

# architectural metalwork



SAS Architectural Metalwork encompasses a range of design led integrating products including:

Acoustic Baffles	Acoustic Wall Panels
Air Handling Units	Bespoke Ceilings
Binnacles	Bulkheads
Column Casings	Daylight Reflectors
Linear Grilles	Service Gantries
Solar Shading	Spandrel Panels
Wall Panelling	

On projects there is a requirement to integrate M&E services into the building design while providing functional accessibility. SAS architectural metalwork can provide integration while meeting design and durability requirements.

Architectural metalwork can provide the means of integration between horizontal and vertical planes. Vertical Bulkheads, Column Casings and Wall Cladding can provide the aesthetic integration to a suspended ceiling.

#### Finish

Aesthetic versatility can be achieved using architectural metalwork throughout projects. Corporate colour and design schemes can influence the final design; SAS Architectural Metalwork can meet these client requirements.

Manufactured from aluminium or steel architectural metalwork is finished with a durable polyester powder coat or a clear lacquer. A fine textured (SAS FT) or anti bacterial finish (SAS AB) is available. See page 36 for a full range of paint finish options.

#### Durability

The durability enables products to be installed early during the programme as they are humidity resistant. The clean surface is easily maintained, provide a robust finish that performs in demanding environments. As with SAS Metal Ceilings an exceptional 25 year product life can be achieved.

#### Off-Site Fabrication

Architectural Metalwork is manufactured off-site. The prefabrication of products reduce installation and build time on site. Bulkheads and Column Casings manufactured from metal can reduce on-site wastage by one third compared to traditional wet trades.

Architectural Metalwork Bulkheads can be installed in a shorter period of time compared to traditional plasterboard and finishing. This can greatly reduce project lifetimes especially where limited engineering hours are available.





SAS Architectural Metalwork enables creative and expressive design to be conveyed across a project. Innovative design features can be designed and manufactured from concept.

Where client certainty is required, or where a close design and manufacturing relationship is required, the SAS Project Management team are available to assist, see page 10 for further details

As with metal ceilings, SAS Architectural Metalwork offers many sustainable advantages including:

- Reduced installation costs
- Long term value in terms of whole of life costs
- Recyclable at end of life with residual value
- 20% minimum recycled content (steel) for raw materials, 70% for aluminium.

Full details on each product can be found in the SAS Architectural Metalwork brochure and on the website, [www.sasint.co.uk](http://www.sasint.co.uk).



**Acoustic Baffles** are suspended vertically providing acoustic absorption, they can be manufactured for all applications from commercial offices to large open atrium.

**Acoustic Wall Panels** can meet any projects acoustic requirements. In educational facilities this enables compliance with BB93.

**Bespoke Ceilings** encompasses a range of radial, vaulted and waveform ceilings. Further details on the range of bespoke ceilings can be found on page 95.

**Information Binnacles** can incorporate any number of services such as public telephones, information screens, fire services and air handling.

**Metal Bulkheads** are available in any size or shape and provide functional M&E service integration.

**Column Casings** manufactured from metal offer outstanding durability, enclosing services including air handling whilst providing a aesthetic finish.

**Solar Shading and Daylight Reflectors** have been designed and installed in a number of environments from shopping centres to large airport terminals.

**Linear Grilles** for air handling can be designed and manufactured to any design. Curved linear grilles can be rolled to tolerance specification for open curved atrium designs.

**Spandrel Panels**, either flat or curved can be produced to provide a durable acoustic solution to finish structural spans in atria or other open voids.

**Wall Panelling and Cladding** can provide a durable finish for a range of projects. The panels can be reinforced to achieve specific impact resistance. Buffer and hand rails can be integrated into the design while SAS fixings allow for rapid access to services.

Full details on each product can be found in the SAS Architectural Metalwork brochure and on the website, [www.sasint.co.uk](http://www.sasint.co.uk).



bespoke ceilings  
radial, trapezoidal, vaulted, waveform



## System Description

SAS bespoke ceilings encompass a wide range of design options and include radial, vaulted and waveform ceilings.

Ceilings can be designed to fit any building design or shape. The tiles can be manufactured to meet the building module size with curved or trapezoidal tiles and profiles available.

For external environments, subject to wind loading, differing options can be manufactured.

