



Experience, Above All™

Armstrong®
World Industries

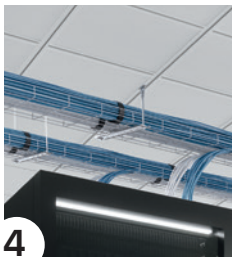
Data Center

Ceiling
Solutions

Data Center Design: STRENGTH

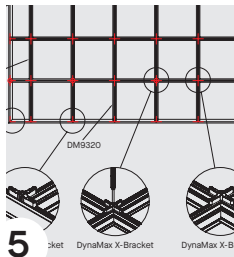
Where you need it most

Data Centers come with their own set of design challenges. See how we've made it easier to get the high-strength solutions you need for your unique project.



4

DynaMax® and DynaMax® Plus Structural Aluminum Suspension Systems



5

Suspension System Installation and Layout Overview



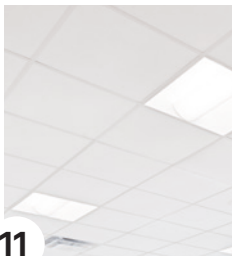
7

Lighting, Diffuser, and Containment Partners



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MetalWorks™ Panels for DynaMax and DynaMax Plus



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High Performance Ceiling Panels for DynaMax and DynaMax Plus



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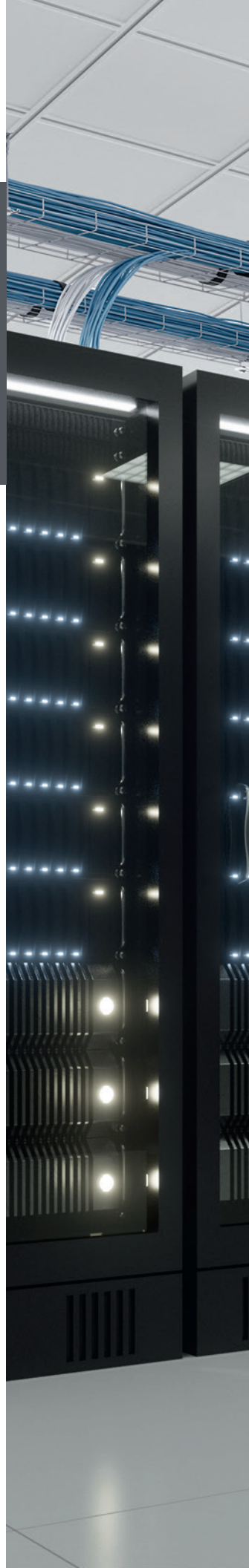
Continuous Load Path (CLP) for Prelude® XL®



14

Prelude® XL Max® 15/16" Suspension System





DynaMax
Structural
Aluminum
Grid ▶





DynaMax® & DynaMax® Plus Suspension Systems

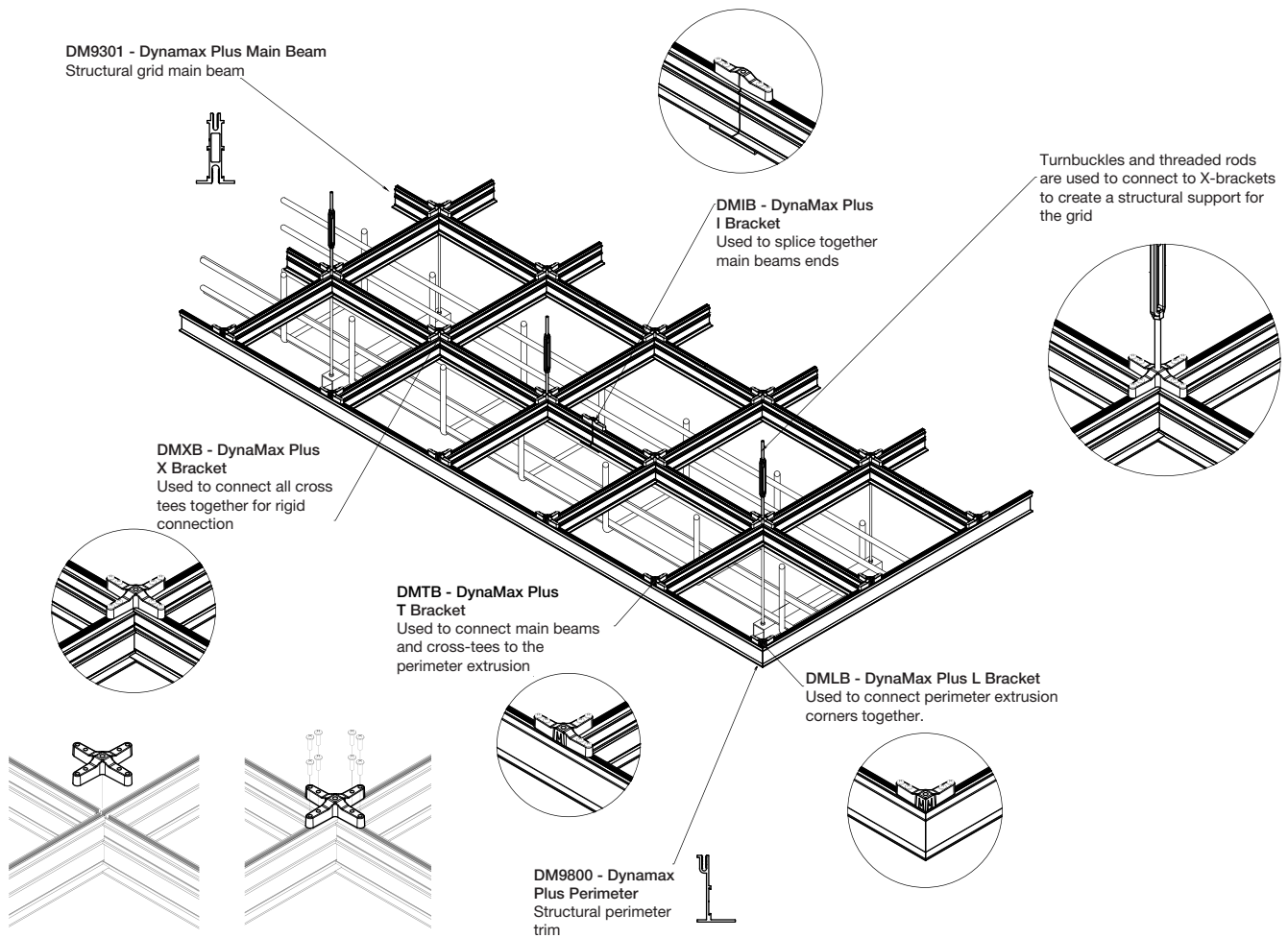
Provides an attachment platform for cable trays, equipment partitions, and hot and cold containment barriers from the structure to below the ceiling plane while eliminating penetrations through the ceiling.

