



POWRMATIC®

Delivering complete climate control solutions worldwide

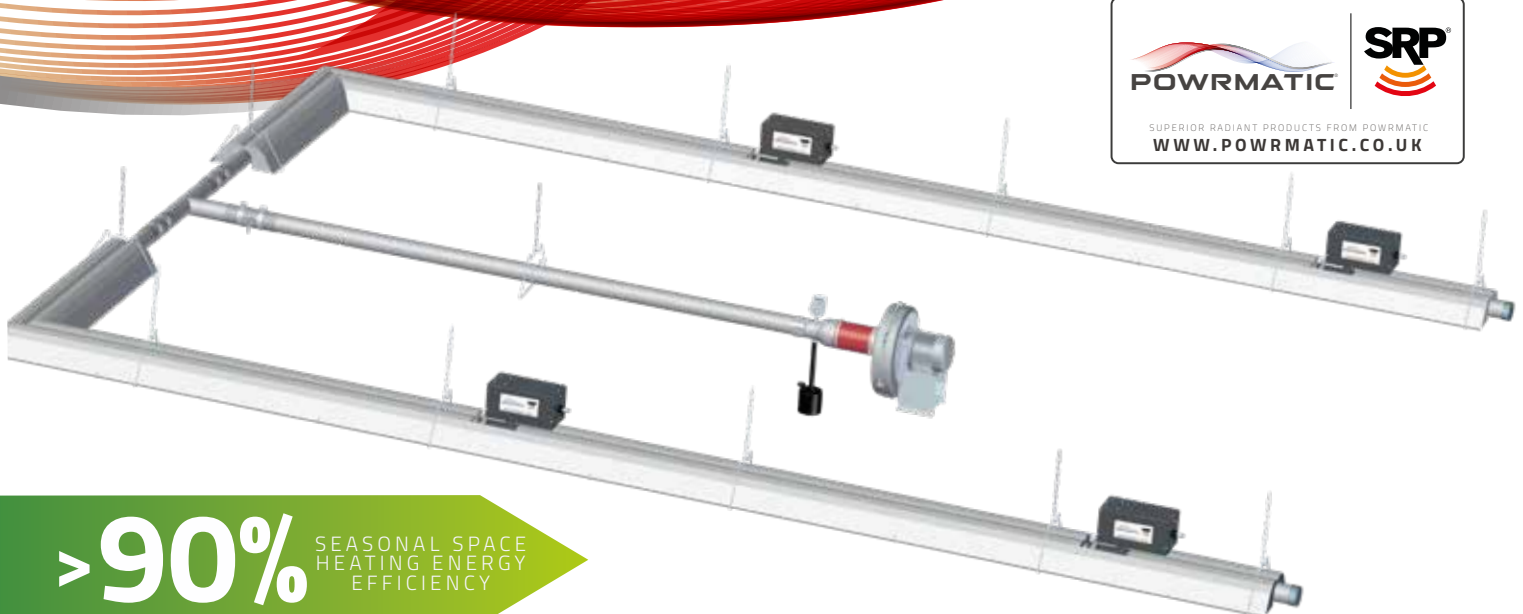


Highly efficient Premier Vacuum systems custom engineered to provide the unsurpassed efficiency, comfort and control demand for every application.

In partnership with SRP.

Continuous Radiant Heating Systems

- PCV & PCV+ Range
Natural Gas & LPG Fired Options



>90% SEASONAL SPACE HEATING ENERGY EFFICIENCY

www.powrmatic.co.uk

Continuous Radiant Tube He

ErP Compliance

From the 1st January 2018 all radiant heaters used to provide comfort for the occupants of a heated space are required to meet the minimum standards of 'seasonal' efficiency as determined by the Ecodesign regulation (EU) 2015/1188, Directive 2009/125/EC - Lot 20. Compliance to the standard is mandatory.

Radiant heaters placed on the market after 1st January 2018 comply with the requirements of the standard.



Product Benefits



LOW NOx
TECHNOLOGY



INCREASED
THERMAL COMFORT



INSTANT HEAT
UP TIME



INCREASE BUILDING
PERFORMANCE



FUEL SAVING
TECHNOLOGY

100%

EFFICIENT REFLECTOR
PROFILE

Efficient Comfort Control

Continuous Radiant Tube
Systems from Powrmatic in
partnership with SRP.

The new continuous radiant tube system from Powrmatic & SRP continues to lead the industry with its innovative, patented, value added and feature rich, position tuned, high efficiency continuous Premier Vacuum radiant systems.

