



**Armstrong**<sup>®</sup>  
World Industries



## Technical Guide

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**DynaMax**<sup>®</sup>

Structural Aluminum  
Suspension System

# Hang Tough

## Meet DynaMax® Structural Grid

DynaMax® is a structural aluminum suspension system that serves as both a ceiling system and structural component by providing a suspension or attachment platform for cable trays, equipment, partitions and containment barriers while eliminating penetrations in the ceiling system.

For years, the typical construction method for data centers was to have a structural system, like slotted strut, to suspend heavy loads, then an acoustical ceiling to contain air flow and protect the equipment from debris. We have combined these two needs into one with the DynaMax suspension system. Our design provides strength, flexibility, construction efficiencies, and faster, easier installation.

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### Suspension Systems Code Compliance You Can Trust

Meets:

- ASTM C635
  - ASTM C636
  - ASTM E580
  - ICC-ES AC156
- Seismic D, E, F configurations available





DynaMax® Structural Grid Data Center Installation

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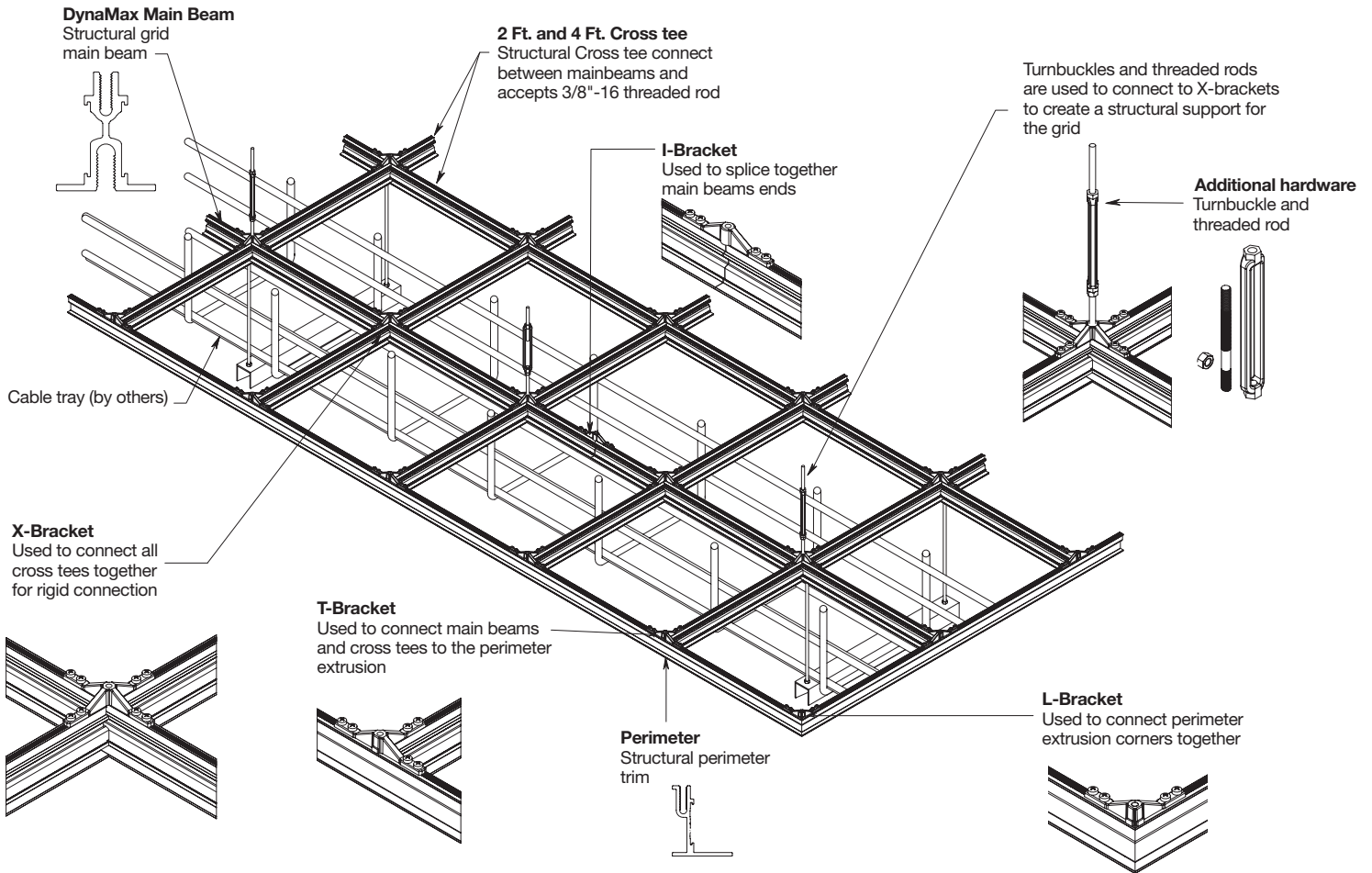
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# About the System

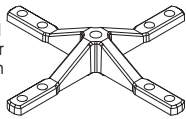
## How the System Works

For additional information and technical guidelines, contact TechLine at 877 276-7876 and select prompts 1-2-3.

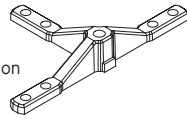


### ACCESSORIES

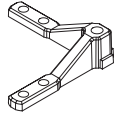
**DMXB – X-Bracket**  
Used to connect all cross tees together for rigid connection  
DMXB – 24 PCS



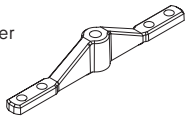
**DMTB – T-Bracket**  
Used to connect main beams and cross tees to the perimeter extrusion  
DMTB – 36 PCS



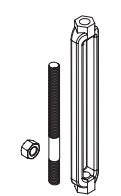
**DMLB – L-Bracket**  
Used to connect perimeter extrusion corners together  
DMLB – 12 PCS



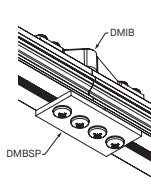
**DMIB – I-Bracket**  
Used to splice together main beam ends  
DMIB – 12 PCS



**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. (1/2" hardware kit available upon request)  
DMHWK – 12 PCS

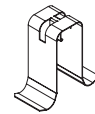


**DMBSP – DynaMax Main Beam Splice Plate**  
Used with DMIB I-Bracket to splice together main beams that butt up against one another  
DMBSP – 12 PCS



### 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

**DMHDC – Hold-down Clip**  
Attaches to the suspension system to hold Lay-in panels in place  
DMHDC – 100 PCS

Suspension System Components

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
- 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
- Easy integration into a conventional grid system using AXTBC clip and DynaMax® boss channels
- DynaMax suspension systems can integrate seamlessly with select Armstrong® ceiling panels for a complete ceiling system solution
- Supports up to a 900 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
- Controls airflow by eliminating penetrations
- 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 installed on DynaMax grid provide attachment points for 48" x 48" suspension from building structure
- DynaMax 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
- Now available with MetalWorks™ ceiling panels
- Lighting, diffuser, and containment options are available from our Data Center lighting and MEP partners

Ceiling panels are specially sized and engineered for the DynaMax suspension system and must be used with the system. These panels do not fit in other suspension systems.

