Industrial air cooler VRB/VRZ

Cooling/Freezing

StSt/Al - NH_3

GEA Heat Exchangers

Goedhart

Goedhart VRB/VRZ

The range Goedhart VRB/VRZ single discharge ceiling mounted industrial air coolers consists of 510 types with capacities between 3,9 and 131,3 kW. The Goedhart VRB/VRZ 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, stainless steel 304 tubes and aluminium fins. The fans are arranged for blow-through air configuration for the Goedhart VRB and draw-through for the Goedhart VRZ (please state which is required when ordering).. The modular design incorporates 5 different sizes of fan, with model options of up to 4 fans per cooler

Type-description

VRB 63457

- B=Blow-through / Z=Draw-through
- Number of rows deep
- Number of fans
- Fin spacing
- Fan diameter in cm

Coil block

- Tube pitch : 50x50 mm straight
- Fin spacings : 4, 7, 8, 10 and 12 mm
- Material : 15mm o.d stainless steel 304 tubes
- : aluminium HT-fins
- 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 hydraulic 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.
- Standard the air coolers are suitable for NH_3- pumpcirculation (ratio 2/4).

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 protection by end covers, easy removed for maintenance
- Hinged drip tray.
- Defrost by hot gas spiral or electric defrost elements will be fixed to the bottom side of the coil.

