enex technologies

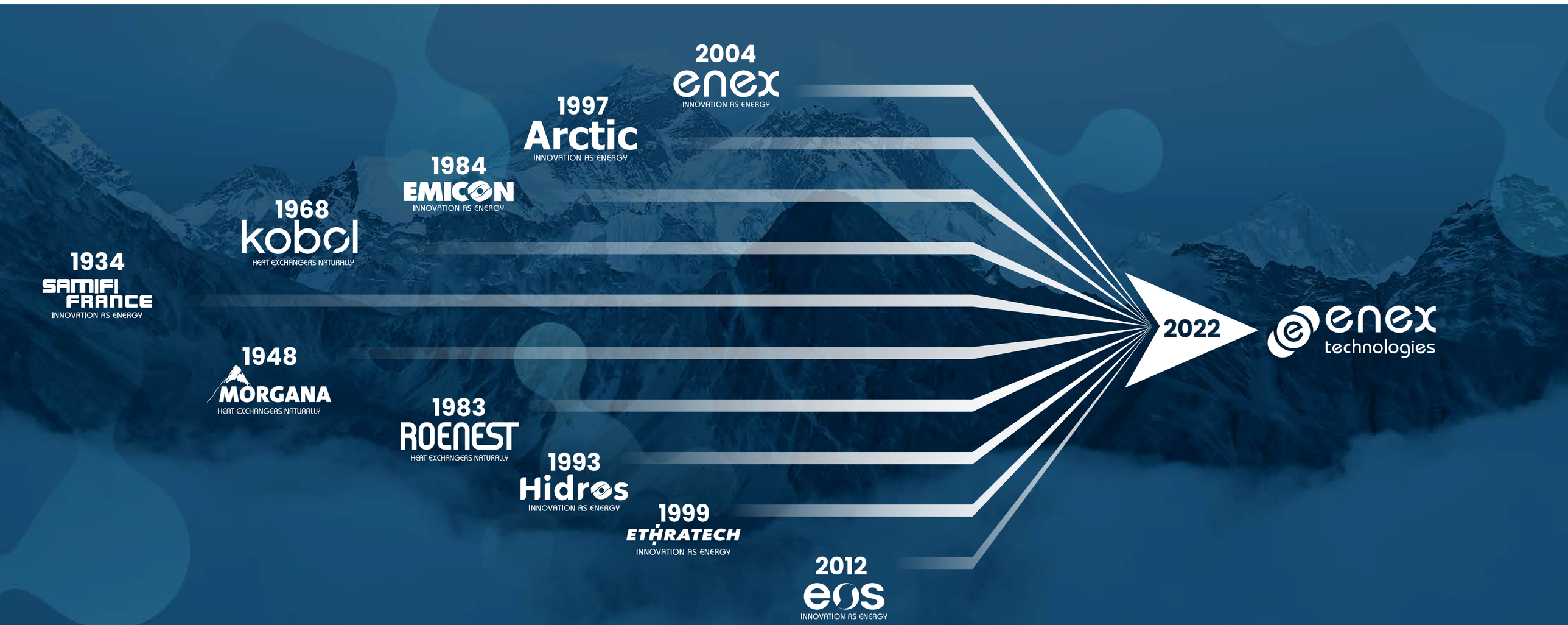
CO_2 GAS COOLERS

Products Catalogue

About

Enex Technologies is a transformative world leader in natural and energy efficient cooling, heating, ventilation and refrigeration equipment that began in the 1930s by producing ammonia natural refrigeration equipment, later adding CO_2, water and propane as natural refrigerants with low global warming potential.

Pioneers and innovators in natural HVACR since the 1930s



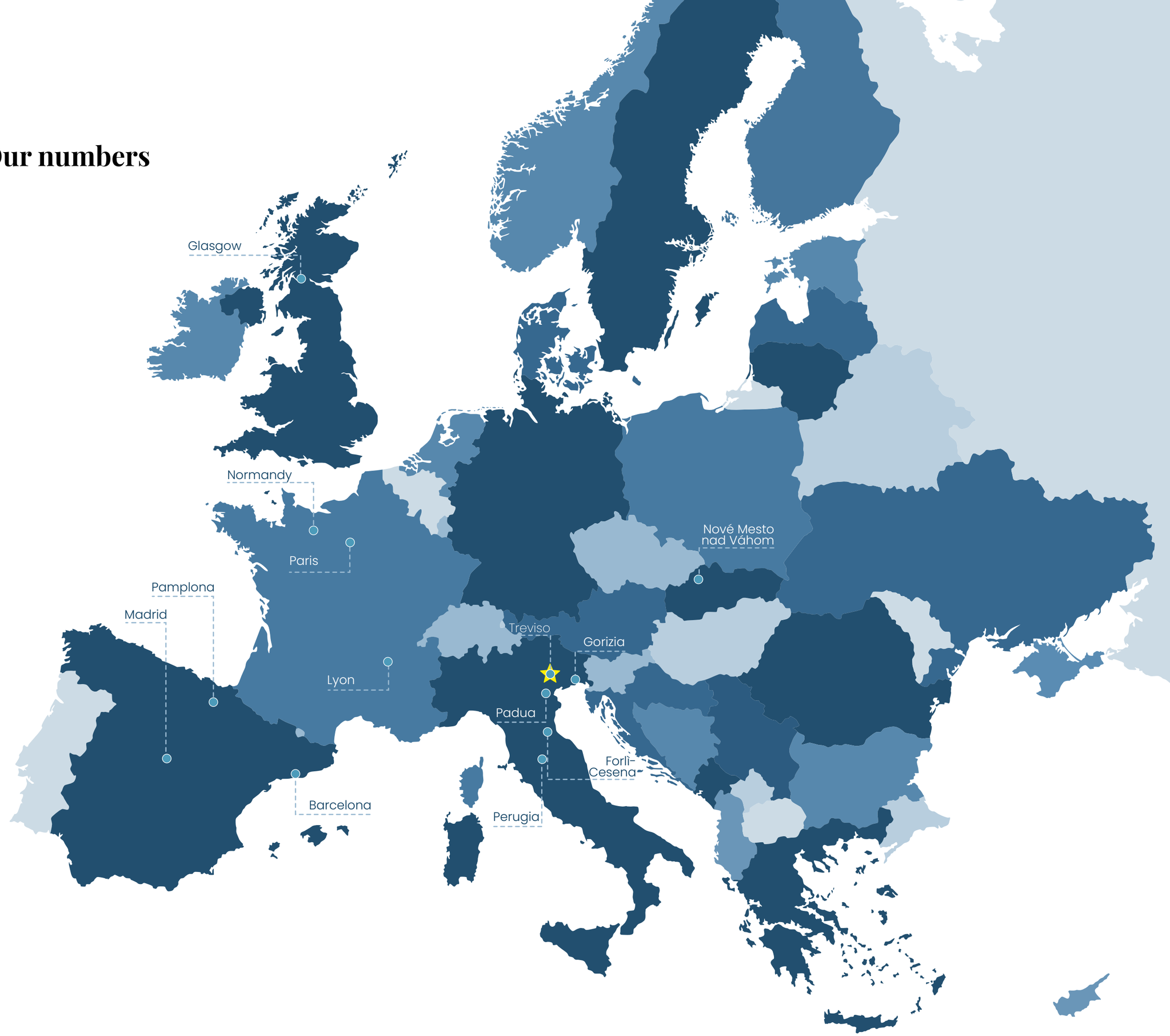
Our numbers

200M€
Revenues

1000+
Employees

12
Industrial sites

125
Countries



★ Headquarter

● Manufacturing, R&D site and commercial office

Our segments

Our leading natural refrigerant, energy efficiency and energy transition technologies transform the HVACR industry.

COOLING

Our chillers are designed to operate efficiently with all refrigerants, generating cold water for climatization or industrial processes.

REFRIGERATION

Our commercial and industrial refrigeration systems are designed for high performance, quality, reliability and carbon footprint reduction through the use of natural refrigerants Ammonia and CO_2.

HEATING

Our high efficiency heat pump range using natural refrigerant CO_2 is a simple-to use, elegant solution for applications requiring high quantities of sanitary hot water.

We are driven by strong values to create a better and more sustainable world

SUSTAINABILITY

Buildings consume 40% of the energy used in the developed world. HVACR systems use 60% of the energy in buildings. Our high efficiency solutions are central to reducing global warming, and we strive every day to help our customers reduce their carbon footprint by using natural refrigerants.

INNOVATION

Always leading. From pioneering the efficient and safe use of natural refrigerants to helping the industry move away from gas heat towards systems that use electricity.

COMMUNITIES

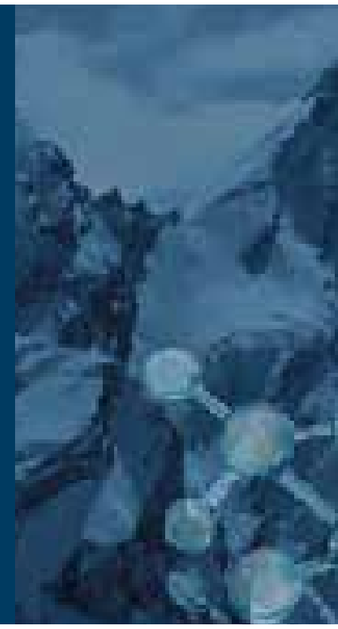
We are a European industrial champion, building clean factories that support new jobs, growth and expansion to new markets.

DIVERSITY & INCLUSION

At Enex Technologies we ensure that every colleague feels respected, valued and motivated to support our customers, every day.

Our leading natural refrigerant, energy efficiency and energy transition technologies transform the HVACR industry

Enex Technologies is committed to developing and improving innovative and efficient low global warming technologies in HVAC, commercial and industrial refrigeration systems that reduce energy consumption and environmental impact.



Natural refrigerants

CO_2 (R744)

CO_2 is a naturally occurring, non-ozone-depleting refrigerant that addresses today's concerns about the global warming potential (GWP) of common F-gases. With a GWP of 1, CO_2 is widely and effectively used in commercial and industrial refrigeration systems.

AMMONIA (R717)

Ammonia is the most widely used natural refrigerant for large industrial applications. With a GWP of 0, ammonia is a cost-effective, efficient, and sustainable alternative refrigerant.

PROPANE (R290)

With its excellent thermodynamic properties and a GWP of 3, Propane is an energy efficient, reliable, versatile, and cost-effective natural refrigerant.

WATER (R718)

Indirect systems using pure water or brine mixtures to transfer heat are simple to install and easy to service in all applications.

CO_2 Gas coolers

GM/GN/GO/GP · 15 - 900 Kw

RM/RN/RO · 50 - 700 Kw

KGR · 20 - 525 Kw

kW

0 25 50 100 500 1000

CO_2 Evaporators

MR · 1-13 Kw

CR · 0,5 - 20 Kw

XR · 1 - 25 Kw

OC · 6 - 260 Kw

OD · 6 - 157 Kw

KEB · 14 - 92 Kw

KEV · 30 - 90 Kw

kW

0 10 20 50 100 250 500

HFC-HFO Condensers

KCR/CRC · 15 -390 Kw

GPC/GMC/GSC · 3 - 525 Kw

CHN/CAH · 10 - 1300 Kw

KCV · 160 - 1550 Kw

kW

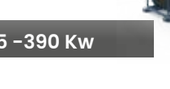
0 25 50 100 500 1000 1500 2000

HFC-HFO Evaporators

MR · 1-12 Kw

CR · 1 - 22 Kw

XR · 1 - 23 Kw



OC · 6 - 233 Kw

OD · 9 - 147 Kw

KEB · 14 - 90 Kw

KEV · 29 - 90 Kw

kW

0 10 20 50 100 250 500

Dry Coolers

DRC · 50 - 350 Kw

DP/DO/DN/DU/DR · 10 - 1050 Kw

KDV · 150 - 1500 Kw

DK/DF · 200 - 2500 Kw

kW

0 25 50 100 500 1000 1500 2500

Brine Coolers

MR · 1-11 Kw

CR · 1 - 25 Kw

XR · 1 - 25 Kw

OC · 5 - 185 Kw

OD · 5 - 100 Kw

kW

0 10 20 50 100 250 500

NH_3 Condensers

ACF · 50 - 1150 Kw

ACV · 185 - 1720 Kw

NCX · 260 - 2450 Kw

kW

0 25 50 100 500 1000 1500 2000 3000

NH_3 Evaporators

ETFI · 7 - 80 Kw

ARI · 12 - 190 Kw

EDI · 5 - 195 Kw

EDIT · 15 - 420 Kw

ECI · 2-420 Kw

SBFI · 40 - 430 Kw

BTVI · 20 - 540 Kw

BF · 35 - 800 Kw

kW

0 10 20 50 100 250 500 800

CO2
Gas coolers

Enex Technologies' CO_2 Gas Coolers offer high efficiency, low energy consumption, and low sound levels, making them the reliable and environmentally sustainable cooling solutions for industrial and commercial applications. Ready for use in transcritical installations, with more than 500 models available in cooling capacities between 15 and 900 KW, our CO_2 gas cooler units allow for optimal integration in all new generation CO_2 refrigeration systems installed even in high ambient temperature conditions.

