PROGRESSIVE MATERIALS

TECHNICAL DATA SHEET

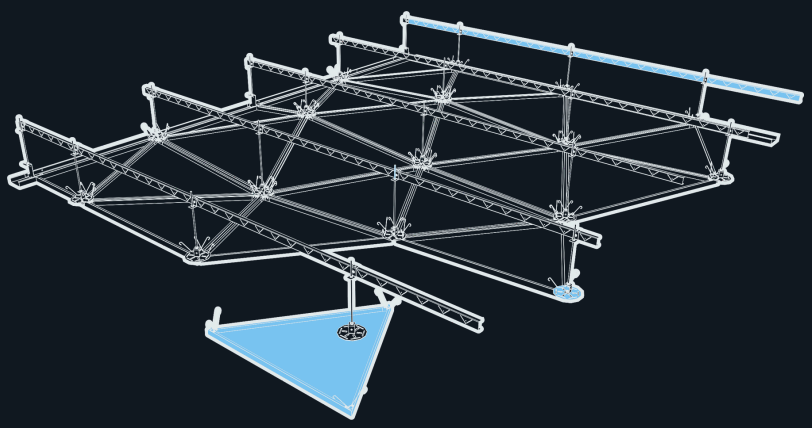
SAS INTERNATIONAL EST. 1968

METAL CEILINGS

SAS900

Adjustable nodal ceiling of triangular tiles for faceted forms.

SUSPENDED CEILING | NODAL GRID | HINGE-DOWN TILE



EXCLUSIVE DISTRIBUTOR

SAS International metal ceilings are supplied exclusively through Progressive Materials.

SYSTEM

Suspended ceiling
Triangular hinge-down tiles

ACOUSTICS

Absorption class A–C
16 mm acoustic pad

REVISION

Rev 1
November 2026

SAS**900** Polynode

SAS International



Overview

SYSTEM GROUP	GRID
	
Suspended Ceiling	Concealed Grid SAS Torsion Spring Suspension

TILE

Torison Spring

ACOUSTICS
A–C
Absorption class

ACCESS	SYSTEM WEIGHT	LIFE EXPECTANCY
	**10 Kg/m²**	**25yr**
Hinge down access		In excess of

SAS**900** Polynode



SAS900 Polynode is an adjustable nodal ceiling system used to create multi-faceted ceiling designs. This polynodal system meets the demand of increasingly varied and complex ceiling surfaces in modern building design.

Simple equilateral triangle tiles can create a near infinite variety of polyhedral ceiling forms. Our patent-pending nodal system can also be used to transition from ceiling to wall.

Access
SAS900 offers full access by way of hinge down tiles, suspended vertically from two nodes. Alternatively, tiles can be completely removed.

Grid System

- EMAC Grid suspension with threaded rod and node plate
- +/- 125mm adjustment from adjacent node (standard system)
- System allows for faceted horizontal to vertical transitions (ceiling to wall)

Highly complex geometrical surfaces can be installed using standard components, simply by adjusting the vertical position of the node. Corner anchor points suspend tiles which can be adjusted to create a free form ceiling. Our patent-pending nodal system can also be used to transition from ceiling to wall.

Perforation
SAS900 Polynode tiles can be supplied with any standard SAS perforation pattern. Bespoke patterns are also available on request.

Acoustic Treatment
16mm acoustic pad as standard (80kg density mineral-wool with black tissue face, foil back and sides). Other acoustic treatments are available, depending on project requirement. Please contact our technical department for more information.

Weights & Sizes

- 10kg / m^2
- Standard modules are mounted on EMAC grid with 866mm centres
- Standard nodes are mounted every 1000mm
- Tiles are triangular as standard (980mm on all sides)
- Min/Max tile dimensions are 280mm / 1280mm

Just one tile size significantly reduces the design and manufacturing costs associated with this type of geometric ceiling. Whilst the system is drawn as standard with triangular tiles, any number of simple polygonal shapes can be manufactured. Please contact our technical design team for more details.

