PuroAire
by Quartz



WM series of Wall Mounted Fan Coils

Engineered for pure performance

HERONHILL
Conditioned environments since 1997

The next generation Fan Coils, Engineered for Pure Performance

UK Manufactured by Quartz



Who We Are

Quartz, a division of TEV, has a long pedigree in the HVAC sector supplying product to the UK and European markets for over 50 years. Our new manufacturing plant is ideally located for national distribution, in West Yorkshire. Boasting excellent facilities, customers are welcome to visit the production facility, as well as Quartz's thermal and acoustic testing facilities.

Achieved through close attention to market needs, design detail and material specification, Quartz relies on its strong positioning, industry experience and high volume production to deliver quality products to the market.

Quartz is a brand built by engineers and now this team brings you their next generation of fan coils, PuroAire units not only offer energy efficiency and performance, everyone has an option to be fitted with Quartz Shield, our own Bi-Polar Ionisation unit, so the focus is on indoor air quality too.

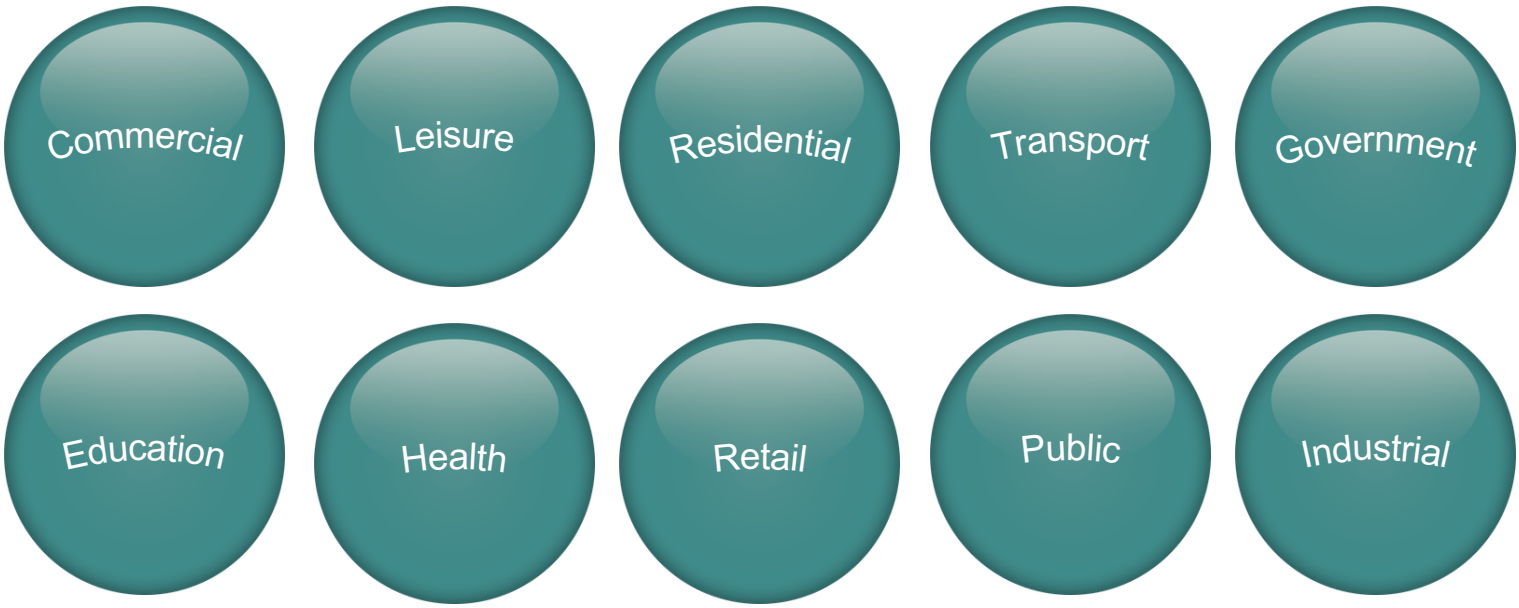
The PuroAire$_{WM}$, is a unit intended for the modern world we live in, low energy, architectural and designed to work with heat pumps. Our product can offer a packaged solution to include controls and valves, but can also offer the flexibility to be factory fitted with components that are in line with the rest of the project.