KEY SELECTION ATTRIBUTES	DynaMax Structural Grid	DynaMax Plus Structural Grid
Ideal combination of a finished ceiling system with a structural solution	•	•
Easy integration into a conventional grid system using AXTBC clip and DynaMax® boss channels	•	•
Integrate 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	•	•
Factory-cut notches on main beams for faster and easier installation	•	•
Factory gasketing available upon request	•	•
Suspension system has continuous threaded boss channel, allowing 3/8"-16 threaded rod to be installed to the suspension system at any location	•	•
X-Brackets attachment points for 48" x 48" suspension from building structure	•	•
Available in 24" x 24", 24" x 48", and 48" x 48" suspension system layouts	•	•
Fully accessible system allows for future expansion and upgrade	•	•
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 Suspension System Warranty; 30-Year Limited Ceiling System Warranty	•	•
 Allows for longer spans (6' and 8') while also providing greater load-carrying capacity		•
 6' spacing allows for direct attachment to steel joists or pre-cast concrete tees		•
 Eliminate 1/3 or 1/2 of threaded rods/accessories utilized today for typical 48" hanging spans		•
 Supports point loads of up to 1,090 lbs. at the mid-point of 4' spans (up to 1,850 lbs. for static point loads)		•

DATA CENTER-SPECIFIC ATTRIBUTES	DynaMax Structural Grid	DynaMax Plus Structural Grid
Provides a suspension platform or attachment for data center cable trays, equipment, partitions and hot and cold aisle containment barriers from building structure to below the ceiling plane	•	•
Finished ceiling system offers a containment barrier to protect servers from debris	•	•
Controls airflow by eliminating ceiling 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	•	•

