PuroAire
by Quartz



600 / 875 series of Cassette 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.

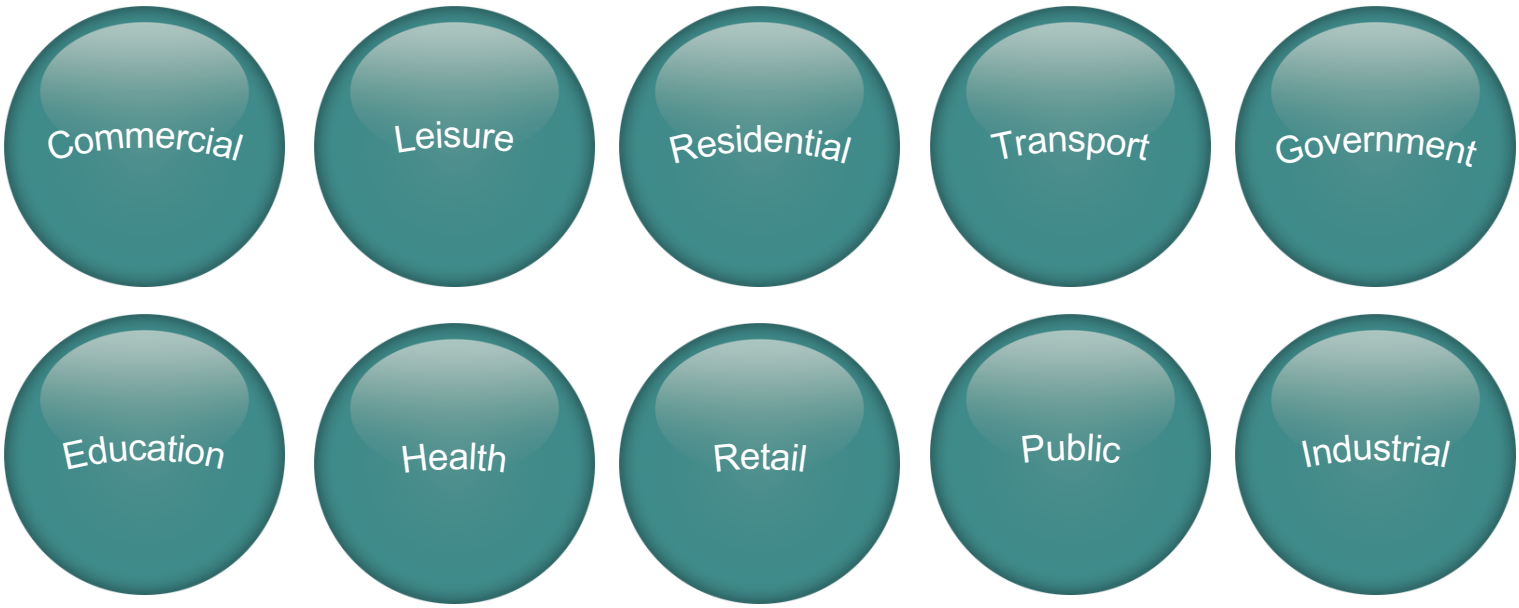
The PuroAire$_{600}$ and PuroAire$_{875}$ are a range of units intended for the modern world we live in, low energy, architectural and designed to work with heat pumps. Our product can offer a packaged solution to include controls and valves, but can also offer the flexibility to be factory fitted with 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$_{600/875}$ 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

THE UNIVERSITY of EDINBURGH

UNIVERSITY OF LEEDS

Heathrow
Making every journey better

University of Strathclyde Glasgow

NHS

Transforming NHS facilities and University campuses the PuroAire$_{600/875}$ range of ceiling cassettes offer discreet, high performance climate control across all sectors



PuroAire$_{600/875}$

The Quartz PuroAire$_{600/875}$ cassette water fan coil units are part of a versatile product range designed for exposed or concealed ceiling installation. The product range suit a wide variety of environments, including commercial buildings, hotels and hospitals. The PuroAire$_{600-875}$ 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).

