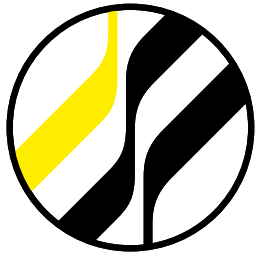


Kelvion



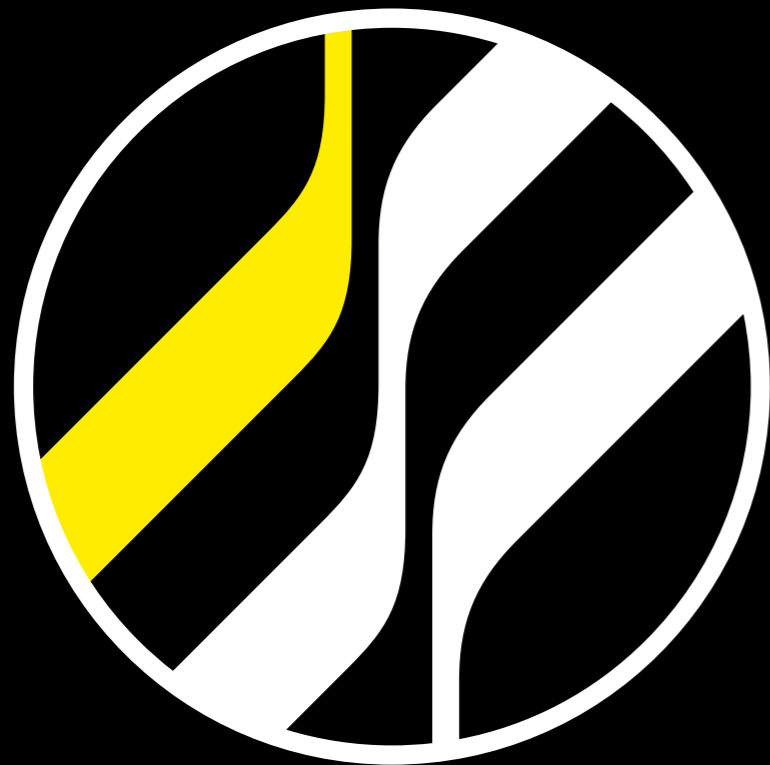
Dry Coolers

Kelvion LV-T and LV-L Dry Air Cooler

IMPROVED CAPACITY DENSITY AND QUIETER OPERATION



Kelvion



EXPERTS IN HEAT EXCHANGE – SINCE 1920

Welcome to Kelvion! Where Heat Exchange is our Business. We are one of the leading global manufacturers of heat exchangers and have been providing solutions for almost every industrial application imaginable since the 1920s, specializing in customized solutions suitable for extreme environmental conditions - as of 2015 under the name of Kelvion.

With one of the most extensive selections of heat exchangers in the world, we are a well-known partner in many industries, including transportation, energy, oil and gas, the heavy industry, chemical and marine as well as sugar, food and beverage and the HVAC and refrigeration technology sector. Our products include Compact Fin Heat Exchangers, Plate Heat Exchangers, Single Tube Heat Exchangers, Transformer Cooling Systems, Cooling Towers and Shell & Tube Heat Exchangers.

Our many years of experience and in-depth expertise have made us specialists in this field. Our heat exchangers are designed specifically to meet the needs of the respective machine or equipment system, ensuring outstanding energy efficiency and reliability in any market segment. This gives our customers a cutting-edge over their competitors while also reducing operating costs over the long term.

As your heat exchange partner, we understand that outstanding and reliable after-sales services are critical for you, our customer, and we work alongside with you in close partnership supporting you throughout the full life cycle of your plant and equipment to ensure lasting business success.

