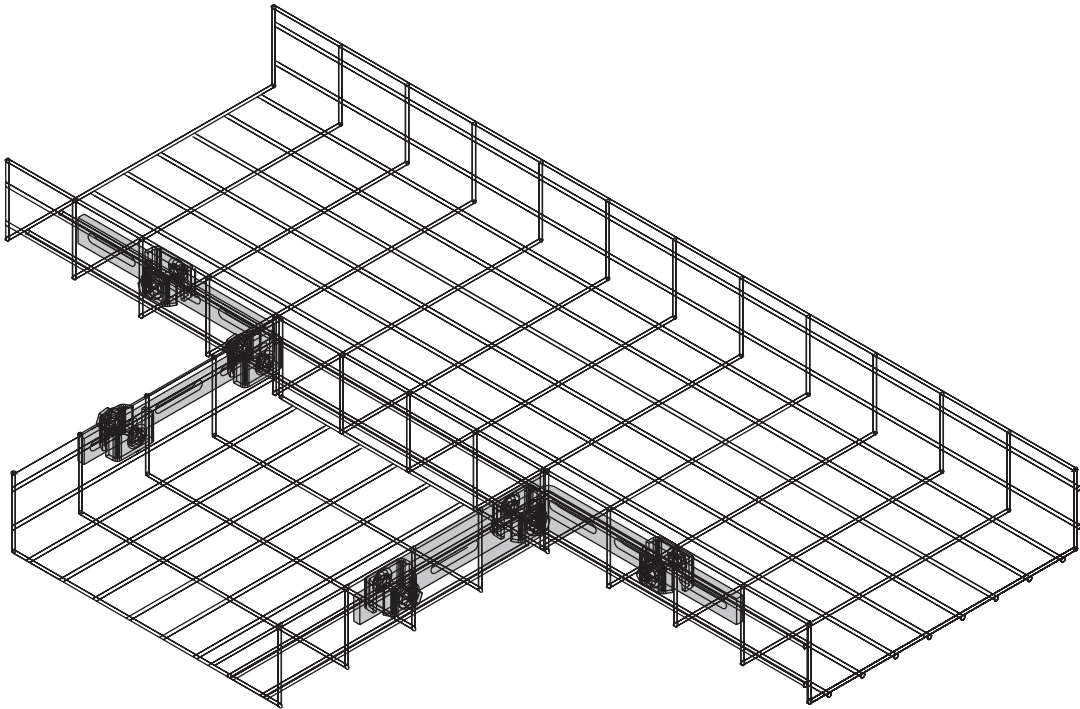


# QUICK TRAY PRO™

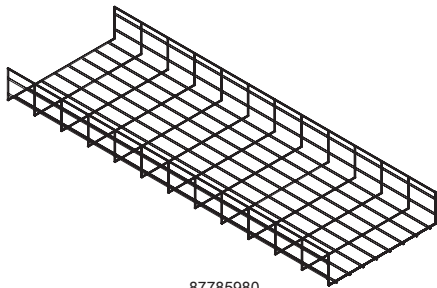


# Components Straight Sections

The QUICK TRAY PRO™ Cable Tray comes in straight 10 ft. sections that are easily modified and combined to fit almost any configuration.

- Smooth, round wires minimize dust buildup and cable snagging.
- T-weld top wire, pre-galvanized steel or black powder finish.
- Large 2 x 4 in. (51 x 102mm) mesh allows cable to be routed into and out of the tray at any point without cutting the tray
- Available with either 2, 4 or 6-in. (51, 102 or 152mm) sidewalls to hold cable in the tray and in a variety of widths to accommodate different numbers of cables

Different cable tray sizes can be joined using the techniques described in this manual to make a truly custom installation using standard parts.



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Catalog Number		Width		Depth	
		in.	mm	in.	mm
QTP2X4	QTP2X4BLK	4	102	2	51
QTP2X6	QTP2X6BLK	6	152	2	51
QTP2X8	QTP2X8BLK	8	203	2	51
QTP2X12	QTP2X12BLK	12	305	2	51
QTP2X16	QTP2X16BLK	16	406	2	51
QTP2X18	QTP2X18BLK	18	457	2	51
QTP2X20	QTP2X20BLK	20	508	2	51
QTP2X22	QTP2X22BLK	22	559	2	51
QTP2X24	QTP2X24BLK	24	610	2	51
QTP4X4	QTP4X4BLK	4	102	4	102
QTP4X6	QTP4X6BLK	6	152	4	102
QTP4X8	QTP4X8BLK	8	203	4	102
QTP4X12	QTP4X12BLK	12	305	4	102
QTP4X16	QTP4X16BLK	16	406	4	102
QTP4X18	QTP4X18BLK	18	457	4	102
QTP4X20	QTP4X20BLK	20	508	4	102
QTP4X22	QTP4X22BLK	22	559	4	102
QTP4X24	QTP4X24BLK	24	610	4	102
QTP6X8	QTP6X8BLK	8	203	6	152
QTP6X12	QTP6X12BLK	12	305	6	152
QTP6X16	QTP6X16BLK	16	406	6	152
QTP6X18	QTP6X18BLK	18	457	6	152
QTP6X20	QTP6X20BLK	20	508	6	152
QTP6X22	QTP6X22BLK	22	559	6	152
QTP6X24	QTP6X24BLK	24	610	6	152

Catalog Number		Tray Configuration
QTP2X4	QTP2X4BLK	
QTP2X6	QTP2X6BLK	
QTP2X8	QTP2X8BLK	
QTP2X12	QTP2X12BLK	
QTP2X16	QTP2X16BLK	
QTP2X18	QTP2X18BLK	
QTP2X20	QTP2X20BLK	
QTP2X22	QTP2X22BLK	
QTP2X24	QTP2X24BLK	
QTP4X4	QTP4X4BLK	
QTP4X6	QTP4X6BLK	
QTP4X8	QTP4X8BLK	
QTP4X12	QTP4X12BLK	
QTP4X16	QTP4X16BLK	
QTP4X18	QTP4X18BLK	
QTP4X20	QTP4X20BLK	
QTP4X22	QTP4X22BLK	
QTP4X24	QTP4X24BLK	
QTP6X8	QTP6X8BLK	
QTP6X12	QTP6X12BLK	
QTP6X16	QTP6X16BLK	
QTP6X18	QTP6X18BLK	
QTP6X20	QTP6X20BLK	
QTP6X22	QTP6X22BLK	
QTP6X24	QTP6X24BLK	

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# Components

## Bolt Cutter and Connectors

### Bolt Cutter

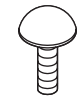
Sturdy side action bolt cutter is specially designed to provide a flush cut and help create a protective coating for the new cut.