For custom layout information and technical guidelines, contact TechLine customer support at 877 276-7876



DynaMax Structural Aluminum Data Center Suspension System

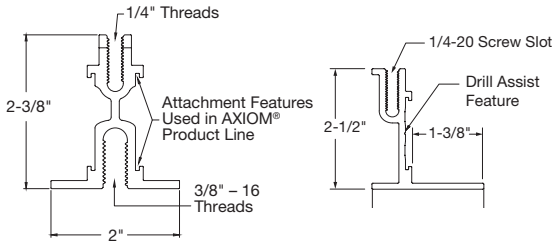
VISUAL SELECTION

PACKAGING

Item No.	Description	Dimensions (Inches)	PCS/CTN	LF/CTN
<b>DynaMax Structural Aluminum Data Center Suspension System</b>				
<input type="checkbox"/> DM4301	Main Beam	144 x 2 x 2-3/8"	4	48
<input type="checkbox"/> DM4340	4' Cross Tee	48 x 2 x 2-3/8"	12	48
<input type="checkbox"/> DM4320	2' Cross Tee	24 x 2 x 2-3/8"	12	24
<input type="checkbox"/> DM4800	Perimeter Molding	144 x 2-1/8 x 2-1/2"	4	48

Note: Contact local engineer for job specific load and/or seismic requirements

DETAILS



DynaMax Main Beam

DM9800 Perimeter Molding

LOAD DATA FOR DYNAMAX SUSPENSION SYSTEMS

Member Span and Spacing (inches)	48"	60"	72"
Maximum Allowable Uniform Area Load (LBS/SF)	56.25	45	37.5
Mid-Span Point Load @ L/360 Deflection (LBS)	320	200	140
Maximum Static Point Load (LBS)	900	900	900
Turnbuckle Maximum Load to Structure (LBS)	900	900	900




























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

# About the System

## Recommended Ceiling Panels

### VISUAL SELECTION

### PERFORMANCE SELECTION Dots represent high level of performance

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

**NOTE:** These 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.





Factory gasketing is available upon request.

<sup>1</sup> Total Acoustics® ceiling panels have an ideal combination of noise reduction and sound-blocking performance in one product.

## MetalWorks™ Lay-in for DynaMax®

### VISUAL SELECTION

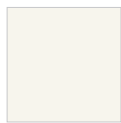
### PERFORMANCE SELECTION Dots represent high level of performance

Edge Profile	Perforation	Item No.	Dimensions (Inches)	Sound Absorption (NRC)	Sound Absorption* (with infill panel)	Fire Performance	Light Reflect	Bio-Block Mold & Mildew Protection	Certified Low VOC Emissions	Durability	Recycled Content
METALWORKS™ for DynaMax® Square Lay-in	M1 (Unperforated)	 6345W24L48M1WHA	23" × 47"	N/A	N/A	Class A	0.75	•	•	•	•
		 6345W48L48M1WHA	47" × 47"	N/A	N/A	Class A	0.75	•	•	•	•
	M19	 6345W24L48M19WHA	23" × 47"	0.70 •	0.85 •	Class A	0.75	•	•	•	•
		 6345W48L48M19WHA	47" × 47"	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.  
\* NRC achieved with acoustical infill (Item 8200T10).

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

Painted



Whitelume (WHA)



Custom Colors Available

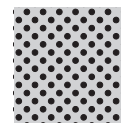
For custom options contact ASQuote,  
ASQuote@armstrongceilings.com

### PERFORATION OPTIONS

(1:2 SCALE SHOWN)



M1 (Unperforated)

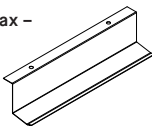


M19 (Microperforated)

### 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 cup panel.

**6483 – 10 PCS**



**8200T10 – 1" Fiberglass Infill Bag –**

24 × 24 × 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

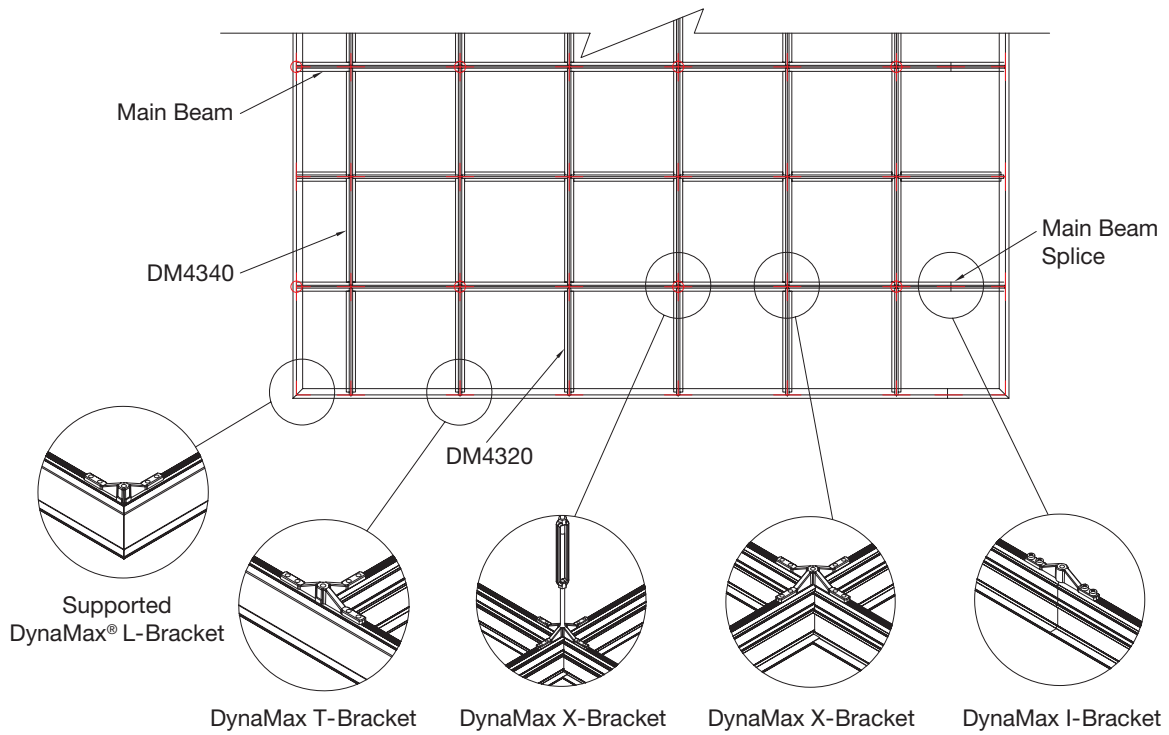
All MetalWorks panels: Aluminum – 0.064"

