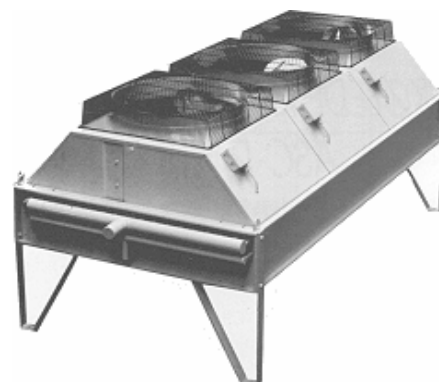


# ATC-L/BTC-L Dry Air Cooler

## Introduction

ttc norge's Dry Air Coolers can be used in different temperature applications with suitable number of capacity possibilities.

Dry Air Coolers are designed and constructed to meet the customer's requirements utilising advanced computer design programs and production techniques to ensure the right product at a competitive price. The programs can calculate the limit of noise, liquid pressure, sizes and number that each construction require.



ttc norge's modern production facilities are capable of handling a great variety of materials which enable ttc norge to produce cooling and evaporating coils for almost any application within the air conditioning and industrial process field.

## Standard features:

- Caseworking in galvanized steel
- ttc norge's TR Super-X aluminium Fin
- Tubes and header in copper
- Various fan speeds to give a wide range of noise levels
- Use of standard motors, to IP 55 protection. F or H
- Horizontal or vertical orientation
- Lockable isolator

## Additional:

- Heat exchanger in different materials such as copper/copper, aluminium/aluminium, stainless steel/stainless steel, titanium/titanium
- Aluminium or stainless steel casework alternatives
- Capacity control by either a steep-control or a variable speed control for single and three phase motors
- Explosion proof motors
- Common terminal box
- Access door for coil cleaning (clean-able coil surface)
- Extra long legs
- Colouring by request in RAL-colour
- Extra low noise
- Other fins spacing and tubes dimensions can be supplied upon request.

ttc norge's identifies today's demands relating to product design, application and materials and those of the future.

ttc norge attach great importance to product performance, design and quality.

ttc norge's quality assurance programme is in accordance with ISO 9001.

The heating coils are designed and constructed to meet the customers' requirements utilising advanced computer design programs and production techniques to ensure the right product at a competitive price.

# ATC-L/BTC-L Dry Air Cooler

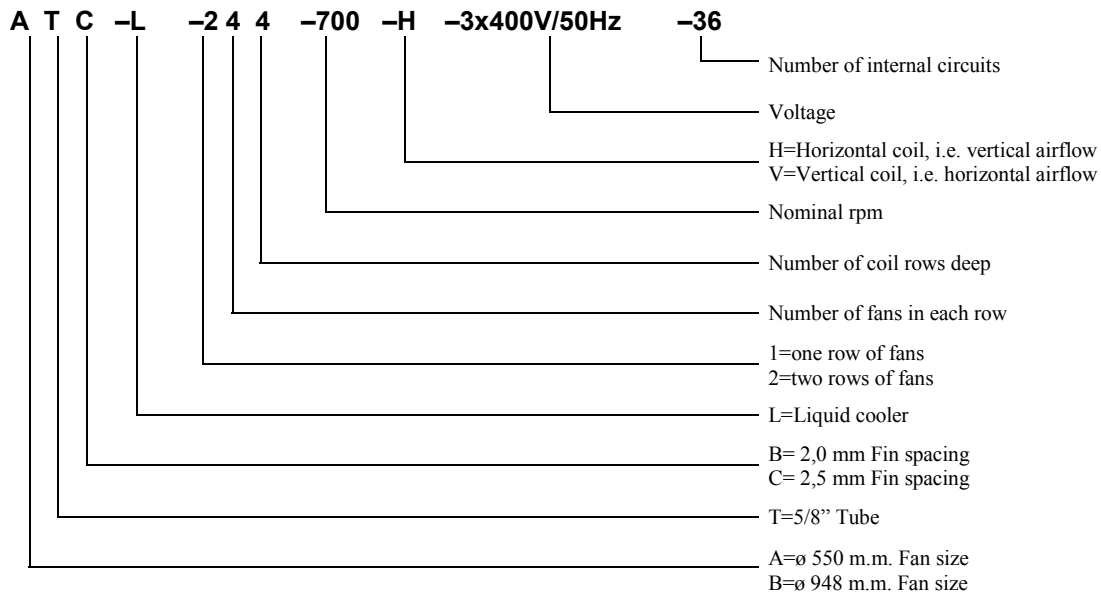
## Applications

ttc norge's models are specially designed to be installed both in industrial and residential areas due to their:

- High quality construction
- Ultra low noise
- Improved safety features
- Easy accessibility and minimum maintenance
- Simplicity of installation

ttc norge's Dry Air Coolers can be cooled by most of liquid as water/glycol (brine), oil etc. Specially designed cooler base for aggressive medium are designed in non-corrosive material or stainless steel.

## Coil nomenclature:





ttc norge as

**ATC-L****Tekniske spesifikasjoner**

Motor data	Omdreininger	450	700	900	1400
Spenning	3x400V	0.03kW / 0.33-0.37A	0.13kW / 0.8A	0.25kW / 1.0-1.2A	0.85kW / 2.2A
Motorstørrelse	3x230V	0.03kW / 0.57-0.64A	0.13kW / 1.4A	0.25kW / 1.75-2.1A	0.85kW / 3.8A
Strømforbruk	1x230V	0.22kW / 0.95A	0.13kW / 1.2A	0.22kW / 1.9A	0.75kW / 5.0A

**ATC-L 100** **Viftediameter 550 mm.**

Størrelse	Antall vifter	Overflate m <sup>2</sup>	Volum dm <sup>3</sup>	Vekt Cu/Al kg	Luftmengde m <sup>3</sup> /s	dB(A) 10m	Luftmengde m <sup>3</sup> /s	dB(A) 10m	Luftmengde m <sup>3</sup> /s	dB(A) 10m	Luftmengde m <sup>3</sup> /s	dB(A) 10m
113		51.2	7.6	83	1.02	26	1.60	35	2.10	41	3.10	55
114		68.3	10.2	89	0.96	26	1.55	35	2.00	41	3.00	55
115	1	85.4	12.7	96	0.90	26	1.50	35	1.90	41	2.90	55
116		102.5	15.2	103	0.84	26	1.45	35	1.80	41	2.80	55
123		102.5	15.2	136	2.04	29	3.20	38	4.20	44	6.20	58
124		136.6	20.3	150	1.92	29	3.10	38	4.00	44	6.00	58
125	2	170.8	25.4	164	1.80	29	3.00	38	3.80	44	5.80	58
126		205.0	30.5	178	1.68	29	2.90	38	3.60	44	5.60	58
133		153.7	22.8	191	3.06	30	4.80	40	6.30	45	9.30	60
134		205.0	30.5	212	2.88	30	4.65	40	6.00	45	9.00	60
135	3	256.2	38.1	233	2.70	30	4.50	40	5.70	45	8.70	60
136		307.4	45.7	254	2.52	30	4.35	40	5.40	45	8.40	60
143		205.0	30.5	246	4.08	32	6.40	41	8.40	47	12.40	61
144		273.3	40.6	274	3.84	32	6.20	41	8.00	47	12.00	61
145	4	341.6	50.8	302	3.60	32	6.00	41	7.60	47	11.60	61
146		409.9	60.9	329	3.36	32	5.80	41	7.20	47	11.20	61
153		256.2	38.1	305	5.10	33	8.00	42	10.50	48	15.50	62
154		341.6	50.8	340	4.80	33	7.75	42	10.00	48	15.00	62
155	5	427.0	63.4	374	4.50	33	7.50	42	9.50	48	14.50	62
156		512.4	76.1	409	4.20	33	7.25	42	9.00	48	14.00	62
163		307.4	45.7	359	6.12	33	9.60	43	12.60	48	18.60	63
164		409.9	60.9	400	5.76	33	9.30	43	12.00	48	18.00	63
165	6	512.4	76.1	442	5.40	33	9.00	43	11.40	48	17.40	63
166		614.9	91.4	484	5.04	33	8.70	43	10.80	48	16.80	63
173		358.7	53.3	428	7.14	34	11.20	44	14.70	49	21.70	64
174		478.2	71.1	477	6.72	34	10.85	44	14.00	49	21.00	64
175	7	597.8	88.8	526	6.30	34	10.50	44	13.30	49	20.30	64
176		717.4	106.6	574	5.88	34	10.15	44	12.60	49	19.60	64
183		409.9	60.9	485	8.16	35	12.80	44	16.80	50	24.80	64
184		546.6	81.2	541	7.68	35	12.40	44	16.00	50	24.00	64
185	8	683.2	101.5	596	7.20	35	12.00	44	15.20	50	23.20	64
186		819.8	121.8	652	6.72	35	11.60	44	14.40	50	22.40	64

