PuroAire
by Quartz



WCX series of Wall and Ceiling Fan Coils

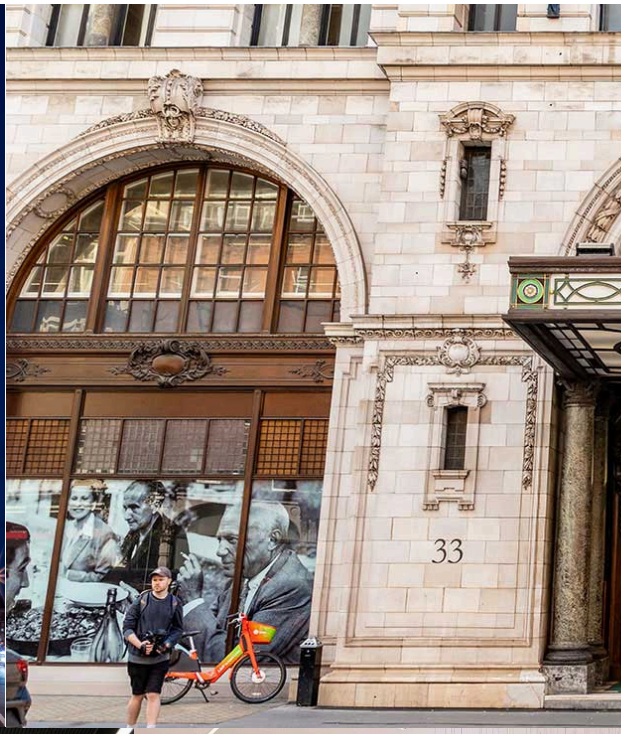
Engineered for pure performance

HERONHILL
Conditioned environments since 1997

The next generation Fan Coils, Engineered for Pure Performance

UK Manufactured by Quartz



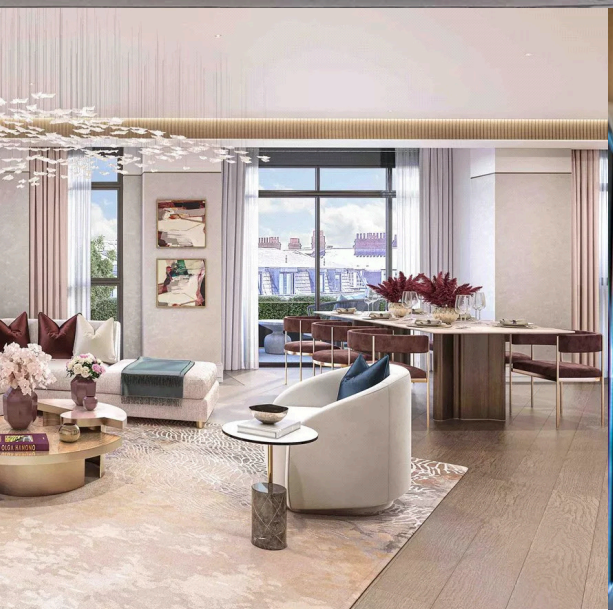







33
Welbeck Street
P
Boots
Opticians
LINDBERG








DESIGNED AND BUILT IN THE UK
DESIGNED AND BUILT IN THE UK

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, Quartz Shield, our own Bi-Polar Ionisation unit, can be added as an option so the focus is on indoor air quality too.

Our PuroAire$_{WCX}$ range offers a flexible range of Vertical or Horizontal, Cased or Chassis units and is 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.