VRB/VRZ 10mm Technical data

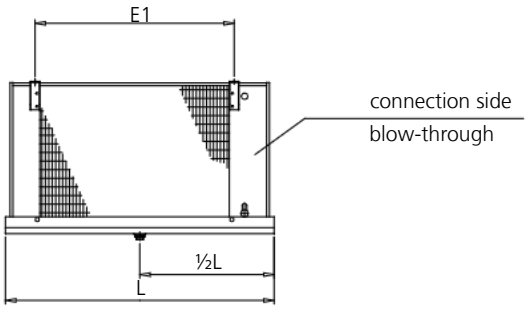
Type VRB VRZ	3x400V-50H-4pole (1500 min-1 nom.)						Surface	Internal volume	Weight	Dimensions							Connections					
	NH3																Refrigerant				Waterdefrost	
	Cooling		Freezing																			
	DTM = 7K air mon= +2°C	DT1 = 8K (SC2) air on= 0°C	DTM = 7K air mean = -18°C	DT1 = 7K (SC3) air on= -18°C	Air volume	LpA @ 3 m (+/- 2 dB(A))				L	B	H	D	E1	E2	E3	In	Uit	Hot gas	Drain	In	Drain
	kW	kW	kW	kW	m³/h	dB(A)	m²	dm³	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	NW"	NW"	NW"
6.1.40.10	7,4	6,2	5,7	4,4	3460	52	24	8	78	1156	800	610	600	756			21,3	21,3	22	1¼	1¼	2
8.1.40.10	9,6	7,4	7,6	5,1	3374	52	32	11	92	1156	900	610	700	756			21,3	21,3	22	1¼	1¼	2
1.1.40.10	11,5	8,3	9,0	5,9	3289	52	40	14	105	1156	1000	610	800	756			21,3	26,7	22	1¼	1¼	2
6.1.45.10	10,8	9,1	8,7	6,5	5260	56	33	11	94	1256	840	710	600	856			21,3	26,7	22	1¼	1¼	2
8.1.45.10	13,9	10,8	10,9	7,8	5112	56	44	15	110	1256	940	710	700	856			21,3	26,7	22	1¼	1¼	2
1.1.45.10	16,7	12,1	13,2	8,6	4973	56	55	19	126	1256	1040	710	800	856			21,3	26,7	22	1¼	1¼	2
6.1.50.10	14,3	12,3	11,4	8,9	7457	63	41	14	116	1456	920	710	700	1056			21,3	26,7	22	1¼	1¼	2
8.1.50.10	18,6	14,7	14,9	10,6	7264	63	55	19	135	1456	1020	710	800	1056			21,3	33,7	22	1¼	1¼	2
1.1.50.10	22,5	16,7	17,8	12,0	7081	63	68	23	154	1456	1120	710	900	1056			21,3	33,7	22	1¼	1¼	2
6.1.56.10	20,7	17,7	16,7	12,8	10632	63	60	20	158	1556	1060	910	800	1156			21,3	33,7	22	1¼	1¼	2
8.1.56.10	26,9	21,3	21,3	15,4	10413	63	80	27	183	1556	1160	910	900	1156			21,3	33,7	22	1¼	1¼	2
1.1.56.10	32,0	23,9	25,6	17,4	10203	63	100	34	210	1556	1260	910	1000	1156			21,3	42,2	22	1¼	1¼	2
6.1.63.10	26,9	22,5	21,7	16,4	13173	63	82	27	197	1656	1060	1110	800	1256			21,3	42,2	22	1¼	1¼	2
8.1.63.10	34,9	27,1	27,2	19,7	12957	63	109	36	229	1656	1160	1110	900	1256			21,3	42,2	22	1¼	1¼	2
1.1.63.10	42,3	30,9	33,5	21,8	12743	63	137	45	262	1656	1260	1110	1000	1256			21,3	42,2	22	1¼	1¼	2
6.2.40.10	14,8	12,4	11,9	8,9	6918	55	48	16	125	1856	800	610	600	1456			21,3	26,7	22	1¼	1¼	2
8.2.40.10	19,1	14,7	15,1	10,3	6742	55	64	21	147	1856	900	610	700	1456			21,3	33,7	22	1¼	1¼	2
1.2.40.10	22,9	16,5	18,1	11,8	6570	55	80	27	168	1856	1000	610	800	1456			21,3	33,7	22	1¼	1¼	2
6.2.45.10	21,5	18,1	17,3	13,1	10514	59	65	22	152	2056	840	710	600	1656			21,3	33,7	22	1¼	1¼	2
8.2.45.10	27,7	21,6	21,8	15,6	10217	59	87	29	179	2056	940	710	700	1656			21,3	42,2	22	1¼	1¼	2
1.2.45.10	33,4	24,1	26,4	17,5	9937	59	109	36	207	2056	1040	710	800	1656			21,3	42,2	22	1¼	1¼	3
6.2.50.10	28,6	24,5	22,8	17,8	14907	66	82	27	193	2456	920	710	700	2056			21,3	42,2	22	1¼	1¼	3
8.2.50.10	37,1	29,5	29,7	21,2	14520	66	109	36	226	2456	1020	710	800	2056			21,3	42,2	22	1¼	1¼	3
1.2.50.10	45,0	33,0	35,6	23,9	14151	66	137	45	260	2456	1120	710	900	2056			21,3	42,2	22	1¼	1¼	3
