



DynaMax Structural Aluminum Suspension System

This fully accessible and flexible system allows you to support heavy point loads to provide a solution for various ceiling applications and requirements.

**KEY SELECTION ATTRIBUTES**

- Ideal combination of a finished ceiling system with a structural solution
- Easy integration into a conventional grid system using AXTC clip and DynaMax® boss channels
- Integrates seamlessly with select Armstrong® ceiling panels for a complete ceiling system solution
- Supports up to a 1,200 lb. point load rating using 3/8"-16 threaded rod at 48" x 48" connection points
- Suspension system has continuous threaded boss channel, allowing 3/8"-16 threaded rod to be installed to the suspension system at any location
- Available in 24" x 24", 24" x 48" and 48" x 48" suspension system layouts
- CNC override feature creates a tight fit minimizing air leakage between plenum and occupied space
- Fully accessible system allows for future expansion and upgrades
- Non-progressive installation gives the ability to remove or replace a section of the system without the need to dismantle those components around it
- Cross tees not bearing any load are removable for plenum access without compromising the structural integrity of the system
- 10-Year Limited Warranty; 30-Year Limited System Warranty
- X-Brackets provide attachment points for 48" x 48" suspension from building structure
- Now available with MetalWorks™ ceiling panels
- For custom layout information and technical guidelines, contact TechLine customer support at 877 276-7876

**For Data Center Applications**

- Provides a suspension platform or attachment for data center cable trays, equipment, partitions and hot and cold aisle containment barriers
- Finished ceiling system offers a containment barrier to protect servers from debris from building structure to below the ceiling plane
- Controls airflow by eliminating penetrations
- Grid provides increased temperature and pressure management, reduced leakage, and enables the best hot and cold air containment at the ceiling plane when compared to other ceiling types
- Available with Ultima® AirAssure® panels with factory-gasketed edges to provide even greater temperature and pressure management
- Lighting, diffuser, and containment options are available from our Data Center lighting and MEP partners

**TYPICAL APPLICATIONS**

- Data Centers
- Laboratories
- Hospitals
- Industrial Warehouses/  
Distribution Centers
- Retail/Convenience Store

**COLORS**

Standard



White  
(WH)



Available in  
any color!

White is standard color for main beams and cross tees. All brackets and hardware are unfinished. Custom colors and finishes are available for main beams, cross tees, perimeter molding, and ceiling panels. Contact Armstrong Customer Service 877 276-7876



# DYNAMAX® Structural Aluminum Suspension System



Declare.

**LEED WELL LBC**

**50% RECYCLED CONTENT**

energy management, construction waste mgmt, regional materials, design for flexibility, EPD, recyclable/extended producer resp., bio-based materials

Calculate sustainability with Ecomedes [armstrongceilings.com/ecomedes](http://armstrongceilings.com/ecomedes)

recycled content, sourcing of raw materials, material ingredient reporting, low emitting materials, lighting quality, acoustics

Well Building Standard™ (WELL) Living Building Challenge® (LBC)

LOCATION DEPENDENT

## VISUAL SELECTION

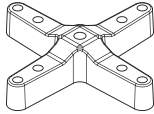
Item No.	Description	Dimensions (Inches) H x W x L	PCS/CTN	LF/CTN
DM4301	Main Beam	144 x 2 x 2-3/8"	4	48
DM4340	4' Cross Tee	48 x 2 x 2-3/8"	12	48
DM4320	2' Cross Tee	24 x 2 x 2-3/8"	12	24
DM4800	Perimeter Molding	144 x 2-1/8 x 2-1/2"	4	48

## PACKAGING

NOTE: Contact local engineer for job specific load and/or seismic requirements. Factory gasketing available upon request.

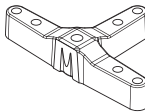
## ACCESSORIES

**DMXB – X-Bracket**  
Used to connect all cross tees together for rigid connection



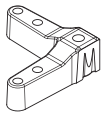
DMXB – 24 PCS

**DMTB – T-Bracket**  
Used to connect main beams and cross tees to the perimeter extrusion



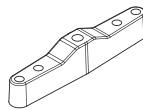
DMTB – 36 PCS

**DMLB – L-Bracket**  
Used to connect perimeter extrusion corners together



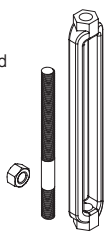
DMLB – 12 PCS

**DMIB – I-Bracket**  
Used to splice together main beam ends



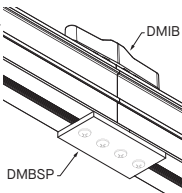
DMIB – 24 PCS

**DMHWK – Hardware Kit**  
Turnbuckles and threaded rods are used to connect the X-brackets to the threaded rod to create a structural support for the grid