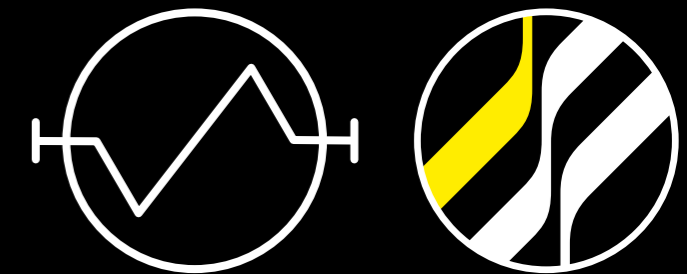
Kelvion – Experts in Heat Exchange.

KELVION – A TRIBUTE TO LORD KELVIN (1824 - 1907)

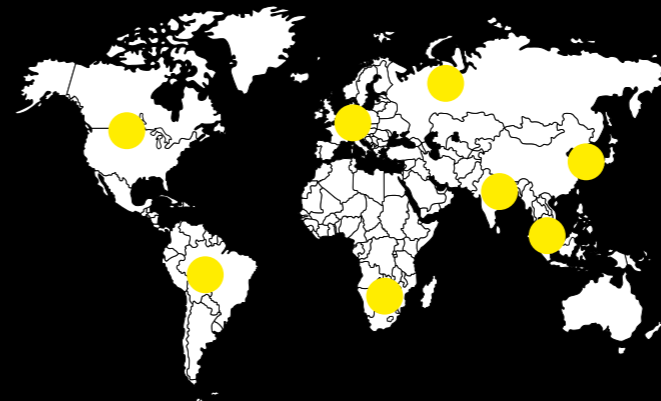


Lord Kelvin formulated the laws of thermodynamics and absolute units of temperature are stated in kelvin, in his honor.

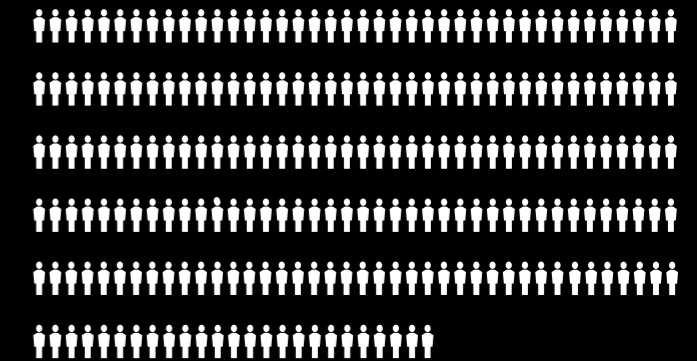
OUR LOGO – INSPIRED FROM THE SCHEMATIC FOR HEAT EXCHANGER



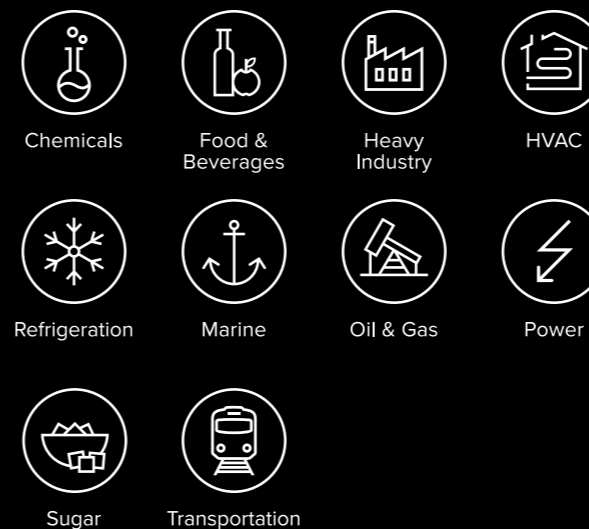
67 BRANCHES AND SALES PARTNERS WORLDWIDE