Innovative designs and outstanding build quality mean that your project is in safe hands. Quartz continues to be specified for many prestigious projects, where clients, architects and M&E consultants have chosen Quartz for the quality, performance and features that the products offers.

A MARKET LEADER IN CHILLED WATER PRODUCTS DESIGNED TO MEET ALL APPLICATIONS

Who We Work With

Quartz PuroAire$_{WM}$ represent the next generation of HVAC solutions, engineered for efficiency, built for reliability, and designed with comfort in mind. Whether for commercial buildings, hospitality, healthcare, or residential environments our Fancoils deliver exceptional indoor climate control with whisper-quiet operation and outstanding energy performance.



MAG Manchester Airport

LIPS. HEALTHCARE

THE Pirbright INSTITUTE

HYATT

The University Of Sheffield.

Heathrow Making every journey better

London City Airport Get closer.

NHS

From clinical calm to boutique chic, our PuroAire$_{WM}$ and PuroAire$_{WMMini}$ wall mounted units offer discreet, high performance climate control across all sectors



PuroAire$_{WM}$

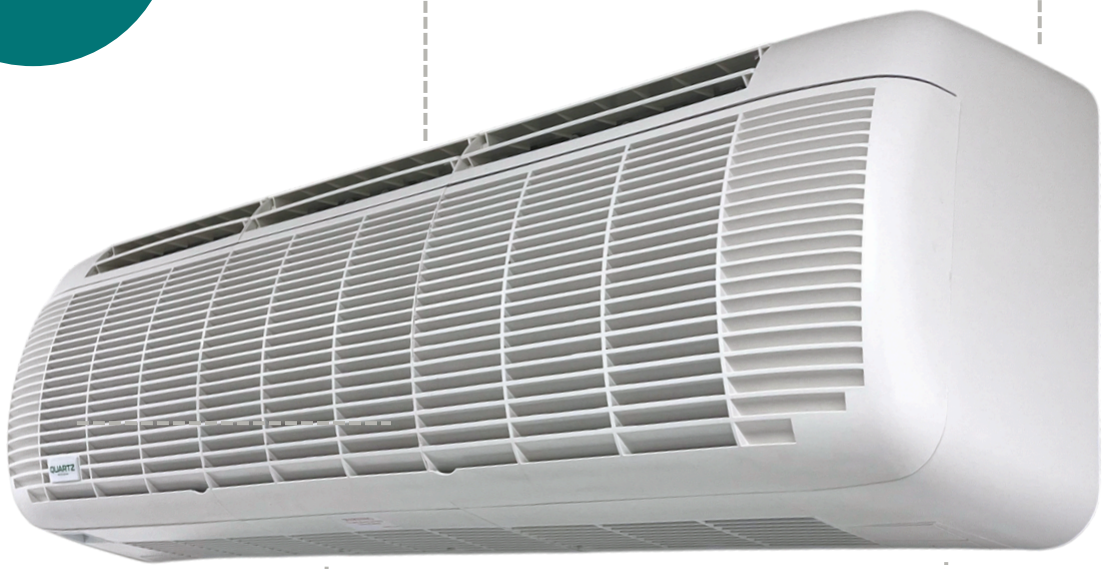
The Quartz PuroAire$_{WM}$ wall mounted water fan coil unit is part of a versatile product range designed for high wall installation. The PuroAire$_{WM}$ utilises the Coanda effect thanks to it's top air discharge allowing long air throws. Products suit a wide variety of environments, including commercial buildings, hotels and hospitals. The PuroAire$_{WM}$ offers both cooling and heating capabilities as well as 2 pipe changeover utilising renewable technologies. The range is engineered for quiet operation, energy efficiency, ease of installation and easy integration with building management systems (BMS).

