Eaton's B-Line Series Cable Tray Solutions for Solar Applications

June 2017

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Why use Eaton's B-Line series cable tray?

- **Faster installation**
  - Installing cable tray is far less labor intensive than conduit
  - No labor intensive digging to bury conduit
  - Less risk of archeological discoveries and project delays
- **Less maintenance**
  - With proper installation, cable trays and cables are easier to inspect and less costly to maintain
  - Above ground access to service cables
- **Increase operational efficiency**
  - Using cable trays allows for design and material standardization for new projects, and modification to existing projects
- **Installation flexibility**
  - Cable trays are more flexible compared to conduit as they are easily cut, and also bent at connection points
- **Improved cable ventilation**
  - Ladder style cable tray allows for air flow over the cables
- **Compliance with standards**
  - 2014 NEC Code approved for PV Solar installations

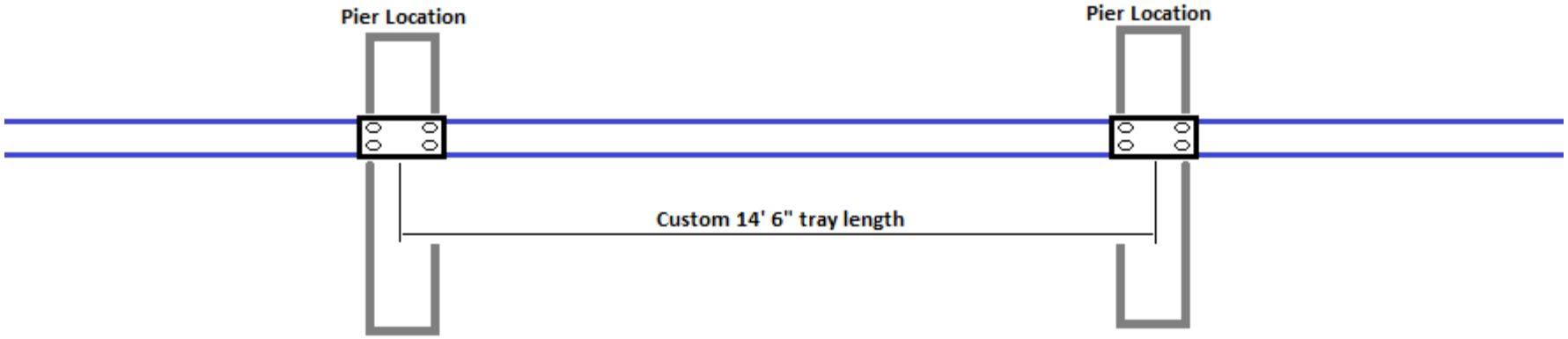
Eaton's B-Line series advantage
Longer Cable Tray Spans

Tray Series	12'	16'	18'	20'
KwikSplice B series	75 lbs./ft.	43	X	X
24A series	126	71	55	45
25A series	139	78	62	50

- Longer available spans up to 16' for new KwikSplice cable tray
  - Less supports and more cost savings
- Available 20' spans in 24A and higher series tray
  - Heavier duty tray can support snow loads (26 lbs. per ft2) at 20' spans
- 6063 T-6 marine grade aluminum suitable for outdoor installation

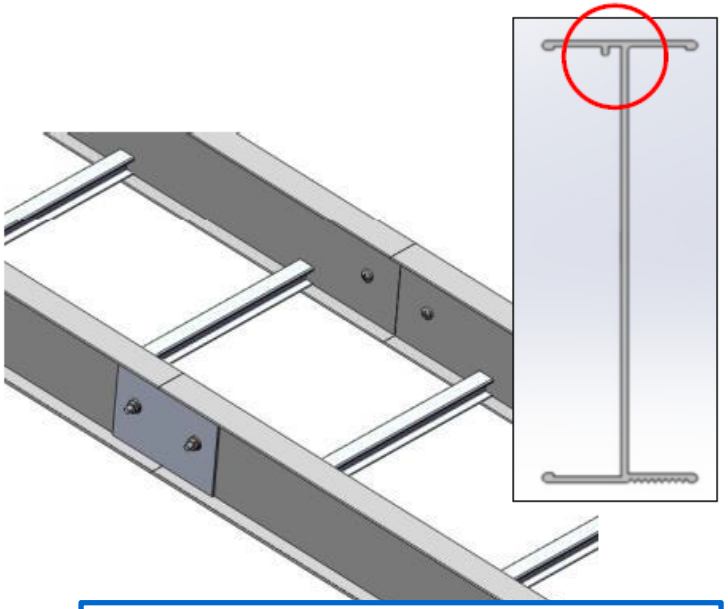
Eaton's B-Line series advantage
Custom lengths to match pier spans

