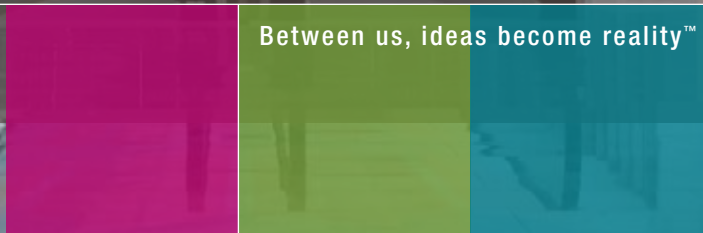




CEILING SYSTEMS



Between us, ideas become reality™

INFUSIONS® and
METALWORKS™ Wings
Accent and Acoustical Clouds



INFUSIONS® and METALWORKS™ Wings

Accent and Acoustical Clouds



MetalWorks Wings Ceiling Suspension Microperforated in Gun Metal Grey with Silver Grey spine (rendering)

Key Selection Attributes

- Define and accentuate spaces with unique 3-D visual
- Easy to install – suspend from ceiling or mount on wall
- Panels are adjustable to special heights and angles off of center spine
- Now available in six translucent colors that coordinate with Infusions and SoundScapes® ceilings and walls
- Lightweight Aluminum Panels:
 - Perforation option available for better acoustics
 - Durable – easy to clean and maintain
 - Custom RAL colors available for panels and center spine

Typical Applications

- Exposed structure areas
- Lobbies and reception areas
- Office
- Corridors
- Hospitality and retail

Standard Color Selection

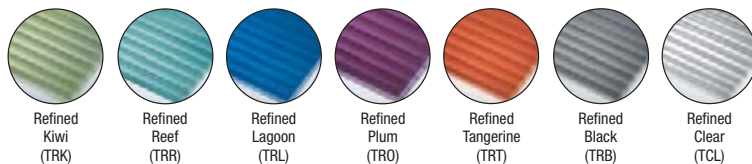
Due to printing limitations, shade may vary from actual product.

METALWORKS



White (WH) Silver Grey (SG) Gun Metal Grey (MY)

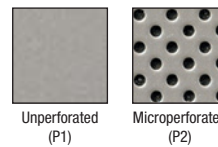
INFUSIONS



Refined Kiwi (TRK) Refined Reef (TRR) Refined Lagoon (TRL) Refined Plum (TRO) Refined Tangerine (TRT) Refined Black (TRB) Refined Clear (TCL)

Perforation Options

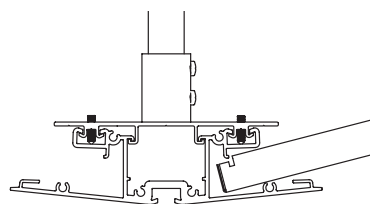
Available on MetalWorks panels only
(Actual 1:1 scale shown)



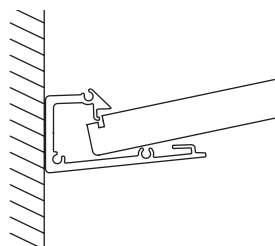
Unperforated (P1) Microperforated (P2)

System Assembly

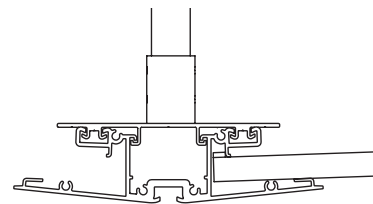
Installation for Suspended MetalWorks Panels



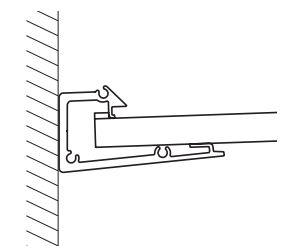
Installation for Wall Mounted MetalWorks Panels



Installation for Suspended Infusions Panels



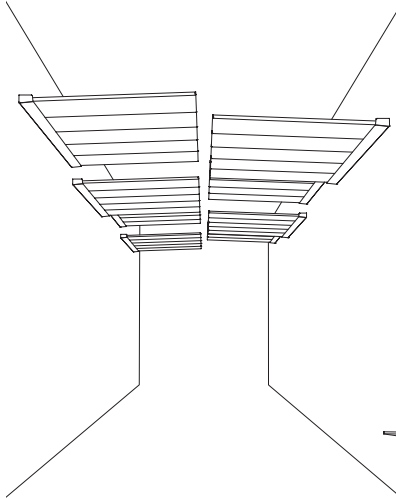
Installation for Wall Mounted Infusions Panels



