

# FiberGuide® Fiber Management Systems

2023 Edition



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## FiberGuide® Fiber Management Systems

#### The Industry's Most Comprehensive Optical Raceway System

The FiberGuide<sup>®</sup> fiber management systems offer the greatest breadth of optical raceway products in the industry. FiberGuide systems add greater flexibility and drive down installation time to ensure a smooth deployment.

FiberGuide is a raceway system designed to protect and route fiber optic patch cords, multi-fiber cable assemblies and intrafacility fiber cable (IFC) to and from fiber splice enclosures, fiber distribution frames and fiber optic terminal devices. FiberGuide ensures a two-inch minimum bend radius is maintained throughout the system. Tool-less, Snap-Fit<sup>™</sup> junction options significantly reduce the amount of time required for installation.

The FiberGuide system is a complete set of products designed and manufactured to ensure total off-frame protection and ease of use. Basic components include horizontal and vertical straight sections, horizontal and vertical elbows, downspouts, junctions and numerous support hardware and flex vertical kits.

Available in a variety of sizes:

**2x2** – Ideal for smaller installations or for vertical routing of a maximum of four hundred 2 mm fiber optic patch cords. All 2x2 FiberGuide products are shipped with covers.

**2x6** – Designed for height restricted environments, this robust system provides the same support and system flexibility of the traditional 4-inch-high system while saving 2 inches of overhead space. It features a maximum capacity of 1,200, 2 mm patch cords.

**4x4** – Features the maximum capacity to support 1,600, 2 mm patch cords. It has been engineered to allow straight sections to be self-supporting over a span of up to 1.83 m (6 feet).

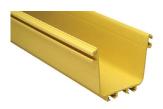
**4x6** – Features the same benefits of the 4-inch system and a maximum trough capacity of 2,400, 2 mm patch cords.

**4x12** – The 12-inch-wide trough has a maximum capacity to support nearly 5,000, 2 mm patch cords. Perfect for runs over fiber frame lineups and perimeter routes.

**4x24** – The 4x24-inch system is the ultimate raceway solution to securely route and protect patch cords over high-density optical distribution frames including CommScope's Next Generation Frame (NGF) and Next Generation 3 Frame (NG3<sup>®</sup>). Designed for maximum capacity, this robust system provides the same support and flexibility as the traditional 4x12-inch system while doubling capacity.





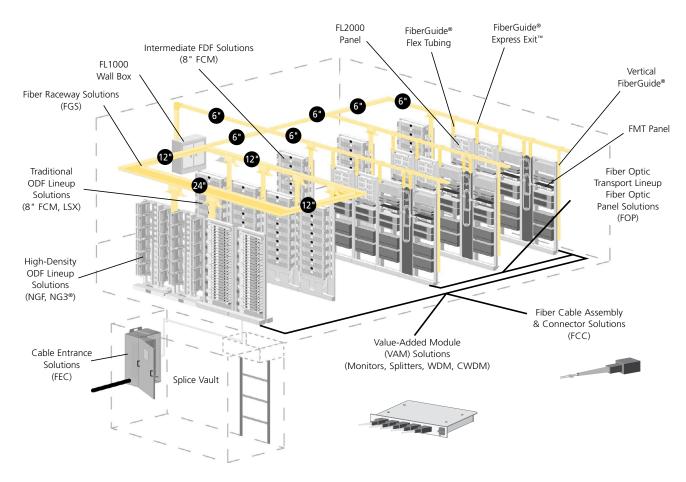








## Examples of FiberGuide® Integration



#### FiberGuide® Materials Product Statement

The FiberGuide fiber management system is a UL-listed (E151158) general purpose fiber optic raceway system. All FiberGuide products are manufactured from flame-retardant materials. No FiberGuide system parts contain PVC. The table summarizes the fire-resistant properties of FiberGuide straight sections, molded parts and flex tube.

	Raw Material Meets UL Requirement	Finished Product Meets UL Requirement
FiberGuide Straight Sections (All FiberGuide Systems)	Flame rated: UL94V-0	UL94V-0 and UL2024
FiberGuide Molded Fittings (All FiberGuide Systems)	Flame rated: UL94V-0	UL94V-0 and UL2024
FiberGuide Flex Tube (2")	Flame rated: UL94V-0	UL2024
FiberGuide Flex Tube (1")	Flame rated: UL94V-0	UL2024
FiberGuide Flex Tube (7/8")	Flame rated: UL94V-2	UL2024

Note: FiberGuide flex tube complies with the National Electrical Code (NEC) Article 770-51 and Underwriters Laboratory UL2024 requirements for General Purpose Fiber Optic Raceways.