Reliable and environmentally sustainable cooling solutions for industrial and commercial applications.

FLAT GAS COOLER

The reliable, efficient, and sustainable cooling solution for industrial and commercial applications

G- SERIES

Cooling capacity from 15 kW to 900 kW
PS 140 bar

ENEX TECHNOLOGIES presents the Flat Gas Cooler range for industrial and commercial applications. This product line is designed to meet or exceed customer need including energy efficiency, ergonomics, space, etc.

All ENEX TECHNOLOGIES products are designed and conceived with levels of excellence in food preservation, robustly built to withstand every weather condition including heavy snow and wind, ensuring a long life.

Ready to use in CO2 transcritical installations, our Flat Gas Cooler line consists of more than 500 models of axial gas coolers for industrial applications available in cooling capacities between 15 and 900 KW.

All ENEX TECHNOLOGIES flat gas coolers offer low noise levels and minimum energy consumption. All models are fitted with EC fan motors as standard. Fan speed can be controlled electronically to increase energy savings.

Our complete portfolio offers a large range of configurations and accessories to meet any specification, and can be customized according to the application.

LEADING PROFESSIONAL SOLUTIONS IN HEAT REJECTION

ENEX TECHNOLOGIES' assessment of Flat Gas Coolers performance parameters under different conditions and control strategies is essential to adequately designing and optimizing the units for specific applications.

Our FLAT GAS COOLERS range which can be segmented into 4 four main typesranges:

RANGE	RATED CONDITIONS (kW)	STANDARD CONDITIONS SC20 (kW)
G- 45	15 - 140	16 -150
G- 63	55 -470	60 - 500
G- 80	105 - 640	115 - 680
G- 90	150 - 900	160 - 920

Rated Conditions: Pressure 100bar, CO2 Inlet 120ºC, CO2 Outlet 40ºC, Air inlet Tª 38
Standard Conditions SC20: Pressure 90bar, CO2 Inlet 110ºC, CO2 Outlet 35ºC, Air inlet Tª 30

MAIN FEATURES

With more than 400 years of combined experience in design, production and distribution and doing business in over 125 countries, ENEX TECHNOLOGIES flat gas cooler line offers customers a wide spectrum of benefits including, but not limited to:

HIGH PERFORMANCE

• Our flat gas cooler units are capable of operating at pressures up to 140 bar, increasing efficiency and capacity even in high ambient conditions. For example, at 45º C our units deliver up to 13% capacity increase with an efficiency gain of up to 4.5%.
• Optimized circuits for maximum efficiency at each noise level.
• Copper tubes are staggered across self-spaced louvered fins to achieve high performance.
• The EC fans adapt to the needs of the application with minimal energy consumption.

LONG PRODUCT LIFE

• Strong and robust design includes high quality components to meet all thermodynamic and product life cycle requirements.
• 10 surface treatments available to increase product life cycle in challenging environments.

CUSTOMIZATION ON DEMAND

• Highest level of customization available to meet application requirements.

SELECTION SOFTWARE

• Transcritical CO2 calculations are included, allowing customers flexibility in adjusting settings as parameters of the application change.

SAFETY& RELIABILITY

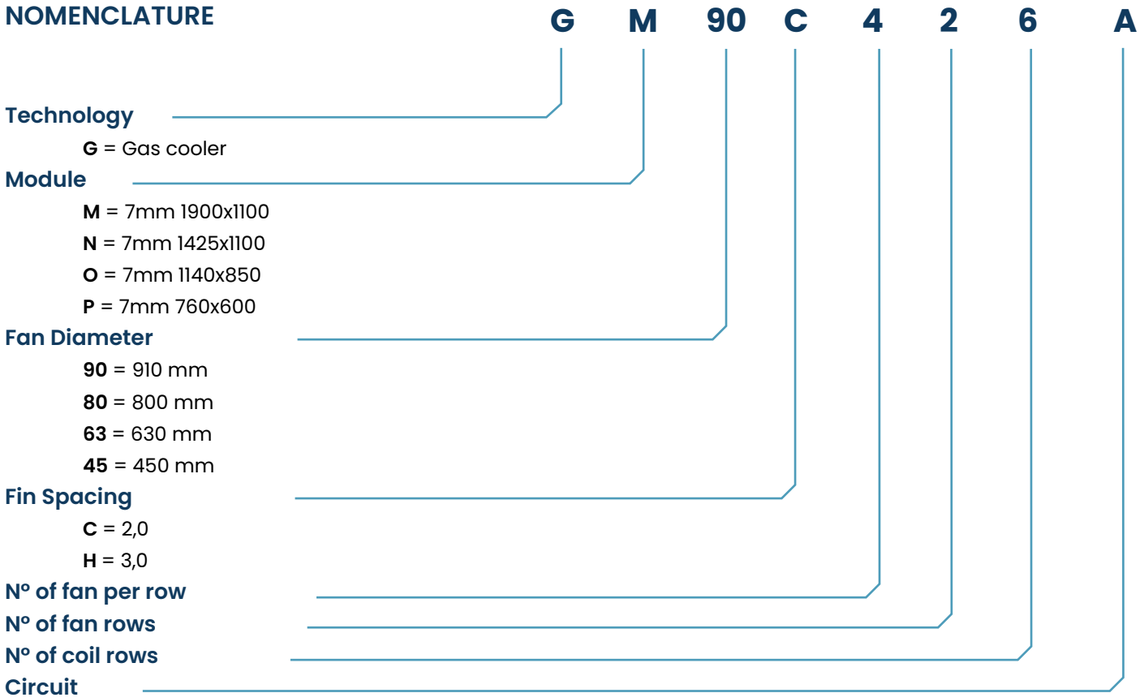
• Operating pressures up to 140 bar
• Resistance and leaks tests up to 200 bar
• Burst tests up to 420 bar
• Equipment pressurized with nitrogen at 2bar

SUSTAINABILITY

• With a GWP of 1, CO2 is widely and effectively used in commercial and industrial refrigeration systems.

TECHNICAL FEATURES

NOMENCLATURE



FINNED COILS

• All of our Ø 7mm copper tubes are built in compliance with CUPROCLIMA specifications.
• The staggered arrangement of copper tubes across self-spaced, louvered fins accurately links between tubes and fins for higher coil performance.
• FLOATING PACK SYSTEM allows coils to levitate to avoid leaks.
• All coils are subjected to a resistance and leakage testing under a rated pressure of 200 bar and pressurized using nitrogen at 2 bar to avoid inner surface corrosion of the of the copper tubes.
• Stainless steel headers with K65 finish can be sectioned using the most suitable material for each application.

CASING

• Coated with pre-painted aluminium for high protection against corrosion even in extreme weather conditions.
• Internal separators avoid the “by-pass” effect during sequential operation of fans.
• Metallic protection on connections and return bends.
• Extender legs included for both positions, horizontal and vertical coil as standard.

FAN MOTORS

• Available fans’ diameters: Ø 450/630/800/910 mm.
• Axial fans with external rotor (380-480V III @ 50/60Hz).
• Equipped as standard with EC fan motors that modulate rotation speed according to unit requirements, delivering excellent acoustic performance and peak operation.

CONSTRUCTION

• Can be specified with vertical or horizontal air inlets.

CO2 · GAS COOLERS
FLAT GAS COOLER - G- SERIES

OPTIONS & ACCESORIES

COIL

• Copper Fins
• Coated Fins
• AquaAero treatment
• Blygold treatment
• Cataphoresis treatment
• Other material

CASING

• Painted casing
• Stainless-steel casing
• Silent blocks

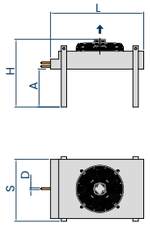
ELECTRICAL OPTIONS

• Wiring + Electrical box with magnetothermics
• Shielded Wiring
• Individual service switch by fan
• Main service switch

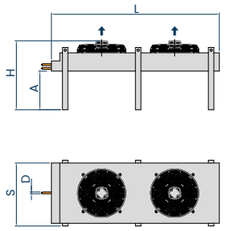
OTHER

• Adiabatic spray system

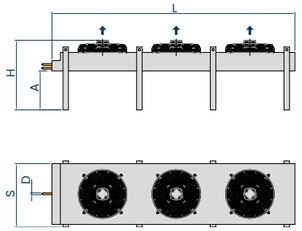
PRODUCT RANGE OVERVIEW



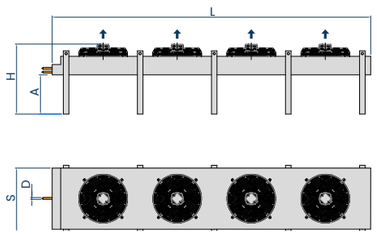
	L	S	H
GP45_11	1081	753	1270
GO63_11	1461	1003	1480
GN80_11	1746	1253	1901
GN90_11	1746	1253	1901
GM80_11	2221	1253	1901
GM90_11	2221	1253	1901



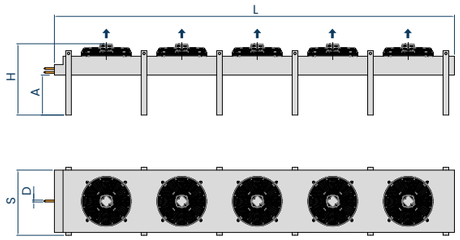
	L	S	H
GP45_21	1841	753	1270
GO63_21	2601	1003	1480
GN80_21	3171	1253	1901
GN90_21	3171	1253	1901
GM80_21	4121	1253	1901
GM90_21	4121	1253	1901



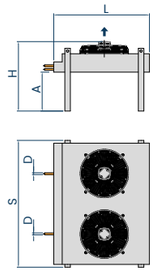
	L	S	H
GP45_31	2601	753	1270
GO63_31	3741	1003	1480
GN80_31	4596	1253	1901
GN90_31	4596	1253	1901
GM80_31	6021	1253	1901
GM90_31	6021	1253	1901



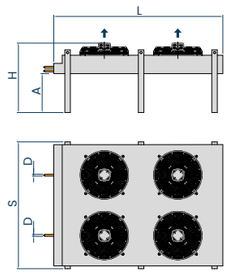
	L	S	H
GP45_41	3361	753	1270
GO63_41	4881	1003	1480
GN80_41	6021	1253	1901
GN90_41	6021	1253	1901
GM80_41	7921	1253	1901
GM90_41	7921	1253	1901



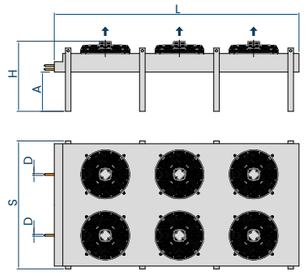
	L	S	H
GP45_51	4121	753	1270
GO63_51	6021	1003	1480
GN80_51	7446	1253	1901
GN90_51	7446	1253	1901



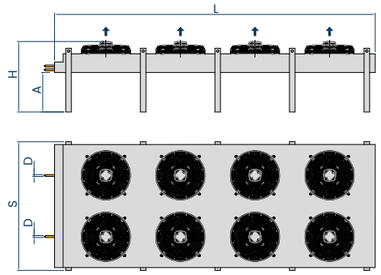
	L	S	H
GP45_12	1081	1353	1270
GO63_12	1461	1853	1480
GN80_12	1746	2353	1901
GN90_12	1746	2353	1901
GM80_12	2221	2353	1901
GM90_12	2221	2353	1901



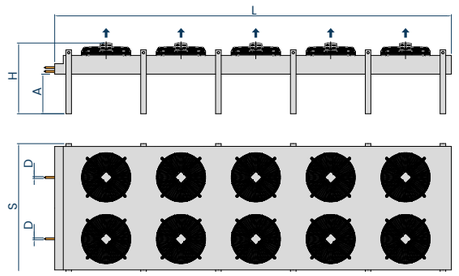
	L	S	H
GP45_22	1841	1353	1270
GO63_22	2601	1853	1480
GN80_22	3171	2353	1901
GN90_22	3171	2353	1901
GM80_22	4121	2353	1901
GM90_22	4121	2353	1901



	L	S	H
GP45_32	2601	1353	1270
GO63_32	3741	1853	1480
GN80_32	4596	2353	1901
GN90_32	4596	2353	1901
GM80_32	6021	2353	1901
GM90_32	6021	2353	1901



	L	S	H
GP45_42	3361	1353	1270
GO63_42	4881	1853	1480
GN80_42	4596	2353	1901
GN90_42	6021	2353	1901
GM80_42	7921	2353	1901
GM90_42	7921	2353	1901