- Eaton can manufacturer custom B-Line series cable tray straight sections to match site pier span lengths
  - Up to 16' sections for KwikSplice, and 20' sections for 24A series
- Utilize piers for support mounting location
- Minimize additional ground supports
- Ship custom tray lengths in predetermined blocks to help minimize on site sorting before installation for large area projects



Multiple Eaton B-Line series cable tray solutions
KwikSplice™ cable tray

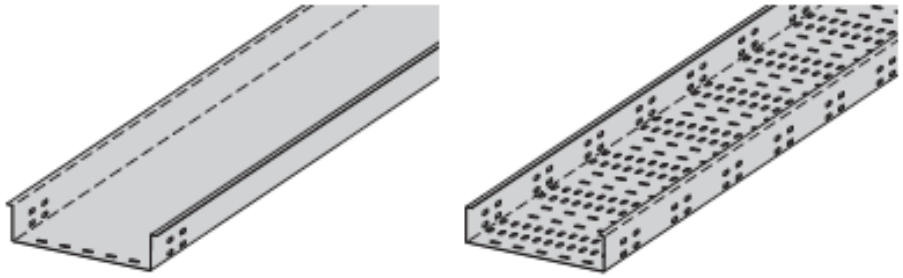
- I-Beam configuration provides **high strength to weight ratio** for higher loads with less rail material
- Patented **splice retention groove** allows for a **two-bolt splice plate**
  - Maintains structural integrity of cable tray system
  - UL Classified
- 6063-T6 marine grade aluminum



Up to 50% labor savings at splice plate locations compared to competition with 2 vs 4 bolts per splice.

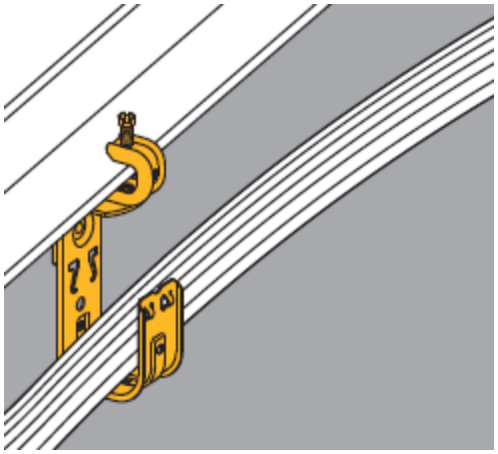
Multiple Eaton B-Line series cable tray solutions
B-Line series pan tray

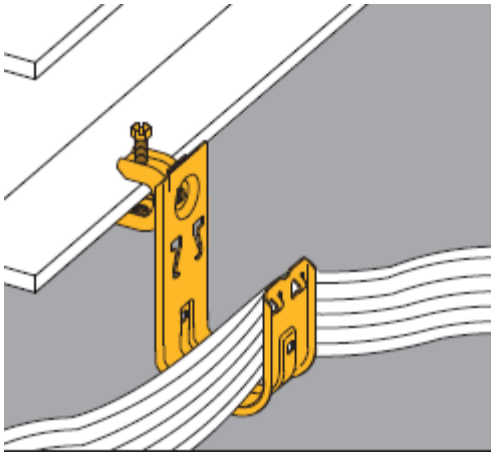
- Perforated and solid bottom pan tray
- 6063-T6 marine grade aluminum
- Solution for small projects where ground mounts are not used for support
  - Limited to 10’ (3m) spans
- Load capacity up to 77lbs/ft
- Manufacturing locations in the Middle East and Asia to support installations around the world



