



THOR-F

Agricultural storage cooler

General information & application

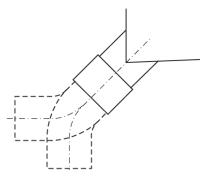
The Helpman THOR-F air cooler series has been specifically designed for the refrigerated storage of agricultural produce. These coolers are characterised by an optimised capacity/air volume ratio and a relatively low profile. All models have been optimised for air temperatures around 0 °C and a small temperature difference to avoid product dehydration.

Evaporating temp.	+5 to -10 °C
Refrigerants	all H(C)FC, brine, CO2
Capacities (SC2)	7 up to 57 kW*
Air volume	5,100 up to 36,000 m3/h

* Higher capacities on request

Standard configuration

- Finned coil
 - 2 coil block modules
 - 6 tube rows deep
 - Cu ripple fin tubing ø 5/8" (smooth tubing for brine)
 - Tube pitch 50 x 50 mm square
 - Corrugated Alu-fins
 - Fin spacings 7 mm.
- 3-7 Fans, blowing through the coil. Diameters Ø 406 mm or Ø 457 mm. Enclosed design spray-tight fan motors, protection class IP55. Motors are equipped with a thermal safety device in the windings, connected to separate terminals in the box.
- Fans with elevated external pressure to ensure optimised air distribution.
- Corrosion resistant casing material: Aluminium/Sendzimir, white epoxy coated (RAL 9003).
- Hinged, enclosed end covers.
- Hinged drip tray, drain(s) 32 mm PVC connection, freely adjustable into either horizontal or vertical position. (please use illustration)



THOR-F

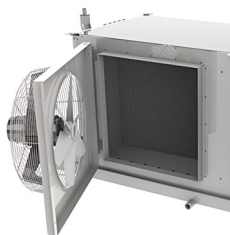
- Refrigerant distribution optimised to refrigerant applied.
- Refrigerant connections on right hand side (fan side view).
- Fitted with schröder valve on the suction connection for testing purposes.
- Sufficient room for fitting the expansion valve inside.
- Suitable for dry expansion or pumped system.
- Stickers indicate fan direction and refrigerant in/out.
- Delivery in mounting position. Coolers are mounted on wooden beams. Installation can take place with use of a forklift.

Design pressure

Design pressure 33 bar (H(C)FC) or 6 bar (brine). Higher design pressures on request. Each heat exchanger is leak tested with dry air and finally supplied with a nitrogen pre-charge.

Options

- Defrost systems
 - Hot gas coil in drip tray (G1)
 - Hot gas connected (G1C)
Hot gas coil in drip tray connected to suction header, without non-return valve.
 - Electric defrost (E1, E4)
Electric defrost for air coolers with pumped refrigerant circulation or in glycol execution on special request only.
 - Water defrost (W)
- Drip tray insulation
 - Styropore 10 mm + cladding (I 2)
Not combined with electric defrost
 - Foamglass 25 mm + cladding (I 3)
- Refrigerant connections (L / R)
(fan side view)
- Isolating switch, mounted (ISM)
- Secondary refrigerant
*All models available for brine application.
Standard connections Cu soldering,
other connections (thread/flange) on request.*
- Stainless steel 304 casing (SSC)
- Hinged fan plate (HN)
- Fan motors 254-280/440-480/60/3
or 230/60/1



Non-standard executions (on request only)

- Higher capacities
- Special fan motors
 - Dual fan speed motors
 - Variable fan speed motors
 - EC fans
 - Alternative electrical supply 230-380/60/3
- Built in heater coil sections

Selection

Selection and pricing is to be performed with our Alfa Laval air heat exchanger selection software. Selection output includes all relevant technical data and dimensional drawings. Please contact our sales organization for details and full technical documentation.

Code description

THOR-F	1	3	6	7	400	-	Options
1	2	3	4	5	6		7

- Agricultural storage cooler Cu/Al
- Cooler module (1 or 2)
- Number of fans (3 to 7)
- Tube rows in air direction (6)
- Fin spacing (7 mm)
- Fan power supply (400=230/400/50/3, 230=230/50/1)
- Option codes

Benefits

- Application based air cooler design to secure product quality.
- Elevated external fan pressure to ensure optimised air distribution.
- All models optimised for air temperatures around 0 °C and a small temperature difference to avoid product dehydration.
- Advanced product selection software available.
- Heavy duty coil & casing materials, resulting in a long operational product life.
- Reliable performance.
- Easy-install.
- Energy efficient.
- Low total cost of ownership.
- Two-year product guarantee.
- Easy access to additional on-line product information (QR code)



How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com