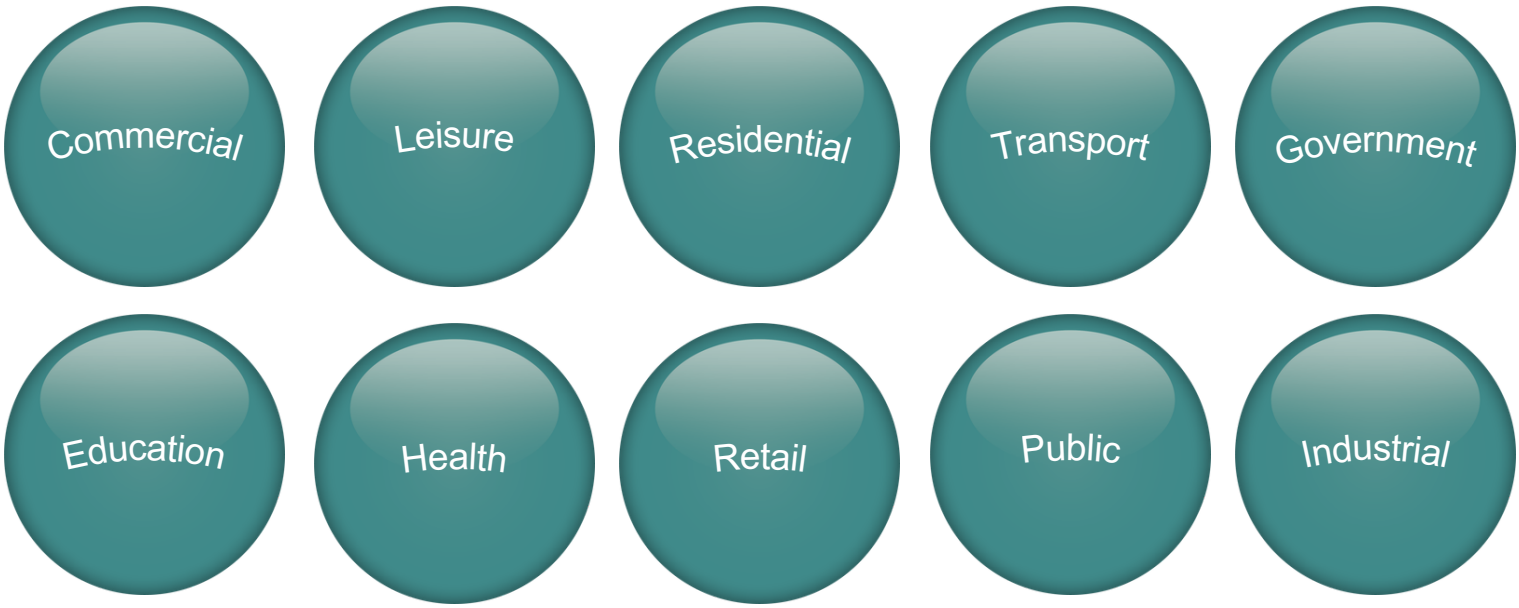
A MARKET LEADER IN CHILLED WATER PRODUCTS DESIGNED TO MEET ALL APPLICATIONS

The PuroAire$_{WCX}$ range of cased and chassis fan coil units offer quiet, efficient climate control tailored to each installation. Discreetly installed within ceilings, or exposed they preserve design aesthetics while delivering comfort.



Who We Work With

Quartz PuroAire$_{WCX}$ 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 Fan coils deliver exceptional indoor climate control with whisper-quiet operation and outstanding energy performance.



Deloitte.

LEGO

NHS

ROCCO FORTE HOTELS

Heathrow
Making every journey better

LLOYDS BANKING GROUP

The PuroAire$_{WCX}$ range of cased and chassis fan coil units offer a solution no matter what the application.

Build your perfect model!



PuroAire$_{WCX}$

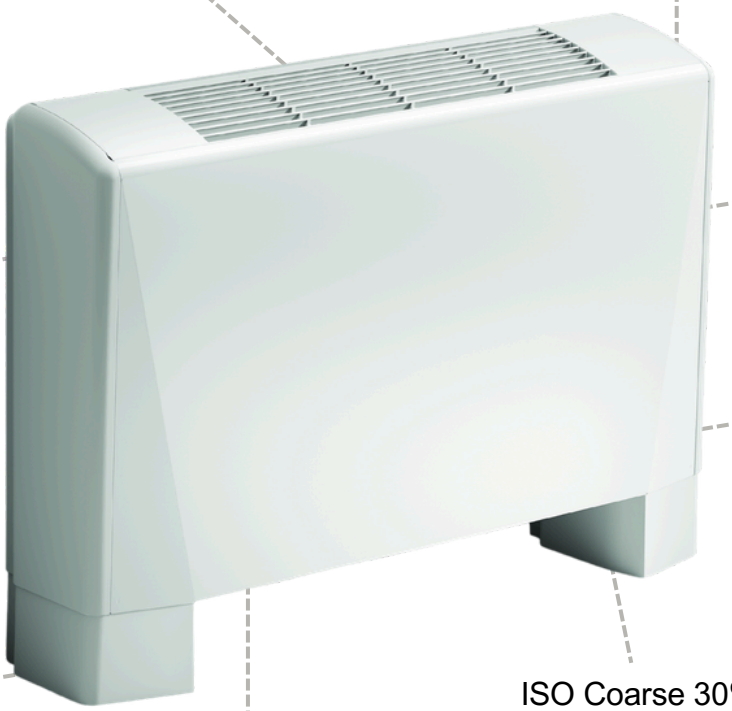
The Quartz PuroAire$_{WCX}$ chilled water fan coil unit is part of a versatile product range designed for exposed wall and ceiling installation in a wide variety of environments, including commercial buildings, hotels, hospitals, and high-end residential properties. All products offer both cooling and heating capabilities using water and are engineered for quiet operation, energy efficiency, ease of installation and easy integration with building management systems (BMS).