**ATC-L 200** **Viftediameter 550 mm.**

223		205.0	30.5	253	4.08	30	6.40	40	8.40	45	12.40	60
224		273.3	40.6	280	3.84	30	6.20	40	8.00	45	12.00	60
225	4	341.6	50.8	308	3.60	30	6.00	40	7.60	45	11.60	60
226		409.9	60.9	336	3.36	30	5.80	40	7.20	45	11.20	60
233		307.4	45.7	352	6.12	31	9.60	41	12.60	46	18.60	61
234		409.9	60.9	394	5.76	31	9.30	41	12.00	46	18.00	61
235	6	512.4	76.1	435	5.40	31	9.00	41	11.40	46	17.40	61
236		614.9	91.4	477	5.04	31	8.70	41	10.80	46	16.80	61
243		409.9	60.9	453	8.16	32	12.80	42	16.80	47	24.80	62
244		546.6	81.2	508	7.68	32	12.40	42	16.00	47	24.00	62
245	8	683.2	101.5	564	7.20	32	12.00	42	15.20	47	23.20	62
246		819.8	121.8	619	6.72	32	11.60	42	14.40	47	22.40	62
253		512.4	76.1	556	10.20	33	16.00	43	21.00	48	31.00	63
254		683.2	101.5	626	9.60	33	15.50	43	20.00	48	30.00	63
255	10	854.0	126.9	695	9.00	33	15.00	43	19.00	48	29.00	63
256		1024.8	152.3	765	8.40	33	14.50	43	18.00	48	28.00	63
263		614.9	91.4	657	12.24	34	19.20	43	25.20	49	37.20	63
264		819.8	121.8	740	11.52	34	18.60	43	24.00	49	36.00	63
265	12	1024.8	152.3	824	10.80	34	18.00	43	22.80	49	34.80	63
266		1229.8	182.7	907	10.08	34	17.40	43	21.60	49	33.60	63
273		717.4	106.6	775	14.28	34	22.40	44	29.40	49	43.40	64
274		956.5	142.1	872	13.44	34	21.70	44	28.00	49	42.00	64
275	14	1195.6	177.6	969	12.60	34	21.00	44	26.60	49	40.60	64
276		1434.7	213.2	1066	11.76	34	20.30	44	25.20	49	39.20	64
283		819.8	121.8	877	16.32	35	25.60	44	33.60	50	49.60	64
284		1093.1	162.4	988	15.36	35	24.80	44	32.00	50	48.00	64
285	16	1366.4	203.0	1099	14.40	35	24.00	44	30.40	50	46.40	64
286		1639.7	243.6	1210	13.44	35	23.20	44	28.80	50	44.80	64

\* Strømforbruk kan variere p.g.a. forskjellige motortyper. Kontakt ttc norge as for nøyaktig opplysninger

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Box 54, 1851 Mysen**Telefon:**  
69 84 51 00**Bankkonto:**  
6116 05 17572**Foretaksregistret:**  
947 473 697 MVA**Besøksadresse:**  
Stabburveien 10, Slitu**Telefax:**  
69 89 45 10**Postgiro:**  
0804 5216544**E-mail**  
sales@ttc.no- a member of **BEIJER REF**



ttc norge as

**BTC-L****Tekniske spesifikasjoner**

Motor data	Omdreinger	300	450	700	900
Driftsspennning kW/A	3x400V 3x230V 1x230V	0.10kW / 1.2A 0.10kW / 2.1A	0.37kW / 2.8A 0.37kW / 4.8A	1.35kW / 4.2A 1.35kW / 7.3A	2.3kW / 5.9A 2.3kW / 10A

