

Kelvion



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Goedhart® air coolers

Goedhart® PAC commercial Cu/Al air coolers

WORKING IN A DRAFT-FREE ENVIRONMENT







**Kelvion –
a tribute to
Lord Kelvin**

**67 branches and
sales partners
worldwide**

**More than 4,000
employees
worldwide**

Lord Kelvin (1824 – 1907) formulated
the laws of thermodynamics

EXPERTS IN HEAT EXCHANGE - SINCE 1920

Welcome to Kelvion. As successor to the GEA Heat Exchangers Group, we continue to break new ground, making discerning customers more successful than ever with our integrated heat exchanger solutions.

Our solutions for your applications:

We offer our customers one of the world's largest product portfolios in the field of heat exchangers. It includes individual solutions for practically all conceivable applications and complex environmental conditions: plate heat exchangers, shell and tube heat exchangers, finned tube heat exchangers, modular cooling tower systems, and refrigeration heat exchangers.

Your markets are our markets, too:

The markets in which you and we together operate are among the most important in the world: energy, the oil and gas industry, the chemical industry, marine applications, food and beverages, climate and environment. We provide every single market segment with solutions of outstanding efficiency, safety, and sustainability.

We are highly committed to earning your trust:

We want to win your trust with everything we do and convince you with the solutions we offer. With this high aim in mind, we invest our extensive know-how, our great precision, and our passion in everything we do: including product development, manufacturing, installation, and after-sales support.

Seeing things from the customer perspective:

Your specific requirements count – and nothing else. Whatever we offer you, it must meet these requirements. Our entire way of thinking and working is geared towards this aim. Our customers truly appreciate this: after all, this is how we make their companies more efficient.

We are at your service.

Kelvion – Experts in Heat Exchange.



GOEDHART® AIR COOLERS



Do not settle for compromise, but go for the best cooling solution to suit your situation. That is the philosophy which Kelvion makes himself hard. Since 1935 we develop, produce and deliver worldwide air coolers, air cooled condensers and composite systems for (semi) industrial applications and various markets. Our products are perfect for projects requiring a technical demand and involving a great deal of flexibility in terms of design, dimensions and accessories. Also our products are suitable for all thinkable cooling system types and methods.

To achieve the most optimal and cost efficient air cooler system we are using three levels of engineering:

- **Commercial products:** standard cooling systems available in different fixed sizes;
- **Flexible products:** custom made cooling systems built from standard modules;
- **Designed to order products:** extensive cooling systems and applications developed especially for the niche market.

Extensive theoretical and practical project analysis by our professional sales engineers will determine which configuration, materials, and level of engineering best fit your program requirements. Additionally, you can use the innovative 'Goedhart Product Catalogue (GPC)', the digital design program for all Commercial and Customized industrial air coolers and air-cooled condensers.

For what level of engineering you choose; Your are with Goedhart in good hands in the field of refrigeration and freezing. This brochure provides information on the Goedhart® PAC, a copper/aluminium serie commercial product.

Do you have any further questions, we are happy to help you personally. We thank you in advance for the interest you have shown in Kelvion and its products.

PRODUCT FAMILY

CUSTOMIZED AIR COOLERS

INDUSTRIAL DESIGNED TO ORDER & OEM AIR COOLERS

APPLICATION DRIVEN DESIGNS

COMMERCIAL AIR COOLERS

Cu/Al (38x33)	Goedhart FC38S Küba Market SP Küba SG Classic Küba SG Commer. Searle KEC/KECX Searle KME/KMEX	Goedhart FC38D Küba-Comfort DP Searle DSR/DSRX	Goedhart FC38L Küba Junior DF Küba Compact DF Küba DE Prof. Searle TEC/TECX	Goedhart PAC	Küba Gastro FM	
		 Kelvion KDC (New)				
Cu/Al (50x50)	Küba KVB Natur.					
						

CONDENSERS

DRY COOLERS

RADIATORS

LIFE IS EASY THE GOEDHART SELECTION PROGRAM



The Goedhart selection program provides an electronic catalogue covering the majority of product ranges offered by Kelvion. The range of products available to you is very broad with many options. This software provides the fastest and easiest way to select the most appropriate product for your specific needs. This selection program runs on the latest versions of Windows (including both 32-bit and 64-bit versions of Vista, Windows 7, Windows 8 and Windows 10).

All four product types (Coolers, Condensers and Glycol Coolers) are available in a single program. The Goedhart selection program is an easy to use selection tool for contractors, consultants and every other thinkable user and gives you access to many advantages such as:

- Multilingual
- Pre-select buttons to application
- Spare parts
- Selections including drawings
- An extensive list of accessories
- Accurate capacities: During your selection a sophisticated capacity calculation program optimizes the circuits to the design conditions
- Selections possible on several criteria such as capacity, price, fan variations like noise and speed etc.

