

# SOUNDSCAPES SHAPES

ACOUSTICAL CLOUDS





## BENEFITS

- Enhance acoustics in open areas
- Improves sound absorption and reduces reverberation time
- Aesthetically defines space
- Options of 10 flat “Shapes” panels and three standard sizes
- Install individually or in groups – create your own design
- Adjustable angle of inclination
- Complete range of suspension accessories
- Available in 13 new semi-custom shapes
- Adjustable height with multiplane panel hook kits

## APPLICATION AREAS

- Offices
- Education
- Reception and lobbies
- Restaurant and lounges
- Leisure centers
- Transport terminal (Airport and Metro hubs)
- Naturally lit areas with sky light



## COLOR SELECTION



White  
(TWH)



Shell  
(SHL)



Tangerine  
(TAN)



Cranberry  
(CRB)



Moss  
(MOS)



Kiwi  
(KWI)



Reef  
(REF)



Lagoon  
(LGN)



RAL co-ordinated<sup>#</sup>

\*Due to printing limitations, shades may vary from actual product.

<sup>#</sup>RAL shades may be used for color co-ordination purpose only.

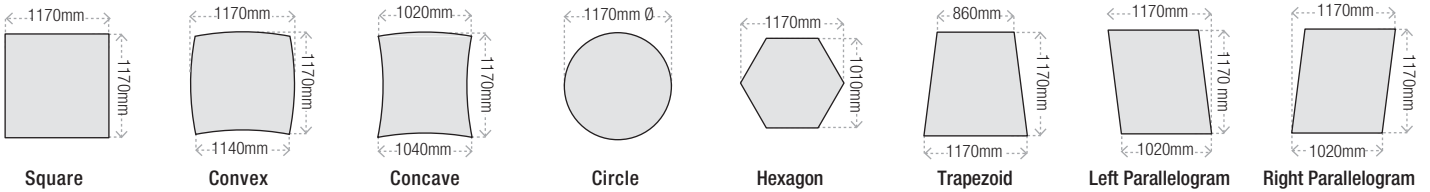
# PRODUCT SELECTION

## Available Shapes

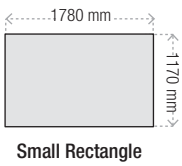
 All SOUNDSCAPES Shapes are flat panels

SOUNDSCAPES Shapes are flat, 30 mm thick, glass fibre panels available in 10 standard shapes and 13 new semi - custom shapes. The face and edges are finished with painted glass fibre face scrim. SOUNDSCAPES Shapes are quick and easy to install, requiring no special tools and can easily be adapted to a variety of heights and angles. Special accessories allows to group the panels together for cloud formation.

