

Variheat System

dehumidification, heat recovery and
ventilation system designed for all
indoor pools

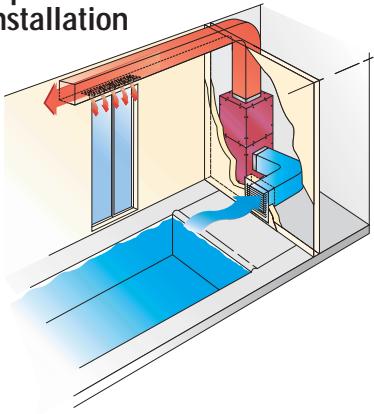


calorex®

Specialist designers and manufacturers of pool comfort control systems

Environmental Control

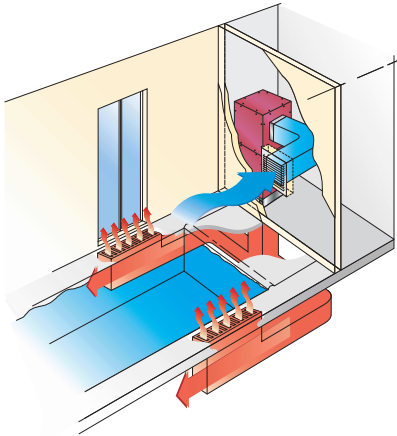
**Top Outlet
Installation**



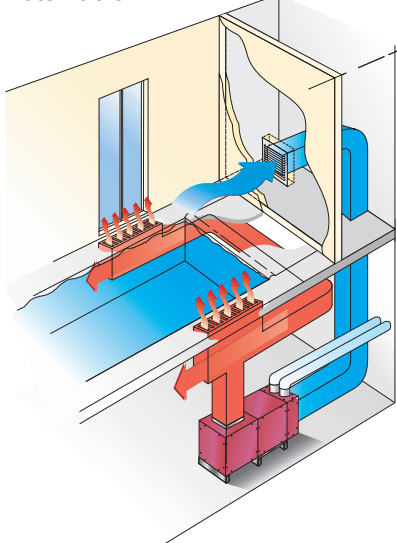
An indoor pool is such fun to own and use when you know that the comfort and economy of the pool environment are under the safe control of Calorex. While you swim, the innovative Variheat takes care of heating, humidity control, ventilation and energy recovery.

Calorex Variheat-The perfect

**Bottom Outlet
Installation**



**Basement
Installation**



Why Calorex

Calorex is the Worlds leading manufacturer of swimming pool heat pumps and is renowned for its innovation, range and quality of product - a proud claim, backed by over twenty years of design, manufacture and operational experience with thousands of units operating in over 30 countries worldwide.

The brains of your pool environment

Variheat controls the operation of the boiler and combines it with a highly efficient heat pump dehumidifier to provide air and water heating, humidity control, ventilation and energy recovery.

Humidity control

In contrast to most buildings, indoor swimming pools constantly evaporate large volumes of moisture into the space around them. Unless this moisture is removed, humidity will rise creating an uncomfortable environment and structural/fabric damage. Totally self controlling, the Variheat will remove this moisture and recover energy from it which is then re-used to assist water and air heating. By utilising this method, a heat cycle is created and energy costs are kept to a minimum.

Pool Water and Air Heating

A majority of the heating needs are provided by heat recovery from the dehumidification process. Heat losses that cannot be recovered are replaced

Our product is our reputation. It's the best.

using inbuilt heat exchangers which are connected to a hot water supply from a boiler. Control is fully automatic once customer preferences have been set up. A time clock permits reduction of pool air temperature to reduce heating cost when the pool cover is in place – Variheat can operate as low as +10C to allow real energy savings.

Ventilation

Variheat silently circulates heated air throughout the pool hall to ensure an even temperature and control of humidity/ condensation. For additional comfort and control of airborne chemicals a fresh air option

locate on the Variheat or at a convenient position up to 20m from the unit. When the pool cover is in place, energy saving from air temperature reduction can be achieved automatically by the control link to the pool cover system. Alternatively, a "poolside" remote panel complete with sensors, enabling the user to conveniently view the temperature and humidity conditions as well as the machine status.