If you know the model number or the range you require (for example Goedhart® VCI-p 63457), you can type this into the Start area of the Goedhart selection program. This will make the selection faster and exclude models which may not be relevant for your needs.

You can start a selection by clicking the Start button, fill in the required heat exchanger data in the input area and produce PDF or Word files of your selection results. Also it is possible to print a drawing of the selected unit and make your choice belonging to your selected unit. The program normally operates using SI units.

What is important to you? - You can decide which features of the product are most important for each application: energy efficiency, footprint (physical size) and price. You adjust the slider controls to indicate the relative importance to you of each of these three elements. You can also choose to display all possible models, or just the 'top 10' which best meet your selection criteria. Once the selected models are displayed, the 'best' options in each category (energy efficiency, footprint and price) will be on top of the table.

Quality, Support and Website - Trained staff will advise you through every step of the selection process. Our customer service continues past the product delivery, and we are always on hand to advise on any issues. Keep up to date with our products and latest news by visiting the website, www.kelvion.com



GOEDHART® **CU/AL** COMMERCIAL SERIES

STANDARD FLEXIBLE

For all Cu/Al models and series of the Goedhart® air coolers your schedule of requirements is leading. Depending on the application, our sales team searches for the optimal configuration in close cooperation with the customer. You have a free choice in the so-called level 1 and 2 versions:

- dimensions
- Air direction
- blow-through or draw-through
- model: with feet of suspension profiles
- cooling system: natural (NH₃ and CO₂) and synthetic refrigerants
- materials: copper tubes/aluminium fins, Stainless steel tubes/aluminium fin, Stainless steel tubes and fins or steel tubes and fins / hot dipped galvanized
- accessories: eg defrost, coatings

INNOVATION

We can not emphasize often enough that we can meet our “customized production” philosophy to every customer requirements. Common customer requirements lead to innovation of our products. A good example is the energy efficient Goedhart® VCe-p and VCe-i ranges in the copper / aluminum version of our air coolers and air-cooled condensers

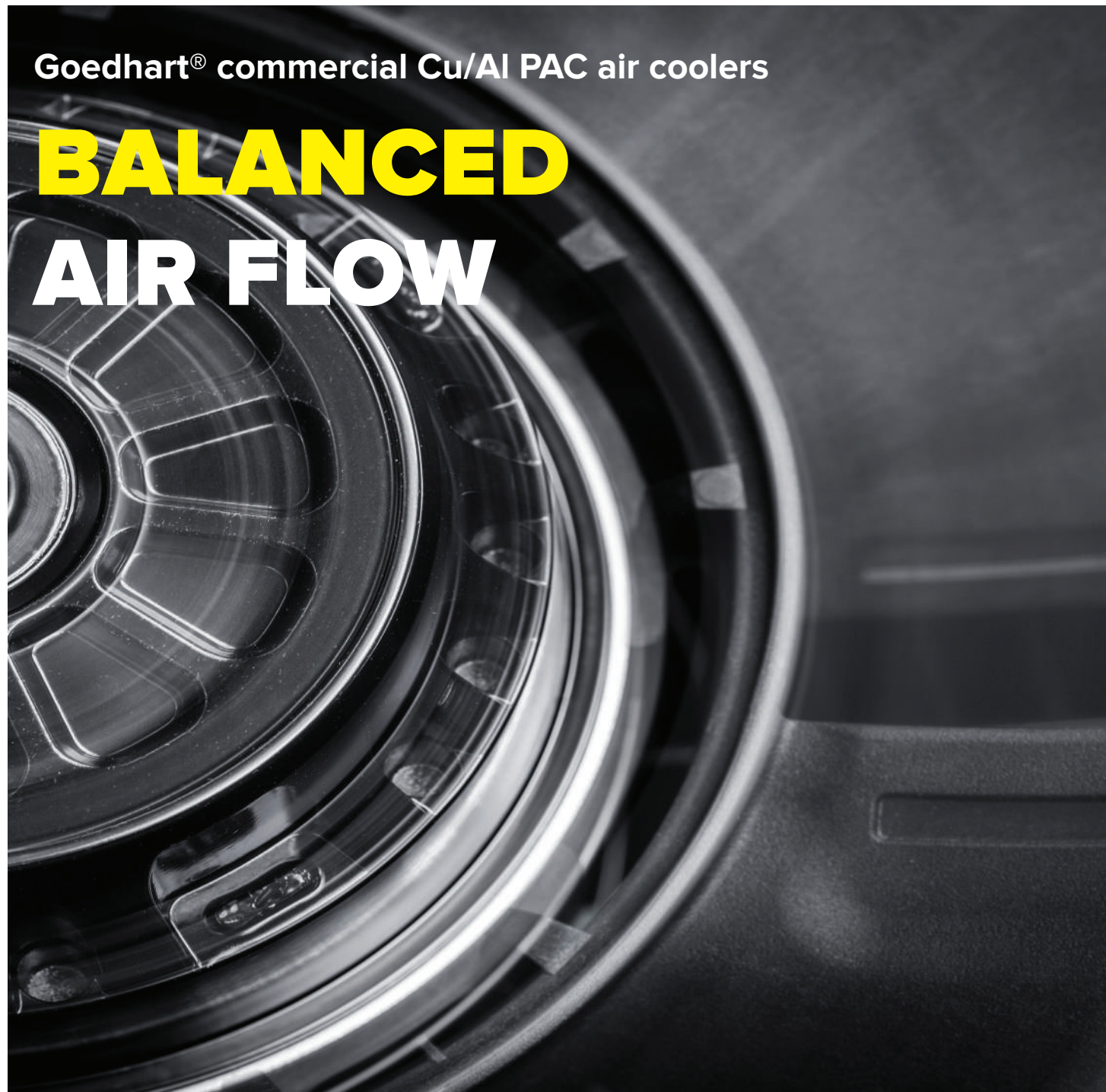
LEVEL OF ENGINEERING - 'COMMERCIAL PRODUCTS'

