# Specification Guide

Frontier™ Raft is a three-dimensional acoustic ceiling system that combines a compact outer shell and hollow core to deliver broad-spectrum sound absorption.

Reimagined to achieve lower embodied carbon, Frontier Raft is the next evolution of our acoustic beam system. Frontier Raft features three pre-assembled profile options, and components made from 100% recycled PET.

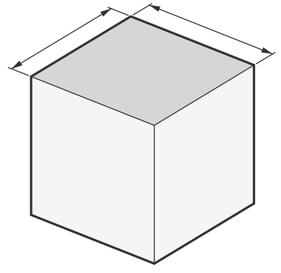



# Frontier™ Raft Acoustic Beam

# Path to Specification

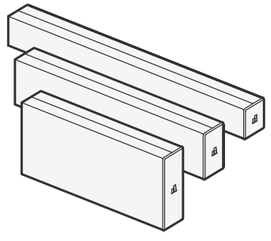
## 1. Space

What are the dimensions of the space you are designing?



## 2. Size

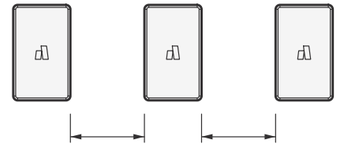
What beam profiles and lengths are available?



Page 4

## 3. Spacing

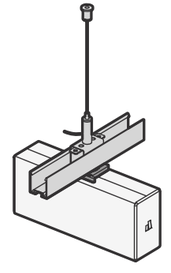
What spacing is recommended between beams?



Page 5

## 4. Mounting Method

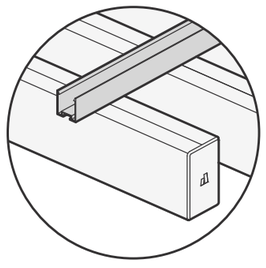
How will you mount beams to the ceiling?



Page 6

## 5. Layouts

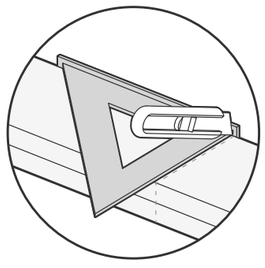
What layout details should be considered when specifying?



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## 6. Detail Considerations

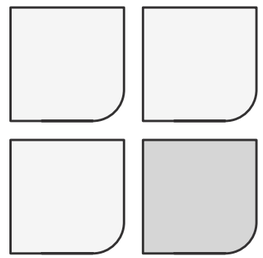
What install details can be managed on-site?



Page 9

## 7. Colors and Finishes

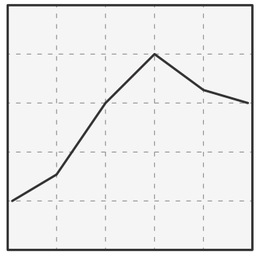
What colors and finishes are available?



Page 10

## 8. Technical Information

What are the technical specifications?



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Contents

# Quick Reference

## Dimensions

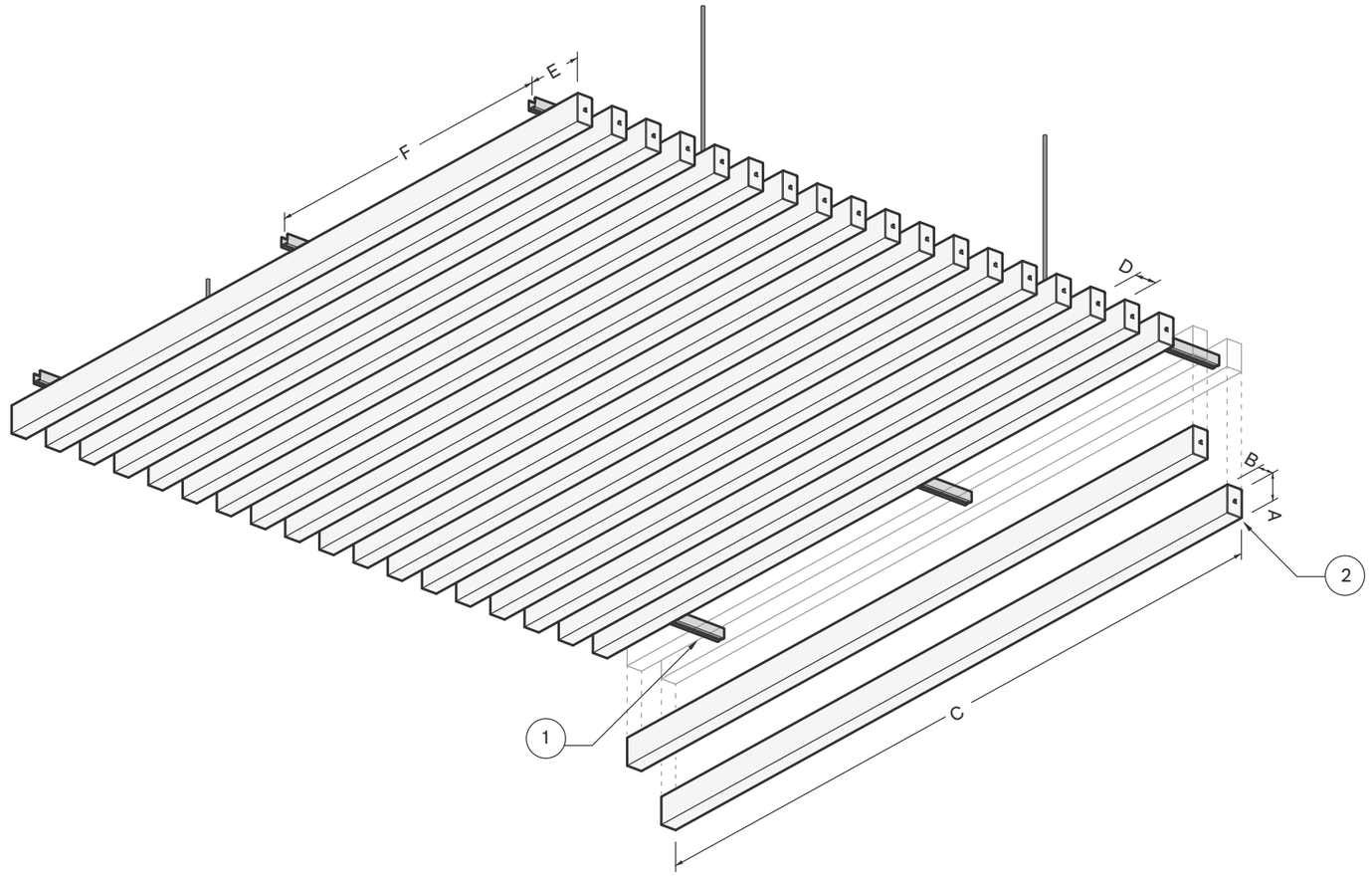
| | |
|---|---|
| **A. Height** | 2 3/16” (55mm)<br>3 3/8” (85mm)<br>5 5/16” (135mm) |
| **B. Width** | 2” (50mm) |
| **C. Length** | Standard: 108” (2743mm)<br>Min: 27” (686mm) |
| **D. Spacing** | Standard = Height (A)<br>See Spacing page 5 for more details |
| **E. Overhang** | Standard: 8” (200mm)<br>Min: 2” (50mm)<br>Max: 11 13/16” (300mm) |
| **F. Mounting Span** | Standard: 46” (1050mm)<br>Max: 53 1/8” (1350mm) |