Semi-external ceilings can be produced, where sub-terrain and undercroft car parks must meet U-Value requirements, an insulated suspended metal ceiling can ensure that U-Values are maintained while providing a clean durable finish.

## Finish

Polyester Powder coated supplied as standard with a RAL 9010 smooth finish; a fine textured finish (SAS FT), anti-bacterial coating (SAS AB) and other colours are available. See page 36 for a full range of paint finish options.

## Shape

Tiles are available in square, rectangular mega panels, coffered, curved and trapezoidal forms to meet individual requirements.

## Perforation

Typically supplied with 1522, 1820 or perforation. See page 103 for full details and other options.

## Weight

Approximately 15kg/m<sup>2</sup> for waveform steel tiles, acoustic/insulation pad and suspension system.

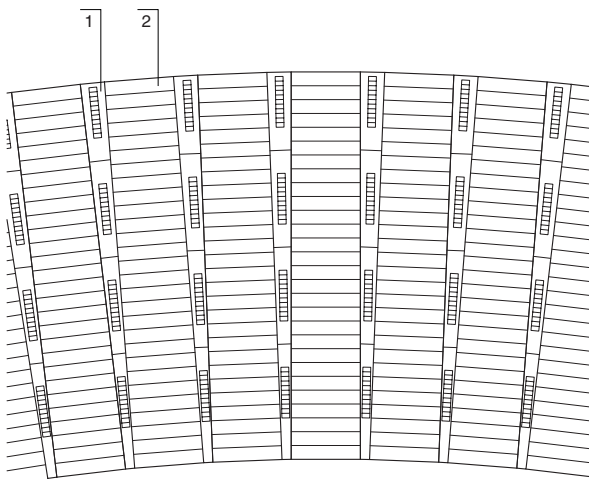
Further details on the range and applications of bespoke ceilings can be found in the SAS Architectural Metalwork brochure.

In addition to bespoke ceilings, the SAS Architectural Metalwork range includes Bulkheads, Column Casings, Acoustic Wall Panelling, Acoustic Baffles, Binnacles, Solar Management, Service Gentries and Walkways and other associated metal products, further details are available on pages 189–192.

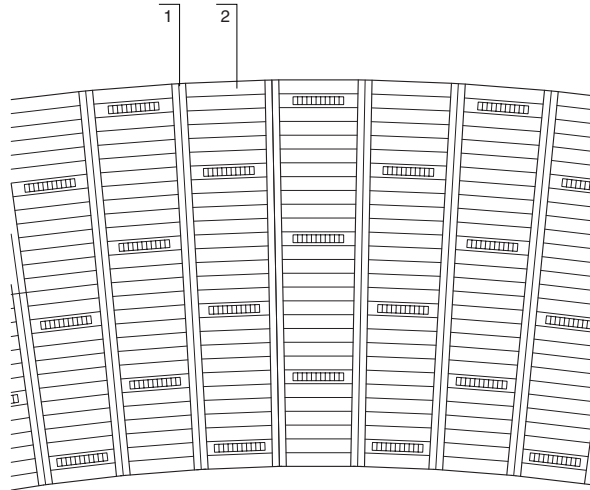


Radial ceilings can be designed and manufactured to suit the curvature of a building. The design can avoid the need to cut tiles on site reducing site wastage. A range of segmented, curved or trapezoidal tiles can ensure that the ceiling follows the exterior details.

Alternatively, trapezoidal profiles for SAS System 330 allow standard rectangular filed tiles to be installed.



1] Trapezoidal C-Profile 2] Ceiling Tiles



1] C-Profile 2] Trapezoidal Ceiling Tiles



A vaulted ceiling can maximise floor to ceiling height and with the use of lighting effects can give the perception of a higher ceiling level. They can be straight, angled, barrel vault or waveform design.