DMHWK – 12 PCS

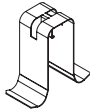
**DMBSP – DynaMax Main Beam Splice Platet**  
Used with DMIB I-Bracket to splice together main beams that butt up against one another



DMBSP – 24 PCS

## OPTIONAL ACCESSORIES

**DMHDC – Hold-down Clip**  
Attaches to the suspension system to hold Lay-in panels in place



DMHDC – 100 PCS

**DM3FGSKT – Main Beam and Cross Tee Field Gasket for DynaMax**  
Field Gasket option for DynaMax Main Beams and Cross Tees

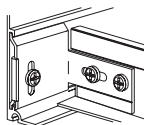
DM3FGSKT – 108 LF/roll

**DM8FGSKT – Perimeter Molding Field Gasket for DynaMax**  
Field Gasket option for DynaMax Perimeter Molding

DM8FGSKT – 10LF/roll

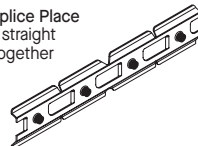
## NON-STRUCTURAL CEILING ADAPTER ACCESSORIES

**AXTBC – Axiom® T-Bar Connector Clip**  
Provides positive mechanical lock with factory-installed screw. Screw-fastened connection to suspension members that intersect the trim channel.



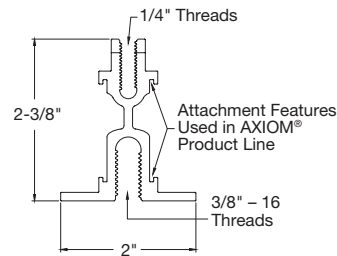
AXTBC – 1 PC

**AX4SPLICEB – Axiom Splice Place with Set Screws**  
Join straight sections of light cove together

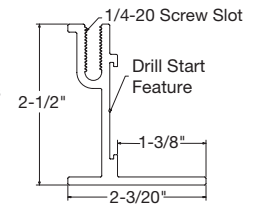


AX4SPLICEB – 1 PC

## DETAILS



DynaMax Main Beam



DM4800 Perimeter Molding

## LOAD DATA FOR DYNAMAX SUSPENSION SYSTEMS

Member Span and Spacing (IN.)	48"	60"	72"
Maximum Allowable Uniform Area Load (LBS/SF)	75	48	33.3
Mid-Span Point Load @ L/360 Deflection (LBS)	320	200	140
Maximum Static Point Load (LBS)	1200	1200	1200
Turnbuckle Maximum Load to Structure (LBS)	1200	1200	1200

For additional load-carrying capability, ask your Armstrong® Rep about DynaMax® Plus Structural Grid System.

# DYNAMAX®

## Structural Aluminum Suspension System



Declare.

