Goedhart VCI

Industrial air coolers for cooling & freezing applications
Cu/Al

R404A - CO_2

engineering for a better world

GEA Heat Exchangers

Goedhart VCI

The extensive range Goedhart VCI single discharge ceiling mounted industrial air coolers are available with capacities between 2,8 and 264,4 kW. The Goedhart VCI air coolers are suitable for cooling and freezing applications and with a wide variety of accessories and options available. The coil block is standard build from aluminium end plates, copper tubes and aluminium fins The fans are arranged for blow-through air configuration for the Goedhart VCI-B and draw-through for the Goedhart VCI-Z (please state which is required when ordering).. The modular design incorporates 5 different sizes of fan, with model options of up to 8 fans per cooler.

Type description

Goedhart VCI-B 62567

B=blow through
Z=draw through

Number of rows deep
Number of fans
Fan diameter [cm]
Fins spacing [mm]

Coil block

- Tube pitch : 50x50 mm straight
- Fin spacing : 4, 6, 7, 8, 10 and 12 mm
- Material : 15mm o.d copper tube
- : aluminium HT-lamellen
- Optimized cooling circuits
- Standard refrigerant connections are positioned on the left hand side of the unit when looking with the direction of the airflow.
- 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 30 bar (lower by cooling mediums) and are supplied with a light over pressure charge of dry nitrogen.
- Suitable for all known refrigerants and coolants, with the exception of NH3.

Casing

- Construction for ceiling mounting
- The flush mounting protects against and prevents accumulation of dust and dirt.
- Casing material of galvanized sheet steel
- Finishing is standard white epoxy spray (RAL 9003)
- Bend/header projection by end covers, easy removed for maintenance
- Defrost by hot gas spiral or electric defrost elements will be fixed to the bottom side of the coil.
- Stainless steel fasteners