	L	S	H
GP45_52	4121	1353	1270
GO63_52	6021	1853	1480
GN80_52	7446	2353	1901
GN90_52	7446	2353	1901

TECHNICAL DATA

Fan ø= 450 mm

Fin pitch = 2 mm, RPM = 1.470

Model	Capacity (kW)	Surface	Internal Volume	Air Flow	Noise Level	Fans Data			Headers * (Inlet-Outlet)	Weight
	SC20	m²	dm³	m³/h	dBA (10m)	N°	kW	A	Inch	kg
GP45C113 EC	22,8	28,5	1,5	5.524	42	1	0,4	1,9	SS/K65 3/4	57
GP45C114 EC	28,8	38,1	2,0	5.255	42	1	0,4	1,9	SS/K65 3/4	62
GP45C115 EC	32,2	47,6	2,6	5.006	42	1	0,4	1,9	SS/K65 3/4	68
GP45C213 EC	43,3	57,1	3,1	11.048	44	2	0,8	3,8	SS/K65 3/4	108
GP45C214 EC	54,3	76,1	4,1	10.509	44	2	0,8	3,8	SS/K65 3/4	119
GP45C215 EC	61,2	95,2	5,1	10.012	44	2	0,8	3,9	SS/K65 3/4	129
GP45C313 EC	64,6	85,6	4,6	16.571	46	3	1,1	5,7	SS/K65 3/4	159
GP45C314 EC	80,6	114,2	6,1	15.764	46	3	1,1	5,7	SS/K65 3/4	175
GP45C315 EC	91,5	142,7	7,7	15.018	46	3	1,2	5,8	SS/K65 3/4	191
GP45C413 EC	85,0	114,2	6,1	22.095	47	4	1,5	7,6	SS/K65 3/4	210
GP45C414 EC	106,3	152,3	8,2	21.018	47	4	1,5	7,7	SS/K65 3/4	232
GP45C415 EC	120,7	190,3	10,2	20.024	47	4	1,6	7,8	SS/K65 3/4	253
GP45C223 EC	87,0	114,2	6,1	22.095	47	4	1,5	7,6	SS/K65 3/4	209
GP45C224 EC	108,2	152,3	8,2	21.018	47	4	1,5	7,7	SS/K65 3/4	230
GP45C225 EC	122,6	190,3	10,2	20.024	47	4	1,6	7,8	SS/K65 3/4	252
GP45C323 EC	129,3	171,3	9,2	33.142	49	6	2,3	11,3	SS/K65 3/4	309
GP45C324 EC	161,3	228,4	12,3	31.527	49	6	2,3	11,5	SS/K65 3/4	341
GP45C325 EC	183,5	285,5	15,3	30.036	49	6	2,3	11,7	SS/K65 3/4	372
GP45C423 EC	170,4	228,4	12,3	44.189	50	8	3,0	15,1	SS/K65 3/4	408
GP45C424 EC	213,0	304,5	16,3	42.036	50	8	3,1	15,3	SS/K65 3/4	451
GP45C425 EC	241,9	380,7	20,4	40.047	50	8	3,1	15,5	SS/K65 3/4	493

* The inlet and outlet diameters are the same. Our standard headers are INOX-K65, for the flexibility of our customers.
Technical data calculated at maximum RPM. For other RPM see our selection software.

CO2 · GAS COOLERS
FLAT GAS COOLER - G- SERIES

Fan ø= 630 mm

Fin pitch = 2 mm, RPM = 1.200

Model	Capacity (kW)	Surface	Internal Volume	Air Flow	Noise Level	Fans Data			Headers * (Inlet-Outlet)	Weight
	SC20	m²	dm³	m³/h	dBA (10m)	N°	kW	A	Inch	kg
GO63C113 EC	47,5	60,6	3,2	12.325	46	1	1,1	1,7	SS/K65 3/4	121
GO63C114 EC	60,2	80,9	4,3	11.684	46	1	1,1	1,7	SS/K65 3/4	132
GO63C115 EC	68,5	101,1	5,4	11.095	46	1	1,1	1,8	SS/K65 3/4	142
GO63C116 EC	76,3	121,3	6,5	10.551	46	1	1,1	1,8	SS/K65 3/4	153
GO63C213 EC	93,7	121,2	6,4	24.650	48	2	2,1	3,4	SS/K65 3/4	231
GO63C214 EC	115,3	161,8	8,7	23.367	48	2	2,1	3,5	SS/K65 3/4	253
GO63C215 EC	133,6	202,1	10,7	22.189	48	2	2,2	3,5	SS/K65 3/4	274
GO63C216 EC	148,6	242,7	13,0	21.101	48	2	2,2	3,6	SS/K65 1	296
GO63C313 EC	140,0	181,8	9,6	36.974	50	3	3,2	5,2	SS/K65 3/4	342
GO63C314 EC	176,3	242,7	13,0	35.050	50	3	3,2	5,2	SS/K65 3/4	374
GO63C315 EC	199,2	303,2	16,1	33.283	50	3	3,3	5,3	SS/K65 1	406
GO63C316 EC	221,4	364,0	19,5	31.651	50	3	3,3	5,3	SS/K65 1	439
GO63C413 EC	183,8	242,5	12,8	49.299	51	4	4,2	6,9	SS/K65 1	452
GO63C414 EC	230,7	323,6	17,4	46.733	51	4	4,3	7,0	SS/K65 1	495
GO63C415 EC	261,7	404,2	21,4	44.377	51	4	4,3	7,1	SS/K65 1	538
GO63C416 EC	290,9	485,3	26,0	42.201	51	4	4,4	7,1	SS/K65 1	581
GO63C223 EC	184,2	242,7	13,0	49.299	51	4	4,2	6,9	SS/K65 3/4	451
GO63C224 EC	235,9	323,6	17,4	46.733	51	4	4,3	7,0	SS/K65 3/4	494
GO63C225 EC	267,6	404,5	21,7	44.377	51	4	4,3	7,1	SS/K65 3/4	537
GO63C226 EC	296,3	485,3	26,0	42.201	51	4	4,4	7,1	SS/K65 1	580
GO63C513 EC	219,7	303,3	16,3	61.623	52	5	5,3	8,6	SS/K65 1	562
GO63C514 EC	276,7	404,5	21,7	58.416	52	5	5,4	8,7	SS/K65 1-1/4	616
GO63C515 EC	331,1	505,3	26,8	55.472	52	5	5,4	8,8	SS/K65 1	670
GO63C516 EC	367,8	606,7	32,5	52.751	52	5	5,5	8,9	SS/K65 1	724
GO63C323 EC	281,9	364,0	19,5	73.948	53	6	6,3	10,3	SS/K65 3/4	667
GO63C324 EC	352,2	485,3	26,0	70.099	53	6	6,4	10,5	SS/K65 1	732
GO63C325 EC	399,5	606,7	32,5	66.566	53	6	6,5	10,6	SS/K65 1	796
GO63C326 EC	442,8	728,0	39,1	63.301	53	6	6,6	10,7	SS/K65 1	861
GO63C423 EC	368,9	485,3	26,0	98.597	54	8	8,5	13,8	SS/K65 1	883
GO63C424 EC	462,2	647,1	34,7	93.465	54	8	8,6	14,0	SS/K65 1	969
GO63C425 EC	524,9	808,9	43,4	88.754	54	8	8,7	14,1	SS/K65 1	1056
GO63C426 EC	582,8	970,7	52,1	84.402	54	8	8,8	14,2	SS/K65 1	1142
GO63C523 EC	435,2	606,7	32,5	123.246	55	10	10,6	17,2	SS/K65 1	1099
GO63C524 EC	546,5	808,9	43,4	119.832	55	10	10,7	17,5	SS/K65 1-1/4	1207
GO63C525 EC	662,0	1011,1	54,2	110.943	55	10	10,9	17,6	SS/K65 1	1315
GO63C526 EC	734,7	1213,4	65,1	105.502	55	10	11,0	17,8	SS/K65 1	1423

* The inlet and outlet diameters are the same. Our standard headers are INOX-K65, for the flexibility of our customers.
Technical data calculated at maximum RPM. For other RPM see our selection software.

Fan ø= 800 mm

Fin pitch = 2 mm, RPM = 950

Model	Capacity (kW)	Surface	Internal Volume	Air Flow	Noise Level	Fans Data			Headers * (Inlet-Outlet)	Weight
	SC20	m²	dm³	m³/h	dBA (10m)	Nº	kW	A	Inch	kg
GN80C113 EC	74,9	98,1	5,3	19.039	45	1	1,5	2,4	SS/K65 3/4	193
GN80C114 EC	92,9	130,9	7,0	17.948	45	1	1,5	2,5	SS/K65 3/4	210
GN80C115 EC	106,0	163,6	8,8	16.978	45	1	1,6	2,6	SS/K65 3/4	227
GN80C116 EC	116,3	196,3	10,5	16.113	45	1	1,6	2,6	SS/K65 3/4	244
GN80C213 EC	146,3	196,3	10,5	38.078	48	2	3,0	4,8	SS/K65 3/4	376
GN80C214 EC	181,4	261,7	14,0	35.895	48	2	3,1	5,0	SS/K65 1	410
GN80C215 EC	205,7	327,1	17,6	33.955	48	2	3,2	5,1	SS/K65 1	444
GN80C216 EC	227,2	392,6	21,1	32.226	48	2	3,2	5,2	SS/K65 1	479
GN80C313 EC	216,5	294,4	15,8	57.117	50	3	4,4	7,2	SS/K65 1	560
GN80C314 EC	269,4	392,6	21,1	53.843	50	3	4,6	7,5	SS/K65 1	611
GN80C315 EC	304,7	490,7	26,3	50.932	50	3	4,7	7,7	SS/K65 1	662
GN80C316 EC	337,4	588,8	31,6	48.339	50	3	4,8	7,9	SS/K65 1	713
GN80C413 EC	277,1	392,6	21,1	76.155	51	4	5,9	9,6	SS/K65 1	743
GN80C414 EC	363,4	523,4	28,1	71.790	51	4	6,1	10,0	SS/K65 1	811
GN80C415 EC	410,5	654,3	35,1	67.909	51	4	6,3	10,3	SS/K65 1	880
GN80C416 EC	454,1	785,1	42,1	64.452	51	4	6,4	10,5	SS/K65 1	948
GN80C223 EC	291,4	392,6	21,1	76.155	51	4	5,9	9,6	SS/K65 3/4	737
GN80C224 EC	362,8	523,4	28,1	71.790	51	4	6,1	10,0	SS/K65 1	805
GN80C225 EC	409,6	654,3	35,1	67.909	51	4	6,3	10,3	SS/K65 1	873
GN80C226 EC	452,7	785,1	42,1	64.452	51	4	6,4	10,5	SS/K65 1	942
GN80C513 EC	354,6	490,7	26,3	95.194	52	5	7,4	12,0	SS/K65 1	926
GN80C514 EC	442,3	654,3	35,1	89.737	52	5	7,7	12,5	SS/K65 1-1/4	1012
GN80C515 EC	500,8	817,8	43,9	84.886	52	5	7,9	12,8	SS/K65 1-1/4	1097
GN80C516 EC	554,9	981,4	52,7	80.564	52	5	8,1	13,1	SS/K65 1-1/4	1183
GN80C323 EC	430,2	588,8	31,6	114.233	53	6	8,9	14,5	SS/K65 1	1098
GN80C324 EC	534,8	785,1	42,1	107.685	53	6	9,2	15,0	SS/K65 1	1200
GN80C325 EC	609,4	981,4	52,7	101.863	53	6	9,5	15,4	SS/K65 1	1303
GN80C326 EC	674,7	1177,7	63,2	96.677	53	6	9,7	15,7	SS/K65 1	1405
GN80C423 EC	556,8	785,1	42,1	152.310	54	8	11,9	19,3	SS/K65 1	1459
GN80C424 EC	725,2	1046,8	56,2	143.579	54	8	12,3	20,0	SS/K65 1	1596
GN80C425 EC	820,1	1308,5	70,2	135.818	54	8	12,6	20,5	SS/K65 1	1732
GN80C426 EC	907,3	1570,2	84,2	128.903	54	8	12,9	21,0	SS/K65 1	1869
GN80C523 EC	714,0	981,4	52,7	190.388	54	10	14,8	24,1	SS/K65 1	1820
GN80C524 EC	888,9	1308,5	70,2	179.474	54	10	15,4	24,9	SS/K65 1-1/4	1991
GN80C525 EC	1005,5	1635,7	87,8	169.772	54	10	15,8	25,6	SS/K65 1-1/4	2162
GN80C526 EC	1199,6	1962,8	105,3	161.128	54	10	16,1	26,2	SS/K65 3/4	2332

* The inlet and outlet diameters are the same. Our standard headers are INOX-K65, for the flexibility of our customers.
Technical data calculated at maximum RPM. For other RPM see our selection software.