**BTC-L 100** **Viftediameter 948 mm.**

Størrelse	Antall vifter	Overflate m <sup>2</sup>	Volum dm <sup>3</sup>	Vekt Cu/Al kg	Luftmengde m <sup>3</sup> /s	dB(A) 10m	Luftmengde m <sup>3</sup> /s	dB(A) 10m	Luftmengde m <sup>3</sup> /s	dB(A) 10m	Luftmengde m <sup>3</sup> /s	dB(A) 10m
113		102.5	15.2	162	3.10	33	3.95	42	6.50	51	8.20	57
114		136.6	20.3	176	2.90	33	3.75	42	6.20	51	7.70	57
115	1	170.8	25.4	190	2.70	33	3.55	42	5.90	51	7.40	57
116		205.0	30.5	204	2.50	33	3.35	42	5.60	51	7.10	57
123		205.5	30.5	283	6.20	36	7.90	45	13.00	54	16.40	60
124		273.3	40.6	310	5.80	36	7.50	45	12.40	54	15.40	60
125	2	341.6	50.8	338	5.40	36	7.10	45	11.80	54	14.80	60
126		409.9	60.9	366	5.00	36	6.70	45	11.20	54	14.20	60
133		307.4	45.7	402	9.30	38	11.85	46	19.50	56	24.60	61
134		409.9	60.9	443	8.70	38	11.25	46	18.60	56	23.10	61
135	3	512.4	76.1	485	8.10	38	10.65	46	17.70	56	22.20	61
136		614.9	91.4	527	7.50	38	10.05	46	16.80	56	21.30	61
143		409.9	60.9	522	12.40	39	15.80	48	26.00	57	32.80	63
144		546.6	81.2	577	11.60	39	15.00	48	24.80	57	30.80	63
145	4	683.2	101.5	633	10.80	39	14.20	48	23.60	57	29.60	63
146		819.8	121.8	688	10.00	39	13.40	48	22.40	57	28.40	63
153		512.4	76.1	662	15.50	40	19.75	49	32.50	58	41.00	64
154		683.3	101.5	731	14.50	40	18.75	49	31.00	58	38.50	64
155	5	854.0	126.9	801	13.50	40	17.75	49	29.50	58	37.00	64
156		1024.8	152.3	870	12.50	40	16.75	49	28.00	58	35.50	64
163		614.9	91.4	784	18.60	40	23.70	49	39.00	59	49.20	64
164		819.8	121.8	867	17.40	40	22.50	49	37.20	59	46.20	64
165	6	1024.8	152.3	951	16.20	40	21.30	49	35.40	59	44.40	64
166		1229.8	182.7	1034	15.00	40	20.10	49	33.60	59	42.60	64

**BTC-L 200** **Viftediameter 948 mm.**

223		409.9	60.9	513	12.40	37	15.80	46	26.00	56	32.80	61
224		546.6	81.2	568	11.60	37	15.00	46	24.80	56	30.80	61
225	4	683.2	101.5	624	10.80	37	14.20	46	23.60	56	29.60	61
226		819.8	121.8	679	10.00	37	13.40	46	22.40	56	28.40	61
233		614.9	91.4	747	18.60	38	23.70	47	39.00	57	49.20	62
234		819.8	121.8	830	17.40	38	22.50	47	37.20	57	46.20	62
235	6	1024.8	152.3	914	16.20	38	21.30	47	35.40	57	44.40	62
236		1229.8	182.7	997	15.00	38	20.10	47	33.60	57	42.60	62
243		819.8	121.8	997	24.80	39	31.60	48	52.00	58	65.60	63
244		1093.1	162.4	1108	23.20	39	30.00	48	49.60	58	61.60	63
245	8	1366.4	203.0	1219	21.60	39	28.40	48	47.20	58	59.20	63
246		1639.7	243.6	1330	20.00	39	26.80	48	44.80	58	56.80	63
253		1024.8	152.3	1216	31.00	40	39.50	48	65.00	59	82.00	64
254		1366.4	203.0	1355	29.00	40	37.50	48	62.00	59	77.00	64
255	10	1708.0	253.8	1494	27.00	40	35.50	48	59.00	59	74.00	64
256		2049.6	304.5	1632	25.00	40	33.50	48	56.00	59	71.00	64
263		1229.8	182.7	1445	37.20	41	47.40	50	78.00	59	98.40	65
264		1639.7	243.6	1611	34.80	41	45.00	50	74.40	59	92.40	65
265	12	2049.6	304.5	1778	32.40	41	42.60	50	70.80	59	88.80	65
266		2459.5	365.4	1944	30.00	41	40.20	50	67.20	59	85.20	65

