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™ STRUCTURAL ALUMINUM SUSPENSION SYSTEM
6 CONTINUOUS LOAD PATH (CLP) FOR PRELUDE® XL®
8 PRELUDE® XL MAX® 15/16" SUSPENSION SYSTEM
10 HIGH PERFORMANCE CEILING PANEL SELECTIONS
Provides a suspension platform or attachment for data center cable trays, equipment partitions, and hot and cold containment barriers from building structure to below the ceiling plane.

- Provides a suspension platform or attachment for data center cable trays, equipment partitions, and hot and cold 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 system can integrate seamlessly with Armstrong® ceiling panels for a complete ceiling system solution.
- Lighting integration solutions available.
- Supports up to a 900 lb. point load rating using 3/8" threaded rod at 4’x4’ connection points.
- Factory cut notches on main beams for a faster and easier installation.
- Grid system has continuous threaded boss channel, allowing 3/8" threaded rod to be installed to the suspension system at any location.
- Controls airflow by eliminating penetrations.
- Available in 2 x 2’, 2 x 4’ and 4 x 4’ 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.
- Cross tees not bearing any load are removable for plenum access without compromising the structural integrity of the system.
- 10-year limited Warranty.

DYNAMAX™ Suspension System

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.
Turnbuckles and threaded rods are used to connect to X-brackets to create a structural support for the grid.

I-Bracket
Used to splice together main beams ends.

X-Bracket
Used to connect all cross tees together for rigid connection.

2 Ft. and 4 Ft. Cross tee
Structural Cross tee connect between mainbeams and accepts 3/8-16 threaded rod.

T-Bracket
Used to connect main beams and cross tees to the perimeter extrusion.

Perimeter
Structural perimeter trim.

L-Bracket
Used to connect perimeter extrusion corners together.

Additional hardware
Turnbuckle and threaded rod.

Main Beam
Structural grid main beam.

Cable tray by other.
CONTINUOUS LOAD PATH (CLP)

The CLP 6" main beam component integrates with 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.
- Reduce number of hanger wires.

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.
CONTINUOUS LOAD PATH (CLP)

How It Works

CLP7301 Continuous Load Path Clip
Used to create a path for load to be continuously transferred through the ceiling system.

XL7328/XL73248 Prelude® XL® 2ft and 4ft 15/16” Cross tee connect main beams together.

7376 CLP 7’-6” main beam creates an 8’ spacing between rods.

Cable tray by other

Rod Drop Points
6’ x 4’ spacing
The Prelude® XL MAX® suspension system supports single point loads up to 300 lbs. for cable trays, busways, 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®
How It Works

PMLC – Prelude® XL Max®
Load Connector
Used to support bus bars, cable trays, hot aisle containment, and other components with 3/8” threaded rod along the suspension system face.

PMHC – Prelude® XL Max® Hanging Clip
Used to carry the system with 3/8” threaded rod along the main and at intersections over the IJC.

PMHC – Prelude® XL Max® Hanging Clip
Used for carrying the ceiling system with 3/8” threaded rod from any location along the main beam when plenum obstructions prevent installation at the main beam cross tee intersection.

Main Beam
Cross Tee

All Heavy Hex 3/8” Nuts

Cable Tray (By others)

IJC – Intersection Joint Clip
Used to connect all cross tees together for rigid connection.

IHC – Intersection Hanging Clip
Installation

Make sure that the head of the rivet goes through the XL clip. The expanded portion of the rivet needs to expand on the IHC clip.

BL Blind Steel Pop Rivets
1/8” Dia. x .337” Long
.126” – .186” Grip Range
Shear Strength: 260 lbs.

Included with IHC; do not substitute.

3/8–16” Threaded Rod
3/8–16” Heavy Hex Nut
Included with IHC; do not substitute.

SHC – Supplemental Hanging Clip
Installation

3/8–16” Heavy Hex Locknut
Included with SHC; do not substitute.

3/8–16” Threaded Rod
3/8–16” Heavy Hex Nut
Included with SHC; do not substitute.

3/8–16” Heavy Hex Locknut
Included with SHC; do not substitute.

SHC Clip

SHC – Supplemental Hanging Clip Installation

(4) #8 x 1/2” Long Sharp Point Truss Head Screws
Top Lock Main Beam Splice Clip

TLMBS – Top Lock Main Beam Splice Clip
Locks two main beams together for a secure connection.
*Must be within 6” of a PMHC

Prelude XL Max Main Beams and Cross Tees
15/16” face double bulb suspension system provides maximum load carrying capacity and Seismic D, E, F performance.
## VISUAL SELECTION

<table>
<thead>
<tr>
<th>Edge Profile</th>
<th>Item No.</th>
<th>Description</th>
<th>Dimensions Actual (Inches)</th>
<th>DynaMax Structural Aluminum Data Center Suspension System</th>
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<td>Fine Fissured™</td>
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## PERFORMANCE SELECTION

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<tr>
<th>UL Classified</th>
<th>Total Acoustics</th>
<th>Fire Performance</th>
<th>Light Reflect</th>
<th>Anti-Mold &amp; Mildew</th>
<th>Sag Resist</th>
<th>Certified Low VOC Emissions</th>
<th>Durability</th>
<th>Recycled Content</th>
<th>Recycle Program</th>
<th>10-Yr Warranty</th>
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*These 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.
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<th>Dimensions Nominal (inches)</th>
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1 877 276 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 1 800 572 8324 or email: techline@armstrongceilings.com

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