



Recotherm

The very best fresh-air ventilation system
for your swimming pool

OUR COMPANY

Recotherm have been designing, building and installing swimming pool ventilations packages for over 25 years. Over this time we have built an extensive and varied list of customers, many of whom we have worked with on multiple projects over this time. We are a well-established firm who are respected within the industry for delivering products to the market that are of the highest standards. Key to our success is the on-going development of our units, keeping abreast of modern technological changes, to ensure our units meet the requirements of customers. Our commitment is to produce high quality, economical to run, environmentally friendly ventilation units.

CVME UNITS

CVME units are ideal for use in leisure centre's, schools and hotel swimming pool areas. They are designed to take into account the most important needs of the swimming pool owner, namely:

- Provide high quality indoor atmospheric conditions
- Reliability
- Economical to run
- Energy efficient
- Easily maintained
- Environmentally friendly – no HCFC is used
- Easy and fast to install – ours is a totally integrated package
- CVME units have an 'open' construction, thus eliminating 'cold bridging'
- Designed with the latest technologies for increased efficiency and lower operating costs.

PRINCIPLE OF OPERATION

The CVME unit uses the outside air to dehumidify the swimming pool hall atmosphere, and when necessary, uses a heat recovery process and the buildings own heating system to warm the incoming air to the required temperature.

Specially developed features in the CVME units ensure that the swimming pool hall environment is kept at the desired temperature and humidity automatically throughout the year, all with reduced operating costs compared to the more conventional ventilation and dehumidifying systems.

Using this simple approach, operating costs are kept to an absolute minimum, the only cost being to heat the incoming fresh air, together with electricity to drive the ventilation fans.



TECHNICAL CONSIDERATIONS

The swimming pool's requirement for fresh air varies throughout the day; the Recotherm CVME unit is designed to provide a fresh air level that is adaptable to be either fully automatic or dictated by the pool owner.

The avoidance of condensation in the swimming pool hall is of paramount importance in order to protect the buildings structure. This involves maintaining the humidity at a level, which prevents excessive evaporation from the pool, whilst maintaining bathers comfort. Allowing the humidity to rise with the increase in ambient temperature keeps the fresh air requirements to a minimum, therefore, keeping the running costs down. The Recotherm CVME unit continually varies the humidity of the building as the outside temperature changes.

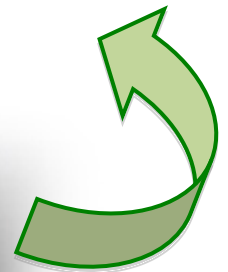
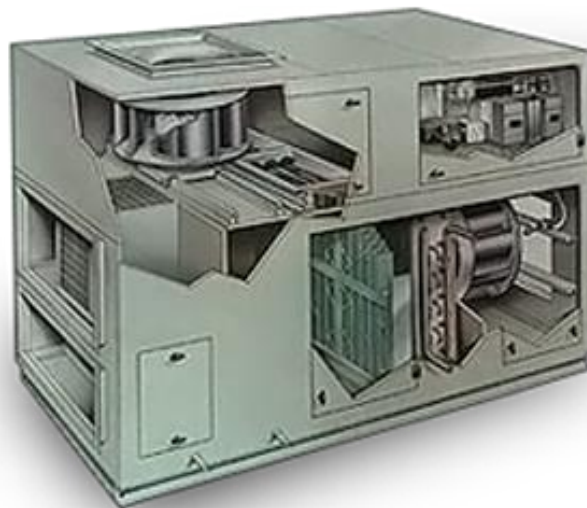
The Recotherm CVME unit incorporates the latest electrical frequency invertors, these allow the fans to match the volume flow to the exact ventilation requirements of the swimming pool by varying the fan speed, saving a considerable amount of energy throughout the systems 24 hour operation.

SWIMMING POOL HALL

- Variable fresh air requirement throughout the day
- Variable heating requirement through the day
- Variable occupancy throughout the day
- Variable dehumidifying requirement throughout the day

OUTSIDE ATMOSPHERE

- Temperature varies throughout the day
- Always less humid than the pool atmosphere



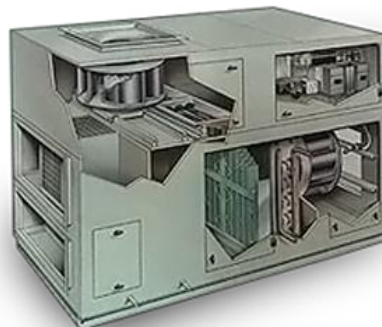
RECOOTHERM CVME UNIT

- Automatically varies the amount of fresh air going into the pool
- Automatically adjusts the temperature of the air going into the pool
- Automatically recovers most of the heat going out from the pool
- Automatically removes the required amount of moisture from the pool

TECHNICAL DETAILS OF VARIABLE FLOW SWIMMING POOL VENTILATION UNITS

Model		CVME 200	CVME 300	CVME 400	CVME 600/800
Nominal air volume	m ³ /s	2	3	4	6-8
Maximum Dehumidification effect kg/hr	1) 2) 3)	84 40 90	126 61 135	168 81 180	Units designed to meet clients requirements -
Supply fan motor	kW	3.8	4	5.5	
Sound power level	dB(A)	86	93	94	
External Resistance	200	200	200	200	
Return fan motor	kW	3.8	3	5.5	-
Sound power level	dB(A)	83	89	91	-
External resistance	Pa	200	200	200	-
Recuperator nominal Eff	%	66.5	66.4	69.2	-
LPHW coil duty	kW	62	75	96	-
LPHW flow rate (Δt 20)	l/s	0.75	1.6	2.1	-
LPHW pressure drop	kPa	24	25	25	-
Max fabric lass capability	kW	32	48	64	-
Maximum power consumption	kW	3.23	5.5	7.9	-
Nominal power consumption	kW	1.7	2.8	4.0	-
Nominal power consumption	Amps	5.5	11	15	-
Full load current					
Length	Mm	2400	2800	3200	TBA
Width	Mm	1600	1600	1600	TBA
Height	Mm	1800	2300	2600	TBA
Weight	kg	1100	1300	1500	TBA

- 1) Winter fresh air at 0°C 100% RH pool condition 30°C 60% RH
- 2) Summer fresh air at 28°C 47% RH pool hall condition 30°C 60% RH
- 3) Average fresh air at 8°C 80% RH pool hall condition 30°C 58% RH



Recotherm

High efficiency, more eco-friendly swimming pool
ventilation systems

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