## Introduction - Innovative Products

#### Snap-Fit<sup>™</sup> and Hinged Cover Options

To drive down valuable installation time, FiberGuide systems include tool-less Snap-Fit<sup>™</sup> and hinged cover options. Featuring simple, durable molded hardware, these covers install in minutes and require no tools.

The hinged cover option provides easy access, enabling installers and technicians to deploy the product quickly and easily. In addition, the covers do not need to be fully opened for maintenance.

#### **Snap-Fit Junction**

The Snap-Fit Junction is the industry's first and only completely tool-less junction. No additional tools are needed for installation or removal. Quick and easy to install, the FiberGuide Snap-Fit Junction saves valuable time and money.

#### Express Exits<sup>™</sup>

The FiberGuide system features a number of innovative Express Exit<sup>™</sup> options: Low profile, 2-inch, 4-inch, 6-inch and 12-inch options round out this innovative product line, designed to meet your most demanding network requirements. By simply securing an Express Exit to the sidewall of a FiberGuide straight section, jumpers can be permanently or temporarily routed to the fiber optic terminal (FOT) equipment or fiber frames. No cutting is required. Positioning a drop with a member of the Express Exit family greatly simplifies installation, protects the integrity of existing fibers and increases the overall flexibility of the raceway system.

#### **Raceway Reconfiguration Solutions**

Three FiberGuide products facilitate easy on-site raceway reconfigurations. Available for the 4x4, 4x6, 4x12 and 4x24\* systems, the cut-in T, the expandable straight section and insertable downspout offer the required flexibility to optimize raceway systems in retrofit applications without jeopardizing the integrity of existing cables.

\*Expandable straight section not available for 4x24 system.



**Hinged Cover System** 



Express Exit<sup>™</sup> Family







**Expandable Straight Section** 

## Introduction - Features and Benefits



#### Features & Benefits

#### Speed of Installation

FiberGuide<sup>®</sup> systems feature a variety of products that allow for quick and easy installation. Express Exit<sup>™</sup> drops as well as tool-less products including Snap-Fit<sup>™</sup> junctions, snap-on covers and hinged cover options save valuable time for installers.

#### Speed of Deployment

The Express Exit system enables new drops to be added or removed quickly and easily. A drop can be added into a fully loaded raceway in seconds—without cutting.

#### **Raceway Flexibility**

FiberGuide features over 150 support structures, over 200 fittings, multiple drop options and several other components to suit any application you create.

#### **Fiber Protection**

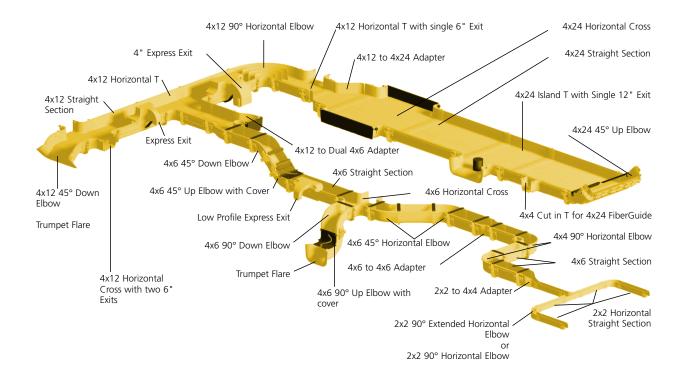
CommScope's expertise translates into maximum protection for your network. Two-inch minimum bend radius is maintained throughout the system regardless of the raceway size.

#### Strength and Durability

100% raceway reliability-stands up to any challenge.