Goedhart VCI 7mm

	Type VCI	3x400V-50H-4pole (1500 min⁻¹ nom.) R404A DT1 = 10K (SC1) air on= 0°C (0/+10)	R404A DT1 = 8K (SC2) air on= 0°C (-8/0)	R404A DT1 = 7K (SC3) air on= -18°C (-25/-18)	Air volume	LpA @ 3 m (+/- 2 dB(A))*	Surface	Internal volume	Weight	Dimensions L	B	H	C	E E1	E2	E3	D1	D2	Connections Refrigerant In	Uit	Hot gas	Air throw**
		kW	kW	kW	m³/h	dB(A)	m²	dm³	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	m
1x	3.1.40.7		3,2	2,3	3505	54,3	17	5	65	1156	590	620	450	756			578		15	15	19	20
	4.1.40.7		4,0	2,8	3415	54,3	22	6	72	1156	640	620	500	756			578		15	15	19	20
	6.1.40.7		5,0	3,7	3234	54,3	34	9	85	1156	740	620	600	756			578		12	15	19	20
	8.1.40.7		6,3	4,5	3065	54,3	45	11	100	1156	840	620	700	756			578		12	22	19	20
	3.1.45.7		4,5	3,1	5349	56,2	23	6	76	1256	560	720	450	856			628		15	15	19	22,5
	4.1.45.7		5,5	4,1	5186	56,2	31	8	85	1256	610	720	500	856			628		12	22	19	22,5
	6.1.45.7		7,6	5,3	4878	56,2	46	12	103	1256	710	720	600	856			628		12	22	19	22,5
	8.1.45.7		9,0	6,5	4604	56,2	61	16	121	1256	810	720	700	856			628		12	22	19	22,5
	3.1.50.7		5,7	4,3	7489	59,1	29	8	101	1456	680	720	550	1056			728		12	22	19	25
	4.1.50.7		7,7	5,5	7299	59,1	38	10	111	1456	730	720	600	1056			728		12	22	19	25
	6.1.50.7		10,3	7,4	6951	59,1	57	15	133	1456	830	720	700	1056			728		12	22	19	25
	8.1.50.7		12,2	8,8	6642	59,1	76	19	154	1456	930	720	800	1056			728		12	28	19	25
	3.1.56.7		8,7	6,1	10540	62,8	42	11	135	1556	780	920	650	1156			778		12	22	19	27,5
	4.1.56.7		9,9	7,5	10315	62,8	56	14	148	1556	830	920	700	1156			778		12	22	19	27,5
	6.1.56.7		14,9	10,5	9917	62,8	84	21	177	1556	930	920	800	1156			778		12	28	19	27,5
	8.1.56.7		16,5	11,3	9573	62,8	112	28	204	1556	1030	920	900	1156			778		12	28	19	27,5
	3.1.63.7		11,5	8,2	12910	66,6	57	15	176	1656	795	1120	650	1256			828		12	28	19	27,5
	4.1.63.7		14,5	10,3	12740	66,6	76	19	194	1656	845	1120	700	1256			828		12	28	19	27,5
	6.1.63.7		19,3	13,9	12395	66,6	115	29	228	1656	945	1120	800	1256			828		16	35	19	27,5
	8.1.63.7		22,9	16,7	12056	66,6	153	38	265	1656	1045	1120	900	1256			828		16	35	19	27,5
2x	3.2.40.7		6,4	4,6	7005	57,0	33	9	103	1856	590	620	450	1456			928		12	22	19	20
	4.2.40.7		8,0	5,6	6824	57,0	45	11	115	1856	640	620	500	1456			928		12	22	19	20
	6.2.40.7		10,6	7,5	6459	57,0	67	17	138	1856	740	620	600	1456			928		12	22	19	20
	8.2.40.7		12,5	8,9	6119	57,0	89	22	163	1856	840	620	700	1456			928		12	28	19	20
	3.2.45.7		9,1	6,6	10690	58,9	46	12	124	2056	560	720	450	1656			1028		12	22	19	22,5
	4.2.45.7		11,6	8,2	10363	58,9	61	15	139	2056	610	720	500	1656			1028		12	28	19	22,5
	6.2.45.7		15,2	10,6	9744	58,9	91	23	169	2056	710	720	600	1656			1028		12	28	19	22,5