The PCV and PCV+ range is custom engineered to provide the unsurpassed efficiency, comfort and control demand in each application.

The PCV & PCV+ have been validated following review against government approved high performing energy efficiency criteria, with a Seasonal Space Heating Energy Efficiency of greater than 90%, thus allowing inclusion onto the ETL (Energy Technology List). This high efficiency reduces energy usage, operational costs and carbon emissions.

The Premier Vacuum Series takes full advantage of the performance synergies that only an engineered system can provide. Unlike other "systems" which merely connect multiple unitary style heaters, this maximum design flexibility ensures that all the performance and energy savings requirements of the application can be realized. Designs are further enhanced by a full complement of additional features, including aluminised heat treated tube, reflector shielding, reflector shielding configurations, multiple vacuum pump sizes and advanced control options.

Models Available

- PCV Powrmatic Continuous Vacuum
- PCV+ Powrmatic Continuous Vacuum Plus



Product Features

Trusted Partnership

Superior Radiant Products (SRP®) is an industry leader in the design and manufacture of energy efficient infrared heating solutions and is dedicated to providing superior technology and performance.



Stoichiometric Combustion

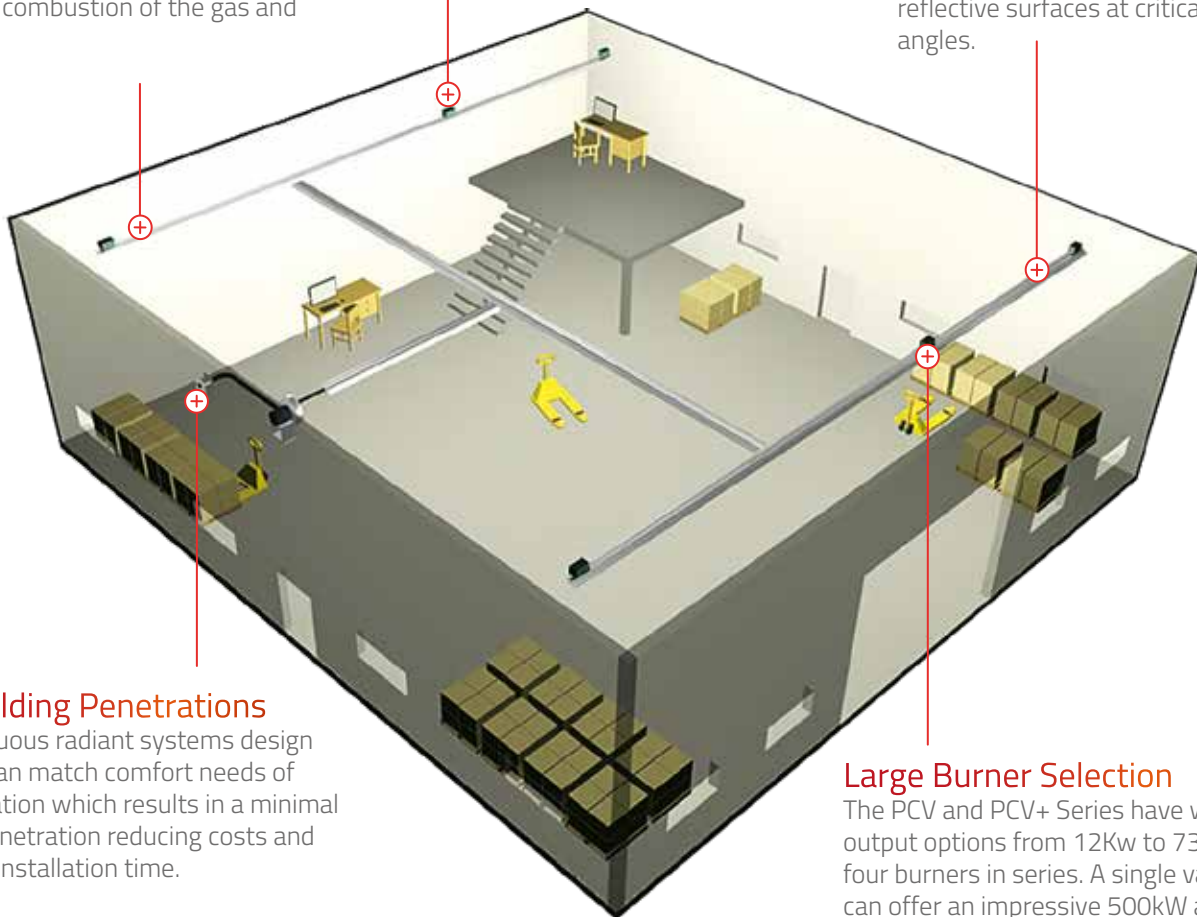
The combustion process gives thermal efficiencies of up to 95% (depending on configuration) which are combined with the well known benefits of radiant heat to maximise fuel savings. This gives safe and reliable operation with zero governor burner technology ensuring the stoichiometric gas/air ratio results in a perfect combustion of the gas and air.

