

**PROJECT ANALYSIS SUMMARY**

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<b>Company:</b>	<b>Heatpumps4pools</b>		<b>13/08/2019</b>
<b>Project Title / Ref:</b>	<b>Mr G Hogg</b>		<b>P28972</b>

**Selection : Andromeda EC 3000 Super Plus**

**Description :** *Packaged Total Environmental Control unit purpose designed for indoor pool application  
Dehumidifying heat pump system with energy recycling back to room air & pool water  
Intelligent 'On-Demand' Air Flow using 'Blue EC' variable speed digital inverter fan motors  
Complete heating of room air and pool water via integral heat emitters  
Plant room located - central ventilation principle with air ducting channels*

<b>Provisions :</b>	✓	Condenser boiler temperatures compensated
	✓	Upgrade available for salt pool application
Humidity control	✓	By Dehumidifying Heat Pump acting upon recirculated room air
Energy recycling	✓	Back to room air & pool water via Dehumidifying Heat Pump
Heat recovery	✗	Not included
Room Air heating	✓	By integral multi-row LTHW heating coil
Pool Water heating	✓	By integral LTHW high capacity shell & tube heat exchanger coil
Fresh air ventilation	✗	Not included
Room Air cooling	✗	Not included
Controls package	✓	Digital Electronic
Ducting required	✓	Pool air intake, pool air supply

Design Criteria:		Performance data:	
Pool Room Air temperature:	32 °C	Dehum via heatpump :	8.5 L/Hr.
Pool water surface area:	40 m <sup>2</sup>	Recirc. Air Flow (eco-fan) :	2100 M <sup>3</sup> /Hr.
Pool water temperature:	31 °C		
Uncovered Hrs. Norm/Max:	2 / 4	Air heating coil : (LTHW)	14 kW
Spa water surface area:	3.1 m <sup>2</sup>	Pool Heat Exchanger : (LTHW)	13 kW
Pool Room Space Volume:	392 m <sup>3</sup>	Total Required Boiler duty :	24 kW
Min. ambient temperature:	-5 °C	Min. Flow Temperature :	70 °C
Room structural heat loss:	4.9 kW	Electrical supply options :	
Fresh air heat loss:	2.4 kW	Single phase 230v 50Hz :	27 Amps
Air ducting heat loss:	1.3 kW	Three phase 400v 50Hz :	Amps/Ph
Water heat loss:	6.9 kW		

Annual Energy use analysis:		Building regulation compliance :	
Probable Heat & Vent cost:	£ <b>1,796</b>	Classification of project for regulations :	
Source of heat energy:	<b>Mains Gas</b>	L1A New building - Domestic	Actual: L1A Status:
Energy consumption kWh:	<b>32,252</b>	Dry heat extraction from expelled air >70%:	0 N/A
kG CO <sup>2</sup> :	<b>6,378</b>	Variable speed fan drive included ? :	Yes N/A

<b>Price</b>	<b>£ 18,850</b>	<b>+ VAT</b>	<b>DELIVERY COST :</b>	<b>£219</b>
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**AVAILABILITY :** Normally 4-6 weeks from Confirmation of Order & Final Specification

Payment terms : To be confirmed with AstralPool UK Ltd. A deposit may be required  
Prices include all discounts, are net ex works, and are subject to VAT at applicable rates.  
This quotation is subject to the terms and conditions of sale of AstralPool UK Ltd and is valid for 90 days.  
Delivery cost excludes carriage via Hi-ab or timed deliveries and is subject to confirmation at time of order.  
Performance ratings are nominal. Annual energy use analysis is indication only and not intended to be binding. E&OE