Catalog Number	Description
QTPBC	Side Action Bolt Cutter

### Splice Kit

Splice Kits are used for bolting turns, bends, and tees; connecting tray sections; and fastening splice bars. Kit includes three-piece staked bolt, washer and nut.



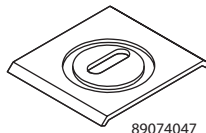
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### Connectors

Catalog Number	Description
QTPBNWK	Splice Kit
QTPBNWKBLK	Splice Kit (Black)

### Splice Washer

Splice Washers are used with QTPBNWK/ QTPBNWKBLK Splice Kits for bolting turns, bends, and tees; connecting tray sections; and fastening splice bars.

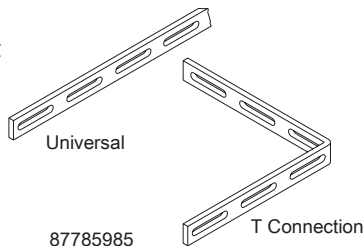


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Catalog Number	Description
QTPSSW3	Splice Washer
QTPSSW3BLK	Splice Washer (Black)

### Splice Bars

Splice Bars provide extra support and stability to tray sides when connecting tray sections with splice washers. Universal bars can be cut to fit with bolt cutters and bent for use in tees and elbows. Made of zinc-coated steel. Requires QTPSSW3/ QTPSSW3BLK Splice Washers and QTPBNWK/QTPBNWKBLK Splice Kits to fasten to side of tray.



87785985

T Connection

Catalog Number	Description
QTPUS10	10 in. Universal Splice Bar
QTPUS10BLK	10 in. Universal Splice Bar, Black
QTP90TKIT	T-Connection or 90° Splice Bar
QTP90TKITBLK	T-Connection or 90° Splice Bar, Black

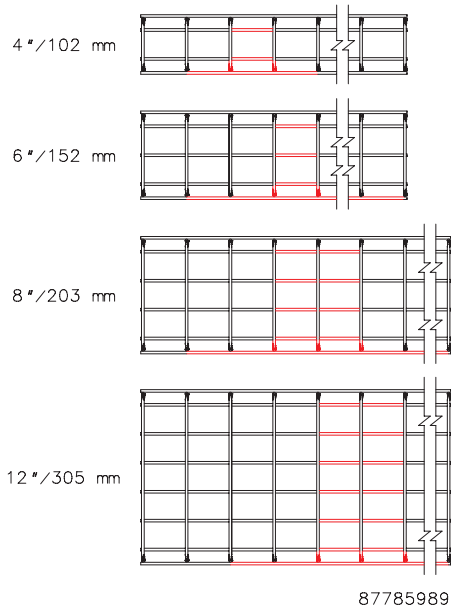
## Cutting the Tray

Always use the Hoffman side action bolt cutter to cut the QUICK TRAY PRO™ Cable Tray. This cutter allows precision cuts that minimize sharp edges that could snag wire. Its action also helps to protect the new cut from corrosion.

1

### Decide which wires must be cut

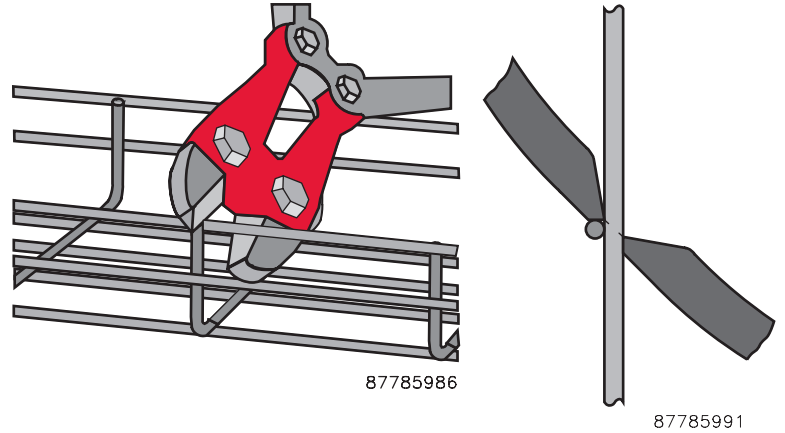
When cutting for a bend, always review the cutting pattern for the tray size and desired bend before cutting. Red areas on the drawings should be removed.



2

### Cut the first side wire

Starting with the top side wire, position the cutting jaws on the cradle wire. Make the cut at an angle away from the new end.



4

### Cut the bottom wires

Turn the tray over and cut the bottom wires from the underside. Always rest the cutting jaws on the cradle wire and cut at an angle away from the new end.

