

PW Cable Tray Products that work

QUALITY BUILT CABLE TRAY FOR EXTREME LOADS AND LONG SPANS

Cable tray, introduced in the mid 1940's, has proved to be a very efficient cable management solution. It provides system flexibility and expandability with substantial savings in installation labor and material costs. For over 50 years the PW brand has played a leadership role in the cable tray industry, providing innovative cable management solutions. Our manufacturing experience and focus on long-term relationships has helped us grow from a small regional manufacturer to a world-wide industry leader.



Look to the PW brand for cable management that can handle extremely heavy loads and long spans in industrial applications. Our exclusive long span/heavy duty cable tray is designed with I-beam side rails that can span up to 40' and meet exacting industry and load standards.

Legrand®/Cablofil continues to provide contractors and end users with the specific products they need – from standard designs to custom-built products. With our national distribution partnerships and our multiple manufacturing facilities across North America, we are perfectly positioned to supply any sized project – offering excellent service with the best lead times in the industry.

PW Cable Management Systems

If wire mesh tray does not fit the demands of your project, look to Legrand/Cablofil for a wide variety of specialty cable management options. If the specification calls for it — we have it.

Two Rail Tray: Ladder, Trough & Solid Bottom Systems

Two-rail tray is a fabricated structure consisting of two longitudinal side rails connected by individual rungs or bottom. Side rails are 4" to 10" high. Widths are 6" to 36". Two-rail tray types include Ladder, Ventilated/Trough, Vented Corrugated Bottom, Solid Corrugated Bottom, and Flat-Sheet Solid Bottom designs.

A wide range of load and span designations are available for every possible application, from trays for commercial use where spans over 8' are required, to trays for longer spans required in industrial applications. Also available are trays built for extremely long spans – up to 50' – for special applications like roadway crossings and pipe bridges.



We offer a complete line of accessories including trays, fittings, covers, firewall penetration sleeves, and other accessories. All products are available in aluminum, mill galvanized steel, and steel that is hot-dip galvanized after fabrication. For extremely corrosive applications we have a wide range of designs in types 304 and 316 stainless steels and both polyester and vinylester fiberglass.

Center Spine

Center Spine Cable Tray is an easily installed cable support system designed with unique features to provide safety, reliability and flexibility for future expansion. Field modifiable fittings combine to allow installers to easily maneuver around unforeseen obstructions and changes in elevation. To reduce installation time, each tray comes with preassembled couplings. Center Spine Cable Tray can be used to construct a complete FiberReady® cable tray system with controlled 2" [51mm] nominal bend radius that meets the specifications for fiber optic and UTP/STP cabling and exceeds TIA 569 requirements for communications pathways.

Designed for use in retrofit, new or existing applications, specify Center Spine Cable Tray and FiberReady fittings, available only from Legrand/Cablofil.

Channel Tray

Channel tray is a fabricated structure constructed with a one-piece ventilated or solid-bottom channel section, not exceeding 6" in width. It is commonly used for small runs of cable and for drops from the main cable tray run to equipment or junction boxes.

We offer channel tray in a complete range of materials, including aluminum, mill galvanized steel, and steel that is hot-dip galvanized after fabrication. For extremely corrosive applications we offer a wide range of designs in types 304 and 316 stainless steels and both polyester and vinylester fiberglass. Additionally, a complete line of accessories is available, including covers and fittings with 12", 24" and 36" radius for large-diameter cables.

Cable Runway

Cable Runway consists of two longitudinal side rails connected by individual rungs and is available in two styles. Tubular side rails are lightweight and strong, and solid-bar side rails for maximum support strength. For both designs, the rungs are made of tubular steel.

Commonly used in telecommunications, voice, and data applications, runway is typically mounted directly above or to computer racking systems, enclosures, and relay rack cabinets.

Cable Runway is available in several finishes. Yellow-zinc dichromate is used where the runway is required to be UL Classified as an equipment ground conductor. Powder-coated finishes are available in a range of standard colors with an infinite variety of special colors. Hot-dip galvanized steel after fabrication is available for industrial applications.