CO2 · GAS COOLERS
FLAT GAS COOLER - G- SERIES

Fan ø= 900 mm

Fin pitch = 2 mm, RPM = 1.100

Model	Capacity (kW)	Surface	Internal Volume	Air Flow	Noise Level	Fans Data			Headers * (Inlet-Outlet)	Weight
	SC20	m²	dm³	m³/h	dBA (10m)	Nº	kW	A	Inch	kg
GN90C113 EC	89,1	98,1	5,3	24.997	54	1	2,3	3,8	SS/K65 3/4	207
GN90C114 EC	111,5	130,9	7,0	23.389	54	1	2,4	3,9	SS/K65 3/4	229
GN90C115 EC	125,5	163,6	8,8	21.962	54	1	2,5	4,1	SS/K65 3/4	247
GN90C116 EC	139,0	196,3	10,5	20.701	54	1	2,6	4,3	SS/K65 1	264
GN90C213 EC	173,7	196,3	10,5	49.993	56	2	4,7	7,6	SS/K65 3/4	410
GN90C214 EC	217,9	261,7	14,0	46.777	57	2	4,8	7,9	SS/K65 1	444
GN90C215 EC	246,7	327,1	17,6	43.923	57	2	5,0	8,2	SS/K65 1	479
GN90C216 EC	273,0	392,6	21,1	41.401	57	2	5,3	8,5	SS/K65 1	513
GN90C313 EC	257,6	294,4	15,8	74.989	58	3	7,0	11,5	SS/K65 1	608
GN90C314 EC	322,7	392,6	21,1	70.165	58	3	7,3	11,8	SS/K65 1	659
GN90C315 EC	365,5	490,7	26,3	65.884	58	3	7,5	12,3	SS/K65 1	711
GN90C316 EC	405,6	588,8	31,6	62.101	58	3	7,9	12,8	SS/K65 1	762
GN90C413 EC	335,7	392,6	21,1	99.985	59	4	9,4	15,3	SS/K65 1	806
GN90C414 EC	420,8	523,4	28,1	93.553	59	4	9,7	15,7	SS/K65 1-1/4	874
GN90C415 EC	477,0	654,3	35,1	87.845	59	4	10,1	16,4	SS/K65 1-1/4	943
GN90C416 EC	529,9	785,1	42,1	82.801	59	4	10,5	17,1	SS/K65 1-1/4	1011
GN90C223 EC	347,4	392,6	21,1	99.985	59	4	9,4	15,3	SS/K65 3/4	805
GN90C224 EC	437,3	523,4	28,1	93.553	59	4	9,7	15,7	SS/K65 1	873
GN90C225 EC	494,6	654,3	35,1	87.845	59	4	10,1	16,4	SS/K65 1	942
GN90C226 EC	548,2	785,1	42,1	82.801	59	4	10,5	17,1	SS/K65 1	1010
GN90C513 EC	415,9	490,7	26,3	124.981	60	5	11,7	19,1	SS/K65 1	1004
GN90C514 EC	522,9	654,3	35,1	116.941	60	5	12,1	19,7	SS/K65 1-1/4	1089
GN90C515 EC	593,4	817,8	43,9	109.806	60	5	12,6	20,4	SS/K65 1-1/4	1175
GN90C516 EC	672,4	981,4	52,7	103.501	60	5	13,1	21,3	SS/K65 1-1/4	1260
GN90C323 EC	513,4	588,8	31,6	149.977	61	6	14,1	22,9	SS/K65 1	1195
GN90C324 EC	645,0	785,1	42,1	140.329	61	6	14,5	23,6	SS/K65 1	1297
GN90C325 EC	730,5	981,4	52,7	131.767	61	6	15,1	24,5	SS/K65 1	1400
GN90C326 EC	810,7	1177,7	63,2	124.201	61	6	15,8	25,6	SS/K65 1	1502
GN90C423 EC	672,5	785,1	42,1	199.969	62	8	18,8	30,6	SS/K65 1	1585
GN90C424 EC	842,7	1046,8	46,2	187.105	62	8	19,4	31,5	SS/K65 1-1/4	1722
GN90C425 EC	955,0	1308,5	70,2	175.690	62	8	20,1	32,7	SS/K65 1-1/4	1858
GN90C426 EC	1110,2	1570,2	84,2	165.602	62	8	21,0	34,2	SS/K65 1	1995
GN90C523 EC	828,2	981,4	52,7	249.962	63	10	23,5	38,2	SS/K65 1	1975
GN90C524 EC	1043,3	1308,5	70,2	233.881	63	10	24,2	39,4	SS/K65 1-1/4	2146
GN90C525 EC	1184,8	1635,7	87,8	219.612	63	10	25,1	40,9	SS/K65 1-1/4	2317
GN90C526 EC	1345,5	1962,8	105,3	207.002	63	10	26,3	42,7	SS/K65 1-1/4	2487

* The inlet and outlet diameters are the same. Our standard headers are INOX-K65, for the flexibility of our customers.
Technical data calculated at maximum RPM. For other RPM see our selection software.

Fan ø= 800 mm

Fin pitch = 2 mm, RPM = 950

Model	Capacity (kW)	Surface	Internal Volume	Air Flow	Noise Level	Fans Data			Headers * (Inlet-Outlet)	Weight
	SC20	m²	dm³	m³/h	dBA (10m)	Nº	kW	A	Inch	kg
GM80C113 EC	89,1	130,9	7,0	20.471	45	1	1,4	2,3	SS/K65 3/4	231
GM80C114 EC	110,0	174,5	9,4	19.685	45	1	1,4	2,4	SS/K65 3/4	254
GM80C115 EC	126,9	218,1	11,7	18.953	45	1	1,5	2,4	SS/K65 3/4	277
GM80C116 EC	140,3	261,7	14,0	18.273	45	1	1,5	2,5	SS/K65 1	299
GM80C213 EC	171,7	261,7	14,0	40.941	48	2	2,8	4,5	SS/K65 1	453
GM80C214 EC	215,1	348,9	18,7	39.369	48	2	2,9	4,7	SS/K65 1	498
GM80C215 EC	251,7	436,2	23,4	37.905	48	2	3,0	4,8	SS/K65 1	544
GM80C216 EC	278,1	523,4	28,1	36.545	48	2	3,0	4,9	SS/K65 1	589
GM80C313 EC	264,6	392,6	21,1	61.411	50	3	4,2	6,8	SS/K65 1	675
GM80C314 EC	327,9	523,4	28,1	59.054	50	3	4,3	7,1	SS/K65 1	743
GM80C315 EC	372,9	654,3	35,1	56.858	50	3	4,5	7,2	SS/K65 1	811
GM80C316 EC	412,7	785,1	42,1	54.817	50	3	4,6	7,4	SS/K65 1	879
GM80C413 EC	347,9	523,4	28,1	81.881	51	4	5,6	9,1	SS/K65 1	896
GM80C414 EC	427,8	697,9	37,4	78.738	51	4	5,8	9,4	SS/K65 1-1/4	987
GM80C415 EC	487,4	872,4	46,8	75.810	51	4	5,9	9,7	SS/K65 1-1/4	1078
GM80C416 EC	540,0	1046,8	56,2	73.089	51	4	6,1	9,9	SS/K65 1-1/4	1169
GM80C223 EC	345,5	523,4	28,1	81.881	51	4	5,6	9,1	SS/K65 1	885
GM80C224 EC	441,8	697,9	37,4	78.738	51	4	5,8	9,4	SS/K65 1	975
GM80C225 EC	502,0	872,4	46,8	75.810	51	4	5,9	9,7	SS/K65 1	1066
GM80C226 EC	555,2	1046,8	56,2	73.089	51	4	6,1	9,9	SS/K65 1	1157
GM80C323 EC	529,2	785,1	42,1	122.822	53	6	8,4	13,6	SS/K65 1	1319
GM80C324 EC	655,8	1046,8	56,2	118.107	53	6	8,7	14,1	SS/K65 1	1456
GM80C325 EC	745,8	1308,5	70,2	113.715	53	6	8,9	14,5	SS/K65 1	1592
GM80C326 EC	825,5	1570,2	84,2	109.633	53	6	9,1	14,8	SS/K65 1	1728
GM80C423 EC	692,4	1046,8	56,2	163.762	53	8	11,2	18,2	SS/K65 1	1754
GM80C424 EC	859,5	1395,8	74,9	157.476	53	8	11,6	18,8	SS/K65 1-1/4	1936
GM80C425 EC	978,3	1744,7	93,6	151.620	53	8	11,9	19,3	SS/K65 1-1/4	2117
GM80C426 EC	1083,4	2093,7	112,3	146.178	53	8	12,2	19,8	SS/K65 1-1/4	2299

* The inlet and outlet diameters are the same. Our standard headers are INOX-K65, for the flexibility of our customers.
Technical data calculated at maximum RPM. For other RPM see our selection software.

