



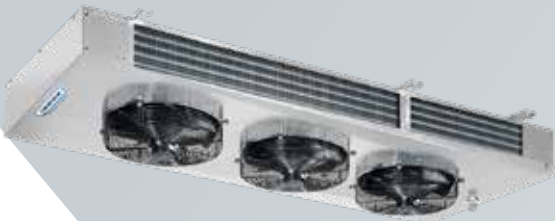
Reliability You Trust

MECHANISM

with utmost output

- ♦ Slim-line Dual Discharge
- ♦ Slim-line
- ♦ Compact Cubic
- ♦ Commercial Dual Discharge
- ♦ Industrial Coolers





Slim-line Dual Discharge

The Slim-line Dual Discharge Evaporator from ColdTech is designed for enhanced cooling efficiency in commercial refrigeration systems. Its dual air discharge design ensures even air distribution throughout the cold room, maintaining uniform temperature and preserving stored goods more effectively. The slim profile allows for better space utilization, making it ideal for compact cold storage areas. Built with high-quality corrosion-resistant materials, it ensures durability and low maintenance.



Slim-line

The Slim-line Evaporator by ColdTech is a compact, high-efficiency cooling unit designed for cold rooms and walk-in freezers where space is limited. Its slim profile maximizes usable storage space while delivering uniform air distribution for consistent temperature control. Built with corrosion-resistant materials, it ensures long-term durability and energy-efficient performance, making it ideal for commercial and industrial refrigeration applications.



Compact Cubic

The Compact Cubic Evaporator by ColdTech is a space-saving cooling unit designed for small to medium-sized cold rooms and walk-in freezers. Its cubic structure allows for easy installation and optimal airflow distribution, ensuring consistent and efficient cooling. Made with durable, corrosion-resistant materials, it offers reliable performance and energy efficiency, making it ideal for commercial refrigeration needs.



Commercial/Industrial Dual Discharge

The Compact Cubic Evaporator from ColdTech is designed for efficient cooling in small to medium-sized cold rooms and walk-in freezers. Its cubic, space-saving design allows for easy installation in areas with limited space, while ensuring uniform air distribution for consistent temperature control. Constructed with corrosion-resistant materials, it offers durability and energy-efficient performance, making it ideal for commercial refrigeration applications.





General Features

Tubes

Stainless steel tube AISI-316 or 304, specially manufactured for the coil's construction with the thickness between 0.5mm to 1.00mm.



Fins

Corrugated fins with auto-separation collar, covering all the tube surface maximising the global inter change and adjusting the fin's spacing (from 1.8mm to 12mm). These can be manufactured in aluminium, pre-coated aluminium, copper or stainless steel. All these materials can be coated by the Bronz-Glow treatment for corrosive ambientv

Casing

This is built from galvanized steel, aluminium or stainless steel. The structure is totally riveted between the frames, top and bottom sides, this gives a rigid and compact coil. The perforations for the accommodation tubes are with protection collars for avoiding fractures.



Headers

The headers are manufactured totally in stainless steel. For direct expansion coils, the distributors and capillary are also in stainless steel.

Welding

Automatic TIG orbital system, without any material addition; this guarantee the circuit hold back and the perfect welding.



Test

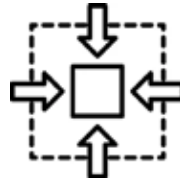
The pressure testing is made to all coils, with dried air at 38Kg/cm² and submerged in a water tank to verify the no presence of leakages. All coils evaporators and condensers are charged with pressure and provided with a shell for verifying in the reception. A quality stamp certify the test and hold back of each coil and allow the perfect draw up of the product assigned the reference and manufacturing number.

Key Features



High-Efficiency Coils:

COLDTECH evaporators typically utilize high-efficiency coil designs, maximizing heat transfer while minimizing energy consumption.



Compact Design:

Compactness is often a hallmark of COLDTECH evaporators, making them suitable for installations where space is limited while still maintaining high performance.



Robust Design:

Made with corrosion-resistant materials and a sturdy structure, they ensure long-lasting performance with minimal maintenance. Ideal for commercial and industrial cold rooms, these evaporators provide efficient cooling, uniform air distribution, and reliable operation even under tough conditions.



Modularity:

Some COLDTECH evaporators offer modular designs, allowing for scalability and flexibility to meet varying capacity requirements or adapt to different system configurations.



Low Noise Levels:

Advanced noise reduction techniques may be employed in COLDTECH evaporators, ensuring quiet operation, which can be essential in noise-sensitive environments.



**Energy Efficiency:**

COLDTECH evaporators are engineered to provide optimal cooling with advanced features like high heat exchange surfaces and efficient airflow, which help reduce energy consumption. This efficiency leads to lower operating costs and improved performance in refrigeration systems, making COLDTECH evaporators a reliable choice for energy-conscious applications.

**Easy Installation and Maintenance:**

COLDTECH evaporators feature designs that facilitate easy installation and maintenance, saving time and effort for technicians.

