

Goedhart FC38S



Goedhart FC38D



Goedhart FC38L



Goedhart FC38

Standard air coolers

Cu/Al

R404A - Coolants



Goedhart FC38

The range GEA Goedhart FC38 standard ceiling mounted air coolers are standard air coolers for cooling and freezing applications (FC38S), working/preparation rooms and storage rooms for humidity sensitive products (FC38D) and for cold storage rooms with height limitation (FC38L).

The standard FC38 aircoolers are suitable for all known refrigerants and not corrosive coolants, with the exception of NH3.

Type description

FC38Si(dx) 6.2.40.7-230-E

FC38S = Ceiling mounted air coolers	2	= Number of fans
FC38D = Dual discharge air coolers		
FC38L = Extra low air cooler	40	= Fan diameter in cm
i = internally enhanced tubes	7	= Fin spacing
p = plain tubes		
(dx) = R404A	230	= 1x230V Fan tension
(G) = coolant	400	= 3x400V Fan tension
6 = number of tubes deep	E	= Electrical defrost
	H	= Hot gas defrost

General features

Coil block

- Tube distance : 38x33 mm versprongen
- Tubes : 12mm o.d copper tube
- : I= internally enhanced tubes for refrigerants (dx)
P= internally plain tubes for coolants(G) and refrigerants (dx)
- Fins : aluminium HT-fins
- Fin spacing : 4 mm : Suitable for applications with air temperatures above 0°C and with expected limited frost
: 7 mm : Suitable for applications with air temperatures below 0°C and expected frost
- A good thermal with the fins contact because the copper tubes are mechanically expanded into fully collared aluminium fins.
- The suction header is executed with a Schröder valve for testing applications
- All coil blocks for refrigerants are pressure tested to 40 bars. All coil blocks for coolants are pressure tested to 15 bars.
- FC38 aircoolers are supplied with a light overpressure charge.

General features

Casing

- Standard refrigerant connections are fixed on the left hand side of the unit when looking with the direction of the air flow.
- Construction suitable for mounting to the ceiling.
- The FC38 casing is made from galvanized sheet steel, with exception of:
 - FC38S drip tray is hinged and made from light aluminum.
 - FC38D has a fixed galvanized drip tray.
 - FC38L drip tray is hinged and made from light aluminum.
- The fans of the FC38D are mounted to the outside of the drip tray of the air cooler and are wired.
- Goedhart FC38SB and FC38L air cooler is executed with a short air conduction plate as standard.
- The casing has a corrosion resistant white epoxy spray finish (RAL 9003).
- Almost all fixing materials are made of stainless steel to prevent corrosion.
- A possible hot gas spiral or electric defrost elements will be fixed to the bottom side of the coil

Standard options

Optional extra's	FC38S	FC38D	FC38L
Draw through execution	•		
Insulated drip tray	•		
StSt casing	•	•	•
Goldlack fins (4 / 7 mm)	•	•	•
Almg fins (4 mm)	•	•	•

Options on request

Optional extra's	FC38S	FC38D	FC38L
Hot gas defrost	•		
Warm glycol defrost	•		
Fan heating	•		•
Splash plate	•		
StSt tubes	•	•	•

P.E.D.

All air coolers produced by Goedhart comply with the Pressure Equipment Directive 97/23/EC. PED certificates can be downloaded from www.goedhart.nl.

Guarantee

Goedhart gives in conformity with her general conditions of delivery the following guarantee period on the Goedhart FC38 air coolers:

- within a 12 month period of product use
- at the latest within 18 months after the time of delivery.

Sound data

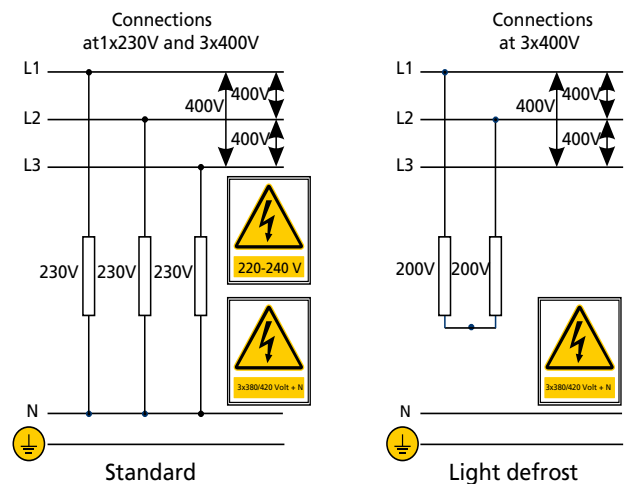
The mean sound pressure (LpA @ 3m ± 2 dB (A)) each air cooler is a calculated indication value according to the EN13487 standard parallel pipe. Goedhart uses the fan manufacturer's sound power level (LwA) at the inlet side of the fan. Changes to or by the fan or the product, affect the sound, in these cases, consult the manufacturer for the new indication value. In critical sound requirements, we advise you to consult an expert.