Even Heat Distribution

Even heat is distributed for optimal thermal comfort with the in-series position-tuned burners. Zoned modulation provides heat where it is needed most.

100% Efficient Reflector Profile

The PCV and PCV+ 100% efficient reflectors ensures all the infrared heat is directed into the space where it is needed, and is the most efficient reflector in the industry. They incorporate materials that have high emissivity and utilize 10 reflective surfaces at critically controlled angles.




Less Building Penetrations

The continuous radiant systems design flexibility can match comfort needs of any application which results in a minimal building penetration reducing costs and improving installation time.

Large Burner Selection

The PCV and PCV+ Series have wide range of output options from 12kW to 73kW with up to four burners in series. A single vacuum pump can offer an impressive 500kW allowing large system layout design configurations.

Approvals

 Radiant heaters are type tested and CE approved. In addition heaters placed on the market subsequent to 1st January 2018 meet the seasonal efficiency requirements of ErP Lot 20.

Technical Specification

PCV & PCV+

Model			PCV					
			12	18	23	29	32	35
Heat Input (Natural Gas G20)	High Fire (100% rate)	kW (gross)	12	18	23	29	32	35
	Low Fire (60% rate)	kW (gross)	7.2	10.8	13.8	17.4	19.2	21
Seasonal Space Heating Energy Efficiency		%	90.1					
NOx Seasonal (Gross)		mg/kW	65					
Gas Connection	BSP/Rc		½"					
Supply Pressure	mbar		Nat Gas - 20					
Electrics	V/ph/Hz		230/1/50					
Burner Current	amp		0.1					
Gas Consumption Natural Gas G20	m³/h	100% Rate	1.14	1.70	2.18	2.75	3.03	3.32
		60% Rate	0.68	1.02	1.31	1.65	1.82	1.99
Air Inlet Connection	mm		100					
Burner Weight (single)	kg		11.4					

>90% SEASONAL SPACE HEATING ENERGY EFFICIENCY



Model			PCV+							
			23	29	35	44	51	59	66	73
Heat Input (Natural Gas G20)	High Fire (100% rate)	kW (gross)	23	29	35	44	51	59	66	73
	Low Fire (60% rate)	kW (gross)	13.8	17.4	21	26.4	30.6	35.4	39.6	43.8
Heat Input (Propane LPG G30)	High Fire (100% rate)	kW (gross)	23	29	35	44	51	59	66	73
	Low Fire (60% rate)	kW (gross)	13.8	17.4	21	26.4	30.6	35.4	39.6	43.8
Seasonal Space Heating Energy Efficiency		%	92.1							
NOx Seasonal (Gross)		mg/kW	98	98	98	98	105	115	115	115
Gas Connection	BSP/Rc		½"				¾"			
Supply Pressure	mbar		Nat Gas - 20 / Propane - 37							
Electrics	V/ph/Hz		230/1/50							
Burner Current	amp		0.1							
Gas Consumption Natural Gas G20	m³/h	100% Rate	2.18	2.75	3.32	4.17	4.83	5.59	6.25	6.93
		60% Rate	1.31	1.65	1.99	2.50	2.90	3.35	3.76	4.15
Gas Consumption Propane LPG G30	m³/h	100% Rate	0.87	1.09	1.32	1.65	1.92	2.22	2.49	2.75
		60% Rate	0.52	0.65	0.79	0.99	1.15	1.33	1.49	1.65
Air Inlet Connection	mm		100							
Burner Weight (single)	kg		11.4							

