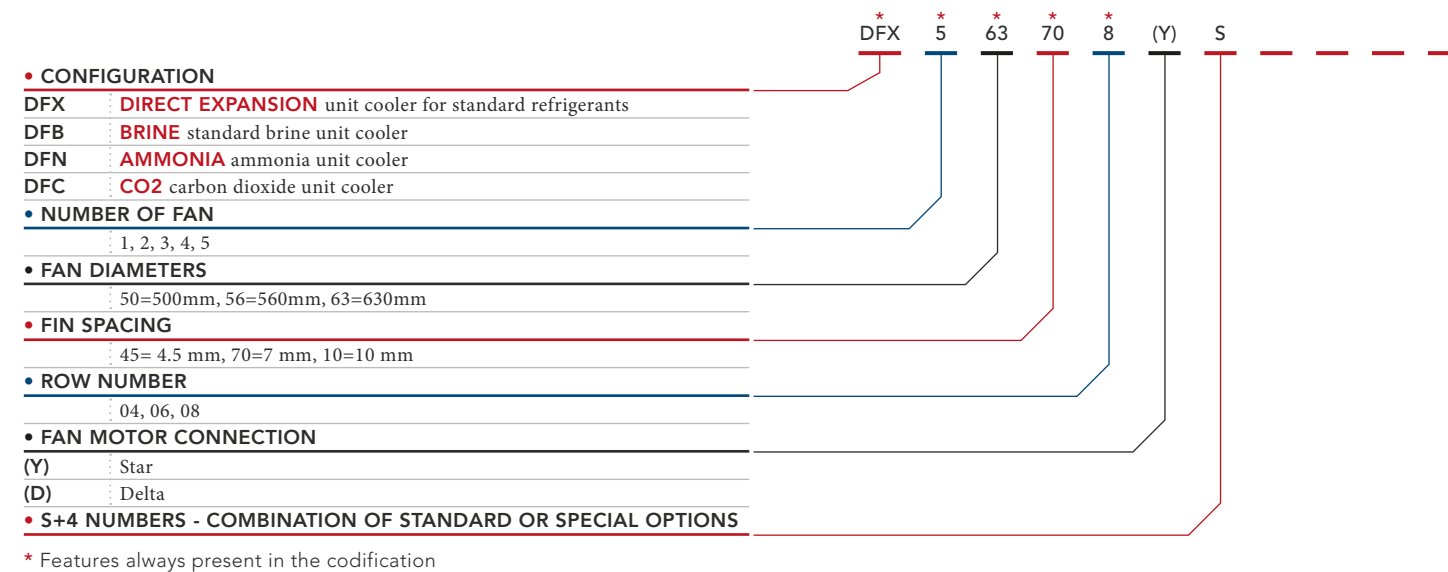
MODELS WITH 500 MM FAN DIAMETER

- from 1 to 4 fans
- finned pack module 1000 mm
- 8 tubes and 4-6-8 rows heat exchanger

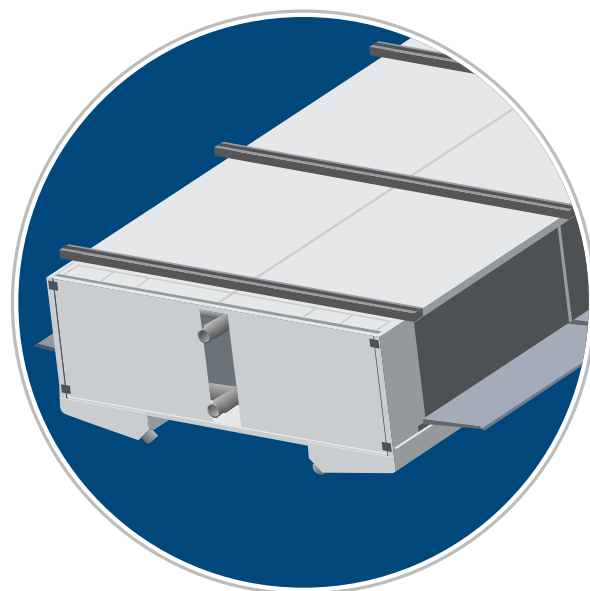
Structural features



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 umidity enviroments
- Flexible drain heater
- Fan motor full bell mouth heater
- Upward connection Kit