Defrost systems

For room temperatures where ripe formation can be expected and where the coil can not be defrosted by the room air, electrical or hot gas defrost is necessary

Electrical defrost

On request FC38 can be provided with electrical defrost. FC38 is always delivered with heavy defrost. The heater elements are rated for 220/240 V and are 400/420 V with zero wire supply. The stainless steel heater elements are fitted in the coil block in inner tubes which form a highly conductive medium between the heaters and the fins. In the drip-tray, the heater elements are fitted to the bottom side of the underside of the aluminum inner tray. The heater elements in the coil block are removable from the header side of the unit, whilst the tray heater elements can be removed once the outer tray has been taken off.



Hot gas defrost

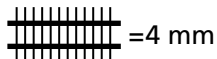
The coil block is suited for hot gas defrost (hot gas supply through the suction header). The drip tray can be provided with a copper hot gas spiral, which is enclosed in special aluminum profiles, which are rigidly secured to underside of the aluminum inner tray.

Mounting & Maintenance

FC38 is delivered in a wooden crate. FC38S will be delivered with the separate drip-tray. When crated, FC38 can be handled by crane or fork-lift truck, which makes it very easy to mount. The drip-tray of the FC38S is delivered separately. For maintenance and instructions see our manual delivered on order or can be downloaded from our web site www.goedhart.nl.



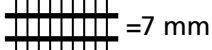
Goedhart FC38Si(dx) - R404A



Type	Fan diameter	1x230V-50Hz-4 pole (1500 min ⁻¹ nom.)					Surface	Connections		Weight	Internal volume
		SC1	SC2	SC3	Air volume	LpA @ 3 m (+/- 2 dB(A))*		I	K		
		DT1 = 10K Air on =10°C 0 / +10	DT1 = 8K Air on =0°C -8 / 0	DT1 = 7K Air on =-18°C -25 / -18							
FC38S	mm	kW	kW	kW	m ³ /h	dB(A)	m ²	mm	mm	kg	dm ³
4.1.25.4	1x250	2,4	1,7		632	40,8	7	12	12	26	2
4.1.30.4	1x300	4,0	2,7		1124	43,7	11	12	28	34	3
6.1.30.4	1x300	4,4	3,1		980	43,7	16	12	28	39	4
6.1.35.4	1x350	7,7	5,3		1794	53,5	25	12	28	51	6
6.1.40.4	1x400	10,7	7,3		2531	54,4	34	16	28	63	8
6.1.45.4	1x450	17,7	12,0		4565	58,3	45	16	28	75	10
4.2.30.4	2x300	7,9	5,4		2241	46,5	22	12	28	50	5
6.2.30.4	2x300	8,8	6,1		1952	46,5	32	12	28	61	7
6.2.35.4	2x350	15,4	10,5		3578	56,3	50	16	28	82	11
6.2.40.4	2x400	21,3	14,5		5051	57,1	68	16	35	103	15
6.2.45.4	2x450	35,3	23,9		9115	61,0	90	16	35	122	19
6.2.50.4	2x500	43,4	29,4		11131	62,3	112	16	42	204	24
6.3.30.4	3x300	13,2	9,1		2923	48,1	49	16	28	81	11
6.3.35.4	3x350	23,0	15,8		5363	57,8	75	16	28	112	16
6.3.40.4	3x400	32,3	22,2		7570	58,6	102	16	35	142	22
6.3.45.4	3x450	52,9	35,8		13665	62,5	134	16	42	174	28
6.3.50.4	3x500	65,4	44,4		16686	63,8	168	16	54	291	35
6.4.30.4	4x300	17,5	12,0		3895	49,2	65	16	28	104	14
6.4.35.4	4x350	30,6	21,0		7148	58,9	99	16	35	143	21
6.4.40.4	4x400	43,1	29,4		10089	59,7	136	22	42	183	29
6.4.45.4	4x450	70,7	47,8		18214	63,5	179	22	54	222	38
6.4.50.4	4x500	87,0	58,9		22242	64,7	224	28	54	376	47
6.5.45.4	5x450	89,0	60,1		22764	64,2	223	22	54	267	47
6.6.45.4	6x450	106,2	71,5		27314	64,7	268	28	54	322	56

Air cooler details

* = Sound pressure indication (LpA) at 3 m distance each air cooler (+/- 2 dB(A)) , free field conditions, according EN13487