Integration
Ceiling tiles can be formed with apertures during manufacturing for integration with lights and other services. SAS900 panels may require stiffeners to support centrally mounted lighting.

Lighting and other mechanical and electrical services can add significant loads to a ceiling. Loads applied to SAS900 ceiling tiles must not exceed 2kg. For loads greater than 2kg, we would recommend using independent suspension.

If you have a concern over loads, please contact our technical team for advice.

Finishes

- RAL 9010, 9003 and 9016 (White) polyester powder coat (PPC) as standard
- Available in full range of standard RAL colours
- Anti-Microbial PPC coatings

Other specialist finishes are available on request. For more information on non-standard finishes, please contact our technical services team.

Standard System
Simplest version using a single size tile. Minimal or no design input (unless deviating from tile size and perimeter detail). Standard flat grid.

Application Drawings: 0446, 0447, 0448.

Advanced System
Simple curved grid allowing for more complex installations. May use some different size tiles. Will require some design input.

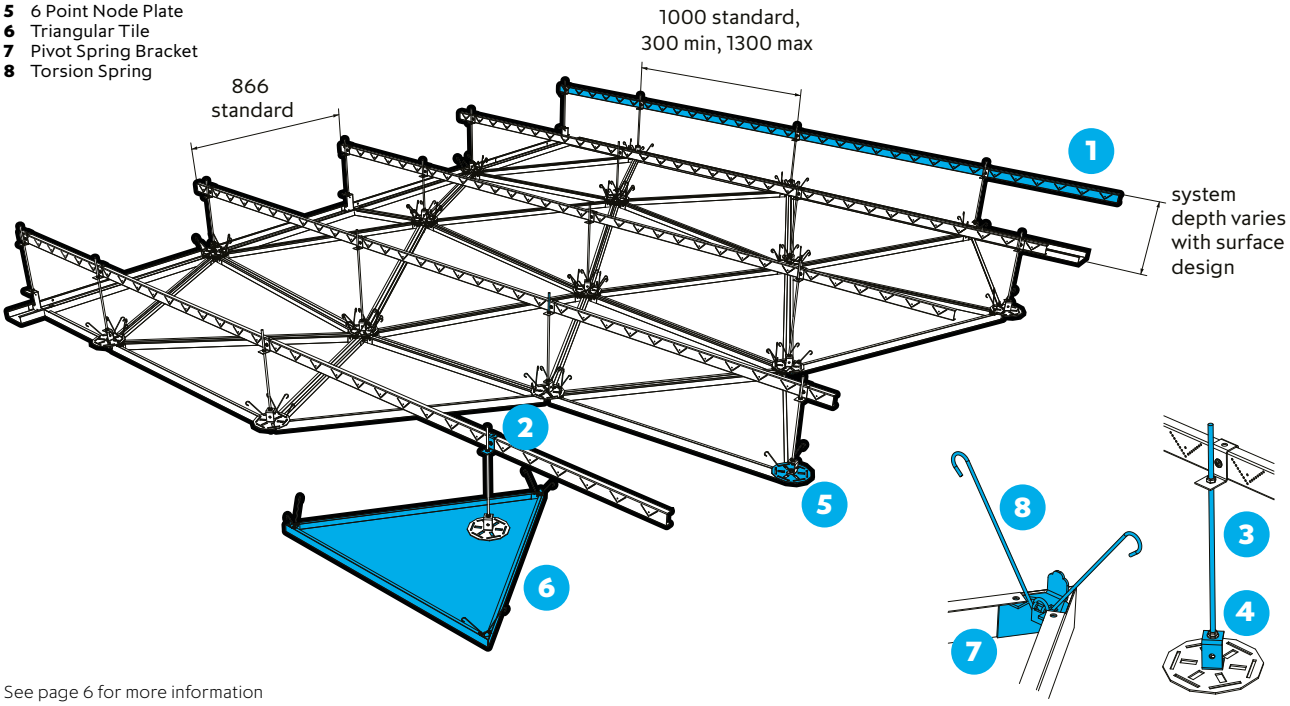
Application Drawings: 0449, 0450.