CO2 · GAS COOLERS
FLAT GAS COOLER - G- SERIES

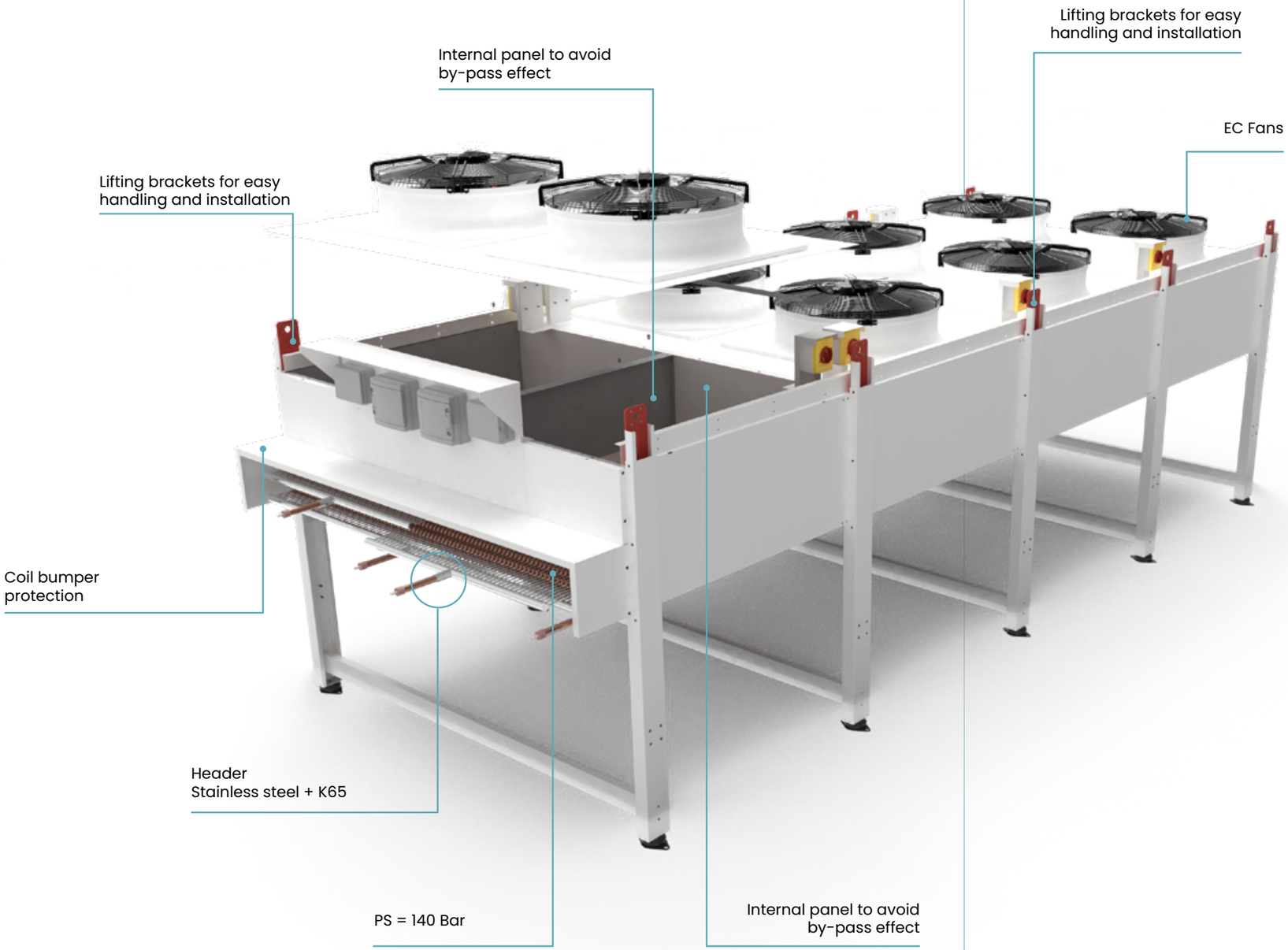
Fan ø= 900 mm

Fin pitch = 2 mm, RPM = 1.100

Model	Capacity (kW)	Surface	Internal Volume	Air Flow	Noise Level	Fans Data			Headers * (Inlet-Outlet)	Weight
	SC20	m²	dm³	m³/h	dBA (10m)	Nº	kW	A	Inch	kg
GM90C113 EC	102,8	130,9	7,0	27.099	53	1	2,3	3,7	SS/K65 3/4	243
GM90C114 EC	129,0	174,5	9,4	25.946	53	1	2,3	3,8	SS/K65 3/4	266
GM90C115 EC	147,5	218,1	11,7	24.871	54	1	2,4	3,8	SS/K65 1	289
GM90C116 EC	164,6	261,7	14,0	23.867	54	1	2,4	3,9	SS/K65 1	311
GM90C213 EC	198,6	261,7	14,0	54.198	56	2	4,5	7,3	SS/K65 1	477
GM90C214 EC	251,0	348,9	18,7	51.891	56	2	4,6	7,5	SS/K65 1	522
GM90C215 EC	287,2	436,2	23,4	49.742	56	2	4,7	7,7	SS/K65 1	568
GM90C216 EC	330,4	523,4	28,1	47.734	56	2	4,8	7,8	SS/K65 1	613
GM90C313 EC	293,8	392,6	21,1	81.296	58	3	6,8	11,0	SS/K65 1	711
GM90C314 EC	390,5	523,4	28,1	77.836	58	3	6,9	11,3	SS/K65 1	779
GM90C315 EC	445,7	654,3	35,1	75.613	58	3	7,1	11,5	SS/K65 1	847
GM90C316 EC	495,8	785,1	42,1	71.601	58	3	7,2	11,7	SS/K65 1	915
GM90C413 EC	389,4	523,4	28,1	108.395	59	4	9,0	14,7	SS/K65 1	944
GM90C414 EC	493,0	697,9	37,4	103.782	59	4	9,3	15,0	SS/K65 1-1/4	1035
GM90C415 EC	574,7	872,4	46,8	99.483	59	4	9,4	15,3	SS/K65 1-1/4	1126
GM90C416 EC	643,3	1046,8	56,2	95.468	59	4	9,6	15,6	SS/K65 1-1/4	1217
GM90C223 EC	407,4	523,4	28,1	108.395	59	4	9,0	14,7	SS/K65 1	933
GM90C224 EC	509,3	697,9	37,4	103.782	59	4	9,3	15,0	SS/K65 1	1023
GM90C225 EC	585,6	872,4	46,8	99.483	59	4	9,4	15,3	SS/K65 1	1114
GM90C226 EC	654,4	1046,8	56,2	95.468	59	4	9,6	15,6	SS/K65 1	1205
GM90C323 EC	584,3	785,1	42,1	162.592	60	6	13,5	22,0	SS/K65 1	1391
GM90C324 EC	779,4	1046,8	56,2	155.672	61	6	13,9	22,6	SS/K65 1	1528
GM90C325 EC	878,2	1308,5	70,2	149.225	61	6	14,1	23,0	SS/K65 1	1664
GM90C326 EC	982,4	1570,2	84,2	143.202	61	6	14,4	23,4	SS/K65 1	1800
GM90C423 EC	780,7	1046,8	56,2	216.790	61	8	18,1	29,3	SS/K65 1	1850
GM90C424 EC	988,9	1395,8	74,9	207.563	61	8	18,5	30,1	SS/K65 1-1/4	2032
GM90C425 EC	1156,5	1744,7	93,6	198.966	62	8	18,8	30,6	SS/K65 1-1/4	2213
GM90C426 EC	1290,7	2093,7	112,3	190.936	62	8	19,2	31,2	SS/K65 1-1/4	2395

* The inlet and outlet diameters are the same. Our standard headers are INOX-K65, for the flexibility of our customers.
Technical data calculated at maximum RPM. For other RPM see our selection software.

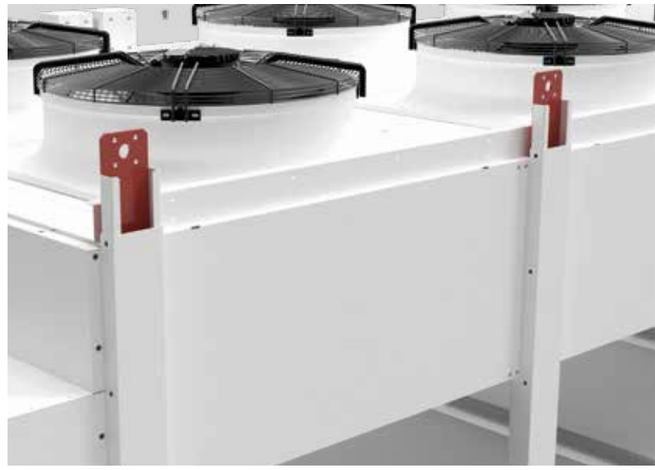
DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



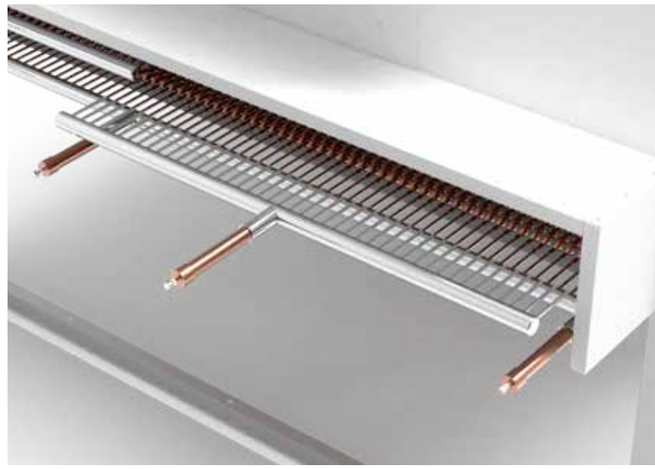
CO2 · GAS COOLERS
FLAT GAS COOLER - G- SERIES

PS = 140 Bar Coil

Brackets



Header



REVERSIBLE FLAT GAS COOLER

The reliable, efficient, and sustainable cooling solution for industrial and commercial applications

R- SERIES

Cooling capacity from 50 kW to 700 kW
PS 130 bar

ENEX TECHNOLOGIES presents the Reversible Flat Gas Cooler range for industrial and commercial applications. This product line is designed to meet or exceed customer need including energy efficiency, ergonomics, space, etc.

All ENEX TECHNOLOGIES products are designed and conceived with levels of excellence in food preservation, robustly built to withstand every weather condition including heavy snow and wind, ensuring a long life.

Ready to use in CO2 transcritical installations, our Reversible Flat Gas Cooler line consists of more than 20 models of axial gas coolers for industrial applications available in cooling capacities between 50 and 700 KW.

All ENEX TECHNOLOGIES flat gas coolers offer low noise levels and minimum energy consumption. All models are fitted with EC fan motors as standard. Fan speed can be controlled electronically to increase energy savings.

Our complete portfolio offers a large range of configurations and accessories to meet any specification, and can be customized according to the application.

LEADING PROFESSIONAL SOLUTIONS IN HEAT REJECTION

ENEX TECHNOLOGIES' assessment of Reversible FLAT GAS COOLER performance parameters under different conditions and control strategies is essential to adequately designing and optimizing the units for specific applications.

Our Reversible FLAT GAS COOLER range which can be segmented into 2 main typesranges:

RANGE	GAS COOLER (kW)*	EVAPORATOR (kW)**
R- 63	50 - 163	23 - 63
R- 87	208 - 700	82 - 243

***GAS COOLER rated conditions**: Pressure 99bar, CO2 Inlet 94ºC, CO2 Outlet 39ºC, Air inlet Tª 35ºC
****EVAPORATOR rated conditions**: Air Inlet Temperature -5ºC, Evaporating Temperature -11ºC

MAIN FEATURES

With more than 400 years of combined experience in design, production and distribution and doing business in over 125 countries, ENEX TECHNOLOGIES flat gas cooler line offers customers a wide spectrum of benefits including, but not limited to:

HIGH PERFORMANCE

• Our flat gas cooler units are capable of operating at pressures up to 130 bar, increasing efficiency and capacity even in high ambient conditions. For example, at 45º C our units deliver up to 13% capacity increase with an efficiency gain of up to 4.5%.
• Optimized circuits for maximum efficiency at each noise level.
• Copper tubes are staggered across self-spaced louvered fins to achieve high performance.
• The EC fans adapt to the needs of the application with minimal energy consumption.

LONG PRODUCT LIFE

• Strong and robust design includes high quality components to meet all thermodynamic and product life cycle requirements.
• 10 surface treatments available to increase product life cycle in challenging environments.

CUSTOMIZATION ON DEMAND

• Highest level of customization available to meet application requirements.

SELECTION SOFTWARE

• Transcritical CO2 calculations are included, allowing customers flexibility in adjusting settings as parameters of the application change.

SAFETY& RELIABILITY

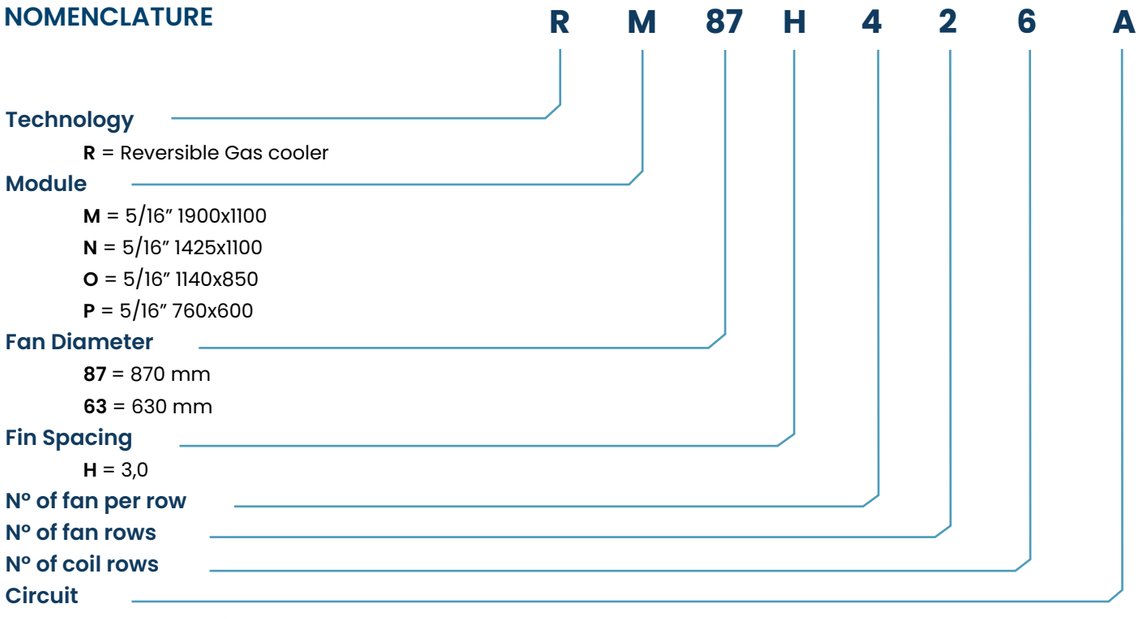
• Operating pressures up to 130 bar
• Resistance and leaks tests up to 186 bar
• Burst tests up to 390 bar
• Equipment pressurized with nitrogen at 2bar

SUSTAINABILITY

• With a GWP of 1, CO2 is widely and effectively used in commercial and industrial refrigeration systems.

TECHNICAL FEATURES

NOMENCLATURE



FINNED COILS

• All of our Ø 5/16" copper tubes are built in compliance with CUPROCLIMA specifications.
• The staggered arrangement of copper tubes across self-spaced, louvered fins accurately links between tubes and fins for higher coil performance.
• FLOATING PACK SYSTEM allows coils to levitate to avoid leaks.
• All coils are subjected to a resistance and leakage testing under a rated pressure of 200 bar and pressurized using nitrogen at 2 bar to avoid inner surface corrosion of the of the copper tubes.
• Stainless steel headers with K65 finish can be sectioned using the most suitable material for each application.

CASING

•Manufactured in galvanized steel with external surface painted epoxy-polyester and then baked and cured at 180° C for greater protection against corrosion even in extreme environmental conditions.
• Internal separators avoid the "by-pass" effect during sequential operation of fans.
• Metallic protection on connections and return bends.
• Extender legs included for both positions, horizontal and vertical coil as standard.

FAN MOTORS

• Available fans' diameters: Ø 630/870 mm.
• Axial fans with external rotor (380-480V III @ 50/60Hz).
• Equipped as standard with EC fan motors that modulate rotation speed according to unit requirements, delivering excellent acoustic performance and peak operation.

CONSTRUCTION

• Can be specified with vertical or horizontal air inlets.