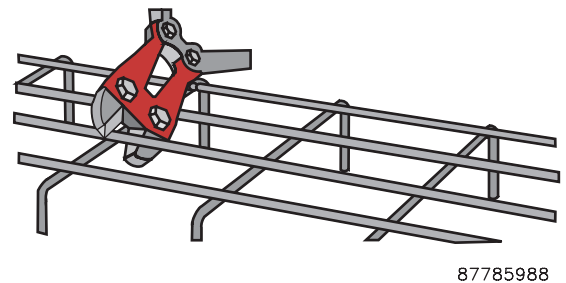
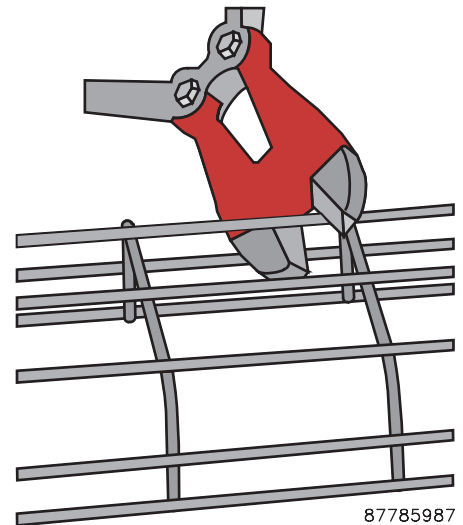
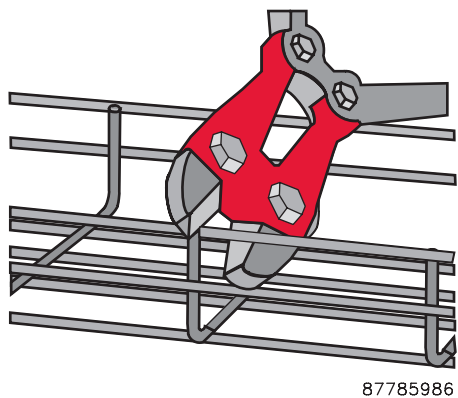
Make one clean cut to eliminate grinding or touch-up.

3

### Cut the remaining side wires

Cut the remaining side wires, remembering to rest the cutting jaws on the cradle wire and cut at an angle away from the new end.

Make one clean cut to eliminate grinding or touch-up.



**That's it!**  
The cable tray is now ready for installation or for bending to the desired shape.

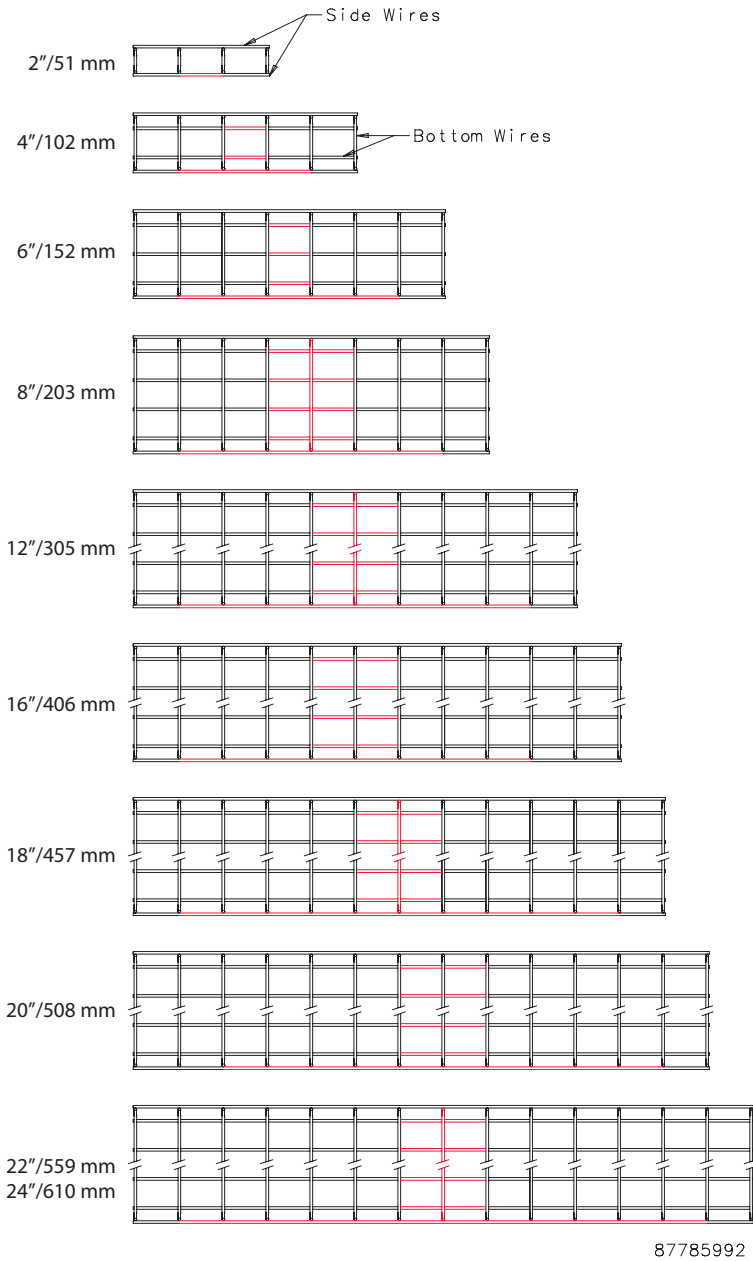
# Creating a 90° Bend

At the desired bend location, cut the wires shown in red for the width of the cable tray.

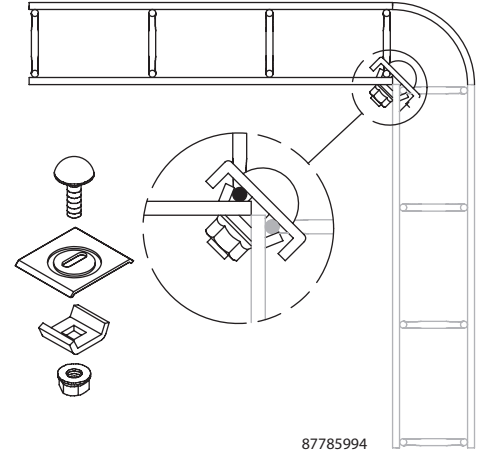
- 1** **Cut the side, then the bottom wires**  
Cut all the side wires at the bend location for the tray size.

- 2** **Bend the cable tray**  
Turn the tray on the uncut side. Smoothly bend the tray up until the inside edges closest to the uncut side meet.