3 models with cooling up to 4.1kW

Heat pump optimised heating outputs up to 3.0kW

2 and 4 Pipe models

Top Air Discharge to make use of 'Coanda' effect



Integral ABS Drain tray

Quartz Shield Virus Suppressant Technology (Optional)

RAL 9003 Signal White as standard

QUARTZ 1 Year PARTS WARRANTY AS STANDARD

QUARTZ SHIELD

PuroAire$_{WMMini}$

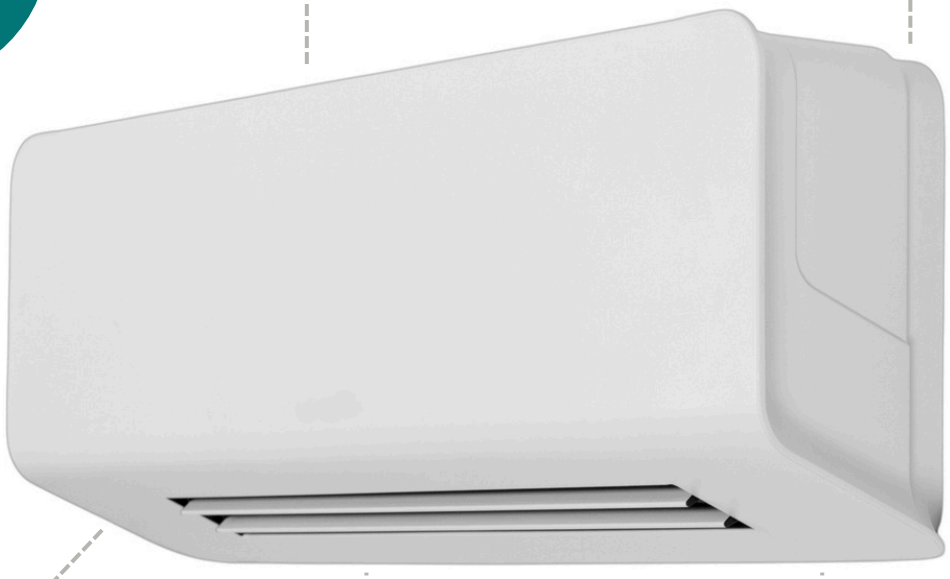
The Quartz PuroAire$_{WMMini}$ wall mounted water fan coil unit is part of a versatile product range designed for high wall installation. Available in 2 sizes the product range suits a wide variety of environments, including commercial buildings, boutique hotels, residential and hospitals. The PuroAire$_{WMMini}$ is 2 Pipe only offering cooling only, heating only or as a 2 pipe changeover system utilising renewable technologies. The range is engineered for quiet operation, energy efficiency, ease of installation and easy integration with building management systems (BMS).

2 models with cooling up to 2.5kW

Heat pump optimised heating outputs up to 4.8kW

Sleek Modern Aesthetics

2 Pipe only



Integral ABS Drain tray

Manual louvers

Quartz Shield Virus Suppressant Technology (Optional)

RAL 9016 Traffic White as standard

QUARTZ 1 Year PARTS WARRANTY AS STANDARD

QUARTZ SHIELD



Battersea Power Station - London



Ash Road - Woking

Key Features



Mid Level TM65
Embodied Carbon



UK Manufactured to BS
EN ISO 9001:2015



Standard Quartz Shield Virus
Suppressant Technology



Heat pump compatible



Standard Lead Time
4 Weeks



Compact designs



High Performance, Low
SFP EC/DC Fan's



Exempt from F-Gas
regulations

Qualification of NR predictions

The N.R. guide figures quoted in the schedule are intended to show the levels which may be expected in a typical office environment. The room effect is calculated using the Schultz method and the resultant NR calculation requires that the following conditions be met.

- Room sizes are based on a cooling load of 120W/m2 with a chilled water flow temperature of 6°C and a return of 12°C
- Units must be correctly mounted onto a solid structure
- Rooms should be carpeted, with no more than 20% glazed or highly reflective surfaces
- In open plan areas units should be mounted not less than 6m apart