Bespoke Designs
SAS900 Polynode can replicate almost any complex geometry. Page 9 details a surface analysis example. For fully bespoke designs, SAS Special Projects can assist you in realising highly complex designs from concept to completion. Please contact SAS Special Projects for further information on this design service.

SAS**900** Polynode

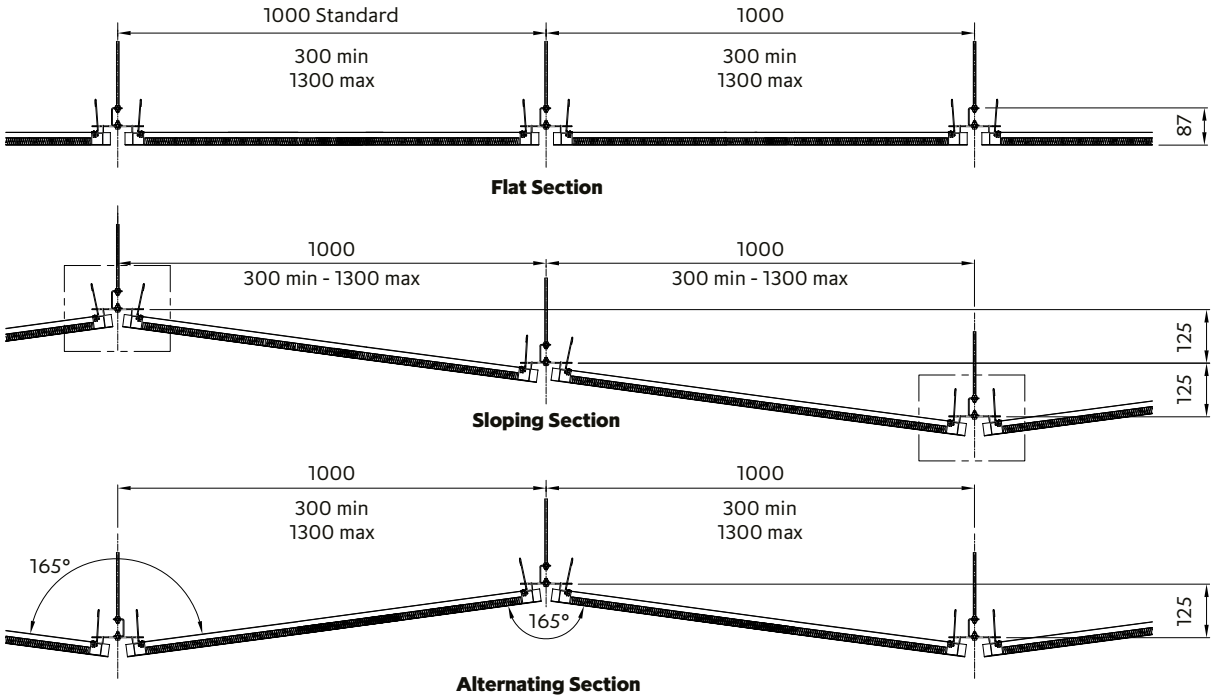
Perspective Drawing

1 Emac Grid
2 Emac Hook over Bracket
3 Threaded Rod
4 Basic Node Bracket
5 6 Point Node Plate
6 Triangular Tile
7 Pivot Spring Bracket
8 Torsion Spring



See page 6 for more information

Section Drawing

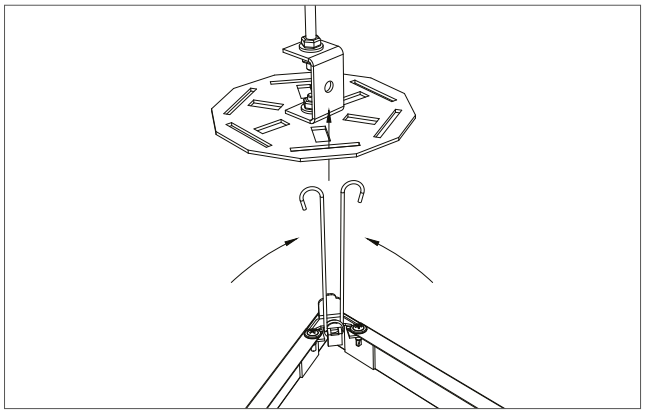


All dimensions are in mm.

