Re-Creo Architecture Ltd
195-199 Grays Inn Road
London
United Kingdom
WC1 X8UL

Our Reference
10085/2/1/3

Subject
13 Netherhall Gardens

10 May 2022

For the attention of Paul Whitley,

With reference to our recent conversation and receipt of your email of the 105/2022 and based upon details contained within the acoustic consultants report we would comment as follows:

11 off Daikin ERLQ016 CV3 having a an air volume of 1.5m3/s giving a total of 16.5m3/sm the acoustic requirement of Rw25 be achieved with the Caice CS600 acoustic louvre.

On the basis the condenser will exhaust air through a louvre not less than 1.15m wide x 1.8m high a pressure drop of approximately 10Pa could realised.

Assuming that all condensers can operate at the same time giving a total maximum air volume of 16.5m3/s with a horizontal intake louvre of not less than 14m long x 1.35m wide we would expect a pressure drop of circa 30Pa.

Enclosure supplied with internal divider plates to reduce air circulation and structure to support the louvres, ends of the enclosure will be formed form 75mm acoustic panels with doors to allow access in the condenser enclosure.

The rear wall of the enclosure to be lined with 50mm acoustic panels to reduce the reverberant level with the enclosure.

Product Information

Acoustic louvres

1	Caice CS600 acoustic louvre, based on module width 1150mm.
2	Maximum module weight of 75kg.
3	Manufactured from galvanised sheet steel.
4	Piece part polyester powder coated (PPC) to a Caice standard RAL colour at gloss level matt 25% +/- 5%. See the enclosed document detailing Caice standard paint colours.
5	Caice standard joining brackets for louvre assembly only.
7	Bird Mesh to the rear – , Nom. 1.0mm thick - 20x15mm Approx. 85% Free Area
8	Caice Standard fixing.

Acoustic panels

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Gazelle Close
Winnersh
Wokingham
RG41 5QS

Registered office and head office

Company Registration Number
2790667
VAT Registration Number
GB614683632

1	Product selection Caice 50/75 acoustic panels, perforated-solid.
2	Polyester powder coated (PPC) to a standard RAL colour at gloss level matt 25% +/- 5% to outer face.
3	Based upon maximum module size 1150mm x 1950mm. • Weight 75mm – 25 Kg/m2, 50mm – 20 Kg/m2

Table 1 Coefficient of absorption:

Panel	63	125	250	500	1k	2k	4k	8kHz
50mm	0.10	0.33	0.85	0.87	0.94	1.0	0.97	0.70
75mm	0.12	0.39	0.95	1.0	1.0	1.0	0.98	0.74

Table 2 Sound transmission:

Panel	63	125	250	500	1k	2k	4k	8kHz
50mm	15	20	25	32	38	45	47	40
75mm	15	22	26	34	39	47	49	48

Doors

1	2no. Caice acoustic panel single door (outward opening).
2	Doors to be PPC to match RAL colour of Caice panels
3	Doors to suit opening TBA , manufactured to Caice standard construction.
4	Standard doors fitted with Caice standard door furniture.

Steelwork

1	One piece steel posts galvanised after manufacture (GAM),
2	Connection brackets.
3	Base plates, galvanised after manufacture (GAM),
4	Purlin rails where required
5	RSA bottom support angle, galvanised after manufacture (GAM),
6	Caice standard fixings
7	Structural calculations.

It is advised to issue the enclosed data sheets to the project acoustic consultant / professional team for their written approval.

We wish to bring to your attention that enclosing condensing units with an acoustic louvre enclosure could have an impact on performance of the units, restricting airflow requirements as specified by the equipment manufacturer.

This could potentially reduce the equipment performance with limited access for service and maintenance. Caice are unable to accept any responsibility for the operation of the equipment.

We trust the enclosed meets with your current requirements, should you require any further details please contact the undersigned

Yours faithfully,

Andy Smith

Andy Smith
Associate Operations Director
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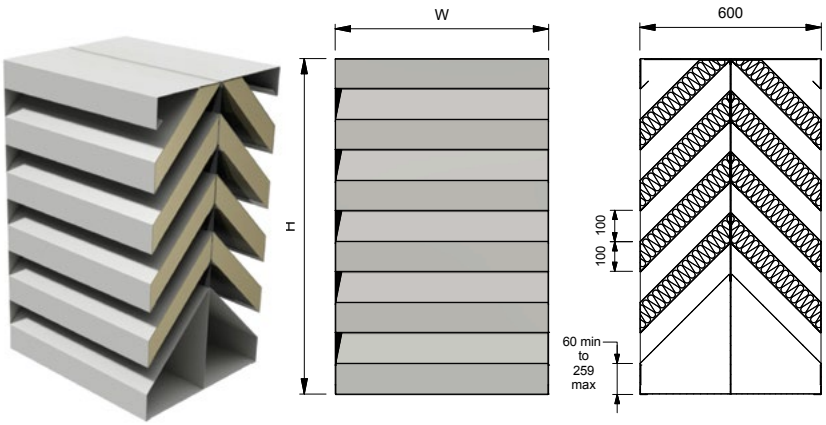
CS600 Acoustic Louvre Technical Data

Chevron Acoustic Louvre, Standard Performance Profile, 600mm Deep



Typical weight 85kg/m^2

Generally louvres above 50kg will be supplied in modules for assembly on site. Joining brackets and fixings will be provided for assembly.