DynaMax® & DynaMax® Plus Suspension Systems

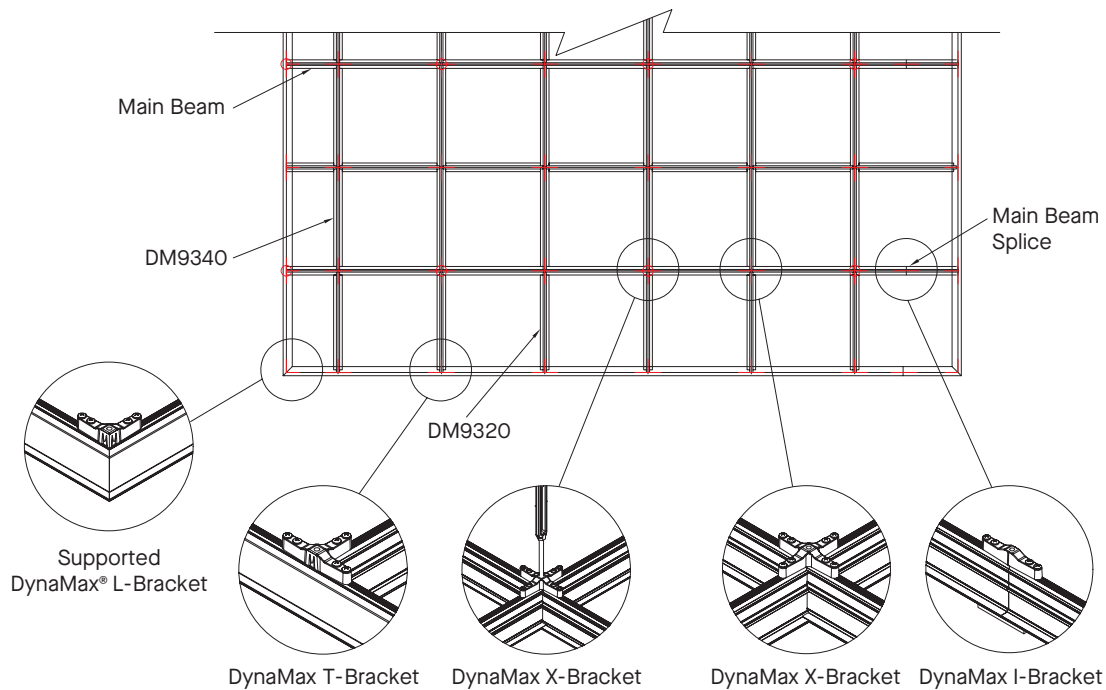
How It Works



NOTE: Although the installation layout above is shown with DynaMax Plus grid system details, the same layout and brackets are used with the standard DynaMax system.

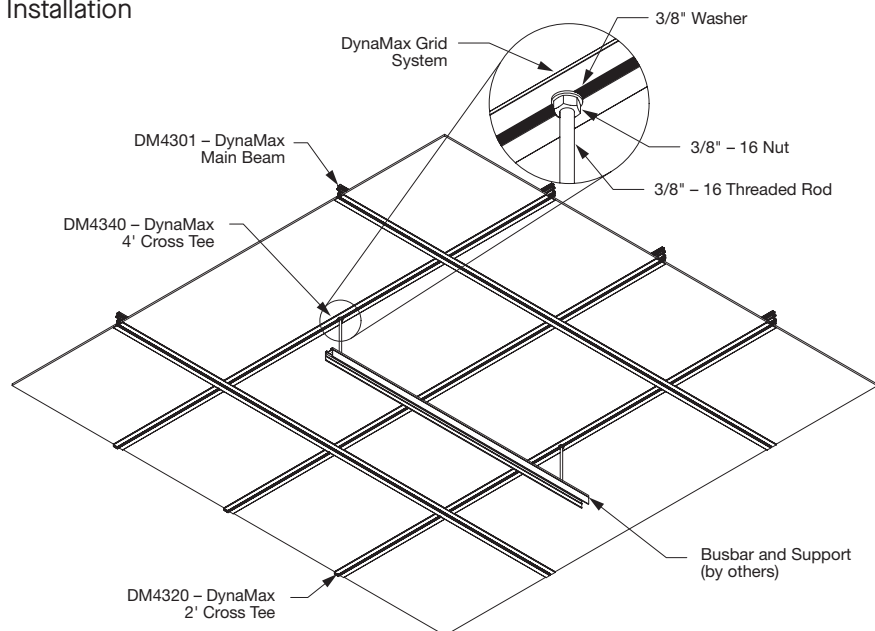
DynaMax® & DynaMax® Plus Suspension Systems

Installation and Layout Overview



NOTE: DynaMax Plus threaded rod drops can be spaced at increased spans of 6' or 8' due to the system's greater load-carrying capability.

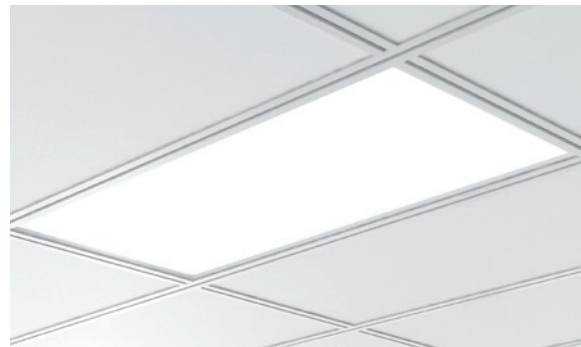
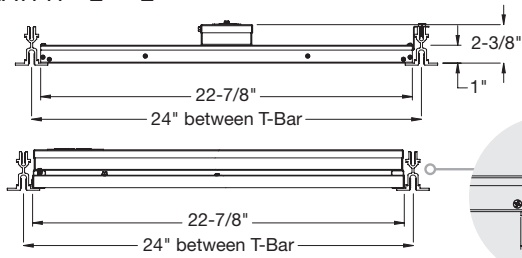
DynaMax Busbar Installation



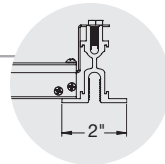
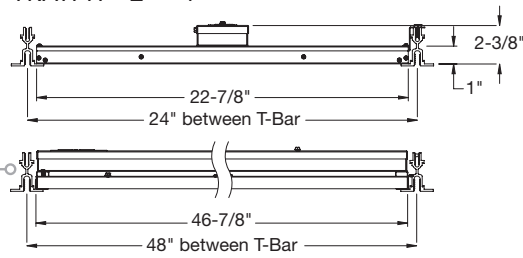
DynaMax® & DynaMax® Plus Integrated Lighting Solutions



TRAYFIT™ 2' × 2'



TRAYFIT™ 2' × 4'