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REVERSIBLE FLAT GAS COOLER - R- SERIES

OPTIONS & ACCESORIES

COIL

• Copper Fins
• Coated Fins
• AquaAero treatment
• Blygold treatment
• Other material

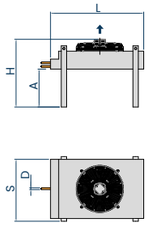
CASING

• Silent blocks

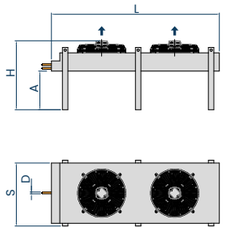
ELECTRICAL OPTIONS

• Wiring + Electrical box with magnetothermics
• Shielded Wiring
• Individual service switch by fan
• Main service switch

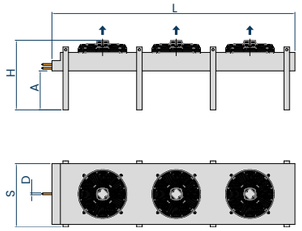
PRODUCT RANGE OVERVIEW



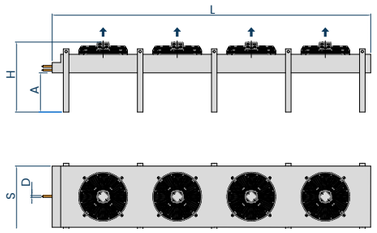
	L	S	H
RO63_11	1461	1003	1480
RN87_11	1746	1253	1901
RM87_11	2221	1253	1901



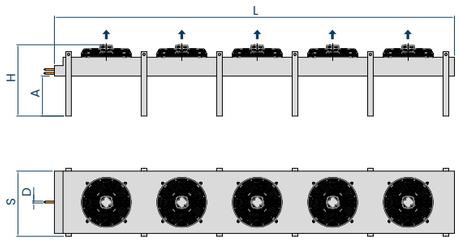
	L	S	H
RO63_21	2601	1003	1480
RN87_21	3171	1253	1901
RM87_21	4121	1253	1901



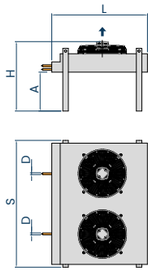
	L	S	H
RO63_31	3741	1003	1480
RN87_31	4596	1253	1901
RM87_31	6021	1253	1901



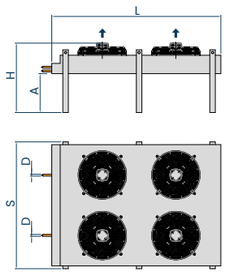
	L	S	H
RO63_41	4881	1003	1480
RN87_41	6021	1253	1901
RM87_41	7921	1253	1901



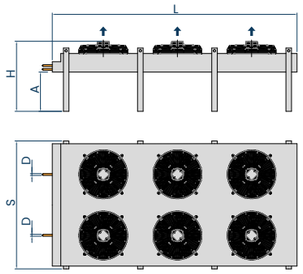
	L	S	H
RO63_51	6021	1003	1480
RN87_51	7446	1253	1901



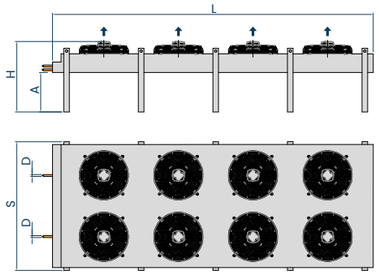
	L	S	H
RO63_12	1461	1853	1480
RN87_12	1746	2353	1901
RM87_12	2221	2353	1901



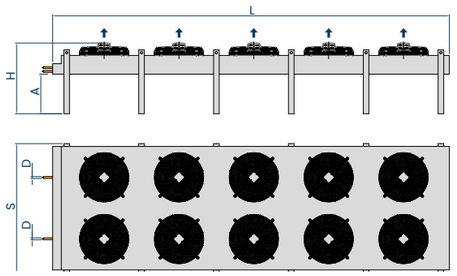
	L	S	H
RO63_22	2601	1853	1480
RN87_22	3171	2353	1901
RM87_22	4121	2353	1901



	L	S	H
RO63_32	3741	1853	1480
RN87_32	4596	2353	1901
RM87_32	6021	2353	1901



	L	S	H
RO63_42	4881	1853	1480
RN87_42	4596	2353	1901
RM87_42	7921	2353	1901



	L	S	H
RO63_52	6021	1853	1480
RN87_52	7446	2353	1901

TECHNICAL DATA

High performance
Fan ø= 630 / 870 mm

Fin pitch = 3 mm

Modello	Gas cooler capacity	Evaporat. Capacity	Surface	Internal Volume	Air Flow	Noise Level	Fans Data				Headers *** (Inlet-Outlet)	Weight
	kW*	kW**	m²	dm³	m³/h	dBA (10m)	Nº	rpm	kW	A	Inch	kg
RO63H214(17)	58,0	23,1	109,6	10,5	16.000	39	2	790	0,5	1,4	1x1" - 1x1"	269
RO63H315(28)	132,8	49,0	205,5	19,7	36.000	49	3	1.200	2,7	4,8	1x1" - 1x1"	435
RO63H415(42)	162,5	62,6	273,9	26,1	42.900	48	4	1.080	2,7	5,1	2x1" - 1x1"	577
RN87H315(55)	207,7	81,6	332,4	31,7	58.800	47	3	860	4,0	6,4	2x1" - 1x1"	759
RM87H315(55)	305,5	108,0	443,2	42,2	84.700	54	3	1.120	8,0	12,2	2x1" - 1x1"	921
RM87H224(88)	308,9	128,0	472,9	45,1	110.000	53	4	1.060	9,0	13,8	4x1" - 2x1"	1.110
RN87H325(110)	400,5	157,3	665,0	63,4	110.000	48	6	800	6,6	10,7	4x1" - 2x1"	1.492
RN87H424(88)	501,0	180,4	709,3	67,5	163.000	50	8	850	10,2	16,4	4x1" - 2x1"	1.824
RN87H425(110)	592,1	210,3	886,7	84,4	160.000	50	8	840	9,9	15,9	4x1" - 2x1"	1.981
RN87H426(132)	696,6	243,3	1064,1	101,3	168.000	54	8	940	14,3	22,2	4x1" - 2x1"	2.138

Technical data calculated at specific RPM. For other RPM see our selection software.
*GAS COOLER rated conditions: Pressure 99bar, CO2 Inlet 94ºC, CO2 Outlet 39ºC, Air inlet Tª 35ºC
**EVAPORATOR rated conditions: Air Inlet Temperature -5ºC, Evaporating Temperature -11ºC
***Our standard headers are INOX-K65, for the flexibility of our customers.

CO2 · GAS COOLERS
REVERSIBLE FLAT GAS COOLER - R- SERIES

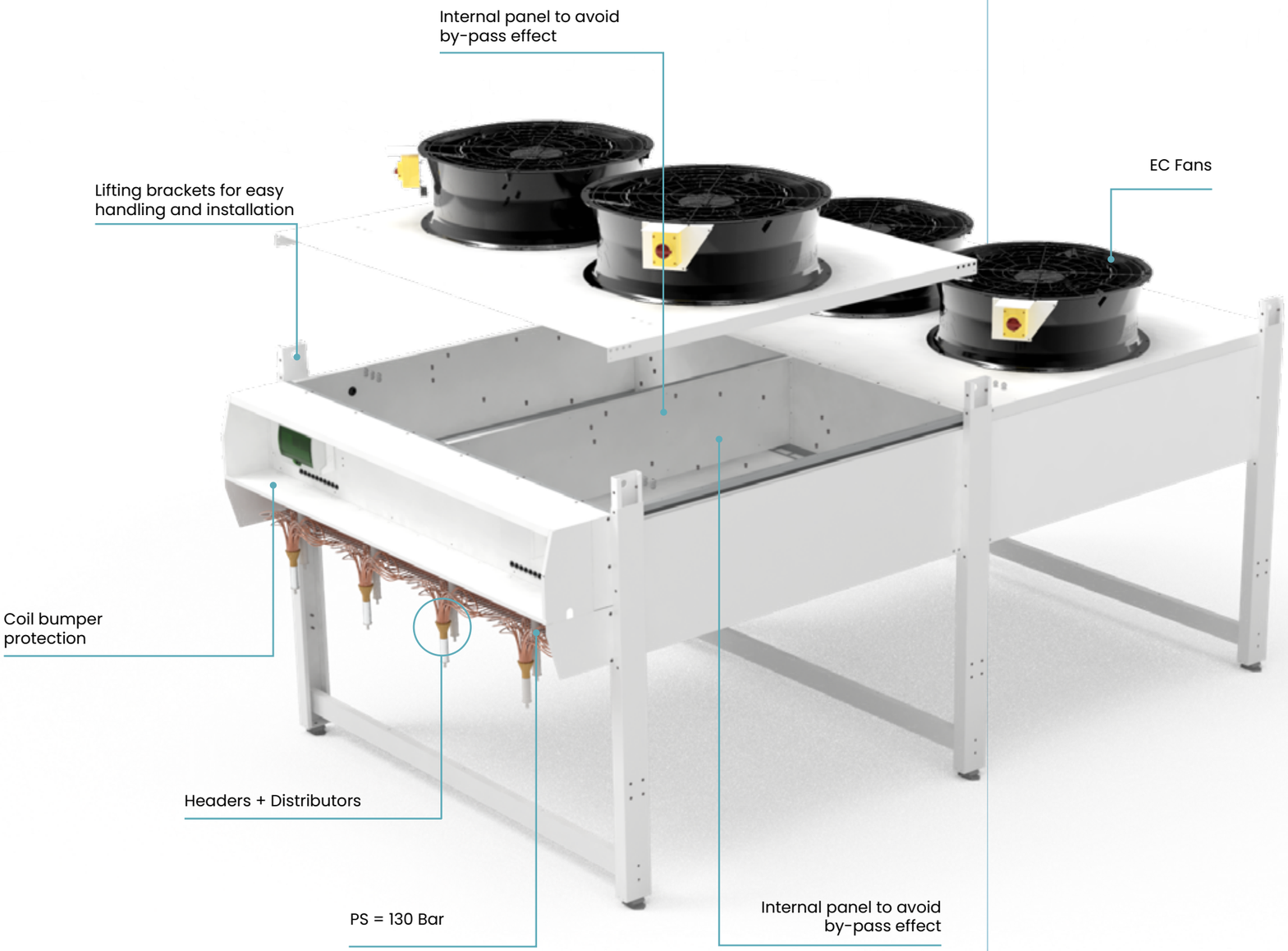
Low noise level
Fan ø= 870 mm

Fin pitch = 3 mm

Modello	Gas cooler capacity	Evaporat. Capacity	Surface	Internal Volume	Air Flow	Noise Level	Fans Data				Headers *** (Inlet-Outlet)	Weight
	kW*	kW**	m²	dm³	m³/h	dBA (10m)	Nº	rpm	kW	A	Inch	kg
RN87H313(33)	120,4	50,1	199,4	19,0	48.000	39	3	640	1,7	3,1	2x1" - 1x1"	639
RN87H314(44)	153,8	62,0	265,9	25,4	46.700	40	3	650	1,8	3,2	2x1" - 1x1"	699
RM87H315(55)	223,1	81,3	443,2	42,2	49.000	40	3	650	1,7	3,1	2x1" - 1x1"	921
RM87H226(88)	302,9	113,7	709,4	67,8	55.500	38	4	570	1,5	3,2	4x1" - 2x1"	1.321
RN87H325(110)	326,6	128,0	665,0	63,4	77.000	40	6	560	2,4	4,8	4x1" - 2x1"	1.492
RN87H425(110)	432,5	157,7	886,7	84,4	93.000	39	8	510	2,4	5,4	4x1" - 2x1"	1.981
RN87H426(132)	513,3	182,9	1064,1	101,3	101.000	41	8	570	3,4	6,7	4x1" - 2x1"	2.138

Technical data calculated at specific RPM. For other RPM see our selection software.
*GAS COOLER rated conditions: Pressure 99bar, CO2 Inlet 94ºC, CO2 Outlet 39ºC, Air inlet Tª 35ºC
**EVAPORATOR rated conditions: Air Inlet Temperature -5ºC, Evaporating Temperature -11ºC
***Our standard headers are INOX-K65, for the flexibility of our customers.

DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



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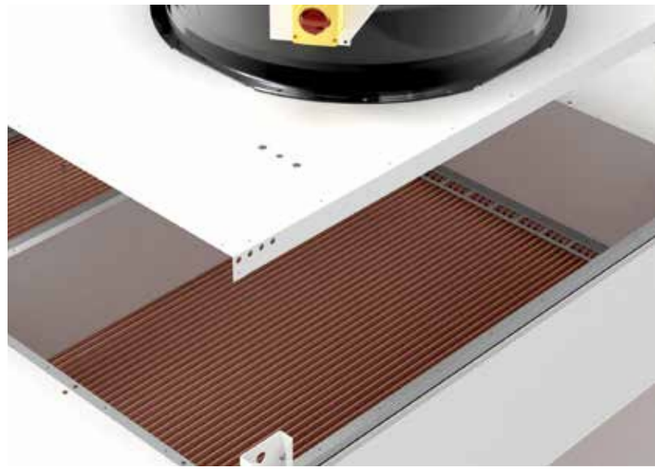
REVERSIBLE FLAT GAS COOLER - R- SERIES

PS = 130 Bar Coil



Brackets

Headers + Distributors

RADIAL GAS COOLER

The reliable, efficient, and sustainable cooling solution for industrial and commercial applications, with radial fans for indoor use

KGR

Cooling capacity from 20 kW to 525 kW
PS 130 bar

ENEX TECHNOLOGIES presents the **Radial Gas Cooler** range for industrial and commercial applications. This product line is designed to meet or exceed customer needs including energy efficiency, ergonomics, space, etc.

