THOR-A

Industrial airsock air cooler

General information & application

Helpman THOR-A industrial air coolers have been designed for airsock application. All models are fitted with an airsock ring and fan motors capable of supplying the additional external pressure that is required for the proper functioning of an airsock system. Suitable for applications like processing rooms, working production area's and greenhouse cooling.

All THOR models have been highly standardised in construction and dimensions, while maintaining flexibility in fin spacings, coil construction and circuiting design.

Evaporating temp.	+5 to -15 °C
Refrigerants	all H(C)FC, brine, CO_2
Capacities (SC2)	4 up to 46 kW*
Airsock diameter	450 up to 730 mm

* Higher capacities on request

THOR-A

Standard configuration

- Finned coil
  - 4 coil block modules
  - 4 or 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 4, 6 and 7 mm.

- 1-3 Fans, available in a range of different executions. Airsock diameters Ø 450 up to Ø 730 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. High and low fan speed execution.
  - 1500 rpm (H design)
  - 1000 rpm (L design)

- Corrosion resistant casing material: Aluminium/Sendzimir, white epoxy coated (RAL 9003).

- Hinged, enclosed end covers.

- Hinged driptray, drain(s) 32 mm
- PVC connection, freely adjustable into either horizontal or vertical position.
- Refrigerant distribution optimised to refrigerant applied
- Refrigerant connections on right hand side (fan side view).
- Fitted with schräder 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.

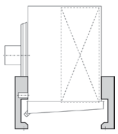
Design pressure

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 driptray (G1)
  - Hot gas connected (G1C)
    Hot gas coil in driptray connected to suction header, without non-return valve.
  - Electric defrost (E1, E4)
  - Water defrost (W)
    Electric defrost for air coolers with pumped refrigerant circulation or in glycol execution on special request only.
- Driptray insulation
  - Styropore 10 mm + cladding (I 2)
    Not combined with electric defrost
  - Foamglass 25 mm + cladding (I 3)
- Refrigerant connections left/right (L / R) (fan side view)

- Mounting feet (MF)
  For floor mounting, THOR coolers can be equipped with hot dip galvanized steel mounting feet.



- 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)
- Suction hood (SH)
- 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-A	4	2	6	(80Pa)	6	L	H1	400	-	Options
1	2	3	4	5	6	7	8	9		10

1) Industrial airsock cooler CuAl
2) Cooler module (1 to 4)
3) Number of fans (1 to 3)
4) Tube rows in air direction (4, 6 or 8 rows)
5) External pressure (40, 60, 80, 100, 120 Pa)
6) Fin spacing (4, 6 or 7 mm)
7) Fan speed (L=1000 rpm, H=1500 rpm)
8) Circuiting design (2H, H1, H2 ...)
9) Fan power supply (400=230/400/50/3, 230=230/50/1)
10) Option codes

Benefits

- Application based air cooler design to secure working conditions and product quality.
- Exclusively designed for airsock application. External pressure up to 120 Pa.
- 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)