#### Warranty

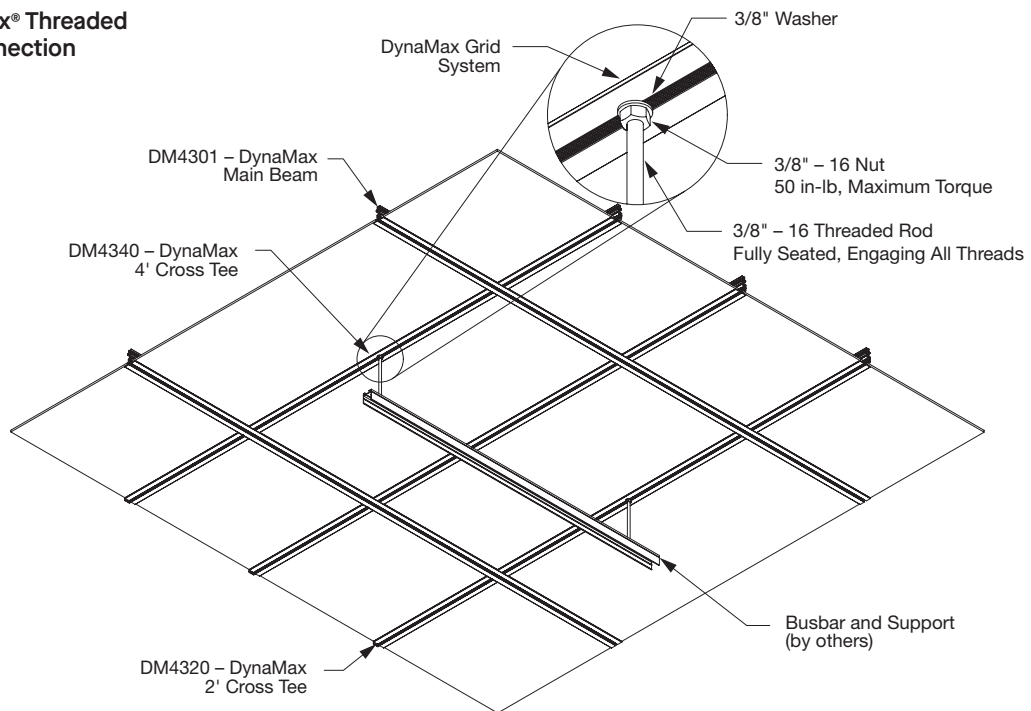
One (1) year limited warranty for MetalWorks items. Details at [armstrongceilings.com/warranty](http://armstrongceilings.com/warranty).

# Installation & Layout Overview

## Installation



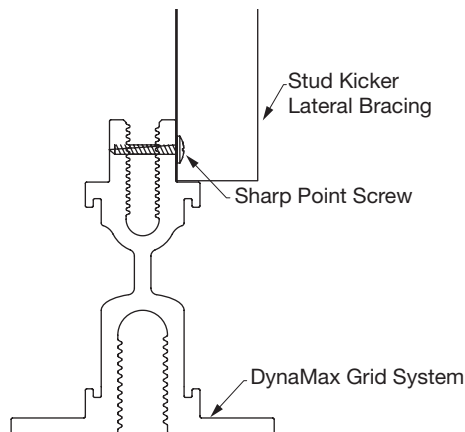
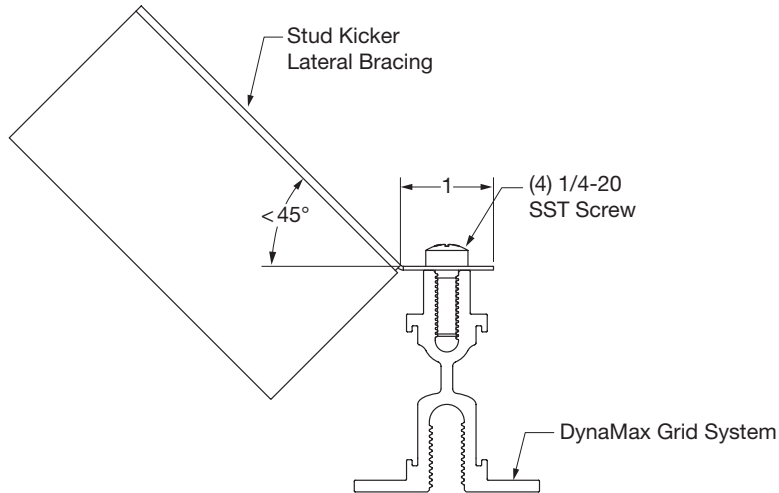
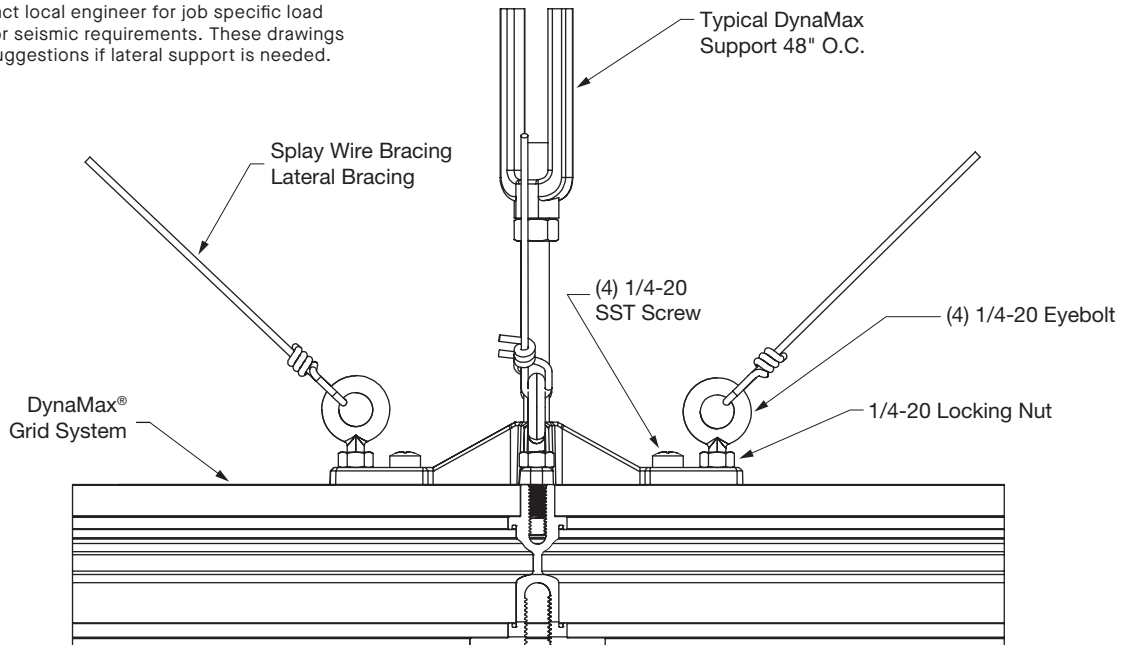
### 3/8" DynaMax® Threaded Channel Connection





## Seismic Considerations

**NOTE:** Contact local engineer for job specific load and/or seismic requirements. These drawings are suggestions if lateral support is needed.



# Design Guide

## Section Properties

Find the full installation instructions [HERE](#).