Please contact your Momentum account manager for more information

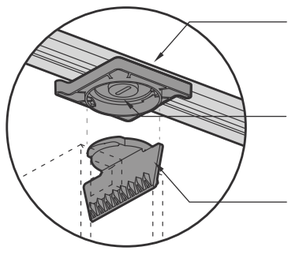
## Mounting Methods

| | |
|---|---|
| **Suspended Channels** | Channels suspended by threaded rod or cables<br>Method shown in main diagram to the right |
| **Low Profile Channels** | Low profile channels direct mounted to substrate |
| **Direct Mount** | Direct mounted to substrate with screws |
| **Cable Suspension** | Individually suspended by cables |
| **Ceiling Grid** | Cross rail to ceiling grid |

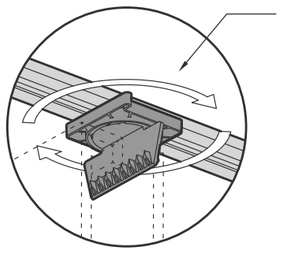
See Mounting Methods page 6 for more details




### 1. Mounting Kit



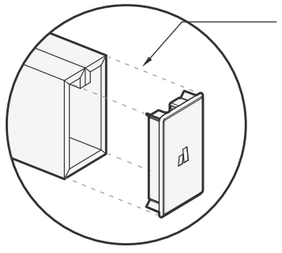

### 1. Locking Mechanism



Once Hook Wedge is located in the Twist Lock piece, turn Twist Lock clockwise 90 degrees to lock the beam to the mounting point

Note: Clip is removable, refer to Installation Guide for more details

### 2. End Caps



Beams are finished with color matched Frontier Raft End Caps

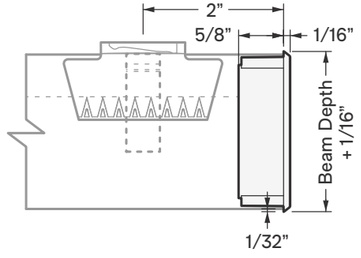
# Profiles and Lengths

## Beam Profiles

Available in three beam depths to suit a range of design requirements.

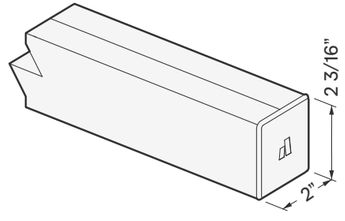
Each profile optimizes material usage, minimizing waste, and is finished with color-matched Frontier Raft End Caps.

The Mounting Kit adds an additional 5/16” to the overall depth of the beam from the channel or substrate.



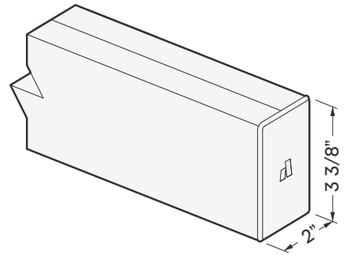

## 50 x 55

108” - 0.767lb



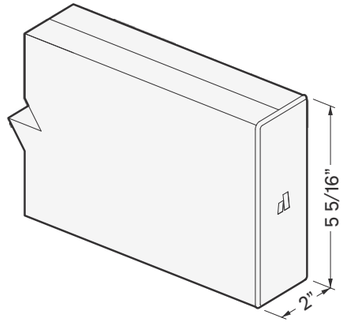

## 50 x 85

108” - 0.975lb




## 50 x 135

108” - 1.318lb



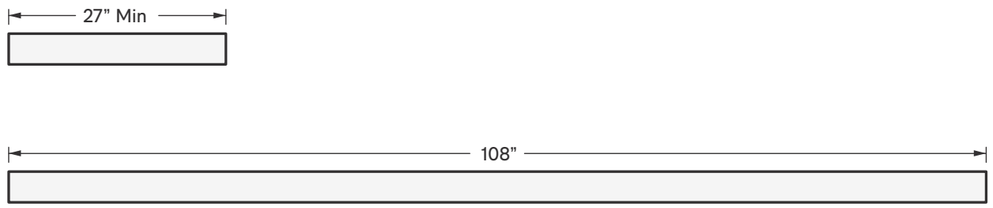

## Beam Lengths

Beams are available in one standard length - 108”.

We offer custom beam lengths between 27” and 108”.

For the most efficient use of material, please refer to the standard length increments in the table. Selecting lengths that match these increments maximizes sheet usage and reduces waste.

Please contact your Momentum account manager for more information.



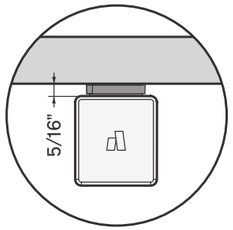

| Standard Length | Increments | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| 108” | 54” | 36” | 27” | |

Cut Lengths

# Standard Installed Array

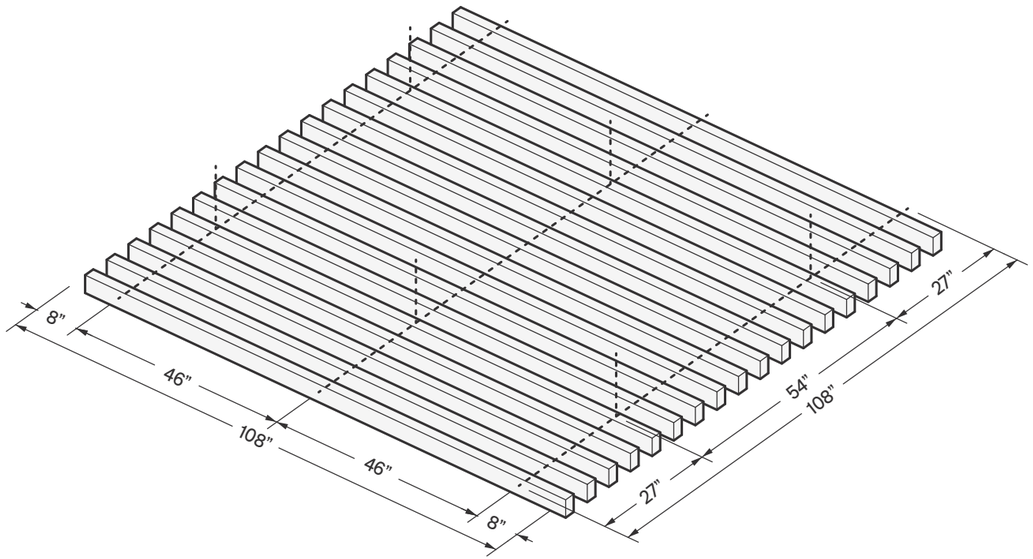
## Beam Profiles

- Generally, beam spacing is to be equal to the beam height
- Dimensions below show standard spacing for a 108” x 108” (2743mm x 2743mm) beam array
- Spacing can be managed on-site, ensure enough channels or cross rails are supplied to mount beams