PCV Vacuum System

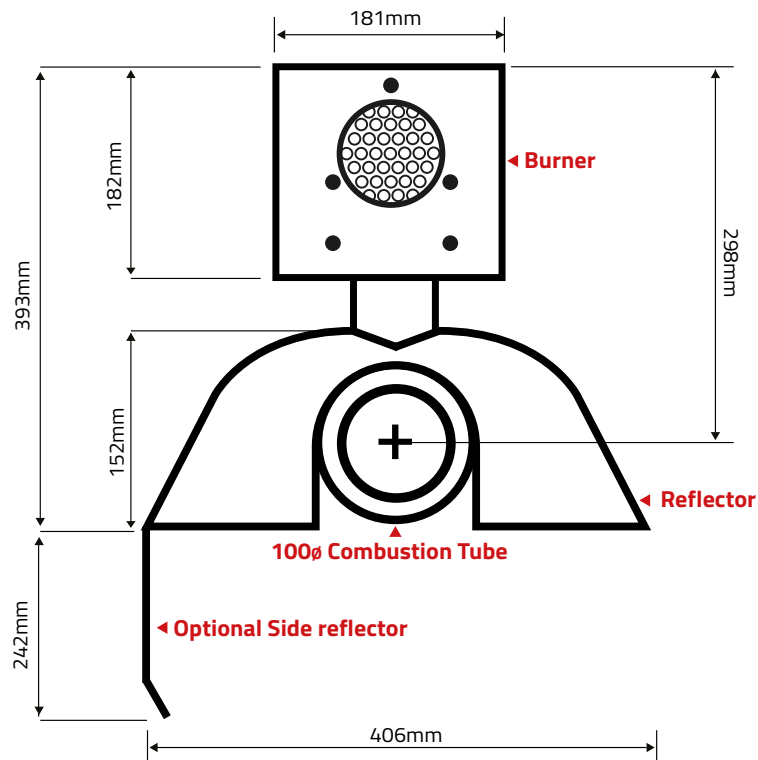
		PVC					
Model		PCV12	PCV18	PCV23	PCV29	PCV32	PCV35
Input Rate (kW)		12	18	23	29	32	35
Radiant Tube Lengths	Min. (mm)	4600	6100	6100	9200	12200	12200
	Norm. (mm)	6100	7600	9200	12200	15300	15300
	Max. (mm)	7600	10700	13800	18300	21400	21400

PCV+ Vacuum System

		PVC+							
Model		PCV+23	PCV+29	PCV+35	PCV+44	PCV+51	PCV+59	PCV+66	PCV+73
Input Rate (kW)		23	29	35	44	51	59	66	73
Radiant Tube Lengths	Min. (mm)	7600	9200	9200	12200	13700	15300	15300	16800
	Norm. (mm)	9200	12200	12200	15300	15300	18300	18300	21400
	Max. (mm)	12200	13800	13800	18300	19900	21400	21400	22900

Notes

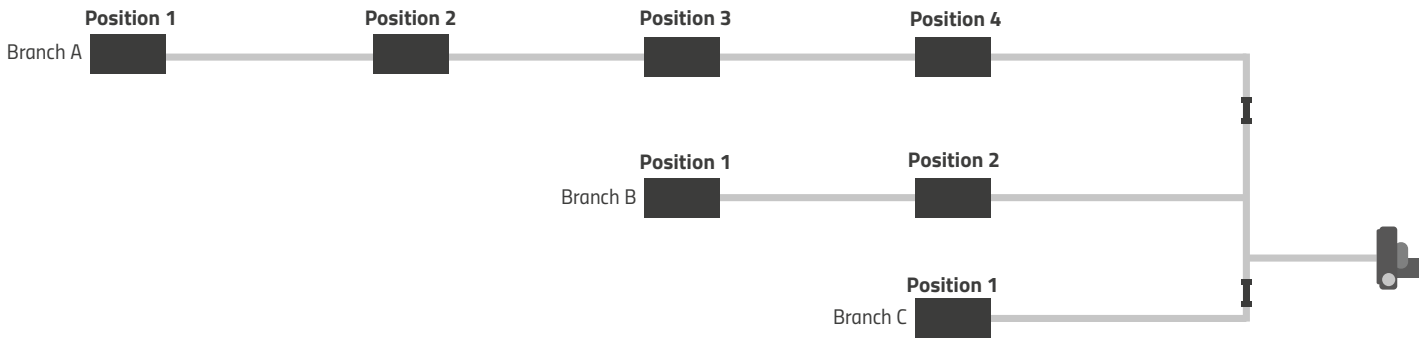
- Fuel Consumption and output figures based upon nett calorific values as follows:
 - Natural Gas (G20) nett CV 34.02 MJ/m³
 - LPG Propane (G31) nett CV 88.00 MJ/m³
- Powrmatic radiant heaters have efficiency levels which comply with the requirements of United Kingdom Part L Building Regulations and the seasonal efficiency requirements of the Ecodesign regulation (EU) 2015/1188, Directive 2009/125/EC – Lot 20 (Known as ErP and mandatory as from 1st January 2018)