NR Measurements taken at 2.5m from the discharge outlet

Performance Output PuroAire$_{WM}$ and $_{WMMini}$

Standard UK conditions

PuroAire$_{WM}$ Model	Speed	Airflow (l/s)	Cooling (kW)		Heating (kW)	Absorbed Power (W)	SFP (W/l/s)	NR	FLC (A)
			Sensible	Total	Total				
WM 12	Whisper	85	1.1	1.3	0.7	10	0.12	23	0.34
	Low	105	1.3	1.5	0.8	13	0.12	25	
	Low-Med	135	1.4	1.6	0.9	17	0.13	30	
	Med	170	1.6	1.8	1.1	25	0.15	35	
	Med-High	200	1.8	1.9	1.2	34	0.17	40	
	High	240	2.0	2.1	1.4	52	0.22	45	
WM 15	Whisper	125	1.7	1.9	1.2	10	0.08	24	0.34
	Low	135	1.8	2.0	1.3	11	0.08	25	
	Low-Med	170	2.0	2.1	1.5	17	0.10	30	
	Med	210	2.2	2.4	1.7	23	0.11	35	
	Med-High	270	2.5	2.7	2.0	39	0.15	40	
	High	325	2.7	3.0	2.2	62	0.19	44	
WM 18	Whisper	160	2.1	2.4	1.7	10	0.06	22	0.34
	Low	185	2.3	2.6	1.9	11	0.06	25	
	Low-Med	225	2.5	2.7	2.1	17	0.07	30	
	Med	275	2.8	3.0	2.4	29	0.11	35	
	Med-High	340	3.4	3.7	2.7	52	0.15	40	
	High	400	4.1	4.4	3.0	68	0.17	43	

PuroAire$_{WM}$ Model	Speed	Airflow (l/s)	Cooling (kW)		Heating (kW)	Absorbed Power (W)	SFP (W/l/s)	NR	FLC (A)
			Sensible	Total	Total				
WMMini 15	Whisper	35	0.5	0.6	0.9	6	0.18	15	0.25
	Low	73	0.9	1.0	1.6	8	0.11	25	
	Low-Med	102	1.2	1.3	2.2	8	0.08	35	
	Med	128	1.4	1.5	2.6	8	0.06	34	
	Med-High	135	1.5	1.5	2.7	8	0.06	39	
	High	154	1.6	1.6	2.9	8	0.05	41	
WMMini 35	Whisper	57	0.8	1.0	1.5	8	0.14	20	0.25
	Low	124	1.6	1.7	3.0	8	0.06	30	
	Low-Med	139	1.8	1.9	3.3	8	0.06	35	
	Med	166	2.0	2.1	3.8	8	0.05	37	
	Med-High	183	2.1	2.2	4.0	16	0.09	40	
	High	231	2.5	2.6	4.8	24	0.10	45	

Cooling

Entering air temperature = 23°C db / 50%
Entering water temperature = 6°C
Leaving water temperature = 12°C

Heating (WMH Only)

Entering air temperature = 21°C
Entering water temperature = 82°C
Leaving water temperature = 71°C

Heating (HWMini - 2 Pipe Only)

Entering air temperature = 21°C
Entering water temperature = 50°C
Leaving water temperature = 40°C

Performance Output PuroAire$_{WM}$ and $_{WMMini}$

Standard EUROVENT conditions

PuroAire$_{WM}$ Model	Speed	Airflow (l/s)	Cooling (kW)		Heating (kW)	Absorbed Power (W)	SFP (W/l/s)	NR	FLC (A)
			Sensible	Total	Total				
WM 12	Whisper	85	1.5	2.1	0.4	10	0.12	23	0.34
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WM 15	Whisper	125	2.2	2.9	0.6	10	0.08	24	0.34
	Low	135	2.3	3.0	0.6	11	0.08	25	
	Low-Med	170	2.6	3.2	0.8	17	0.10	30	
	Med	210	3.1	3.7	1.0	23	0.11	35	
	Med-High	270	3.9	4.5	1.2	39	0.15	40	
	High	325	4.6	5.3	1.4	62	0.19	44	
WM 18	Whisper	160	2.9	3.9	1.1	10	0.06	22	0.34
	Low	185	3.3	4.5	1.2	11	0.06	25	
	Low-Med	225	3.7	4.6	1.4	17	0.07	30	
	Med	275	4.4	5.4	1.6	29	0.11	35	
	Med-High	340	5.2	6.2	1.8	52	0.15	40	
	High	400	6.0	7.0	2.0	68	0.17	43	