Detail View

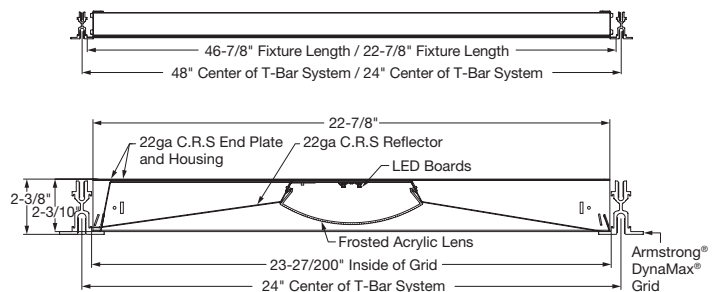
For compatible lighting details, visit axislighting.com



NOTE: In the section that follows, standard DynaMax grid is featured in the partner drawings; however, these partner solutions are all compatible with DynaMax Plus grid.

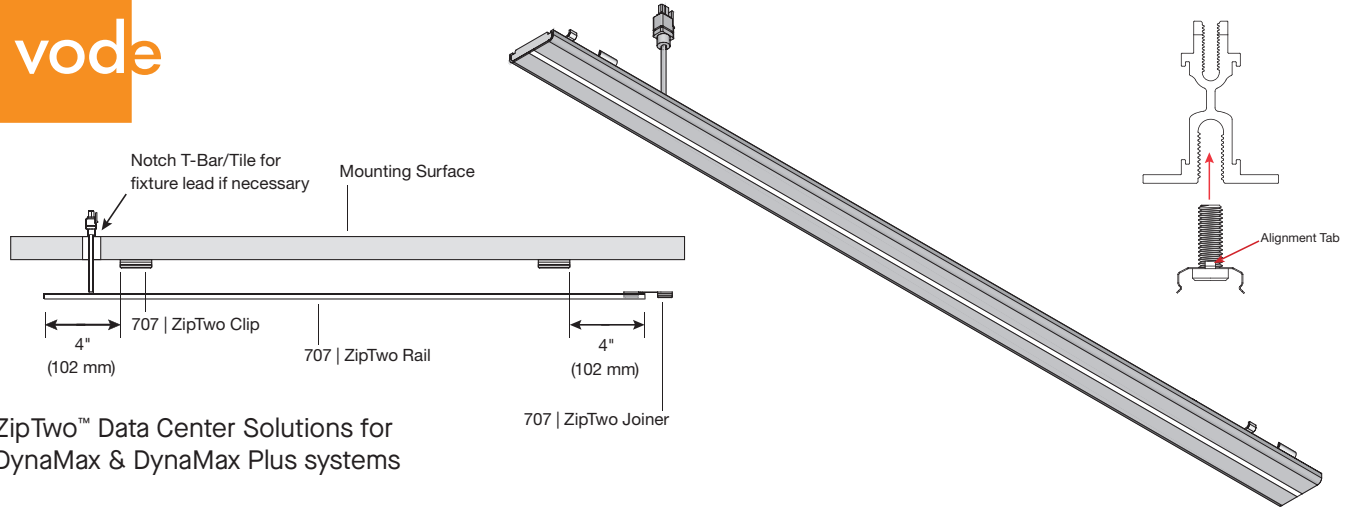


PTDC – Shallow Plenum LED Troffer for DynaMax & DynaMax Plus Systems



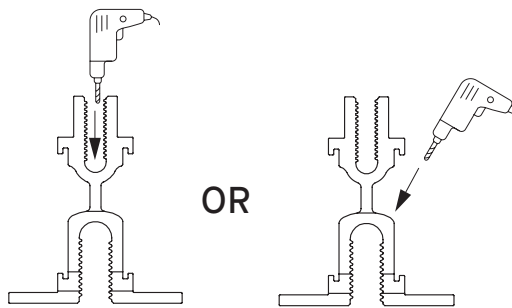
For compatible lighting details, visit hew.com/products/PTDC

DynaMax® & DynaMax® Plus Integrated Lighting Solutions

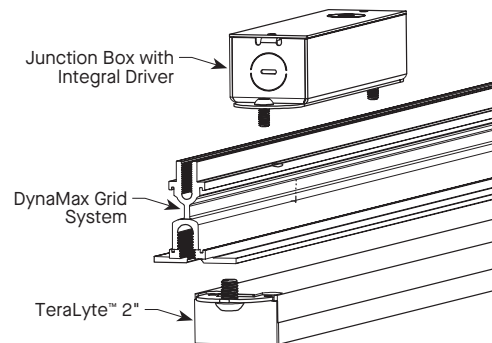
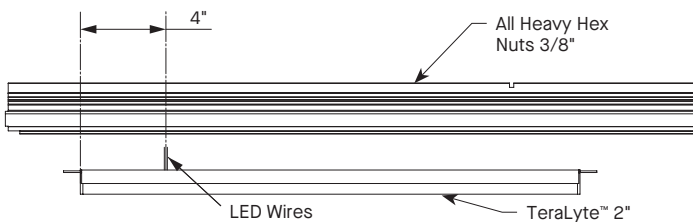