	8.2.45.7		18,0	13,0	9194	58,9	122	30	200	2056	810	720	700	1656			1028		16	28	19	22,5
	3.2.50.7		12,4	8,7	14970	61,7	57	15	170	2456	680	720	550	2056			1228		12	28	19	25
	4.2.50.7		15,5	11,0	14589	61,7	76	19	188	2456	730	720	600	2056			1228		12	28	19	25
	6.2.50.7		20,6	14,8	13890	61,7	114	29	225	2456	830	720	700	2056			1228		16	35	35	25
	8.2.50.7		24,3	17,6	13270	61,7	152	38	262	2456	930	720	800	2056			1228		16	35	35	25
	3.2.56.7		17,8	12,1	21073	65,4	84	21	226	2656	780	920	650	2256			1328		16	28	35	27,5
	4.2.56.7		20,2	15,0	20622	65,4	112	28	251	2656	830	920	700	2256			1328		16	35	35	27,5
	6.2.56.7		29,9	21,0	19823	65,4	168	42	302	2656	930	920	800	2256			1328		16	35	35	27,5
	8.2.56.7		33,7	22,6	19133	65,4	223	55	352	2656	1030	920	900	2256			1328		16	42	35	27,5
	3.2.63.7		23,2	16,3	25818	69,2	114	29	300	2856	795	1120	650	2456			1428		16	35	35	27,5
	4.2.63.7		29,1	20,7	25473	69,2	152	38	334	2856	845	1120	700	2456			1428		16	35	35	27,5
	6.2.63.7		38,7	27,8	24779	69,2	228	57	398	2856	945	1120	800	2456			1428		16	42	35	27,5
	8.2.63.7		45,7	33,3	24099	69,2	305	75	464	2856	1045	1120	900	2456			1428		22	42	35	27,5
3x	3.3.45.7		14,0	10,1	16031	60,4	69	17	172	2856	560	720	450	2456			1428		12	28	35	22,5
	4.3.45.7		17,4	12,2	15540	60,4	91	23	194	2856	610	720	500	2456			1428		16	28	35	22,5
	6.3.45.7		23,0	16,4	14609	60,4	137	34	238	2856	710	720	600	2456			1428		16	35	35	22,5
	8.3.45.7		27,0	19,1	13783	60,4	183	45	280	2856	810	720	700	2456			1428		16	35	35	22,5
	3.3.50.7		18,6	12,8	22451	63,1	86	22	238	3456	680	720	550	1028	2028		864	1728	16	28	35	25
	4.3.50.7		23,5	16,4	21879	63,1	114	29	265	3456	730	720	600	1028	2028		864	1728	16	35	35	25
	6.3.50.7		31,2	22,1	20829	63,1	171	43	319	3456	830	720	700	1028	2028		864	1728	16	42	35	25
	8.3.50.7		36,5	26,4	19899	63,1	228	57	373	3456	930	720	800	1028	2028		864	1728	16	42	35	25
	3.3.56.7		27,0	18,9	31607	66,8	126	31	317	3756	780	920	650	1128	2228		939	1878	16	35	35	27,5
	4.3.56.7		33,9	23,0	30928	66,8	167	42	353	3756	830	920	700	1128	2228		939	1878	16	42	35	27,5
	6.3.56.7		45,2	31,4	29728	66,8	251	62	426	3756	930	920	800	1128	2228		939	1878	16	42	35	27,5
	8.3.56.7		53,7	38,0	28692	66,8	335	83	500	3756	1030	920	900	1128	2228		939	1878	22	54	35	27,5
	3.3.63.7		34,4	24,8	38723	70,6	171	43	426	4056	795	1120	650	1228	2428		1014	2028	16	42	35	27,5
	4.3.63.7		43,7	29,3	38206	70,6	228	57	474	4056	845	1120	700	1228	2428		1014	2028	22	42	35	27,5
	6.3.63.7		58,6	41,4	37165	70,6	342	85	567	4056	945	1120	800	1228	2428		1014	2028	22	54	35	27,5
	8.3.63.7		70,0	48,8	36142	70,6	457	113	663	4056	1045	1120	900	1228	2428		1014	2028	22	54	35	27,5