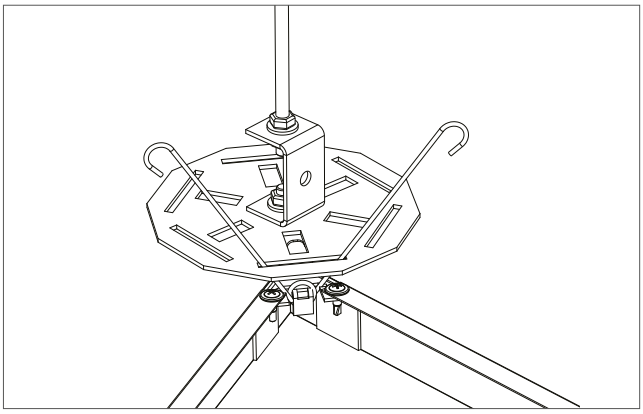
SAS**900** Polynode

Features

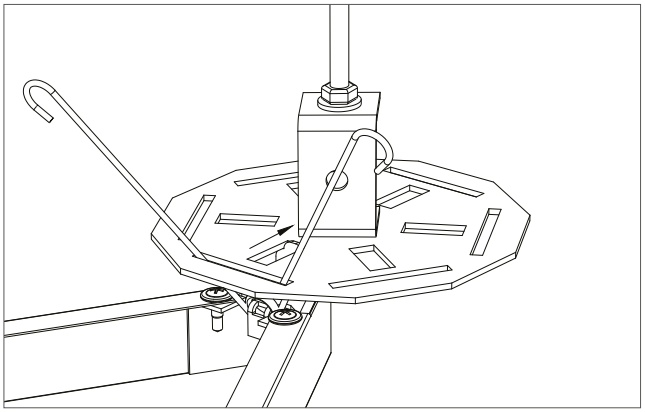
At the core of SAS900 Polynode is a flexible node interface which allows a single size tile to fit.