LEED® WELL | LBC

50% RECYCLED CONTENT

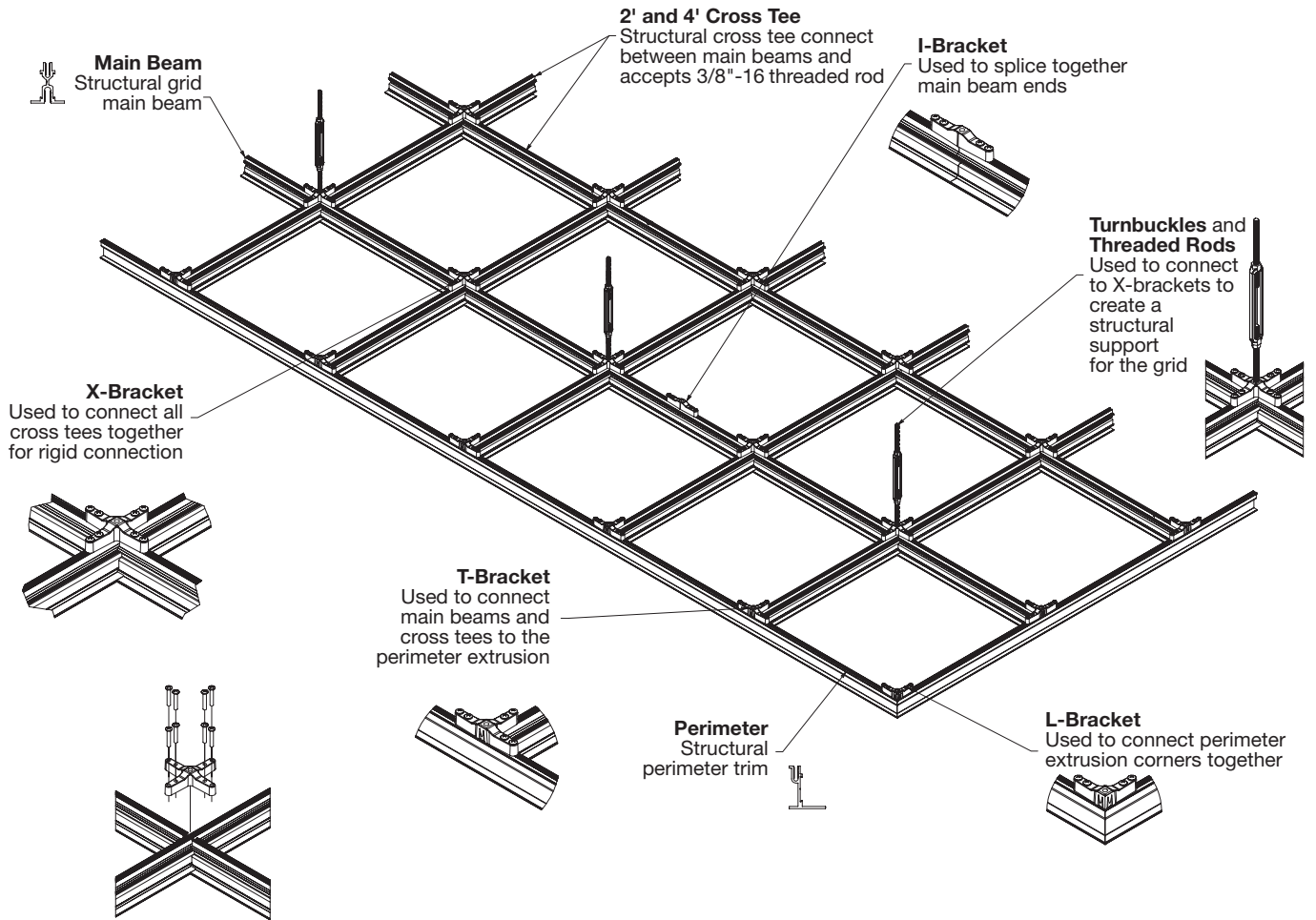
energy management	construction waste mgmt	regional materials	design for flexibility	EPD	recyclable/ bio-based materials	producer resp.	recycled content	sourcing of low materials	material ingredient reporting	low emitting/ materials	lighting quality	acoustics
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Calculate sustainability with Ecomedes  
armstrongceilings.com/ecomedes

LOCATION DEPENDENT

Well Building Standard™ (WELL) Living Building Challenge® (LBC)

### DYNAMAX® SUSPENSION SYSTEM INSTALLATION OVERVIEW



SUSPENSION SYSTEMS – DATA CENTERS

# DYNAMAX®

## Structural Aluminum Suspension System



Declare.

**LEED WELL | LBC**

**50% RECYCLED CONTENT**

energy management, construction waste mgmt, regional materials, design for flexibility, ALUMI-NUM, EPP, recyclable/extended producer resp., biobased materials

Calculate sustainability with Ecomedes  
[armstrongceilings.com/ecomedes](http://armstrongceilings.com/ecomedes)

recycled content, sourcing of raw materials, material ingredient reporting, low emitting/low VOC materials, lighting quality, acoustics

LOCATION DEPENDENT

Well Building Standard™ (WELL) Living Building Challenge® (LBC)

**CEILING PANELS** Ceiling panels are specially sized and engineered for the DynaMax & DynaMax® Plus suspension systems and must be used with the systems. These panels do not fit in other suspension systems.

Dots represent high level of performance.