ZipTwo™ Data Center Solutions for DynaMax & DynaMax Plus systems

For compatible lighting details, visit vode.com/dynamax

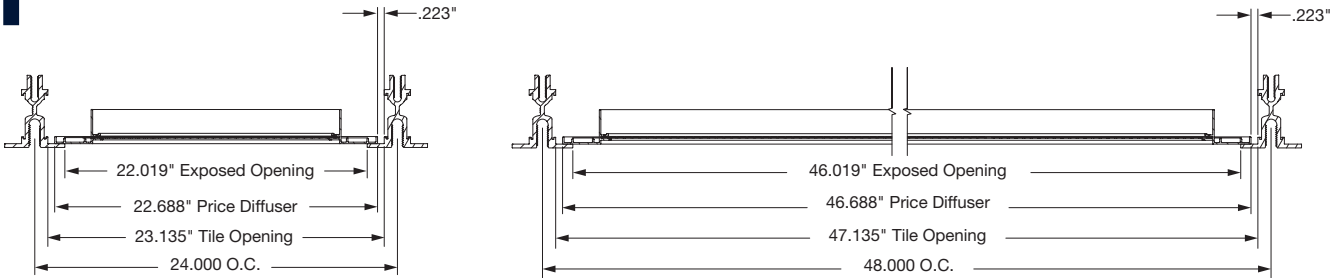


TeraLyte™ 2" for the DynaMax & DynaMax Plus systems



DynaMax® & DynaMax® Plus Additional Solution Partners

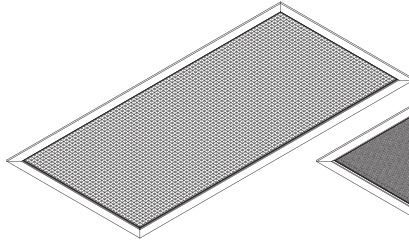
INTEGRATED MEP PARTNERS



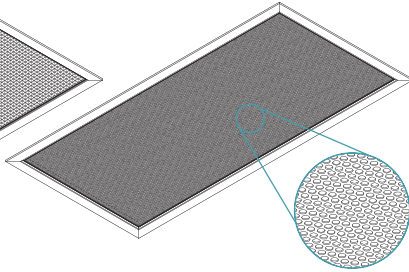
Eggcrate Air Device –
Price Model 80



Perforated Air Device –
Price Model 10



Eggcrate Air Device –
Price Model 80



Perforated Air Device –
Price Model 80

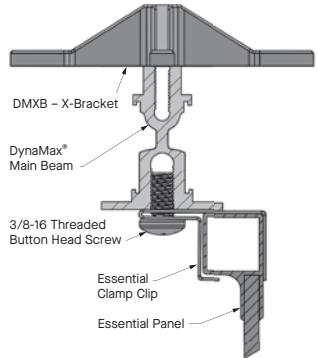
For compatible diffuser details, visit priceindustries.com/diffusers

DATA CENTER CONTAINMENT PARTNERS



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 & DynaMax Plus main beams. This provides easier attachment and improved installation efficiency.







For more data center containment details, visit subzeroeng.com



High Performance

MetalWorks™ Ceiling Panel Selections for DynaMax® & DynaMax® Plus Suspension Systems

VISUAL SELECTION

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







NOTE: 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. For additional info, please contact your local Armstrong rep.

* NRC achieved with acoustical infill (Item 8200T10).

High Performance

Ceiling Panel Selections for DynaMax® & DynaMax® Plus Suspension Systems

VISUAL SELECTION

Edge Profile	Item No.	Dimensions (Inches)
FINE FISSURED™ for DYNAMAX® & DYNAMAX PLUS Square Lay-in 	4126	23-1/4 × 23-1/4 × 5/8"
	4126BL (Black)	23-1/4 × 23-1/4 × 5/8"
	4127	23-1/4 × 47-1/4 × 5/8"
	4127BL (Black)	23-1/4 × 47-1/4 × 5/8"
CALLA® for DYNAMAX® & DYNAMAX PLUS Square Lay-in 	2896	23-1/4 × 23-1/4 × 1"
	2896BK (Black)	23-1/4 × 23-1/4 × 1"
	2897	23-1/4 × 47-1/4 × 1"
	2897BK (Black)	23-1/4 × 47-1/4 × 1"
DUNE® for DYNAMAX® & DYNAMAX PLUS Square Lay-in 	4270	23-1/4 × 23-1/4 × 5/8"
	4271	23-1/4 × 47-1/4 × 5/8"
ULTIMA® for DYNAMAX® & DYNAMAX PLUS Square Lay-in 	1807	23-1/4 × 23-1/4 × 3/4"
	1808	23-1/4 × 47-1/4 × 3/4"
ULTIMA® AIRASSURE® for DYNAMAX® & DYNAMAX PLUS Square Lay-in 	1599	23-1/4 × 23-1/4 × 3/4"
	1638	23-1/4 × 47-1/4 × 3/4"
OPTIMA® PB for DYNAMAX® & DYNAMAX PLUS Square Lay-in 	3210PB	47-5/16 × 47-5/16 × 1"

PERFORMANCE SELECTION

Dots represent high level of performance.

