TYR

Industrial air cooler

General information & application

The Helpman TYR series is a wide and flexible range of heavy-duty 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 packed products.

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

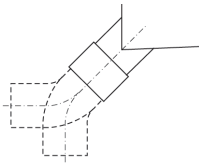
Evaporating temp.	+5 to -40°C
Refrigerants	Ammonia (R-717), all H(C)FC, brine, CO_2
Capacities (SC2)	5 up to 116 kW*
Air volume	4,000 up to 68,000 m^3/h.

* Higher capacities on request

TYR

Standard configuration

- Finned coil
  - 7 coil block modules
  - 4, 6 or 8 tube rows deep
  - Stainless steel tubing ø 16 mm
  - Tube pitch 50 x 50 mm square
  - Corrugated Alu-fins
  - Fin spacings 4, 6, 7, 8, 10 and 12 mm..
- 1-7 Fans, available in a range of different executions. Diameters Ø 406 mm up to Ø 710 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.
- All models available in both blow-through (TYR-B) and draw-through (TYR-Z) execution.
- Corrosion resistant casing material: Aluminium/Sendzimir, white epoxy coated (RAL 9003).
- Hinged, enclosed end covers (modules 1 - 4). Larger modules fitted with easily removable 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.

Test

Design pressure 33 bar, higher design pressures on request. Each heat exchanger is leak tested with dry air and finally supplied with a nitrogen pre-charge. Brine coolers are tested at 6 bar.

Options

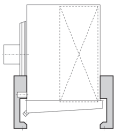
- Defrost systems
  - Hot gas coil in driptray (G1, G2)
  - Electric defrost (E1, E2, E4)

  Electric defrost for air coolers with pumped refrigerant circulation or in glycol execution on special request only.
- Fan ring heater (FRH)
- Driptray insulation
  - Armaflex (or alike) 10 mm (I 1)
  - Styropore 10 mm + cladding (I 2)
  - Foamglass 25 mm + cladding (I 3)
  - Purane + polyesther cladding (I 4)

I1, I2 & I4 driptray insulation not in combination with electric defrost. Foamglass (I3) possible for use with electric defrost.

- Refrigerant connections (L / R)

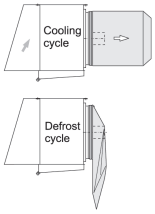
- Mounting feet (M)
  For floor mounting, TYR coolers can be equipped with hot dip galvanized steel mounting feet.



- Isolating switch, mounted (ISM)

- Shut up® system (S + V)
  (TYR-Z only)

  The system comprises a shut-up sock and an inlet hood to enhance defrost efficiency.



- Secondary refrigerant
  All models available for water/glycol application.
  Standard stainless steel welding connections
  Cu soldering, other connections (thread/flange) on request.

- Special fan motors
  - Fans for extra external pressure 125 Pa (modules 5, 6 and 7 only)
  - Dual fan speed motors
  - Variable fan speed motors
  - Alternative electrical supplies

- Built in heater coil sections

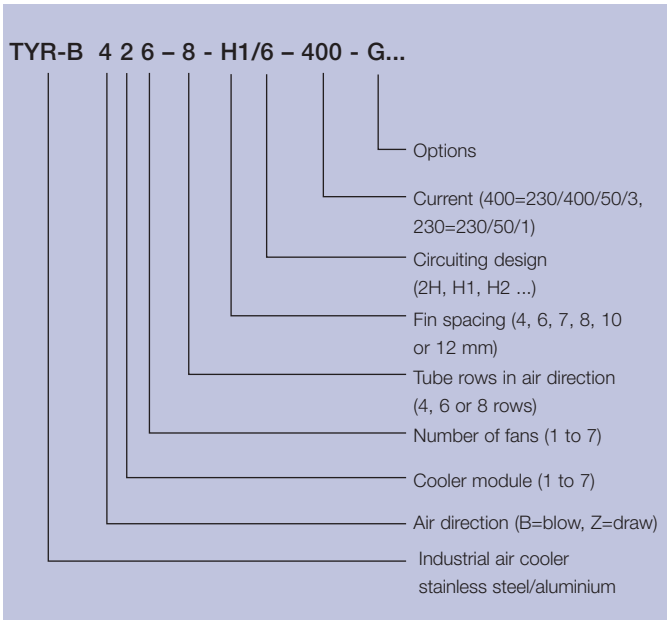
- Stainless steel 304/316 casing

Air cooler selection & dimensions

Air cooler selection and RCPL pricing is to be performed with “HelpmanSelect” Air Heat Exchanger selection software. Selection output includes all relevant technical data and dimensional drawings.

Please contact our sales organisation for full technical documentation.

Code description



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.
- 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.

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