7 models with cooling up to 6.9kW

Heat pump optimised heating outputs up to 14.4kW

Branch duct and Fresh air Inlet options

4 Pipe model as standard



4 Way Discharge for even spread of air

Easy serviceability with one piece chassis and filter access from underneath

RAL 9003 Signal White as standard

QUARTZ 1 Year PARTS WARRANTY AS STANDARD

QUARTZ SHIELD



Chelsea Barracks - Belgravia London



Citi Building - Canary Wharf

Key Features

- Mid Level TM65 Embodied Carbon
- UK Manufactured to BS EN ISO 9001:2015
- Optional Quartz Shield Virus Suppressant Technology
- Low Hydrauilc Pressures
- Standard Lead Time 4 Weeks
- One piece chassis – Fresh air inlet + branch duct connections available
- 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



University of Leeds - Leeds



Salford Royal Hospital - Greater Manchester

Performance Output PuroAire$_{600/875}$

Standard UK conditions

PuroAire$_{600/875}$ Model	Speed	Airflow (l/s)	Cooling (kW)		Heating (kW)	Absorbed Power (W)	SFP (W/l/s)	NR	FLC (A)
			Sensible	Total	Total				
600-25	Whisper	80	0.8	0.9	1.9	3	0.04	21	0.39
	Low	123	0.9	1.0	2.0	7	0.06	30	
	Low-Med	148	1.0	1.1	2.2	13	0.09	34	
	Med	160	1.1	1.2	2.3	18	0.11	37	
	Med-High	185	1.4	1.5	2.5	24	0.13	40	
	High	255	1.8	2.0	3.0	51	0.20	46	
600-45	Whisper	75	1.1	1.4	3.0	3	0.04	20	0.39
	Low	130	1.6	1.8	3.5	10	0.08	30	
	Low-Med	155	1.8	1.9	3.9	17	0.11	34	
	Med	180	1.9	2.1	4.3	23	0.13	38	
	Med-High	210	2.1	2.3	4.8	36	0.17	41	
	High	240	2.3	2.4	5.1	50	0.21	44	
600-65	Whisper	70	1.2	1.6	3.0	3	0.04	20	0.39
	Low	125	1.8	2.2	3.4	10	0.08	30	
	Low-Med	150	2.1	2.4	3.8	16	0.11	33	
	Med	170	2.3	2.6	4.2	24	0.14	35	
	Med-High	200	2.5	2.8	4.6	36	0.18	37	
	High	230	2.8	3.0	5.0	51	0.22	38	
600-75	Whisper	65	1.2	1.7	3.1	2	0.03	18	0.39
	Low	125	2.0	2.7	3.9	6	0.05	30	
	Low-Med	155	2.4	3.0	4.5	9	0.06	35	
	Med	165	2.5	3.1	4.6	13	0.08	37	
	Med-High	190	2.8	3.4	5.1	21	0.11	40	
	High	240	3.5	4.1	5.9	50	0.21	44	
875-95	Whisper	180	2.4	2.7	5.2	5	0.03	25	0.6
	Low	285	3.5	3.9	6.9	11	0.04	31	
	Low-Med	350	4.2	4.6	7.9	18	0.05	35	
	Med	410	4.7	5.1	8.6	29	0.07	37	
	Med-High	450	5.0	5.5	9.1	36	0.08	39	
	High	540	5.7	6.2	10.2	59	0.11	42	
875-135	Whisper	175	2.3	2.6	7.1	5	0.03	25	0.6
	Low	280	3.6	4.1	9.7	11	0.04	31	
	Low-Med	340	4.3	4.8	11.1	18	0.05	35	
	Med	405	5.0	5.5	12.4	29	0.07	37	
	Med-High	450	5.4	5.9	13.3	36	0.08	39	
	High	530	6.1	6.7	14.7	59	0.11	43	
875-155	Whisper	170	2.6	3.2	7.0	5	0.03	25	0.6
	Low	300	4.4	5.3	10.4	16	0.05	31	
	Low-Med	390	5.6	6.6	12.3	29	0.07	35	
	Med	430	6.1	7.1	13.1	36	0.08	38	
	Med-High	465	6.5	7.5	13.8	45	0.10	40	
	High	500	6.9	7.9	14.4	59	0.12	41	