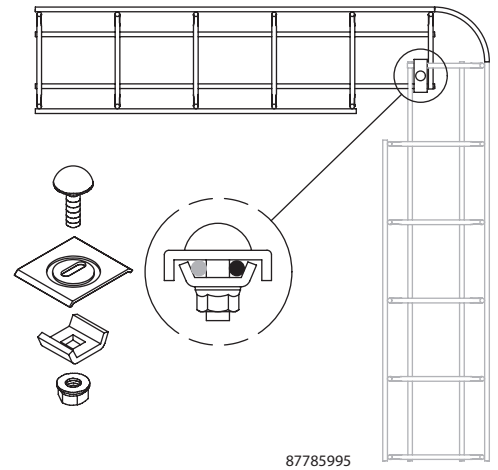
- 3** **Secure the bend**  
Fasten at the location shown with QTBNWK/ QTBNWKBLK Splice Kits and QTPSSW3/QTPSSW3BLK Splice Washers indicated for the tray width.



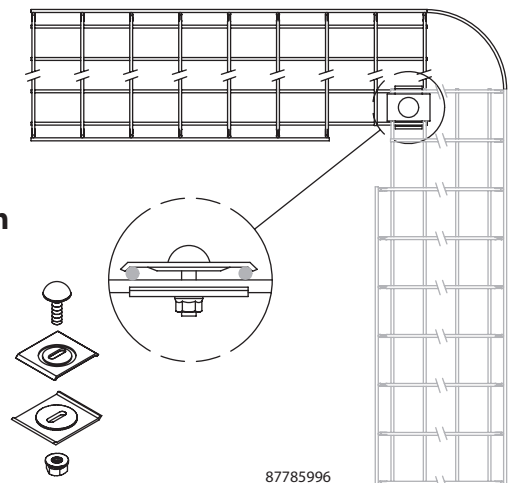
**2 in./  
51mm**



**4 in./  
102mm**



**6 to 24 in./  
152 to 610mm**



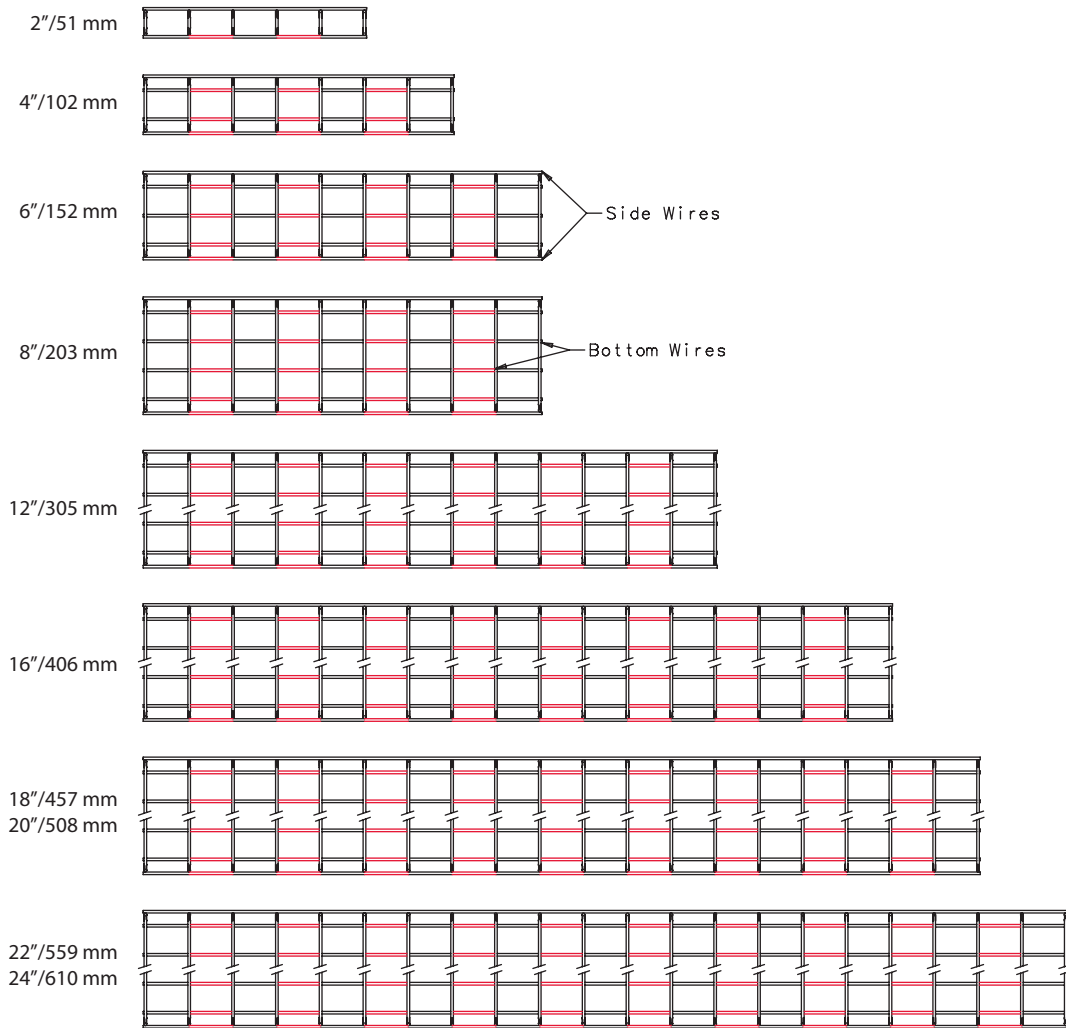
# Creating a Large Radius Bend

Large radius bends are formed by removing the outside and bottom wires at the bend location.

1

## Cut the side and bottom wires

Remove the wires from the outside and the bottom of every other mesh section at the location of the bend. Follow the cutting pattern shown for the size tray.