Installation services, support steelwork, flashings, fixings to the structure and mastic will not be provided unless stated.

Refer to the Acoustic Louvre Schedule and Product Code Definitions for the size and specification of each Acoustic Louvre.

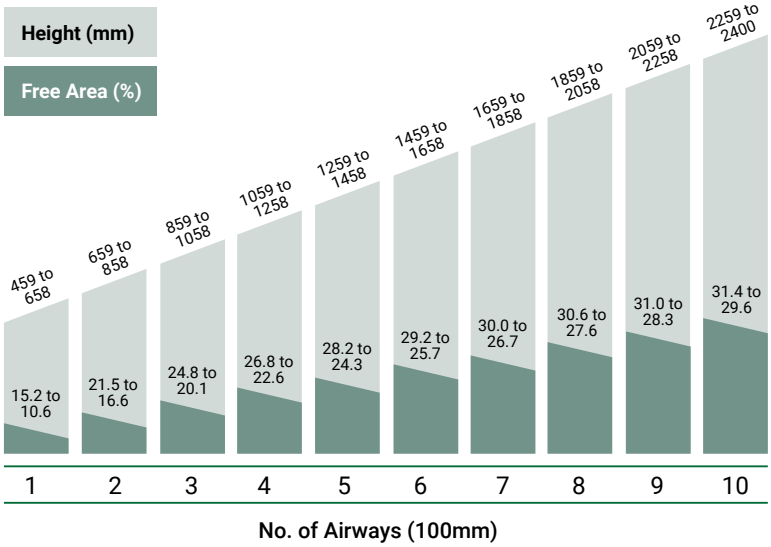
A minimum of 10mm clearance should be allowed between the structure and the Acoustic Louvre sizes shown.

Site constraints may make the installation of the Chevron style product impractical. Please contact Caice to discuss your requirements before selecting.

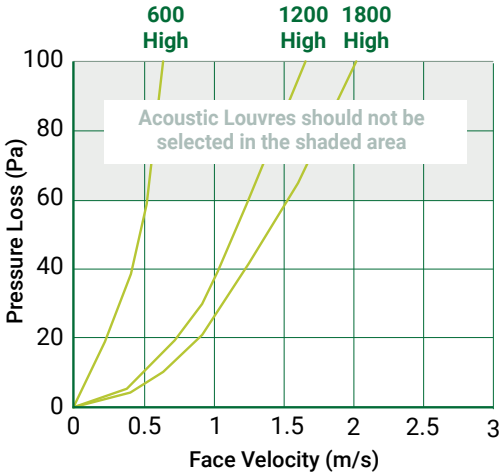
Performance

Acoustic Data	dB in each Octave Band Centre Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
Sound reduction index	7	8	13	23	37	33	29	29
Weighted sound reduction index (Rw)				25				
Static insertion loss	6	8	13	23	38	32	32	32
Regenerated sound power level at 1m/s face velocity	54	46	37	32	28	24	15	12
Regenerated sound power level at 2m/s face velocity	71	66	57	50	47	46	41	30

Free Area and Height range



Free area and pressure drop shown is based on a 1150mm wide single piece louvre fitted with bird mesh and will vary slightly for different widths and larger heights. Pressure losses for Class A rated louvres and/or Insect mesh are available upon request.



Acoustic Panel Data Sheet

Specification:

50, 75 and 100mm thick panel with 1.5mm solid outer skin and 0.8mm XPM 30% free area inner skin

48kg controlled density resin bonded mineral wool infill, faced with a fibreglass tissue to ensure that internal faces are sealed against fibre egress.

Finish options:

Externally polyester powder painted to a standard stock colour, Standard factory finish galvanised metal.

General:

All materials shall be inorganic and non-combustible.

Acoustic panels shall be manufactured in accordance with BS3638:1987, ISO 354:1985 (Coefficient of absorption) and shall provide a minimum performance as detailed below table 1.

Acoustic panels shall be manufactured in a accordance with BS2750:1980, ISO 140: 1978 (Sound transmission)

and shall provide a minimum performance as detailed below table 2.