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 = 82°C
Leaving water temperature = 71°C

Performance Output PuroAire$_{600/875}$

Standard EUROVENT conditions

PuroAire$_{600/875}$ Model	Speed	Airflow (l/s)	Cooling (kW)		Heating (kW)	Absorbed Power (W)	SFP (W/l/s)	NR	FLC (A)
			Sensible	Total	Total				
600-25	Whisper	80	1.3	1.5	1.3	3	0.04	21	0.39
	Low	123	1.6	1.7	1.4	7	0.06	30	
	Low-Med	148	1.8	2.0	1.5	13	0.09	34	
	Med	160	1.9	2.1	1.6	18	0.11	37	
	Med-High	185	2.2	2.4	1.7	24	0.13	40	
	High	255	2.7	3.0	2.1	51	0.20	46	
600-45	Whisper	75	1.4	2.0	2.1	3	0.04	20	0.39
	Low	130	2.2	2.8	2.4	10	0.08	30	
	Low-Med	155	2.6	3.3	2.7	17	0.11	34	
	Med	180	3.0	3.8	3.0	23	0.13	38	
	Med-High	210	3.5	4.4	3.3	36	0.17	41	
	High	240	3.9	4.9	3.5	50	0.21	44	
600-65	Whisper	70	1.5	2.2	2.0	3	0.04	20	0.39
	Low	125	2.2	3.0	2.4	10	0.08	30	
	Low-Med	150	2.8	3.7	2.7	16	0.11	33	
	Med	170	3.2	4.3	2.9	24	0.14	35	
	Med-High	200	3.7	5.1	3.2	36	0.18	37	
	High	230	4.3	5.8	3.5	51	0.22	38	
600-75	Whisper	65	1.5	2.3	2.2	2	0.03	18	0.39
	Low	125	2.6	4.0	2.7	6	0.05	30	
	Low-Med	155	3.3	4.9	3.1	9	0.06	35	
	Med	165	3.5	5.2	3.2	13	0.08	37	
	Med-High	190	4.0	6.0	3.5	21	0.11	40	
	High	240	5.0	7.4	4.1	50	0.21	44	
875-95	Whisper	180	3.1	4.1	3.7	5	0.03	25	0.6
	Low	285	4.5	5.5	4.9	11	0.04	31	
	Low-Med	350	5.3	6.3	5.6	18	0.05	35	
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	Med	405	6.4	7.8	8.7	29	0.07	37	
	Med-High	450	7.0	8.3	9.3	36	0.08	39	
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875-155	Whisper	170	3.5	5.1	5.0	5	0.03	25	0.6
	Low	300	5.7	7.9	7.3	16	0.05	31	
	Low-Med	390	7.1	9.6	8.7	29	0.07	35	
	Med	430	7.7	10.2	9.2	36	0.08	38	
	Med-High	465	8.2	10.8	9.7	45	0.10	40	
	High	500	8.7	11.3	10.1	59	0.12	41	