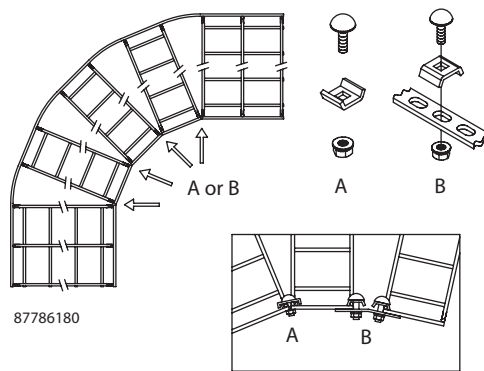
87785997

**2****Bend the cable tray**

Lay the tray on a flat surface and pull the ends on the uncut side towards each other until the remaining cut sides almost touch at the corners.

**3****Assemble the bends**

Fasten the inside of the bends together with the hardware shown in the drawings. Hardware can be in any sequence on the inside of the bend.



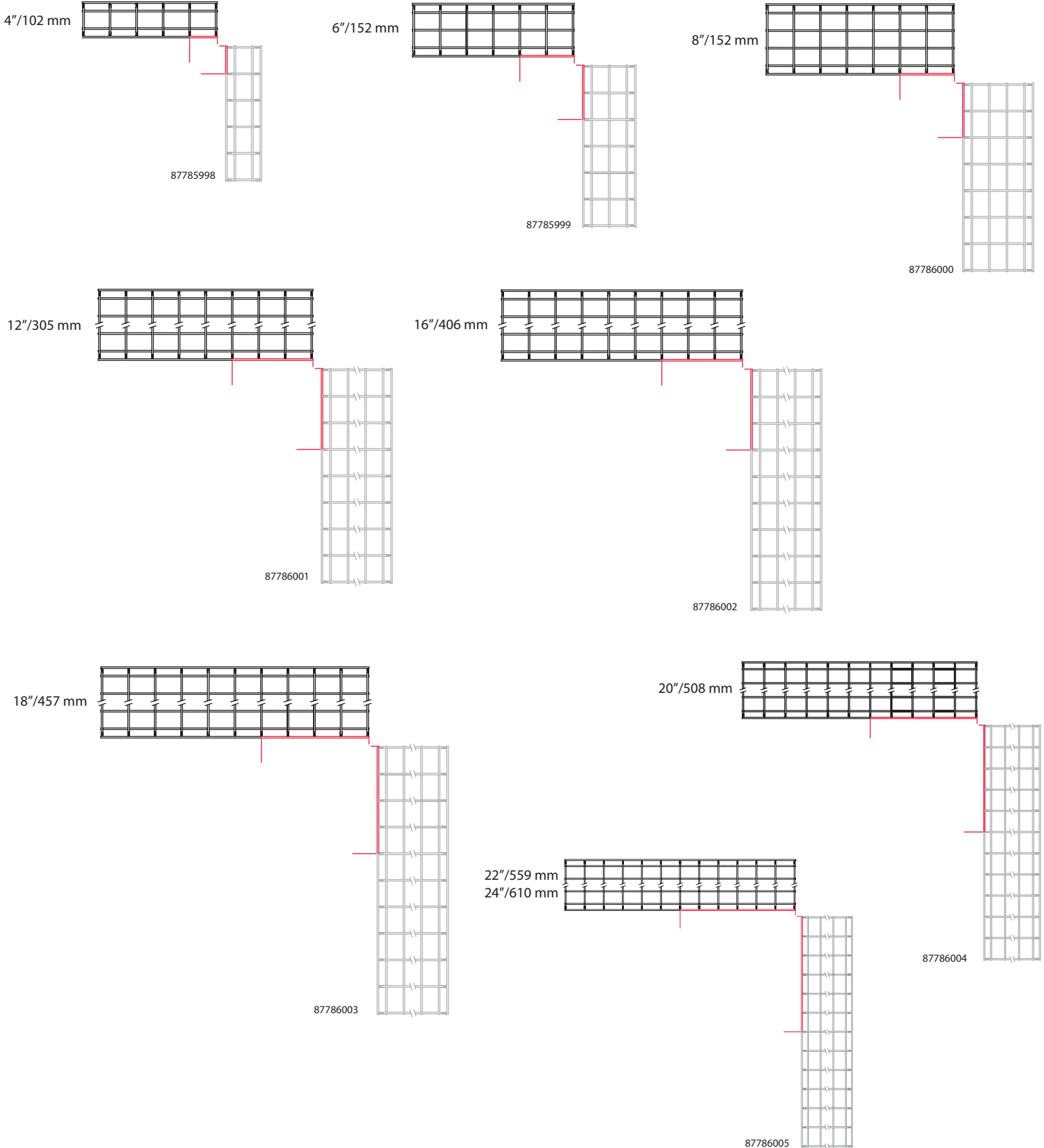
# Creating an Elbow

Two cable trays can be joined to create elbows at various angles.

1

## Cut side wires from each tray

Follow the cutting pattern for the tray width, removing the portions shown in red.