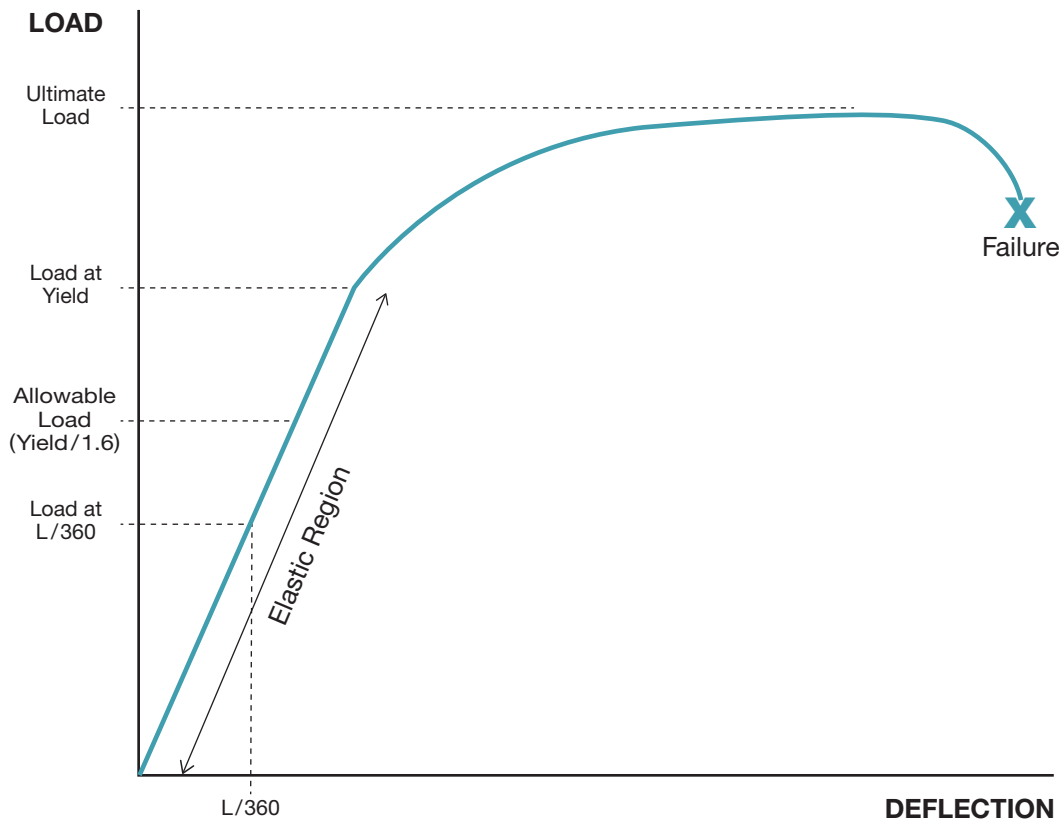
### DynaMax® Section Properties

Area	Weight	Yield Strength	Modulus of Elasticity	Moment of Inertia	Radius of Gyration	Moment of Inertia	Radius of Gyration	Section Modulus	Maximum Bending Moment
Ab	Wb	Fy	E	Ix	Rx	Iy	Ry	Scx	[M]
(in <sup>2</sup> )	(lbs/ft)	(ksi)	(lbs/in <sup>2</sup> )	(in <sup>4</sup> )	(in)	(in <sup>4</sup> )	(in)	(in <sup>3</sup> )	(ft-lb)
0.950	1.117	21.0	1.00E+07	0.5545	0.7641	0.1193	0.3544	0.3986	698

### General Notes:

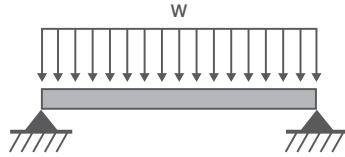
- 1 The data contained in this technical guide is intended to be used as a general guideline only and does not replace the design of a qualified engineer.
- 2 The load tables in this technical guide are calculated conservatively as single span (simple) beams supported at the ends.
- 3 The 'Load at Yield' is calculated as the maximum bending moment for each loading condition. The 'Allowable Load' is calculated by dividing the maximum bending moment by a safety factor of 1.67.
- 4 It is recommended that the DynaMax system is designed to limit the deflection of loaded members to 1/360 of the span.
- 5 Load supported by DynaMax support brackets must not exceed the allowable load of 900 lbs.

## Load vs. Deflection Plot



## Load Data

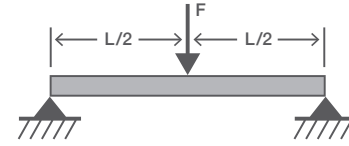
DynaMax® Structural Aluminum Suspension System supports up to a 900 lb. single point load rating using 3/8" threaded rod at 4' x 4' connection points assuming loads applied under threaded rod support brackets. For even greater load-carrying capability, consider DynaMax® Plus Structural Grid System—a structural solution that can suspend mid-span loads of up to 1,090 lbs. at L/360 (up to 1,750 lbs. for static point loads).



$$\Delta_{\max} = 5 W L^3 / (384 E I)$$

$$M_{\max} = W L^2 / 8$$

Span (in)	Uniform Load, W (lb/ft)				
	Load at Deflection Limit			Allowable Load	Load at Yield
	L/180	L/240	L/360		
24	—	—	—	832	1390
36	—	—	300	371	620
48	—	—	120	204	340
60	130	90	60	132	220
72	70	50	30	90	150
84	40	30	20	66	110
96	30	20	10	48	80



$$\Delta_{\max} = F L^3 / (48 E I)$$

$$M_{\max} = F L / 4$$

Span (in)	Mid-Span Point Load, F (lb)				
	Loading at Deflection Limit			Allowable Load	Load at Yield
	L/180	L/240	L/360		
24	—	—	—	832	1390
36	—	—	—	557	930
48	—	—	320	413	690
60	—	300	200	329	550
72	—	210	140	275	460
84	200	150	100	234	390
96	160	120	80	204	340

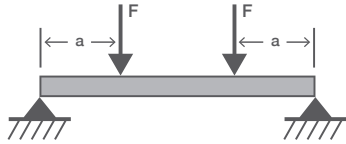
Main Beam Spacing (ft)	Span (in)	Uniform Area Load (lb/sq ft)			
		L/180	L/240	L/360	Allowable Load
2	48	—	—	60.0	101.7
	60	65.0	45.0	30.0	65.8
	72	35.0	25.0	15.0	44.9
	84	20.0	15.0	10.0	32.9
	96	15.0	10.0	5.0	23.9
4	48	—	—	30.0	50.8
	60	32.5	22.5	15.0	32.9
	72	17.5	12.5	7.5	22.4
	84	10.0	7.5	5.0	16.4
	96	7.5	5.0	2.5	11.9

Main Beam Spacing (ft)	Span (in)	Area (sq ft)	Uniform Area Load (lb/sq ft)			
			L/180	L/240	L/360	Allowable Load
2	48	8	—	—	40.0	51.6
	60	10	—	30.0	20.0	32.9
	72	12	—	17.5	11.6	22.9
	84	14	14.2	10.7	7.1	16.6
	96	16	10.0	7.5	5.0	12.7
4	48	16	—	—	20.0	25.8
	60	20	—	15.0	10.0	16.4
	72	24	—	8.7	5.8	11.4
	84	28	7.1	5.3	3.5	8.3
	96	32	5.0	3.7	2.5	6.3