6 models with cooling up to 6.1kW

Heat pump optimised heating outputs up to 11.2kW

Fixed, revisible outlet grille(s)

Optimised heat exchanger(s) compatible with heat pumps



RAL 9010 White Cabinet

2 or 4 Pipe as Standard

Wall or Ceiling mountable

OPTIONAL Floor Standing feet

ISO Coarse 30% Washable filter

Quartz Shield Virus Suppressant Technology (Optional)

Type 0 & 5 Cased products

PuroAire$_{WCX}$

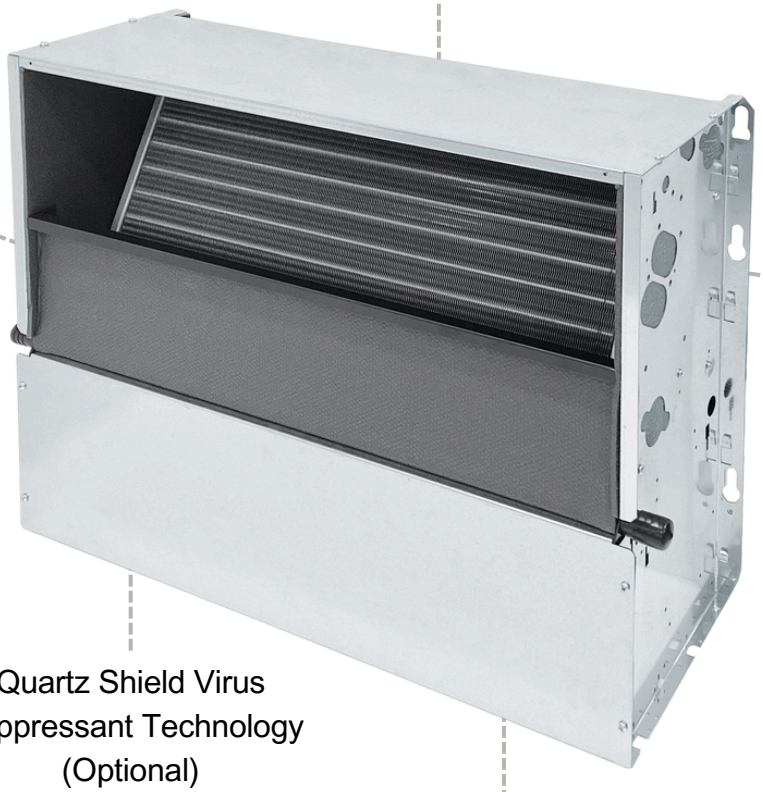
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6 models with cooling up to 6.1kW

Heat pump optimised heating outputs up to 11.2kW

Optimised heat exchanger(s) compatible with heat pumps

2 or 4 Pipe as Standard



Wall or Ceiling mountable (Type 7 Wall mounted only)

Quartz Shield Virus Suppressant Technology (Optional)

ISO Coarse 30% Washable filter

Type 2 & 7 Chassis products

DESIGNED AND BUILT IN THE UK

QUARTZ 1 Year PARTS WARRANTY AS STANDARD

QUARTZ SHIELD

Key Features

- Mid Level TM65 Embodied Carbon
- UK Manufactured to BS EN ISO 9001:2015
- Optional Quartz Shield Virus Suppressant Technology
- Heat pump compatible Heat Exchangers
- Standard Lead Time 6-8 Weeks
- Compact Cased & Chassis designs
- Washable 30% Coarse filter
- High Performance, Low SFP EC/DC Fan's
- BG29 PICV Commissioning Sets (Fit off unit)
- Exempt from F-Gas regulations