* = Sound pressure indication (LpA) at 3 m distance each air cooler (+/- 2 dB(A)), free field conditions, according EN13487
** = Air throw see remark page 5
For moisture carry over see remark pag 5
Capacities and air volumes with 60 Hz fans on request or in our GPC selection program available.

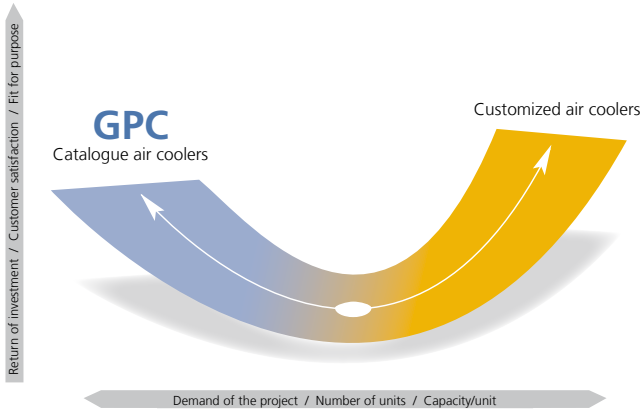
Goedhart VCI Electrical defrost

	Type VC	Light defrost								Heavy defrost*							
		Coil block			Drip tray				Total each air cooler	Coil block			Drip tray				Total each air cooler
		Number	Type of heating element	Total	Number	Type of heating element	Tension	Total		Number	Type of heating element	Total	Number	Type of heating element	Tension	Total	
		n	mm	kW	n	mm	V	kW	kW	n	mm	kW	n	mm	V	kW	kW
1x	3.1.40.f	2	1900	1,52	1	2800	230	1,16	2,68	3	1900	2,28	2	2500	200	1,56	3,84
	4.1.40.f	2	1900	1,52	1	2800	230	1,16	2,68	3	1900	2,28	2	2500	200	1,56	3,84
	6.1.40.f	2	1900	1,52	1	2800	230	1,16	2,68	4	1900	3,04	2	2500	200	1,56	4,6
	8.1.40.f	3	1900	2,28	1	2800	230	1,16	3,44	6	1900	4,56	2	2500	200	1,56	6,12
	1.1.40.f	3	1900	2,28	1	3100	230	1,29	3,57	6	1900	4,56	2	2500	200	1,56	6,12
	3.1.45.f	2	2200	1,78	1	3100	230	1,29	3,07	3	2200	2,67	2	2800	200	1,76	4,43
	4.1.45.f	2	2200	1,78	1	3100	230	1,29	3,07	3	2200	2,67	2	2800	200	1,76	4,43
	6.1.45.f	3	2200	2,67	1	3100	230	1,29	3,96	4	2200	3,56	2	2800	200	1,76	5,32
	8.1.45.f	4	2200	3,56	1	3100	230	1,29	4,85	6	2200	5,34	2	2800	200	1,76	7,1
	1.1.45.f	4	2200	3,56	1	3400	230	1,42	4,98	6	2200	5,34	2	2800	200	1,76	7,1
	3.1.50.f	2	2500	2,04	1	3400	230	1,42	3,46	3	2500	3,06	2	3100	200	1,96	5,02
	4.1.50.f	2	2500	2,04	1	3400	230	1,42	3,46	3	2500	3,06	2	3100	200	1,96	5,02
	6.1.50.f	3	2500	3,06	1	3400	230	1,42	4,48	4	2500	4,08	2	3100	200	1,96	6,04
	8.1.50.f	4	2500	4,08	1	3700	230	1,55	5,63	6	2500	6,12	2	3100	200	1,96	8,08
	1.1.50.f	4	2500	4,08	2	3100	200	1,96	6,04	6	2500	6,12	2	3100	200	1,96	8,08
	3.1.56.f	3	2800	3,48	1	3700	230	1,55	5,03	4	2800	4,64	2	3400	200	2,14	6,78
	4.1.56.f	3	2800	3,48	1	3700	230	1,55	5,03	4	2800	4,64	2	3400	200	2,14	6,78
	6.1.56.f	4	2800	4,64	1	3700	230	1,55	6,19	6	2800	6,96	2	3400	200	2,14	9,1
	8.1.56.f	6	2800	6,96	2	3400	200	2,14	9,1	8	2800	9,28	2	3400	200	2,14	11,42
	1.1.56.f	6	2800	6,96	2	3400	200	2,14	9,1	8	2800	9,28	2	3400	200	2,14	11,42
	3.1.63.f	5	3100	6,45	1	4000	230	1,68	8,13	6	3100	7,74	2	3700	200	2,34	10,08
	4.1.63.f	5	3100	6,45	1	4000	230	1,68	8,13	6	3100	7,74	2	3700	200	2,34	10,08
	6.1.63.f	5	3100	6,45	1	4000	230	1,68	8,13	6	3100	7,74	2	3700	200	2,34	10,08
	8.1.63.f	7	3100	9,03	2	3700	200	2,34	11,37	9	3100	11,61	2	3700	200	2,34	13,95
	1.1.63.f	7	3100	9,03	2	3700	200	2,34	11,37	9	3100	11,61	2	3700	200	2,34	13,95
2x	3.2.40.f	2	3400	2,84	1	4300	230	1,81	4,65	3	3400	4,26	2	4000	200	2,54	6,8
	4.2.40.f	2	3400	2,84	1	4300	230	1,81	4,65	3	3400	4,26	2	4000	200	2,54	6,8
	6.2.40.f	2	3400	2,84	1	4300	230	1,81	4,65	4	3400	5,68	2	4000	200	2,54	8,22
	8.2.40.f	3	3400	4,26	1	4300	230	1,81	6,07	6	3400	8,52	2	4000	200	2,54	11,06
	1.2.40.f	3	3400	4,26	1	4600	230	1,94	6,2	6	3400	8,52	2	4000	200	2,54	11,06
	3.2.45.f	2	3700	3,1	1	4600	230	1,94	5,04	3	3700	4,65	2	4300	200	2,74	7,39
	4.2.45.f	2	3700	3,1	1	4600	230	1,94	5,04	3	3700	4,65	2	4300	200	2,74	7,39
	6.2.45.f	3	3700	4,65	1	4600	230	1,94	6,59	4	3700	6,2	2	4300	200	2,74	8,94
	8.2.45.f	4	3700	6,2	1	4600	230	1,94	8,14	6	3700	9,3	2	4300	200	2,74	12,04
	1.2.45.f	4	3700	6,2	1	4900	230	2,07	8,27	6	3700	9,3	2	4300	200	2,74	12,04
	3.2.50.f	2	4600	3,88	1	5500	230	2,13	6,01	3	4600	5,82	2	5200	200	3,34	9,16