**Safety:**

Safety is paramount, and COLDTECH evaporators may incorporate features such as heavy duty hinges made of SS304, temperature sensors, and automatic shutdown mechanisms to prevent accidents and equipment damage.

**Compliance with Standards:**

COLDTECH evaporators typically adhere to industry standards and regulations, ensuring reliability and compatibility with existing systems.

**Tested for Performance:**

Our evaporators are tested and verified for performance by a NABL certified lab.

YOU CAN COUNT ON US

Performance Conditions

CAPACITY CONDITIONS

Capacity Standards	EN 328 & Eurovent 7/C/001
Refrigerant	R404A
Altitude	0 m
Sound Pressure Level	For 3 m distance (dBA, EN 13487)

EUROVENT 7/C/001 STANDARD CONDITIONS ACCORDING TO EN 328

	Air Inlet Temperature (°C)	Evaporation Temperature (°C)	ΔT (K)	RH%
SC 1	10	0	10	85%
SC 2	0	-8	8	85%
SC 3	-18	-25	7	95%
SC 4	-25	-31	6	95%

Refrigerant Correction Factor (fSA)

	R404A	R507A	R134A	R22
SC 1	1.0	0.97	0.93	0.97
SC 2	1.0	0.97	0.91	0.97
SC 3	1.0	0.97	0.85	0.97
SC 4	1.0	0.97	-	0.97

Correction factor For Fin Materials (fM) (Ref.: Eurovent 7/C/001)

Aluminium	Coated Aluminium	Cooper
1.00	0.97	1.03

Correction Factor For Altitude (fR) (Ref.: Eurovent 7/C/001)

0 m	500 m	1000 m	1500 m	2000 m	2500 m	3000 m
1.00	0.96	0.93	0.89	0.85	0.81	0.78
$fR = 1 - (0.000075 \cdot H)$						

Standard Condition Factors (f SC)

f SC1	f SC2	f SC3	f SC4
0.65	1.00	1.35	1.76

Capacity Calculation

Evaporation Temperature (°C)	f ΔT Factor				
	ΔT = Room Temperature - Evaporation Temperature(°C)				
	6	7	8	9	10
5	1.24	1	0.82	0.7	0.6
0	1.33	1.07	0.88	0.75	0.65 (f SCL)
-5	1.44	1.14	0.95	0.81	0.7
-8	1.48	1.2	1.00 (f SC2)	0.86	0.74
-10	1.5	1.24	1.03	0.89	0.77
-15	1.56	1.29	1.1	0.95	0.83
-20	1.66	1.31	1.12	0.97	0.86
-25	1.72	1.35 (f SC3)	1.15	1.02	0.87
-30	1.76	1.4	1.17	1.02	0.89
-31	1.76 (f SC4)	1.41	1.18	1.02	0.9
-35	1.79	1.43	1.21	1.04	0.94