# Design Guide

## Load Data

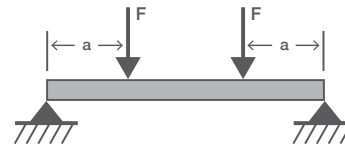
### LOAD DATA



$$\Delta_{\max} = (F a / (24 E I)) \cdot (3 L^2 - 4 a^2)$$

$$M_{\max} = F a$$

Span (in)	Point Loading Location, a (in)	Dual Point Load at 1/4 Points, F (lb)				
		Loading at Deflection Limit			Allowable Load	Load at Yield
		L/180	L/240	L/360		
24	6	—	—	—	832	1390
36	9	—	—	410	557	930
48	12	—	350	230	413	690
60	15	290	220	140	329	550
72	18	200	150	100	275	460
84	21	150	110	70	234	390
96	24	110	80	50	204	340



$$\Delta_{\max} = (F a / (24 E I)) \cdot (3 L^2 - 4 a^2)$$

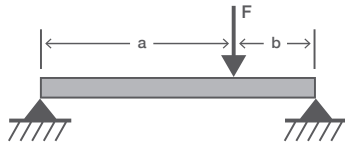
$$M_{\max} = F a$$

Span (in)	Point Loading Location, a (in)	Dual Point Load at 1/8 Points, F (lb)				
		Loading at Deflection Limit			Allowable Load	Load at Yield
		L/180	L/240	L/360		
24	3	—	—	—	900	2790
36	4.5	—	—	770	900	1860
48	6	—	650	430	832	1390
60	7.5	550	410	270	665	1110
72	9	380	290	190	557	930
84	10.5	280	210	140	473	790
96	12	210	160	100	413	690

Main Beam Spacing (ft)	Span (in)	Area (sq ft)	Uniform Area Load, (lb/sq ft)			
			L/180	L/240	L/360	Allowable Load
2	48	8	—	87.4	57.4	103.2
	60	10	58.0	44.0	28.0	65.8
	72	12	44.0	25.0	16.6	45.8
	84	14	25.0	15.6	10.0	33.2
	96	16	21.4	10.0	6.2	25.4
4	48	16	—	43.6	28.6	51.6
	60	20	29.0	22.0	14.0	32.8
	72	24	16.6	12.4	8.2	22.8
	84	28	10.6	7.8	5.0	16.6
	96	32	6.8	5.0	3.0	12.6

Main Beam Spacing (ft)	Span (in)	Area (sq ft)	Uniform Area Load, (lb/sq ft)			
			L/180	L/240	L/360	Allowable Load
2	48	8	—	162.4	107.4	208.0
	60	10	110.0	82.0	54.0	132.8
	72	12	63.2	48.2	31.6	92.8
	84	14	40.0	30.0	20.0	67.4
	96	16	26.2	20.0	12.4	51.6
4	48	16	—	81.2	53.6	104.0
	60	20	55.0	41.0	27.0	66.4
	72	24	31.6	24.0	15.8	46.4
	84	28	20.0	15.0	10.0	33.6
	96	32	13.0	10.0	6.2	25.8

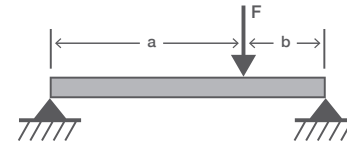
Load Data



$$\Delta_{\max} = (F b (L^2 - b^2)^{3/2}) / (9 \cdot 3^{1/3} L E I)$$

$$M_{\max} = F a b / L$$

Span (in)	Point Loading Location, b (in)	Point Load within 3" of Support, F (lb)				
		Loading at Deflection Limit			Allowable Load	Load at Yield
		L/180	L/240	L/360		
24	3	—	—	—	900	3180
36	3	—	—	—	900	3040
48	3	—	—	—	900	2970
60	3	—	—	—	900	2930
72	3	—	—	—	900	2910
84	3	—	—	—	900	2890
96	3	—	—	830	900	2880



$$\Delta_{\max} = (F b (L^2 - b^2)^{3/2}) / (9 \cdot 3^{1/3} L E I)$$

$$M_{\max} = F a b / L$$

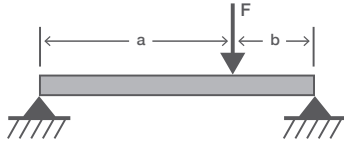
Span (in)	Point Loading Location, b (in)	Point Load within 6" of Support, F (lb)				
		Loading at Deflection Limit			Allowable Load	Load at Yield
		L/180	L/240	L/360		
24	6	—	—	—	900	1860
36	6	—	—	—	900	1670
48	6	—	—	850	900	1590
60	6	—	—	670	900	1550
72	6	—	840	560	900	1520
84	6	—	720	480	900	1500
96	6	830	620	410	900	1480

Main Beam Spacing (ft)	Span (in)	Area (sq ft)	Uniform Area Load, (lb/sq ft)			
			L/180	L/240	L/360	Allowable Load
2	48	8	—	—	—	112.5
	60	10	—	—	—	90.0
	72	12	—	—	—	75.0
	84	14	—	—	—	64.2
	96	16	—	—	51.8	56.2
4	48	16	—	—	—	56.2
	60	20	—	—	—	45.0
	72	24	—	—	—	37.5
	84	28	—	—	—	32.1
	96	32	—	—	25.9	28.1

Main Beam Spacing (ft)	Span (in)	Area (sq ft)	Uniform Area Load, (lb/sq ft)			
			L/180	L/240	L/360	Allowable Load
2	48	8	—	—	106.2	112.5
	60	10	—	—	67.0	90.0
	72	12	—	70.0	46.6	75.0
	84	14	—	51.4	34.2	64.1
	96	16	51.8	38.7	25.6	55.3
4	48	16	—	—	53.1	56.2
	60	20	—	—	3.5	45.0
	72	24	—	35.0	23.3	37.5
	84	28	—	25.7	17.1	32.0
	96	32	25.9	19.3	12.8	27.6

# Design Guide

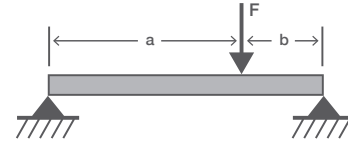
## Load Data



$$\Delta_{\max} = (F b (L^2 - b^2)^{3/2}) / (9 \cdot 3^{1/3} L E I)$$

$$M_{\max} = F a b / L$$

Span (in)	Point Loading Location, b (in)	Point Load within 12" of Support, F (lb)				
		Loading at Deflection Limit			Allowable Load	Load at Yield
		L/180	L/240	L/360		
24	12	—	—	—	832	1390
36	12	—	—	—	623	1040
48	12	—	—	450	557	930
60	12	—	—	350	521	870
72	12	—	430	280	497	830
84	12	—	360	240	485	810
96	12	420	320	210	473	790



$$\Delta_{\max} = (F b (L^2 - b^2)^{3/2}) / (9 \cdot 3^{1/3} L E I)$$

$$M_{\max} = F a b / L$$

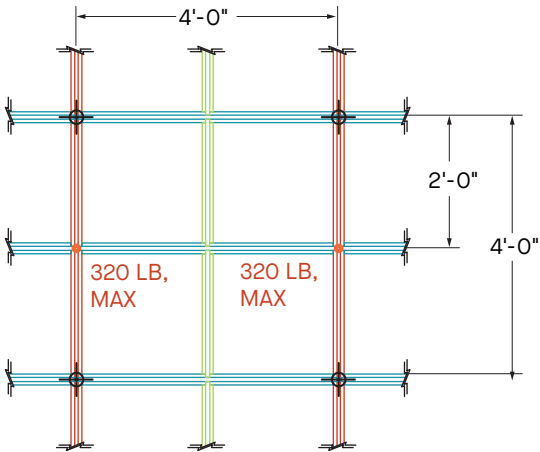
Span (in)	Point Loading Location, b (in)	Point Load within 18" of Support, F (lb)				
		Loading at Deflection Limit			Allowable Load	Load at Yield
		L/180	L/240	L/360		
24	18	—	—	—	—	—
36	18	—	—	—	557	930
48	18	—	—	340	443	740
60	18	—	380	250	395	660
72	18	—	300	200	371	620
84	18	340	250	170	353	590
96	18	290	210	140	341	570