The standard cooling systems available in different fixed sizes are so-called “Commercial products”. Within this level of engineering, you can choose from air coolers consisting of copper tubes with aluminum fins (Cu / Al 38x33) and stainless steel tubes with aluminum fins (St / Al 38x33).



Goedhart® commercial Cu/Al PAC air coolers

BALANCED AIR FLOW



FAN SYSTEM

Because of the flexible construction of the Goedhart® air cooler, in principle it is possible to deliver with different fans. We selected a standard fan range of Ziehl Abegg (we reserve the right to alter the manufacturer) which fits perfectly on the Goedhart® flexible air coolers. The fans can be supplied in both blow-through and draw-through executions. Against an extra price stainless steel guards and EC-fans are available.

Fan execution

The fans meet the ErP2015 directive. The fans have very good aerodynamic features because of the special impeller geometry. This special impeller geometry gives the fan a low noise level and a high efficiency.

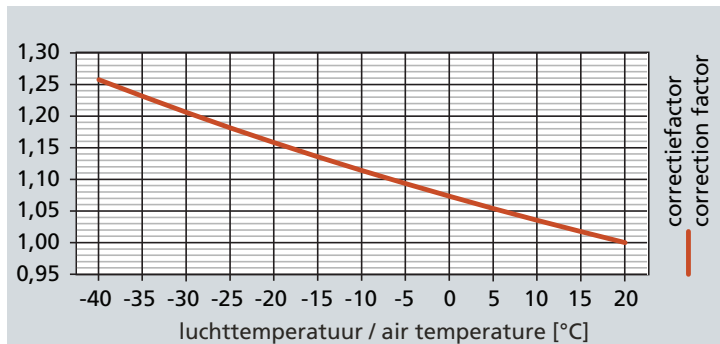
SPECIFICATIONS

Fan data

1x230V-AC	: till -25°C environment temperature
3x400V-AC	: till -40°C environment temperature (between -40°C en -50°C environment temperature on request)
1x230V-EC	: till -25°C environment temperature
3x400V-EC	: till -35°C environment temperature
Tension	: 1x230V-50Hz (60 Hz on request) : 3x400V-50Hz : 3x400V or 3x460V-60Hz
Protection class	: IP44 / IP54
Color	: RAL9005 (black)
Speed controlling	: 3 phase: 2 speeds by Δ -Y reconnection : frequency controller with all-pole sinus filter : 1 phase : phase-control : transformer

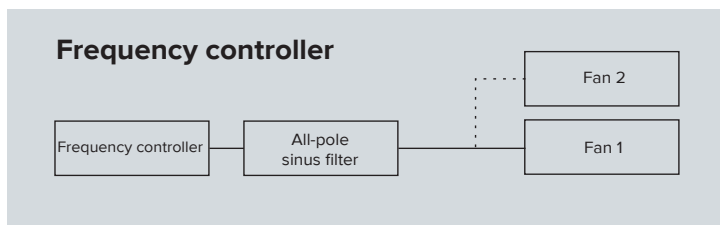
The motors are standard executed with a thermo contact and must be connected to prevent motor damages.

The maximum allowable working data in the table and on the name plate of the fans are to operate in an air temperature of +20 °C (air density of $\rho = 1,2 \text{ kg/m}^3$). For air temperatures lower than +20 °C, the current amperage can be calculated by using the diagram multiplication factor, suitable thermal overloads can then be selected. In our Goedhart GPC selection program also the values in the working point are indicated.



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. Kelvion 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.