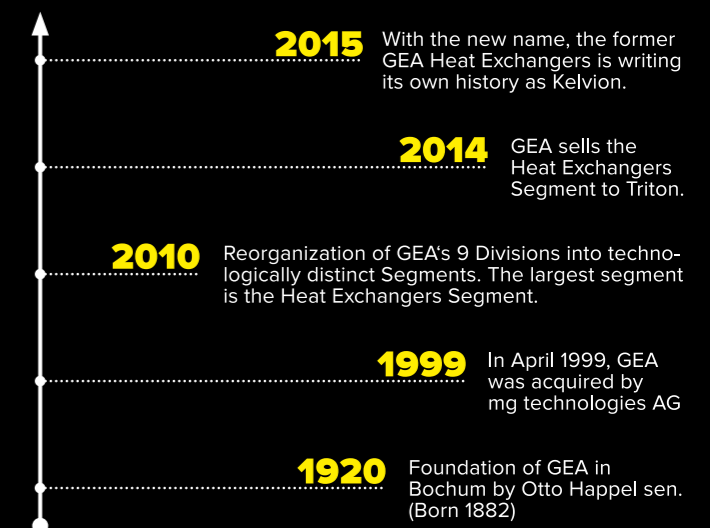
4,500 EMPLOYEES WORLDWIDE









YOUR MARKETS ARE OUR MARKETS



KELVION HAS A LONG HISTORY



V PROFILE RANGE

MODEL	NO. FANS	EUROVENT	BANK OF FANS	SUPPLY	EC FANS	ADIABATIC	FIN MATERIAL	CAPACITY kW
RV-M 	1 - 4	✓	1	1 & 3ph	○	○	AL, AV, CU, Bg, AlMg	7.4 kW - 520kW
LV-M 	1 - 4	✓	1	1 & 3ph	○	○	AL, AV, CU, Bg, AlMg	5.6 kW - 395 kW
GV-M 	1 - 4	*	1	1 & 3ph	○	○	AL, AV, CU, Bg, AlMg	7.0 kW - 490kW
RV-T RV-L 	2 - 20	✓	2	1 & 3ph	○	○	AL, AV, CU, Bg, AlMg	13.2 kW - 2150 kW 17.2 kW - 2805 kW
LV-T LV-L 	2 - 20	✓	2	1 & 3ph	○	○	AL, AV, CU, Bg, AlMg	10.0 kW - 1640 kW 13.1 kW - 2140 kW
GV-T GV-L 	2 - 20	*	2	1 & 3ph	○	○	AL, AV, CU, Bg, AlMg	12.5 kW - 2035 kW 16.3 kW - 2655 kW

✓ YES X NO ○ OPTION * Eurovent certification on gas cooler models pending

LV-T AND LV-L SPECIFICATION

CASEWORK: Kelvion has combined latest design thinking and powerful FEA (finite element analysis) models to establish an innovative casework design which optimises strength whilst keeping weight to a minimum; ensuring the range is both robust and application flexible. The LV-T has casework designed to facilitate the largest unit fitting inside of a standard shipping container to keep transportation costs to a minimum. The LV-L is both the largest and subsequently strongest design of all the V-Profile units. The special plate work form developed by Kelvion allows for supporting coils up to 12m in length, giving significant strength and forms an integral part of the heat exchanger support structure. Casework is fully weatherproofed using pre coated galvanised sheets, powder coated in RAL7032 for an aesthetically pleasing yet neutral finish.

FANS: Kelvion offers AC and EC fansets as standard across the range of products with power supply options to meet all markets. The fansets are optimised with the case and coil design to ensure ideal operating points, keeping noise level and power absorption to a minimum whilst delivering the capacity required.

- 6, 8, 12 pole AC fans with 1 and 3 phase options
- High and Low Power EC fans with 1 and 3 phase options
- Up to 20 fans as standard
- Standard motor rating IP54
- 50 and 60 Hz options available, across a range of supply voltages
- All fansets meet ErP Requirements
- Options to cover from -40°C up to +80°C

COIL: Kelvion works continuously to offer the best options in coil technology. The LV-T/L reflects this by offering a number of high efficiency coil configurations. The best configuration is automatically optimised for the application based upon operating conditions within **Kelvion RT Select**, which balances the all the requirements to configure the most appropriate selection. The coil is fully supported through its entire length by tube sheets and internal baffles integrated into the unit structure.