Edge Profile	Item No.	Dimensions (Inches) H x W x L	Sound Absorption (NRC)	Sound Blocking (CAC)	Total Acoustics <sup>1</sup> (NRC CAC)	Articulation Class (AC)	Fire Performance	Light Reflect	Bio-Block	Humi-Guard+	Certified Low VOC Emissions	Durability	Recycled Content	Recycle Program	30-Yr Warranty
FINE FISSURED™ for DYNAMAX® Square Lay-in	4126	23-1/4 x 23-1/4 x 5/8"	0.55	35	N/A	N/A	Class A	0.82	*	*	*	Std	Std	*	*
	4126BL (Black)	23-1/4 x 23-1/4 x 5/8"	0.55	35	N/A	N/A	Class A	N/A	*	*	*	Std	Std	*	*
	4127	23-1/4 x 47-1/4 x 5/8"	0.55	35	N/A	N/A	Class A	0.82	*	*	*	Std	Std	*	*
	4127BL (Black)	23-1/4 x 47-1/4 x 5/8"	0.55	35	N/A	N/A	Class A	N/A	*	*	*	Std	*	*	*
CALLA® for DYNAMAX Square Lay-in	2896	23-1/4 x 23-1/4 x 1"	0.85	35	<b>BEST</b>	170	Class A	0.85	*	*	*	*	*	*	*
	2896BK (Black)	23-1/4 x 23-1/4 x 1"	0.85	35	<b>BEST</b>	170	Class A	N/A	*	*	*	*	*	*	*
	2897	23-1/4 x 47-1/4 x 1"	0.85	35	<b>BEST</b>	170	Class A	0.85	*	*	*	*	*	*	*
	2897BK (Black)	23-1/4 x 47-1/4 x 1"	0.85	35	<b>BEST</b>	170	Class A	N/A	*	*	*	*	*	*	*
DUNE™ for DYNAMAX Square Lay-in	4270	23-1/4 x 23-1/4 x 5/8"	0.50	35	N/A	N/A	Class A	0.81	*	*	*	*	*	*	*
	4271	23-1/4 x 47-1/4 x 5/8"	0.50	35	N/A	N/A	Class A	0.81	*	*	*	*	*	*	*
ULTIMA® for DYNAMAX Square Lay-in	1807	23-1/4 x 23-1/4 x 3/4"	0.75	35	<b>BETTER</b>	170	Class A	0.88	*	*	*	*	*	*	*
	1808	23-1/4 x 47-1/4 x 3/4"	0.75	35	<b>BETTER</b>	170	Class A	0.88	*	*	*	*	*	*	*
ULTIMA® AirAssure® for DYNAMAX Square Lay-in	1599	23-1/4 x 23-1/4 x 3/4"	0.75	35	<b>BETTER</b>	N/A	Class A	0.88	*	*	*	*	*	*	*
	<b>new</b> 1638	23-1/4 x 47-1/4 x 3/4"	0.75	35	<b>BETTER</b>	N/A	Class A	0.88	*	*	*	*	*	*	*
OPTIMA® PB for DYNAMAX Square Lay-in	<b>new</b> 3210PB	47-5/16 x 47-5/16 x 1"	0.95	N/A	N/A	190	Class A	0.88	*	*	*	*	*	*	*

<sup>1</sup> Total Acoustics® ceiling panels have an ideal combination of sound absorption and sound blocking in one product.  
**GOOD** (NRC 0.60-0.65; CAC 35+) **BETTER** (NRC 0.70-0.75; CAC 35+) **BEST** (NRC 0.80+; CAC 35+)



SUSPENSION SYSTEMS – DATA CENTERS



# DYNAMAX®

## Structural Aluminum Suspension System



Declare.

**LEED WELL LBC**




**50% RECYCLED CONTENT**

energy management  
construction waste mgmt  
regional materials  
design for flexibility  
EPD  
recyclable/ biobased producer resp.  
materials  
recycled content  
sourcing of raw materials  
material ingredient reporting  
low emitting/ materials  
lighting quality  
acoustics

Calculate sustainability with Ecomedes [armstrongceilings.com/ecomedes](http://armstrongceilings.com/ecomedes)

Well Building Standard™ (WELL) Living Building Challenge® (LBC)

### VISUAL SELECTION

Edge Profile	Perforation	Item No.	Dimensions (Inches)
METALWORKS™ for DYNAMAX® Square Lay-in 	 M1 (Unperforated)	<b>6345W24L48M1WHA</b>	23" x 47"
		<b>6345W48L48M1WHA</b>	47" x 47"
	 M19	<b>6345W24L48M19WHA</b>	23" x 47"
		<b>6345W48L48M19WHA</b>	47" x 47"

### PERFORMANCE

Dots represent high level of performance.

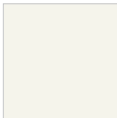
NRC with acoustical fleece	NRC with 1" fiberglass infill*	Fire Performance	Light Reflect	Mold & Mildew Protection	Certified Low VOC Emissions	Durability	Recycled Content
N/A	N/A	Class A	0.75	•	•	•	•
N/A	N/A	Class A	0.75	•	•	•	•
0.70	0.85	Class A	0.75	•	•	•	•
0.70	0.85	Class A	0.75	•	•	•	•

Ceiling panels are specially sized and engineered for the DynaMax and DynaMax Plus suspension systems and must be used with the systems. These panels do not fit in other suspension systems.  
\* NRC achieved with acoustical infill (Item 8200T10).