DATA ON THE NAME PLATES

Fan diameter	Tension	Single phase - 50 Hz				Single phase - 60 Hz			
		Speed	Nominal power	FLC	Sound power level each fan LwA (+/-2dB(A))	Speed	Nominal power	FLC	Sound power level each fan LwA (+/-2dB(A))
mm	V	min ⁻¹	Watt	A	dB(A)	min ⁻¹	Watt	A	dB(A)
6 pole (n=1000 min⁻¹ nom.)									
400	1x230	950	130	0,60	67	1110	170	0,78	68
450	1x230	-	-	-	-	-	-	-	-
500	1x230	900	270	1,25	74	900	380	1,75	75

Fan diameter	Tension	Three phase - 50Hz						Three phase - 60Hz					
		Δ			Y			Δ		Y		Δ	
mm	V	Speed	Nominal power	FLC	Speed	Nominal power	FLC	Sound power level each fan LwA (+/-2dB(A))	Sound power level each fan LwA (+/-2dB(A))	Speed	Nominal power	FLC	Sound power level each fan LwA (+/-2dB(A))
mm	V	min ⁻¹	Watt	A	min ⁻¹	Watt	A	dB(A)	dB(A)	min ⁻¹	Watt	A	dB(A)
6 pole (n=1000 min⁻¹ nom.)													
400	3x400/690	-	-	-	-	-	-	-	-	-	-	-	-
450	3x400/690	900	180	0,50	630	100	0,24	66	59	1020	280	0,60	69
500	3x400/690	880	290	0,74	590	150	0,36	68	57	970	440	0,90	71

Mentioned data are for each fan according the supplier of the fans



CAPACITY OPTIMIZATION

To achieve the best possible combination of application, refrigerant and capacity, we can optimise the coil circuiting, depending on the specific conditions under which the products will be used. Goedhart® PAC is a standard product to ensure shorter delivery times. The circuiting of these evaporators has been optimized according to the most commonly used coolants/ refrigerants and conditions. Specific applications can vary from this, our sales department is there to assist you in selecting the best circuiting for your application. In order to do this, the following information is needed :

- Needed capacity
- Refrigerant
- Air on temperature
- Coolant temperature
- Evaporating temperature

CORRECTION FACTOR FOR COOLANTS

The nominal capacities of the Goedhart FC38p(G) air coolers are based on an air-on temperature of 12°C, a RH of 85% and:

R404A	: evaporation temperature	= +2°C
Water	: in / out temperatuur	= +1/+5°C
E-Glycol	: in / out temperatuur	= - 2/+3°C
P-Glycol	: in / out temperatuur	= - 2/+3°C
Pekasol	: in / out temperatuur	= - 2/+3°C
Freezium	: in / out temperatuur	= - 2/+3°C

Correction factors for various air-on temperatures and refrigerants or secondary coolants are as indicated in the tables below. The requested capacity must be multiplied by a correction factor from the table, so that a cooler with the resulting nominal capacity can be chosen from the selection tables.

Q nominal = faktor x Q requested

CALCULATION EXAMPLE

Fin spacing	: 4 mm	• Correction factor = 1,057
Requested capacity	: 11 kW	• Multiply requested capacity with correction factor.
Air-on temperature	: +13°C	11 kW x 1,057 = 11,63 kW
Coolant	: E-glycol 28%	
Temp. in/out	: 0 / 5 °C	• Select air cooler from the tabel (type PAC 41454-S =11,7 kW)

R404A									
in/out	Air-on temperature (°C)								
°C	+8	+9	+10	+11	+12	+13	+14	+15	+16
0	1,44	1,20	1,03	0,91	0,82	0,73	0,65	0,58	0,53
1	1,70	1,42	1,19	1,01	0,90	0,81	0,72	0,64	0,58
2	2,15	1,68	1,40	1,18	1,00	0,89	0,80	0,72	0,64
3	2,76	2,13	1,66	1,39	1,17	0,99	0,87	0,78	0,70
4	4,00	2,72	2,10	1,64	1,36	1,16	0,97	0,85	0,77

Water									
in/out	Air-on temperature (°C)								
°C	+8	+9	+10	+11	+12	+13	+14	+15	+16
1 / 5	1,99	1,59	1,32	1,14	1,00	0,88	0,78	0,72	0,66
2 / 6		1,95	1,57	1,30	1,12	0,98	0,87	0,78	0,71
3 / 7			1,92	1,54	1,28	1,11	0,97	0,86	0,77
4 / 8				1,94	1,56	1,31	1,13	0,98	0,87
5 / 9					1,86	1,49	1,25	1,07	0,94

E-Glycol 28%									
in/out	Air-on temperature (°C)								
°C	+8	+9	+10	+11	+12	+13	+14	+15	+16
-2 / 3	1,81	1,46	1,34	1,16	1,00	0,88	0,82	0,81	0,69
-1 / 4	2,35	1,72	1,41	1,28	1,10	0,96	0,85	0,79	0,75
0 / 5	2,43	2,30	1,64	1,40	1,24	1,06	0,93	0,84	0,76
1 / 6		2,38	2,28	1,59	1,37	1,21	1,05	0,92	0,82
2 / 7			2,28	2,09	1,55	1,35	1,17	1,03	0,91