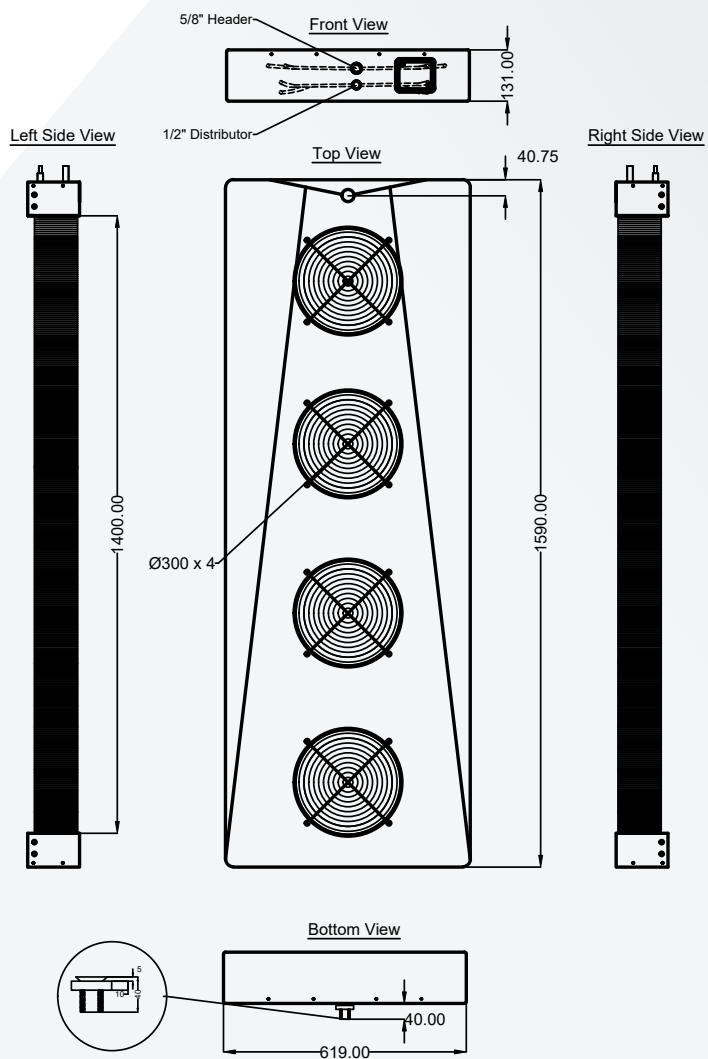
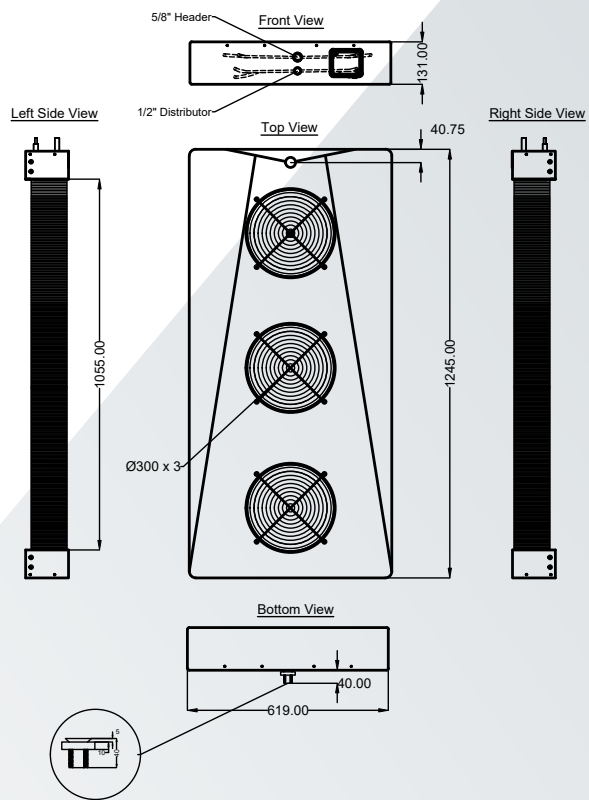
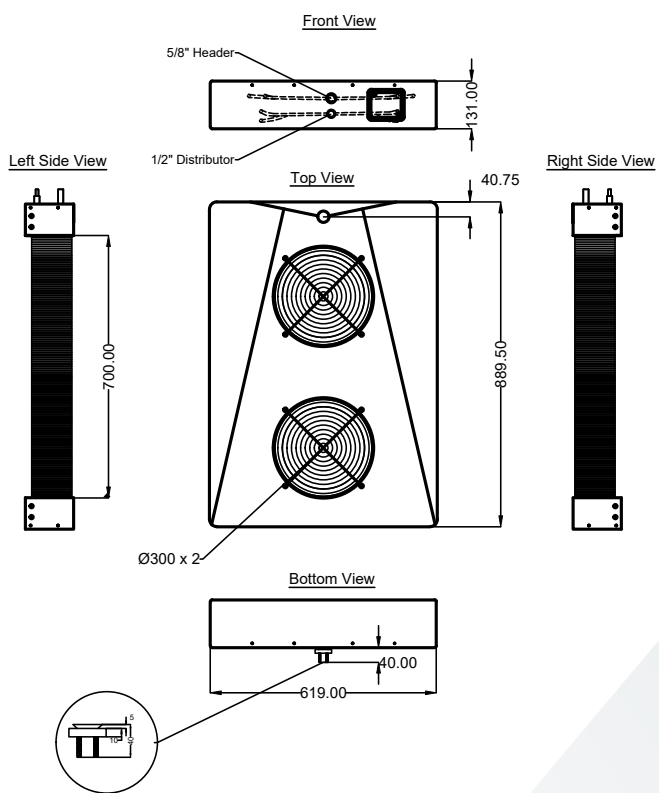
Performans Calculation Formula For Different Conditions and Materials

$$Q_c = \frac{Q_o \cdot f \Delta T}{f_{SC} \cdot f_{SA} \cdot f_M \cdot f_R}$$

Q_c: Catalogue Capacity
Q_o: Required Room Cooling Capacity

Number of Fans	Sound Pressure Levels (dBA)					
	Fan Diameter					
	ø 250mm	ø 300 mm	ø 350mm	ø 400mm	ø 450 mm	ø 500 mm
1	39	44	49	54	56	53
2	42	47	52	57	59	56
3	44	49	54	59	61	58
4	45	50	55	60	62	59