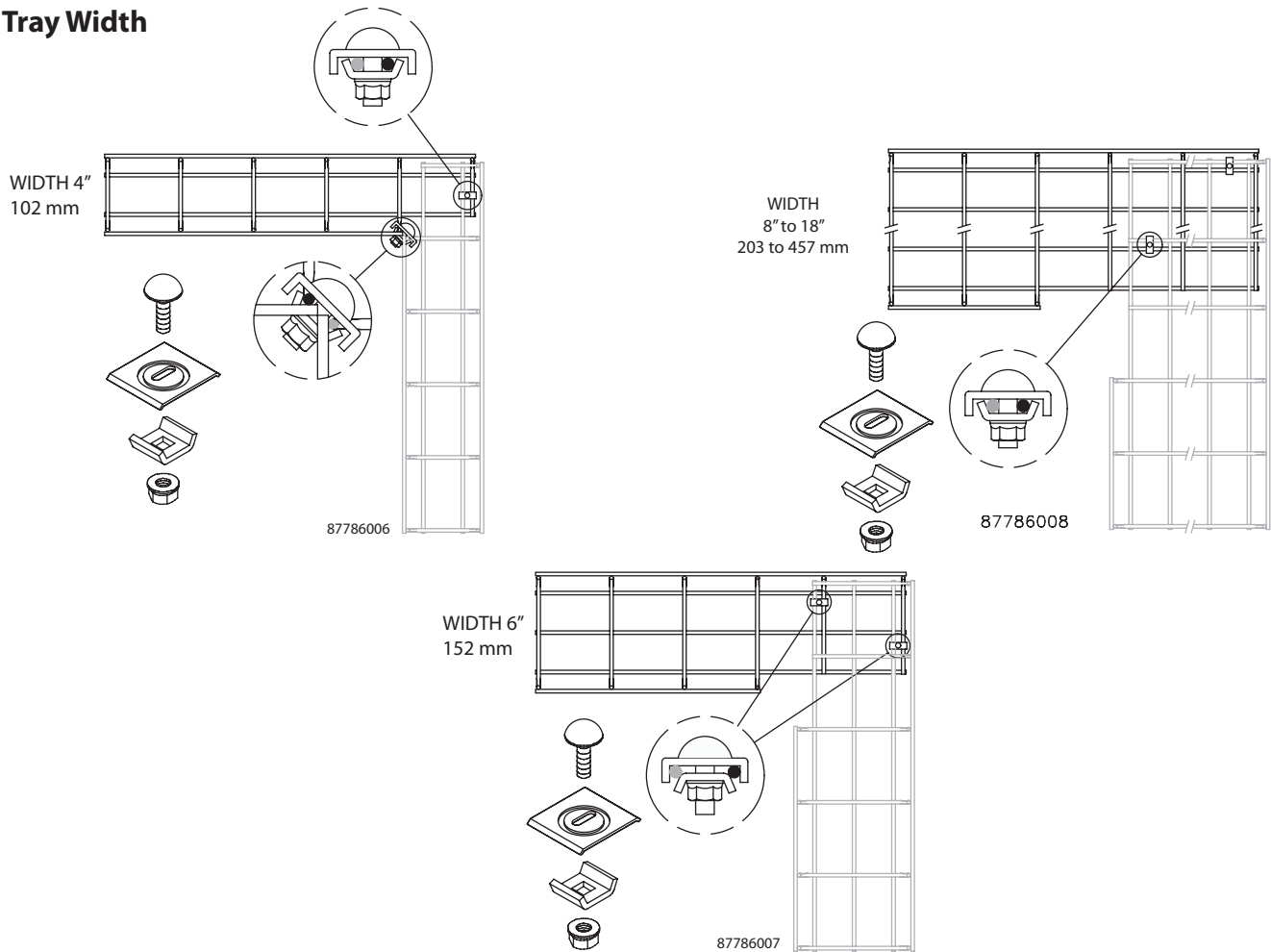
2

## Align the wires of the two trays at the desired angle

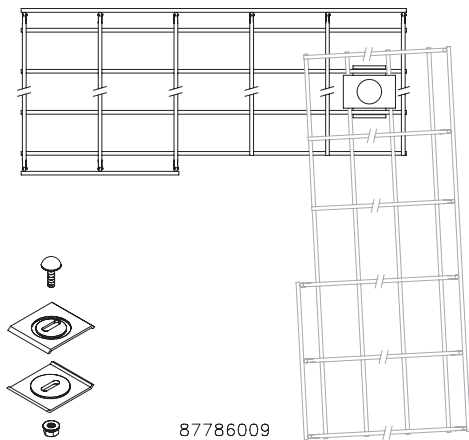
Fasten the tray as shown. Use two QTPBNWK/QTPBNWKBLK Splice Kits and the QTPSSW3/QTPSSW3BLK Splice Washers indicated for the tray size for each joint.

To form an adjustable angle use one QTPBNWK/QTPBNWKBLK Splice Kit and one QTPSSW3/QTPSSW3BLK Splice Washer indicated for the tray size, centered as shown under Adjustable Elbows. Be sure each splice washer is over two tray bottom wires.

### Tray Width



### Adjustable Elbows

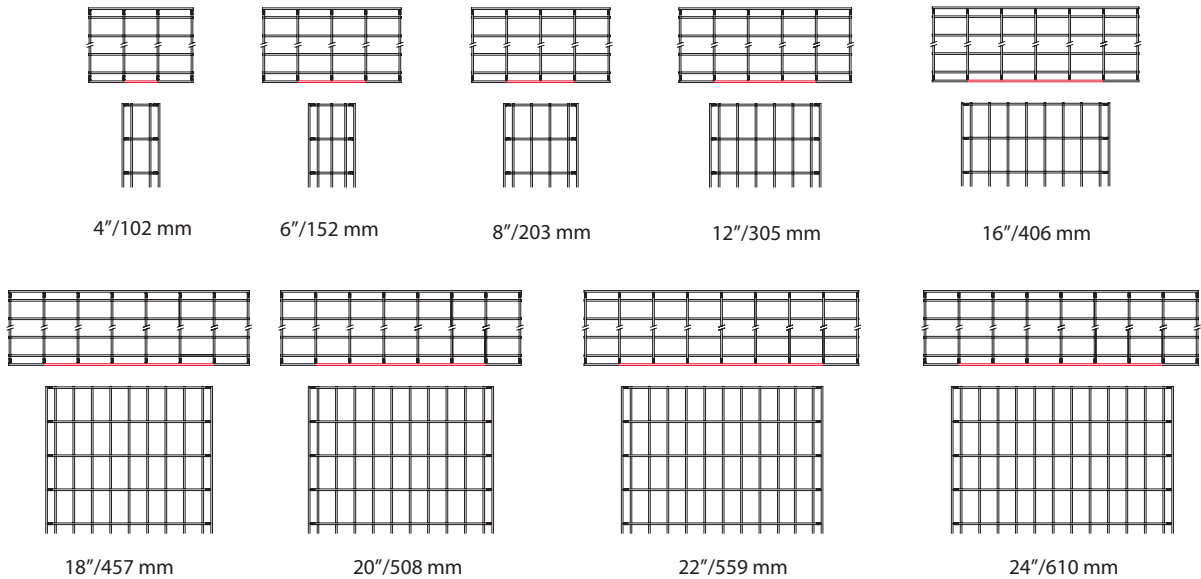


# Creating a 90° Tee

The T-connection splice bar connects the two sections of QUICK TRAY PRO™ Cable Tray to form a 90° tee.