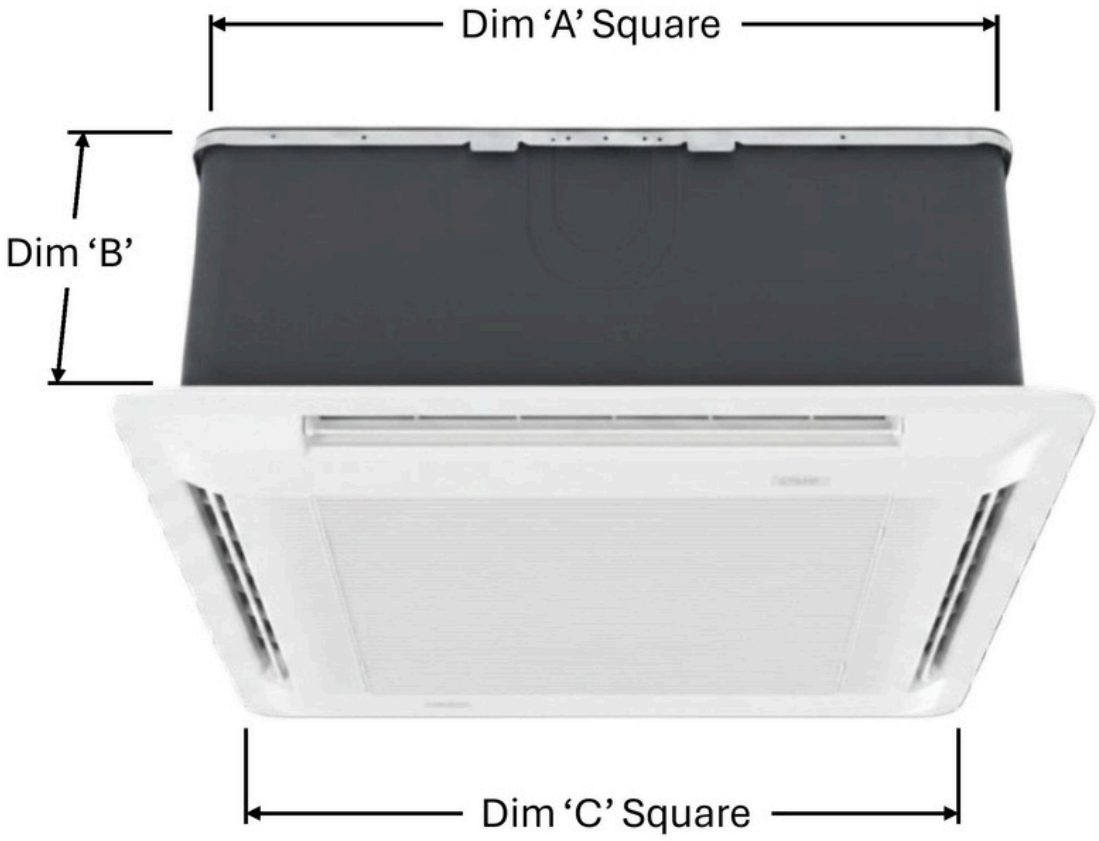
Cooling

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 = 65°C
Leaving water temperature = 55°C

