

Acoustic Enclosures

Type AE

Specification:

We produce high quality acoustic enclosures tailor-made for each application. We do not have any standard sizes for the width, height or length of the enclosure.

The panel design is determined by the acoustic and aesthetic requirements of the clients and may be interlocking or mounted within a framework.

The enclosures may be paint finished. Our standard finish is epoxy polyester powder coat with a appropriate primer of aochrome or etch primer. All colours can be provided with delivery

subject to availability. Other finishes are available on request.

Standard door furniture is 'Kason' or similar, but we can accommodate any fittings currently available. Handles may be provided to accommodate suitable lock barrels.

Double-glazed windows can be fitted where required and are available with safety, laminated or wired glass as necessary.

Acoustic seals are fitted between all panels and doors, and frames are normally manufactured from neoprene.



Acoustic Panelling:

We can also offer a panelling system for acoustic enclosures. The panels are self-supporting and incorporate a jointing system. The panels can be supplied with a solid or perforated face.

The panels would be finished in powder paint or plastic coat to a standard Dobel colour.

The system can include single- or double-glazed windows and single or double doors either solid or glazed. The system can also be used for noise barriers and screening, cleanrooms and factory work refuges.

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The enclosures normally consist of acoustic panels comprising an outer layer of galvanised steel or aluminium sheet with an acoustic infill retained behind perforated or expanded galvanised steel or aluminium sheets.

The infill would be inorganic mineral wool semi-rigid slabs with a glass fibre tissue face.

The fibre would be inert, vermin-, rot- and moisture-proof, non-combustible, not support bacterial growth and packed to a density of not less than 45kg/m³.

The infill has been tested for fire and has a Class 1 spread of flame as measured to BS476: Part 7: 1971.

If required, the inner lining of the panels may be manufactured from a solid material instead of the standard perforated or expanded sheet.

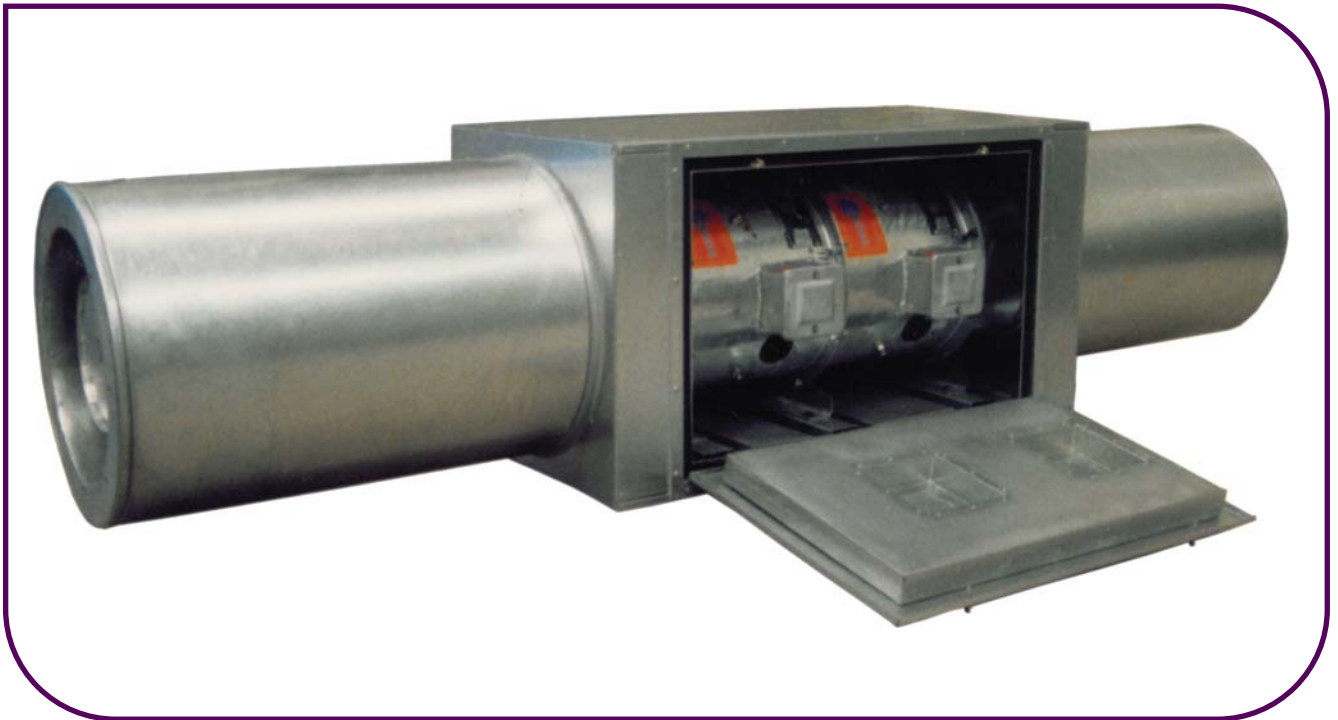
The enclosure may be supplied complete with intake and exhaust attenuators and/or cowls and louvres.

They may be self-supporting or built into an adjacent structure.



We can provide an acoustic enclosure complete with plant supplied by our client fitted into the enclosure.

The enclosures can be manufactured from a variety of materials such as stainless steel, galvanised steel, aluminium and polyvinyl chloride (PVC) or plastic-coated steel.



We can totally enclose fans and air handling equipment supplied to us by others to limit the amount of noise breakout to the areas surrounding the fans.

The enclosures would normally incorporate flexible connections and anti-vibration mounts with hinged or removable access panels for maintenance.

We would install a junction box external to the unit.

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Sound Reduction Index	Rw	63	125	250	500	1K	2K	4K	8K
100mm thick panel	34	21	23	28	28	31	42	53	56
80mm thick panel	33	20	22	27	27	29	40	51	57
50mm thick panel	34	19	20	26	31	30	41	47	55
100mm thick panel with Melinex	30	21	22	27	23	26	37	52	56
80mm thick panel with Melinex	30	20	21	26	25	25	38	51	53
50mm thick panel with Melinex	28	19	20	24	26	26	37	48	53

As tested by Sound Research Laboratories Ltd in accordance with BS ENO 140-3:1995

The panels have been tested by Bodycote Warrington Fire in accordance with the class definitions given in BS476: Part 7: 1997 the panels are classified as Class 1.

Sound Absorption Coefficient	125	250	500	1K	2K	4K
100mm thick panel	0.55	1.00	1.00	1.00	1.00	1.00
80mm thick panel	0.50	0.95	1.00	1.00	1.00	1.00
50mm thick panel	0.30	0.80	1.00	1.00	1.00	1.00
100mm thick panel with Melinex	0.25	0.40	0.30	0.15	0.15	0.10
80mm thick panel with Melinex	0.25	0.55	0.45	0.25	0.15	0.20
50mm thick panel with Melinex	0.20	0.25	0.35	0.25	0.15	0.15

As tested by Sound Research Laboratories Ltd in accordance with BS EN ISO 354: 2003