**TILKOBLINGSDIMENSJONER**

Inn- og utløpsdimensjoner på væskesiden blir bestemt automatisk i vårt beregningsprogram og i forhold til sirkulert væskemengde.

Denne og annen relevant teknisk informasjon skrives ut på et dataark.

Standard tilkobling er gjenger eller flenstilkobling, avhenging av samlestokkens dimensjon.

**KAPASITETS REGULERING**

Tørrkjølere kan leveres med ferdig påmontert reguleringsutstyr i flere versjoner.

Trinn-kontroll (på/av) eller trinnløs regulering for 1-fas

(kun A-serien) eller 3-fas

**ATC-L** modellene kan leveres med 1-fas motorer, hvorav samme motor kan kobles

for 450 o/min, 700 o/min eller 900 o/min. Motorer for 1400 o/min er også

tilgjengelige.

**LYD DATA**

Det oppgitte lydtrykksnivå er målt ut i fra tørrkjølerens senterlinje i 10meters avstand fra tilkoblingsenden,

SPL dB(A) (dB/2 x 10-5 Pa)

For korrigering til andre avstander, se tabell under. Tilleggsdata angående lyd og oktavbandanalyser kan fremskaffes ved behov.

m	5	10	15	20	30	40	60	80	120	160
dB(A)	+6	0	-3	-6	-9	-12	-15	-18	-21	-24

Motordata kan variere noe pga. forskjellige leverandører.



**Postadresse:**  
Box 54, 1851 Mysen

**Telefon:**  
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**Bankkonto:**  
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## ATC-L Fysiske dimensjoner

ATC-L 100

Dimensjoner horisontal modell (H) Vertikal luft

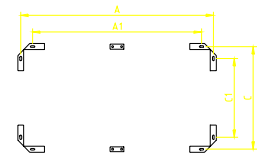
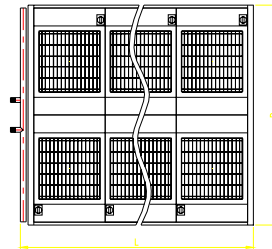
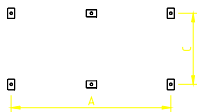
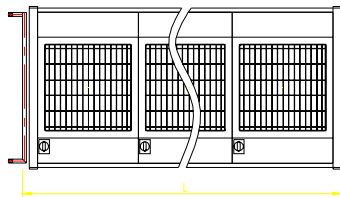
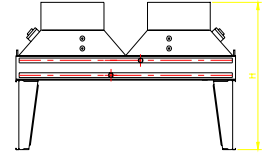
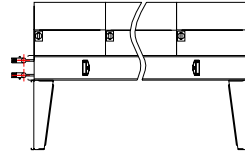
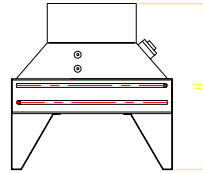
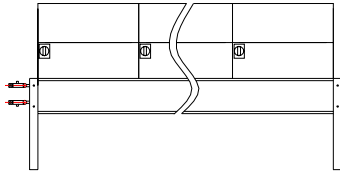
ATC-L 200