51 High Street - Windsor



14-16 Stoney Street - London

Performance Output PuroAire$_{WCX}$

Standard UK conditions

PuroAire$_{WCX}$ Model	Speed	Airflow (l/s)	Cooling (kW)		Heating (kW)	Absorbed Power (W)	SFP (W/l/s)	NR	FLC (A)
			Sensible	Total	Total				
2x	Whisper	13	0.3	0.3	0.5	5	0.36	15	0.3
	Low	32	0.5	0.8	1.1	11	0.34	21	
	Low-Med	40	0.5	0.9	1.5	13	0.32	26	
	Med	48	0.7	1.1	1.7	15	0.31	30	
	Med-High	77	1.1	1.4	2.3	24	0.31	35	
	High	102	1.3	1.7	2.7	34	0.33	37	
4x	Whisper	26	0.5	0.7	1.1	8	0.30	16	0.5
	Low	59	0.9	1.4	2.1	12	0.20	23	
	Low-Med	79	1.3	1.8	2.5	15	0.19	30	
	Med	96	1.5	2.1	2.9	19	0.20	35	
	Med-High	133	2.1	2.7	3.6	32	0.24	39	
	High	174	2.5	3.2	4.3	52	0.30	41	
6x	Whisper	51	0.8	1.3	1.9	9	0.18	17	0.6
	Low	94	1.4	2.2	3.1	12	0.13	30	
	Low-Med	128	2.0	2.8	4.0	18	0.14	35	
	Med	174	2.6	3.5	4.9	32	0.18	40	
	Med-High	210	3.1	4.0	5.4	45	0.21	44	
	High	281	3.8	4.8	6.7	69	0.25	45	
7x	Whisper	59	1.0	1.6	2.4	9	0.15	19	0.7
	Low	101	1.3	2.4	3.6	12	0.12	28	
	Low-Med	148	2.1	3.2	4.7	21	0.14	35	
	Med	183	2.7	3.8	5.4	30	0.16	41	
	Med-High	242	3.4	4.5	6.5	51	0.21	45	
	High	324	4.3	5.4	8.0	79	0.24	48	
8x	Whisper	63	1.0	1.6	2.3	12	0.19	19	1.2
	Low	192	2.9	3.9	5.6	39	0.20	41	
	Low-Med	233	3.5	4.5	6.4	55	0.24	44	
	Med	268	3.9	5.0	7.0	75	0.28	47	
	Med-High	302	4.2	5.3	7.5	99	0.33	49	
	High	404	5.1	6.2	9.1	132	0.33	51	
9x	Whisper	85	1.4	2.2	3.1	12	0.14	19	1.5
	Low	211	3.3	4.5	6.3	39	0.18	43	
	Low-Med	274	4.2	5.5	7.6	69	0.25	47	
	Med	324	4.9	6.2	8.5	103	0.32	50	
	Med-High	354	5.2	6.5	9.3	127	0.36	50	
	High	463	6.1	7.5	11.2	167	0.36	53	

Cooling

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

Heating

Entering air temperature = 21°C
Entering water temperature = 80°C
Leaving water temperature = 60°C

Performance Output PuroAire$_{WCX}$

Standard EUROVENT conditions

PuroAire$_{WCX}$ Model	Speed	Airflow (l/s)	Cooling (kW)		Heating (kW)	Absorbed Power (W)	SFP (W/l/s)	NR	FLC (A)
			Sensible	Total	Total				
2x	Whisper	13	0.3	0.5	0.4	5	0.36	15	0.3
	Low	32	0.6	1.1	0.8	11	0.34	21	
	Low-Med	40	0.8	1.4	1.0	13	0.32	26	
	Med	48	0.8	1.5	1.1	15	0.31	30	
	Med-High	77	1.4	2.2	1.6	24	0.31	35	
	High	102	1.8	2.6	1.9	34	0.33	37	
4x	Whisper	26	0.6	0.9	0.7	8	0.30	16	0.5
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	High	174	3.2	4.5	3.0	52	0.30	41	
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	Med-High	242	4.4	6.7	4.5	51	0.21	45	
	High	324	5.6	8.2	5.5	79	0.24	48	
8x	Whisper	63	1.4	2.3	1.6	12	0.19	19	1.2
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	High	463	7.9	11.1	7.8	167	0.36	53	

