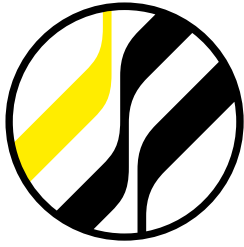


Kelvion

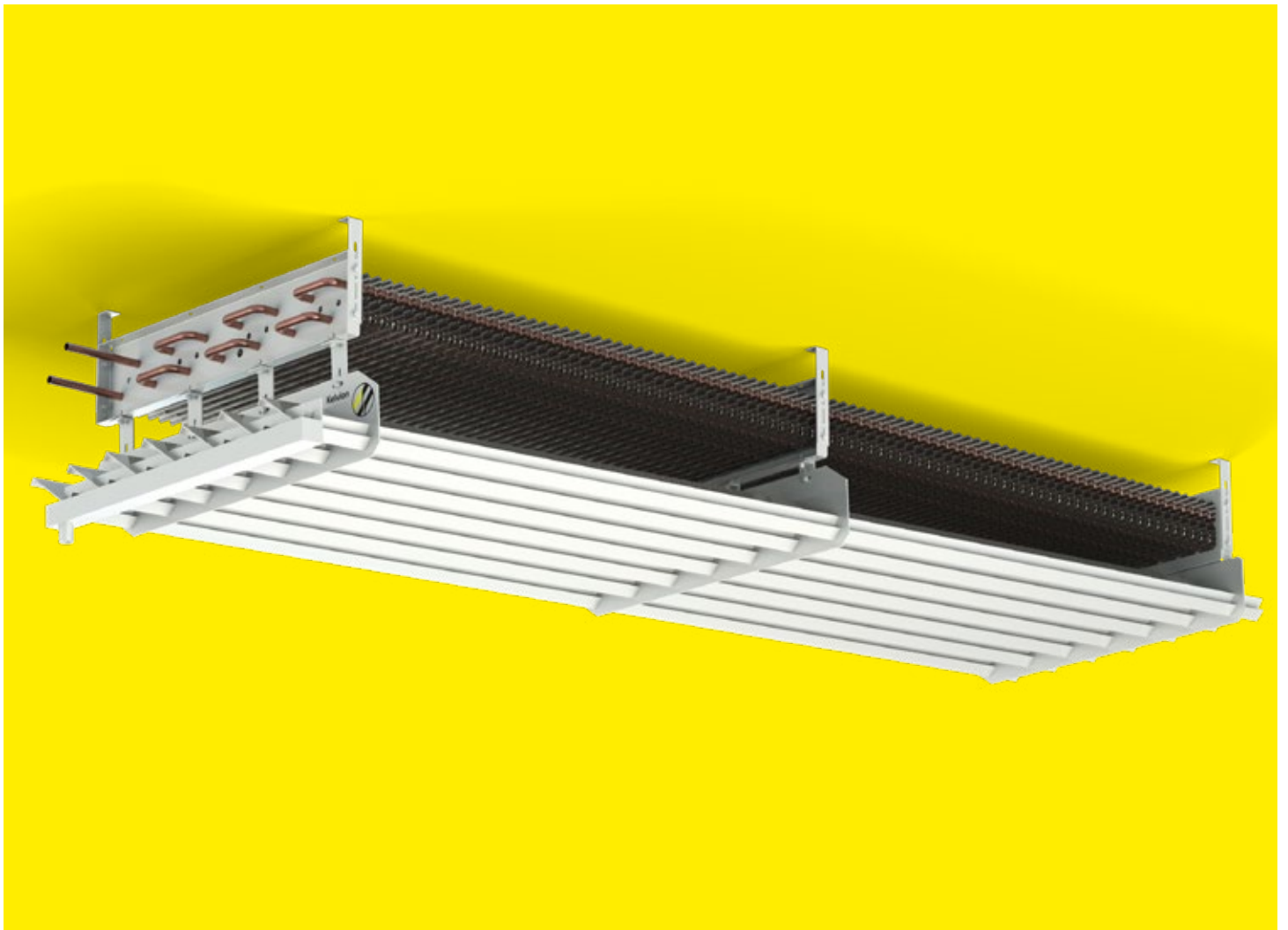


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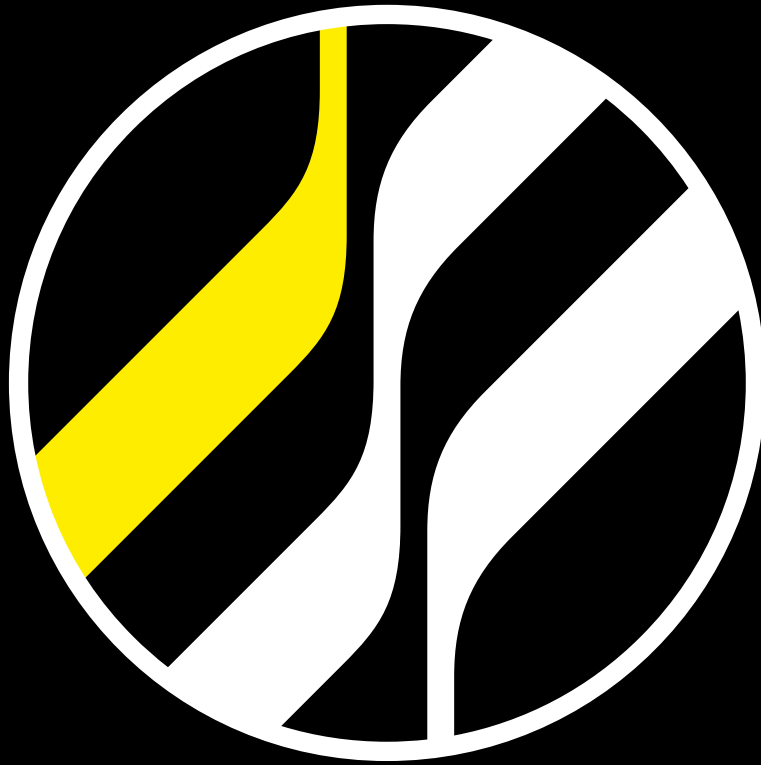
Customized Air Coolers

Kelvion KVB

NO DRAFT GRAVITY COILS FOR CURING ROOMS



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.

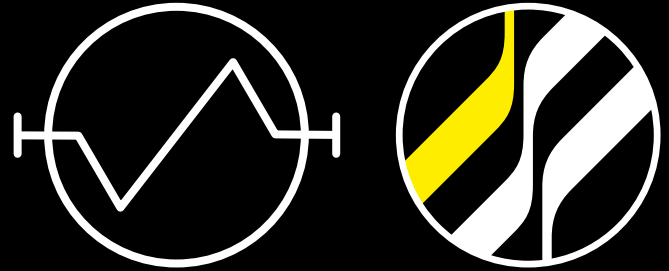
Kelvion – Experts in Heat Exchange.

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