PuroAire$_{WM}$ Model	Speed	Airflow (l/s)	Cooling (kW)		Heating (kW)	Absorbed Power (W)	SFP (W/l/s)	NR	FLC (A)
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WMMini 15	Whisper	35	0.6	0.9	0.8	6	0.18	15	0.25
	Low	73	1.1	1.5	1.6	8	0.11	25	
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	Med	128	1.8	2.3	2.5	8	0.06	34	
	Med-High	135	1.9	2.4	2.6	8	0.06	39	
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	Med	166	2.4	3.3	3.6	8	0.05	37	
	Med-High	183	2.6	3.4	3.8	16	0.09	40	
	High	231	3.4	4.0	4.5	24	0.10	45	

Cooling

Entering air temperature = 27°C db /19° wb
Entering water temperature = 7°C
Leaving water temperature = 12°C

Heating (WMH Only)

Entering air temperature = 20°C
Entering water temperature = 65°C
Leaving water temperature = 55°C

Heating (HWMini - 2 Pipe Only)

Entering air temperature = 20°C
Entering water temperature = 45°C
Leaving water temperature = 40°C

Engineered for performance, the PuroAire$_{WM}$ range of wall mounted chilled water air conditioning units deliver superior temperature control and quiet operation



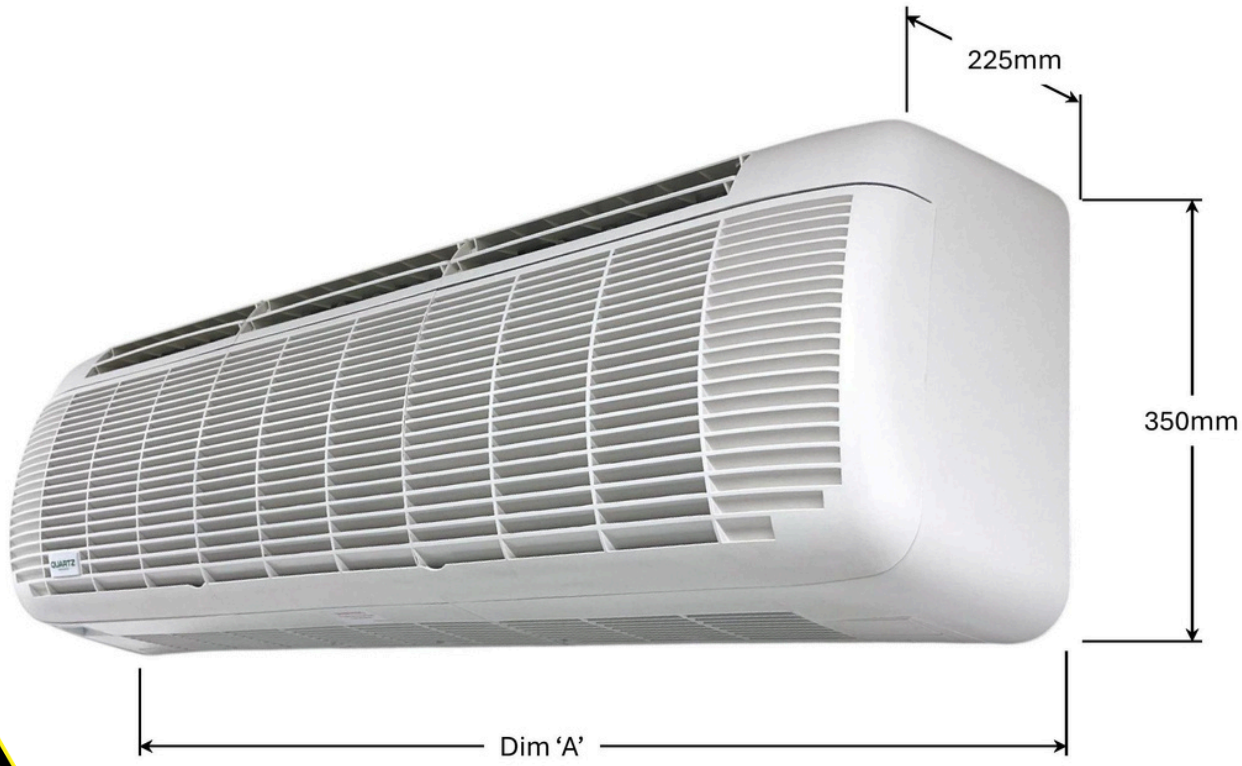


40 Liverpool Street - London



London City Airport - London

Model Dimensions



Electrical connections on LHS

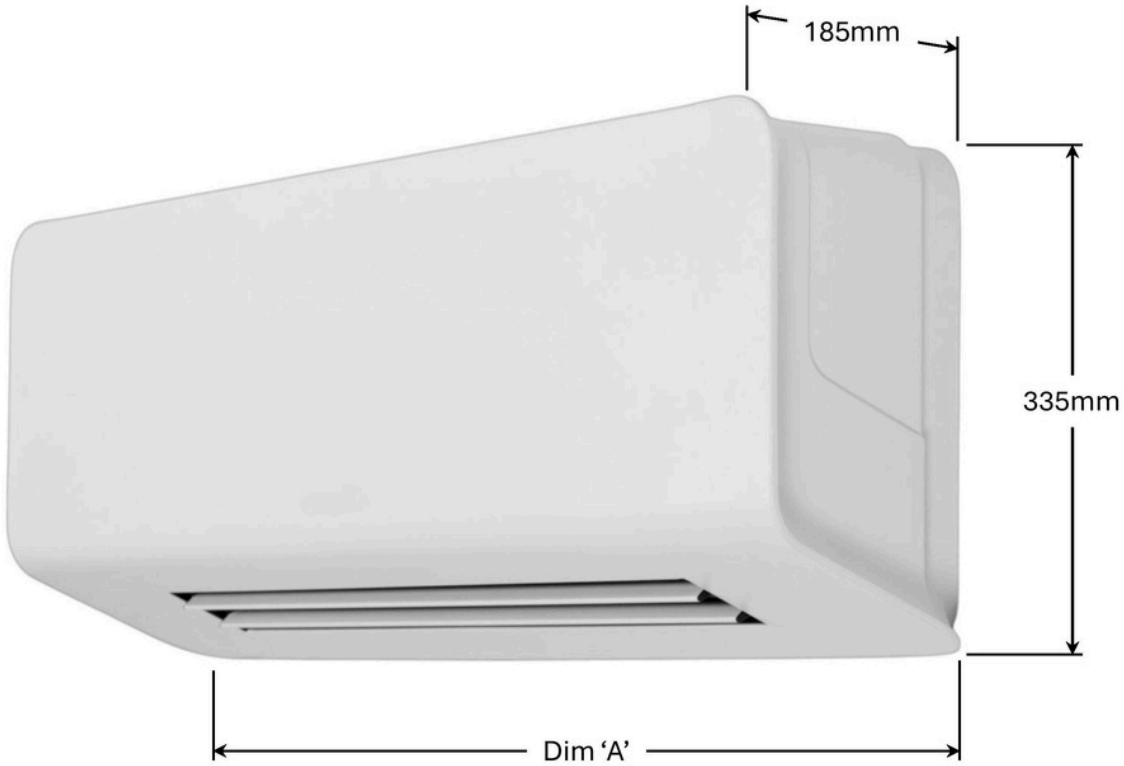
Hydraulic connections on RHS

Note: Handing's on the PuroAire$_{WM}$ are not interchangeable

PuroAire$_{WM}$ Model	Dim 'A' Overall Width	Max Dry Net Weight (Kg)
WM 12	1200	19
WM 15	1500	23
WM 18	1800	27

All dimensions in mm

Model Dimensions



Hydraulic connections on LHS

Electrical connections on RHS

Note: Handing's on the PuroAire$_{WMMini}$ are not interchangeable

PuroAire$_{WMMini}$ Model	Dim 'A' Overall Width	Max Dry Net Weight (Kg)
WMMini 15	930	12
WMMini 35	1235	15