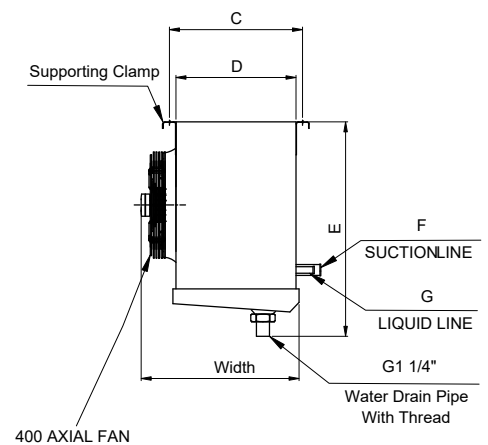
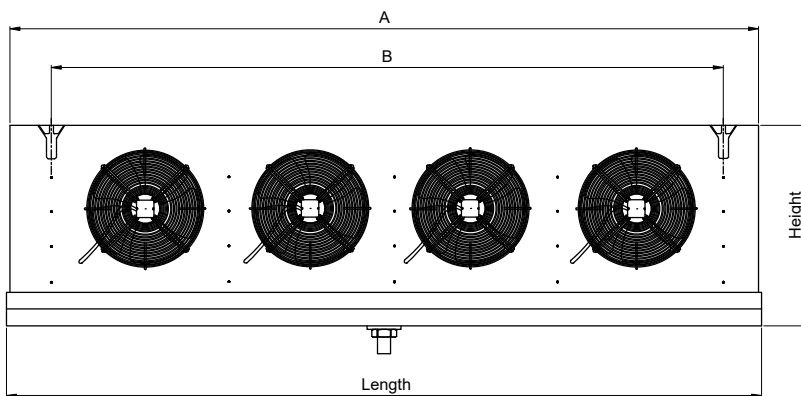
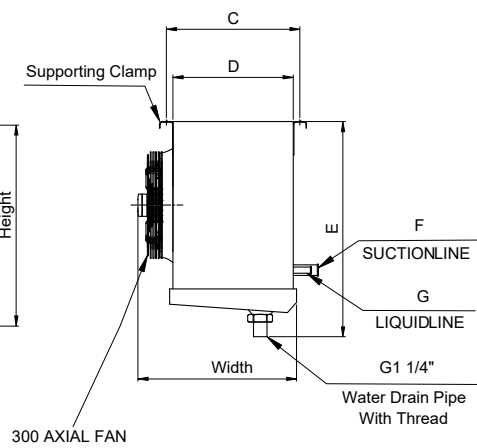
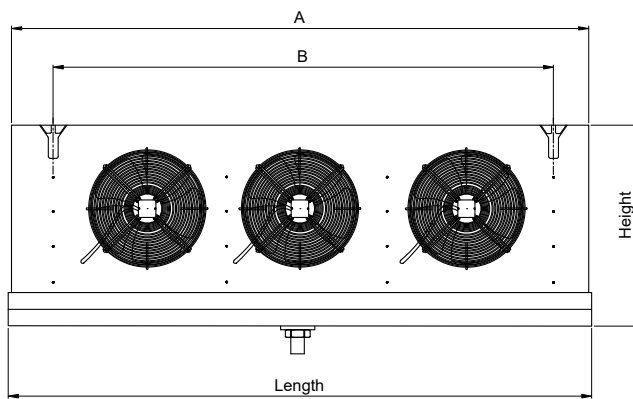
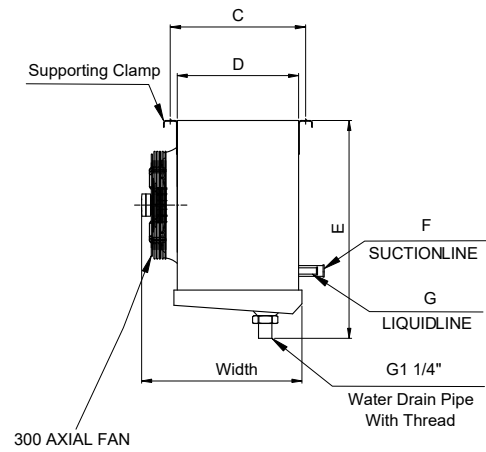
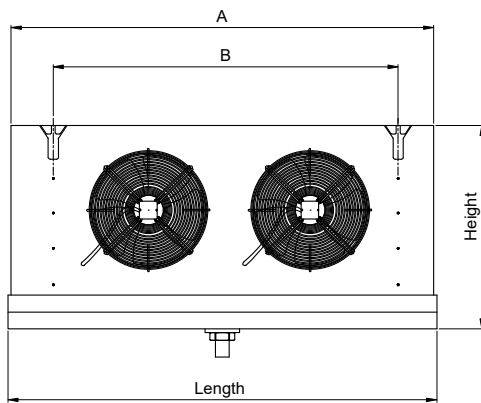
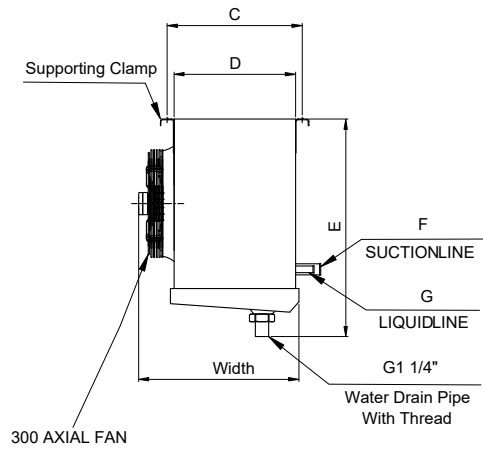
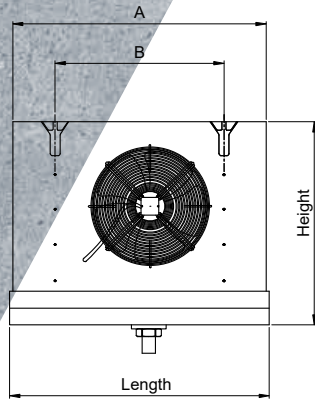
Change in Sound Level According to Distance {Related Standard EN 1J487}						
Distance from center of the unit (m)	1	3	5	10	20	
Change in Sound Level (dBA)	+10	0	-4	-10	-16	