Main Beam Spacing (ft)	Span (in)	Area (sq ft)	Uniform Area Load, (lb/sq ft)			
			L/180	L/240	L/360	Allowable Load
2	48	8	—	—	56.2	69.6
	60	10	—	—	35.0	52.0
	72	12	—	35.8	23.3	41.4
	84	14	—	25.7	17.1	34.6
	96	16	26.2	20.0	13.1	29.5
4	48	16	—	—	28.1	34.8
	60	20	—	—	17.5	26.0
	72	24	—	17.9	11.6	20.7
	84	28	—	12.8	8.5	17.3
	96	32	13.1	10.0	6.5	14.7

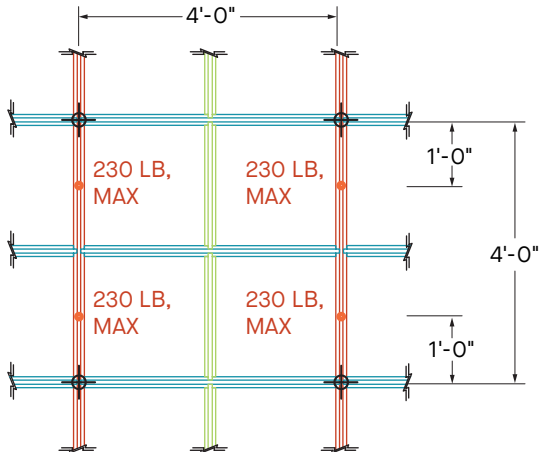
Main Beam Spacing (ft)	Span (in)	Area (sq ft)	Uniform Area Load, (lb/sq ft)			
			L/180	L/240	L/360	Allowable Load
2	48	8	—	—	42.5	55.3
	60	10	—	38.0	25.0	39.5
	72	12	—	25.0	16.6	30.9
	84	14	24.2	17.8	12.1	25.2
	96	16	18.1	13.1	8.7	21.3
4	48	16	—	—	21.2	27.6
	60	20	—	19.0	12.5	19.7
	72	24	—	12.5	8.3	15.4
	84	28	12.1	8.9	6.0	12.6
	96	32	9.0	6.5	4.3	10.6

Loading Condition Examples

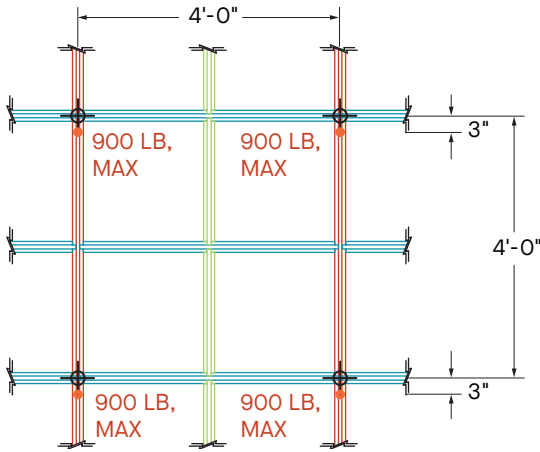
NOTE: Loading condition examples are shown with L/360 deflection.



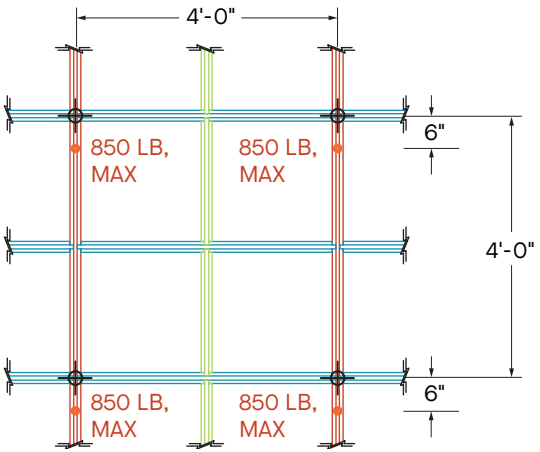
4' x 4' Support Spacing  
Main Beam  
Mid-Span Loading








4' x 4' Support Spacing  
Main Beam Dual Point Loads  
at 1/4 Points



4' x 4' Support Spacing  
Main Beam Point Load  
within 3" of Support



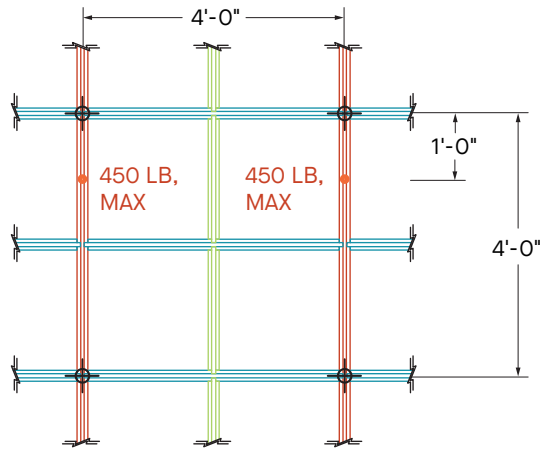
4' x 4' Support Spacing  
Main Beam Point Load  
within 6" of Support

-  Support Bracket
-  Main Beam
-  4-FT Cross Tee
-  2-FT Cross Tee
-  Point Load Location

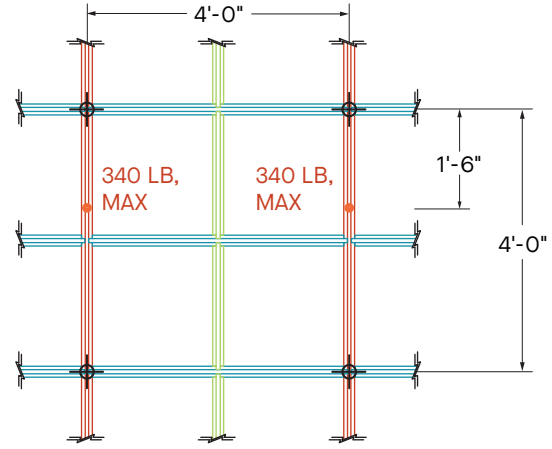
# Design Guide

## Loading Condition Examples

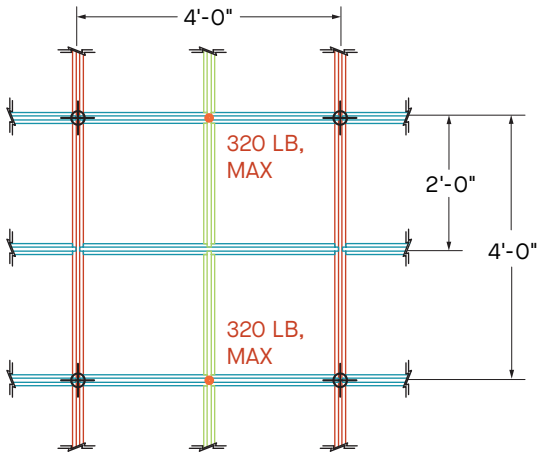
NOTE: Loading condition examples are shown with L/360 deflection



