

Helpman TYR-F

Agricultural storage cooler

General information & application

The Helpman TYR-F air cooler series has been specifically designed for the refrigerated storage of agricultural produce. These coolers are characterised by an optimised capacity/air volume ratio and a relatively low profile. All models have been optimised for air temperatures around 0 °C and a small temperature difference to avoid product dehydration.

| | |
|-------------------|--|
| Evaporating temp. | +5 to -10 °C |
| Refrigerants | ammonia (R-717), all HFO/HFC, brine, CO ₂ |
| Capacities (SC2) | 18 up to 52 kW* |
| Air volume | 12,800 up to 36,000 m ³ /h |

* Higher capacities on request

Standard configuration

- Finned coil
 - 2 coil block modules
 - 6 tube rows deep
 - Stainless steel tubing ø 16 mm
 - Tube pitch 50 x 50 mm square
 - Corrugated Alu-fins
 - Fin spacings 7 mm
- 3-7 Fans, blowing through the coil. Diameters Ø 406 mm or Ø 457 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.
- Fans with elevated external pressure to ensure optimised air distribution.
- 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.



TYR-F

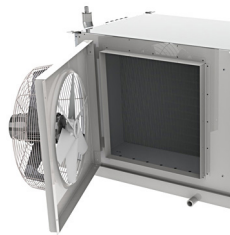
- Refrigerant connections on right hand side (fan side view).
- Fitted with schröder valve on the suction connection for testing purposes (not for R-717).
- Sufficient room for fitting the expansion valve inside.
- Suitable for dry expansion or pumped system.
- Stickers indicate fan direction and refrigerant 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 (HFO/HFC), 27 bar (ammonia) 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 (I2)
Not combined with electric defrost
 - Foamglass 25 mm + cladding (I3)
- Refrigerant connections (L/R) (fan side view)
- Isolating switch, mounted (ISM)
- Secondary refrigerant
*All models available for brine application.
Standard stainless steel welding,
other connections (thread/flange) on request.*
- Stainless steel 304 casing (SSC)
- Hinged fan plate (HN)



Non-standard executions (on request only)

- Higher capacities
- Special fan motors
 - Dual fan speed motors
 - Variable fan speed motors
 - EC fans
 - Fan motors 254-280/440-480/60/3, 230/60/1 or 230-380/60/3
- Built in heater coil sections

Selection

Selection and pricing is to be performed with our Alfa LU-VE 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

| | | | | | |
|--------------|--------------|----------|------------|---|----------|
| TYR-F | 1 3 6 | 7 | 400 | - | * |
| 1 | 2 3 4 | 5 | 6 | | 7 |

- Agricultural storage cooler stainless steel/aluminium
- Cooler module (1 or 2)
- Number of fans (3 to 7)
- Tube rows in air direction (6)
- Fin spacing (7 mm)
- Fan power supply (400=230/400/50/3, 230=230/50/1)
- Options

Benefits

- Application based air cooler design to secure product quality.
- Elevated external fan pressure to ensure optimised air distribution.
- All models optimised for air temperatures around 0 °C and a small temperature difference to avoid product dehydration.
- 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).



How to contact Alfa LU-VE

Up-to-date Alfa LU-VE contact details for all countries are always available on our website at alfa.luvegroup.com