Sound Absorption NRC	+	Sound Blocking CAC	=	Total Acoustics ¹ NRC CAC	Articulation Class AC	Fire Performance	Light Reflect	Bio-Block Mold & Mildew Protection	Humi-Guard+	Sag Resistant	Certified Low VOC Emissions	Durability	Recycled Content	Recycle Program	30-Yr Warranty
0.55		35		N/A	N/A	Class A	0.82	•	•	•	•	Std	Std	•	•
0.55		35		N/A	N/A	Class A	N/A	•	•	•	•	Std	Std	•	•
0.55		35		N/A	N/A	Class A	0.82	•	•	•	•	Std	Std	•	•
0.55		35		N/A	N/A	Class A	N/A	•	•	•	•	Std	•	•	•
0.85		35		BEST	170	Class A	0.85	•	•	•	•	•	•	•	•
0.85		35		BEST	170	Class A	N/A	•	•	•	•	•	•	•	•
0.85		35		BEST	170	Class A	0.85	•	•	•	•	•	•	•	•
0.85		35		BEST	170	Class A	N/A	•	•	•	•	•	•	•	•
0.50		35		N/A	N/A	Class A	0.85	•	•	•	•	•	•	•	•
0.50		35		N/A	N/A	Class A	0.85	•	•	•	•	•	•	•	•
0.75		35		BETTER	170	Class A	0.88	•	•	•	•	•	•	•	•
0.75		35		BETTER	170	Class A	0.88	•	•	•	•	•	•	•	•
0.75		35		BETTER	N/A	Class A	0.88	•	•	•	•	•	•	•	•
0.75		35		BETTER	N/A	Class A	0.88	•	•	•	•	•	•	•	•
0.95		N/A		N/A	190	Class A	0.88	•	•	•	•	•	•	•	•

NOTE: These 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.

¹ Total Acoustics® ceiling panels have an ideal combination of noise reduction and sound blocking performance 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+)



Continuous Load Path (CLP)



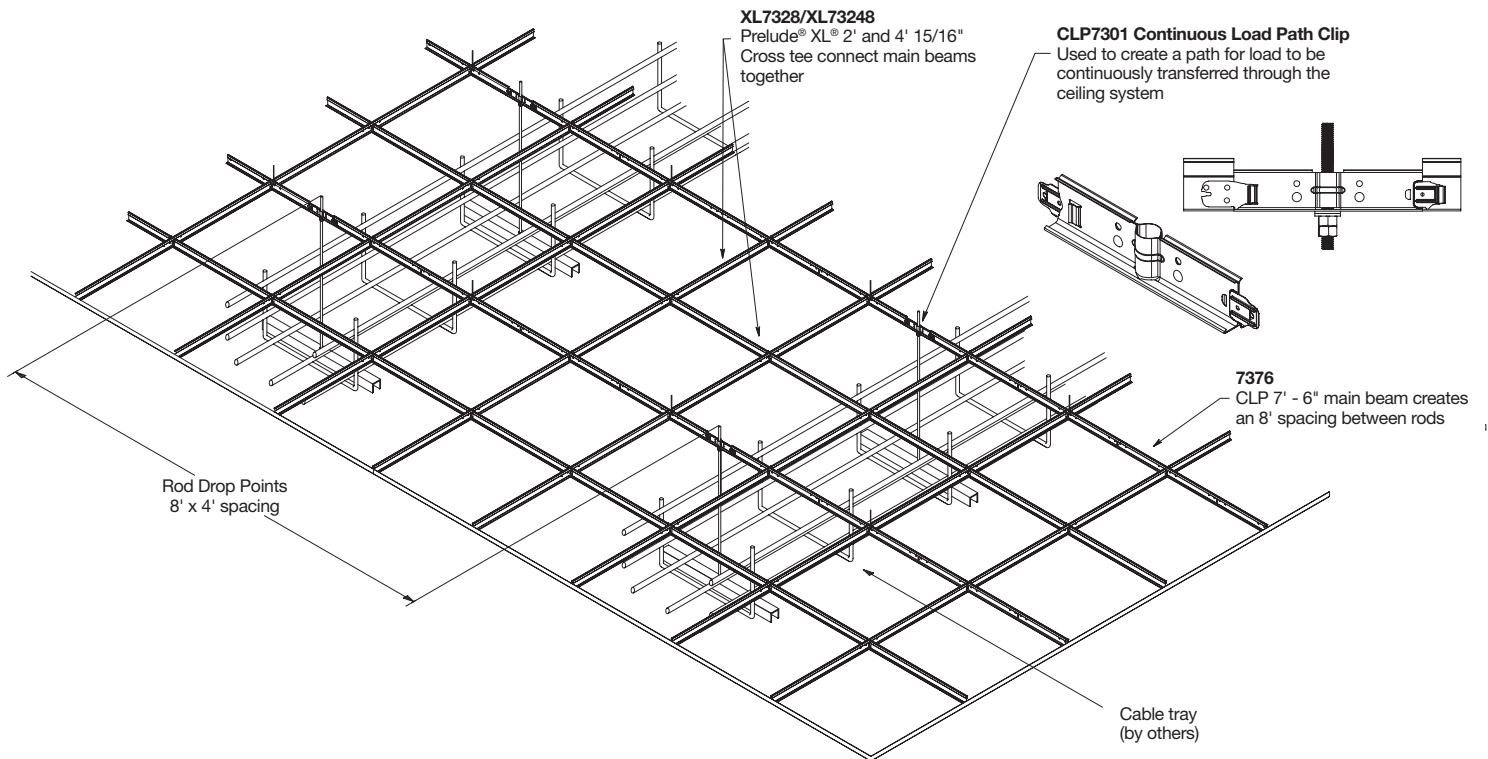
NOTE: The load is completely supported by the threaded rod to the deck and is not transferred to the suspension system. The CLP with coordinating 7'-6" and 9'-6" main beams creates typical 8' and 10' layouts.