Seismic Bracing

Seismic Bracing, also known as sway bracing, is used to prevent horizontal movement during a seismic event in cable trays supported by threaded rods. Threaded rods typically used to support cable trays offer little resistance to the horizontal forces of a seismic event.

The Legrand®/Cablofil solution is wire rope/cable bracing designed in a joint effort with Loos & Co., a premier manufacturer of seismic wire rope/cable products. Seismic wire rope/cable bracing complies with building codes, and installs in just one-third the time needed for more conventional pipe, angle, and strut bracing systems. It's a cost effective alternative, reducing both material costs and installation labor.

Seismic bracing systems are supplied in kits that are specifically designed for cable tray applications. Wire rope/cable can be supplied on spools in bulk lengths and is UL Listed.

PW Cable Tray

Understanding Our Product

TRAY OPTIONS

It is essential to consider the type and quantity of cables to be installed in the cable tray when planning your project. Refer to Article 392 of the National Electrical Code (NEC) for guidelines on calculating the cable tray depth and width.

Bottom Type: Legrand®/Cablofil offers numerous tray bottom types and options to accommodate a wide variety of wire management solutions.

Load Depth: Interior depth of the cable tray that is available for cable fill. Specifications for cable trays should include a specific requirement for the tray load depth. Due to design variations between different manufacturers, it is important to specify an exact load depth to ensure equal performance. The load depth may differ slightly based on choice of tray bottom.

Side Rail Height: The overall height of the cable tray side rail. In general, side rail heights for PW cable trays are 1" greater than the load depth.

Side Rail Flange: Available in flange-in, flange-out and I-beam construction for heavier loads.

Width: Interior width of the tray or channel that is available for cable fill.

Length: The overall length of each cable tray straight section. The spacing of the cable tray supports will determine the length requirements for straight trays. The support span should not be greater than the straight section length to ensure that no more than one splice plate connection is located between supports.

LOAD/SPAN CLASS DESIGNATION

The Load/Span Classification describes the cable tray's load-carrying capability for a specific support span. A classification should be selected that reflects the actual working load and support span for each application. This designation directly affects the cost of the tray, so the proper selection is essential to determine the most economical cable tray system necessary for each project. Please consult with Legrand/Cablofil for working loads and support spans that fall outside the boundaries of the Load/Span Classes shown.

Concentrated Static Load: In addition to an evenly distributed cable load, it is occasionally required that the cable tray system be capable of supporting a concentrated static load. A concentrated static load represents a static weight applied on the centerline of the cable tray at midspan. The concentrated static load in lbs. may be converted to an equivalent uniform load (W_e) in lbs./ft., using the following formula, and added to the static weight of cables in the tray. A NEMA Load Class can then be selected that reflects the combination of the cable load and converted static load.

$$W_e = \frac{2 \times (\text{concentrated static load, lbs.})}{\text{support span length, ft.}}$$

Example: A 200 lb. concentrated load is to be applied to a cable tray that is supported on a 12 ft. support span. Using the formula above, the equivalent uniform load $W_e = 2 \times 200 / 12 = 33$ lbs. per linear foot. This should be added to the anticipated cable load to determine the appropriate Load/Span Class for the cable tray.

Note: To accommodate concentrated loads, some circumstances may require cable trays to have reinforced side rails or bottom members. Therefore, it is recommended that you consult with Legrand/Cablofil when considering concentrated loads or any other special cable tray loading requirements.

LOAD/SPAN CLASS DESIGNATIONS

WORKING LOAD lbs/ft (kg/m)	SUPPORT SPAN, ft. (m)				
	8 ft. (2.4 m)	10 ft. (3.0 m)	12 ft. (3.7 m)	16 ft. (4.9 m)	20 ft. (6.0 m)
25 (37)	—	A	—	—	—
45 (67)	—	—	—	—	D
50 (74)	8A	—	12A	16A	20A
65 (97)	—	C	—	—	—
75 (112)	8B	—	12B	16B	E or 20B
100 (149)	8C	—	12C	16C	20C
120 (179)	—	D	—	—	—
200 (299)	—	E	—	—	—

Working Load: Total load of cables installed and uniformly distributed in the cable tray.