Twist Lock adds 5/16” to the depth of the beam from the channel or substrate

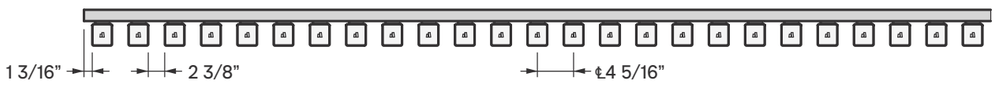
## Mounting Span



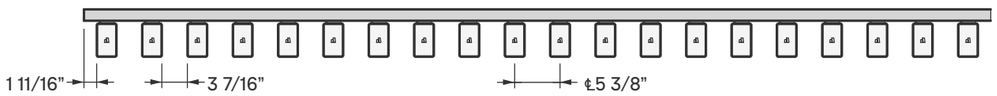

Note: Mounting spans may vary for end-to-end joined beam installs, see Layouts page 7 for more details

## Beam Spacing

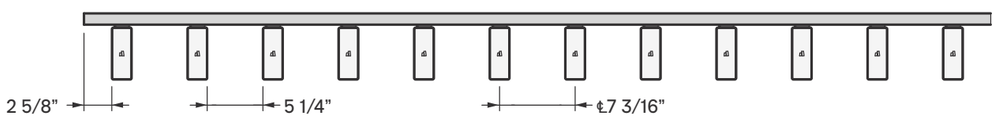
**50 x 55**
25 Beams
Total Weight: 50lb




**50 x 85**
20 Beams
Total Weight 49.2lb

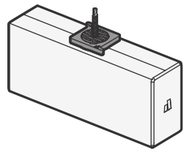


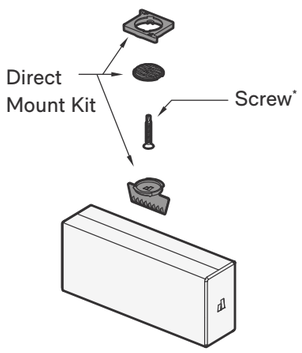

**50 x 135**
12 Beams
Total Weight: 49.6lb



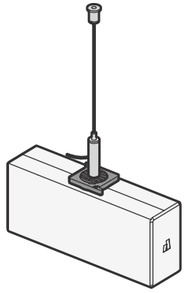
# Mounting Methods

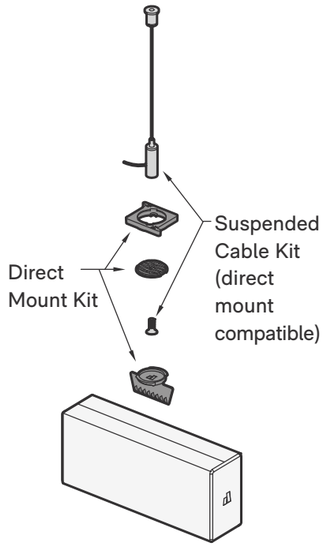
## Direct Mount



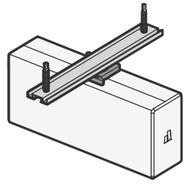


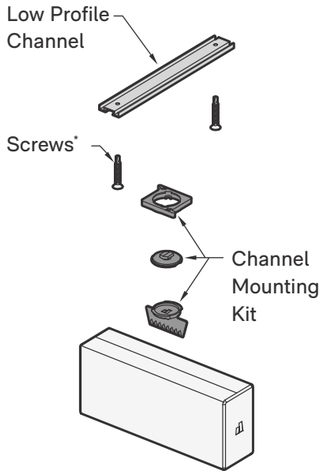

## Cable Suspension



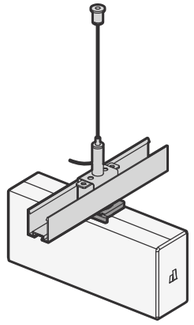


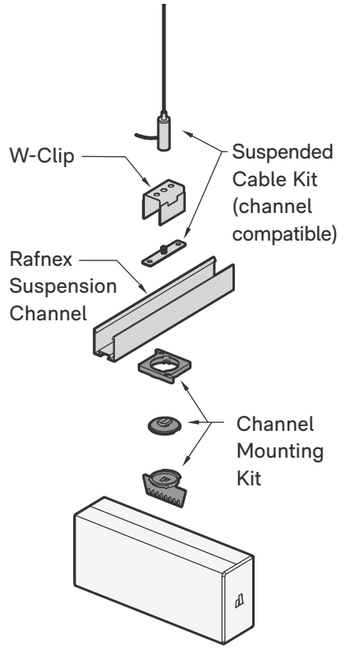

## Low Profile Channel



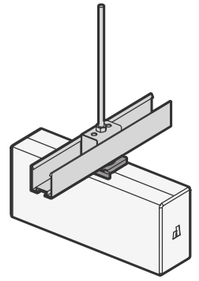


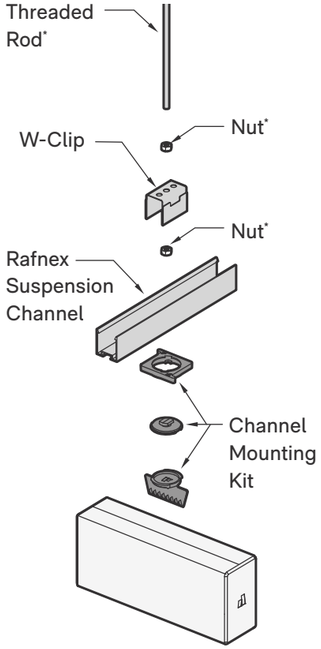

## Suspension Channel with Cable Suspension



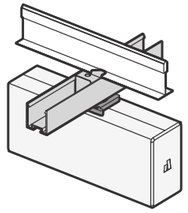


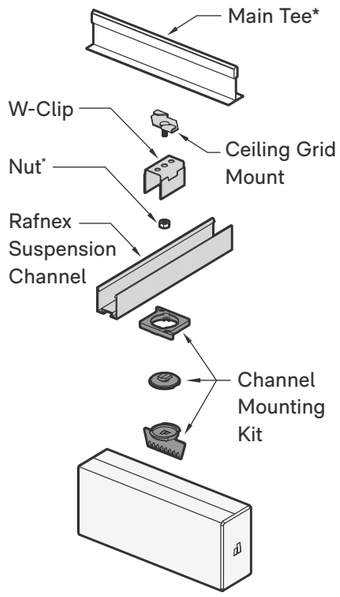

## Suspension Channel to Threaded Rod






## Suspension Channel to Ceiling Grid






*Components not supplied by Autex Acoustics

Note: For seismic bracing details, see Installation Guide

# Joining Modules

When joining beams end to end, mounting spans can vary. The first array requires 3 x cross rails, then every subsequent array requires 2 x cross rails. Follow mounting span dimensions below. The diagram shows the standard spans for repeat joining modules for 108” (2743mm) long beams. For further information on parameters, see Quick Reference page 3.