### Nominal 1200 x 1200 mm shapes Shown in finish view from below ceiling

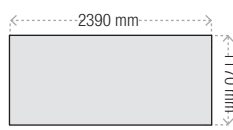


### Nominal 1200 x 1800 mm shapes



Small Rectangle

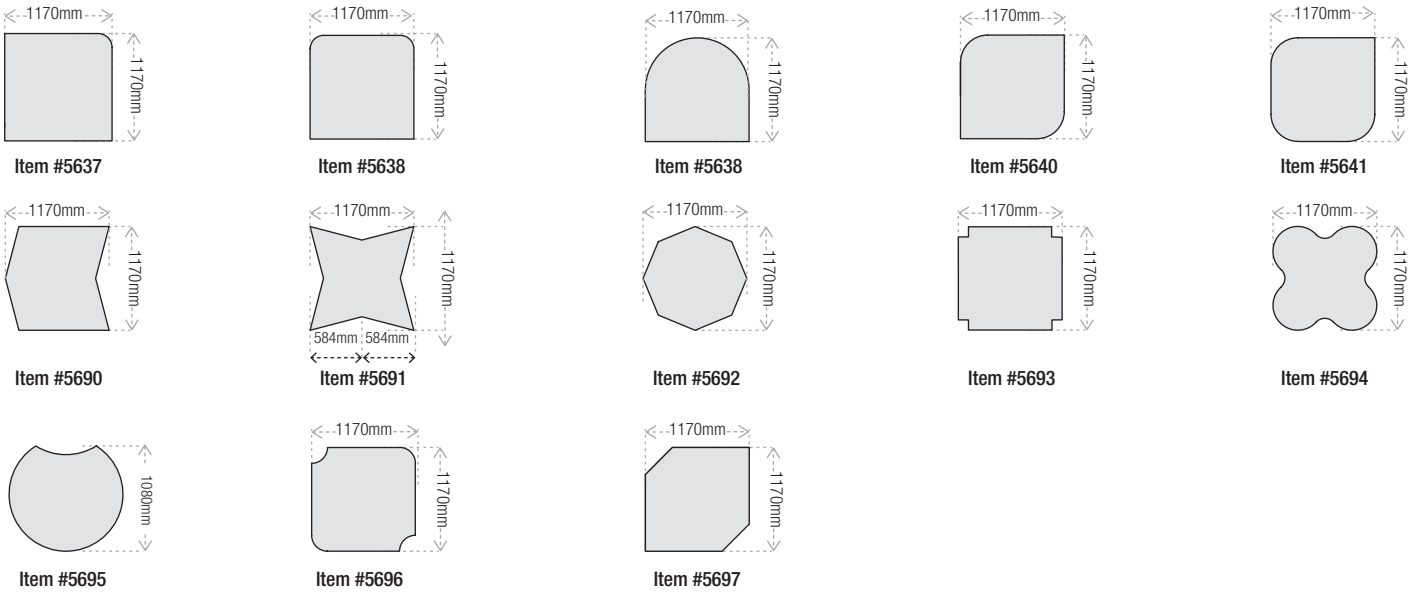
### Nominal 1200 x 2400 mm shapes



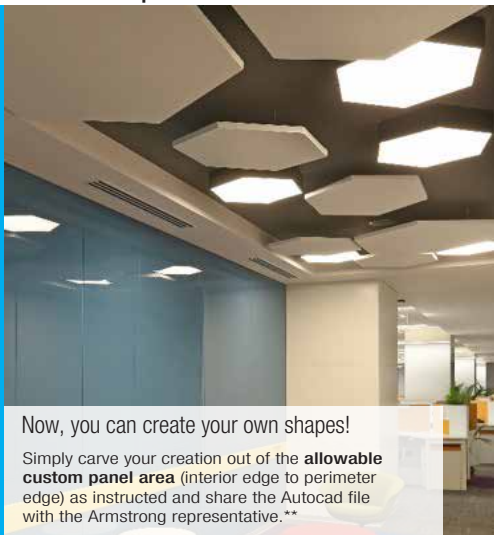
Large Rectangle



### Semi - Custom Panel Selection Shown in finish view from below ceiling

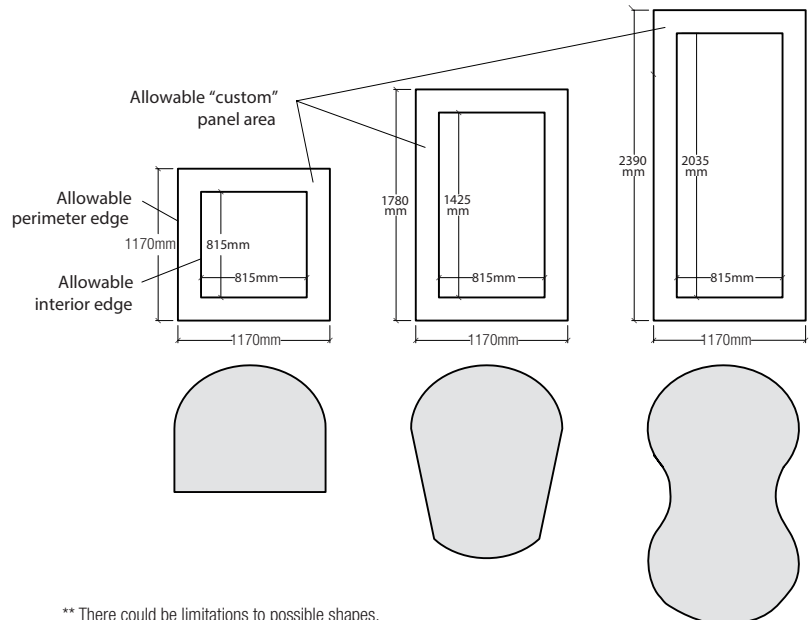


### Custom Shapes



Now, you can create your own shapes!

Simply carve your creation out of the **allowable custom panel area** (interior edge to perimeter edge) as instructed and share the Autocad file with the Armstrong representative.\*\*



\*\* There could be limitations to possible shapes. Please discuss with your Armstrong representative to understand more details.

