



# Alfa Laval Arctigo IS

## Industrial air coolers - single discharge

### General information & application

Arctigo IS is a wide and flexible range of single discharge industrial air coolers for both cooling and freezing applications in medium to large cold rooms. This industrial air cooler line is designed to keep fresh and frozen goods refrigerated from +10 to -40 °C, with either high or low humidity content.

The Alfa Laval Arctigo range offers a wide variety of cooler configurations and a long list of options, always allowing to select the best model to suit all applications in industrial cooling installations. Arctigo cooler models are available for dedicated applications such as agricultural storage (model ISB-F), airsock application or shock cooling.


|                  |  |
|------------------|--|
| Refrigerants     | all H(C)FC, ammonia, brine             |
| Capacities (SC2) | 3 up to 250 kW                         |
| Air volume       | 3,000 up to 120,000 m <sup>3</sup> /h. |

### Standard configuration

- Finned coil
  - 7 coil block modules
  - 3, 4, 6, 8 or 10 tube rows deep
  - Tubing  $\varnothing$  5/8" Cu ripple fin, smooth Cu tubing for brine or smooth stainless steel.
  - Tube pitch 50 mm square or 48 mm triangular.
  - Corrugated Alu-fins
  - Fin spacings 4, 5, 6, 7, 8, 10 and 12 mm.
- 1 to 8 Fans,  $\varnothing$  450 mm up to  $\varnothing$  1000 mm, drawing or blowing through the coil. 2-Speed fan motors 400/50-60/3 or 230/50-6-1 ( $\varnothing$  450 only), two noise levels ( $\Delta$ /Y). AC/EC Fan motors with dynamically and statically balanced external rotors, manufactured in accordance with VDE 0530/12.84 IP54 class F. Integrated thermo contacts (Clickson) provide reliable protection against thermal overload.
- Corrosion resistant materials: coil frame and casing pre-galvanized sheet steel, epoxy coated RAL 9002.
- Hinged side panels and drip tray, drain(s) 40 mm PVC connection, freely adjustable into either horizontal or vertical position.



Arctigo IS

- Fitted with schröder valve on the suction connection for testing purposes.
- Refrigerant connections right or left (L=default). 
- 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

| Refrigerant application | Design pressure |
|-------------------------|-----------------|
| HFC                     | 33 bar          |
| Ammonia                 | 27 bar          |
| CO <sub>2</sub>         | 30-60 bar       |
| Brine                   | 6 bar           |

Higher design pressures on request. Each heat exchanger is leak tested with dry air and finally supplied with a dry air pre-charge.

## Options

- Electric defrost systems
  - Electric defrost in driptray (E1)
  - Electric defrost - heavy (E2)
  - Electric defrost - light (E4)
  - Electric defrost for defrost valve DO (E5)
- Hotgas defrost systems
  - Hotgas defrost - light, not connected (HG1)
  - Hotgas defrost - heavy, not connected (HG2)
  - Hotgas defrost - light, connected (HG1C)
  - Hotgas defrost - heavy, connected (HG2C)
- Other defrost systems
  - Hotgas in driptray, light electric defrost in coil (HG1E)
  - Hotgas in driptray, heavy electric defrost in coil (HG2E)
  - Water defrost (W1)
  - Water defrost - low temperatures (W2)
  - Hot water/glycol defrost light/heavy (HW1/HW2)
- Discharge diffusor (D)
- Diffusor with defrost valve (DO)
- Hinged fan ring (HF)
- Inlet/discharge hood 45/90° (H1/H2)
- Driptray insulation 10 mm styropore + cladding (I2)
- Streamer (ST)
- Shut-up sock (S)

- Fan casing 45/90° (FC1/FC2)
- Airsock adapter ring (SR)
- Coil protection
  - Pre-coated aluminium (EP)
  - AlMg2.5 sea water resistant aluminium fins (SWR)  
*SWR available for fin spacings up to 8 mm*
- Slip-on flanges aluminium PN16 or stainless steel PN (F)  
*Flanges for brine models only*
- Dual/triple fin spacing (DF/TF)  
*Available on request*
- Stainless steel casing and frame (SSC)
- Mounting feet (MF)
- Fan ring heater unconnected/connected (FRH/FRHC)
- Repair switch (SW)
- All fan motors wired to central connection box (CB1)
- Central int. connection box wired to external switch (CB2)

## Selection

Selection and pricing is to be performed with 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

|    |   |   |   |   |   |   |   |    |   |   |   |    |     |   |    |    |   |    |   |       |   |    |   |     |
|----|---|---|---|---|---|---|---|----|---|---|---|----|-----|---|----|----|---|----|---|-------|---|----|---|-----|
| IS | B | 3 | 5 | - | 2 | H | 8 | CU | - | E | - | AL | 7.0 | - | 2H | -  | 5 | L  | - | FA04A | - | 00 | - | FRH |
| 1  | 2 | 3 | 4 |   | 5 | 6 | 7 | 8  |   | 9 |   | 10 | 11  |   | 12 | 13 |   | 14 |   | 15    |   | 16 |   |     |

- 1 Alfa Laval Arctigo industrial air cooler - single discharge
- 2 Air direction (B=blow through, D=draw through)
- 3 Cooler module size (1 to 7)
- 4 Number of fans (1 to 8)
- 5 Coil geometry (1=triangular, 2=square)
- 6 Fan speed (H=high pressure fans)
- 7 Tube rows in air direction (3, 4, 6, 8 or 10 rows)
- 8 Tube material (CU=copper, SS=stainless steel)
- 9 Refrigerant system (E=DX, W=brine, PB=pumped bottom feed, PT=pumped top feed)
- 10 Fin material (AL=aluminium, EP=precoated aluminium, SWR=sea water resistant aluminium)
- 11 Fin spacing (4, 5, 6, 7, 8, 10 and 12 mm)
- 12 Circuiting code (2H, 1H, 1/2H ... 2D, 1D, 1/2D...)
- 13 Refrigerant connection side (R=right, L=left - fan side view)
- 14 Fan motor code
- 15 Revision code
- 16 Option code (see option list)

## Benefits

- Application based air cooler design to secure product quality.
- Advanced product selection software available.
- Heavy duty coil & casing materials, resulting in a long operational product life.
- Exceptionally wide & versatile cooler range.
- Eurovent certified performance (HFC DX models only)
- 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)



## 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](http://www.alfalaval.com)

