



## New tests on cable tray hangers identify productivity leader

Controlled trials of timed, “side-by-side” installations prove that some hangers deliver clear user advantages.

Productivity is critical to any project billed on an hourly basis. The ability to perform more successful work in less time enables workers to move on to other assignments, while reducing project expenses.

In the case of cable tray installation, various manufacturers are striving to achieve productivity gains through hanger hardware innovations and easier assembly processes. Hoping to identify products that speed and simplify installation of wire baskets, numerous timed tests were conducted using professional installers and actual, commonly used cable tray hangers

### The testing process

- Participants were union electricians averaging 18+ years’ experience, including many installations of cable trays.
- Each installer used his own regular tools.
- Three wire basket hanging clips were tested:
  - 1) B-Line series Flip Clip hanger
  - 2) Competitor C’s Trapeze hanger
  - 3) Competitor G’s Trapeze clip
- The test challenge was to hang 20 linear feet (two 10-foot sections) of wire tray, using each different product in turn. Every hanger was tested four times.
- Each installation was timed, starting from scratch with all parts in boxes and tools in belts. Timing stopped when a tray was completely hung and leveled and all hardware tightened down.
- Normal installation procedures were used throughout.

### The testing results

*The Flip Clip took less time.*

The composite test times showed that using the B-Line series Flip Clip hanger required 2.78 minutes to complete a 20-foot installation, vs. 4.64 and 4.29 minutes for Competitor C and G’s hangers respectively.

Based on those findings, hanging 100 sections of cable tray could be as much as **1.5 hours faster** when using the Flip Clip, for a savings of more than \$90 labor cost per 1,000 linear feet. (See charts on back).

*Less hardware saves time.*

In the test, dropping/picking up hardware was a common problem. Even when not dropped, each additional piece of hardware takes time. A hanger like the Flip Clip that requires only one nut, instead of multiple nuts/washers/rivets, reduces “hardware drops” and speeds up installations. (See Table 1).

*Needing fewer tools enhances productivity.*

The B-Line series Flip Clip saved time by featuring tabs that are easily bent using only a screwdriver. Other hangers require pliers and a wrench.



The Flip Clip™ hanger

### Conclusion

These impartial test clearly showed that cable tray/hanging basket installation was significantly faster and easier using the Flip Clip hanger. To increase productivity on future installations, it is recommended you consider such efficient hanger products and their potential savings.

Table 1:

HARDWARE - less hardware saves time			
	Flip Clip	Competitor 'C'	Competitor 'G'
Nuts	1	2	2
Washers	0	2	0
Rivets	0	0	2



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# Compare the test findings on labor and time savings.

As these charts indicate, the Flip Clip was proven to be the most efficient choice for increasing wire tray installation productivity.

## Wire Basket installation time test\*

### Flip Clip – competitor time study

Competitor 'C'	Minutes	Seconds	Total in Seconds
Time 1	7	43.19	463.19
Time 2	4	36.00	276.00
Time 3	4	30.41	270.41
Time 4	4	49.65	289.65
		<b>Average:</b>	<b>278.69</b>

Flip Clip is 40.12% faster than Competitor C

Competitor 'G'	Minutes	Seconds	Total in Seconds
Time 1	4	32.62	272.62
Time 2	4	8.90	248.90
Time 3	3	52.94	232.94
Time 4	4	34.42	274.42
		<b>Average:</b>	<b>257.22</b>

Flip Clip is 35.12% faster than Competitor G

B-Line Flip Clip	Minutes	Seconds	Total in Seconds
Time 1	2	48.92	168.92
Time 2	2	32.85	152.85
Time 3	3	1.78	181.78
Time 4	2	43.97	163.97
		<b>Average:</b>	<b>166.88</b>

\* Based on 2007 testing.

### Savings calculation

	C	G	Flip Clip
Time to hang 2 pieces of 10 foot basket (seconds):	278.69	257.22	166.88
Time to hang 2 pieces of 10 foot basket (minutes):	4.64	4.29	2.78
Time to hang 2 100 pieces (minutes):	232.24	214.35	270.41
Time to hang 2 100 pieces (hours):	3.87	3.57	2.32
<b>Cost:</b>	<b>232.24</b>	<b>214.35</b>	<b>139.07</b>

### Flip Clip – savings

per 1,000 linear feet of wire basket installed

**\$93.17** savings using Flip Clip versus Competitor 'C'

**\$75.28** savings using Flip Clip versus Competitor 'G'

### INSTALLERS' COMMENTS:

*"Some hangers don't bend too easy. I had to use a screwdriver and then pliers. The Flip Clip tab is easier to bend. All you need is a screwdriver."*

*"At first I thought it (the Flip Clip) looked too simple to be any good. But after testing it, I really liked it."*

*"I didn't like how other hangers don't lock-down the basket. If you bump the basket it moves up and down or slides inside the hanger. The Flip Clip's close fit prevented some of the bouncing and sliding."*

*"If a product can save me time, and it's easier to install and level, that's always good."*