The CLP 6" main beam component integrates with the Prelude® XL® suspension system, creating a pathway for the threaded rod to pass through the ceiling plane without unwarranted air penetration.

- Allows a threaded rod to connect to the deck without interrupting the ceiling plane
- Designed to accommodate 1/2" and 3/8" threaded rods with point loads of up to 1,800 lbs. per 3/8" threaded rod and up to 3,300 lbs per 1/2" rod with no weight transferred to the ceiling system
- Provides flexibility to design data halls that require heavier loads by using standard Prelude XL ceiling system in main or high load trunk lines
- Helps to manage air flow without unwarranted air penetrations in the ceiling grid or panels
- Reduces number of hanger wires

Load Path (CLP)

How It Works



Prelude[®] XL Max[®]

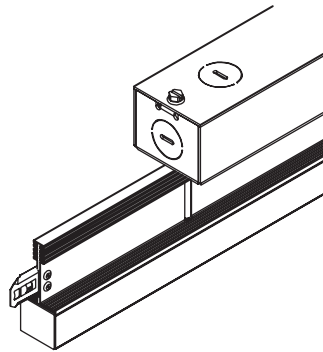
The Prelude[®] XL Max[®] suspension system supports single point loads up to 300 lbs. for cable trays, busbars, hot aisle containment, and more.

Load connector clips attach to the face of the suspension system to eliminate unsightly threaded rod penetrations through the ceiling plane minimizing unwanted air infiltration while improving access, cable tray layout options, and aesthetics.

Integrated hanging clips allow connection to 3/8" threaded rod for flexible and reconfigurable overhead cable tray and electrical distribution without a separate strut channel system.