**Maximum mounting span of 53 1/8” (1350mm) must be maintained.**

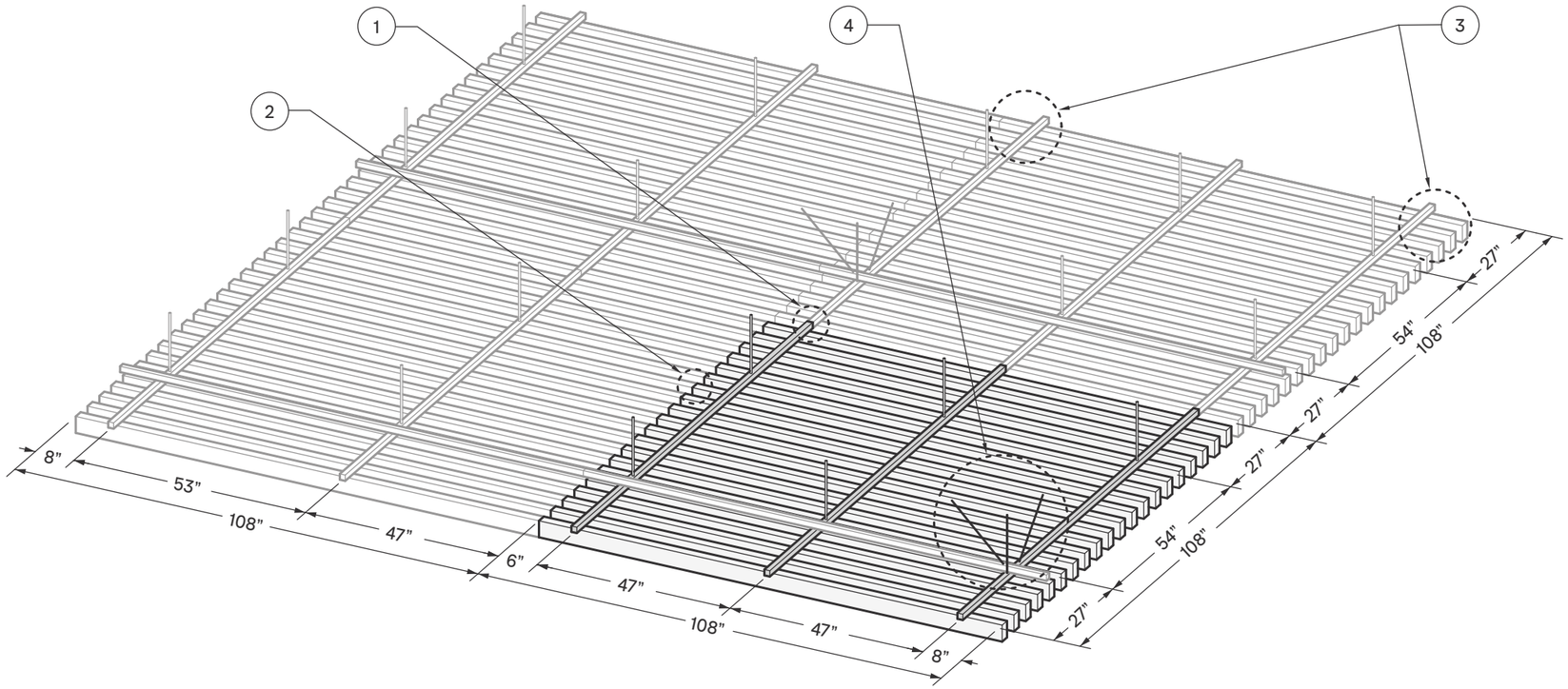
1. Channel Joins
Aluminum Lateral Joiner slides into the ends of the two channels. Fixed together with 4 x black 8G 16mm Tek Screws. For more details on the Aluminum Joiner, see Installation Guide.

2. Beam Joins
All beam joints require a joiner inserted into the top and bottom of the beam, to secure the beams together.

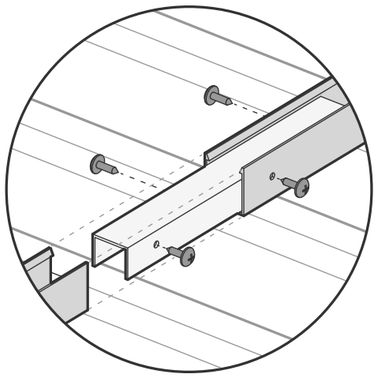
An overhang of no more than 11 13/16” (300mm) is acceptable.

3. Beam Overhangs
Where the beam ends, an overhang of no less than 2” (50mm) and no more than 11 13/16” (300mm) is acceptable.

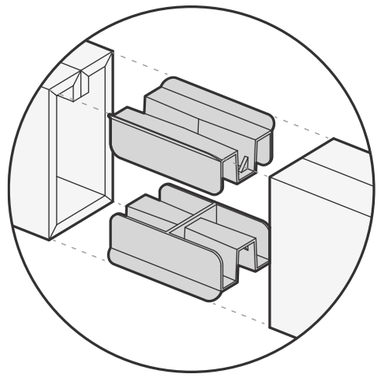
4. Seismic Bracing
For seismic bracing details, see Installation Guide.