P-Glycol 28%									
in/out	Air-on temperature (°C)								
°C	+8	+9	+10	+11	+12	+13	+14	+15	+16
-2 / 3	1,66	1,45	1,26	1,11	1,00	0,91	0,83	0,76	0,70
-1 / 4	2,00	1,65	1,42	1,24	1,11	1,01	0,90	0,81	0,77
0 / 5	2,48	1,94	1,65	1,41	1,23	1,14	1,00	0,91	0,85
1 / 6		2,46	1,97	1,64	1,42	1,29	1,12	1,00	0,92
2 / 7			2,45	1,96	1,63	1,42	1,28	1,11	1,00

Pekasol 50%									
in/out	Air-on temperature (°C)								
°C	+8	+9	+10	+11	+12	+13	+14	+15	+16
-2 / 3	1,68	1,42	1,26	1,11	1,00	0,90	0,82	0,77	0,70
-1 / 4	2,02	1,65	1,42	1,24	1,10	0,98	0,89	0,81	0,76
0 / 5	2,39	1,96	1,62	1,39	1,22	1,07	0,96	0,87	0,80
1 / 6		2,36	1,93	1,60	1,37	1,20	1,06	0,94	0,86
2 / 7			2,32	1,89	1,57	1,35	1,18	1,05	0,94

Freezium 24%									
in/out	Luchtintrede temperatuur (°C)								
°C	+8	+9	+10	+11	+12	+13	+14	+15	+16
-2 / 3	1,66	1,44	1,25	1,11	1,00	0,91	0,83	0,77	0,71
-1 / 4	1,94	1,62	1,42	1,23	1,09	0,98	0,89	0,82	0,76
0 / 5	2,38	1,91	1,59	1,39	1,21	1,07	0,97	0,88	0,81
1 / 6		2,34	1,88	1,57	1,37	1,20	1,06	0,95	0,86
2 / 7			2,30	1,86	1,55	1,35	1,18	1,05	0,94



GOEDHART® PAC AIR COOLERS

Pleasant Atmosphere Cooler

The range Goedhart® PAC (Pleasant Atmosphere Cooler) ceiling mounted air coolers is especially designed to take care for cooling with decreased draft. Because of that Goedhart® PAC is preeminently suitable for rooms that people are working in, like working room applications. The build-in height is low in order to maximize the use of the cooling room. The range consists of 22 types with a nominal capacity range between 5,3 and 63,8 kW (E-glycol 28%). The modular design incorporates 3 different sizes of fans (400, 450 and 500 mm).

Coil block

Tube distance	: 38x33 mm staggered
Fin spacings	: 4 and 7mm.
Material	: 12 mm o.d internally plain (p) or increased (i) copper tubes
	: aluminium HT-fins

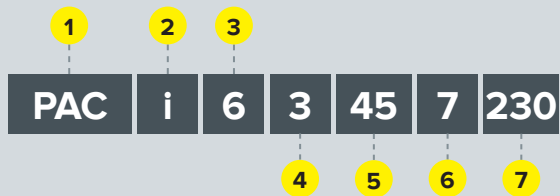
The coil blocks have copper tubes mechanically expanded into fully collared aluminium fins. A good thermal contact is achieved by expansion of the tubes into the fin collars, that are also utilised as spacers to provide a constant distance between the fins. All coolers are pressure tested to 40 bar (lower by coolants) and are supplied with a light over pressure charge of dried air. The suction header is executed with a Schröder valve for testing applications. Suitable for the most known refrigerants and coolants, with the exception of NH3.

Casing

- Construction suitable for ceiling mounting
- Casing is made from galvanized sheet steel. (Stainless steel optional)
- Corrosion resistant white spray finish
- Header and bend side is easy accessible for maintenance.
- Executed with hinged drip trays
- Will be delivered under a little angle, so the condensation always carry away to the drains at one side.
- Fixing materials are made of stainless steel.

Goedhart® PAC features

- For cooling applications with reduced drafts
- Extremely suitable in processing areas where people are working
- Comprising 22 models
- Capacity range from 5,1 to 54,5kW (R404A).
- EC fan technology possible
- Fans are not wired as standard to a junction box (optional)
- Suitable for almost all known refrigerants and coolants, with the exception of NH3.
- Goedhart® PAC is delivered on a wooden frame, for easy mounting



- 1 Range : Goedhart® PAC
- 2 Execution tube : p = internal plain
: i = internal increased
- 3 Rows deep : 4
- 4 Number of fans : 1 - 4
- 5 Fan diameter : 400, 450, 500 mm
- 6 Fin spacing : 4, 7 mm
- 7 Power supply : 1x230V, 3x400V fan