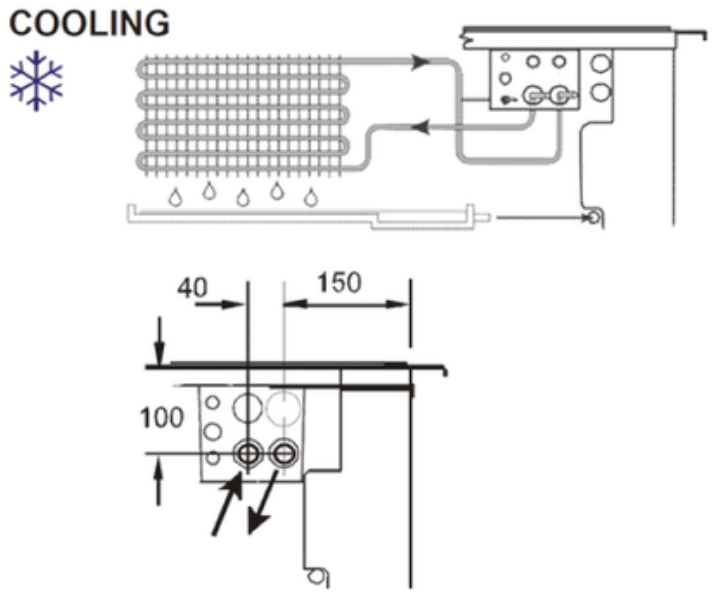
Model Dimensions

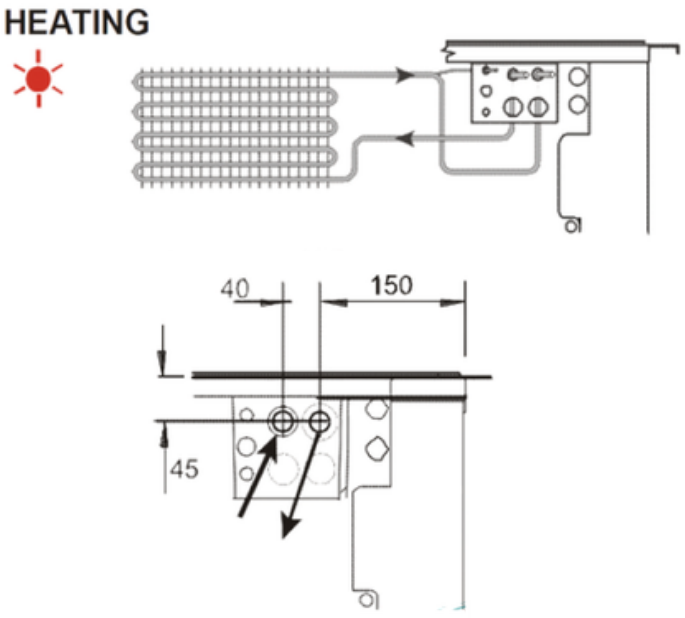


All dimensions in mm

PuroAire Model	Dim ‘A’ Overall Chassis Width	Dim ‘B’Height	Dim ‘C’ Overall Fascia Width	Max Dry Net Weight (Kg)
600 - 25	580	306	675	21
600 - 45	580	306	675	22
600 - 65	580	306	675	23
600 - 75	580	306	675	24
875 - 95	875	314	967	36
875 - 135	875	314	967	40
875 - 155	875	314	967	44

Hydraulic Connections





Pipe Sizes mm

PuroAire Model	Cooling	Heating
600 x 600	15	15
875 x 875	22	15



Catterick Integrated NHS - North Yorkshire



Heathrow Airport - London

Maintenance

All maintenance checks should be carried out in accordance with SFG20

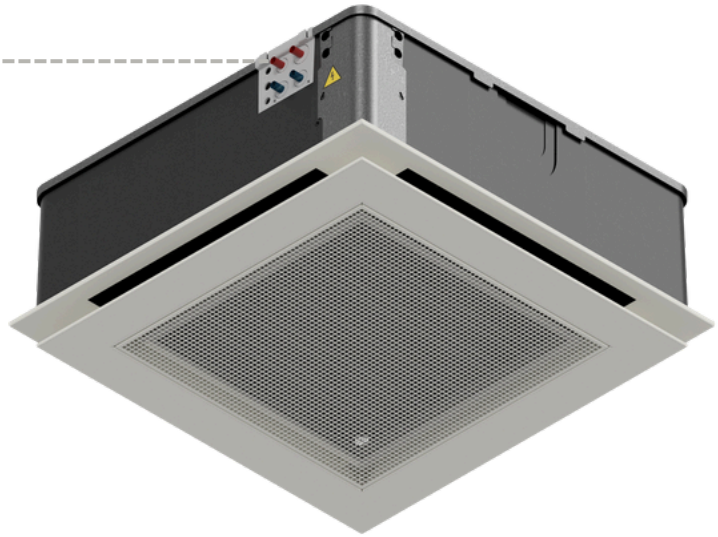
Inspection	3 Months	6 Months	12 Months
Visually inspect unit for damage, corrosion, and firmness of fixings		X	
Ensure condensate pump is operational and able to discharge condensate to the drainage pipework. If gravity fed must also check correct fall to allow full drainage		X	
Permanent filters to 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

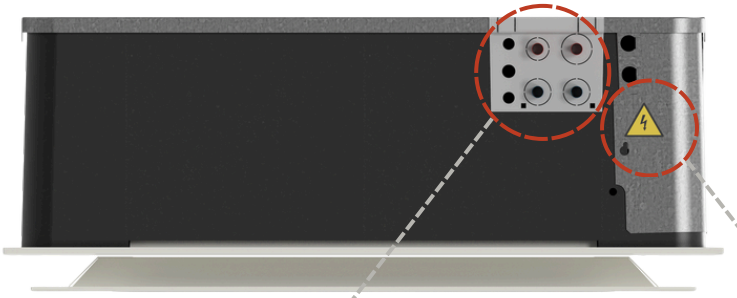
X – Should be 3 month interval if in a dirty atmosphere

Access Requirements

Recommended access requirements needed for PuroAire$_{600/875}$ Cassettes

600mm x 600mm minimum access on all size units





Access will be needed to maintain any valves and actuators

Access will be needed for any electrical / control connections





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

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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