ColdTech Slim Line-Dual Discharge Series

Model Model	Fin Pitch "mm"	Capacity				Surface Area (m2)	Tube Vol. (l)	Evap Fan Dia (mm)	No. of Fans	Air Flow m3/h	Fan Power (W)	Defrosting Coil Capacity (W)	Defrosting Tray Capacity (W)	Dimensions			Hanging hole distance (mm)	Pipe Connection	
		SC1 Te = 0°C TR = 10°C "kW"	SC2 Te = - 8 °C TR = 0°C "kW"	SC3 Te = -25°C TR = -18°C "kW"	SC4 Te = -31°C TR = - 25°C "kW"									Height "mm"	Depth "mm"	Width "mm"		Distributor	Header
CTL2/302-TCD-Slim	4.5	4.26	2.82	-	-	7.2	2	300	2	1800	32	-	-	619	131	890	181	1/2"	5/8"
CTL3.5/303-TCD-Slim	4.5	6.23	4.08	-	-	10.89	3	300	3	2200	48	-	-	619	131	1245	181	1/2"	5/8"
CTL5.5/304-TCD-Slim	4.5	8.01	5.3	-	-	14.52	3.9	300	4	3000	64	-	-	131	619	1590	669	1/2"	3/4"
CTL6.2/305-TCD-Slim	4.5	8.79	5.8	-	-	14.8	4	300	5	4000	80	-	-	131	619	1974	669	1/2"	3/4"





ColdTech Cubic Type Chiller Series

Model Model	Fin Pitch "mm"	Capacity				Surface Area (m2)	Tube Vol. (l)	Evap Fan Dia (mm)	No. of Fans	Air Flow m3/h	Fan Power (W)	Defrosting Coil Capacity (W)	Defrosting Tray Capacity (W)	Dimensions			Hanging hole distance (mm)	Pipe Connection	
		SC1 Te = 0°C TR = 10°C "kW"	SC2 Te = - 8 °C TR = 0°C "kW"	SC3 Te = -25°C TR = -18°C "kW"	SC4 Te = -31°C TR = -25°C "kW"									Height "mm"	Depth "mm"	Width "mm"		Distributor	Header
CTL2.2/301-TCC	4.5	3.67	2.28	-	-	6.89	1.6	300	1	1400	85	1000	-	490	420	695	470	1/2"	1/2"
CTL2.8/301-TCC	4.5	4	2.61	-	-	8.5	2.3	300	1	1250	85	1000	-	490	420	695	470	1/2"	5/8"
CTL2.5/351-TCC	4.5	4.26	2.84	-	-	7.72	2.10	350	1	1800	129	1000	-	540	420	695	470	1/2"	5/8"
CTL3.5/351-TCC	4.5	4.86	3.17	-	-	9.64	2.6	350	1	1590	129	1000	-	540	420	695	470	1/2"	5/8"
CTL4.3/302 TCC	4.5	6.04	4.01	-	-	10.16	2.8	300	2	2900	170	1700	-	490	420	1090	470	1/2"	5/8"
CTL5/302-TCC	4.5	7.38	4.79	-	-	13.5	3.7	300	2	2800	170	1700	-	490	420	1090	470	1/2"	5/8"
CTL6.4/303-TCC	4.5	9.3	6.5	-	-	20.07	5.2	300	3	3750	255	2000	-	490	420	1495	470	1/2"	7/8"
CTL8.5/303-TCC	4.5	11.53	7.6	-	-	25.13	6.5	300	3	3600	255	2000	-	490	420	1495	470	1/2"	7/8"
CTL8.6/402-TCC	4.5	13.1	8.68	-	-	26.72	7	400	2	4600	360	3600	-	590	490	1295	540	1/2"	7/8"
CTL9.1/452-TCC	4.5	15.21	9.94	-	-	29.41	7.7	450	2	5000	500	3200	-	645	415	1320	465	5/8"	1 1/8"
CTL12/453-TCC	4.5	20.1	13.04	-	-	34.58	9	450	3	7900	750	3600	-	645	415	1810	465	5/8"	1 1/8"
CTL14/453-TCC	4.5	21.5	14.12	-	-	43.27	11.4	450	3	6900	750	3600	-	645	415	1810	465	5/8"	1 1/8"
CTL16/502-HCC	4.5	23.45	15.28	-	-	66.87	13.7	500	2	10500	828	4500	-	800	540	1675	590	5/8"	1 1/8"
CTL20/503-TCC	4.5	32.51	21.62	-	-	60.48	15.9	500	3	15000	1242	3300	-	800	540	2375	590	3/4"	1 5/8"
CTL24/503-TCC	4.5	37.18	24.76	-	-	75.66	20	500	3	14000	1242	3300	-	800	540	2375	590	3/4"	1 5/8"
CTL28/632-HCC	4.5	44.58	29.19	-	-	128.97	26.4	630	2	20000	1600	7500	-	1028	520	2375	570	7/8"	1 5/8"
CTL30/503-HCC	4.5	41.21	27.48	-	-	133.75	27.4	500	3	14000	1242	6000	-	800	540	2375	590	7/8"	1 5/8"
CTL36/504-HCC	4.5	49.79	32.58	-	-	147.13	30.1	500	4	20000	1656	9000	-	800	540	2915	590	7/8"	1 5/8"
CTL42/633-HCC	4.5	60.24	40.34	-	-	187.74	38.5	630	3	26000	2400	9000	-	1028	520	2895	570	7/8"	1 5/8"
CTL45/633-HCC	4.5	61.68	41.17	-	-	214.55	44	630	3	24600	2400	9000	-	1028	520	2895	570	7/8"	1 5/8"
CTL48.5/633-HCC	4.5	64.71	43.46	-	-	214.55	44	630	3	26000	2400	9000	-	1028	520	2895	570	7/8"	1 5/8"
CTL52.6/633-HCC	4.5	70.46	47.35	-	-	241.37	49.5	630	3	26000	2400	9000	-	1028	520	2895	570	7/8"	1 5/8"