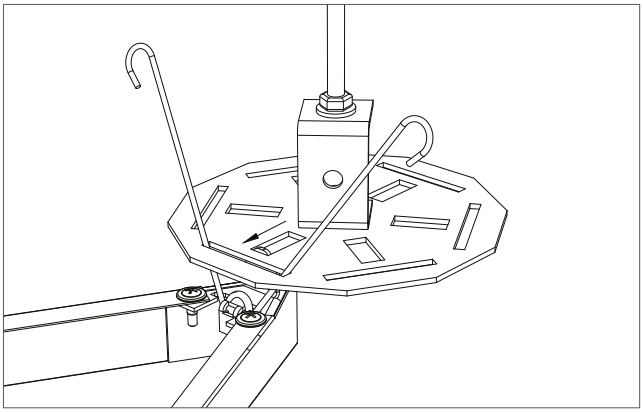
Tile installation



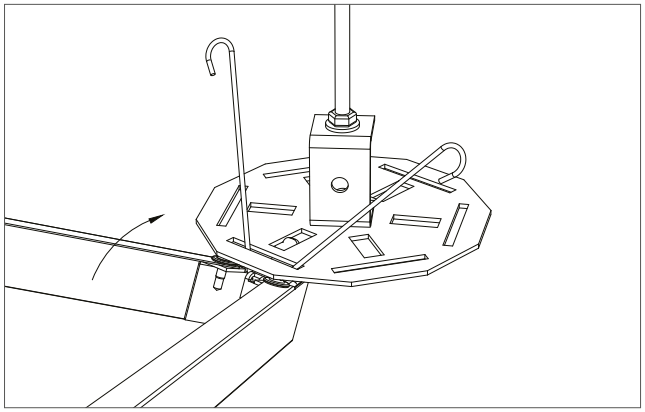
Tile in default position



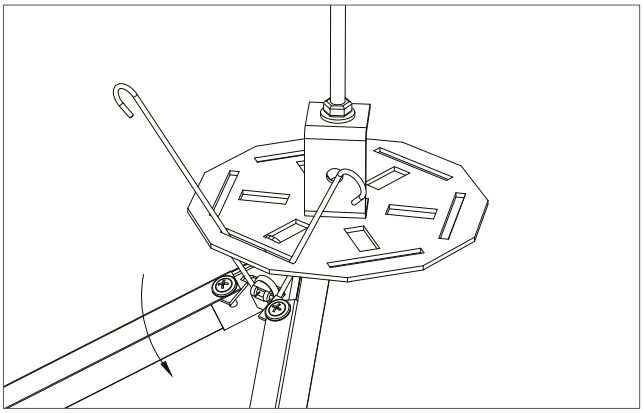
“Compressed” tile



“Stretched” tile



Pivoting up



Pivoting down

SAS**900** Polynode

System
The Polynode system allows the same components to be installed in any number of arrangements by simply altering the node height.







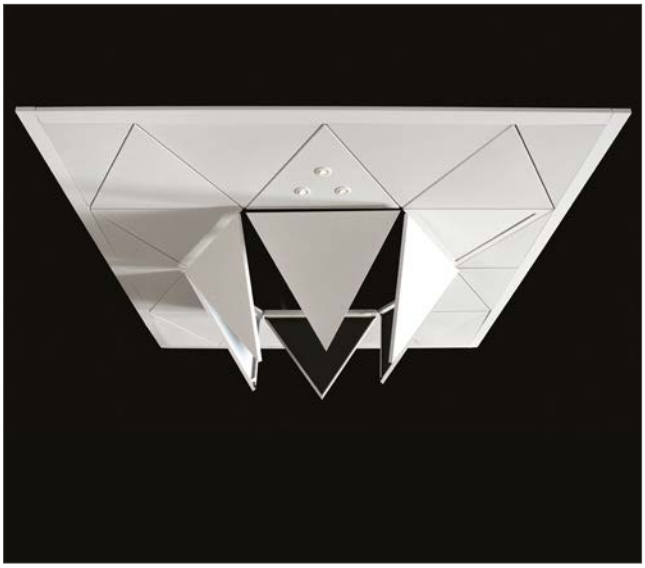

SAS**900** Polynode

Void Access
Access is gained by lowering the tile and releasing a corner spring from the node. The tile will then hinge down on the two remaining springs.







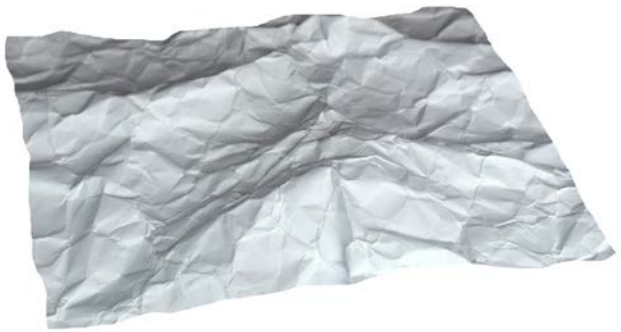


SAS**900** Polynode

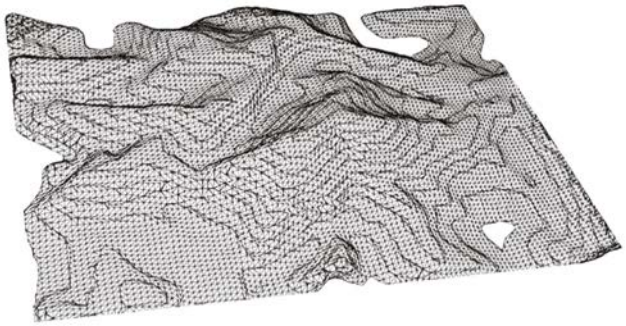
Surface Analysis
The Polynode system can be fully tailored to suit. The basic version of the system greatly simplifies the process of providing a multi-faceted ceiling within certain bounds.