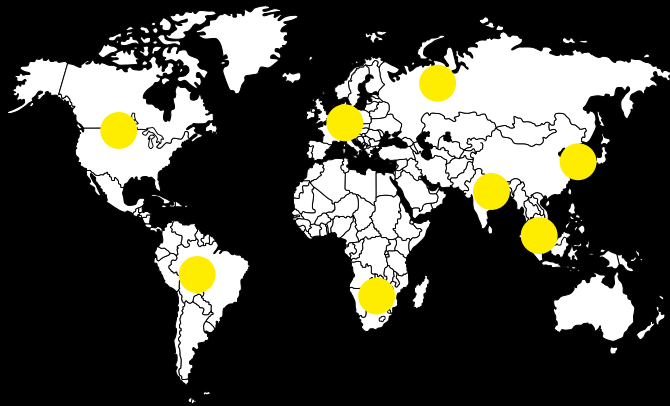


Lord Kelvin formulated the laws of thermodynamics and absolute units of temperature are stated in kelvin, in his honor.

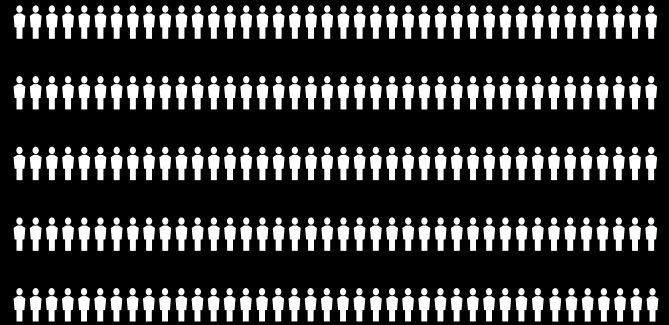
OUR LOGO – INSPIRED FROM THE SCHEMATIC FOR HEAT EXCHANGER









67 BRANCHES AND SALES PARTNERS WORLDWIDE



5,000 EMPLOYEES WORLDWIDE



YOUR MARKETS ARE OUR MARKETS

 Chemicals	 Data Center	 Food & Beverage	 HVAC
 Refrigeration	 Marine	 Oil & Gas	 Power
 Transportation	 ... and more		