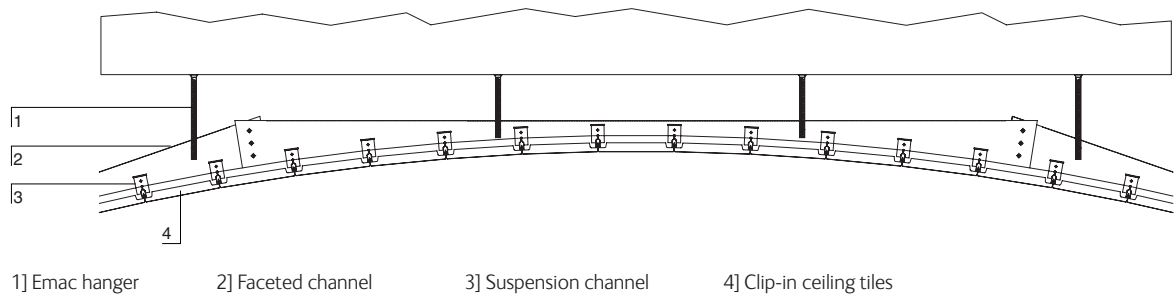
Vaulted ceilings can be designed using a number of different ceiling systems. For smaller vaults individual curved mega panels can be produced.

For larger vaults clip in or lay in tiles can be specified to give a gentle curve to the ceiling plane using flat or even curved tiles and profiles.

An example of a clip in system is highlighted below, the SAS Omega Channel is suspended from a curved, faceted former that is supported from the soffit.

Lay-in systems are supported from a curved profile suspension grid. A series of linear tiles are used to create the effect of a curved ceiling plane.

Isolated islands of vaulted ceiling areas can be integrated into any ceiling plane.



# vaulted triangular panels

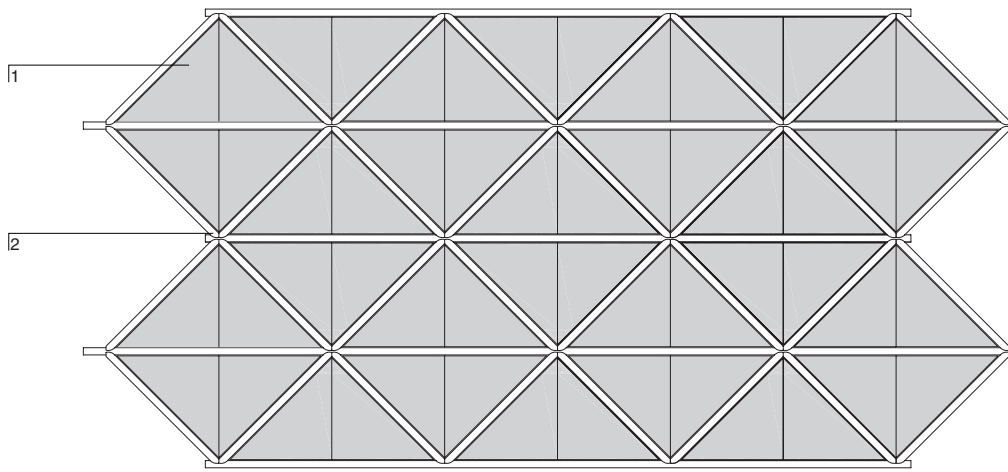
With large spaces, triangular mega-panels can be manufactured to provide a visually effective ceiling design.

This functional practical ceiling design can enable panels to be simply fixed to the structural metalwork. Where the beams are joined together at node points they form a series of vaulted coffers.

Tiles can be constructed using a concealed fixing system that allows panels to hinge down individually for void access.

Manufactured from lightweight aluminium these perforated and plain tiles can be installed internally and externally.

Externally the panels can be designed, manufactured and installed to withstand extreme weather conditions including tropical typhoons.



1] Triangular Ceiling Tile    2] Structural Beam



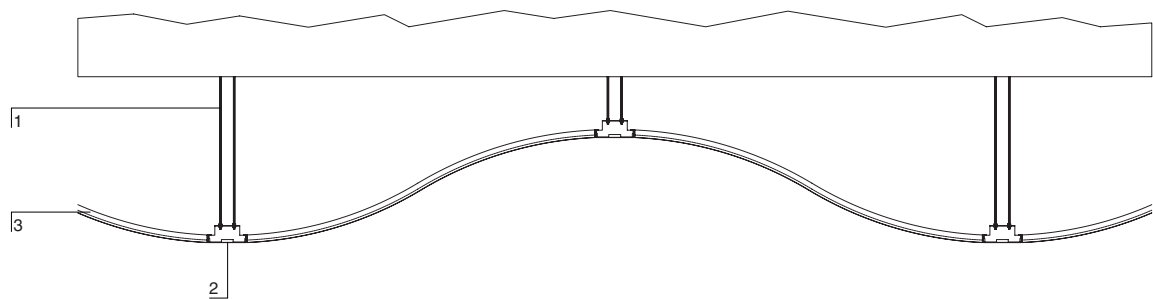
# waveform ceilings

A vaulted waveform ceiling can provide a visually stunning and practical ceiling which combines acoustic and integration requirements.