At the opposite end of the spectrum SAS International offers a full design support service. Our approach analyses any complex surface and optimises the arrangement using SAS900.

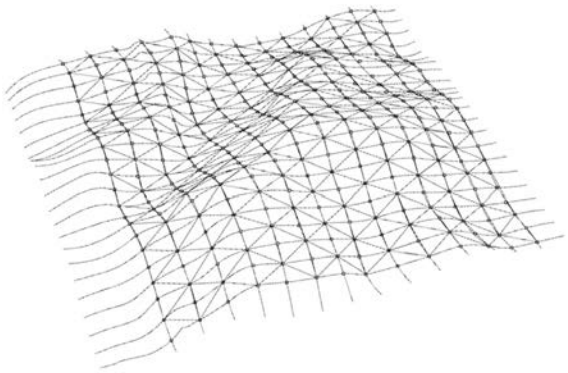
Illustrated below, 3D scanning software is used to generate a refined nodal grid based on the existing, highly complex geometry. This detailed surface analysis enables us to replicate the desired form using the Polynode system.



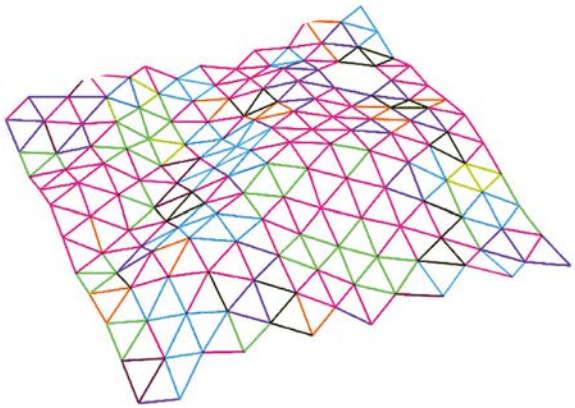
1.



2.



3.



4.

This example illustrates the basis of our approach. We used a piece of crumpled paper but this could easily be a 3D model or set of co-ordinates of almost anything.

1. A complex form is digitally scanned
2. A mesh point cloud is generated based on the resulting scan data
3. The scan is mapped to a virtual surface with an overlaid grid
4. The geometry is simplified to reduce tile count and produce a basis for designing the ceiling



SAS**900** Polynode





SAS**900** Polynode

SAS PLUS

SAS Plus offers the system designer access to SAS' in-house design team to collaborate on bespoke ceiling specification. Systems can be variants of standard SAS offerings, or completely bespoke designs.
Call us for more details.

SAS International
31 Suttons Business Park
London Road
Reading
Berkshire
RG6 1AZ

UK
+44 (0) 1189 290 900
sasint.co.uk
enquiries@sasint.co.uk

Republic of Ireland
+353 (0) 1899 1134
sasint.ie
enquiries@sasint.ie

Middle East
+971 (0) 4885 5546
sasint.ae
enquiries@sasint.ae

Australia
+61 (0) 2 8823 0000
sasint.com.au
info@sasint.com.au

International
+44 (0) 1189 290 900
sasintgroup.com
enquiries@sasintgroup.com

EXCLUSIVE DISTRIBUTOR

DISTRIBUTED EXCLUSIVELY BY PROGRESSIVE MATERIALS

For technical advice, specification support and orders, contact our team.

PROGRESSIVE MATERIALS

PHONE
08 9445 8300

EMAIL
info@progressivematerials.com.au

WEB
progressivematerials.com.au