ColdTech Cubic Type Freezer Series

Model Model	Fin Pitch "mm"	Capacity				Surface Area (m2)	Tube Vol. (l)	Evap Fan Dia (mm)	No. of Fans	Air Flow m3/h	Fan Power (W)	Defrosting Coil Capacity (W)	Defrosting Tray Capacity (W)	Dimensions			Hanging hole distance (mm)	Pipe Connection	
		SC1 Te = 0°C TR = 10°C "kW"	SC2 Te = - 8 °C TR = 0°C "kW"	SC3 Te = -25°C TR = -18°C "kW"	SC4 Te = -31°C TR = - 25°C "kW"									Height "mm"	Depth "mm"	Width "mm"		Distributor	Header
CTD1.25/301H-TCC	7	2.78	1.78	1.22	1.01	4.33	1.3	300	1	1600	85	1000	600	490	420	695	470	1/2"	1/2"
CTD2.25/351H-TCC	7	4.6	3.01	2.01	1.66	8.18	2.5	350	1	1800	129	1000	600	540	420	695	470	1/2"	3/4"
CTD2.3/302H-TCC	7	5.87	3.8	2.53	2.03	8.57	2.8	300	2	3100	170	1700	1000	490	420	1090	470	1/2"	3/4"
CTD2.55/302H-TCC	7	7.3	4.82	2.84	2.29	11.46	3.4	300	2	2800	170	1700	1000	490	420	1090	470	1/2"	7/8"
CTD3.2/302H-HCC	7	6.91	4.48	3.29	2.72	18.03	5.4	300	2	3200	170	2000	1000	490	420	1090	470	1/2"	7/8"
CTD3.8/303H-TCC	7	8.1	5.26	3.84	3.3	17.12	5.2	300	3	5000	255	3200	1200	490	420	1495	470	1/2"	7/8"
CTD4.5/303H-TCC	7	11.07	7.36	4.56	4.02	21.43	6.5	300	3	4100	255	3200	1200	490	420	1495	470	1/2"	1 1/8"
CTD4.1/352H-HCC	7	8.59	5.57	4.17	3.21	23.05	6.9	350	2	3700	258	2000	860	540	420	1090	470	1/2"	7/8"
CTD6.5/4021H-HCC	7	14.18	9.08	6.56	5.44	36.05	10.69	400	2	7000	258	7200	1200	590	490	1295	540	1/2"	1 1/8"
CTD8/4021H-HCC	7	17.35	11.15	8.01	6.6	48.07	14.26	400	2	6800	258	7200	1200	590	490	1295	540	5/8"	1 3/8"
CTD10/502H-HCC	7	19.03	12.25	9.32	7.47	46.18	13.7	500	2	10600	828	7500	1100	800	540	1675	590	5/8"	1 3/8"
CTD12/502H-HCC	7	24.3	15.2	11.85	9.13	61.58	18.3	500	2	10000	828	7500	1100	800	540	1675	590	7/8"	1 5/8"
CTD14.5/503H-HCC	7	28.86	18.66	13.88	11.31	69.27	20.5	500	3	15800	1242	10000	2000	800	540	2375	590	7/8"	1 5/8"
CTD18/503H-HCC	7	35.5	23.12	16.6	13.5	92.37	27.4	500	3	15000	1242	10000	2000	800	540	2375	590	7/8"	1 5/8"
CTD20/632H-HCC	7	45.86	30.17	20.75	15.43	118.7	35.12	630	2	20000	1600	12500	2400	1028	520	2375	570	7/8"	2 1/8"
CTD20/504H-HCC	7	44.39	29.17	20.16	16.62	116.12	34.45	500	4	19000	1656	15000	2400	800	540	2915	590	7/8"	2 1/8"
CTD25/633H-HCC	7	50.66	33.44	24.04	18.18	129.65	38.46	630	3	26000	2400	15000	2000	1028	520	2895	570	7/8"	2 1/8"