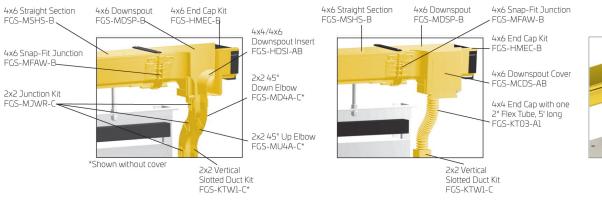
## Applications - Combining System Parts

A combination of components from the various sized raceway systems typically comprise overhead FiberGuide<sup>®</sup> systems. Adapters are used to make the transition between sizes. An example of an overhead system that combines many of CommScope's FiberGuide systems can be seen below.



## Applications - Downspout Drop Options

A downspout drop is recommended over optical distribution frame lineups. The rigid 2-inch drop, 2-inch flex tube and 2-inch flex vertical option are three methods for directing fibers out of overhead FiberGuide<sup>®</sup> downspouts and into optical equipment bays. The rigid system is recommended because it offers excellent bend radius control and ensures a quality fiber backbone installation.







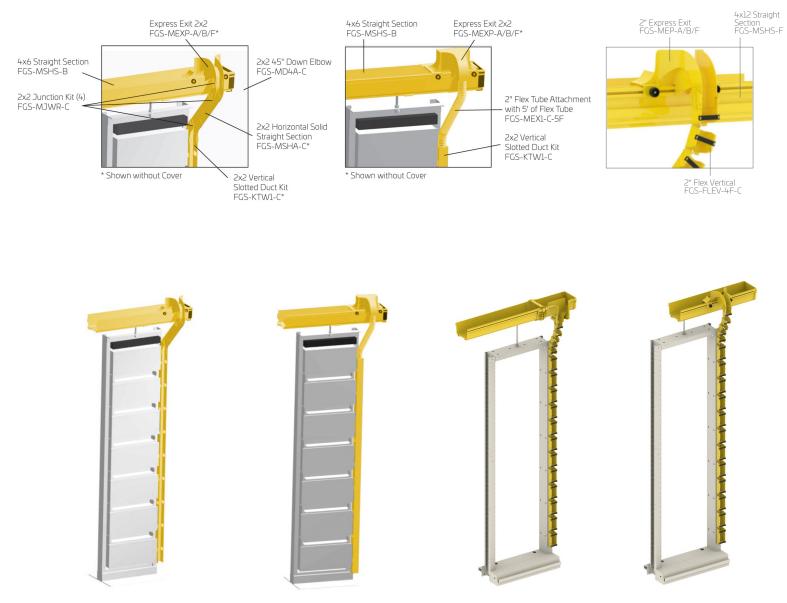
2x2 Rigid Drop Option

2" Flex Tube Drop Option

2" Flex Vertical Drop Option

## Applications - Express Exit™ Drop Options

An Express Exit is recommended over active equipment racks or cabinets. The rigid 2-inch drop option, 2-inch flex tube and 2-inch flex vertical option are three methods for directing fibers out of overhead FiberGuide<sup>®</sup> downspouts and into optical equipment bays. The rigid system is recommended because it offers excellent bend radius control and ensures a quality fiber backbone installation.



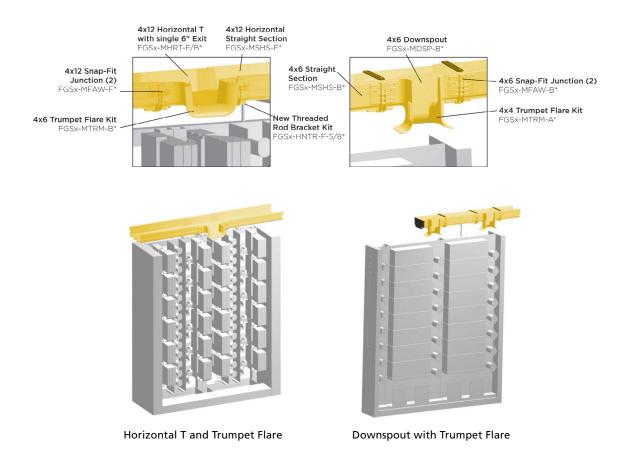
2x2 Rigid Drop Option

2" Flex Tube Drop Option

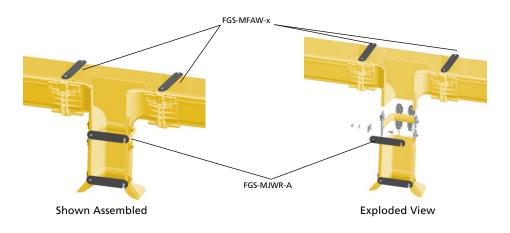
2" Flex Vertical Drop Option

## Applications - Trumpet Flare Options

The trumpet flare is recommended at the bottom of a downspout when directing fibers into a fiber distribution bay. Trumpet flares provide bend radius protection and allow for a large number of fiber patch cords to transition into a fiber bay. A 4x4 trumpet flare is used for the 4x4 and 4x6 downspouts and a 4x6 trumpet flare is used for the 4x12 downspout.