# PERFORMANCE

The installation of SOUNDSCAPES Shapes in a reverberant space can significantly reduce the background noise and reverberation time, enhancing speech intelligibility.

## SOUND ABSORPTION IN SABIN

The Sabin is the unit of total sound absorption provided by an object. This is the preferred metric for “space absorbers” such as clouds, canopies or baffles installed within an architectural space.

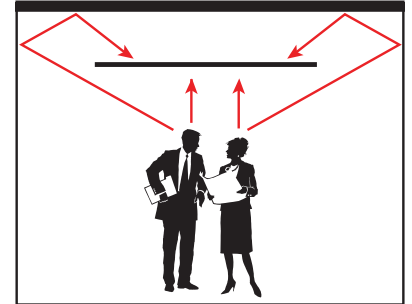
Depending on its size, each SOUNDSCAPES Shapes provides between 1.61 and 5.05 Sabin of sound absorption per piece, calculated as an average of 500 – 4000 Hz (EN ISO 354).

SOUNDSCAPES Shapes provide greater sound absorption than a continuous ceiling of the same visible surface area because the sound is absorbed from both the front and back surfaces.

Which means one SOUNDSCAPES Shapes can absorb up to 88% more sound than the same visible surface area of a traditional wall to wall Optra high acoustic ceiling.

A number of factors may affect the installed acoustical performance including:

- Size and shape of cloud
- Number of clouds, their layout and suspension height



# PERFORMANCE



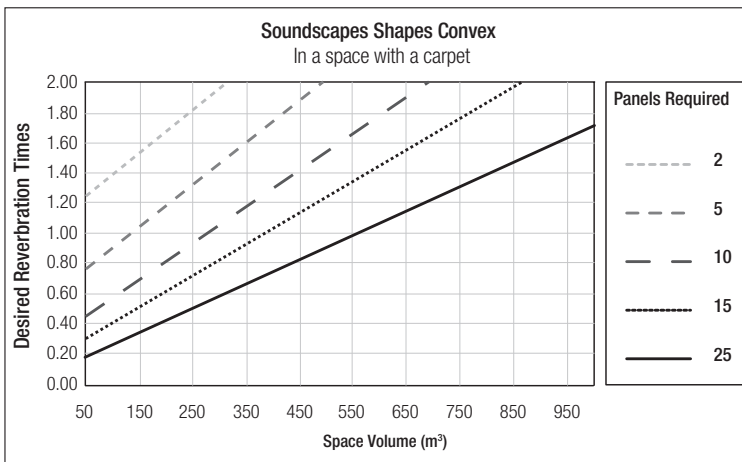
## For SOUNDSCAPES

### Shapes Convex

#### Meeting Room with:

- A volume of 100 m<sup>3</sup>
- Only with a carpet
- A soffit at 3.5 metre height
- A required RT of 0.4 – 0.6 sec
- Will need 7 Concave and 8 Convex canopies (Refer below graph)

### Acoustical Panel Calculator



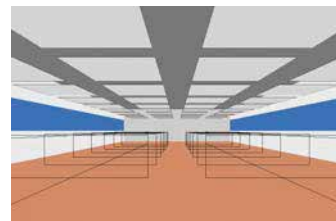
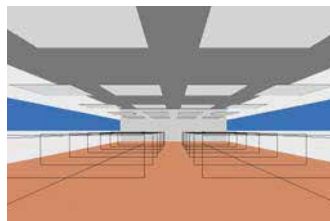
Sound absorption – Sabin (metric)		
Item no.	Shape	Sabin*/item
SSSQ6FTWHI	Square	2.5
SSCE6FTWHI	Convex	1.96
SSCA6FTWHI	Concave	2.31
SSC16FTWHI	Circle	1.96
SSHE6FTWHI	Hexagon	1.61
SSTR6FTWHI	Trapezoid	2.18
SSLP6FTWHI	Left Parallelogram	2.18
SSRP6FTWHI	Right Parallelogram	2.18
SSSR6FTWHI	Small Rectangle	3.82
SSLR6FTWHI	Large Rectangle	5.12

\* Average of 250 – 4000Hz in accordance with EN ISO 354-2003. These values may vary depending on the No. of units, spacing and suspended distance of units.