partner for your indoor pool

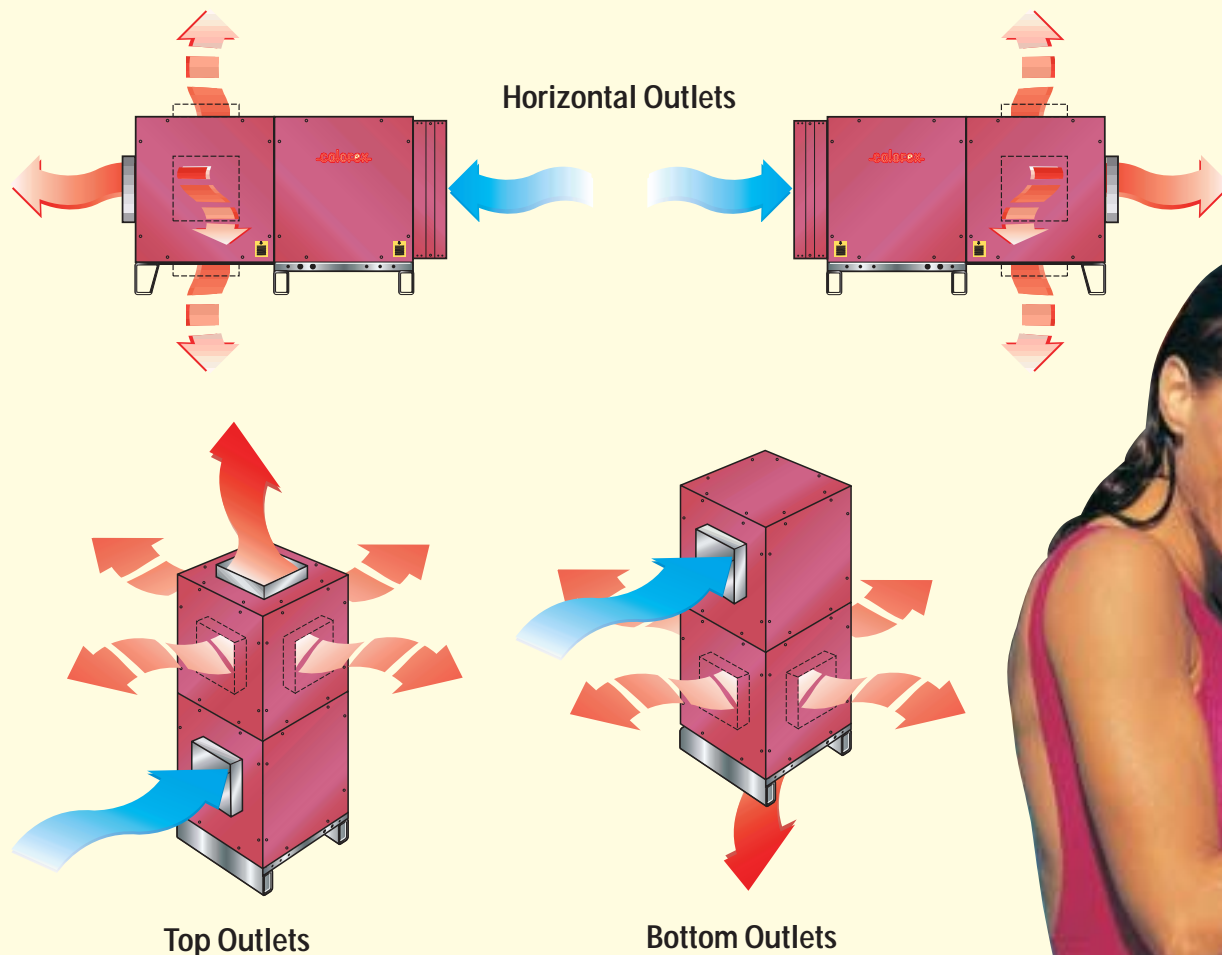
is available, having the additional advantage of creating a slight negative pressure in the pool hall to prevent migration of pool air to adjacent rooms.

Controls

Variheat is complete with easy to read and readily adjustable humidistat, thermostats and time clock together with all diagnostic and operational indicators, conveniently mounted in a compact multi-position 12volt panel which the installer can

Configuration and installation

Variheat is exceptionally compact and easy to configure to suit customer and building requirements. Up draught, down draught, horizontal airflows, 90 degree turns and left/right handing are all easily achieved from the standard Variheat, ducting requirements being minimised. Where no connection to the filtration circuit is required, Variheat can be supplied without water heat exchanger. Remote condensing units can be fitted to all models.



**CALOREX VARIHEAT 3 DEHUMIDIFICATION/HEAT RECOVERY/VENTILATION UNITS
FOR INDOOR POOLS. MULTI CONFIGURATION WITH UP, DOWN OR HORIZONTAL
AIRFLOWS. HEAT RECOVERY TO AIR/WATER OR AIR ONLY**