ATC - L

Type 11 - 18

ATC - L

Type 22 - 28

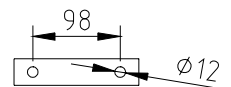
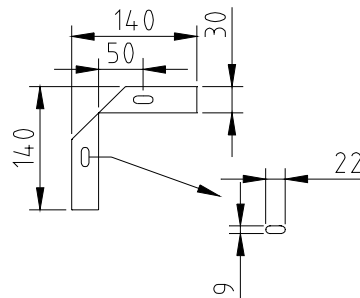
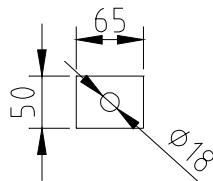
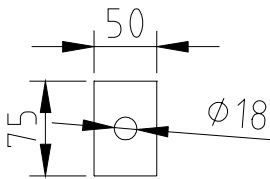


Montasjefot

Type 11 - 18

Montasjefot

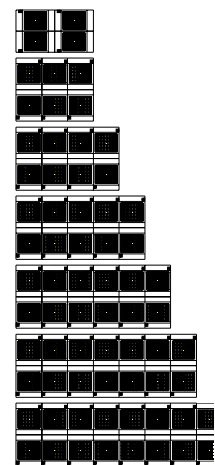
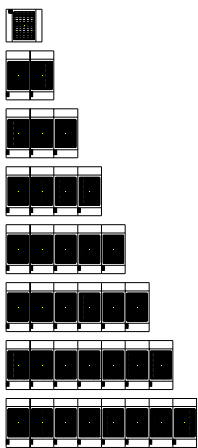
Type 22 - 28



Mellomben benyttes med flere enn 5 vifter pr. rekke

### ATC-L

Type	L	B	H	Antall vifter	A	A1	C	C1
11	1370	790	1025	1	1140		720	
12	1730	1150	1025	2	1620		1080	
13	2450	1150	1025	3	2220		1080	
14	3170	1150	1025	4	2940		1080	
15	3890	1150	1025	5	3660		1080	
16	4610	1150	1025	6	4380		1080	
17	5330	1150	1025	7	5100		1080	
18	6050	1150	1025	8	5820		1080	
22	2450	1500	1325	4	2070	1944	1470	1344
23	2450	2220	1325	6	2190	2064	2190	2064
24	3170	2220	1325	8	2910	2784	2190	2064
25	3890	2220	1325	10	3630	3504	2190	2064
26	4610	2220	1325	12	4350	4224	2190	2064
27	5330	2220	1325	14	5070	4944	2190	2064
28	6050	2220	1325	16	5790	5664	2190	2064



## BTC-L

### Fysiske dimensjoner

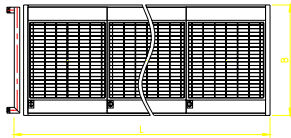
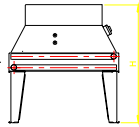
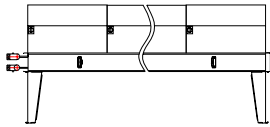
**BTC-L 100**

**Dimensjoner horisontal modell (H) Vertikal luft**

**BTC-L 200**

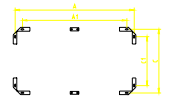
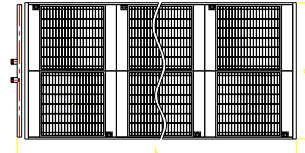
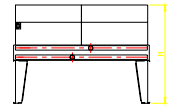
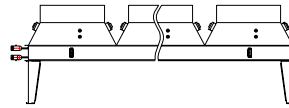
**BTC - L**

**Type 11 - 16**



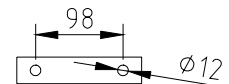
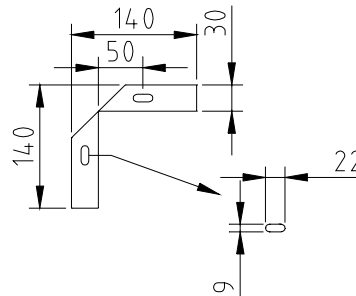
**BTC - L**