## 1 Cut the side wires

Cut the side wires from the tray forming the top of the tee as shown in the cutting guide for the size tray.



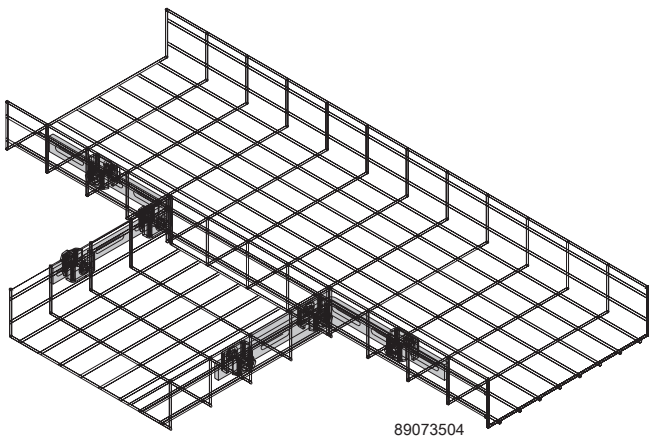
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## 2 Align the wires of the two trays at the desired angle

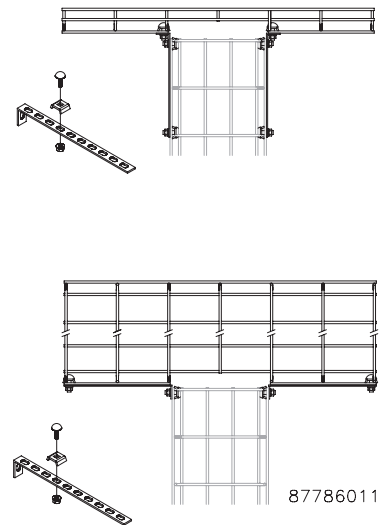
Fasten the tray as shown. Use two QTPBNWK/QTPBNWKBLK Splice Kits and the QTPSSW3/QTPSSW3BLK Splice Washers indicated for the tray size for each joint.

To form an adjustable angle use one QTPBNWK/QTPBNWKBLK Splice Kit and the QTPSSW3/QTPSSW3BLK Splice Washers indicated for the tray size, centered as shown under Adjustable Elbows. Be sure each splice washer is over two tray bottom wires.

Universal Splice Bars



T-Connection Splice Bars



# Creating a Y-Junction Tee

The Y Junction tee requires cutting both sections of QUICK TRAY PRO™ Cable Tray.

1

## Cut both tray sections

Cut and remove the wires indicated for the size tray..



4"/102 mm



6"/152 mm



8"/203 mm



12"/305 mm



16"/406 mm



18"/457 mm



20"/508 mm



22"/559 mm

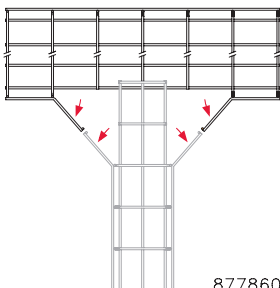


24"/610 mm

87786718

2

## Bend side wires to 45°



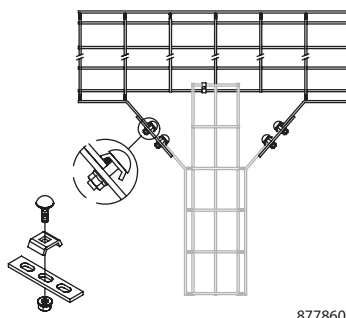
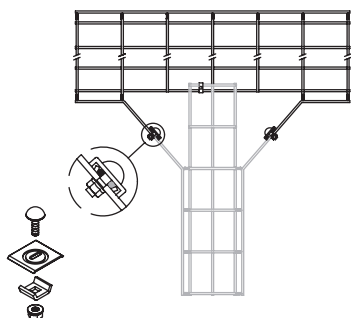
87786012

3

## Connect the tray sections

Form the Y by connecting the side wires of the two trays as shown. The universal connectors must be cut to 3 in.

Also connect the trays with QTPBNWK/QTPBNWKBLK Splice Kits and QTPSSW3/QTPSSW3BLK Splice Washers. Use one on 4 and 6 in. trays, two on 8 and 12 in. trays, and three on 16 in. and wider trays..



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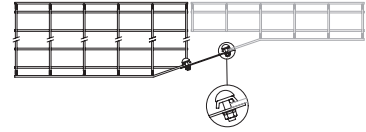
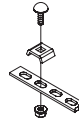
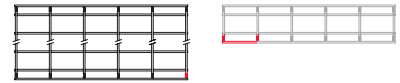
# Reducing QUICK TRAY™ PRO Width

Reduce QUICK TRAY PRO Cable Tray width to connect to smaller tray by cutting side and bottom

1

## Cut the side and bottom wires

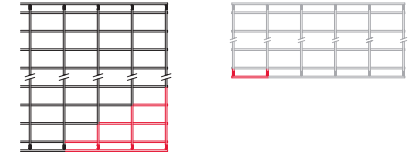
Cut the wires shown in the cutting guides to make a four inch or eight inch reduction in tray width.