LV-T AND LV-L DRY COOLER







APPLICATION & BENEFITS

- ▶ LV-T/L V-profile extends the versatility of the Dry cooler range: Achieving a close specification match by offering three module length options of 1200mm, 1500mm or 1800mm across 2 coil width can on selected models be manufactured up to 12m long and 3 meters high in an ideal V angle formation suitable for all air conditioning application requiring a high capacity density small footprint – while reducing the number of units to install. The many combinations of fin type, coil rows and module lengths make it possible to perfectly balance capacity and refrigerant. The range can also be configured as Condensers and Gas coolers.
- ▶ A comprehensive collection of fan sets are available from various premium manufacturers. This ensures that the best fan is always selected and balanced against the model and application variant. High energy efficiency, low noise and flexible control options all ensure the best possible solution is offered.
- ▶ Eurovent certify-all: independent certification for thermal performance, power consumption, sound data and unit air volumes for standard products under scheme limits.
- ▶ CE Marked, PED compliant, UL and Eurovent Certified: Kelvion products can be supplied from SEP up to category IV

CAPACITY RANGE

H₂O 10.0 kW - 2140 kW
t_c=25°C | t_e=40°C | DT=15K [SC1]

HEAT EXCHANGE

- ▶ **Fin Type:** L, T, K
- ▶ **Standard Fin spacing:** [mm]
L = 2.1 | T, K = 2.3
- ▶ **Fin Material:** Cu, Al, Av, AlMg, Bg
- ▶ **Tube Diameter:** [mm]
9.5 | 12 | 15.7
- ▶ **Tube material:** Cu, St/St

VARIANTS & ACCESSORIES

- ▶ **Control Box & Isolators**
- ▶ **Sub cooling**
- ▶ **Multi sections**
- ▶ **Alternative Fin Material**
- ▶ **Special Paint**
- ▶ **Adiabatic System**
- ▶ **Customised Housing**

CONTROLS OPTIONS

OPTION	DESCRIPTION
Kelvion SmartControl	Connected to the Kelvion cloud to give live operational data
Unwired	Installer wires directly to fan terminal boxes.
Junction Box	Single or twin according to unit model.
Staged Control (AC Fan sets)	Motor switchgear with or without controller.
Speed Control	EC, inverter or triac.
Modbus	Options for control communication of fan and control

OPERATING ENVIRONMENT GUIDANCE

APPLICATION ATMOSPHERE	TUBE MATERIAL	FIN MATERIAL
Commercial Application	Cu or St/St	Al, AV, AlMg, Cu, Bg
Industrial Application	Cu or St/St (NH3 must be St/St)	Al, AV, AlMg, Cu, Bg
Within 20 miles of the Sea	Cu	Cu, Bg, AlMg
Waste Disposal	Cu	Al, AV, AlMg, Cu, Bg

NOTE: The Tube material will suit fin Material

FAN DATA

FAN TYPE & POLE	POLE	DIAMETER	SPEED (rpm)		FLC (Amp)		SC (Amp)	
			Δ	Y	Δ	Y	Δ	Y
0806 N	6	Ø 800mm	920	730	4.2	2.3	14.0	4.0
0808 Z (ZA Plus)	8		650	480	2.3	1.1	11.0	4.0
091 H (80 °C)	6	Ø 900mm	910	710	5.5	3.5	28.0	10.0
091 N	6	Ø 910mm	905	640	5.7	3.3	19.0	6.2
091 N	12		440	340	0.85	0.4	2.0	1.0
091 E	EC		885-115	-	3.5	-	4.9	-
091 P	EC		930-160	-	3.2	-	4.2	-
091 M	EC		950-100	-	3.0	-	4.2	-
091 B	EC		980-140	-	4.1	-	5.8	-
091 A	EC		890-140	-	3.5	-	4.9	-
091 C	EC		945-110	-	3.0	-	4.2	-