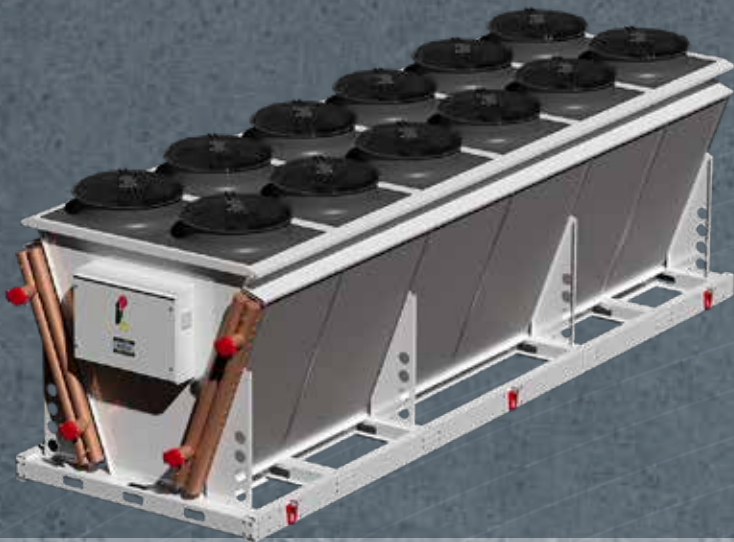
ColdTech Angular Series

Model Model	Fin Pitch "mm"	Capacity				Surface Area (m2)	Tube Vol. (l)	Evap Fan Dia (mm)	No. of Fans	Air Flow m3/h	Fan Power (W)	Defrosting Coil Capacity (W)	Defrosting Tray Capacity (W)	Dimensions			Hanging hole distance (mm)	Pipe Connection	
		SC1 Te = 0°C TR = 10°C "kW"	SC2 Te = - 8 °C TR = 0°C "kW"	SC3 Te = -25°C TR = -18°C "kW"	SC4 Te = -31°C TR = - 25°C "kW"									Height "mm"	Depth "mm"	Width "mm"		Distributor	Header
CTL6.5/302-TCA	4.5	5.2	6.36	-	-	20.9	5.3	300	2	2800	170	2000	-	558	350	1635	400	1/2"	5/8"
CTL3.5/301-TCA	4.5	9.66	3.31	-	-	10.6	2.7	300	1	1800	85	2000	-	536	350	1635	400	1/2"	5/8"
CTD4.5/302H-TCA	7	-	6.55	4.3	3.75	21.42	6.5	300	2	2800	170	2000	1200	558	350	1635	400	1/2"	5/8"
CTD2/301H-TCA	7	-	3.27	2	1.62	10.86	3.3	300	1	1255	85	2000	1200	536	350	1635	400	1/2"	5/8"