2

## Connect the uncut side of the trays

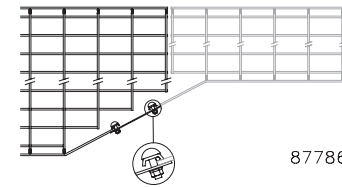
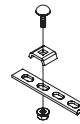
Use a QTPUS10/ QTPUS10BLK Universal Splice Bar with fasteners shown.



3

## Bend the cut wires of each tray

Use a QTPUS10 Universal Splice Bar with fasteners on each pair of tray wires.



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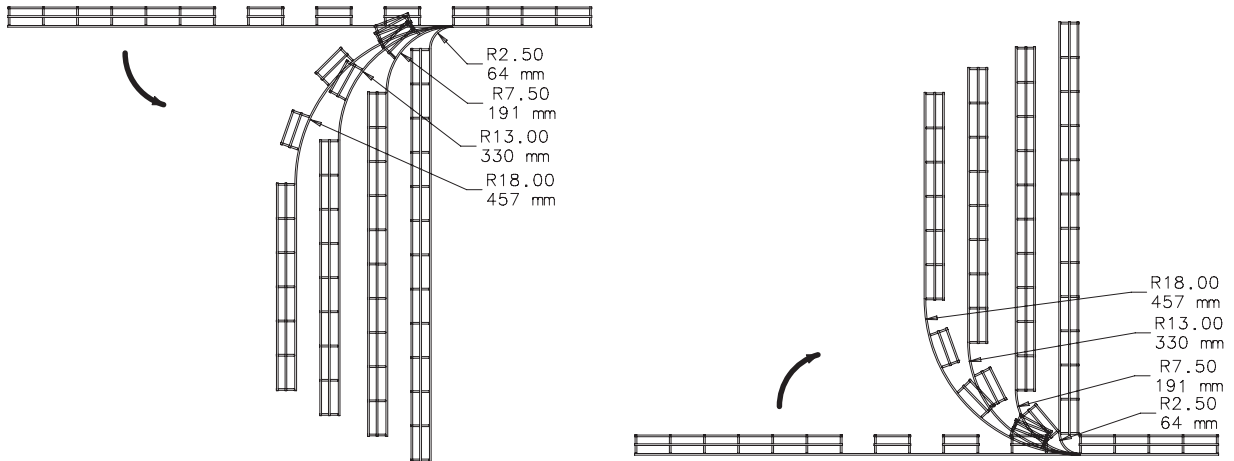
# Changing Levels

**QUICK TRAY PRO™ Cable Tray is easily formed to go around obstacles by removing side wires and bending to the desired angle.**

1

## Remove side wire sections

Remove every other side wire section at the bend location from both sides of the tray. The number of side wire sections removed determines the radius of the bend.



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2

## Bend the tray

Bend the tray smoothly up or down to go around the obstruction.



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# QUICK TRAY PRO™ Fill Calculations

Reduce QUICK TRAY PRO Cable Tray width to connect to smaller tray by cutting side and bottom

## Wire Mesh Cable Tray Fill Ratio

$$\text{Fill ratio} = \frac{\text{Cross section of cable}}{\text{Cross section of tray}}$$

According to NEC 392.9 (B), when using ventilated tray with multiconductor control cable, the sum of the cross-sectional areas shall not exceed 50 percent of the interior cross section of the tray.

The QUICK TRAY PRO Cable Tray Fill Table below shows the number of cables and the load in lbf/lineal foot developed by typical 4 pair and 6 pair cable weighing 20 lb/kft and 40 lb/kft, respectively. While this table is a useful guide, actual loads must be calculated using the cable specified.

Use the following formula to calculate the number of cables that will result in a particular fill ratio, where:

A= Inside tray area, in in.<sup>2</sup>

D= Cable diameter, in inches

F= Fill ratio in %

N= Number of cables

$$\text{The formula is } N = \left( \frac{F}{100} \right) * \left( \frac{A}{[(D/2)^2 * \pi]} \right)$$

QUICK TRAY PRO Cable Tray Fill Table at 50% Fill

Catalog Number		Height	Width	Area	CAT Cab Type (4 pair), .19 in. diameter No. Cables at 50% fill
		in.	in.	in. <sup>2</sup>	
QTP2X4	QTP2X4BLK	2	4	8	145
QTP2X6	QTP2X6BLK	2	6	12	219
QTP2X8	QTP2X8BLK	2	8	16	293
QTP2X12	QTP2X12BLK	2	12	24	437
QTP2X16	QTP2X16BLK	2	16	32	589
QTP2X18	QTP2X18BLK	2	18	36	663
QTP2X20	QTP2X20BLK	2	20	40	737
QTP2X22	QTP2X22BLK	2	22	44	811
QTP2X24	QTP2X24BLK	2	24	48	885
QTP4X4	QTP4X4BLK	4	4	16	275
QTP4X6	QTP4X6BLK	4	6	24	406
QTP4X8	QTP4X8BLK	4	8	32	557
QTP4X12	QTP4X12BLK	4	12	48	832
QTP4X16	QTP4X16BLK	4	16	64	1122
QTP4X18	QTP4X18BLK	4	18	72	1263
QTP4X20	QTP4X20BLK	4	20	80	1404
QTP4X22	QTP4X22BLK	4	22	88	1545
QTP4X24	QTP4X24BLK	4	24	96	1686
QTP6X8	QTP6X8BLK	6	8	48	836
QTP6X12	QTP6X12BLK	6	12	72	1249
QTP6X16	QTP6X16BLK	6	16	96	1682
QTP6X18	QTP6X18BLK	6	18	108	1894
QTP6X20	QTP6X20BLK	6	20	120	2106
QTP6X22	QTP6X22BLK	6	22	132	2310
QTP6X24	QTP6X24BLK	6	24	144	2529

## Supporting QUICK TRAY PRO Cable Tray

Straight section supports installed at 6-foot (1.5m) centers are typical. Supports should be placed within 24 in. (610mm) of a splice on straight sections, and the span between supports should not exceed the length of tray. Additional supports will be required around bends and when the cable tray level changes.

# Notes

# Notes