KELVION HAS A LONG HISTORY

- 2015** With the new name, the former GEA Heat Exchangers is writing its own history as Kelvion.
- 2014** GEA sells the Heat Exchangers Segment to Triton.
- 2010** Reorganization of GEA's 9 Divisions into technologically distinct Segments. The largest segment is the Heat Exchangers Segment.
- 1999** In April 1999, GEA was acquired by mg technologies AG
- 1920** Foundation of GEA in Bochum by Otto Happel sen. (Born 1882)

Kelvion KVB

NO DRAFT GRAVITY COILS FOR CURING ROOMS



Capacity range ($t_{L1}=+10^{\circ}\text{C} \cdot t_0=0^{\circ}\text{C}$)

0.6 kW    **4.4 kW**

Temperature range (t_{L1})

+4°C   **+20°C**

Type designation code

1

2

3

KVB

E

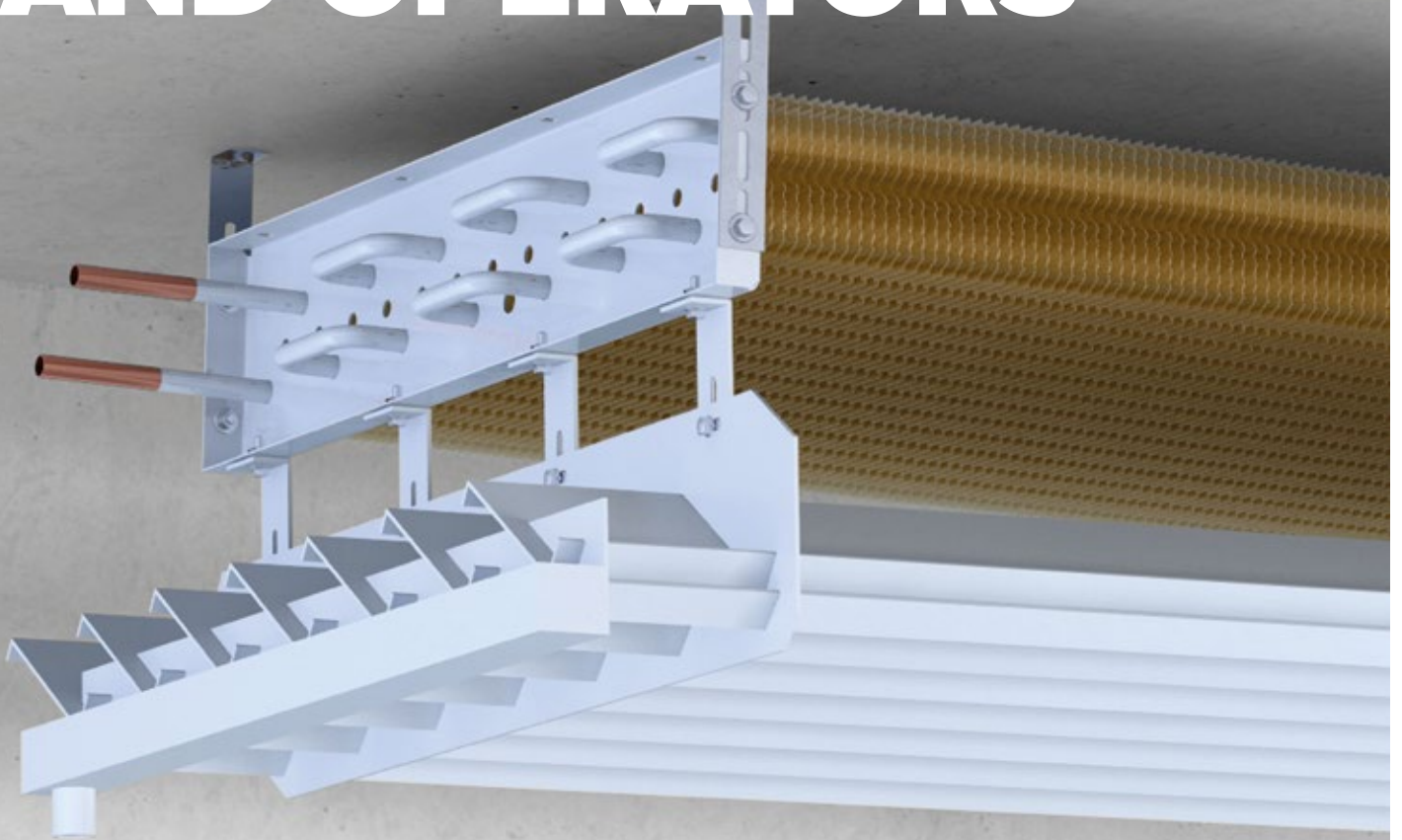
2410

- 1 Model range designation
- 2 Electric defrost
- 3 Size



Kelvion KVB

APPLICATION BENEFITS FOR CONTRACTORS AND OPERATORS



Application examples

- ▶ Meat processing
- ▶ Cheese cellars
- ▶ Rooms for cut flowers
- ▶ Minor coldrooms

Kelvion KVB Gravity Coils can be used in cold rooms, where noise matters most, or if draft should be avoided. Meat processing, cheese cellars, rooms for cut flowers or small cold rooms, are just a few examples of use.