Cooling

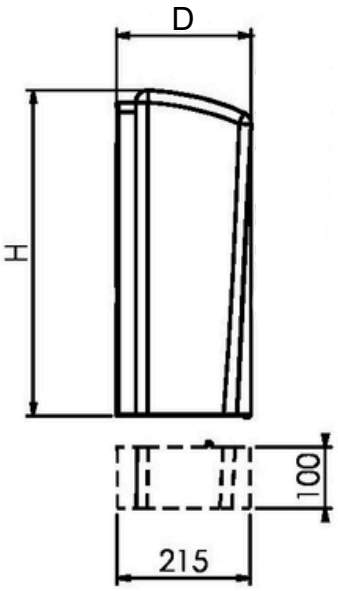
Entering air temperature = 27°C db / 19°C wb
Entering water temperature = 7°C
Leaving water temperature = 12°C

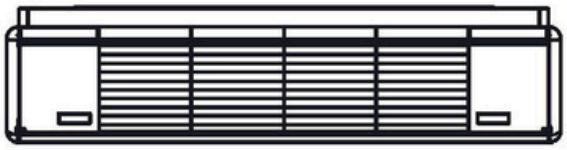
Heating

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

Model Dimensions - Type 0 & 5

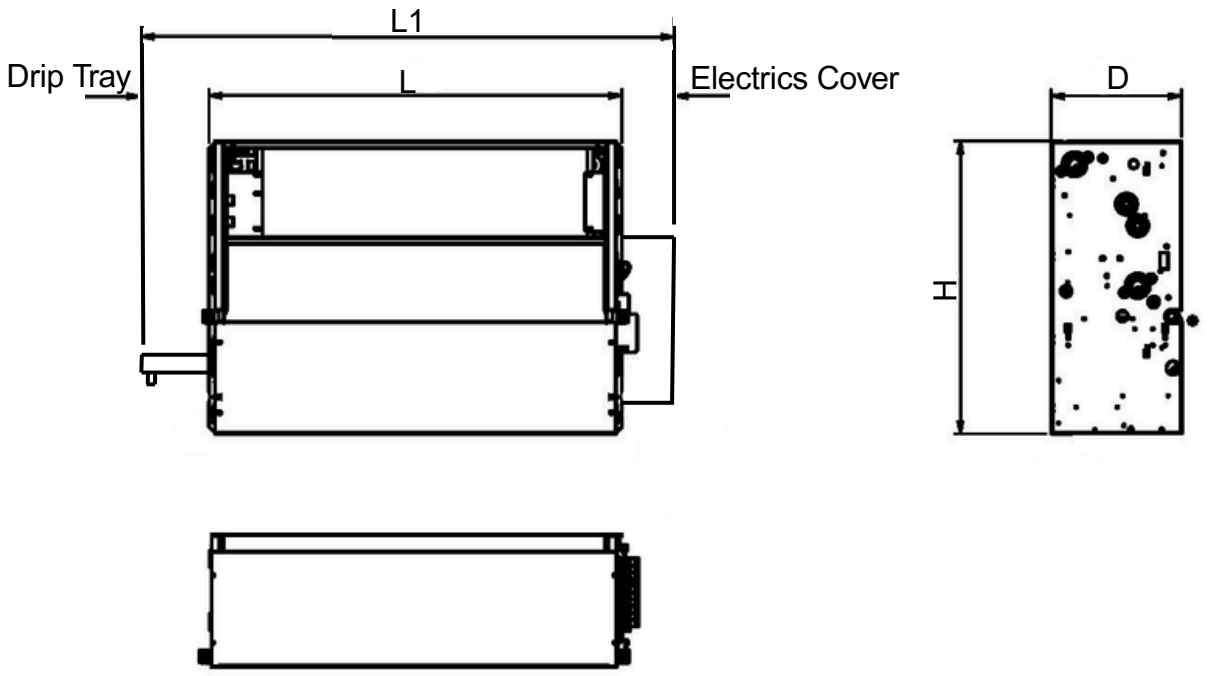






PuroAire$_{WCX}$ Model	20	40	60	70	80	90
L (mm)	750	900	1200	1350	1350	1500
H (mm)	530	530	530	530	530	530
D (mm)	218	218	218	218	218	218
Net weight (kg)	17	20	26	30	31	36