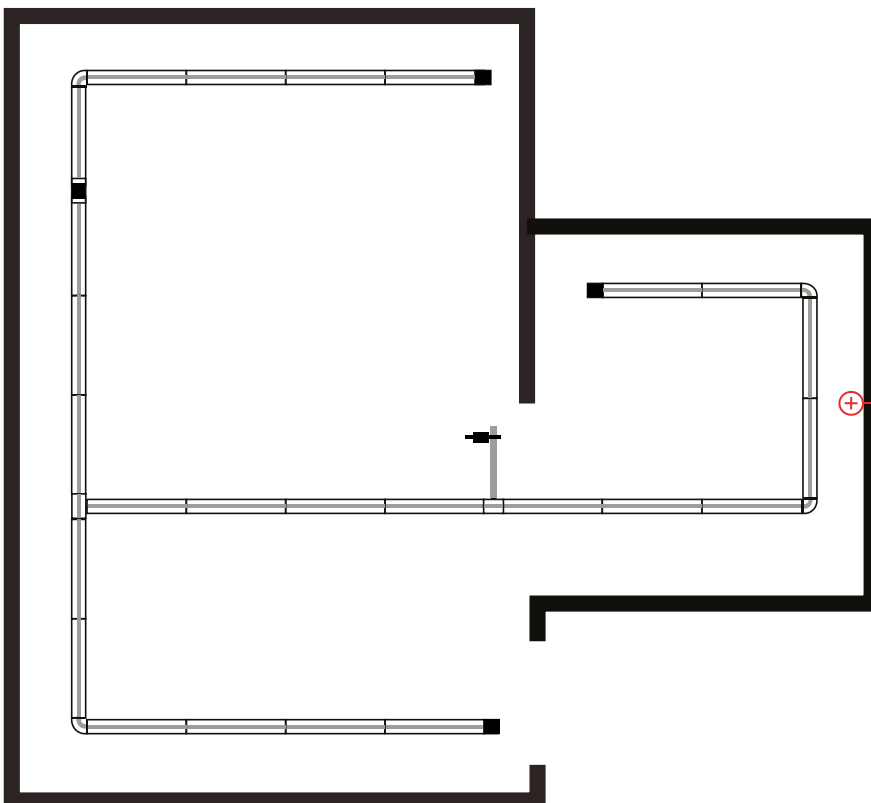
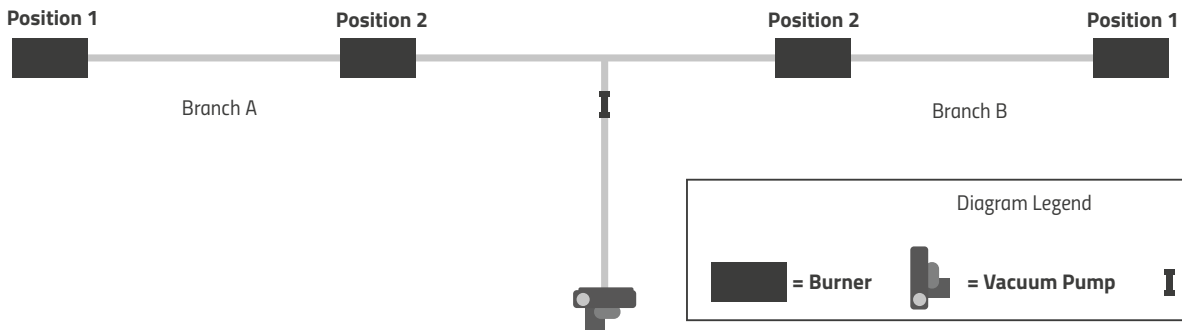
Typical Continuous Layouts

Example System Installation

Example System 1 (Non symmetrical)



Example System 2 (Symmetrical)



