



Alfa Laval Helpman THOR-D

Industrial air coolers - dual discharge

General information & application

The Helpman THOR-D series is a wide and flexible range of heavy-duty dual discharge industrial air coolers for both cooling and freezing applications in medium to large cold rooms. Suitable for a wide range of applications with a special focus on meat storage, agricultural produce and processing rooms.

Evaporating temp.	+5 to -40 °C
Refrigerants	all H(C)FC, brine, CO ₂
Capacities (SC2)	4,5 up to 116.1 kW*
Air volume	3,000 up to 60,000 m ³ /h.

* Higher capacities on request

Standard configuration

- Finned coil
 - 3 coil block modules
 - 4, 6 or 8 tube rows deep
 - Cu ripple fin tubing \varnothing 5/8" (smooth tubing for brine)
 - Tube pitch 50 x 50 mm square
 - Corrugated Alu-fins
 - Fin spacings 4 and 7 mm.
- 1-5 Fans, available in a range of different executions. Diameters \varnothing 457, 508 and 560 mm.
- Cables are led to the outside of the casing. 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.
- All models available in both high and low fan speed execution.
 - 1000 rpm (= L design)
 - 1500 rpm (= H design)
- Corrosion resistant casing material: Aluminium/Sendzimir, white epoxy coated (RAL 9003).
- Hinged, enclosed end covers.
- Hinged driptray with vertical drains 1 1/4" BSP male.
- Refrigerant distribution optimised to refrigerant applied.
- Fitted with schröder valve on the suction connection for testing purposes.



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- 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.

Benefits

- Application based air cooler design to secure product quality and working conditions.
- Low air velocities for use in processing rooms.
- Low silhouette.
- Advanced product selection software available.
- Heavy duty coil & casing materials, resulting in a long operational product life.
- Reliable performance, Eurovent certified.
- Easy-install.
- Energy efficient.
- Low defrost frequency thanks to square tube pitch configuration.
- Low total cost of ownership.
- Two-year product guarantee.
- Easy access to additional on-line product information (QR code)



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Options

- Defrost systems
 - Hot gas coil in driptray (G1)
 - Hot gas connected (G1C)
Hot gas coil in driptray connected to suction header, without non-return valve.
 - Electric defrost (E1, E4)
 - Hot glycol defrost (HW1, HW2)

Electric defrost for air coolers with pumped refrigerant circulation or in glycol execution on special request only.

- Fan ring heater (FRH)
- Driptray insulation
 - Styropore 10 mm + cladding (I 2)
Not combined with electric defrost
 - Foamglass 25 mm + cladding (I 3)
- Isolating switch, mounted (ISM)
- Horizontal drain
Hinged drip tray with horizontal drain at the short side. Available for THOR-D up to 3 fans, but not in combination with driptray insulation I2/3/4).
- Dual fan speed motors (modules 2 and 4 only)
- 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

Design pressure

Design pressure 33 bar (H(C)FC) or 10 bar (brine). Each heat exchanger is leak tested with dry air and finally supplied with a nitrogen pre-charge.

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.

Code description

THOR-D	4	2	6	7	L	H1	400	-	Options
1	2	3	4	5	6	7	8		9

- Industrial dual discharge air cooler CuAl
- Cooler module (2, 4 and 6)
- Number of fans (1 to 5)
- Tube rows in air direction (4, 6 or 8 rows)
- Fin spacing (4 or 7 mm)
- Fan speed (L=1000 rpm, H=1500 rpm)
- Circuiting design (H1, H2 ...)
- Fan power supply (400=230/400/50/3, 230=230/50/1)
- Option codes

Certifications

All THOR-D cooler models are "Eurovent Certify All" certified. The Alfa Laval quality system is in accordance with ISO 9001. All products are manufactured according to CE and PED regulations.



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