6.2.56.10	41,4	35,3	33,3	25,6	21258	66	120	40	265	2656	1060	910	800	2256			21,3	42,2	22	1¼	1¼	3
8.2.56.10	53,7	42,6	42,6	30,8	20817	66	160	53	311	2656	1160	910	900	2256			21,3	48,3	34	1¼	1¼	3
1.2.56.10	63,9	47,8	51,1	34,7	20395	66	201	66	357	2656	1260	910	1000	2256			21,3	48,3	34	1¼	1¼	3
6.2.63.10	53,7	45,0	43,3	32,8	26340	66	164	54	335	2856	1060	1110	800	2456			21,3	48,3	34	1¼	1¼	3
8.2.63.10	69,7	54,1	54,4	39,4	25907	66	219	72	395	2856	1160	1110	900	2456			21,3	60,3	34	1¼	1¼	3
1.2.63.10	84,6	61,7	65,2	43,6	25475	66	274	90	455	2856	1260	1110	1000	2456			21,3	60,3	34	1¼	1¼	3
6.3.45.10	32,2	27,1	26,0	19,4	15769	61	98	33	213	2856	840	710	600	2456			21,3	42,2	22	1¼	1¼	3
8.3.45.10	41,5	32,4	33,2	23,4	15321	61	131	44	252	2856	940	710	700	2456			21,3	42,2	22	1¼	1¼	3
1.3.45.10	50,0	36,1	39,4	26,1	14901	60	164	54	292	2856	1040	710	800	2456			21,3	42,2	34	1¼	1¼	3
6.3.50.10	42,9	36,8	34,7	26,7	22358	67	123	41	272	3456	920	710	700	3056	1028	2028	21,3	42,2	22	2x1¼	2x1¼	3
8.3.50.10	55,6	43,7	43,9	31,9	21776	67	164	54	320	3456	1020	710	800	3056	1028	2028	21,3	48,3	34	2x1¼	2x1¼	2x3
1.3.50.10	65,9	49,5	53,4	35,9	21221	67	205	68	367	3456	1120	710	900	3056	1028	2028	21,3	48,3	34	2x1¼	2x1¼	2x3
6.3.56.10	62,1	52,9	50,0	38,1	31883	67	180	60	373	3806	1060	910	800	3356	2228	1128	21,3	60,3	34	2x1¼	2x1¼	2x3
8.3.56.10	80,4	63,7	64,2	44,6	31221	67	241	79	439	3806	1160	910	900	3356	2228	1128	21,3	60,3	34	2x1¼	2x1¼	2x3
1.3.56.10	97,7	72,2	77,1	51,8	30589	67	301	99	506	3806	1260	910	1000	3356	2228	1128	26,7	60,3	42	2x1¼	2x1¼	2x3
6.3.63.10	79,6	67,8	65,0	49,3	39509	67	246	81	476	4106	1060	1110	800	3656	2428	1228	26,7	60,3	34	2x1¼	2x1¼	2x3
8.3.63.10	104,5	81,8	83,6	59,0	38854	67	328	108	561	4106	1160	1110	900	3656	2428	1228	26,7	60,3	42	2x1¼	2x1¼	2x3
1.3.63.10	126,8	92,5	100,1	66,5	38208	67	410	135	647	4106	1260	1110	1000	3656	2428	1228	26,7	60,3	42	2x1¼	2x1¼	2x3
6.4.50.10	56,5	48,7	46,2	35,6	29808	68	164	54	348	4506	920	710	700	4056	2028	2028	21,3	48,3	34	2x1¼	2x1¼	2x3
8.4.50.10	74,1	58,9	59,4	42,4	29031	68	219	72	411	4506	1020	710	800	4056	2028	2028	21,3	60,3	34	2x1¼	2x1¼	2x3
1.4.50.10	89,8	65,9	71,0	47,8	28291	68	273	90	473	4506	1120	710	900	4056	2028	2028	26,7	60,3	34	2x1¼	2x1¼	2x3
6.4.56.10	82,7	70,6	66,6	51,2	42510	68	240	79	480	4906	1060	910	800	4456	2228	2228	26,7	60,3	34	2x1¼	2x1¼	2x3
8.4.56.10	107,4	85,1	85,1	61,5	41626	68	321	106	566	4906	1160	910	900	4456	2228	2228	26,7	60,3	42	2x1¼	2x1¼	2x3
1.4.56.10	127,8	95,6	102,1	69,3	40780	68	401	132	652	4906	1260	910	1000	4456	2228	2228	26,7	60,3	42	2x1¼	2x1¼	2x3
6.4.63.10	107,3	90,6	86,6	65,5	52676	68	328	108	625	5306	1060	1110	800	4856	2428	2428	26,7	60,3	42	2x1¼	2x1¼	2x3
8.4.63.10	139,4	108,2	108,7	78,7	51803	68	438	144	738	5306	1160	1110	900	4856	2428	2428	33,7	76,1	42	2x1¼	2x1¼	2x3
1.4.63.10	169,0	122,4	130,7	88,8	50941	68	547	180	850	5306	1260	1110	1000	4856	2428	2428	33,7	76,1	48	2x1¼	2x1¼	2x3