### EXPOSED STRUCTURE



### SOUNDSCAPES SHAPES



450 square metres Exposed Structure (15 metres x 30 metres), 4.5 metres to deck, drywall with windows two sides, commercial carpet

Acoustic Solutions	No Ceiling	SOUNDSCAPES Shapes @ 25% of ceiling	SOUNDSCAPES Shapes @ 50% of ceiling
	Exposed Structure	78 Panels: Square	156 Panels: Squares
Reverberation Time (Sec)	3.4	1.3	0.8
RT Improvement (%)	ref	62%	76%
Sound Level Reduction (dB)	ref	- 3 dB	- 5 dB
Sound Absorption in Sabin (metric) for Coverage Area		78 panels @ 2.48 Sabin/panel = 193.4 Sabin	156 panels @ 2.48 Sabin/panel = 386.9 Sabin

**Notes:** All values for the averaged sound absorption coefficient, Sabin absorption, and dB level reduction of 125Hz-4kHz, are based on the speech frequency range of 500-4000Hz. Reverberation Time is an average of 500 & 1000Hz only. Sabin values are all metric.

# SUSPENSION SYSTEM OPTIONS

## INDIVIDUAL SUSPENSION

SOUNDSCAPES Shapes are extremely versatile and can be positioned individually also. Create your own personal designs & layouts with the flexibility of the product & installation.

## ENGINEERED GROUP CONFIGURATION

Using a grouping frame allows a perfect alignment of multiple shapes close to each other. Armstrong provides grouping frames and accessories to ensure proper alignment of frames.

You can group panels in unlimited combinations. Grouping layout ideas are suggested further. It is also possible to create your very own personal design and layouts by using our online "Design Tool".



Frame Alignment Kit



Panel Hook Kit



Grouping Frame Kit



Wall Hanging Kit



Frame Splice Kit



Deck Hanging Kit



Escutcheon Kit (Optional)



Drywall Hanging Kit



Multi-plane Hanging Kits

### Multi-plane Hanging Kits

(For use when hanging panels at heights below Panel Hook Kit (5454))

#### 5629 – 25mm Drop Hook Kit

- (2) 115mm hooks
- (2) 140mm hooks
- (8) screws

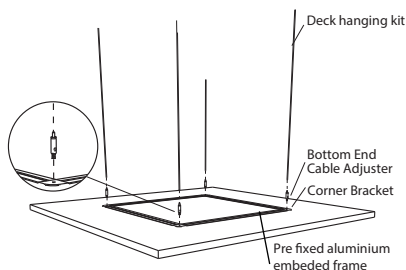
#### 5631 – 75mm Drop Hook Kit

- (2) 165mm hooks
- (2) 190mm hooks
- (8) screws

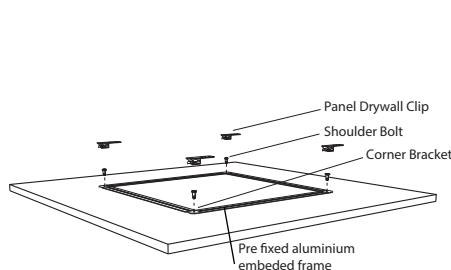
#### 5630 – 50mm Drop Hook Kit

- (2) 140mm hooks
- (2) 165mm hooks
- (8) screws

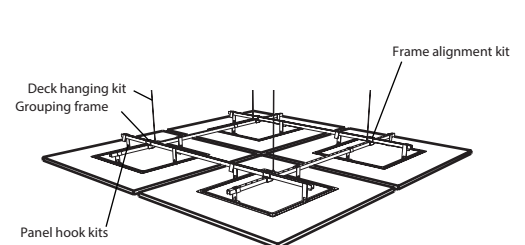
### 1. Independent Suspension



### 2. Individual Attachment to Drywall



### 3. Engineered Group Suspension



# WAYS YOU CAN SUSPEND SOUNDSCAPES SHAPES IN GROUPS

**GROUPING IDEAS** – with standard accessory kits. Group applications always require more than one deck hanging kit. You can group shapes in unlimited combinations. Below are a few ideas for ready reference.