### COLORS

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

Painted



Whitelume (WHA)



Custom Colors Available

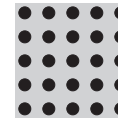
For custom options contact ASQuote, [ASQuote@armstrongceilings.com](mailto:ASQuote@armstrongceilings.com)

### PERFORATION OPTIONS

(1:2 scale shown)



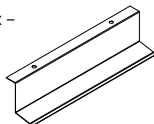
M1 (Unperforated)



M19

### ACCESSORIES FOR METALWORKS LAY-IN CEILING PANELS

6483 – MetalWorks Lay-In Perimeter Hold-down Clip for DynaMax – Screw attaches to perimeter molding to hold the perimeter cut metalworks panels in place. 2 clips required per cut panel.



6483 – 10 pcs

8200T10 – 1" Fiberglass Infill Bag – 24 x 24 x 1" Color – Black (gloss)

8200T10 – 12 PCS

### PHYSICAL DATA FOR METALWORKS LAY-IN CEILING PANELS

**Design Considerations**  
MetalWorks panels and DynaMax grid are manufactured at separate facilities that use different paint systems. Colors i.e. White and Whitelume will coordinate but are not exact color matches.

**Material**  
All MetalWorks panels: Aluminum - 0.064"

**Warranty**  
One (1) year limited warranty for MetalWorks items. Details at [armstrongceilings.com/warranty](http://armstrongceilings.com/warranty)

**DYNAMAX®**  
Structural Aluminum Suspension System



**Declare.**

**LEED WELL | LBC**

**50% RECYCLED CONTENT**

energy management, construction waste mgmt, regional materials, design for flexibility, EPD, recyclable/extended producer resp., bio-based materials, recycled content, sourcing of raw materials, material ingredient reporting, low emitting materials, lighting quality, acoustics

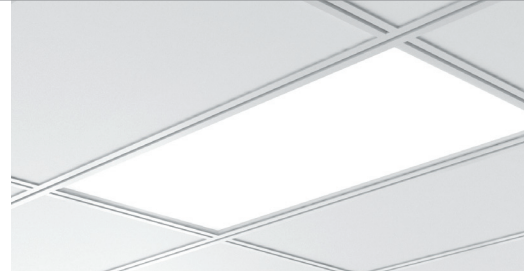
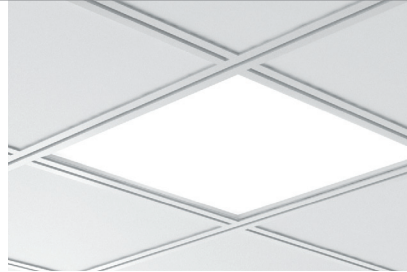
Calculate sustainability with Ecomedes [armstrongceilings.com/ecomedes](http://armstrongceilings.com/ecomedes)

Well Building Standard® (WELL) Living Building Challenge® (LBC)

**LIGHTING PARTNERS** Lighting and diffuser solutions are available through partner companies.

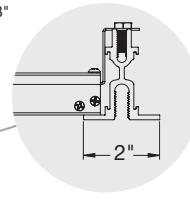
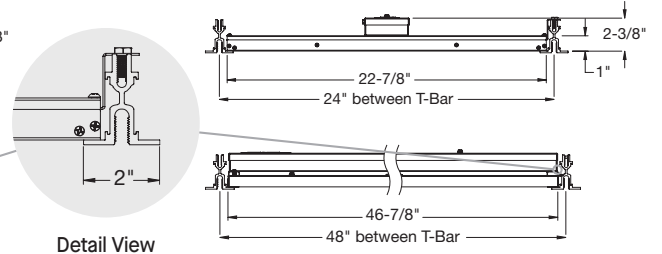
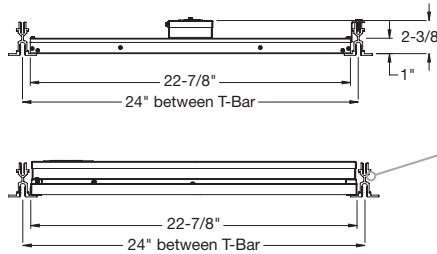


For compatible lighting details, visit [axislighting.com](http://axislighting.com)



TRAYFIT™ 2' x 2'

TRAYFIT™ 2' x 4'



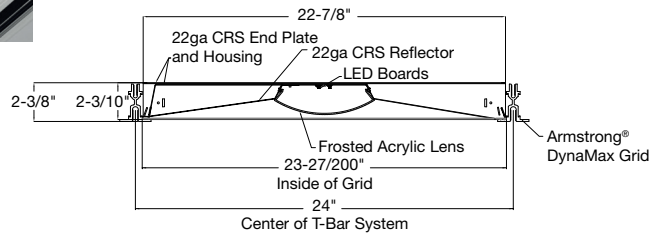
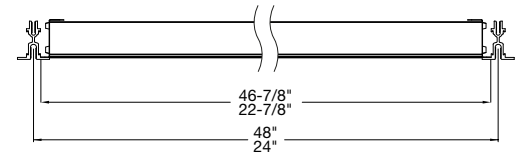
Detail View



