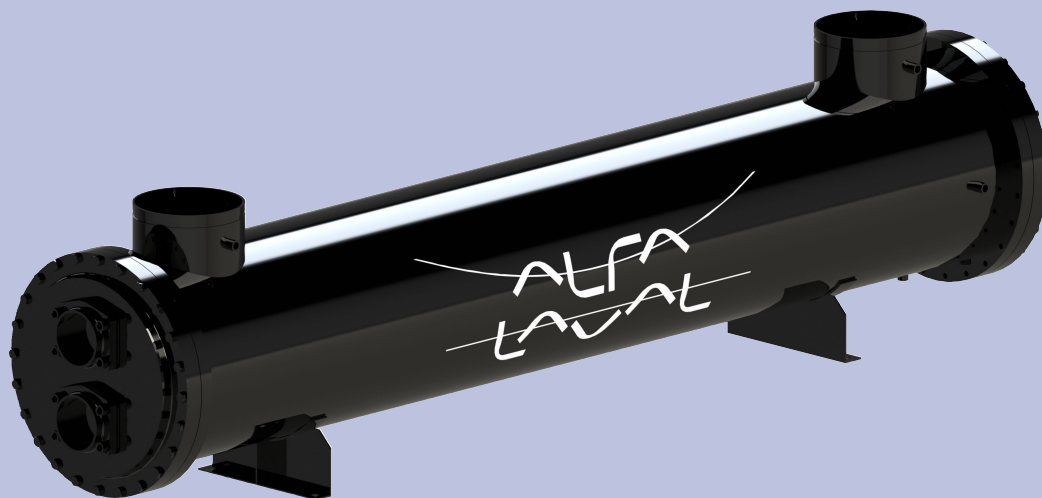




Shell-and-tube Dry Expansion Evaporator - DM model

High efficiency evaporator optimized for R407F and R134a applications



Application

The new DM evaporator has been developed for Commercial and Industrial Refrigeration applications at medium temperatures ($-2^{\circ}\text{C} \div +4^{\circ}\text{C}$), for supermarket or industrial process cooling. These applications typically demand evaporation temperatures in the range of -10 to -20°C depending on the system efficiency and brines such as propylene and ethylene glycols.

Technology

The DM design has been optimized for R407F and R134a refrigerants, but it can also be utilized with R404A and R507. With its innovative single-pass counter-current design, Alfa Laval's new DM shell and-tube evaporator series guarantees maximum efficiency, low cost, and a new level of competitiveness. This is a big step forward compared to the current Dryplus DX or DE evaporator technologies.

Benefits

- A unique patented refrigerant distribution system which has been optimized for R134a and R407F
- Very efficient single-pass and counter-current design to provide the best possible performance
- Metal baffles with an advanced design to improve the brine side performance.
- Exchange tubes with an inner grooved pattern to maximize the heat transfer coefficient and to limit the negative effects of pressure drop.

Guidelines for quotation

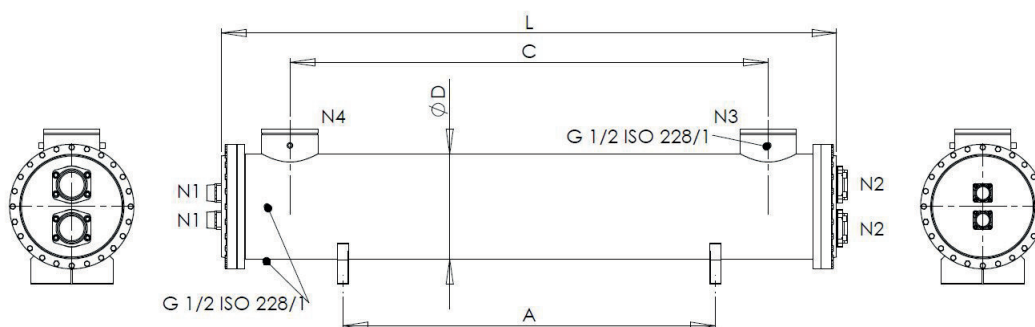
- Thermal sizing: Smart Tube calculation software
- Pricing: RCPL (Recommended Customer Price List)
- Product information: Available on demand, contact EIE-REF Alonte's team

Basic features

- Shell side connections: left, right or top orientations available
- 1 to 2 refrigerant circuits
- 5 shell diameters ($\varnothing D$) from 219.1 to 508 mm (8 to 24 inch)
- Total length, L, from 2340 to 3821 mm (7.7 to 12.5 foot)

Standard component material

Shell, tube-sheets: Carbon steel
 Headers: Carbon steel
 Tubes: Copper
 Baffles: Carbon steel + Neoprene



Working principle- evaporator mode

- The refrigerant is inside the tubes in a single pass configuration
- The brine on the shell side outside the tubes in a counter current flow



PED (CE) approval

Version	Tube side				Shell side			
	PS (bar)	TS (°C)	T _{min} (°C)	PT (bar)	PS (bar)	TS (°C)	T _{min} (°C)	PT (bar)
MT	21.5	50	-40	30.7	10	50	-40	14.3

MT = Medium Temperature
 PS = Pressure Service
 TS = Temperature Service
 T_{min} = Temperature minimum
 PT = Pressure Test

- ASME approval available on request

Available on request

- Mounting feet
- Insulation 3/4"

How to contact Alfa Laval

Up-to-date AlfaLaval contact details for all countries are always available on our website on www.alfalaval.com