Options and accessory chart

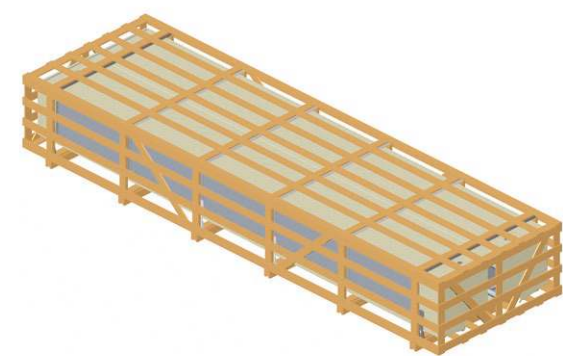


		DFX	DFB	DFN	DFC
PV	Prepainted fins				
CTF	Cataphoresis coil painting				
D	Double layer painting				
C	Copper fins				
SSF	Stainless steel fins				
SST	Stainless steel tubes				
SSC	Stainless steel coil				
FS x x	Specific fin space				
C x x x	Optimised coil circuits (evaporators/condensers)				
W 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				
TF	Top fan motor intake				
MA	Openable fan panel				
ID	Double - insulated drip tray				
SSD	Stainless steel drip tray				
SSF	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				
EB	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				

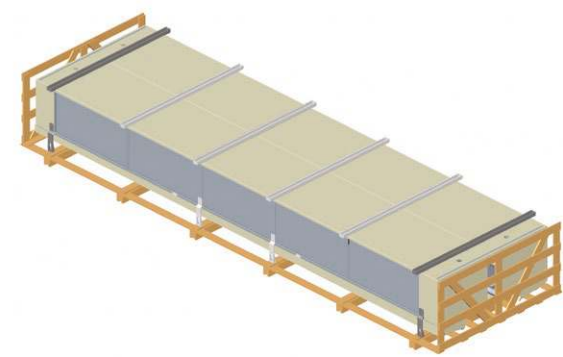


Packaging

Package disassembly sequence



MOVE TO INSTALLATION SITE



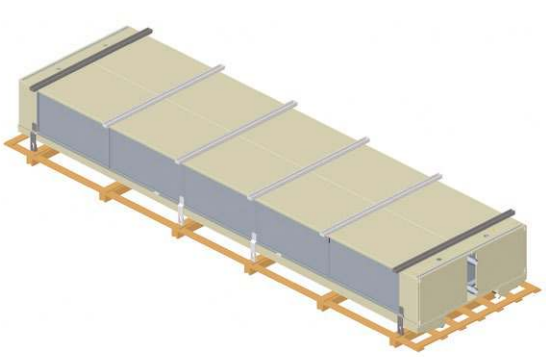
REMOVE SIDE PANELS

PACKAGING DETAILS

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



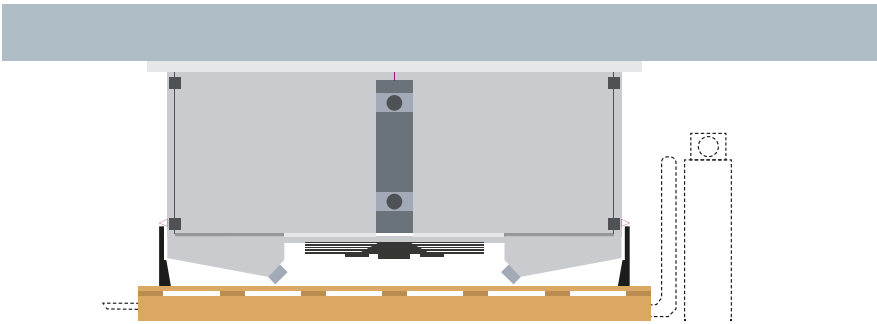
REMOVE COVER



READY FOR INSTALLATION

Model positioning

LIFT, POSITION AND FIX THE UNIT COOLER



Direction
Acrobatik

Printed in Italy by
Grafiche Filacorda

DF0116EN

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