	4.2.50.f	2	4600	3,88	1	5500	230	2,13	6,01	3	4600	5,82	2	5200	200	3,34	9,16
	6.2.50.f	3	4600	5,82	1	5500	230	2,13	7,95	4	4600	7,76	2	5200	200	3,34	11,1
	8.2.50.f	4	4600	7,76	1	5500	230	2,13	9,89	6	4600	11,64	2	5200	200	3,34	14,98
	1.2.50.f	4	4600	7,76	2	5200	200	3,34	11,1	6	4600	11,64	2	5200	200	3,34	14,98
	3.2.56.f	3	4900	6,21	1	6100	230	2,6	8,81	4	4900	8,28	2	5500	200	3,52	11,8
	4.2.56.f	3	4900	6,21	1	6100	230	2,6	8,81	4	4900	8,28	2	5500	200	3,52	11,8
	6.2.56.f	4	4900	8,28	1	6100	230	2,6	10,88	6	4900	12,42	2	5500	200	3,52	15,94
	8.2.56.f	6	4900	12,42	2	5500	200	3,52	15,94	8	4900	16,56	2	5500	200	3,52	20,08
	1.2.56.f	6	4900	12,42	2	5500	200	3,52	15,94	8	4900	16,56	2	5500	200	3,52	20,08
	3.2.63.f	5	5500	11,65	1	6400	230	2,76	14,41	6	5500	13,98	2	6100	200	3,92	17,9
	4.2.63.f	5	5500	11,65	1	6400	230	2,76	14,41	6	5500	13,98	2	6100	200	3,92	17,9
	6.2.63.f	5	5500	11,65	1	6400	230	2,76	14,41	6	5500	13,98	2	6100	200	3,92	17,9
	8.2.63.f	7	5500	16,31	2	6100	200	3,92	20,23	9	5500	20,97	2	6100	200	3,92	24,89
	1.2.63.f	7	5500	16,31	2	6100	200	3,92	20,23	9	5500	20,97	2	6100	200	3,92	24,89
3x	3.3.45.f	2	5500	4,66	1	6400	230	2,76	7,42	3	5500	6,99	2	6100	200	3,92	10,91
	4.3.45.f	2	5500	4,66	1	6400	230	2,76	7,42	3	5500	6,99	2	6100	200	3,92	10,91
	6.3.45.f	3	5500	6,99	1	6400	230	2,76	9,75	4	5500	9,32	2	6100	200	3,92	13,24
	8.3.45.f	4	5500	9,32	1	6400	230	2,76	12,08	6	5500	13,98	2	6100	200	3,92	17,9
	1.3.45.f	4	5500	9,32	1	6400	230	2,76	12,08	6	5500	13,98	2	6100	200	3,92	17,9
	3.3.50.f	4	3400	5,68	2	3700	200	2,34	8,02	6	3400	8,52	4	3700	200	4,68	13,2
	4.3.50.f	4	3400	5,68	2	3700	200	2,34	8,02	6	3400	8,52	4	3700	200	4,68	13,2
	6.3.50.f	6	3400	8,52	2	3700	200	2,34	10,86	8	3400	11,36	4	3700	200	4,68	16,04
	8.3.50.f	8	3400	11,36	2	3700	200	2,34	13,7	12	3400	17,04	4	3700	200	4,68	21,72
	1.3.50.f	8	3400	11,36	4	3700	200	4,68	16,04	12	3400	17,04	4	3700	200	4,68	21,72
	3.3.56.f	6	3700	9,3	2	4000	200	2,54	11,84	8	3700	12,4	4	4000	200	5,08	17,48
	4.3.56.f	6	3700	9,3	2	4000	200	2,54	11,84	8	3700	12,4	4	4000	200	5,08	17,48
	6.3.56.f	8	3700	12,4	2	4000	200	2,54	14,94	12	3700	18,6	4	4000	200	5,08	23,68
	8.3.56.f	12	3700	18,6	4	4000	200	5,08	23,68	16	3700	24,8	4	4000	200	5,08	29,88
	1.3.56.f	12	3700	18,6	4	4000	200	5,08	23,68	16	3700	24,8	4	4000	200	5,08	29,88
	3.3.63.f	10	4000	16,8	2	4300	200	2,74	19,54	12	4000	20,16	4	4300	200	5,48	25,64
	4.3.63.f	10	4000	16,8	2	4300	200	2,74	19,54	12	4000	20,16	4	4300	200	5,48	25,64
	6.3.63.f	10	4000	16,8	2	4300	200	2,74	19,54	12	4000	20,16	4	4300	200	5,48	25,64
	8.3.63.f	14	4000	23,52	4	4300	200	5,48	29	18	4000	30,24	4	4300	200	5,48	35,72
	1.3.63.f	14	4000	23,52	4	4300	200	5,48	29	18	4000	30,24	4	4300	200	5,48	35,72

f = Fin spacing

* = Always heavy electric defrost when using cooling mediums..

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

Goedhart VCI 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!

GEA Goedhart
air coolers
for every application

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.

LLOYD'S REGISTER QUALITY ASSURANCE ISO9001

Lloyd's Register
PRESSURE EQUIPMENT

Excellence Passion Integrity Responsibility GEA-versity

GEA Group is a global mechanical engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881 the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX Europe 600 Index.

GEA Heat Exchangers

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Version: 03.02.2.015.dok - 2011-12. Subject to modification.