Multiple Eaton B-Line series cable tray solutions
B-Line series I-beam cable hanger hook

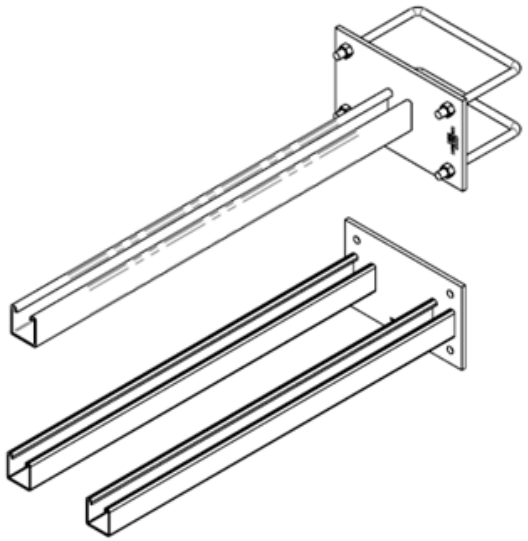
- Helps eliminate need to install a second cable tray for a small number of AC power cables
- Attach cable hanger to cable tray I-beam
- Multiple finish options for site environmental conditions





Eaton's B-Line series solutions
Pier bracket supports

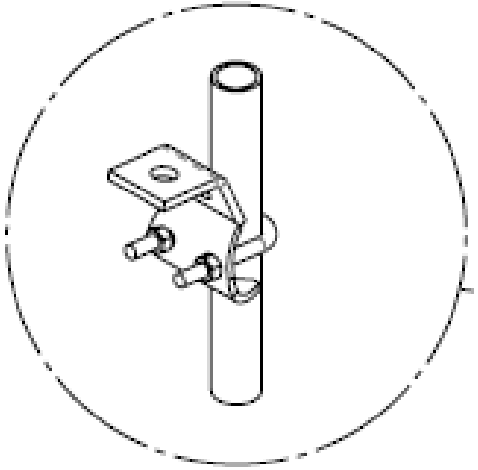
- B-Line series cable tray pier bracket support for widths up to 30", and available in double strut
- Includes 2 square u-bolts for attachment to piers without drilling
- Published load ratings
- Dual bracket for expansion joint locations reduces second support
  - Matches pier location and does not require a nearby ground up support
  - Meets NEMA VE-2 requirements for supports on either side of the joint
  - Support for traditional expansion splice plate



Eaton's B-Line series solutions

Pipe support bracket

- For attachment to conduit or pipe ground stakes
- Install additional supports as needed for fittings and expansion joints where piers are not available for mounting
- Adjustable height for change in ground elevation along cable tray run



Eaton's B-Line series solutions

Dura-Blok™ supports

- Flexible roof and ground supports
- Made from 100% recycled rubber and suitable for any type of roof or ground material
- UV resistant
- Strut span lengths for all cable tray widths
- Adjustable elevated options for change in outdoor terrain available

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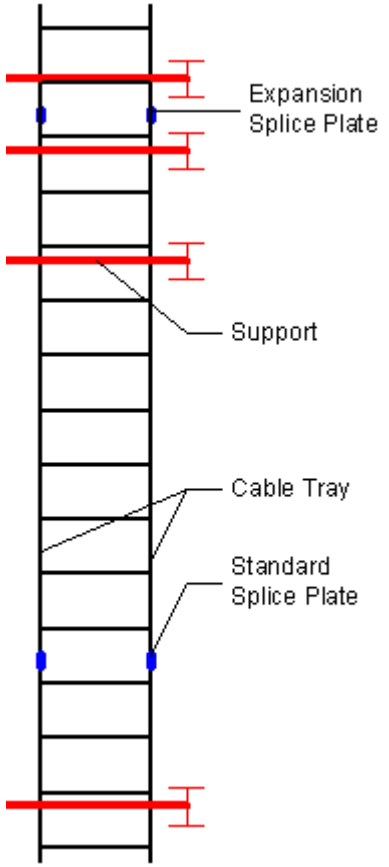
Why are supports so important for expansion locations?