Model Dimensions - Type 2 & 7



PuroAire$_{WCX}$ Model	20	40	60	70	80	90
L (mm)	530	680	980	1130	1130	1280
Electrics (mm)	90	90	90	90	90	90
Drip Tray Vertical (mm)	80	80	80	80	80	80
L1 Vertical (mm)	700	850	1150	1300	1300	1450
Drip Tray Horizontal (mm)	110	110	110	110	110	110
L1 Horizontal (mm)	730	880	1180	1330	1330	1480
H (mm)	480	480	480	480	480	480
D (mm)	215	215	215	215	215	215
Net weight (kg)	17	20	26	30	31	36

Hydraulic Connections

PuroAire$_{WCX}$ Model	20	40	60	70	80	90
Cooling Coil	½"	½"	¾"	¾"	¾"	¾"
Heating Coil	½"	½"	½"	½"	½"	½"

Pipes are supplied with all units. All fittings are Flat Face Female BSP

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, using drop rods attached to the mounting points provided, if Horizontal and in a false ceiling not less than 300mm deep, with standard T-Bar grid and 10mm fibreboard tiles.
- 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.
- Additional attenuation due to ceiling tiles and/or false walls (if chassis unit) is calculated as the below and is an additional reduction to the specified NR in the data tables.

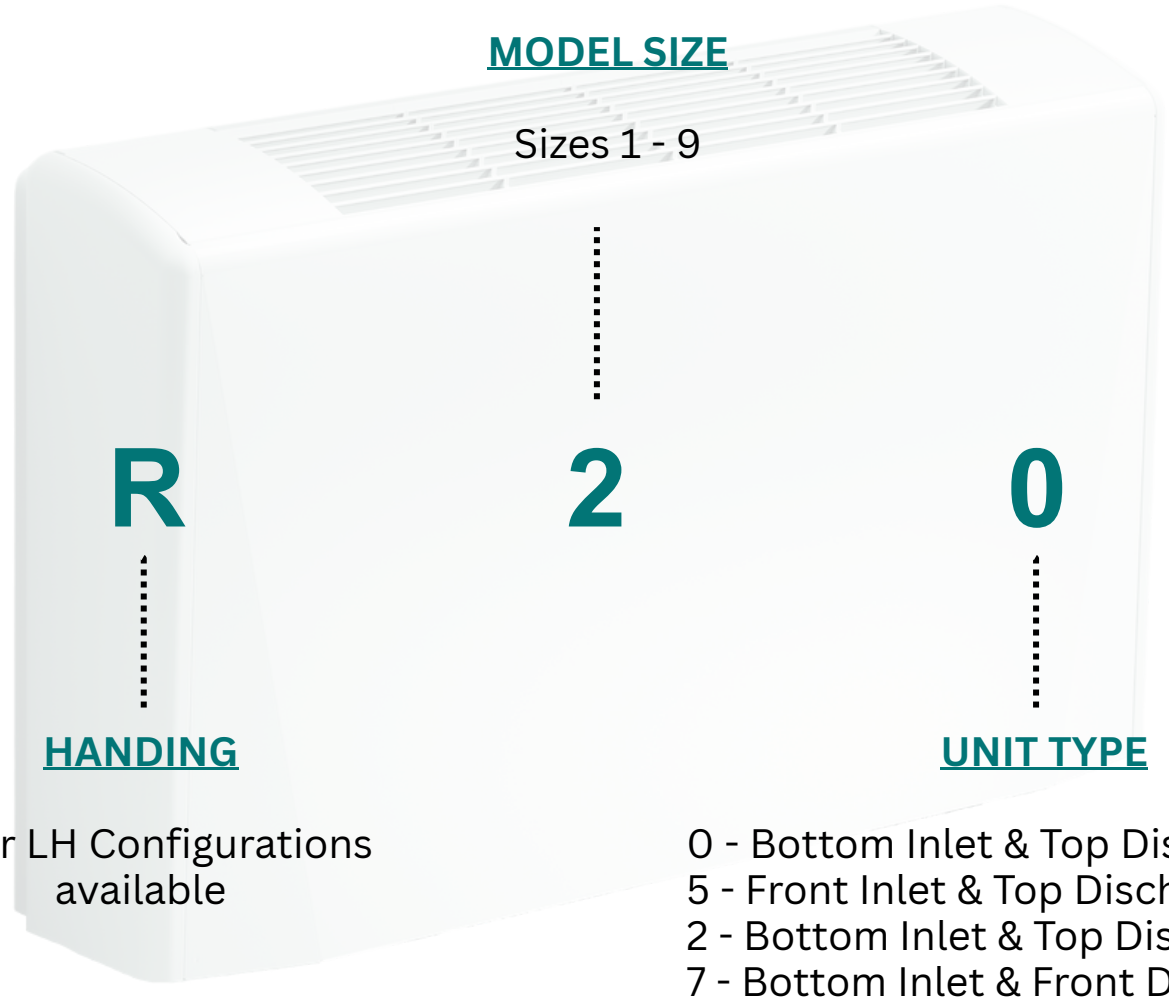
Hz	125	250	400	1K	2K	4K
dB	4	7	9	11	14	16