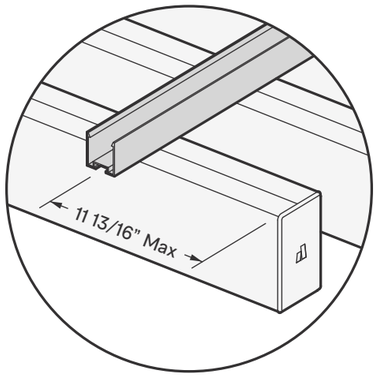

Detail 1



Detail 2



Detail 3




Note: When applying to longer beams, 53 1/8” (1350mm) is the longest acceptable span; for beams above 106.3” (2700mm), 3 x mounting points will be required

# Individual Modules

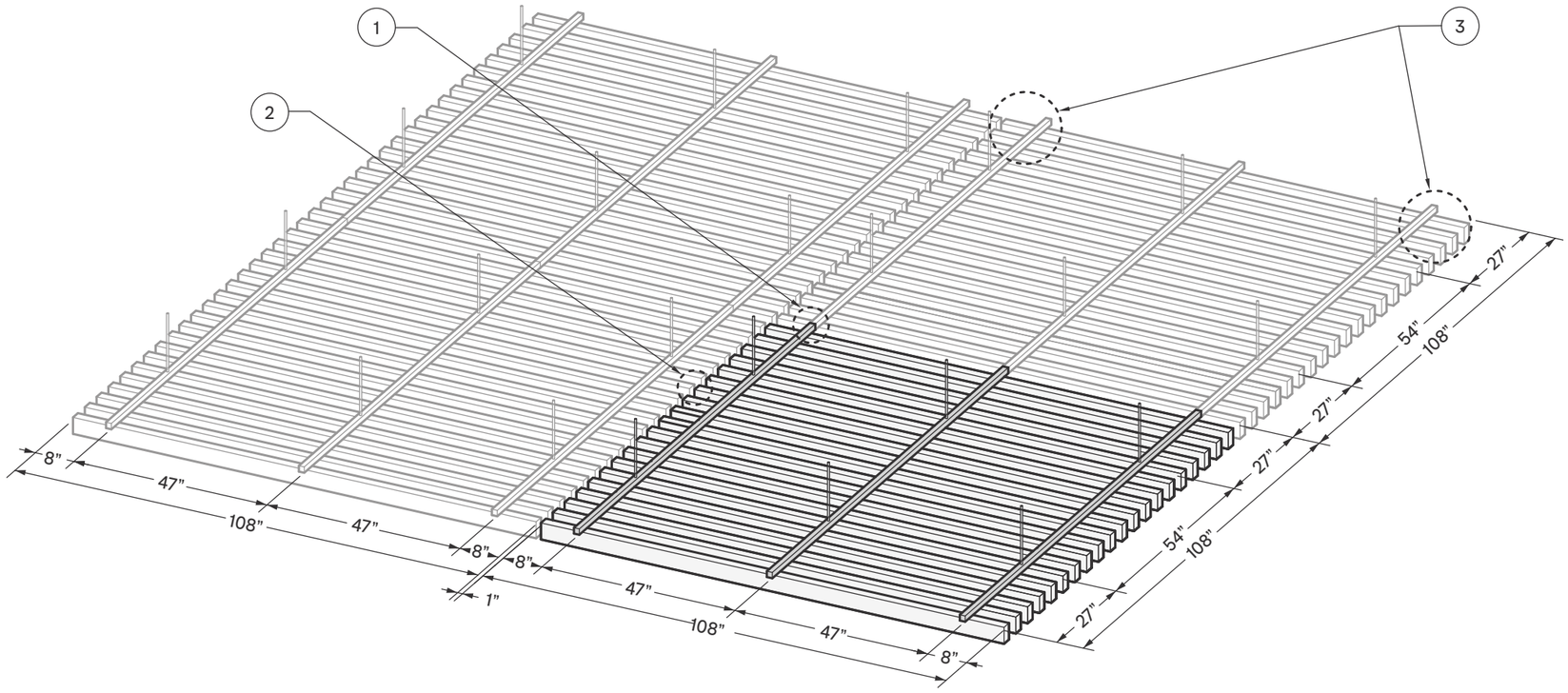
When installing individual modules, a minimum gap of 1” (25mm) should be maintained between the ends of beams within adjacent modules. All modules require 3 x cross rails, and these can be connected to additional modules cross rails using an Aluminum Lateral Joiner. This diagram shows the standard spans for repeat individual modules of 108” (2743mm) long beams. For further information on parameters, see Quick Reference page 3.

**Maximum connection span of 53 1/8” (1350mm) must be maintained.**

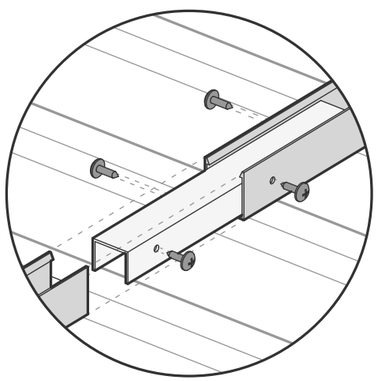
1. Channel Joins
Aluminum Lateral Joiner slides into the ends of the two channels. Fixed together with 4 x black 8G 16mm Tek Screws. For more details on the Aluminum Joiner, see Installation Guide.

2. Gap Between Beams
A minimum gap of 1” (25mm) between beam ends within adjacent modules is acceptable.

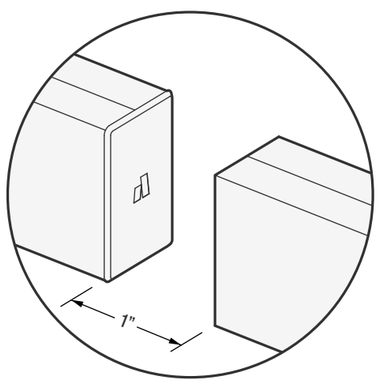
3. Beam Overhangs
Where the beam ends, an overhang of no less than 2” (50mm) and no more than 11 13/16” (300mm) is acceptable.



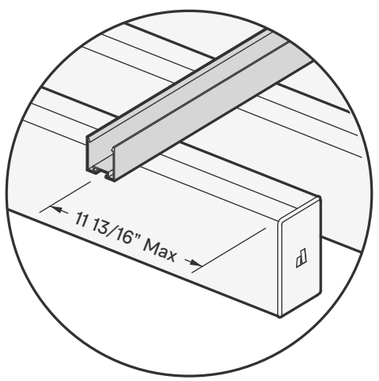

Detail 1



Detail 2




Detail 3

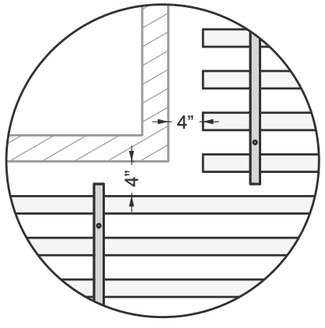



Note: When applying to longer beams, 53 1/8” (1350mm) is the longest acceptable span; for beams above 106.3” (2700mm), 3 x mounting points will be required

# Detail Considerations

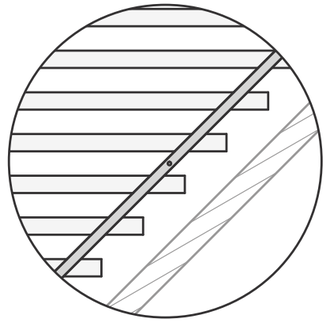
## Clearance

Maintain a minimum clearance of 4” (100mm) between the beam array and surrounding obstacles.