Air-on temperature 12°C																							
Ø 400mm 1x230V-50Hz-6 pole, Ø 450 & 500mm 3x400V-50Hz-6 pole - Δ (1000 min ⁻¹ nom.)																							
Type	R404A			E-Glycol 28% -2 / 3 °C (in/out temp.)			Water 1 / 5 °C (in/out temp.)			P-Glycol 34% -2 / 3 °C (in/out temp.)			Pekasol 50% -2 / 3 °C (in/out temp.)			Freezium 24% -2 / 3 °C (in/out temp.)			Lucht- hoeveelheid m ³ /h	LpA @ 3 m (+/- 2 dB(A))*	Surface	Weight kg	Internal volume dm ³
	Capacity kW	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa							
Goedhart® PAC	kW	kW	m ³ /h	kPa	kW	m ³ /h	kPa	kW	m ³ /h	kPa	kW	m ³ /h	kPa	kW	m ³ /h	kPa	m ³ /h	dB(A)	m ²	kg	dm ³		
4.1.40.4	6,6	5,3	0,98	29,37	7,3	1,55	29,37	5	0,91	29,37	8,7	1,48	29,37	8,6	1,68	29,37	1995	44,9	23	91	5		
4.1.45.4	9,0	11,7	2,18	41,63	11,2	2,39	41,63	6,9	1,24	41,63	13,7	2,34	41,63	11,7	2,30	41,63	3266	43,9	29	107	6		
4.1.50.4	13,2	14,3	2,66	46,75	14,9	3,17	46,75	9,9	1,80	46,75	18	3,09	46,75	17,8	3,50	46,75	4475	45,8	39	120	8		
4.2.40.4	13,4	15,9	2,96	29,35	15,2	3,25	29,35	10,1	1,82	29,35	18,6	3,19	29,35	18,5	3,63	29,35	3988	47,6	46	148	9		
4.2.45.4	19,9	23,2	4,32	41,64	22,3	4,76	41,64	12,3	2,22	41,64	27,2	4,67	41,64	27	5,30	41,64	6533	46,5	58	177	11		
4.2.50.4	27,0	32,8	6,10	46,75	30,5	6,51	46,75	16,5	2,99	46,75	37,4	6,41	46,75	35,5	6,97	46,75	8950	48,4	77	198	15		
4.3.40.4	20,3	25,4	4,73	29,35	23,1	4,94	29,35	13,6	2,46	29,35	28,5	4,89	29,35	27	5,29	29,35	5982	49,1	70	248	13		
4.3.45.4	30,1	34,7	6,46	41,63	33,4	7,13	41,63	16,8	3,06	41,63	40,8	6,99	41,63	40,4	7,93	41,63	9799	47,9	87	248	16		
4.3.50.4	36,7	50,7	9,43	46,75	45,2	9,66	46,75	23,1	4,19	46,75	56,7	9,73	46,75	54,8	10,75	46,75	13425	49,9	116	278	22		
4.4.45.4	40,2	49,7	9,25	41,64	45,3	9,68	41,64	20,9	3,79	41,64	55,8	9,56	41,64	53,8	10,56	41,64	13066	48,8	116	320	22		
4.4.50.4	54,5	65,3	12,14	46,75	60,8	12,99	46,75	29	5,27	46,75	74,6	12,80	46,75	72,4	14,21	46,75	17900	50,8	155	360	29		