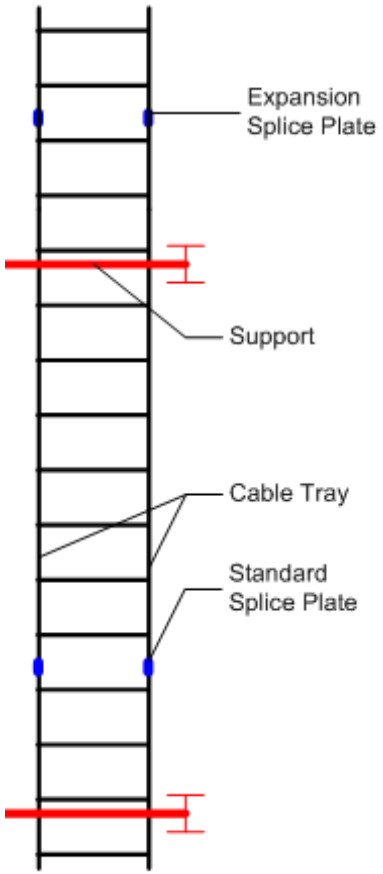
- Expansion splices are common in long-run outdoor applications, where temperature variations result in thermal expansion and contraction of the cable tray system
- Supports are required within 2 feet on both sides of expansion joints/splice locations
- Without expansion joints, cable tray will buckle in temperature changes