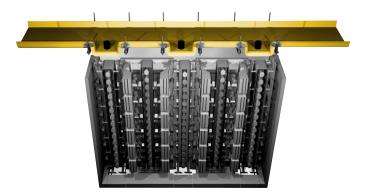


When attaching a straight section or fitting to the exit of a 4x4 or 4x6 downspout, the FGS-MJWR-A junction must be used. This junction is only required to connect the vertical part, the FGS-MFAW-x junction can be used to connect the horizontal parts.



## Applications - 4x24-Inch Island T

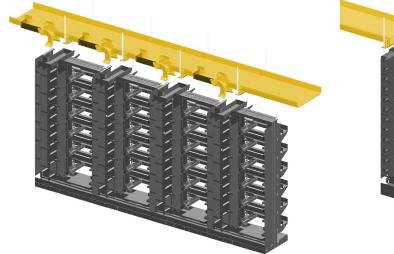
The 4x24 Island T with 12-inch exit is designed to be used over the NGF, NG3<sup>®</sup> or any high-density fiber frame. The 4x24 Island T, a horizontal T with spool and factory-installed trumpet flare, channels fiber directly into the vertical cableways below.

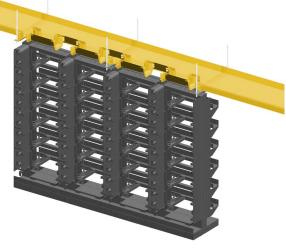


4x24 Island T (Shown with support brackets over an NGF frame.)

## FiberGuide FlexExit

FiberGuide flex exit was designed to ensure a precise fiber drop from the raceway system into CommScope's NG4access optical distribution frame (ODF) or other high-density frame solutions. It easily installs on the sidewall of the existing raceway system, and promotes 4, 6 or 12 inch fiber drops. The FiberGuide flex exit easily adjusts vertically, side-to-side and forward for precise alignment with the ODF equipment.





Rear Fiber Entry for Cross-Connect Applications

Dual Front Fiber Entry for Interconnect Applications

## Applications - Raceway Reconfigurations

#### Cut-in T, Fitting and Fixture

The innovative cut-in T fitting and fixture enable on-site raceway modifications without jeopardizing the integrity of installed fibers. Available in 4-, 6-, and 12-inch widths, the cut-in T fitting can be retrofitted to any installed 4-, 6-, 12-, and 24-inch straight section using the cut-in T fixture and the hardware supplied with the fitting. No special tools are required.



Fixture attached to sidewall of raceway



Fixture protects cables during cutting of sidewall



Fitting fills gap left by removed sidewall

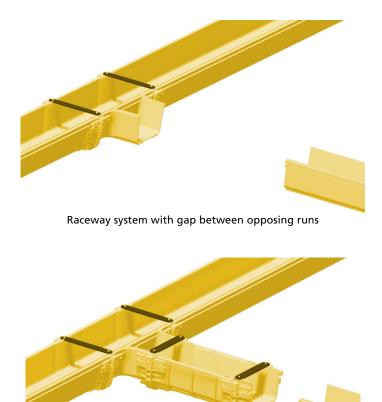


Supplied hardware secures fitting to raceway and completes installation

## Applications - Raceway Reconfigurations

#### Expandable Straight Sections

The expandable straight section simplifies installation and enhances the overall flexibility of the raceway system. The innovative straight section also provides an access point for future reconfigurations. Available in 4-, 6-, and 12-inch widths, the expandable straight section reduces the installation time necessary to connect opposing runs and provides continuous support for patch cords.