Air-on temperature 12°C																							
Ø 400mm 1x230V-50Hz-6 pole, Ø 450 & 500mm 3x400V-50Hz-6 pole - Δ (1000 min ⁻¹ nom.)																							
Type	R404A			E-Glycol 28% -2 / 3 °C (in/out temp.)			Water 1 / 5 °C (in/out temp.)			P-Glycol 34% -2 / 3 °C (in/out temp.)			Pekasol 50% -2 / 3 °C (in/out temp.)			Freezium 24% -2 / 3 °C (in/out temp.)			Lucht- hoeveelheid m ³ /h	LpA @ 3 m (+/- 2 dB(A))*	Surface	Weight kg	Internal volume dm ³
	Capacity kW	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa							
Goedhart® PAC	kW	kW	m ³ /h	kPa	kW	m ³ /h	kPa	kW	m ³ /h	kPa	kW	m ³ /h	kPa	kW	m ³ /h	kPa	m ³ /h	dB(A)	m ²	kg	dm ³		
4.1.40.7	5,1	4,4	0,81	18,05	5,3	1,14	18,05	4,2	0,76	18,05	6,1	1,05	18,05	6,1	1,19	18,05	2215	44,9	14	86	5		
4.1.45.7	6,1	6,1	1,13	26,25	8,4	1,80	26,25	5,8	1,06	26,25	10,2	1,76	26,25	10,1	1,99	26,25	3845	43,9	17	101	6		
4.1.50.7	9,9	7,9	1,47	29,74	11	2,35	29,74	8,3	1,51	29,74	13,2	2,27	29,74	13,1	2,57	29,74	5149	45,8	23	113	8		
4.2.40.7	10,1	8	1,48	18,06	11,3	2,41	18,06	8,4	1,52	18,06	13,7	2,35	18,06	13,6	2,67	18,06	4431	47,6	28	137	9		
4.2.45.7	14,8	10,3	1,91	26,25	17,5	3,73	26,25	10,6	1,91	26,25	21,6	3,70	26,25	20,2	3,96	26,25	7691	46,5	35	166	11		
4.2.50.7	19,8	14	2,60	29,75	23,3	4,99	29,75	15,1	2,75	29,75	27,7	4,75	29,75	27,4	5,39	29,75	10297	48,4	46	185	15		
4.3.40.7	15,3	17,6	3,27	18,06	17,8	3,79	18,06	11,5	2,08	18,06	21,1	3,62	18,06	20,9	4,11	18,06	6646	49,1	42	189	13		
4.3.45.7	23	27,7	5,16	26,25	25,8	5,52	26,25	15,8	2,87	26,25	31,8	5,45	26,25	31,5	6,19	26,25	11536	47,9	52	231	16		
4.3.50.7	24,7	39	7,25	29,75	35	7,47	29,75	21,1	3,83	29,75	43,3	7,42	29,75	41,7	8,19	29,75	15446	49,9	69	257	22		
4.4.45.7	29,7	38,9	7,23	26,25	34,9	7,45	26,25	19,5	3,54	26,25	43,1	7,39	26,25	41,6	8,17	26,25	15381	48,8	69	299	21		
4.4.50.7	39,8	51,9	9,66	29,75	46,6	9,96	29,75	26,5	4,81	29,75	57,6	9,88	29,75	56	11,00	29,75	20595	50,8	93	332	29		

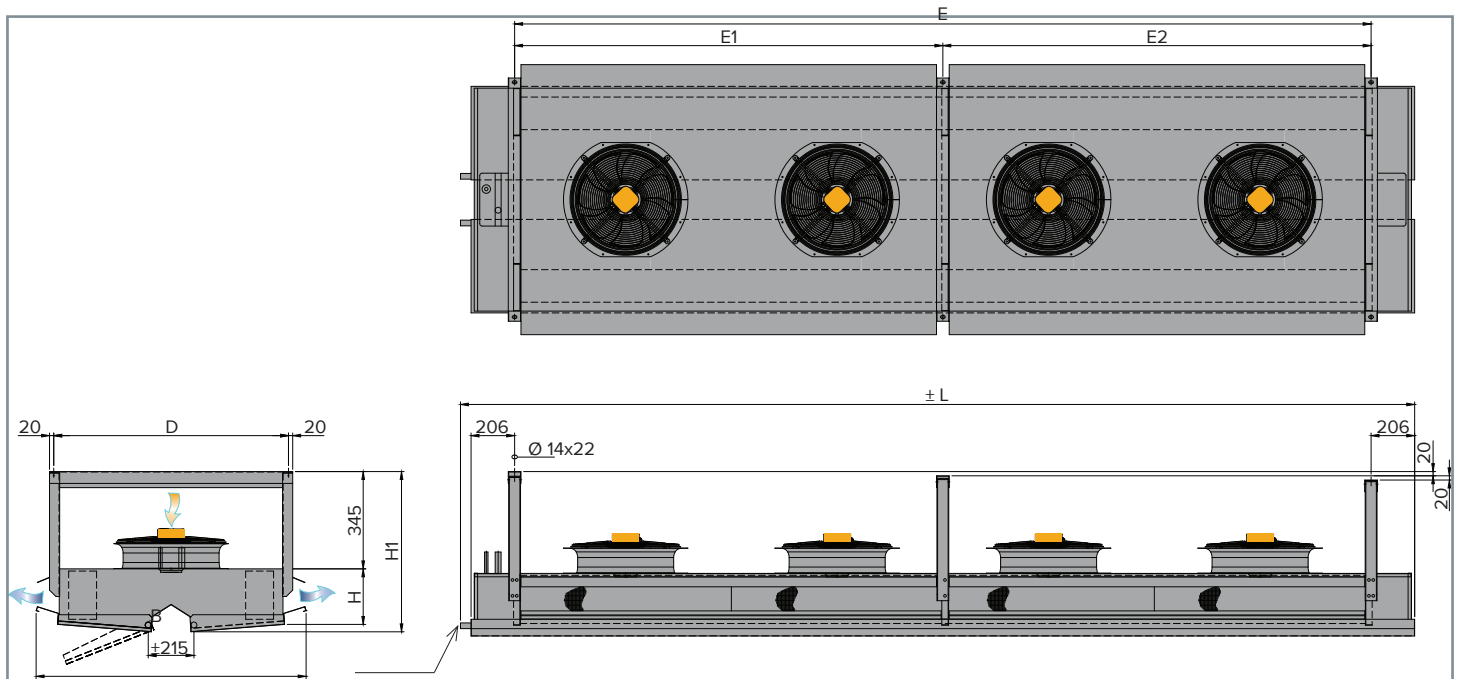
* = Sound pressure indication (LpA) at 3 m distance each air cooler (+/- 2 dB(A)), free field conditions, according EN13487