Design Ideas

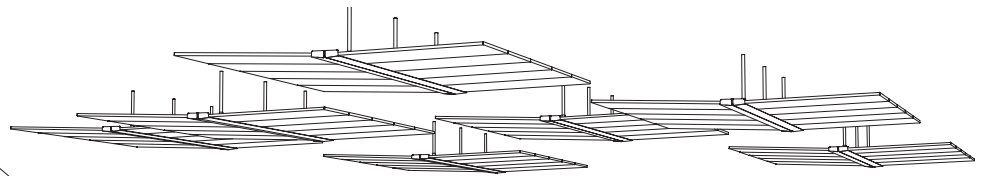
For additional design ideas, visit armstrong.com/wings

Half Wings Mounted on Walls



MetalWorks™ Wings Wall Mount Microperforated in Custom RAL colors (rendering)

Full Wings Suspended from Ceiling



Acoustical Performance

Sound Absorption in Sabin

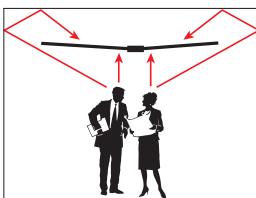
The Sabin is the unit of total sound absorption provided by an object. This is the preferred metric for “space absorbers” such as clouds, canopies, or baffles installed within an architectural space.

Total acoustical absorption for a suspended ceiling is calculated by multiplying the exposed surface area by the material NRC while “space absorbers” are directly measured. MetalWorks Wings provide greater sound absorption than a continuous ceiling of the same surface area because the sound is absorbed from both the front and back surfaces.

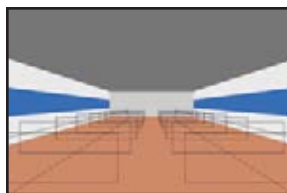
The installation of clouds and canopies in a reverberant space can significantly reduce the background noise and reverberation time, enhancing speech intelligibility.

Factors that may affect the installed acoustical performance relative to the published results are:

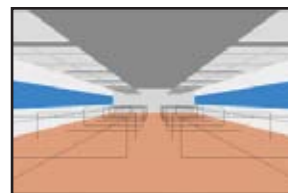
- Size and shape of cloud
- Number of clouds and their layout
- Suspension distance below exposed deck or finished ceiling



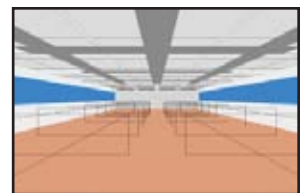
EXPOSED STRUCTURE



25% METALWORKS WINGS



50% METALWORKS WINGS



5,000 SF Exposed Structure (50' x 100'), 15' to deck, drywall with windows two sides, commercial carpet

Ceiling	None / Exposed Structure	16 MetalWorks Wings Microperforated* (25% of ceiling)	32 MetalWorks Wings Microperforated* (50% of ceiling)	Full Optima® Open Plan Ceiling @ 10' H
Reverberation Time(s)	3.4s	1.5s	1.0s	0.4s
RT Reduction (%)	n/a	56%	71%	85%
SPL Reduction (dB)	n/a	2.6dB	4.2dB	5.6dB
Absorption metric	n/a	81 Sabin / assembly (1.05 Sabins/ft ²)	81 Sabin / assembly (1.05 Sabins/ft ²)	NRC 0.90

* Acoustical values above determined with use of acoustical fleece and optional fiberglass infill. Fiberglass infill (item 8200100) will need to be cut and resealed to fit panels. Fiberglass acoustical blankets by others may also be used. You can calculate the acoustical difference that MetalWorks Wings make in your space by using our online Reverb Calculator Tool at armstrong.com/reverbtool.

INFUSIONS® and METALWORKS™ Wings

Accent and Acoustical Clouds

Recycled Content: Up to 50%

armstrong.com/greengenie

LEED® Credits

Energy	Waste Mgmt	Recycled Content	Local Materials	Renewable Materials	Daylight & Views
✓	✓	✓	✓		

Location Dependent

LEED for Schools

Acoustics	Low Emitting or GHPS
✓	✓

Colors and Perforations

METALWORKS	Unperforated (P1)	INFUSIONS	Refined Plum (TRP)
White (WH)	Microperforated (P2)	Refined Kiwi (TRK)	Refined Tangerine (TRT)
Silver Grey (SG)		Refined Reef (TRR)	Refined Black (TRB)
Gun Metal Grey (MY)		Refined Lagoon (TRL)	Refined Clear (TCL)

Kit Components

- Panel Kit – MetalWorks or Infusions Wings panels
- Suspension Kit or Wall Mount Kit (includes spine, end caps, and hardware)

Step 1: Select your panel, color, and trim (trim for Infusions panels only)

Item Number*	Description	Dimensions	Light Reflect	Pcs/Ctn
METALWORKS Wings				
5927P1__	Unperforated Panel (for suspension kit)	24" x 45"	0.77	10
5927P2__	Microperforated Panel with Acoustical Fleece (for suspension kit)	24" x 45"	0.61	10
5917P1__	Unperforated Panel (for wall mount kit)	24" x 45"	0.77	5
5917P2__	Microperforated Panel with Acoustical Fleece (for wall mount kit)	24" x 45"	0.61	5
INFUSIONS Wings				
6610__	Translucent Panel (for suspension kit)	24" x 48"	N/A	10
6611__	Translucent Panel (for wall mount kit)	24" x 48"	N/A	5
5846**	Infusions Wings Translucent Edge Trim – Full Wing (precut to size)	8' x 10'	N/A	6
5847**	Infusions Wings Translucent Edge Trim – Half Wing (precut to size)	4' x 10'	N/A	3