Providing that the grille plenums are correctly sized and insulated the foregoing should ensure that the 'guide' NR Levels are met when measured at 2m from the nearest grille.

Configurator

Example configuration code - New PuroAire$_{wcx}$ range

PuroAire$_{wcx}$ R 2 0



MODEL SIZE

Sizes 1 - 9

R

HANDING

RH or LH Configurations available

2

0

UNIT TYPE

0 - Bottom Inlet & Top Discharge
5 - Front Inlet & Top Discharge
2 - Bottom Inlet & Top Discharge
7 - Bottom Inlet & Front Discharge

Unit Types



Type 0



Type 5



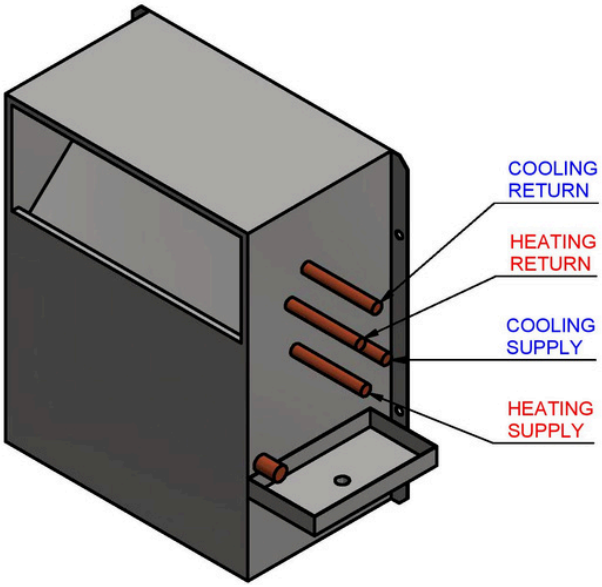
Type 2



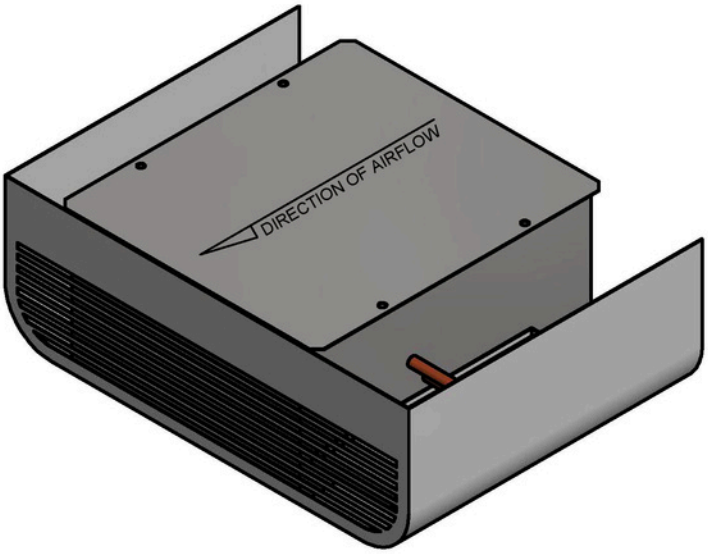
Type 7
Vertical Only

All Types are fully flexible to be installed as Vertical Wall or Horizontal Ceiling mounted unless stated

Handing examples



RH VERTICAL UNCASED TYPE 7 IN ILLUSTRATION



RH HORIZONTAL CASED TYPE 0 IN ILLUSTRATION





87-135 Brompton Road - London



4 St Pancras Way - London

Maintenance

All maintenance checks should be carried out in accordance with SFG20

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	
Ductwork to unit connections should be checked to ensure they are still secure and there is no air (possible on Chassis units)			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.