All dimensions in mm

PuroAire$_{WM}$







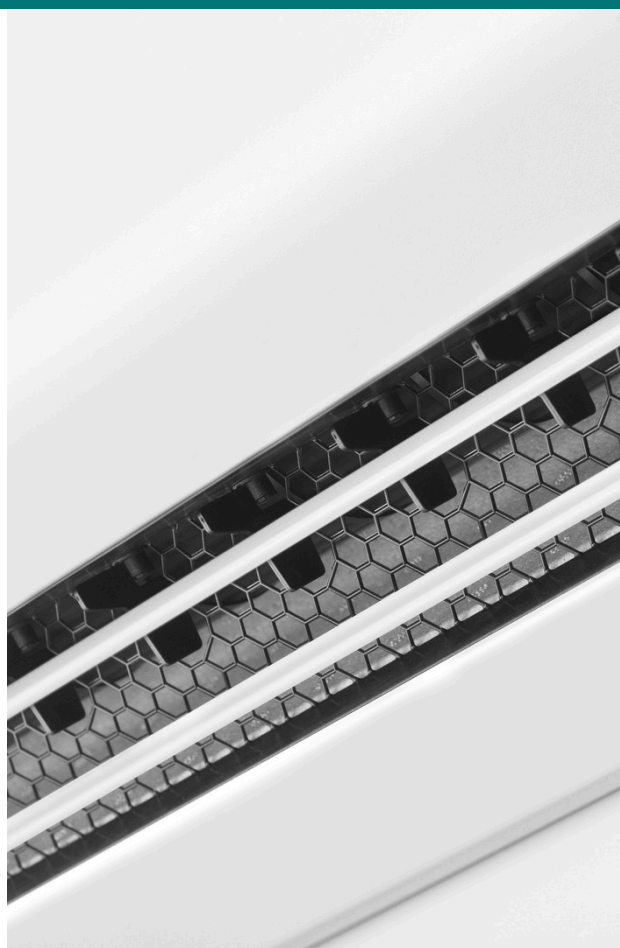
National Gallery - London



Heathrow Airport - London

PuroAire$_{WMMini}$





Maintenance

All maintenance checks should be carried out in accordance with SFG20

Inspection	3 Months	6 Months	12 Months
Visually inspect unit for damage, corrosion, and firmness of fixings		X	
Ensure condensate pump is operational and able to discharge condensate to the drainage pipework. If gravity fed must also check correct fall to allow full drainage		X	
Permanent filters to be cleaned and retrofitted. In a very dirty atmosphere, the filters will need cleaning more regularly	X	X	
Disposable filters to be withdraw and clean (or replace if necessary) filter media from dirty side with vacuum cleaner	X	X	
Check airflow is normal at correct speed setting, Check unit operates without undue noise or vibration and check operation of controller		X	
CHW/HW control valves. Check operation and check that any connections including flexible hoses are in good condition (if fitted)		X	
Cooling/Heating heat exchanger should be checked for leaks and cleaned by applying a jet of air to the leaving face. All connections headers, air vents and drains should be checked			X
If strainers are fitted to control valves of FCU these should be checked, cleaned, seals checked and replaced if necessary			X
Check the fan blades/housings and clean if necessary, with a soft brush or vacuum- check for shaft lift and clean interior of unit in fan section and discharge section			X
Electrical connections in enclosure are to be checked for tightness, visually inspect cable insulation. Check operation of thermostats if necessary. Earth Continuity and Insulation resistance should also be checked			X
Wall thermostats should be checked to ensure they operate when moved			X

X – Should be 3 month interval if in a dirty atmosphere

Quartz Shield
Built in Virus Protection



Quartz SHIELD now provides the solution by significantly improving indoor air quality (IAQ) in buildings through a wide range of product innovations.

- Inhibits the transmission of viruses
- Inhibits the growth of bacteria, mould and allergens
- Kills pollutants within the room
- Oxidises odorous gasses
- Balances static electricity
- Superior performance over air filtration systems
- Reduction of cleaning chemical use
- Safeguarding employees in the workplace
- Promoting well-being to employees
- Reduced sick pay and loss of resource
- Reduced cleaning costs
- Can be retro-fitted to existing installer fan coils

Employer confidence in protecting the workforce in the workplace has never been more important.

The capability to destroy viruses, bacteria and mould, can now be realised through the widespread deployment of ‘Bipolar ionisation’ technology.

QUARTZ SHIELD
BUILT-IN VIRUS PROTECTION

Total peace of mind, built in Britain, built to last.



Notes

Continued Professional Development

Fan Coils

- Air Conditioning and Fan Coil Units
- Types of Fan Coil Units
- F Gas Regulations
- Design Parameters

Acoustics

- Sound Pressure vs Sound Power
- NR Qualifications
- Acoustic Measurements
- Absorption

Quartz Shield

- What is Quartz Shield
- How does it work
- Testing and Results
- Case Studies

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