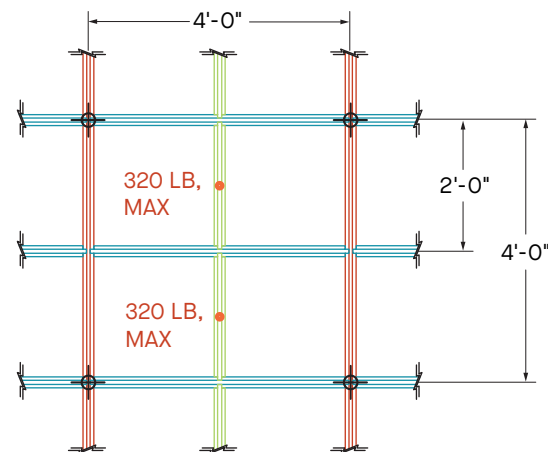
4' x 4' Support Spacing  
Main Beam Point Load  
within 12" of Support








4' x 4' Support Spacing  
Main Beam Point Load  
within 18" of Support



4' x 4' Support Spacing  
4' Cross Tee  
Mid-Span Loading



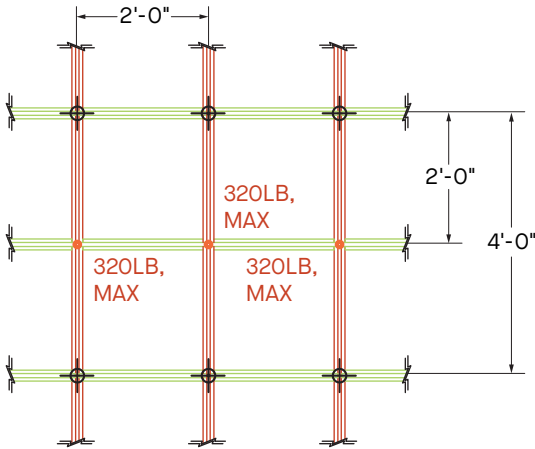
4' x 4' Support Spacing  
2' Cross Tee  
Mid-Span Loading

-  Support Bracket
-  Main Beam
-  4-FT Cross Tee
-  2-FT Cross Tee
-  Point Load Location

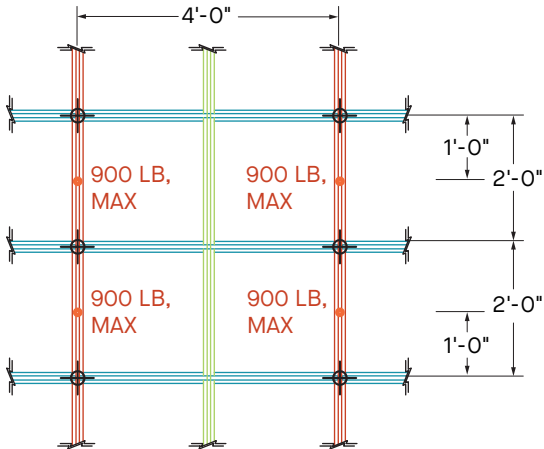


Loading Condition Examples

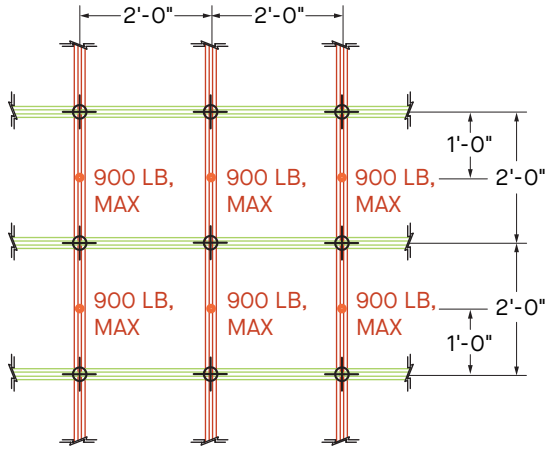
NOTE: Loading condition examples are shown with L/360 deflection








4' x 2' Support Spacing  
Main Beam  
Mid-Span Loading



2' x 4' Support Spacing  
Main Beam  
Mid-Span Loading



2' x 2' Support Spacing  
Main Beam  
Mid-Span Loading

-  Support Bracket
-  Main Beam
-  4-FT Cross Tee
-  2-FT Cross Tee
-  Point Load Location

# Partner Solutions for DynaMax®

## Integrated Lighting Partners

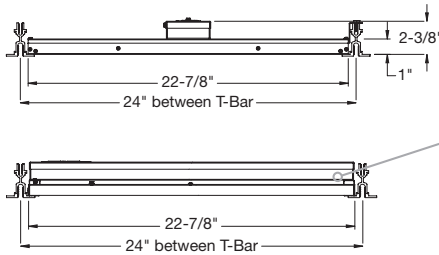
Lighting and diffuser solutions are available through partner companies.



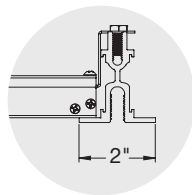
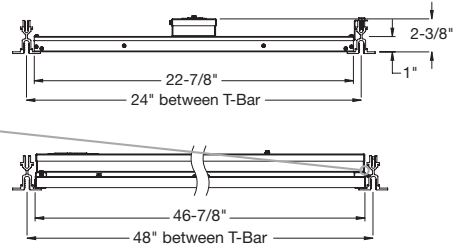
For compatible lighting details, visit [axislighting.com](http://axislighting.com)