Dimensions

Type	Dimensions							Connections 4 mm						Connections 7 mm						
	L	B	H	H1	D	E	E1 E2	R404A	E-Glycol 28%	Water	P-Glycol 34%	Pekasol	Freezium 24%	R404A	E-Glycol 28%	Water	P-Glycol 34%	Pekasol	Freezium 24%	
								In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out
Goedhart® PAC	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
4.1.40.*	1312	1150	280	760	1280	850		12/22	22/22	22/22	15/15	22/22	22/22	12/22	15/15	22/22	15/15	22/22	22/22	22/22
4.1.45.*	1512	1150	280	760	1280	1050		12/22	28/28	28/28	22/22	28/28	28/28	12/22	22/22	22/22	22/22	22/22	22/22	22/22
4.1.50.*	1512	1150	355	830	1280	1050		16/22	28/28	28/28	22/22	28/28	35/35	12/22	22/22	28/28	22/22	28/28	28/28	28/28
4.2.40.*	2112	1150	280	760	1280	1650		12/22	28/28	28/28	22/22	28/28	35/35	12/22	22/22	28/28	22/22	28/28	28/28	28/28
4.2.45.*	2512	1150	280	760	1280	2050		16/28	35/35	35/35	28/28	35/35	35/35	12/22	35/35	35/35	22/22	35/35	35/35	35/35
4.2.50.*	2512	1150	355	830	1280	2050		16/35	42/42	42/42	28/28	42/42	42/42	16/28	28/28	35/35	28/28	35/35	35/35	35/35
4.3.40.*	2912	1150	280	760	1280	2450		16/28	35/35	35/35	28/28	35/35	42/42	16/28	28/28	35/35	28/28	35/35	35/35	35/35
4.3.45.*	3512	1150	280	760	1280	3050		16/35	42/42	42/42	28/28	42/42	42/42	16/28	35/35	42/42	28/28	35/35	42/42	42/42
4.3.50.*	3512	1150	355	830	1280	3050		22/42	54/54	54/54	35/35	54/54	54/54	16/35	42/42	42/42	35/35	42/42	54/54	54/54
4.4.45.*	4512	1150	280	760	1280	4050	2025	16/35	54/54	54/54	35/35	54/54	54/54	16/35	42/42	42/42	35/35	42/42	42/42	42/42
4.4.50.*	4512	1150	355	830	1280	4050	2025	22/42	54/54	54/54	42/42	54/54	64/64	22/42	54/54	54/54	35/35	54/54	54/54	54/54

GOEDHART® PAC

Drawing



EC-Declarations for dx-R404A

Connection ≤ 35 mm : Declaration of incorporation (SEP)
 Connection 42mm and 54 mm : module A
 Group of fluid : 2
 PS : 28 bar
 TS : +55 / -40 °C

EC-Declarations for coolants

According : Declaration of incorporation (SEP)
 Group of fluid : 2
 PS : 28 bar
 TS : +55 / -40 °C

UVC DISINFECTION SYSTEM

UVC disinfection in food production means round-the-clock hygiene. The UVC treatment of coil block fin surface destroys bacteria before they colonize your products and ensures consistent quality over the whole working day. UVC fin surface treatment on the Goedhart PAC air coolers enables to take residual free measures against bacteria right where they arise. Due to UVC radiation a slight discoloration is possible on spray painted surfaces.

- ▶ Available on Goedhart PAC air coolers
- ▶ UVC against bacteria, yeasts, viruses and mold
- ▶ Round-the-clock hygiene of the coil block surface
- ▶ Low energy costs through efficient ballasts
- ▶ Without chemicals and residue-free
- ▶ Shatterproof lamps according to HACCP and IFS standard
- ▶ Operating temperature 0 - 40°C
- ▶ UVC treatment ensures you a hygienic surface
- ▶ IP67 protected



LIFTING INSTRUCTIONS

Lifting instructions are supplied with every product. Lifting and moving heat exchangers must be carried out by skilled personnel. Safety must always be assured. Contact us if in doubt about any lifting or moving instruction.

These instructions must always be followed in order to guarantee safety and to prevent any damage occurring to our product.

Heat exchangers mounted on a wooden frame can be unloaded by a forklift truck. When doing so, stacked heat exchangers may only be lifted off one at a time. A crane can also be used for unloading by positioning slings under the wooden frame.

Heat exchangers with transport legs must be unloaded using a crane with a balancer (see lifting instructions).