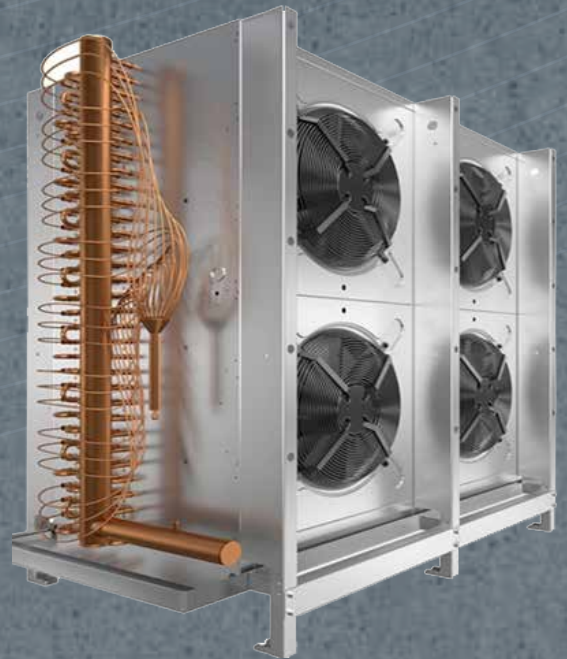
ColdTech Industrial Dual Discharge

Model Model	Fin Pitch "mm"	Capacity	Surface Area (m2)	Tube Vol. (l)	Evap Fan Dia (mm)	No. of Fans	Air Flow m3/h	Fan Power (W)	Defrosting Coil Capacity (W)	Defrosting Tray Capacity (W)	Dimensions			Hanging hole distance (mm)	Pipe Connection	
		0 deg SST / 10 Deg Room Temp									Height "mm"	Depth "mm"	Width "mm"		Distributor	Header
CTH4.5/302-TCD	4.5	4.31	7.29	2	300	2	2200	170	-	-	166	720	1034	770	3/8"	5/8"
CTH6.5/303-TCD	4.5	6.64	10.89	3	300	3	3400	255	-	-	166	720	1382	770	1/2"	3/4"
CHT8/352-TCD	4.5	7.86	18.1	4.9	350	2	3200	258	-	-	266	745	1206	795	1/2"	3/4"
CTH10/353-TCD	4.5	10	27.27	7.4	350	3	4800	387	-	-	266	745	1648	795	1/2"	7/8"
CTH12/402-TCD	4.5	11.86	19.84	5.4	400	2	6000	360	-	-	266	835	1288	885	1/2"	7/8"
CTH16/403-TCD	4.5	16.73	29.95	8.1	400	3	8050	540	-	-	266	835	1775	885	5/8"	1 1/8"
CTH16/502-TCD	4.5	15.59	32.23	8.8	500	2	8100	828	-	-	266	925	1888	975	5/8"	1 1/8"
CTH22/503-TCD	4.5	22.02	47.52	12.9	500	3	12000	1242	-	-	266	925	2625	975	5/8"	1 1/8"



Commercial/Industrial Coolers

ColdTech specializes in the design and manufacturing of high-performance commercial and industrial coolers, tailored to meet the diverse needs of businesses across sectors. With a focus on energy efficiency, durability, and advanced cooling technology, ColdTech delivers custom solutions that ensure optimal temperature control and product preservation. From walk-in coolers to large-scale refrigeration units, every product is engineered to meet international standards, making ColdTech a trusted partner in the cooling industry.



NOMENCLATURE

Specifications

- ❖ Copper Tube & Aluminum Fins for different HFC Refrigerants
- ❖ Fin Spacing available from 4FPI to 6 FPI for Chiller & Frozen Applications
- ❖ Casing Options available for SS, GI & Aluminum Powder Coated
- ❖ BTS (Built To Suit) Units with different Fan size and type according to application

CTL 2.2 / 30 1 H - T C C X

11th Place:

S-Stainless Steel Body, AL - Aluminium Body, G - GI Powder Coated Body

10th Place:

C-Cubical, A-Angular, D-Dual Discharge, S-Slim Line Dual Discharge

9th Place: C- Copper Tubes

8th Place:

T - 3/8" tube size, H - 1/2" tube size

7th Place:

H - Coil Heater, HH - Coil Heater & Tray Heater, HHH - Coil Heater, Tray Heater & Fan Ring Heater

6th Place: No. of Fans

5th Place:

Dia of the Fan (30 - 300mm & 40 - 400mm etc.)

4th Place: Capacity in Kw @ standard Eurovent Conditions

First 3 Digits: Product Series

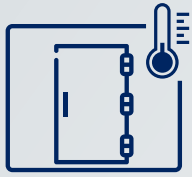
CTL: Commercial Chiller Applications

CTD: Commercial Freezer Applications



APPLICATIONS

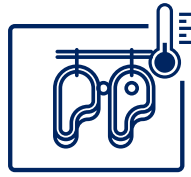
Coldtech evaporators are being used in all applications rooms.



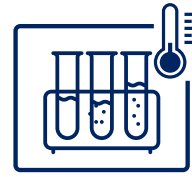
Walk-in Cooler
Rooms



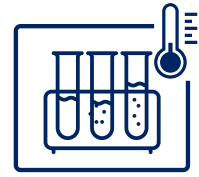
Walk-in Freezer
Rooms



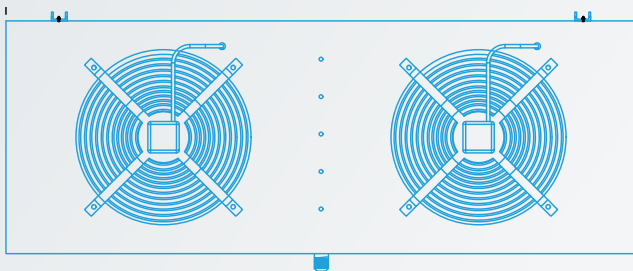
Food Processing
Rooms



Preparation
Rooms



Bio-medical
Rooms



Capacity

High temp application 2.4 to 30kW
Low temp application 2.5 to 57.4kW

Casing

Made of Stainless steel (304) and
Power coated premium aluminium

Fan Diameter

Available fan sizes of 300mm, 350mm,
400mm, 450mm, 500mm & 630mm
wired in an enclosed junction box

Fin Spacing

4mm or 6mm to minimize
defrosting cycles

Side Panel

Easy removable type for ease
of maintenance

Defrosting Heater

Electrical coils & drain pan heater
wired in an enclosed junction box

Refrigerant

R-404a/R-134a
(Eco-friendly refrigerant)

Drain Plug

Made of PVC
(Light & durable material)

Drain Pan

Hinged type for easy cleaning



Reliability You Trust

Corporate Office:

UAE

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Manufacturing LLC**

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Kuwait: xxxxx

We reserve the right to change the design or measurements

This catalogue is not contractually binding

Specifications are subject to change without prior notice due to continuous product development