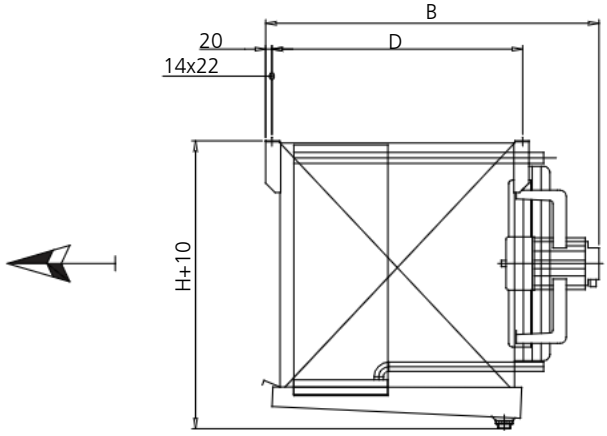
Pay attention to the relation capacity / air volume !!

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

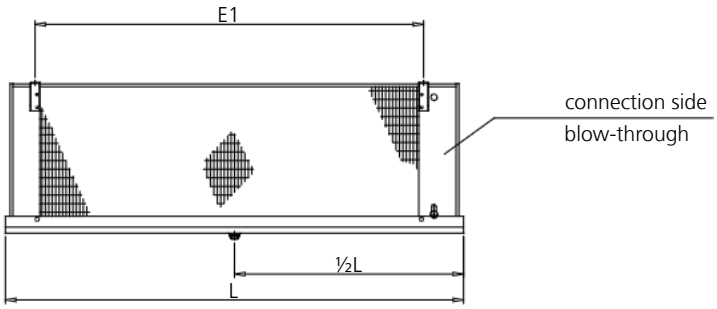
For moisture carry over see remark pag 5