DESIGNATION

The model number indicates the casework model size and other relevant information, for example: -

PART NUMBER	L	V	-	T	B	2	06	L	2	-	091	N	06	D
Product series	L = Liquid dry cooler []													
Unit form	V = V Bank													
Module width	T = Medium, L = Large													
Module length	A = 1200mm, B = 1500mm, C = 1800mm													
Fan rows	2													
Fans per row	02 - 10													
Fin type	L = 9.5mm tube, T = 12mm tube, K = 15.7mm tube													
Coil rows	2, 3, 4, 5, 6													
Fan Diameter	080 = 800mm, 091 = 910mm													
Fan type	N = AC Normal, E/M = ebm EC, H = High power, P = Ziehl EC, B = EC Axiblade, AC = Axitop ebm													
Speed options	6, 8, 12, EC													
Motor wiring	D = Delta, S = Star													

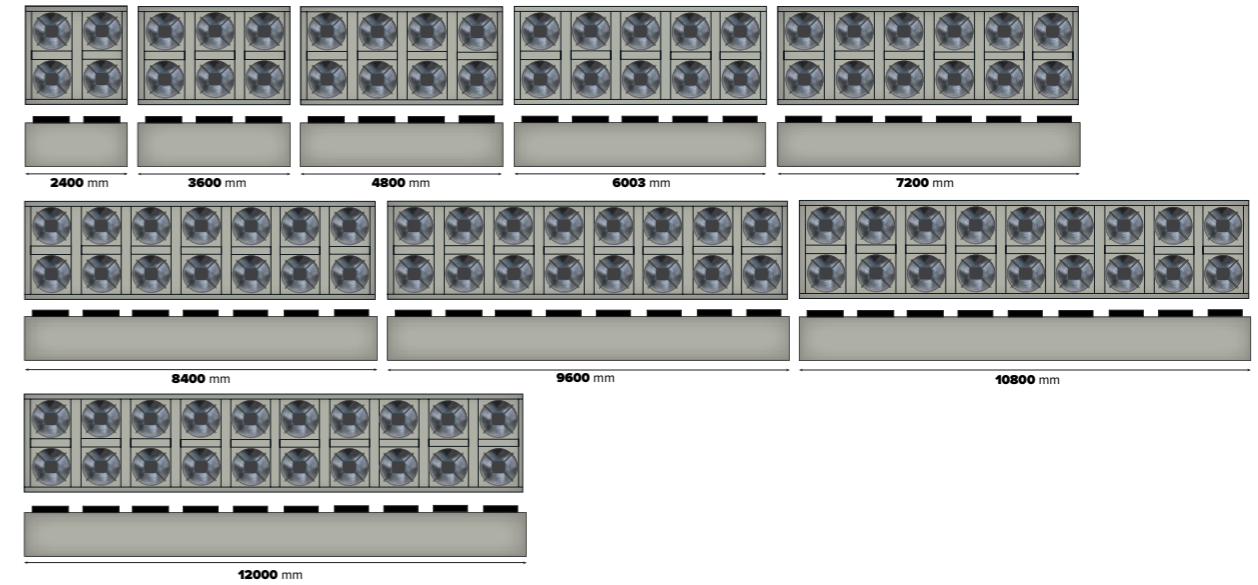
DIMENSIONS

MODULE LENGTH

CASE SIZE

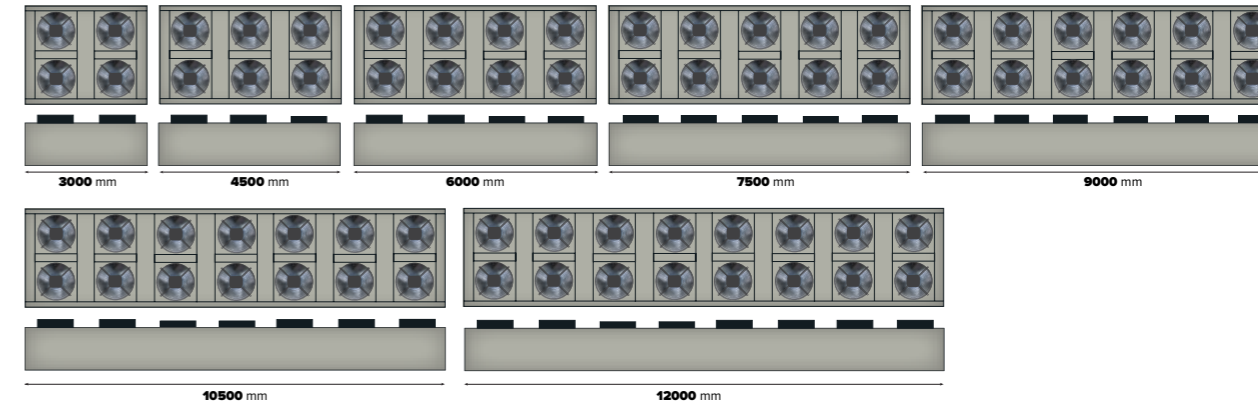
LV-TA LV-LA

1200mm



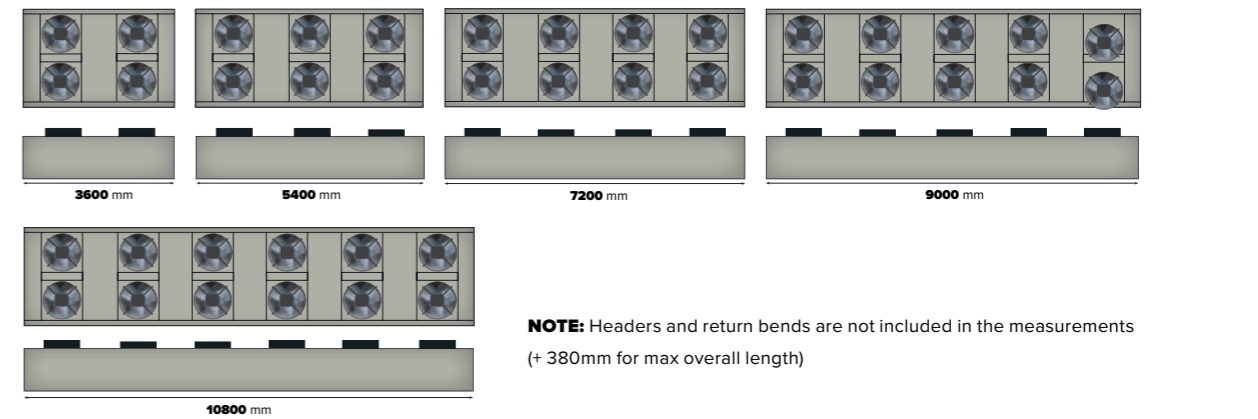
LV-TB LV-LB

1500mm

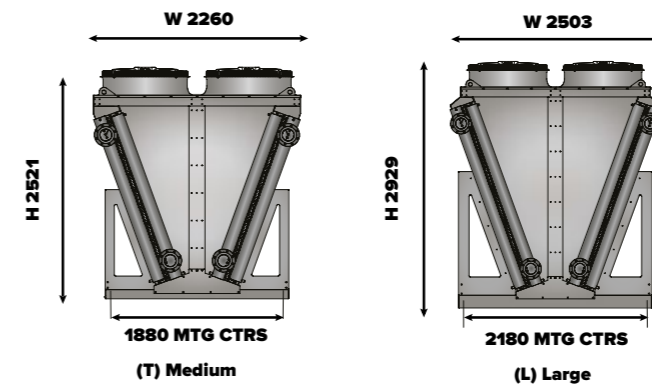


LV-TC

1800mm



NOTE: Headers and return bends are not included in the measurements (+ 380mm for max overall length)



SELECTION AND PRICING

This can be performed on the Selection software which can be downloaded from our website www.kelvion.com

www.kelvion.com