In a commercial office environment, the floor to ceiling height can be maximised whilst allowing room for structural metalwork and mechanical services to be integrated into the ceiling void.

Curved suspension profiles combined with curved linear tiles can enable tight curved ceilings to reflect a flowing design.

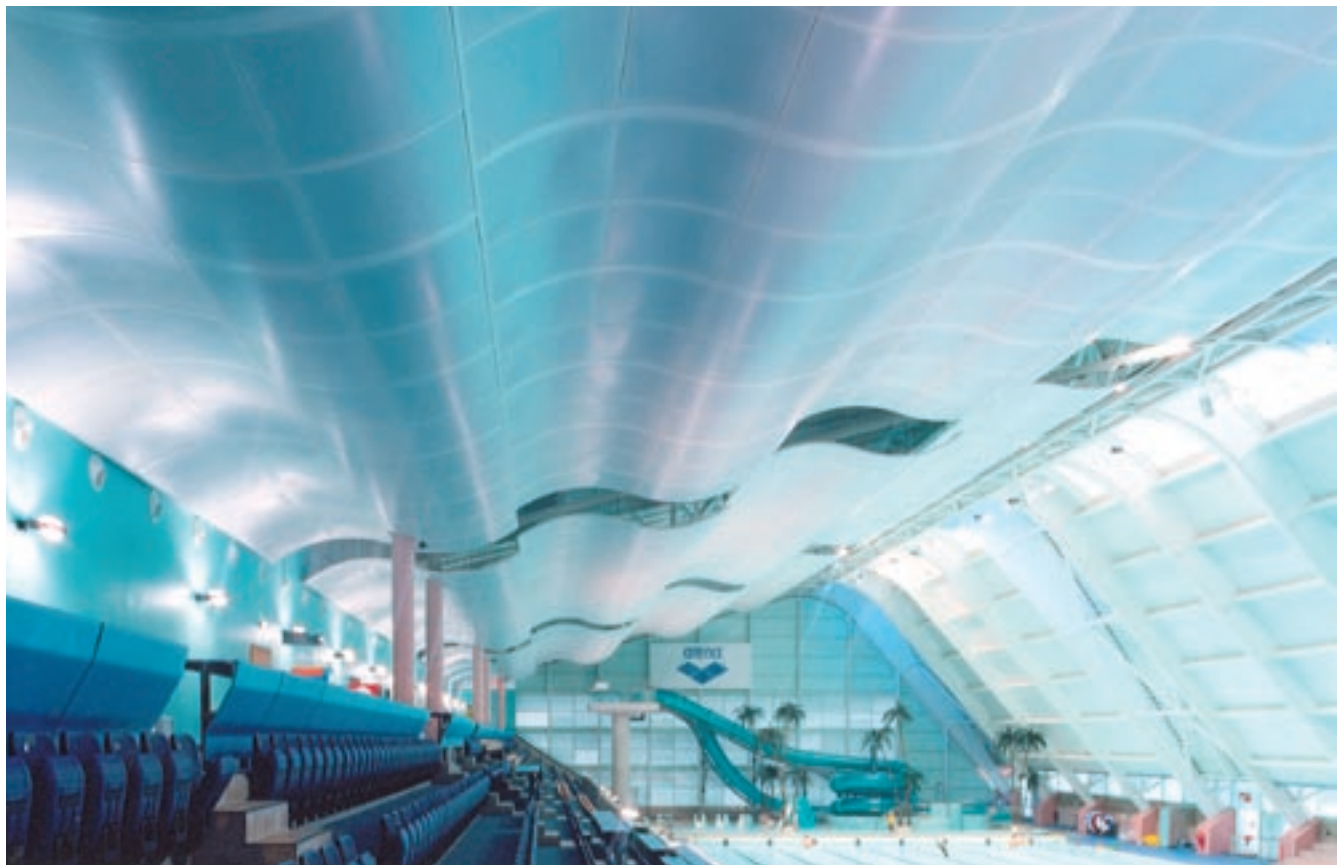
Manufactured from aluminium, the acoustics within swimming pools and other leisure environments can be managed with reverberation times reduced, see image below.