Prelude XL Max Lighting Solutions

TeraLyte™ 1" for
Prelude XL Max System

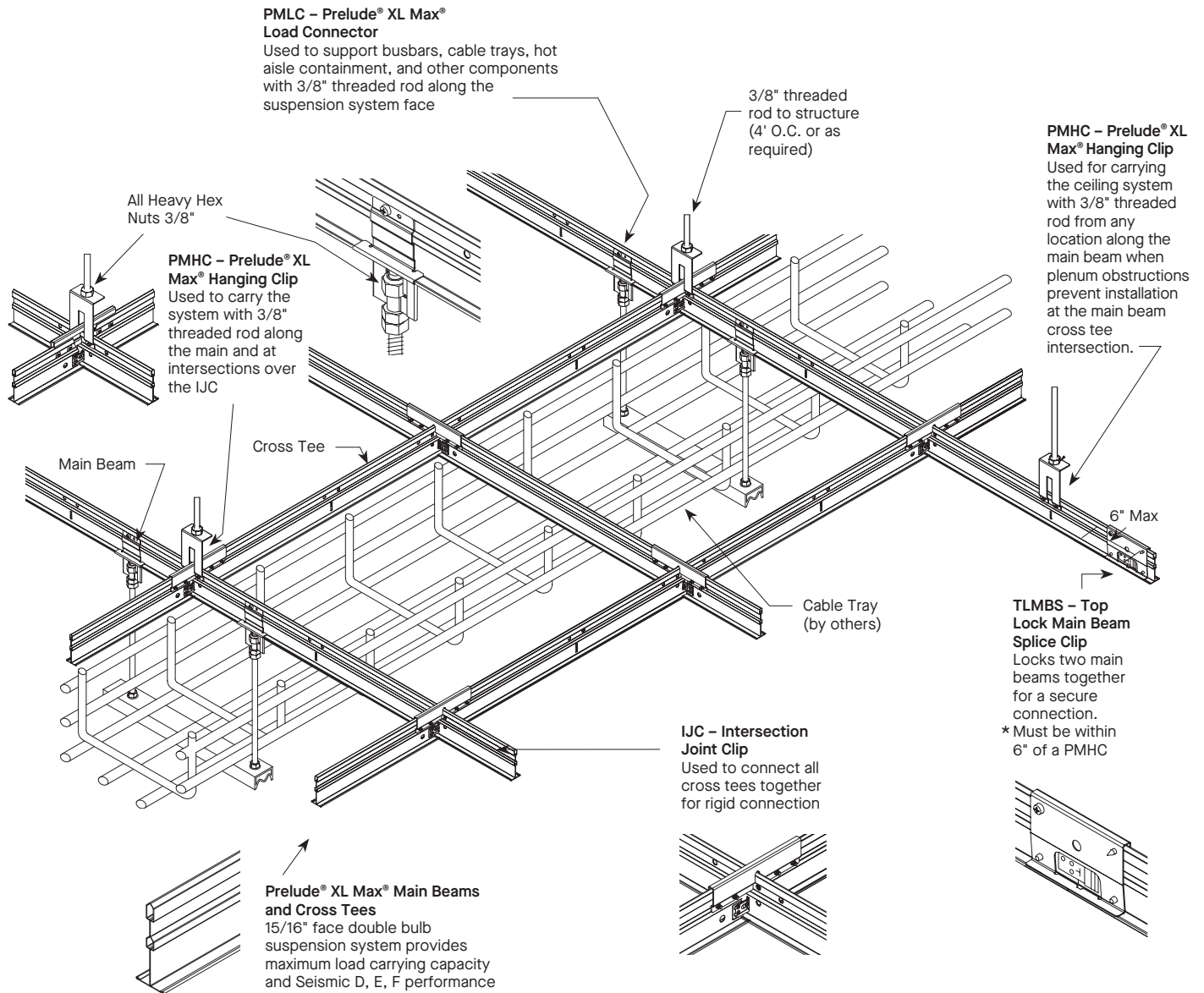


JLC • tech



Prelude® XL Max®






How It Works



High Performance

Ceiling Panel Selections for Prelude® XL Max® Suspension Systems

VISUAL SELECTION

	Item No.	Dimensions (Inches)
CANYON® for Prelude® XL Max® Square Lay-in 	1488	23-13/16 × 23-13/16 × 5/8"
	1489	23-13/16 × 47-13/16 × 5/8"
ULTIMA® for Prelude® XL Max® Square Lay-in 	1927	23-13/16 × 23-13/16 × 3/4"
	1928	23-13/16 × 47-13/16 × 3/4"
CLEAN ROOM™ FL for Prelude® XL Max® Square Lay-in 	1815	23-13/16 × 23-13/16 × 3/4"
	1816	23-13/16 × 47-13/16 × 3/4"
FINE FISSURED – Black for Prelude® XL Max® Square Lay-in 	1747ABL	23-13/16 × 23-13/16 × 5/8"
	1748ABL	23-13/16 × 47-13/16 × 5/8"
FINE FISSURED™ for Prelude® XL Max® Square Lay-in 	1778	23-13/16 × 23-13/16 × 5/8"
	1779	23-13/16 × 47-13/16 × 5/8"

PERFORMANCE SELECTION

Dots represent high level of performance.

Sound Absorption	Sound Blocking	Total Acoustics ¹	Articulation Class	Fire Performance	Light Reflect	Anti-Mold/Mildew Sag Resistant	Bio-Block	Humi-Guard+	Certified Low VOC Emissions	Durability	Recycled Content	Recycle Program	30-Yr Warranty
NRC	CAC	NRC + CAC	AC	Fire	Light	Anti-Mold/Mildew Sag Resistant	Bio-Block	Humi-Guard+	Certified Low VOC Emissions	Durability	Recycled Content	Recycle Program	30-Yr Warranty
0.65	35	GOOD	N/A	Class A	0.80	•	•	•	•	Std	•	•	
0.65	35	GOOD	N/A	Class A	0.80	•	•	•	•	Std	•	•	
0.75	35	BETTER	170	Class A	0.88	•	•	•	•	•	•	•	
0.75	35	BETTER	170	Class A	0.88	•	•	•	•	•	•	•	
0.55	35	N/A	N/A	Class A	0.79	•	•	•	•	•	–	•	
0.55	35	N/A	N/A	Class A	0.79	•	•	•	•	•	–	•	
0.55	35	N/A	N/A	Class A	N/A	•	•	•	•	•	•	•	
0.55	35	N/A	N/A	Class A	N/A	•	Std	•	•	•	•	1-Yr	
0.55	35	N/A	N/A	Class A	0.82	•	•	•	•	•	•	•	
0.55	35	N/A	N/A	Class A	0.82	•	Std	•	•	•	•	1-Yr	

NOTE: These panels are specially sized and engineered for Prelude® XL Max® and must be used with the system. These panels do not fit in other suspension systems.

¹Total Acoustics® ceiling panels have an ideal combination of noise reduction and sound blocking performance 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+)



▲ DynaMax® Structural Grid with integrated air containment system from Subzero Engineering

Notes

Notes

TAKE THE NEXT STEP

877 276-7876

Customer Service Representatives
7:45 a.m. to 5:00 p.m. EST
Monday through Friday

TechLine – Technical information, detail drawings, CAD design assistance, installation information, other technical services – 8:00 a.m. to 5:30 p.m. EST, Monday through Friday. FAX 800 572 8324 or email: techline@armstrongceilings.com

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A Ceiling for Every Space® Visual Selection Tool

Product literature and samples – express service or regular delivery

Contacts – reps, where to buy, who will install



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Mix and match different sizes, shapes, colors, and materials to reinvent your standard, specialty, or custom ceiling.

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Contact your local representative to get a design started! Not sure who your local rep is?

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