Type	Fan diameter	1x230V-50Hz-4 pole (1500 min ⁻¹ nom.)					Surface	Connections		Weight	Internal volume
		SC1	SC2	SC3	Air volume	LpA @ 3 m (+/- 2 dB(A))*		I	K		
		DT1 = 10K Air on =10°C 0 / +10	DT1 = 8K Air on =0°C -8 / 0	DT1 = 7K Air on =-18°C -25 / -18							
FC38S	mm	kW	kW	kW	m ³ /h	dB(A)	m ²	mm	mm	kg	dm ³
4.1.25.7	1x250	1,8	1,2	0,9	720	40,8	4	12	12	25	2
4.1.30.7	1x300	3,0	2,0	1,5	1309	43,7	7	12	28	32	3
6.1.30.7	1x300	3,9	2,6	1,9	1194	43,7	10	12	28	36	4
6.1.35.7	1x350	6,4	4,4	3,2	2103	53,5	15	12	28	46	6
6.1.40.7	1x400	9,0	6,1	4,5	2964	54,4	21	16	28	57	8
6.1.45.7	1x450	14,1	9,5	6,9	5217	58,3	27	16	28	67	10
4.2.30.7	2x300	5,9	4,0	2,9	2612	46,5	13	12	28	47	5
6.2.30.7	2x300	7,7	5,2	3,9	2381	46,5	19	12	28	56	7
6.2.35.7	2x350	12,8	8,7	6,4	4199	56,3	30	16	28	74	11
6.2.40.7	2x400	17,6	12,1	8,7	5918	57,1	41	16	28	92	15
6.2.45.7	2x450	28,1	18,9	13,9	10423	61,0	54	16	35	109	19
6.2.50.7	2x500	34,7	23,4	17,2	12823	62,3	67	16	35	186	24
6.3.30.7	3x300	11,5	7,8	5,8	3568	48,1	29	12	28	74	11
6.3.35.7	3x350	19,3	13,1	9,6	6295	57,8	45	16	28	100	16
6.3.40.7	3x400	26,8	18,3	13,4	8873	58,6	61	16	28	126	22
6.3.45.7	3x450	42,0	28,2	20,5	15628	62,5	80	16	42	152	28
6.3.50.7	3x500	52,0	35,0	25,8	19226	63,8	101	16	42	263	35
6.4.30.7	4x300	15,0	10,3	7,6	4754	49,2	39	16	28	93	14
6.4.35.7	4x350	25,7	17,5	12,7	8389	58,9	60	16	35	127	21
6.4.40.7	4x400	35,5	24,1	17,9	11828	59,7	82	16	35	161	29
6.4.45.7	4x450	56,3	37,7	27,7	20834	63,5	107	16	42	193	38
6.4.50.7	4x500	69,7	46,7	34,3	25630	64,7	134	28	54	339	47
6.5.45.7	5x450	70,2	47,0	34,7	26040	64,2	134	22	54	229	47
6.6.45.7	6x450	84,4	56,5	40,9	31246	64,7	161	22	54	279	56

Air cooler details

* = Sound pressure indication (LpA) at 3 m distance each air cooler (+/- 2 dB(A)) , free field conditions, according EN13487

Goedhart delivery program

Goedhart catalogue air coolers



VCI



DVS/DRS/DZS



ZGB/ZGZ



PAC



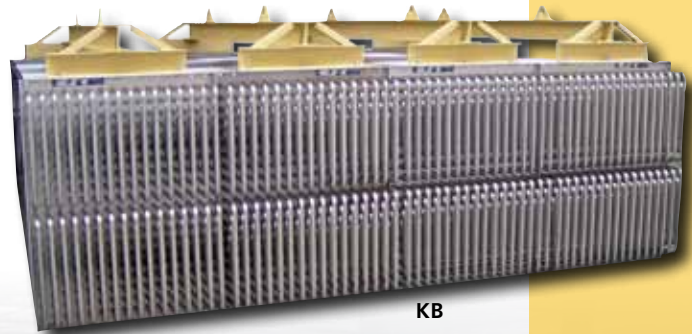
FC38



ZFB/ZFZ

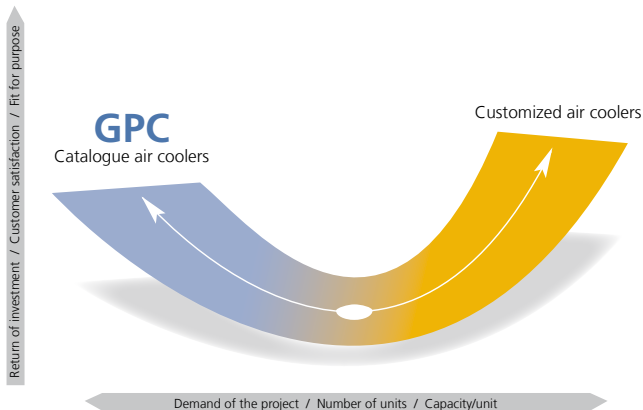
Goedhart delivery programm

Goedhart engineered-to-order air coolers





Best of both worlds



One question which always is in the mind of an industrial refrigeration engineer is the following:
Do I ask for standard or shall I go for tailor made?