Support Span: Maximum distance between cable tray supports.

Classes 8, 12, 16, 20 / A, B, C: NEMA designations, published by the National Electrical Manufacturers Assoc. in Standard VE1.

Classes A, C, D, and E: CSA designations, published by the Canadian Standards Association in Standard C22.2, No. 126.



PW Cable Tray

Understanding Our Product

FITTINGS, ACCESSORIES AND HARDWARE

A complete cable tray system includes fittings, accessories, supports, and hardware. Consider the following components when designing a cable tray system:

Fitting Radius: The nominal bend radius for fittings should not be less than the minimum allowable bending radius for the cables to be installed in the tray. Cable manufacturers typically publish the minimum bending radius as a multiple of the cable diameter.

Expansion Connectors and Supports: It is important to consider thermal expansion and contraction in the cable tray system, especially for outdoor applications. NEMA Standards Pub. VE2 addresses the proper installation and spacing of expansion connectors, expansion guides, hold down clamps, tray supports, and bonding jumpers.

Covers: Cable tray covers are often needed to contain and protect tray contents. Carefully select a specific cover design and specify the proper attachment hardware needed for indoor, outdoor, or vertical installations.

Dividers: In some applications, the NEC requires the use of tray dividers to separate cables. Multiple dividers can also easily help manage complex wiring systems.

Grounding: All aluminum and galvanized steel cable trays manufactured by Legrand®/Cablofil are classified by UL as equipment grounding conductors with specific ampere ratings per NEC 392. To maintain electrical continuity, bonding jumpers should be installed properly and sized in accordance with the rating of the cable tray system.

Hardware: Screws, nuts, bolts, etc. for assembling cable tray connectors and accessories are normally provided in zinc plated or cadmium-plated steel, adequate for most applications. Some moist, outdoor, or corrosive environments may require the use of stainless steel hardware for better performance. All PW cable tray connectors and most accessories are available with optional type 316 stainless steel hardware.

MATERIALS / FINISHES

The selection of cable tray material depends on many factors including environmental conditions, corrosion resistance, aesthetics, and material handling.

MATERIAL		Dry Interiors	Exteriors	Corrosive	Highly Corrosive
A	Aluminum 6063-T6, 5052-H32 & 3003	●	●		
M	Mill Galvanized Steel (Before Fabrication) ASTM A653 G90	●			
Z	Electro-Galvanized Steel ASTM B633 SC2	●			
G	Hot-Dip Galvanized Steel (After Fabrication) ASTM A123		●	●	
L	Stainless Steel AISI Type 304L			●	
T	Stainless Steel AISI Type 316L			●	●
F	Fiberglass ASTM E-84 Class 1				●
P	Special Finishes ASTM D3451 (for powder paint only)	●	●	●	

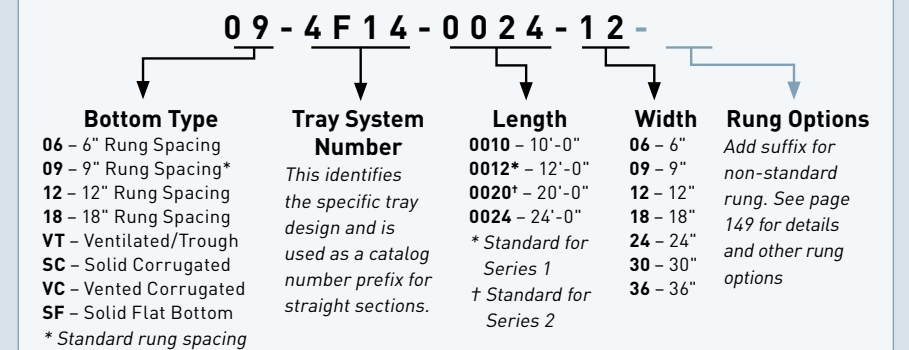
● recommended ● possible

SPECIFYING YOUR ORDER

Although our 4-digit ladder tray System Number remains the same as in the past, we have developed a new system for other bottom types. The two-digit bottom type prefix will now tell us the tray type.