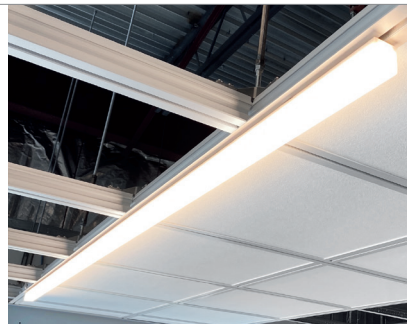
For compatible lighting details, visit [hew.com/products/PTDC](http://hew.com/products/PTDC)



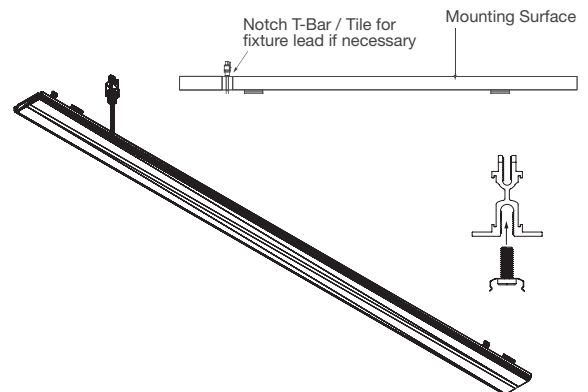
PTDC – Shallow Plenum LED Troffer for DynaMax® System



For compatible lighting details, visit [vode.com/dynamax](http://vode.com/dynamax)



ZipTwo® Data Center Solutions



# DYNAMAX® Structural Aluminum Suspension System



**LEED® WELL | LBC**

**50% RECYCLED CONTENT**

energy management  
construction waste mgmt  
regional materials  
design for flexibility  
EPD  
recyclable/repurposed producer resp.  
biobased materials  
recycled content  
sourcing of low materials  
material ingredient reporting  
low emitting/ materials  
lighting quality  
acoustics

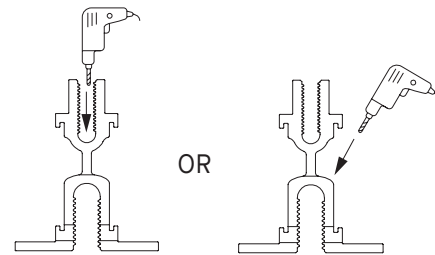
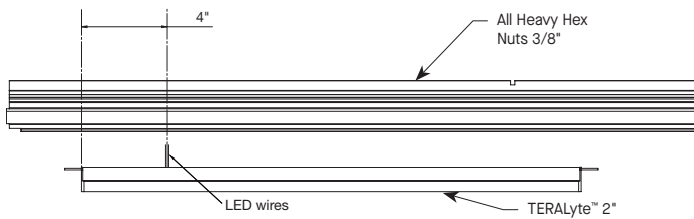
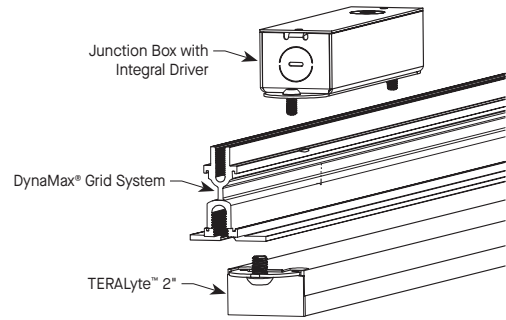
Calculate sustainability with Ecomedes  
[armstrongceilings.com/ecomedes](http://armstrongceilings.com/ecomedes)

Well Building Standard™ (WELL) Living Building Challenge® (LBC)