Expandable straight section extends to connect runs

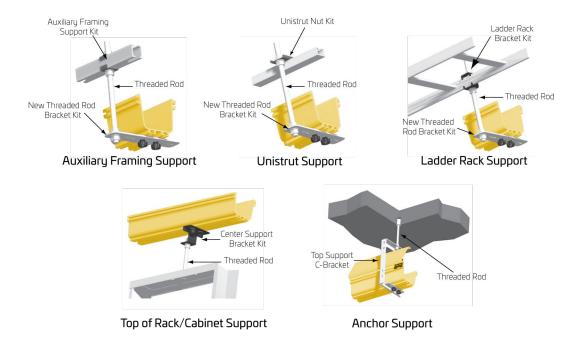


Completed installation

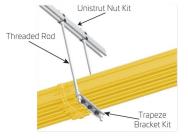
## Applications - Supporting Overhead Systems

A variety of support kits are available for each FiberGuide<sup>®</sup> system. Whenever possible, FiberGuide support kits should be attached to existing hardware (cable racks, digital cableways, existing threaded rods or equipment racks).

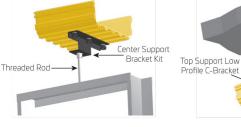
#### 2x6, 4x4, 4x6 Systems



#### 4x12 System



Trapeze Bracket Kit



Top of Rack/Cabinet Support

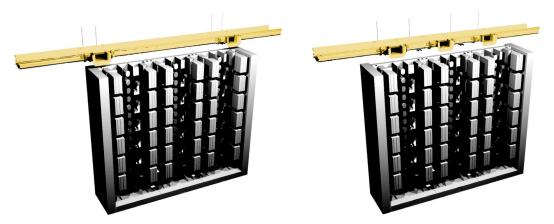
Anchor Support

Threaded Rod

## Applications - Supporting Overhead Systems

#### 4x12 and 4x24 Systems

The straight sections on the 4x12 and 4x24 FiberGuide<sup>®</sup> system are exceptionally strong, making frequent placement of supports beneath them unnecessary. Whenever possible the supports should be placed under the fittings using the mounting bosses as shown (photos 1 and 2). This placement provides the strongest system and requires the least amount of support hardware to be used. Occasionally it is not possible to attach the support bracket to the mounting bosses on the fittings; in those instances the variable fitting support locator can be installed on the bottom of the fitting, allowing the support to be attached anywhere along the fitting bottom (photos 3, 4 and 5). When combining several straight sections, it is recommended that support brackets are installed on both sides of each junction.



Typical 4x12 system installation over a Next Generation Frame Line-up



Variable Fitting Support Locator

3

## Patch Cord Densities

#### Recommended and Maximum Patch Cord Densities

Recommended capacity takes into consideration random jumper placement into the FiberGuide<sup>®</sup> system. Maximum density refers to the maximum number of fiber jumpers in a given cross-section of a FiberGuide installation.

#### Recommended/Maximum Density

1.2 mm	1.5 mm	1.7 mm	2.0 mm	3.0 mm
Patch Cords (per in²)				
428/570	274/365	213/284	154/205	68/91

#### Trough Pileup Recommended/Maximum Density

#### Vertical Trough Pileup Recommended/Maximum Density

		2-Inch	3-Inch	4-Inch
4x24 System	1.2 mm	20,768/27,691	31,152/41,536	41,537/55,382
	1.5 mm	13,292/17,722	19,937/26,583	26,583/35,444
	1.7 mm	10,349/13,798	15,522/20,696	20,696/27,595
	2.0 mm	7,477/9,969	11,215/14,953	14,953/19,937
	3.0 mm	3,323/4,431	4,985/6,646	6,646/8,861
4x12 System	1.2 mm	10,500/14,000	15,750/21,000	21,000/28,000
	1.5 mm	6,720/8,960	10,080/13,440	13,440/17,920
	1.7 mm	5,232/6,976	7,848/10,464	10,464/13,952
	2.0 mm	3,780/5,040	5,670/7,560	7,560/10,080
	3.0 mm	1,680/2,240	2,520/3,360	3,360/4,480
4x6 System	1.2 mm	5,366/7,155	8,049/10,732	10,733/14,310
	1.5 mm	3,434/4,579	5,152/6,869	6,869/9,158
	1.7 mm	2,674/3,565	4,011/5,348	5,348/7,130
	2.0 mm	1,932/2,576	2,898/3,864	3,863/5,151
	3.0 mm	859/1,145	1,288/1,717	1,718/2,290
4x4 System	1.2 mm	3,655/4,873	5,483/7,310	7,310/9,746
	1.5 mm	2,339/3,119	3,509/4,678	4,679/6,238
	1.7 mm	1,821/2,428	2,732/3,642	3,642/4,856
	2.0 mm	1,316/1,754	1,973/2,631	2,632/3,509
	3.0 mm	585/780	878/1,170	1,169/1,559
2x6 System	1.2 mm	5,598/7,464	-	-
	1.5 mm	3,583/4,777	-	-
	1.7 mm	2,789/3,719	-	-
	2.0 mm	2,015/2,687	-	-
	3.0 mm	896/1,194	-	-
2x2 System	1.2 mm	1,712/2,282	-	-
	1.5 mm	1,095/1,460	-	-
	1.7 mm	853/1,137	-	
	2.0 mm	616/821	-	-
	3.0 mm	274/365	-	-