Model		AW600VH	AA600VH	AW900VH	AA900VH	AW1200VH	AA1200VH	AW1500VH	AA1500VH
DEHUMIDIFICATION									
30C 60%RH	l/hr	4.6	4.6	6.5	6.5	8.5	8.5	10.5	10.5
30C 70%RH	l/hr	5.5	5.5	7.8	7.8	10.8	10.8	13.2	13.2
AIRFLOW									
Main fan airflow	m ³ /hr	2000	2000	2500	2500	3500	3500	4230	4230
External available static	Pa	230	230	230	230	180	180	240	240
Fresh airflow(option)	m ³ /hr	150	150	200	200	250	250	300	300
External available static	Pa	20	20	20	20	20	20	20	20
HEAT TO AIR									
Net via heat pump (Mode B)	kW	5.1	5.1	7.1	7.1	10	10	14	14
Via LPHW @ 80C		11	11	13.5	13.5	24	24	28	28
Max available (Mode B + LPHW)		14	14	18.6	18.6	30	30	36	36
Pool water flow/head	L/M/Mhd	30/3.5	-	32/3.5	-	33/3.5	-	40/3.5	-
HEAT TO WATER									
Net via heat pump (Mode A)	kW	5.5	0	7.4	0	10	0	12.5	0
Via LPHW @ 80C		18	0	30	0	30	0	40	0
Max available (Mode A + LPHW)		23.5	0	37.4	0	40	0	52.5	0
ELECTRICAL DATA									
Supply/Fuse 1 phase	Amps	20	20	30	30	35	35	N/A	N/A
230v 50hz									
Supply/fuse 3 phase		10	10	15	15	10	10	20	20
400v 50hz									
POWER INPUT									
	kW	2.5	2.5	3.3	3.3	4	4	5.6	5.6
RECOMMENDED BOILER CAPACITY									
	kW/btu	29/100000	11/37500	44/150000	13.5/46000	54/184250	24/81900	68/232000	28/95500
BOILER FLOW RATE / HEAD									
	L/m/mhd	25/6.3	10/6.3	32/6.3	10/6.3	42/6.3	22/6.3	52/6.3	22/6.3

NOTE - AW denotes heat recovery to air /water and LPHW batteries for air/water.
AA denotes heat recovery to air and airside LPHW battery only.
All units with X defrost - air temperature range +5C to 40C.

OPTIONS - • Fresh air module • Electric resistance air heaters (6/12/18kW).
• RS485 thermostat • Remote condensing unit
• Low speed fan • Poolside control panel

VARIHEAT 600/900 (All measurements in millimetres)

	fig 1	fig 2	fig 3	fig 4	fig 5
A	-	1514	1514	838	838
B	900	900	1254	1869	1514
C	698	-	-	-	-
D	289	289	289	289	289
E	-	60	60	60	60
F	615	660	660	660	660
G	160	160	160	160	160
H	-	-	190	190	-
I	-	-	152	152	-
J	333	-	-	-	-
K	111	111	111	111	111
L	-	650	650	-	-
M	345	-	-	345	345

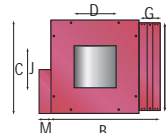


Fig 1

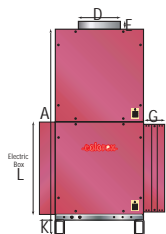


Fig 2

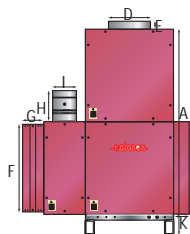


Fig 3

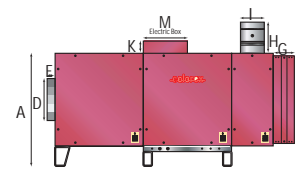


Fig 4

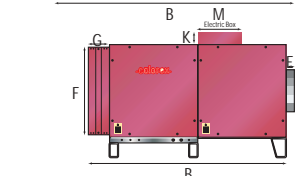


Fig 5

VARIHEAT 1200/1500 (All measurements in millimetres)

	fig 1	fig 2	fig 3	fig 4	fig 5
A	-	1734	1734	940	940
B	1003	1003	1358	2073	1718
C	897	-	-	-	-
D	289	289	289	289	289
E	-	60	60	60	60
F	692	786	786	786	786
G	160	160	160	160	160
H	-	-	190	190	-
I	-	-	152	152	-
J	333	-	-	-	-
K	111	111	111	111	111
L	-	810	810	-	-
M	400	-	-	400	400

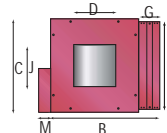


Fig 1

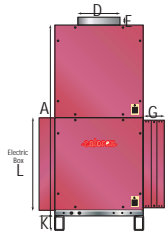


Fig 2

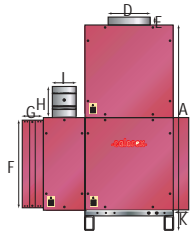


Fig 3

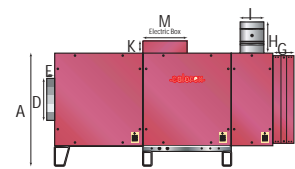


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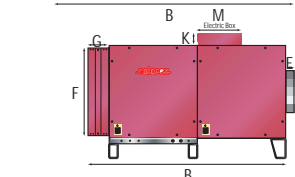


Fig 5

Consult Calorex for full options and orientation availability

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