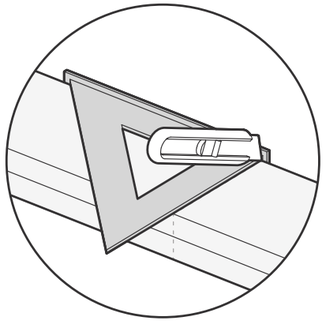

## Angled Channel

The Mounting Kit features 360 degrees rotational adjustment, allowing channels to be positioned at any angle relative to the beam.



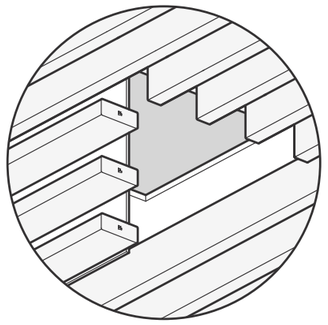
## Cutting on Site

Beams can be cut on site using a set square and a sharp blade. See Installation Guide for more details.



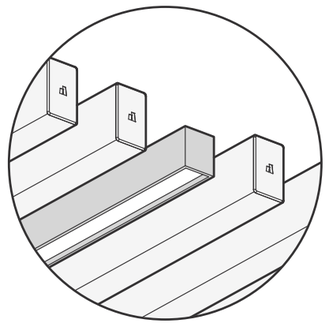
## Hatches

When specifying a beam job with access hatches, see Installation Guide for hatch details.



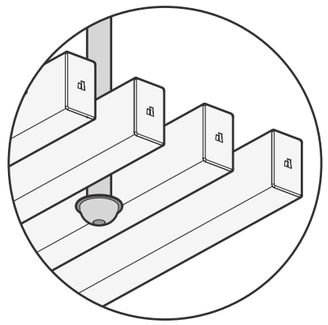
## Lighting

We recommend lighting sits flush with the base of the beam, and is suspended separately to the Frontier Raft system. See Lighting Guide for more details.



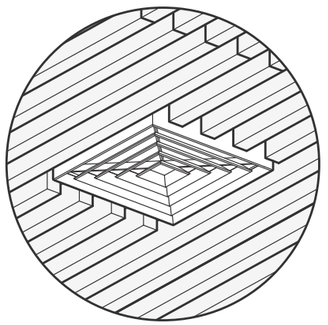
## Sprinklers and Smoke Detectors

As a requirement, sprinklers, heat detectors and smoke detectors must sit below the base of the beam. See Frontier Raft Fire Guide for more details.



## Services

Services such as air conditioning and vents should sit flush with the bottom of the beam. A 4” (100mm) clearance around these obstacles is recommended.



For further installation details, please refer to the Frontier Raft Installation Guide.

# Colors

## Cube™ Colors

Available in our full Cube™ color palette, this lightweight, semi-rigid acoustic panel provides a broad range of options for Frontier Raft.

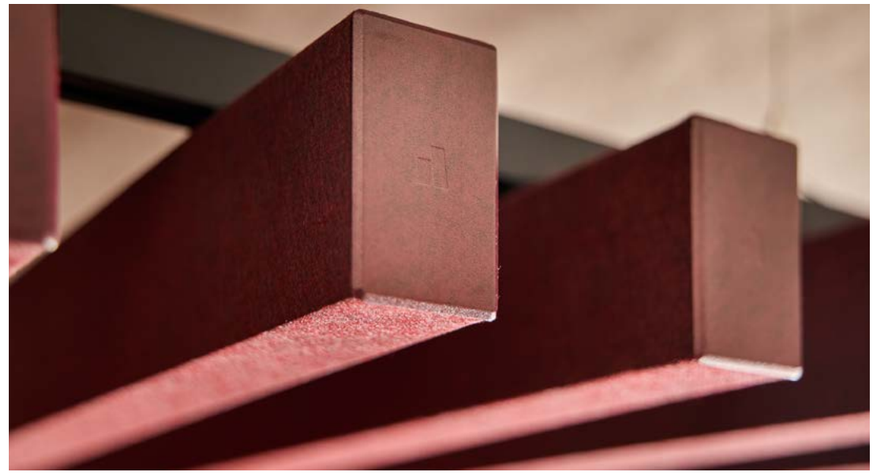



## Frontier Raft End Caps

End Caps are printed to color match Frontier Raft Beams for a seamless finish.

End Caps are made from 100% recycled PET through our industry-first pelletizing process.





# Colors

## Acoustic Timber™

Acoustic Timber™ finishes are designed to realistically imitate timber.

To ensure a natural, high-end finish, we have hand-picked a selection of premium woodgrains taken from real timber veneers—digitally printed onto the panel surface with a safe, UV cured ink.

End Caps are printed to match selected Acoustic Timber woodgrains for a seamless finish.


Birch


American Ash


Tasmanian Oak


Boston Oak


Natural Oak


Coffs Blackbutt


Civic Oak


Prime Oak


Gray Ironbark


Soft Walnut


Coastal Oak


Nordic Oak


Whitewash Gum


Aged Oak


Tasmanian Blackwood


Queensland Walnut


Jarrah


Yakisugi Black


Eucalyptus


Hoop Pine


Oak

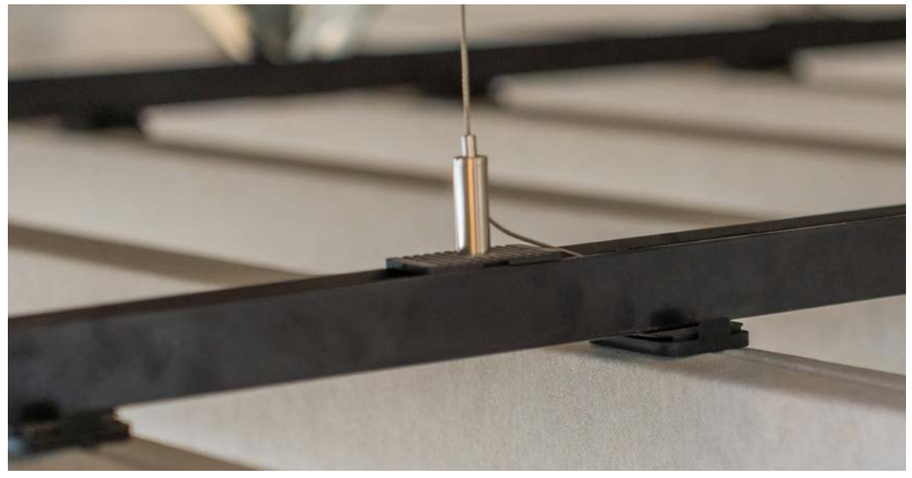

Australian Blackbutt


Black Walnut


Blue Gum

## Channels

Suspended Channels and Low Profile Channels are available in black.