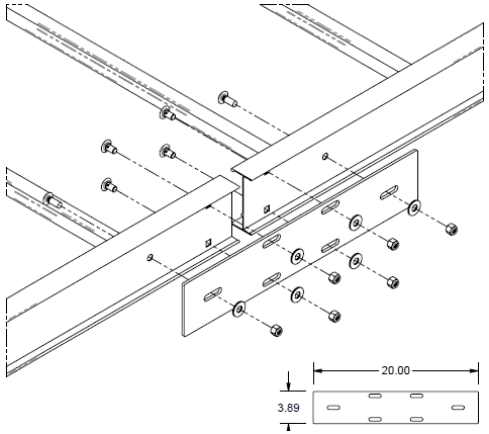


Eaton's expansion location solution

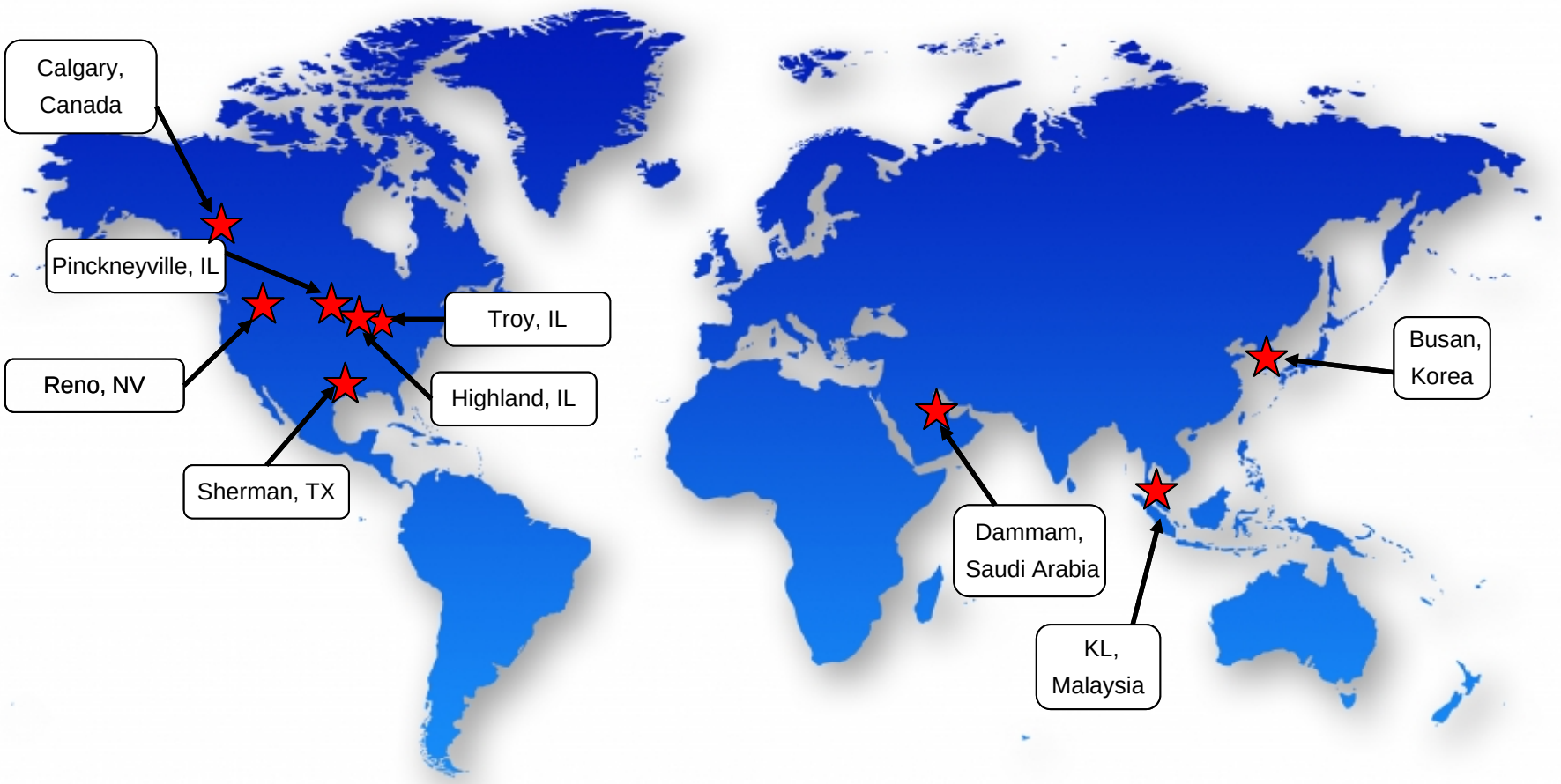
B-Line series heavy duty expansion splice plate

- Eliminate two supports at each expansion joint by utilizing the B-Line Heavy Duty Expansion Splice Plate in place of the standard expansion splice plate
- Aluminum tray typically requires expansion joints every 60'
- NEMA VE 2 Compliant
- Lowest total cost of installation solution