All ENEX TECHNOLOGIES products are designed and conceived with levels of excellence in food preservation, robustly built to ensure long life.

Ready to use in CO2 transcritical installations, our Radial Gas Cooler line consists of more than 50 models for industrial applications, available in cooling capacities between 20 and 525 KW.

ENEX TECHNOLOGIES radial gas coolers are fitted with EC fan motors as standard, delivering a minimum energy consumption up to 200 Pa available air pressure. Fan speed can be controlled electronically to increase energy savings.

Our complete portfolio offers a large range of configurations and accessories to meet any specification, and can be customized according to the application.

LEADING PROFESSIONAL SOLUTIONS IN HEAT REJECTION

ENEX TECHNOLOGIES' assessment of Radial Gas Coolers performance parameters under different conditions and control strategies is essential to designing and optimizing the units for specific applications.

Our RADIAL GAS COOLERS range which can beare segmented into two main types ranges:

RANGE	RATED CONDITIONS (kW)	STANDARD CONDITIONS SC20 (kW)
KGR400	15 - 80	20 - 107
KGR630	90 -380	120 - 525

Rated Conditions: Pressure 100bar, CO2 Inlet 120ºC, CO2 Outlet 40ºC, Air inlet Tª 38, Available air pressure 150Pa
Standard Conditions SC20: Pressure 90bar, CO2 Inlet 110ºC, CO2 Outlet 35ºC, Air inlet Tª 30, Available air pressure 150Pa

MAIN FEATURES

With more than 400 years of combined experience in design, production and distribution and doing business in over 125 countries, ENEX TECHNOLOGIES radial gas cooler line offers to customers a wide spectrum of benefits including, but not limited to:

HIGH PERFORMANCE FOR INDOOR USE

- With RADIAL EC fans up to 200 Pa available pressure.
- Optional EC fans adapt to the needs of the application with minimal energy consumption (30% savings compared to an AC fan).
- Copper tubes are staggered across self-spaced louvered fins to achieve high performance.

LONG PRODUCT LIFE

- Strong and robust design includes high quality components to meet all thermodynamic and product life cycle requirements.
- 10 surface treatments available to increase product life cycle in challenging environments.

SAVING FOOTPRINT

- "V" configuration offers high performance in minimal space, reducing footprint in machinery rooms.

CUSTOMIZATION ON DEMAND

- Highest level of customization available to meet application requirements.

SELECTION SOFTWARE

- Transcritical CO2 calculations are included, allowing customers flexibility in adjusting settings as parameters of the application change.

SAFETY & RELIABILITY

- Operating pressures up to 130 bar
- Resistance and leaks tests up to 186 bar
- Burst tests up to 390 bar
- Equipment pressurized with nitrogen at 2bar

SUSTAINABILITY

- With a GWP of 1, CO2 is widely and effectively used in commercial and industrial refrigeration systems.

TECHNICAL FEATURES

NOMENCLATURE

K G R 63 05 L 5G 04EC VS

Technology
G = Gas cooler

Typology
R = Radial fan

Fan Diameter
63 = 630 mm
40 = 400 mm

Nº of fans
01 = 1 fan
05 = 5 fans

Fan arrangement
L = In line
P = In parallel

Size of coil

Type of fan

Type of air outlet
VS = Vertical Simple
VD = Vertical Double
H = Horizontal

FINNED COILS

• K65 copper tubes Ø 3/8" are built in compliance with CUPROCLIMA specifications.
• The staggered arrangement of copper tubes across self-spaced corrugated fins accurately links tubes and fins for higher coil performance.
• FLOATING PACK SYSTEM allows coils to levitate to avoid leaks.
• All coils are subjected to resistance and leakage testing under a rated pressure of 186 bar and pressurized using nitrogen at 2 bar to avoid inner surface corrosion of the copper tubes ensuring peak operating condition.
• Stainless steel headers with K65 finish can be sectioned using the most suitable material for each application.

CASING

• Manufactured in galvanized steel (painted as optional).
• Interchangeable air outlet panels.
• Internal separators avoid the "by-pass" effect during sequential operation of fans.
• Metallic protection on connections and return bends.

FAN MOTORS

• Available fans' diameters: Ø 400/630 mm.
• Equipped as standard with EC fan motors that modulate rotation speed depending on requirements, delivering peak operation.
• Radial fans: 230V I @ 50/60Hz (for Ø 400 mm) and 400V III @ 50/60Hz (for Ø 630 mm).
• All motors have class B insulation, grade IP-55 protection, a thermal protection device and working operate on at a temperature range from -25° C up to +55° C.
• Up to 200 Pa available air pressure.
• Motors are housed inside an easy-access metallic support.

CO2 · GAS COOLERS
RADIAL GAS COOLER - KGR

OPTIONS & ACCESORIES

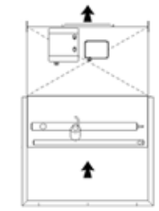
COIL
• Copper Fins
• Coated Fins
• AquaAero treatment
• Blygold treatment
• Other material

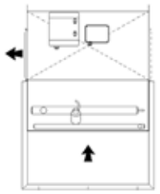
CASING
• Painted Casing
• Excessive Pressure Dampers
• Acoustic Isolation
• Silent blocks

ELECTRICAL OPTIONS
• Shielded Wiring
• Individual service switch by fan

OTHER
• Adiabatic spray system

AIR DIRECTION POSSIBILITIES


V
Horizontal Coil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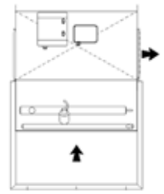
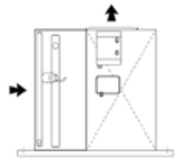

HR
Horizontal Coil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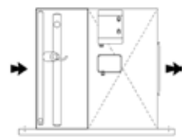
Vertical Coil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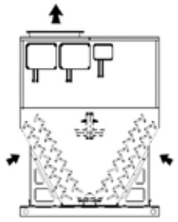
Vertical Coil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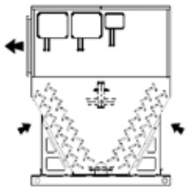
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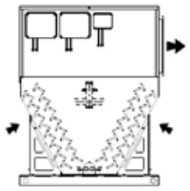
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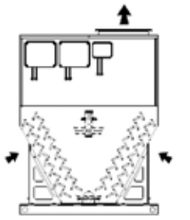
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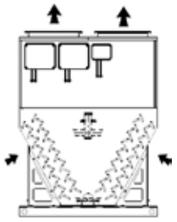
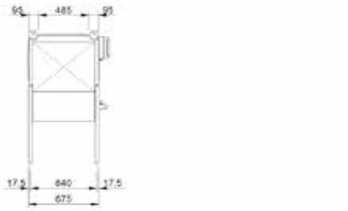
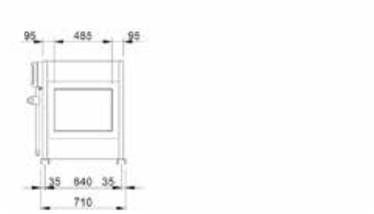
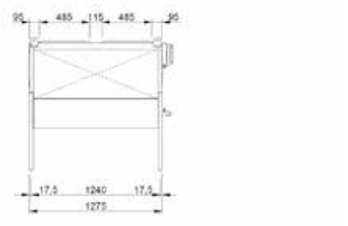
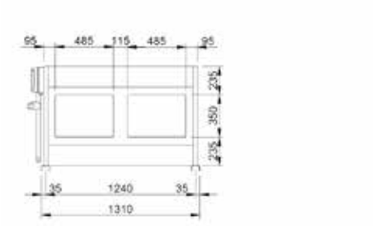

