

# 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 <sub>2</sub>
Capacities (SC2)	4,5 up to 116.1 kW*
Air volume	3,000 up to 60,000 m <sup>3</sup> /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/Senzimir, white epoxy coated (RAL 9003).
- Hinged, enclosed end covers.
- Hinged drip tray 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.



THOR-D

- 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.
- 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)

### По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72  
Астана +7(7172)727-132  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89  
Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395) 279-98-46

Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Липецк (4742)52-20-81  
Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12

Новокузнецк (3843)20-46-81  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Пермь (342)205-81-47  
Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Симферополь (3652)67-13-56

Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Тверь (4822)63-31-35  
Томск (3822)98-41-53  
Тула (4872)74-02-29  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47

Казахстан (772)734-952-31

Таджикистан (992)427-82-92-69

Эл. почта: [afm@nt-rt.ru](mailto:afm@nt-rt.ru) || Сайт: <http://alfa-laval.nt-rt.ru>

### 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

<b>THOR-D</b>	<b>4</b>	<b>2</b>	<b>6</b>	<b>7</b>	<b>L</b>	<b>H1</b>	<b>400</b>	-	<b>Options</b>
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

The Alfa Laval quality system is in accordance with ISO 9001. All products are manufactured according to PED regulations.