**Type 22 - 26**



**Montasjefot**

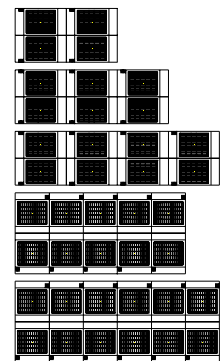
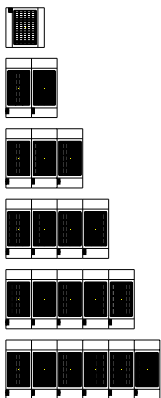
**Type 22 - 26**



**Mellomben benyttes med flere enn 5 vifter pr. rekke**

### BTC-L

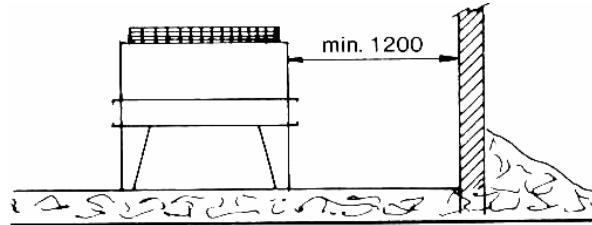
Type	L	B	H	Antall vifter	A	A1	C	C1
11	1730	1140	1480	1	1470	1344	1110	984
12	2450	1500	1480	2	2190	2064	1470	1344
13	3530	1500	1480	3	3270	3144	1470	1344
14	4610	1500	1480	4	4350	4224	1470	1344
15	5690	1500	1480	5	5430	5304	1470	1344
16	6770	1500	1480	6	6510	6384	1470	1344
22	3170	2220	1480	4	2910	2784	2190	2064
23	4610	2220	1480	6	4350	4224	2190	2064
24	6100	2220	1480	8	5790	5644	2190	2064
25	5690	2945	1480	10	5430	5304	2910	2784
26	6770	2945	1480	12	6510	6384	2910	2784



# SPACE AND LOCATION REQUIREMENTS

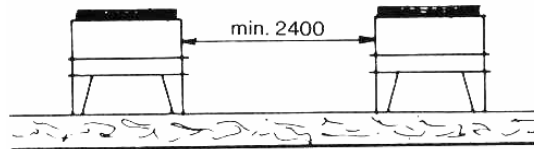
## Wall distance placing

The unit should be located so that air may circulate freely and not be recirculated. For proper air flow and access all sides of the unit must be a minimum of 1,2m away from any wall or obstruction. It is preferred that this distance should be increased whenever possible. Care should be taken to see that ample room is left for maintenance if it is enclosed by three walls the unit must be installed as indicated for units in a pit.



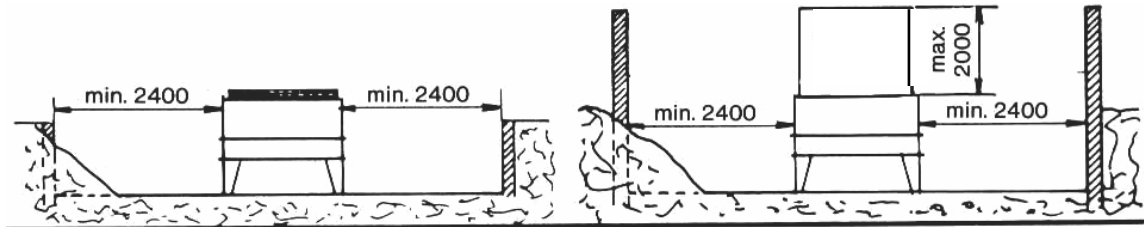
## Several installations at the same place

For unit placed side by side, the minimum distance between units is 2,4m. If units are placed end to end, the minimum distance between units is 1,2m.



## Installation in Pit

The top of the unit should be level with the top of the pit, and side distance increased to 2,4m. If top of the units is not level with the top of pit, discharge cones or stacks must be used to raise discharge air to the top of the pit. This is a minimum requirement.



## Decorative Fences

Fences must have 50% free area, with a 0,3m undercut, a 1,2m minimum clearance, and it must not exceed the top of unit. If these requirements are not met, unit must be installed as indicated for "Units in a Pit".