There are good reasons for both choices. In some cases, the solution needed is beyond the boundaries of the standard program. In other occasions, tailor made can even offer a more economical solution. In again other situations standard would be the logical choice to go for.

In any of the cases GEA Goedhart can offer you the right solution. With the standard selection software GPC finding the right heat exchanger is just a few mouse clicks away. On other cases the GEA Goedhart engineers are happy to help you out!

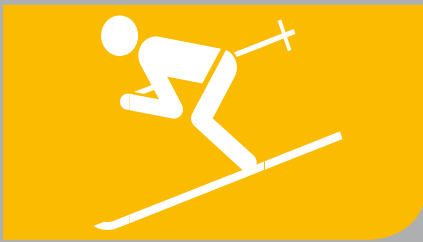
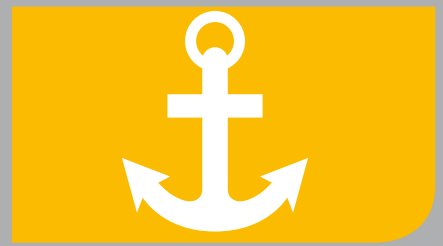
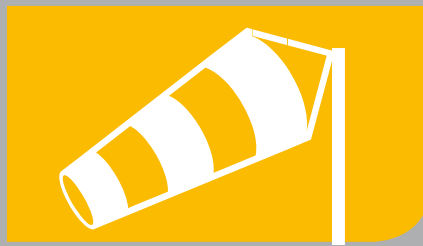
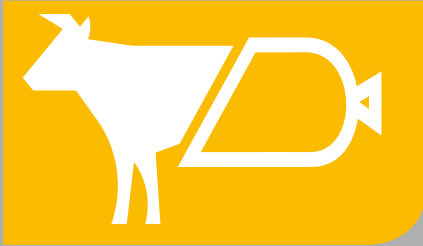
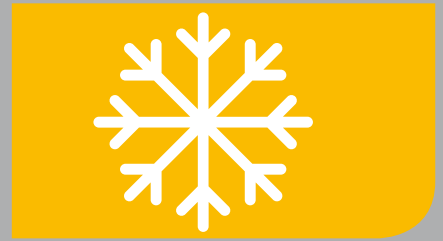
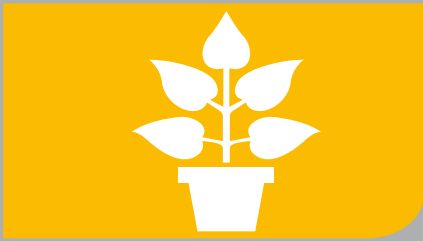
Goedhart FC38 air cooler selections are available in the Goedhart Product Catalogue or GPC.

On the tool section of www.goedhart.nl you will find the download button for the latest version of the GPC.

The GPC program is an easy to use tool for contractors, consultants and every other thinkable user and gives you access to many advantages such as:

- Multilingual
- The whole range of GEA Goedhart standard air coolers and air cooled condensers
- Pre-select buttons to application
- Selections including drawings and an extensive list of accessories
- Spare parts
- Accurate capacities: Under the GPC shell hides a sophisticated capacity calculation program which optimizes circuits to the design conditions as you work!

Goedhart GPC Program,
your selection software
for air coolers and air
cooled condensers!



For Contractors and Original Equipment Manufacturers (OEM) related to the industrial refrigeration industry, GEA Goedhart B.V. offers an unlimited range of air coolers and air cooled condensers in several configurations.

Depending on the application, the optimum configuration will be selected in close cooperation with our customers.

Configurations

The following material combinations are available in various tube pitches and various fin spacing:

Tube material	Fin material
Copper (Cu)	Aluminium (Al)
Stainless steel (Stst)	Aluminium (Al)
Stainless steel (Stst)	Stainless steel (Stst)
Aluminium (Al)	Aluminium (Al)
Hot dipped galvanized steel (FeZn)	Hot dipped galvanized steel (FeZn)

Options on aluminium fins

- Goldlack coated fins
- Seawater resistant aluminium fins (AlMg)

Applications

Cooling	Freezing
Cold stores / Distribution centres	Cold stores / Distribution centres
Food processing rooms	Tunnel / spiral freezers
Fruit storage	Slaughter houses
Banana ripening storage	Automotive testing rooms
Greenhouse conditioning	Ski domes

Pressure Equipment Directive (P.E.D.)

All aircoolers produced by Goedhart comply with the Pressure Equipment Directive 97/23/EC. PED certificates can be downloaded from www.goedhart.nl.

GEA Goedhart air coolers for every application