# Color Light Reflectance Values

Cube LRVs are measured in accordance with BS 8493:2008+A1:2010

| | |
|---|---|
| Acros | 40 |
| Beehive | 33 |
| Canyon | 19 |
| Caspian | 6 |
| Cavalier | 12 |
| Colosseum | 52 |
| Empire | 5 |
| Falling Water | 34 |
| Flatiron | 24 |
| Gherkin | 8 |
| Herald | 13 |
| Highland | 19 |
| Marina | 36 |
| Muralla | 9 |
| Opera | 49 |
| Park | 23 |
| Parthenon | 33 |
| Pavilion | 80 |
| Petra | 16 |
| Petronas | 2 |
| Pinnacle | 3 |
| Rushmore | 41 |
| Sargazo | 4 |
| Savoye | 46 |
| Senado | 44 |
| Terrace | 24 |
| Tree House | 3 |

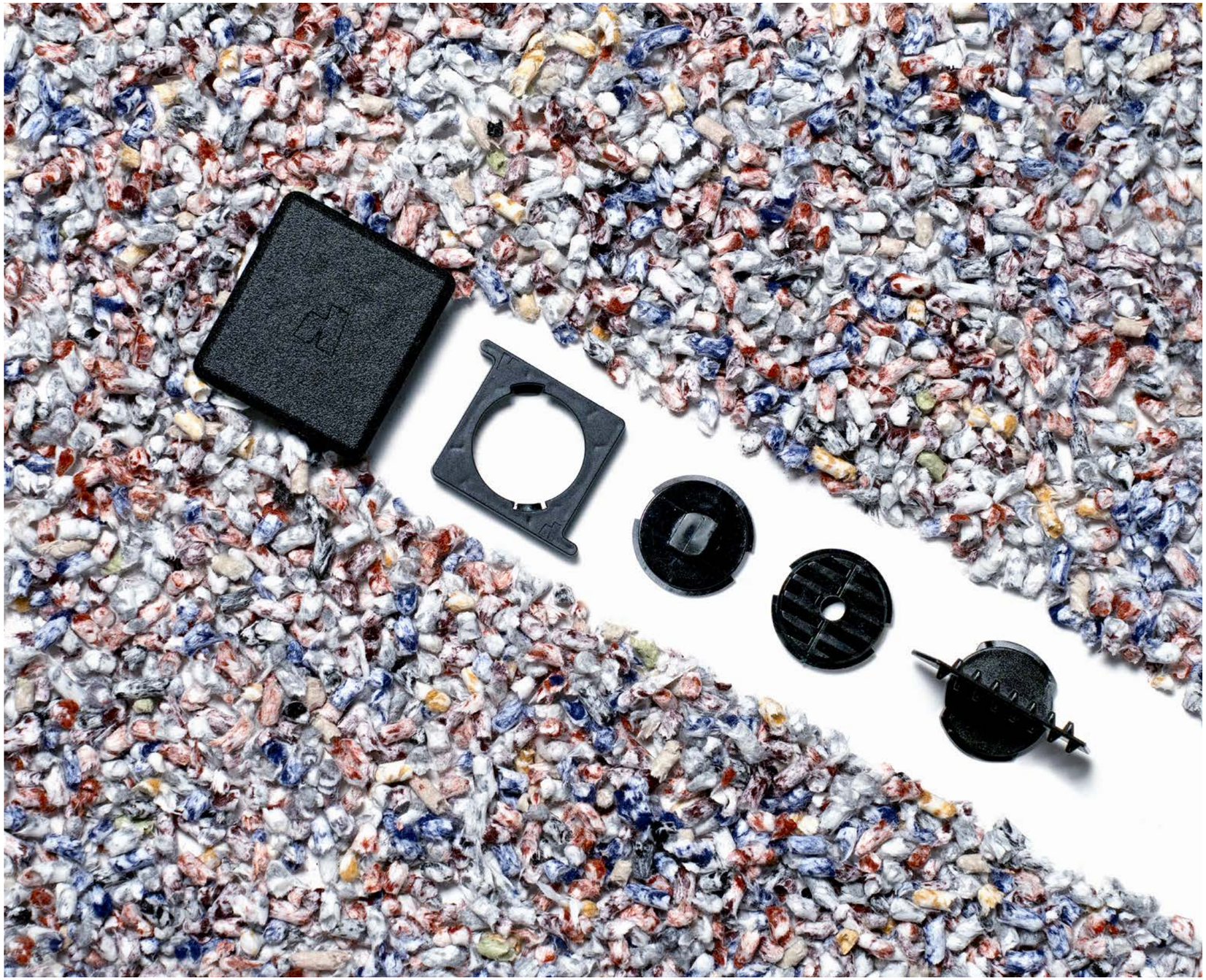


# Frontier™ Raft RePET Components

Frontier Raft RePET components are made from 100% recycled PET through a unique and industry-first pelletizing process.

This process transforms in-house waste into pellets, which are injection-molded to make more product components.

And, because these components are made from 100% PET, they can be easily disassembled and recycled through the RePET process again and again, creating a truly circular lifecycle.



# Sound Materials

## We’re on a positive journey towards momentous change. It’s about winning for the planet and its people, making a difference for healthy generations to come.

Sustainability is ingrained in everything we do, from fiber to finish. Our commitment to doing good now and in the future drives us to continuously evolve our practices, design with integrity, and take responsibility for the impact of our products. Our five sustainability pillars reflect this ethos, guiding our actions and shaping our decisions. Together, these pillars form a system that ensures our materials, products, and processes contribute meaningfully to a more sustainable world.



01

### Climate change demands climate action

We are carbon neutral in everything we do.

02

### Closing the loop

We are advocates for closing the loop on waste. We design with circularity front of mind.

03

### Sustainable supply chain

We carefully select responsible suppliers and take action to mitigate unethical practices, and encourage good working conditions.

04

### Supporting wellbeing in buildings

All our products are made using only safe materials. No harmful chemicals are present in our products.

05

### Operating a business for purpose and profit

We strive to have a positive impact on our environment, our people, and the next generation.

## Credentials

Sustainability isn’t just a feature—it’s a foundation. Our products are independently certified by trusted third-party certifications and labels to meet rigorous environmental and performance standards.

Our products also meet criteria for WELL, LEED, Green Star, and BREEAM building rating systems, helping you achieve certification for your project.

Declare.