TRAYFIT™ 2x2



TRAYFIT™ 2x4



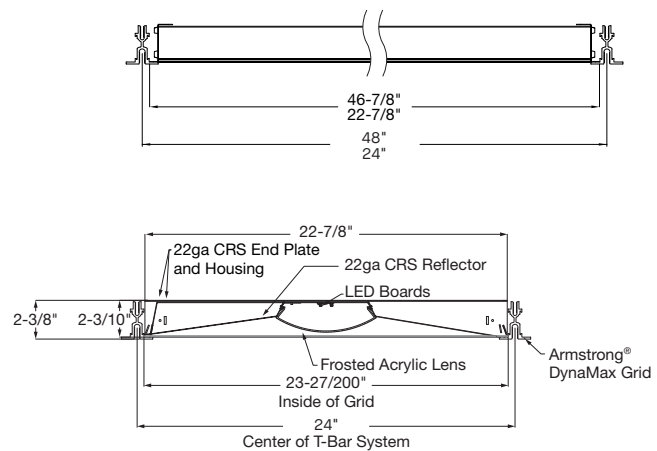
Detail View



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

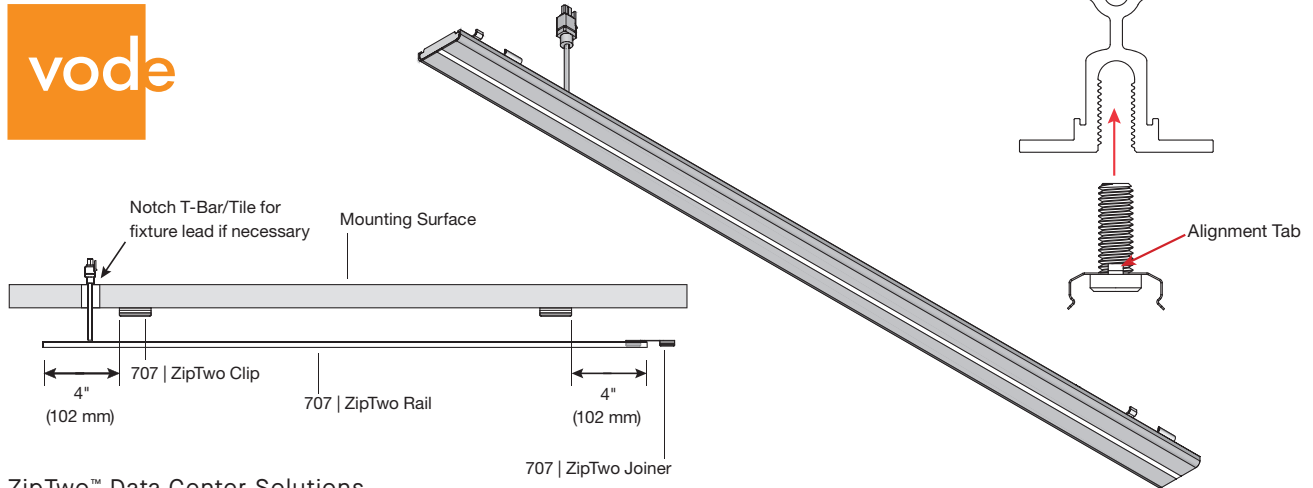


PTDC - Shallow Plenum LED Troffer for DynaMax System



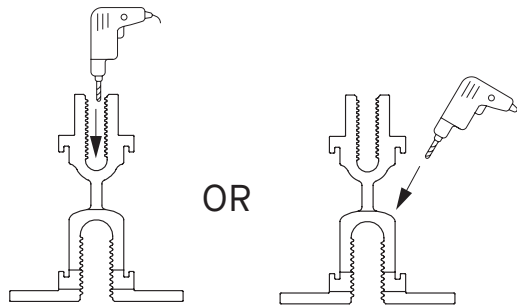
Integrated Lighting Partners

Lighting and diffuser solutions are available through partner companies.

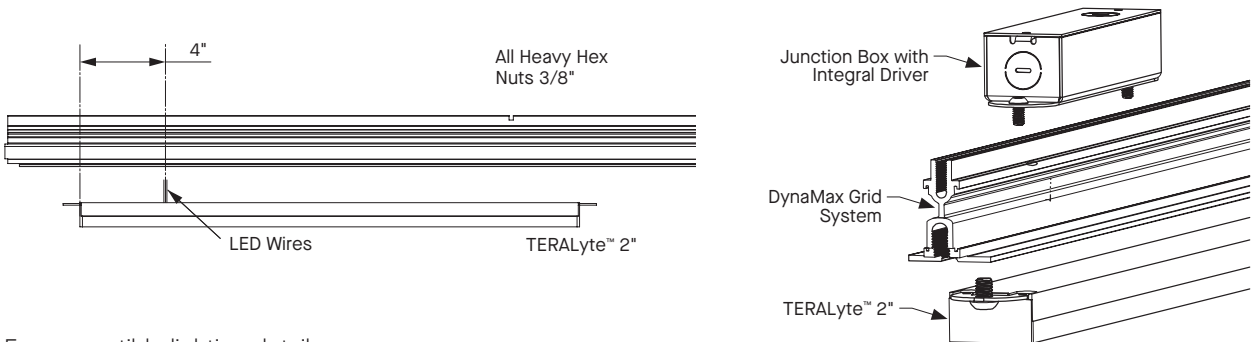


ZipTwo™ Data Center Solutions

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

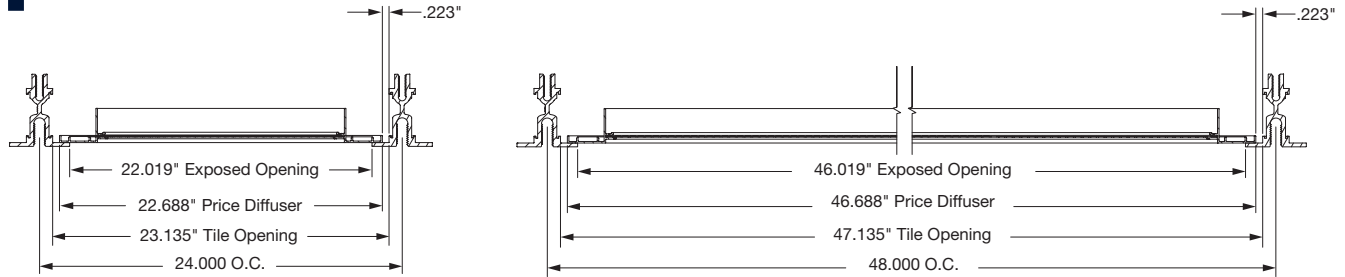


TERAlyte™ 2" for the DynaMax® grid system.



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

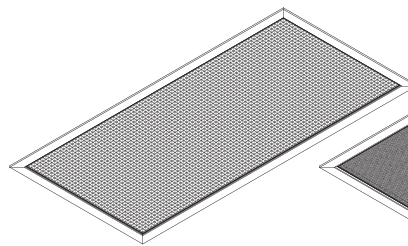
Integrated MEP Partners



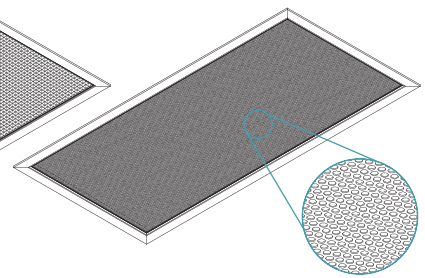
Eggcrate Air Device – Price Model 80



Perforated Air Device – Price Model 10



Eggcrate Air Device – Price Model 80



Perforated Air Device – Price Model 10

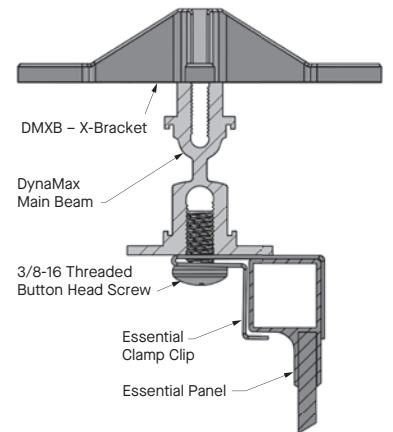
For compatible diffuser details, visit [priceindustries.com/diffusers](http://priceindustries.com/diffusers)

Air Containment Partner



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.



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

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## The Next Step

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