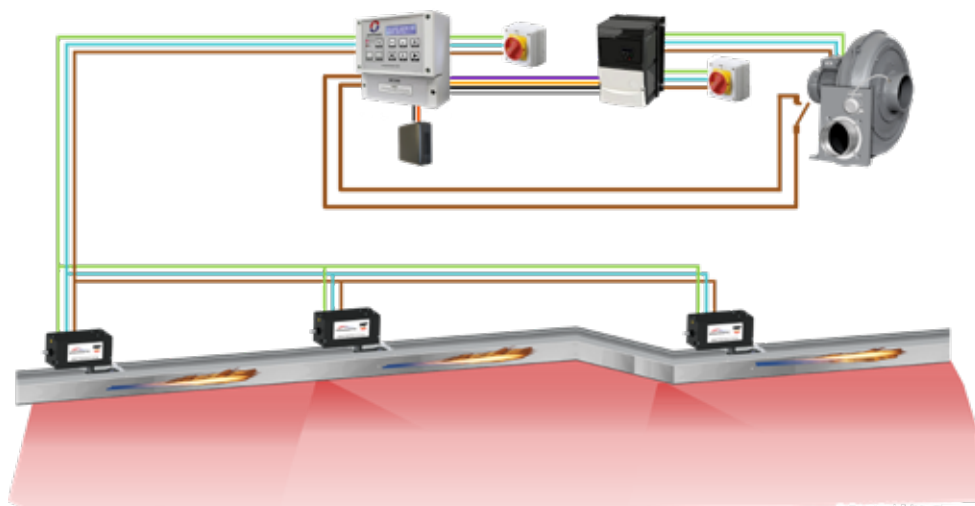
Custom Configuration

The PCV and PCV+ range is flexible to fit your heating and space requirements. The high efficiency infrared heating system can be designed in almost endless configurations to put heat where you need it most through your entire building.

System Characteristics

PCV & PCV+

Feature	Benefits	PCV	PCV+
Vacuum operated, in-series burners, continuous heat exchanger	Even heat distribution, maximum comfort possible	✓	✓
Modulating to 60% of burner input rates	Fuel savings without sacrificing design energy requirements	✓	✓
Stoichiometric balanced air/gas ratios for all burner rates	Maximum fuel efficiency	✓	✓
Position specific burners	Full firing rate and maximum radiant output in radiant tubing	✓	✓
Burner firing range (95% burner efficiency)	Even heat distribution, maximum comfort possible	Rate is burner specific	Operating vacuum defines rate
Direct spark, multi-try ignition	Reliability and low maintenance	✓	✓
Operation indicator lights	Maintenance aid	✓	✓
Dual, easily changed filters	Ease of maintenance to sustain system efficiency	✓	✓
System modulation	Fuel savings and design flexibility	✓	✓
Single vacuum fan per radiant system	Limited building penetrations	✓	✓
Multiple sizes/voltages, heavy duty vacuum pump	Design flexibility, operational savings	✓	✓
Ducted outside air for combustion	Operation in adverse environments	✓	✓
Reflectors – 100% efficiency	Maximum radiant energy directed to the space	✓	✓
Reflector Full End Caps	Minimize convective heat loss	✓	✓
Heat treated aluminised calorised tube	Flake free / clean environment / superior emissivity	✓	✓
Rigid Couplings 305mm long	Ease of installation & reliability	✓	✓



About Us

Powrmatic design, develop and deliver HVAC solutions worldwide across a wide range of commercial and industrial applications creating comfortable and safe environments, differentiated through innovation, integrity, compliance and service.

Our specialised HVAC divisions:

Heating

Industrial and commercial warm air and radiant space heating solutions manufactured to achieve efficient performance, compliance and reliability for every application in partnership with the HVAC trade.

Ventilation

Custom designed highly efficient, cost-effective smoke, natural and powered ventilators manufactured to meet project requirements of building operators, architects, specifiers and contractors.

Air Conditioning

Worldwide distributors of innovative wall mounted heat pumps air conditioner technology providing efficient comfort cooling and heating all year round.

Engineered Products

Bespoke heating and ventilation solutions designed to serve individual customers specific project requirements. In addition our OEM products provide partner AHU manufacturers with high quality energy efficient gas fired heat exchangers.

Contact Us

Powrmatic Limited
Hort Bridge, Ilminster
Somerset
TA19 9PS

tel: **+44 (0) 1460 53535**

fax: **+44 (0) 1460 52341**

e-mail: **info@powrmatic.co.uk**



#keepingthenationwarm

Powrmatic Ireland
45 Broomhill Close
Tallaght
Dublin 24

tel: **+353 (0) 1452 1533**

fax: **+353 (0) 1452 1764**

e-mail: **info@powrmatic.ie**



Powrmatic pursues a policy of continuous improvement in both design and performance of its products and therefore reserves the right to change, amend or vary specifications without notice. Whilst the details contained herein are believed to be correct they do not form the basis of any contract and interested parties should contact the Company to confirm whether any material alterations have been made since publication of this brochure.