Third Party Verified

MEMBER

Environment ISO 14001

Quality ISO 9001

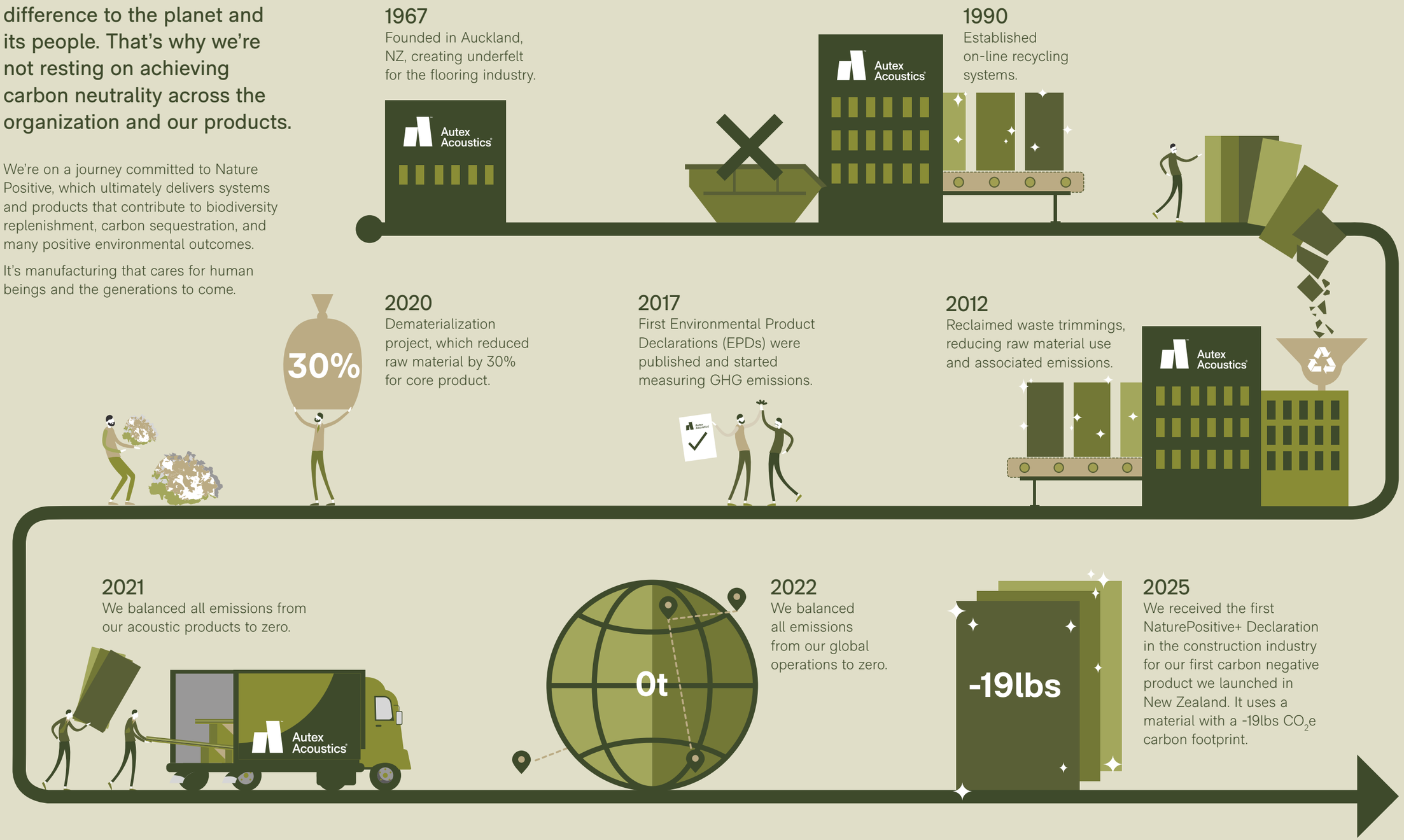
Health & Safety ISO 45001

# Our Journey to Nature Positive

**We want to make a material difference to the planet and its people. That's why we're not resting on achieving carbon neutrality across the organization and our products.**

We're on a journey committed to Nature Positive, which ultimately delivers systems and products that contribute to biodiversity replenishment, carbon sequestration, and many positive environmental outcomes.

It's manufacturing that cares for human beings and the generations to come.




## 1967
Founded in Auckland, NZ, creating underfelt for the flooring industry.

## 1990
Established on-line recycling systems.

## 2012
Reclaimed waste trimmings, reducing raw material use and associated emissions.

## 2017
First Environmental Product Declarations (EPDs) were published and started measuring GHG emissions.

## 2020
Dematerialization project, which reduced raw material by 30% for core product.

## 2021
We balanced all emissions from our acoustic products to zero.

## 2022
We balanced all emissions from our global operations to zero.

## 2025
We received the first NaturePositive+ Declaration in the construction industry for our first carbon negative product we launched in New Zealand. It uses a material with a -19lbs $CO_2e$ carbon footprint.

# Technical Information

## Overview

| | |
|---|---|
| **NRC** | **0.55 - 0.80** |
| Content | 100% PET, min. 80% recycled |
| Form | Acoustic Beams |
| Dimensions | 2” x 2 3/16” (50mm x 55mm)<br>2” x 3 3/8” (50mm x 85mm)<br>2” x 5 5/16” (50mm x 135mm) |
| Origin | Fabricated in the USA |

## Fire Considerations

ASTM E-84-15a: **Class A rating**
CAN/ULC-S102.2
*Frontier is a made from Cube as the base material.*

Fire test reports available on request.

## Twenty Year Manufacturer’s Guarantee

## Product Specifications

Microbial resistance (ASTM G21-15):
**Growth rating:** 0

Color fastness to light (ISO 105-B02:2014):
**Rating:** 6

Determination of colorfastness to rubbing (ISO 105-X12:2016):
**Dry assessment:** 4 - 5
**Wet assessment**: 4 - 5

**Average % of water vapor sorption by weight after four days:** 0.4%

## Acoustic Performance

Frontier Raft is specifically designed to reduce and control reverberated noise and echo in building interiors. Acoustic testing conducted to ISO 354:2003. Official reports available on request.

| Frequency (Hz) | 125 | 250 | 500 | 1000 | 2000 | 4000 | NRC |
|---|---|---|---|---|---|---|---|
| 50 x 55<br>4” centers,<br>Direct Mount | 0.05 | 0.15 | 0.50 | 0.80 | 0.90 | 1.00 | 0.60 |
| 50 x 55<br>4” centers,<br>Suspended 7 7/8” | 0.00 | 0.20 | 0.45 | 0.65 | 0.95 | 1.00 | 0.55 |
| 50 x 85<br>4” centers,<br>Direct Mount | 0.05 | 0.25 | 0.65 | 0.80 | 0.95 | 1.00 | 0.70 |
| 50 x 85<br>4” centers,<br>Suspended 7 7/8” | 0.05 | 0.30 | 0.55 | 0.80 | 1.00 | 1.00 | 0.70 |
| 50 x 135<br>4” centers,<br>Direct Mount | 0.10 | 0.45 | 0.80 | 0.80 | 1.00 | 1.00 | 0.80 |
| 50 x 135<br>4” centers,<br>Suspended 7 7/8” | 0.10 | 0.45 | 0.70 | 0.90 | 1.00 | 1.00 | 0.80 |