Kelvion KVB evaporators consequently ensure ideal maturation climates for cheese and sausage or meat production.

Constant conditions and the controlled climate in a maturation cellar are absolutely decisive. Every cheese has its very own requirements. Uniform conditions as well as little as possible air circulation are the prerequisite for outstanding cheese and sausage products. Moist and even cooling are hallmarks of the gravity approach to cold room design.

Kelvion KVB

BASIC VERSION



HEAT EXCHANGER

- ▶ Tube: Copper, inner finned, \varnothing 15 mm ensures more cooling capacity with the same tubing surface as with smooth tubes
- ▶ Fins: Aluminum HFE® fins, Aluminum epoxy resin coated
- ▶ End plates: Aluminum
- ▶ Aligned tube system
- ▶ Fin spacing: 8.5 mm
- ▶ Fins flared to form-fit the core tube
- ▶ Internal cleanliness according to DIN 14276
- ▶ Maximum allowable pressure of PS=32 bar (for brine coolers PS=16 bar)

ELECTRIC DEFROST

- ▶ Tubular heater: Stainless steel (not wired)
- ▶ Connections: steam-proof
- ▶ Two junction boxes (unmounted)
- ▶ Mains voltage: 1/N/PE 230V 50/60Hz

RECOMMENDATIONS

- ▶ With ΔT_1 lower than 8K capacity losses may occur
- ▶ t_{li} lower than 4°C might cause ice formations in the louvered drip tray
- ▶ Minimum distance of air cooler from ceiling: Measure T x 0.35
- ▶ Installation with commercial standard threaded rods
- ▶ KVB coolers are available also for water circulation