Eaton's B-Line series cable tray
Local manufacturing



Consistent Quality & Delivery Globally

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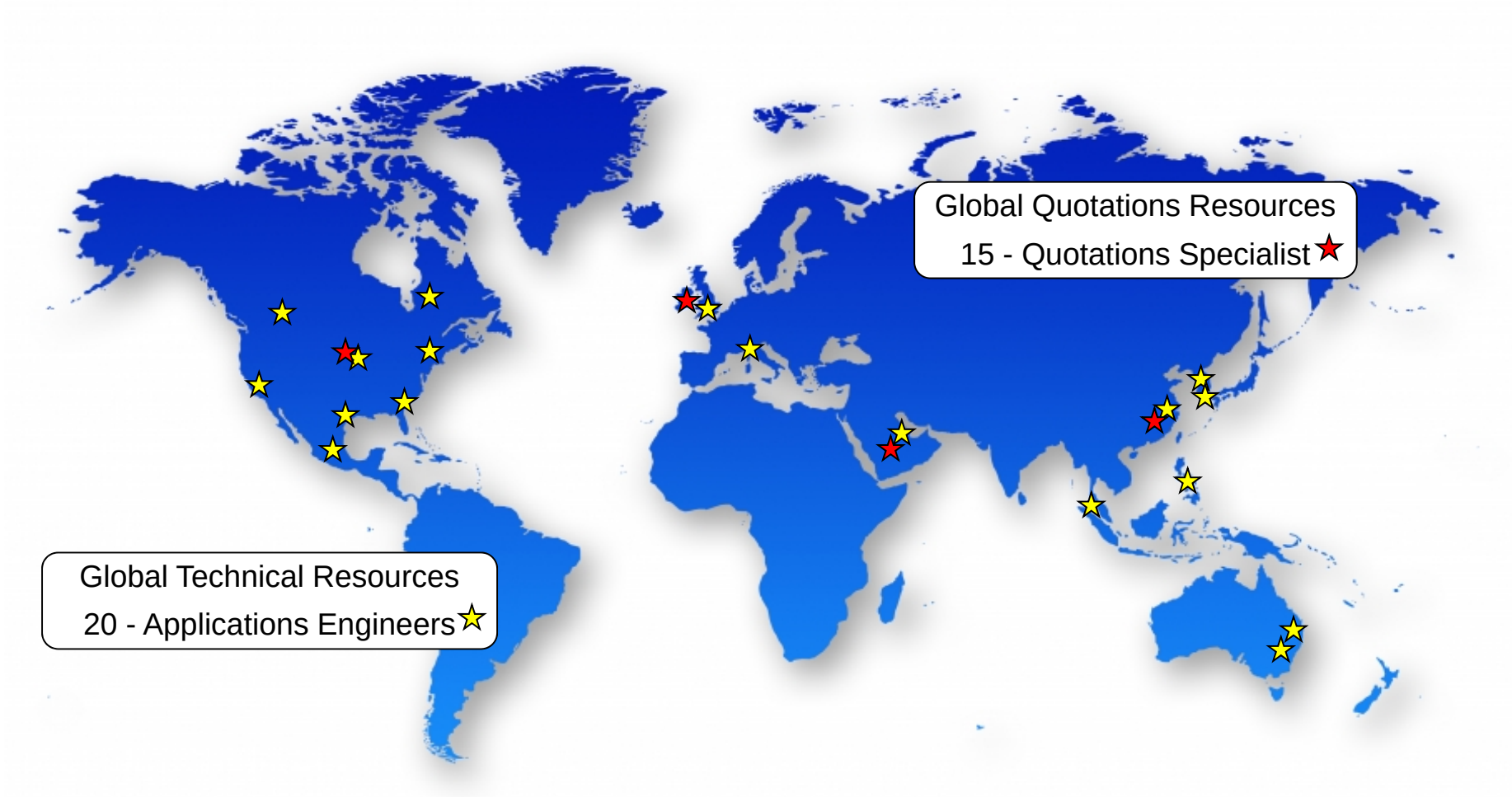
Eaton's B-Line series cable tray
Global Service Support



Global Support to Drive/Satisfy Customer Requirements

Eaton's B-Line series cable tray
KwikSplice™ local stock position

- Localized product, shortened lead times, better service
- Stock inventory supports small roof and garage applications
- Manufacturing Locations
  - Troy, IL
  - Reno, NV
  - Calgary, Alberta
- Stocking Locations*
  - Lawrenceville, GA
  - Fontana, CA
  - Mississauga, ON

* Stocked profiles/products include:

- 4" and 6" side rail heights
- 12", 18", and 24" widths
- Corresponding Radiused Fittings, Supports, and Accessories
- Universal Fitting

Eaton tools & resources

- Sales Engineer design assistance
  - Expertise and experience to ensure a quality solution
  - BOM design for custom lengths and transitions points
  - Wind and snow loads calculations
  - Cable tray take-offs
- Product information and submittals
- B-Line series cable tray catalog and manual
- Online calculators (NEC fill rate)
- Software downloads
  - CoSPEC: Proprietary and standard 2D & 3D CAD, Autodesk Revit® BIM output, and more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