VD

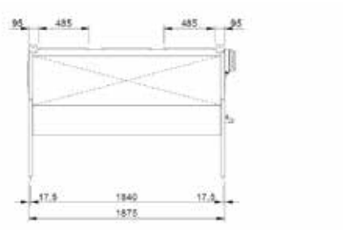
PRODUCT RANGE OVERVIEW · KGR40

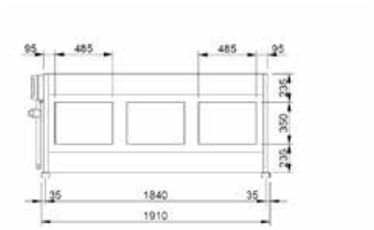


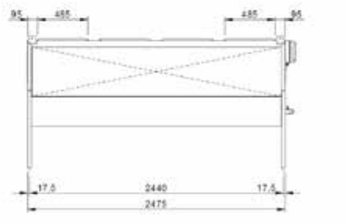




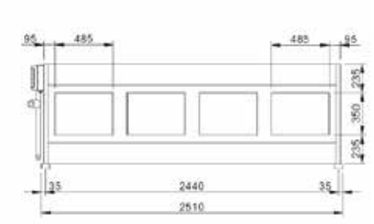




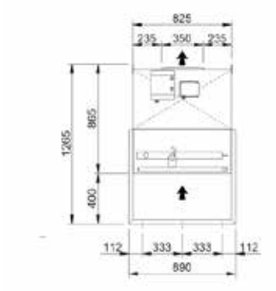




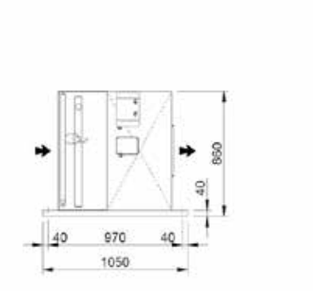
Frontal view · Horizontal coil



Frontal view · Vertical coil

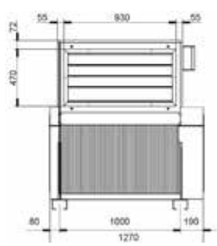


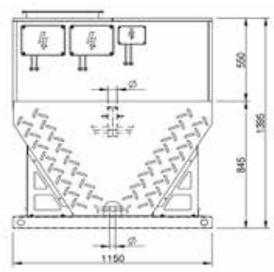
Lateral view · Horizontal coil



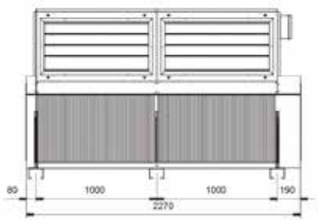
Lateral view · Vertical coil

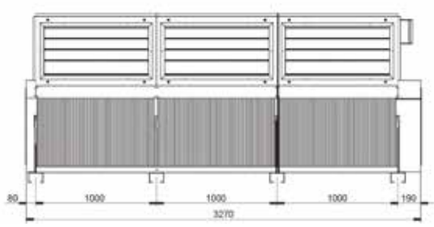
PRODUCT RANGE OVERVIEW · KR63

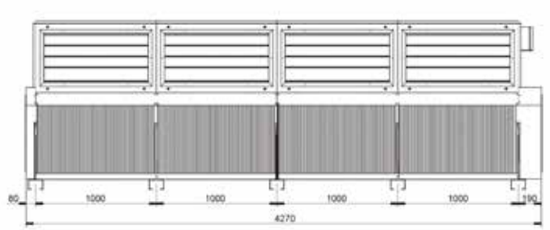


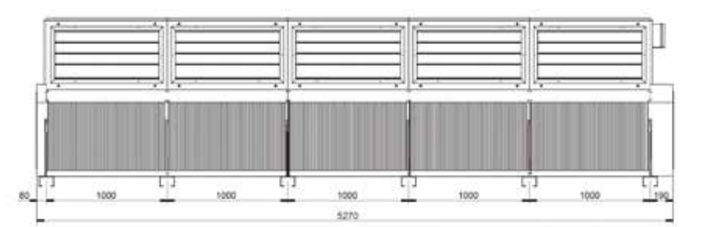


Lateral view









TECHNICAL DATA

Fan ø= 400 mm

Fin pitch = 2,5 mm, RPM = 1.700

Model	Capacity (kW)	Surface	Internal Volume	Air Flow	Noise Level	Fans Data			Inlet Ø	Outlet Ø	Weight
	SC20	m²	dm³	m³/h	dBA (10m)	Nº	kW	A	mm	mm	kg
KGR-4001L 3C 02EC V	23,0	29,7	4,4	4.750	53	1	0,8	3,3	SS 21,3	SS 21,3	95
KGR-4001L 3C 02EC H	24,2	29,7	4,4	5.100	55	1	0,8	3,3	SS 21,3	SS 21,3	95
KGR-4001L 3E 02EC V	27,0	44,6	6,6	4.500	53	1	0,8	3,3	SS 21,3	SS 21,3	105
KGR-4001L 3E 02EC H	28,9	44,6	6,6	4.900	55	1	0,8	3,3	SS 21,3	SS 21,3	105
KGR-4002L 3C 02EC V	43,6	59,5	8,7	9.500	56	2	1,5	6,6	SS 26,9	SS 21,3	165
KGR-4002L 3C 02EC H	45,9	59,5	8,7	10.200	58	2	1,5	6,6	SS 26,9	SS 21,3	165
KGR-4002L 3E 02EC V	51,9	89,2	13,1	9.000	56	2	1,5	6,6	SS 26,9	SS 21,3	180
KGR-4002L 3E 02EC H	55,3	89,2	13,1	9.800	58	2	1,5	6,6	SS 26,9	SS 21,3	180
KGR-4003L 3C 02EC V	63,3	89,2	13,1	14.250	58	3	2,3	9,9	SS 26,9	SS 21,3	235
KGR-4003L 3C 02EC H	66,6	89,2	13,1	15.300	60	3	2,3	9,9	SS 26,9	SS 21,3	235
KGR-4003L 3E 02EC V	76,2	133,9	19,7	13.500	58	3	2,3	9,9	SS 33,7	SS 26,9	260
KGR-4003L 3E 02EC H	81,2	133,9	19,7	14.700	60	3	2,3	9,9	SS 33,7	SS 26,9	260
KGR-4004L 3C 02EC V	84,2	119,0	17,5	19.000	59	4	3,0	13,2	SS 33,7	SS 26,9	305
KGR-4004L 3C 02EC H	88,5	119,0	17,5	20.400	61	4	3,0	13,2	SS 33,7	SS 26,9	305
KGR-4004L 3E 02EC V	100,0	178,5	26,2	18.000	59	4	3,0	13,2	SS 33,7	SS 26,9	335
KGR-4004L 3E 02EC H	106,6	178,5	26,2	19.600	61	4	3,0	13,2	SS 33,7	SS 26,9	335

Technical data calculated with 150Pa available air pressure. For other available air pressure, please see our selection software.
Technical data calculated at maximum RPM. For other RPM see our selection software.

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RADIAL GAS COOLER - KGR

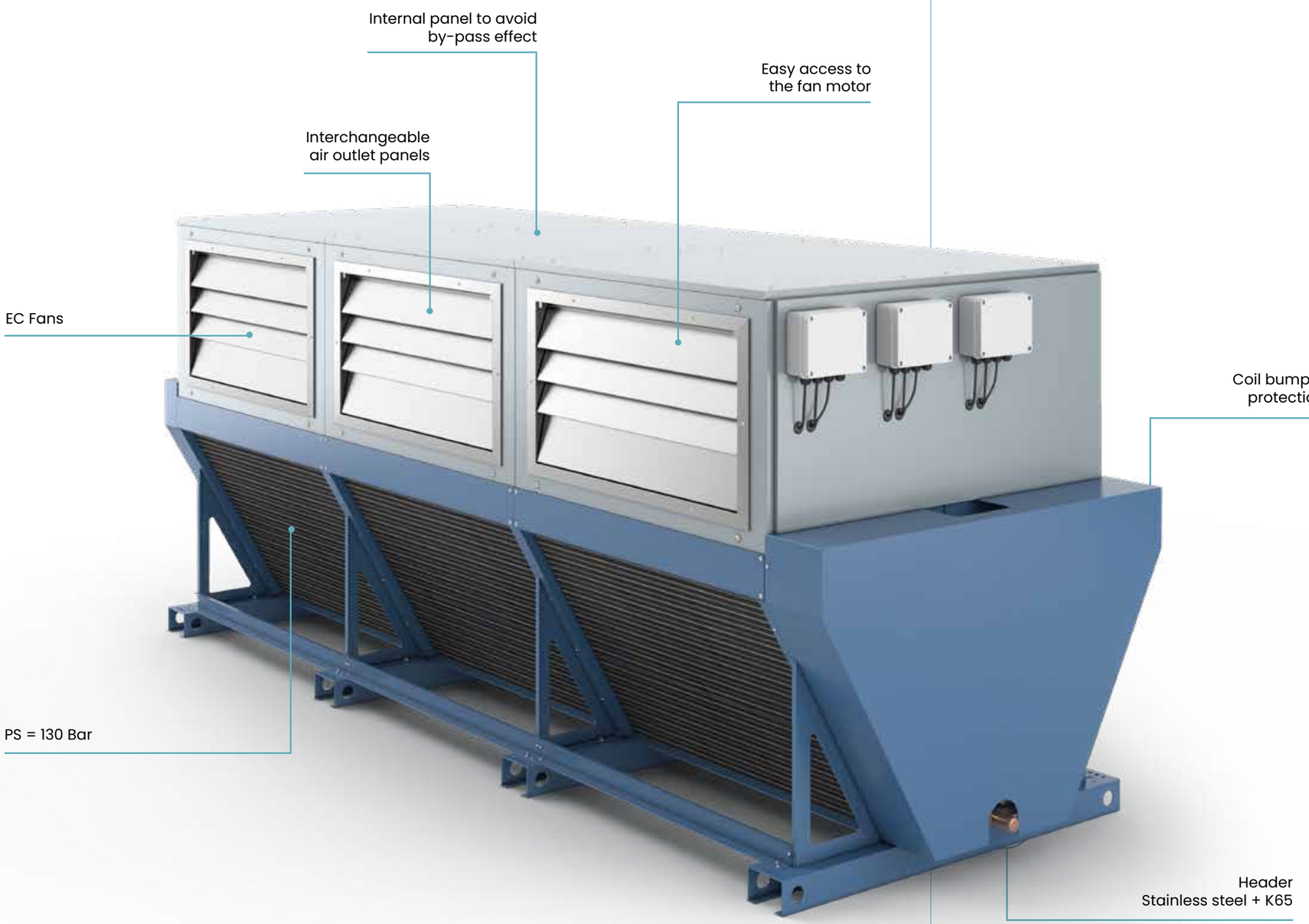
Fan ø= 630 mm

Fin pitch = 2,1 mm, RPM = 1.330

Model	Capacity (kW)	Surface	Internal Volume	Air Flow	Noise Level	Fans Data			Inlet Ø	Outlet Ø	Weight
	SC20	m²	dm³	m³/h	dBA (10m)	Nº	kW	A	mm	mm	kg
KGR-6302L 5B 04EC H	128,1	163,2	20,4	31.900	57	2	5,9	9,2	SS 2 x 26,9	SS 2 x 21,3	445
KGR-6302L 5B 04EC VS	120,2	163,2	20,4	29.100	56	2	6,4	9,8	SS 2 x 26,9	SS 2 x 21,3	445
KGR-6302L 5C 04EC H	153,4	217,6	27,2	31.700	57	2	6,0	9,2	SS 2 x 33,7	SS 2 x 26,9	475
KGR-6302L 5C 04EC VS	143,2	217,6	27,2	28.800	56	2	6,4	9,8	SS 2 x 33,7	SS 2 x 26,9	475
KGR-6302L 5D 04EC H	172,5	272,0	34,0	31.600	57	2	6,0	9,2	SS 2 x 33,7	SS 2 x 26,9	500
KGR-6302L 5D 04EC VS	160,2	272,0	34,0	28.600	56	2	6,4	9,8	SS 2 x 33,7	SS 2 x 26,9	500
KGR-6302L 5E 04EC H	185,7	326,4	40,8	31.550	57	2	6,0	9,4	SS 2 x 33,7	SS 2 x 26,9	530
KGR-6302L 5E 04EC VS	171,5	326,4	40,8	28.400	56	2	6,4	9,8	SS 2 x 33,7	SS 2 x 26,9	530
KGR-6302L 5G 04EC H	213,3	435,1	54,4	31.150	57	2	6,1	9,4	SS 2 x 33,7	SS 2 x 26,9	585
KGR-6302L 5G 04EC VS	195,7	435,1	54,4	27.900	56	2	6,4	9,8	SS 2 x 33,7	SS 2 x 26,9	585
KGR-6303L 5B 04EC H	190,2	244,8	30,6	47.850	59	3	8,9	13,8	SS 2 x 33,7	SS 2 x 26,9	635
KGR-6303L 5B 04EC VS	178,5	244,8	30,6	43.650	58	3	9,6	14,7	SS 2 x 33,7	SS 2 x 26,9	635
KGR-6303L 5C 04EC H	226,9	326,4	40,8	47.550	59	3	9,0	13,8	SS 2 x 33,7	SS 2 x 26,9	675
KGR-6303L 5C 04EC VS	211,8	326,4	40,8	43.200	58	3	9,6	14,7	SS 2 x 33,7	SS 2 x 26,9	675
KGR-6303L 5D 04EC H	256,5	407,9	51,0	47.400	59	3	9,0	13,8	SS 2 x 42,4	SS 2 x 33,7	715
KGR-6303L 5D 04EC VS	238,3	407,9	51,0	42.900	58	3	9,6	14,7	SS 2 x 42,4	SS 2 x 33,7	715
KGR-6303L 5E 04EC H	277,9	489,5	61,2	47.325	59	3	9,0	14,1	SS 2 x 42,4	SS 2 x 33,7	755
KGR-6303L 5E 04EC VS	256,7	489,5	61,2	42.600	58	3	9,6	14,7	SS 2 x 42,4	SS 2 x 33,7	755
KGR-6303L 5G 04EC H	316,7	652,7	81,6	46.725	59	3	9,1	14,1	SS 2 x 42,4	SS 2 x 33,7	835
KGR-6303L 5G 04EC VS	290,7	652,7	81,6	41.850	58	3	9,6	14,7	SS 2 x 42,4	SS 2 x 33,7	835
KGR-6304L 5B 04EC H	254,0	326,4	40,8	63.800	60	4	11,9	18,4	SS 2 x 42,4	SS 2 x 33,7	830
KGR-6304L 5B 04EC VS	237,2	326,4	40,8	58.200	59	4	12,8	19,6	SS 2 x 42,4	SS 2 x 33,7	830
KGR-6304L 5C 04EC H	303,5	435,1	54,4	63.400	60	4	12,0	18,4	SS 2 x 42,4	SS 2 x 33,7	885
KGR-6304L 5C 04EC VS	281,1	435,1	54,4	57.600	59	4	12,8	19,6	SS 2 x 42,4	SS 2 x 33,7	885
KGR-6304L 5D 04EC H	343,4	543,9	68,0	63.200	60	4	12,0	18,4	SS 2 x 42,4	SS 2 x 33,7	940
KGR-6304L 5D 04EC VS	316,8	543,9	68,0	57.200	59	4	12,8	19,6	SS 2 x 42,4	SS 2 x 33,7	940
KGR-6304L 5E 04EC H	369,6	652,7	81,6	63.100	60	4	12,0	18,8	SS 2 x 42,4	SS 2 x 33,7	990
KGR-6304L 5E 04EC VS	339,2	652,7	81,6	56.800	59	4	12,8	19,6	SS 2 x 42,4	SS 2 x 33,7	990
KGR-6304L 5G 04EC H	420,6	870,3	108,7	62.300	60	4	12,2	18,8	SS 2 x 48,3	SS 2 x 42,4	1100
KGR-6304L 5G 04EC VS	384,0	870,3	108,7	55.800	59	4	12,8	19,6	SS 2 x 48,3	SS 2 x 42,4	1100
KGR-6305L 5B 04EC H	311,9	407,9	51,0	79.750	61	5	14,9	23,0	SS 2 x 42,4	SS 2 x 33,7	1030
KGR-6305L 5B 04EC H	311,9	407,9	51,0	79.750	61	5	14,9	23,0	SS 2 x 42,4	SS 2 x 33,7	1030
KGR-6305L 5C 04EC H	373,0	543,9	68,0	79.250	61	5	15,0	23,0	SS 2 x 42,4	SS 2 x 33,7	1100
KGR-6305L 5C 04EC H	373,0	543,9	68,0	79.250	61	5	15,0	23,0	SS 2 x 42,4	SS 2 x 33,7	1100
KGR-6305L 5D 04EC H	421,9	679,9	85,0	79.000	61	5	15,0	23,0	SS 2 x 42,4	SS 2 x 33,7	1170
KGR-6305L 5D 04EC H	421,9	679,9	85,0	79.000	61	5	15,0	23,0	SS 2 x 42,4	SS 2 x 33,7	1170
KGR-6305L 5E 04EC H	454,6	815,9	101,9	78.875	61	5	15,1	23,5	SS 2 x 48,3	SS 2 x 42,4	1240
KGR-6305L 5E 04EC H	454,6	815,9	101,9	78.875	61	5	15,1	23,5	SS 2 x 48,3	SS 2 x 42,4	1240

Technical data calculated with 150Pa available air pressure. For other available air pressure, please see our selection software.
Technical data calculated at maximum RPM. For other RPM see our selection software.

DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE



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