TECHNICAL DATA **KVB**

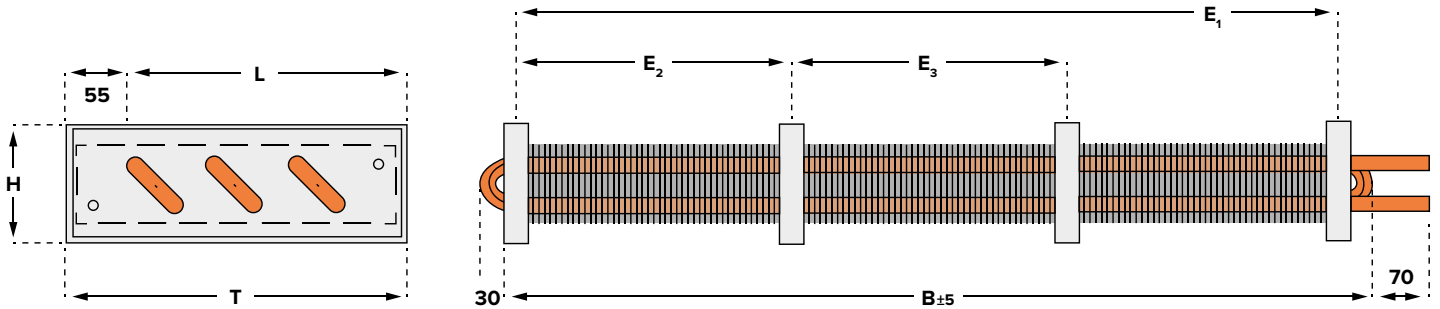
Kelvion KVB | **Fin spacing 8.5 mm**

Type	Capacity Q_0 $t_{L1} = +10^\circ\text{C};$ $DT1=10\text{K}$	Surface	Tube Volume	Connections		Dimensions							Weight	El. Defrost 230 V-1 400 V-3-Y
				Inlet	Outlet	H	B	T	L	E_1	E_2	E_3		
	kW	m ²	dm ³	Ømm	Ømm	mm	mm	mm	mm	mm	mm	mm	kg	kW
KVB 2410	0.6	10.2	1.3	12x1.0*	12x1.0	150	1,015	420	310	930	-	-	15	0.8
KVB 2413	0.8	13.7	1.7	12x1.0*	12x1.0	150	1,315	420	310	1,230	615	-	21	1.0
KVB 2416	1.0	17.0	2.1	12x1.0*	12x1.0	150	1,615	420	310	1,530	765	-	23	1.2
KVB 2513	1.0	17.1	2.1	12x1.0*	12x1.0	150	1,315	520	410	1,230	615	-	21	1.4
KVB 2516	1.3	21.3	2.6	12x1.0*	15x1.0	150	1,615	520	410	1,530	765	-	24	1.8
KVB 2519	1.5	25.5	3.1	12x1.0*	15x1.0	150	1,920	520	410	1,830	915	-	28	2.1
KVB 2616	1.5	25.5	3.1	12x1.0*	15x1.0	150	1,615	620	510	1,530	765	-	28	1.8
KVB 2619	1.8	30.5	3.7	12x1.0*	15x1.0	150	1,920	620	510	1,830	915	-	37	2.1
KVB 2623	2.2	37.3	4.5	12x1.0*	15x1.0	150	2,320	620	510	2,230	1,115	-	41	2.6
KVB 2719	2.1	35.6	4.4	12x1.0*	15x1.0	150	1,920	720	610	1,830	915	-	39	2.8
KVB 2723	2.6	43.5	5.3	15x1.0**	18 x1.0	150	2,320	720	610	2,230	1,115	-	45	3.5
KVB 2823	2.9	49.7	6.0	15x1.0**	18 x1.0	150	2,345	820	710	2,230	1,115	-	47	3.5
KVB 2828	3.5	59.6	7.1	15x1.0**	18 x1.0	150	2,785	820	710	2,670	890	890	64	4.3
KVB 2923	3.3	55.9	6.8	15x1.0**	18 x1.0	150	2,345	920	810	2,230	1,115	-	81	4.4
KVB 2928	4.0	67.0	8.0	15x1.0**	22x1.0	150	2,785	920	810	2,670	890	890	100	5.4
KVB 21023	3.7	62.2	7.5	15x1.0**	18 x1.0	150	2,345	1,020	910	2,230	1,115	-	87	4.4
KVB 21028	4.4	74.5	8.9	15x1.0**	22x1.0	150	2,785	1,020	910	2,670	890	890	107	5.4

* Single injection

** Multiple injection through Venturi distributor

Subject to modification.



Kelvion KVB

VARIANTS



PROTECTION AGAINST CORROSION

014.2 CORROSION PROTECTION 2

Tubing: Stainless steel (V2A)
Fins: Aluminum, epoxy-resin-coated
End plates: Stainless steel
Stainless steel CAL® distributor upon request

CO₂ - VARIANTS

010.15 CO₂ - DIRECT EXPANSION
up to 45 bar operating pressure

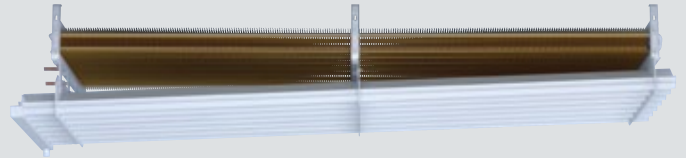
010.17 CO₂ - DIRECT EXPANSION
up to 60 bar operating pressure

ACCESSORIES

LOUVRED DRIP TRAY (TWJ)

Standard features:

- ▶ Easy to assemble driptray construction.
- ▶ Natural inclination of the collector tray enables effective drainage and prevents the drain outlet from fouling
- ▶ Stepped drip tray slats ensure smooth air flow, even if tray is installed close to the coil
- ▶ Surface water repellend
- ▶ Food contact quality surface finish
- ▶ Temperature resistant - 30°C /+50°C
- ▶ Easy cleaning
- ▶ Delivery packed
- ▶ Units are packed in value crates



Selection table & Dimensions:

For Type	Dimensions			Weight gross kg
	H mm	B mm	T mm	
KVB 2410	335	1.155	492	4
KVB 2413	350	1.455	492	5
KVB 2416	360	1.755	492	6
KVB 2513	350	1.455	602	6
KVB 2516	360	1.755	602	7
KVB 2519	370	2.055	602	8
KVB 2616	360	1.755	712	8
KVB 2619	370	2.055	712	9
KVB 2623	390	2.455	712	10
KVB 2719	370	2.055	822	11
KVB 2723	390	2.455	822	12
KVB 2823	390	2.455	932	12
KVB 2828	405	2.895	932	16
KVB 2923	390	2.455	1.042	16
KVB 2928	405	2.895	1.042	17
KVB 21023	390	2.455	1.152	17
KVB 21028	405	2.855	1.152	19