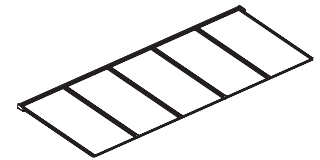
* When specifying or ordering, include the appropriate color suffix (two or three letters) with the item number.
 ** NOTE: Order one carton of trim per Wing.

Step 2: Select your suspension or wall mount kit color

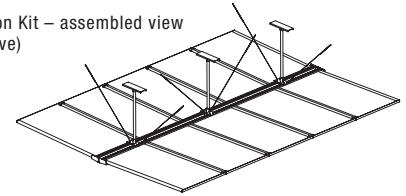
Item Number*	Description	Dimensions
5944__	Suspension Kit	8" x 10' x 2"
5945	Cradle Crate†	N/A
5908__	Wall Mount Kit	4" x 10' x 2"

† Suspension kit will be shipped with the order in a cradle crate (Item 5945) for protection purposes. Each cradle crate is capable of holding 1-6 suspension kits. Be sure to specify when ordering.

Wall Mount Kit – assembled view (from above)



Suspension Kit – assembled view (from above)



Accessories

Item Number	Description	Dimensions	Color	Pcs/Ctn
8200100	Fiberglass Infill panel for MetalWorks panels	2' x 2' x 1"	Black (Gloss)	12

NOTE: Fiberglass infill will need to be cut and resealed to fit panels. Fiberglass acoustical blankets by others may also be used.

Physical Data

Panel Size
 Nominal 24" x 45" for panels; nominal 8' x 10' for total installed suspension kit; nominal 4' x 10' for total installed wall mount kit

Panel Angles
 3° and 5° options included in kit

Material
 Aluminum (MetalWorks panels and suspension spine)
 Polycarbonate (Infusions panels)

Surface Finish
 MetalWorks – Factory-applied powder-coated finish (post-coated). Contact Armstrong Architectural Specialties for custom color matching requests at 1 877 ARMSTRONG; select options 1-1-4.

Suspension System
 Hardware system and cables included in panel kits

Installation Consideration
 Wings assembly requires two people to handle and install safely. Install Wings clouds a minimum of 18" apart. See installation instructions on website for details.

Infusions panel seams must be positioned in the same direction on both sides of the spine. Panels are butted together and seams are visible from below.

Design Considerations

Wings, as with other architectural features located in the ceiling plane, may obstruct or skew the existing or planned fire sprinkler water distribution pattern, or possibly delay the activation of the fire sprinkler or fire detection system. Designers and installers are advised to consult a fire protection engineer, NFPA 13, and local codes for guidance on the proper installation techniques where fire detection or suppression systems are present.

For sprinkler installation through center spine, Armstrong recommends a system offered through FlexHead Industries. Please see installation instructions on website for details.

MetalWorks Wings can accommodate a variety of lighting options offered on the market today through attachment to the suspension spine.

Splay wires included with kit installed on finished product should be considered for symmetry and span dependent on Wings install height.

Acoustical Performance
 MetalWorks – 1.05 Sabin/SF. See chart on page 3 for more information.

Light Reflectance
 MetalWorks – 0.77 unperforated; 0.61 microperforated (white only)

Infusions – Light transmission data available online

Fire Performance

MetalWorks – ASTM E84 and CAN/ULC S102 surface burning characteristics. Flame Spread Index of 25 or less and Smoke Developed Index 50 or less.

ASTM E1264 Classification

Fire Class – Class A
 Unperforated – Type XX, Pattern G
 Perforated – Type XX, Pattern C

Seismic Restraint

Most building codes require non-structural building components to be restrained. Armstrong also recommends restraint in accordance with local building code requirements. The restraints included with this kit and detailed in the installation instructions should be followed. Wings restraint recommendations have been evaluated using full-scale seismic testing conducted at the Structural Engineering Earthquake Simulation Lab at SUNY at Buffalo and have been found acceptable for all seismic design categories in the USA.

Warranty

One (1) year limited warranty. Details: armstrong.com/warranty

Weight

Suspension kit – 67 lbs. for hardware; 40 lbs. per carton (MetalWorks), 42 lbs. per carton (Infusions) – 10 pcs carton.
 Wall mount kit: 14 lbs. for hardware; 20 lbs. per carton (MetalWorks), 22 lbs. per carton (Infusions) – 5 pcs panel.

TechLineSM / 1 877 ARMSTRONG
 1 877 276 7876

armstrong.com/wings
 BPCS-4013-612

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