

When it comes to cable management choosing the right wire basket is critical

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Challenge:

In today's competitive market, the contractor, engineer, specifier and owner must balance cost and quality. When it comes to cable management, it is imperative to understand the quality and reliability of the tray.

For example, wire basket trays can look similar, but they may not always perform the same. Choosing the right wire basket tray is critical to help avoid downtime and rework.

Solution:

Eaton's B-Line series Flextray wire basket tray and splices out preforms many other mesh trays, helping ensure the integrity and quality of cable pathways.

Advantages of Flextray wire basket

Eaton's B-Line series Flextray wire basket systems are tested based to NEC allowable fill rules and NEMA VE1-2009 / CSAC22.2 No. 126.1-09.

Splice requirement calculations

With Interpolation of the height and the width of the wire basket tray, the user can easily calculate the correct splice connection quantity required. The chart provides the best guidance for a strong, reliable attachment for continuation of the run of tray, as well as a positive connection not based on friction.

Splicing chart (Number of splices required for UL Classification)

Tray Width - number of splices										
Tray Height	2" (50mm)	4" (100mm)	6" (150mm)	8" (200mm)	12" (300mm)	16" (400mm)	18" (450mm)	20" (500mm)	24" (600mm)	>24" (>600mm)
2"	NC	NC	3	3	3	4	4	4	4	5
4"	NM	3	3	3	3	4	4	4	4	5
6"	NM	NM	3	3	3	4	4	4	4	5

*NC-Not classified *NM-Not Made

Understanding load and safety factor

Eaton has maintained the 1.5 safety factor used to design and document the load ratings of the Flextray wire basket tray system. (see chart below or refer to the B-Line series cable tray catalog)

The chart shows the optimal use of supports as needed based on the fill capacity and load being applied. The full-sized wire diameter is consistent across all Flextray wire basket tray sizes, rather than changing diameters which would impact deflections from size to size.

By doing so, this provides a specifier predictability and simplifies the load assessment responsibility.

Catalog #	Rail Height	Load Depth	Span 6'	Load lbs/ft 8'	Available Widths
FT2X2X10	2.380"	2.000"	28	20	2"
FT2X4X10	2.380"	2.000"	43	27	4"
FT2X6X10	2.380"	2.000"	47	27	6"
FT2X8X10	2.380"	2.000"	47	27	8"
FT2X12X10	2.380"	2.000"	47	27	12"
FT2X18X10	2.380"	2.000"	47	27	18"
FT2X20X10	2.380"	2.000"	47	27	20"
FT2X24X10	2.380"	2.000"	47	27	24"
FT4X4X10	4.380"	4.000"	49	36	4"
FT4X8X10	4.380"	4.000"	77	46	8"
FT4X12X10	4.380"	4.000"	83	47	12"
FT4X18X10	4.380"	4.000"	83	47	18"
FT4X20X10	4.380"	4.000"	83	47	20"
FT4X24X10	4.380"	4.000"	89	50	24"
FT6X12X10	6.380"	6.000"	86	48	12"
FT6X18X10	6.380"	6.000"	89	50	18"
FT6X20X10	6.380"	6.000"	98	55	20"
FT6X24X10	6.380"	6.000"	107	60	24"

Example: FT4X18X10 is a popular cable tray size and it can hold over 700 cables per foot at a loaded weight of 36 Lbs. per foot for Cat 5E cables. The rated load of our tray is 47 Lbs. at an 8 ft span, if the trays were made with a smaller wire as is the case with some other manufacturers the load capacity could be as low as 27 Lbs. per ft and that means you could only fill the tray to 25% of its volume capacity.

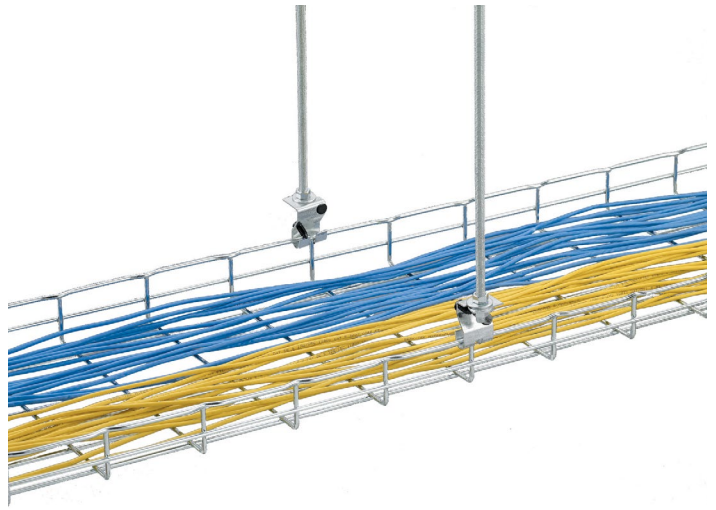
The minimal amount of material savings dollars using a lighter duty tray or non-positive attachments could result in shorter support spans and deflections that require more supports, in the end it could result in a higher total installed cost.



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Conclusion

Eaton's B-Line series Flextray wire basket system provides consistency with wire diameters and loads. This allows for predictability and reliability of performance, making Flextray ideal for carrying fiber optic, data, control cables and conductors in commercial, institutional and data center applications.



For more information, visit
Eaton.com/Flextray.

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