For example: 09-4F14 is a ladder tray with 9" rung spacing, VT-4F14 is a ventilated/trough tray and SC-4F14 is a solid corrugated tray.

STRAIGHT SECTION CATALOG NUMBER



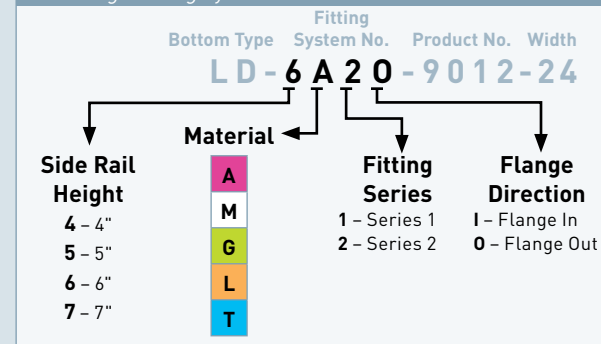
USE FOR:

Elbows

- Tees
- Crosses
- Reducers
- Support Elbows
- Channel- and Strap-Type Cover Connectors

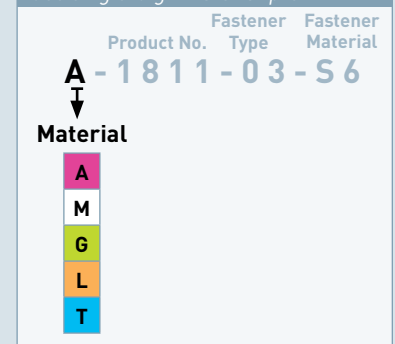
FITTING CATALOG NUMBER

Use 4-digit Fitting System No.



MISC CATALOG NUMBER

Use single-digit material prefix.



USE FOR:

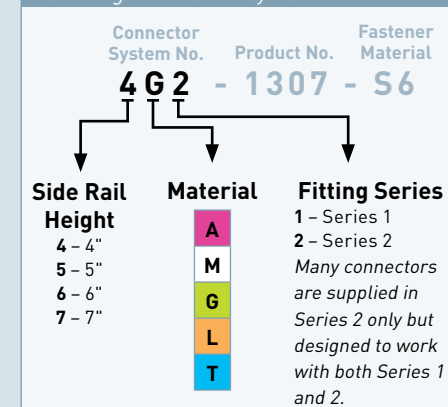
- Tray Hold Down Clips
- Cable Dropouts
- Cover Clips
- Wall Brackets
- Bonding Jumpers

USE FOR:

- Splice Plates
- Tray Connectors
- Firestop Sleeves
- Wall Penetration Sleeves
- Hanger Brackets

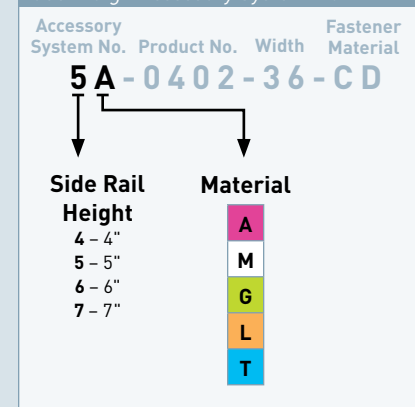
CONNECTOR CATALOG NUMBER

Use 3-digit Connector System No.



ACCESSORY CATALOG NUMBER

Use 2-digit Accessory System No.



USE FOR:

- Dividers
- Blind Ends
- Z-Type Hold Down Clips