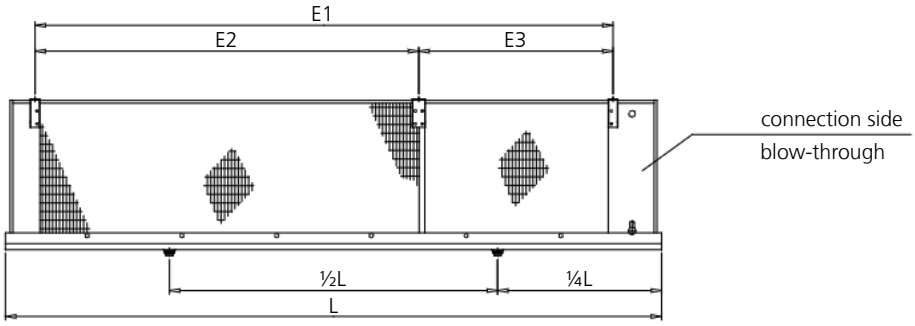
VRB Drawing

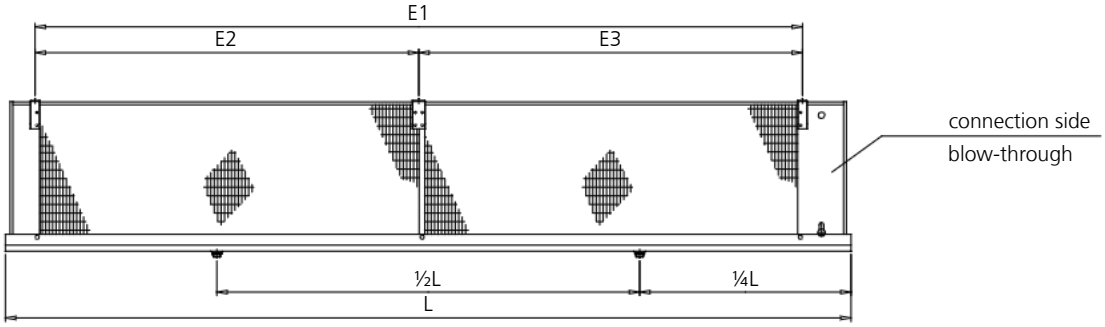




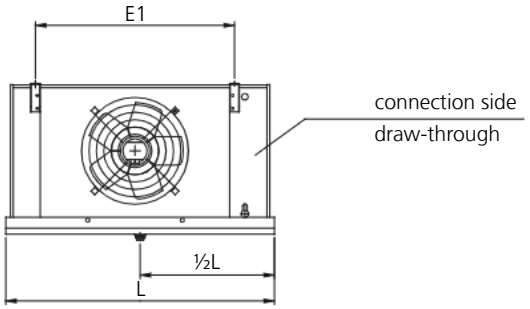
Air configuration : Blow through

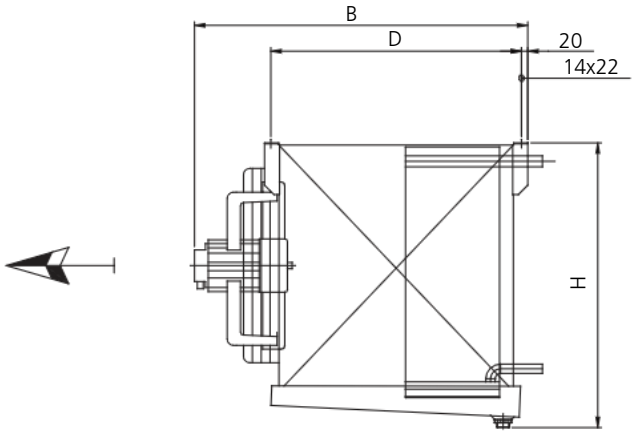




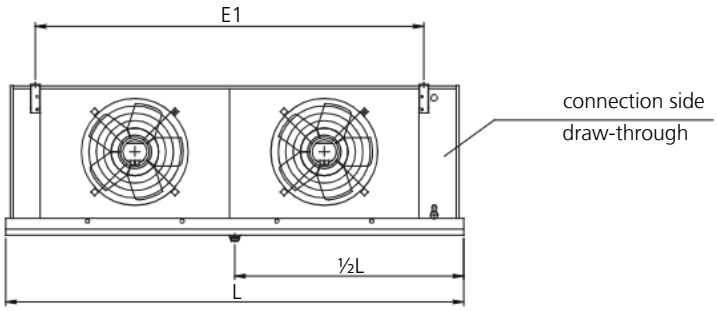


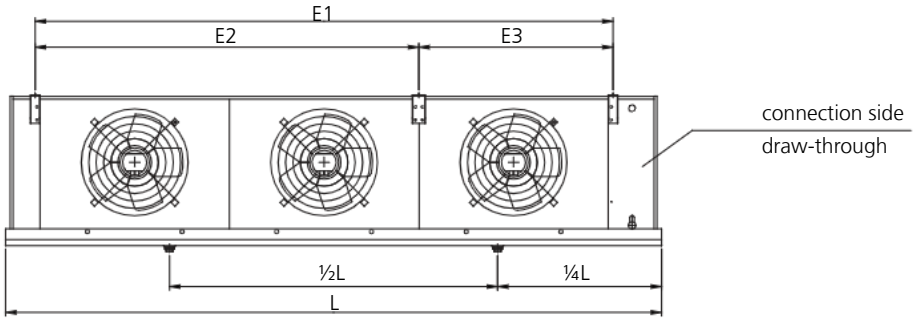
VRZ Drawing

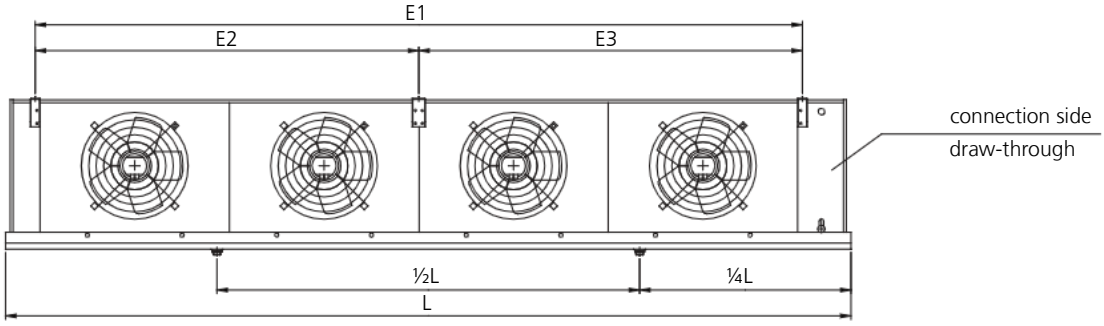




Air configuration : Draw through







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