## LIGHTING PARTNERS (CONTINUED)



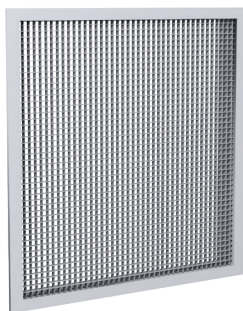
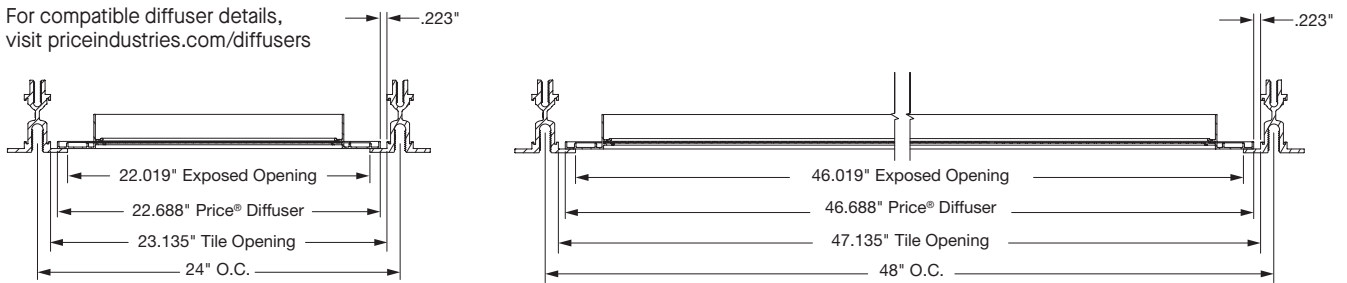
For compatible lighting details, visit [jlc-tech.com](http://jlc-tech.com)



## MEP PARTNER



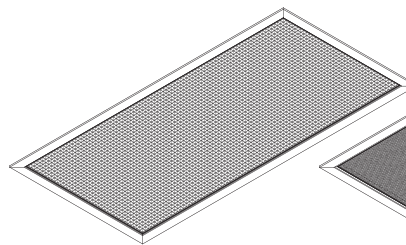
For compatible diffuser details, visit [priceindustries.com/diffusers](http://priceindustries.com/diffusers)



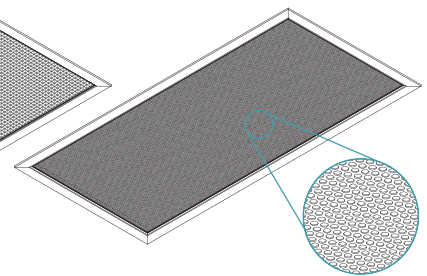
Eggcrate Air Device – Price® Model 80



Perforated Air Device – Price® Model 10



Eggcrate Air Device – Price® Model 80



Perforated Air Device – Price® Model 10

# DYNAMAX®

## Structural Aluminum Suspension System



Declare.

**LEED WELL LBC**

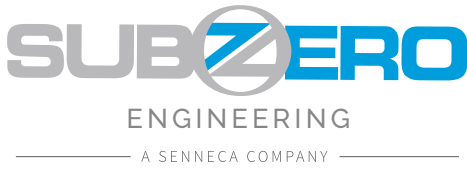
**50% RECYCLED CONTENT**

energy management, construction waste mgmt, regional materials, design for flexibility, EPD, recyclable/extended producer resp., bio-based materials, recycled content, sourcing of raw materials, material ingredient reporting, low emitting materials, lighting quality, acoustics

Calculate sustainability with Ecomedes: [armstrongceilings.com/ecomedes](http://armstrongceilings.com/ecomedes)

Well Building Standard™ (WELL) Living Building Challenge® (LBC)

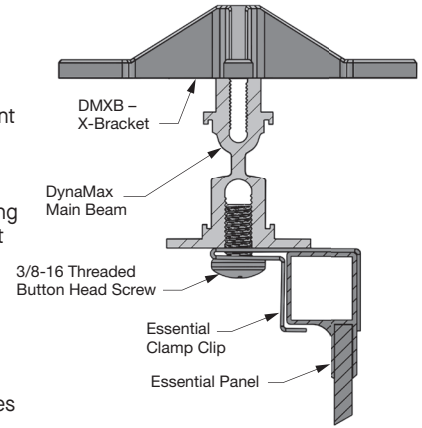
### DATA CENTER CONTAINMENT PARTNER



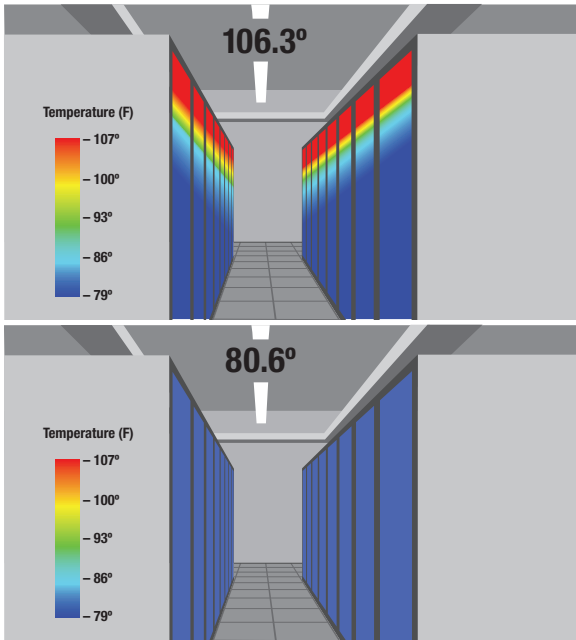
For more data center containment details, visit [subzeroeng.com](http://subzeroeng.com)

The Subzero Engineering and Armstrong World Industries partnership is the latest development in the portfolio expansion of data center products and services, seamlessly combining structural ceiling solutions with high performing and energy efficient air containment systems.