## 4-Panel Square Group Layouts

To create these kinds of groups with a minimum of 50mm spacing between shapes, you need to order:

(4) shapes: (4) Convex (4) Concave (4) Square (4) Circle (4) Hexagon (4) Trapezoid (4) Left Parallelogram (4) Right Parallelogram

+  
 (2) Deck Hanging Kits (1) Frame Alignment Kit  
 (1) Grouping Frames Kit (4) Panel Hook Kits

## 4-Panel Linear Group Layouts

To create these kinds of groups with a minimum 50mm spacing between shapes, you need to order:

(4) shapes: (2) Convex (2) Concave (4) Convex (4) Concave (4) Square (4) Circle (4) Hexagon (4) Trapezoid (4) Left Parallelogram (4) Right Parallelogram (2) Left Parallelogram (2) Right Parallelogram (2) Trapezoid (1) Left Parallelogram (1) Right Parallelogram

+  
 (3) Deck Hanging Kits (1) Frame Splice Kit (2) Frame Alignment Kits  
 (2) Grouping Frame Kits (4) Panel Hook Kits

## 9-Panel Square Group Layouts

To create these kinds of groups with a minimum 50mm spacing between shapes, you need to order:

(9) shapes: (5) Convex (4) Concave (9) Square (9) Circle (5) Square (4) Circle (9) Hexagon (9) Trapezoid (9) Left Parallelogram (9) Right Parallelogram (6) Left Parallelogram (3) Right Parallelogram (2) Trapezoid (1) Left Parallelogram (1) Right Parallelogram

+  
 (5) Deck Hanging Kits (3) Frame Alignment Kits  
 (2) Grouping Frame Kits (9) Panel Hook Kits

## 4-Panel Rectangular Layout

To create these kinds of groups with a minimum of 50mm spacing between shapes, you need to order:

(4) shapes: (2) Square & (2) Small Rectangle

+  
 (3) Deck Hanging Kits (1) Frame Alignment Kit  
 (1) Grouping Frame Kit (4) Panel Hook Kits

## 7-Panel Group Layouts

To create these kinds of groups with a minimum of 50mm spacing between shapes, you need to order:

(7) shapes: (7) Hexagon or (7) Circle

+  
 (5) Deck Hanging Kits (3) Frame Alignment Kits  
 (2) Grouping Frame Kits (7) Panel Hook Kits

Design Consideration: SOUNDSCAPES Shapes maintain a natural sag that may be noticeable when installed 150mm or less apart. Deflection up to 3mm has been documented in some cases.

**NOTE:** See Installation Instructions and details on typical group configurations. CAD details showing various spacing options depending on panel shape are also available on request. Installation will require field cutting of the grouping frames. Increasing the spacing between shapes may require additional hardware. If you need assistance identifying what and how many accessory kits are needed for your project, please contact your Armstrong representative.

## PHYSICAL DATA

### MATERIAL

Soundscapes Shapes have glass fibre substrate.  
Thickness: 30mm

### SURFACE FINISH

Durable scrim with factory-applied paint  
Edge Detail: Painted square edge  
Humidity resistance: 95% RH  
Light reflectance: 90% (for Traffic White shade)

### DESIGN CONSIDERATIONS

Soundscapes Shapes must remain in their cartons until ready to install. See installation instructions on website for details Use a clean, dry, soft white cloth to wipe off any dirt or fingerprints. Regular light dusting of the back side of the canopy is recommended.

### FIRE PERFORMANCE

Class A2 -s1, d0 as per GB 8624-2006

### ACOUSTICAL PERFORMANCE

Please refer data mentioned in the table on earlier page.

### RECOMMENDED SUSPENSION SYSTEMS

Variety of accessory kits available for individual or group suspension or direct attachment to plasterboard ceiling.

### PANEL WEIGHT

Square : 4.9kgs/pc  
Convex : 4.5kgs/pc  
Concave: 3.9kgs/pc  
Circle : 3.9kgs/pc  
Hexagon: 3.2kgs/pc  
Trapezoid, Left Parallelogram, Right Parallelogram: 4.3kgs/pc  
Small Rectangle: 7.5kgs/pc  
Large Rectangle: 10.1kgs/pc

### WARRANTY

One (1) year limited warranty.

## CONTACT US

### Armstrong World Industries (India) Pvt. Ltd.

Boomerang, A-304, Chandivali Farm Road (near Chandivali Studio) Andheri (E), Mumbai - 400 072

Contact us: 1860 266 7080 | e-mail : helpdeskindia@armstrongceilings.com | www.armstrongceilings.in