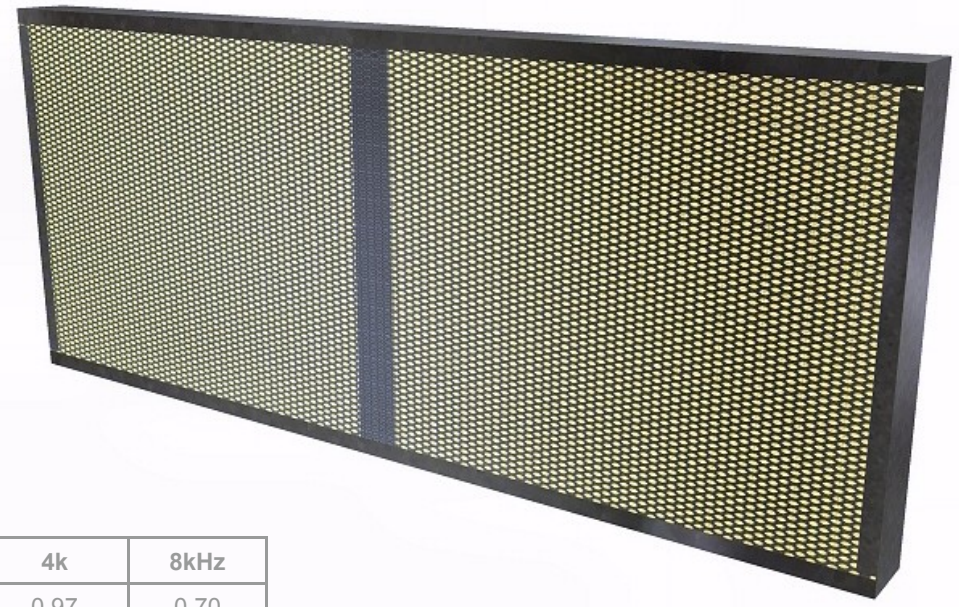


Table 1 Coefficient of absorption at Octave Band Centre Frequencies.

Panel	63	125	250	500	1k	2k	4k	8kHz
50mm	0.10	0.33	0.85	0.87	0.94	1.0	0.97	0.70
75mm	0.12	0.39	0.95	1.0	1.0	1.0	0.98	0.74
100mm	0.18	0.42	0.98	1.0	1.0	1.0	1.0	0.82

Table 2 Sound transmission at Octave Band Centre Frequencies.

Panel	63	125	250	500	1k	2k	4k	8kHz
50mm	15	20	25	32	38	45	47	40
75mm	15	22	26	34	39	47	49	48
100mm	17	24	27	35	42	48	49	48

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Acoustic Panel Enclosures & Screen Installations

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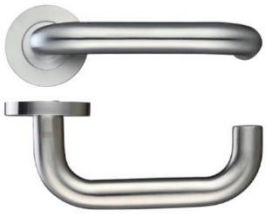
Acoustic Air Movement Ltd

Acoustic Panel Door furniture

Hardware and Furniture

Standard door hardware and furniture on Acoustic Panel doors produced by Caice

Component Name	Image	Specification
Pivot Hinge		• Stainless steel • Secured by design • Manufactured to BS EN 1935 Grade 13 • Ball bearing hinges suitable for heavy duty doors up to 120 kg 4 | 7 | 6 | 1 | 1 | 1 | 1 | 13
Lock Cylinder		• Euro Cylinder and Turn • Satin Chrome • MP10 restricted 10 pin cylinders • Secured by Design • Manufactured to BS EN BS EN 1303 Grade 6 • Key to differ (KTD), Keyed Alike (KA) and Under Master Key (UMA) options available
Door Handle		• Grade 304 stainless steel satin finish with solid investment cast stainless steel components throughout • 128.5mm lever length with a 66mm projection • Suitable for internal and external use • BS EN 1906 : 2010 Grade 3 • BS EN 1670 : 2007 Grade 5 • *Inward opening only
Escutcheon		• Grade 304 stainless steel satin finish rose • 50mm diameter x 8mm screw on rose design • BS EN 1906 : 2010 Grade 3 • BS EN 1670 : 2007 Grade 5
Mortice Sashlock Lock Case		• BS EN 12209:203 Grade 3 3 | X | 8 | 1 | 0 | G | 2 | B | A | 2 | 0