The Subzero Essential Clamp Clip (shown right) was designed specifically for integrating Subzero Essential Series Wall Panels with DynaMax® main beams. This provides easier attachment and improved installation efficiency.



### TEMPERATURE AND PRESSURE CONTROL ADVANTAGES



DynaMax structural grid system provides increased pressure management, reduced leakage, and enables the best hot and cold air containment at the ceiling plane when compared to other ceiling types.

Unlike drilled hole or slotted strut ceilings, the integration of DynaMax grid and Armstrong® Ceiling panels keeps ceiling planes closed for improved pressure and temperature control where it matters most, such as data center halls.

A 2021 Computational Fluid Dynamics (CFD) simulation showed that, on average, the top of data center cabinet equipment is approx. 26°F warmer when a slotted strut ceiling (top left) is in place and approx. 6°F warmer with drilled hole ceiling (not shown) than with the DynaMax structural grid system (bottom left).

### PHYSICAL DATA

Material Aluminum	Cross Tee/Main Beam Interface Override
Surface Finish Baked polyester paint or powder coated	End Detail Main Beam: Butt cut
Manufactured and tested in accordance with ASTM C635 and E3090	Cross Tee: Override
Face Dimension 2"	Duty Classification Heavy-duty
Profile Exposed tee	System Weight 2' x 2' Grid 1.25 LBS/SF 2' x 4' Grid 0.94 LBS/SF

### CEILING PANELS PHYSICAL DATA

Ceiling Panels ASTM E1264 Classification Type XII, Form 2, Pattern E Fire Class A 500 SF minimum	2896BK - 1.0 LBS/SF; 10 PCS/CTN; 36 SF/CTN 2897 - 1.0 LBS/SF; 6 PCS/CTN; 44 SF/CTN 2897BK - 1.0 LBS/SF; 6 PCS/CTN; 44 SF/CTN 4270 - 0.94 LBS/SF; 16 PCS/CTN; 58 SF/CTN 4271 - 0.88 LBS/SF; 8 PCS/CTN; 58 SF/CTN 1807 - 1.08 LBS/SF; 12 PCS/CTN; 44 SF/CTN 1808 - 1.08 LBS/SF; 6 PCS/CTN; 44 SF/CTN 1599 - 1.08 LBS/SF; 12 PCS/CTN; 44SF/CTN 1638 - 1.08 LBS/SF; 6 PCS/CTN; 44 SF/CTN 3210PB - 0.45 LBS/SF; 0.45 LBS/SF; 6 PCS/CTN; 93 SF/CTN
Pieces/Carton; Square Feet/Carton 4126 - 1.05 LBS/SF; 16 PCS/CTN; 58 SF/CTN 4126BL - 1.05 LBS/SF; 16 PCS/CTN; 58 SF/CTN 4127 - 1.05 LBS/SF; 12 PCS/CTN; 90 SF/CTN 4127BL - 1.05 LBS/SF; 12 PCS/CTN; 90 SF/CTN 2896 - 1.0 LBS/SF; 10 PCS/CTN; 36 SF/CTN	

LEED® is a registered trademark of the U.S. Green Building Council; Declare® and Living Building Challenge® (LBC) are registered trademarks of the International Living Future Institute; WELL™ and Well Building Standard™ are trademarks of the International WELL Building Institute; Axis logo and TRAYFIT™ are trademarks of Axis Lighting Inc.; H.E Williams logo is a registered trademark of H.E. Williams, Inc.; JLC-Tech logo and TERALyte™ are trademarks of JLC-Tech, LLC.; Price® is a registered trademark of Price Industries; Vode® and ZipTwo® are registered trademarks of Vode Lighting LLC; Subzero logo is a trademark of The Subzero Engineering Corporation; all other trademarks used herein are the property of AWI Licensing LLC and/or its affiliates © 2024 AWI Licensing LLC

TechLine / 1 877 276-7876  
[armstrongceilings.com/datacenter](http://armstrongceilings.com/datacenter)  
BPCS-6273-424



SUSPENSION SYSTEMS - DATA CENTERS