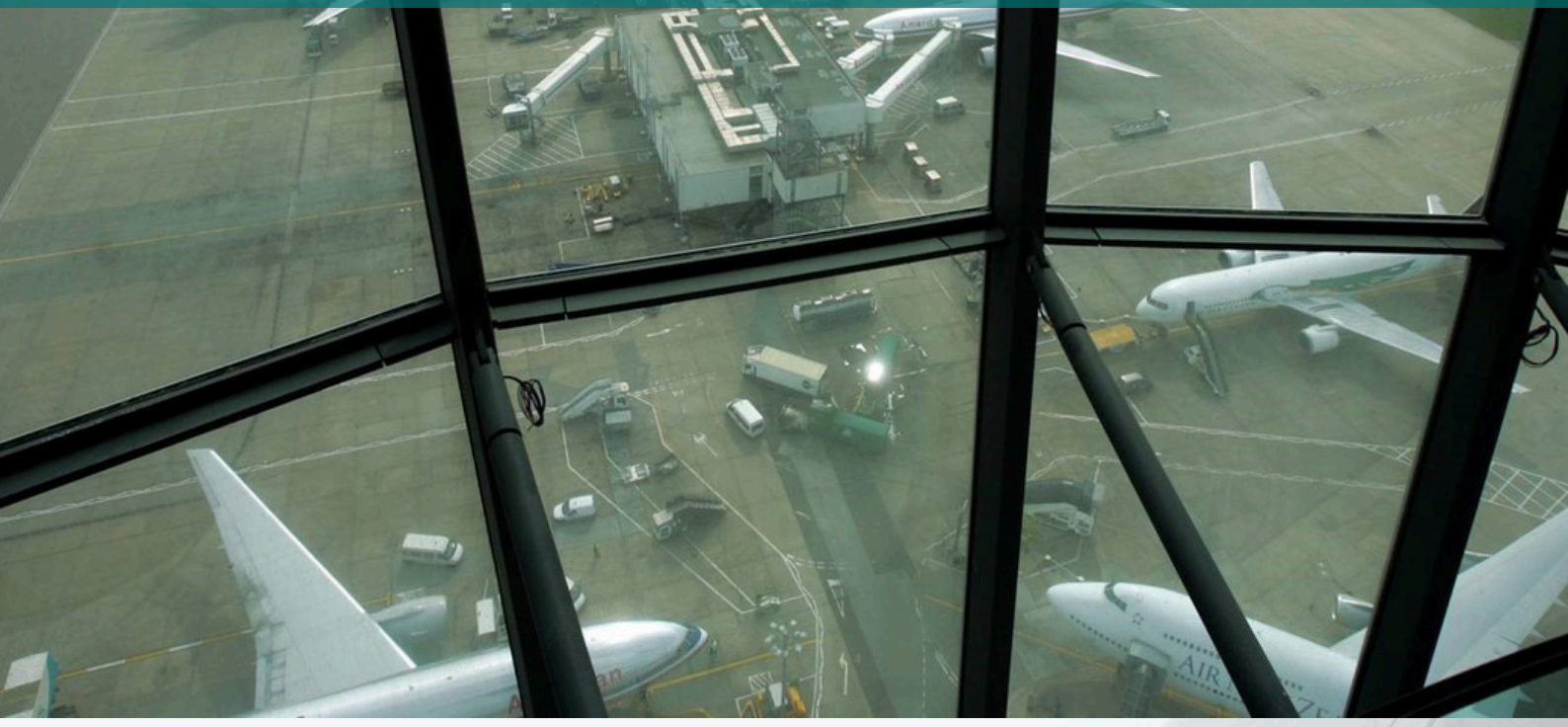
- Inhibits the transmission of viruses
- Inhibits the growth of bacteria, mould and allergens
- Kills pollutants within the room
- Oxidises odorous gasses
- Balances static electricity
- Superior performance over air filtration systems
- Reduction of cleaning chemical use
- Safeguarding employees in 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

With flexible valve and controls options available on all PuroAire fan coils its time to add the control the way you want it.





Notes

Notes

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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