Acoustic Panel Door furniture

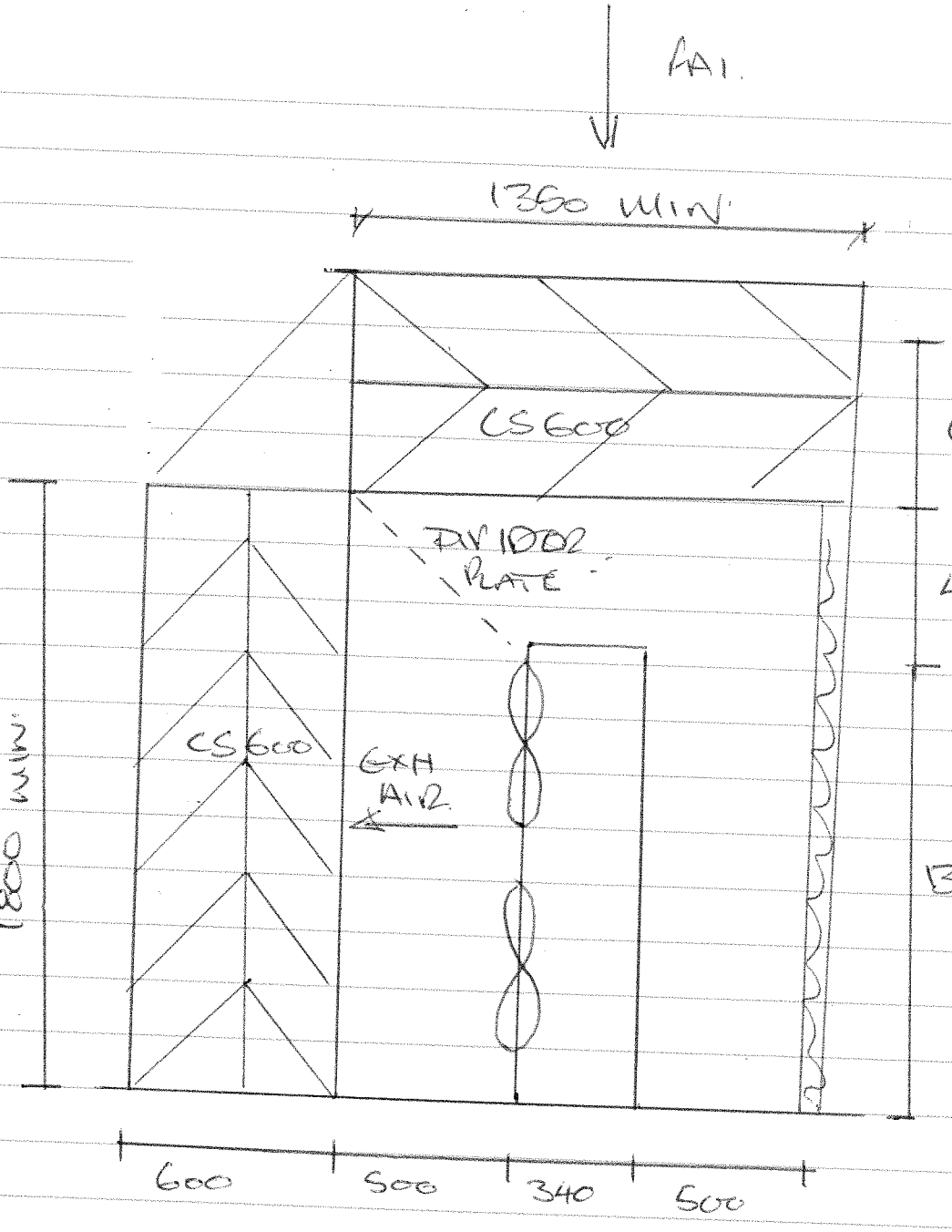
Hardware and Furniture

Component Name	Image	Specification
Door Stay		• Single-acting spring absorbs shocks when the door is opened • Adjustable hold-open tension • Single point hold-open and increments 5° from 85° to 110°(max) • Automatic hold-open and release by push and pull on door
Shoot/ Flush Bolt		• Bolt throw is 19mm with a 22mm vertical adjustment • Bolt backset is 19mm • EN 1634-1:2008
Pull Handle		• Grade 316 Stainless Steel pull handle • 25mm diameter, 300mm long (centres) • Concealed fixing • Fire door rated
Automatic Drop-Seal		• Satin anodised aluminium finish • The NOR820 automatic drop down seal, self-levelling to suit the gap size needed when activated • Concealed fixing, full cover plate hides screw fixings • Durable silicone seal • Compliant with both Document 'E' and BB93

The information is based directly on manufacturers and agent's details and although correct at the time of writing will be subject to change.

Non-standard door furniture is available, charged at an additional rate. Caice can, upon request, issue additional optional standard furniture from or pre-approved range at an additional rate.

Caice can offer integration of clients specified hardware at an additional rate, all makes, and model codes required prior to confirmation and conformity with CE marking



CAICE CS600 RW 25.

11 x ERLQ016CV3 @ 1.5m³/s PER UNIT = TOTAL 16.5m³/s

RA1 LOUVRE MIN 14000 x 1350 APPROX 30 PA

EXH LOUVRE PER UNIT MIN 1150 x 1800 H

APPROX 10 PA.

SOLID DOORS TO CND.

50 MM PANEL TO ROAD.

13 NETHERHALL GARDENS. NTS 10085/SK1