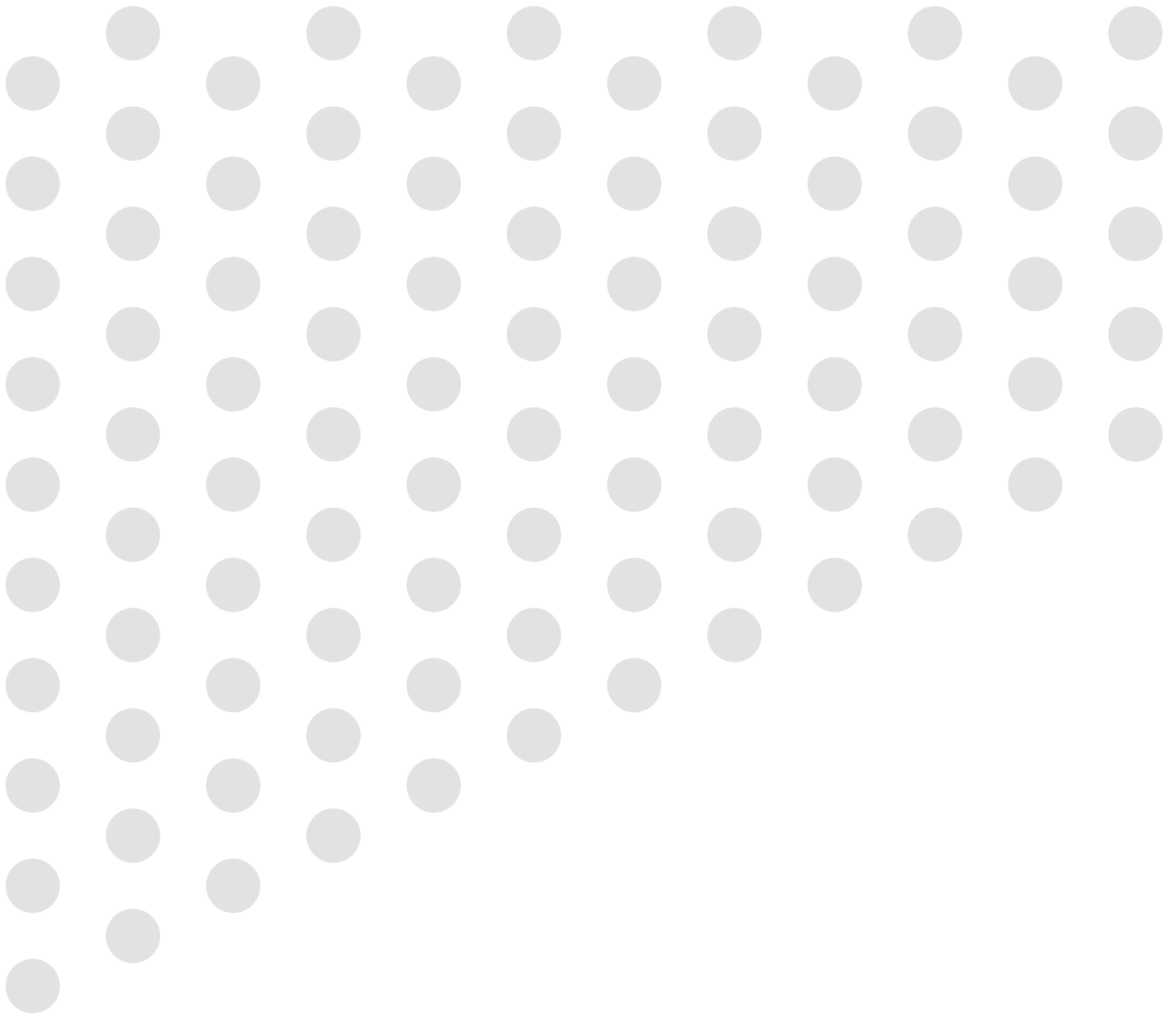
1] Threaded Rod

2] C-Profile

3] Curved tile







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