		2-Inch
2x4 System	1.2 mm	2,000/2,280
	1.5 mm	1,480/1,704
	1.7 mm	960/1,136
	2.0 mm	720/816
	3.0 mm	320/352
2x2 System	1.2 mm	1,000/1,140
	1.5 mm	740/852
	1.7 mm	480/568
	2.0 mm	360/408
	3.0 mm	160/176

## 2x2 System Fittings – 2" H x 2" W



Horizontal T (FGS-MHTA-C)



90° Horizontal Elbow (FGS-MH9A-C)



45° Down Elbow (FGS-MD4A-C)



Horizontal Cross (FGS-MHXP-C)



90° Extended Horizontal Elbow (FGS-MH9A-C-45/2)



2x2 to 4x4 Straight Adapter (FGS-MDSA-AC)



45° Horizontal Elbow (FGS-MH4A-C)



45° Up Elbow (FGS-MU4A-C)



Description	Part Number			
	Number of Junctions	Yellow System	Black System	
2x2 fittings				
Horizontal T; cover included	3	FGS-MHTA-C	FGSB-MHTA-C	
Horizontal cross; cover and two 2x2 junctions included; two additional 2x2 junctions required	2+2	FGS-MHXP-C	FGSB-MHXP-C	
45° horizontal elbow; cover included	2	FGS-MH4A-C	FGSB-MH4A-C	
90° horizontal elbow; cover included	2	FGS-MH9A-C	FGSB-MH9A-C	
90° extended horizontal elbow; cover included; similar to two 45° horizontal elbows joined	2	FGS-MH9A-C-45/2		
45° up elbow; cover included	2	FGS-MU4A-C	FGSB-MU4A-C	
90° up elbow; <i>cover included</i>	2	FGS-MU9A-C	FGSB-MU9A-C	
45° down elbow; cover included	2	FGS-MD4A-C	FGSB-MD4A-C	
90° down elbow; cover included	2	FGS-MD9A-C	FGSB-MD9A-C	
2x2 conversions				
2x2 to 4x4 straight adapter; cover included	(1) 2x2, (1) 4x4	FGS-MDSA-AC		
2x2 end cap				
End cap; junction included		FGS-HMEC-C	FGSB-HMEC-C	

## 2x2 System Downspouts and Attachments – 2" H x 2" W



2x2 Standard Downspout (FGS-MSDS-C)



2x2 Extended Downspout (FGS-MDSP-C) \*hose for reference only



Extended Downspout (FGS-KDH2-C shown attached to 2x2 FiberGuide system) \*hose for reference only



Dual 7/8" Flex Tube Attachment (FGS-KT03-CNH)



2" slotted flex tube (FGS-MIDY)



2x2 Trumpet Flare (FGS-MTRM-C)

Description	Part Number		
	Number of Junctions	Yellow System	Black System
2x2 downspouts			
Standard downspout; cover included	2	FGS-MSDS-C	FGSB-MSDS-C
Extended downspout; cover included	1	FGS-MDSP-C	FGSB-MDSP-C
Extended downspout; cover and 2" flex tube 2' long, included	1	FGS-KDH2-C	
Trumpet flare; 2x2 junction included		FGS-MTRM-C	FGSB-MTRM-C
2x2 attachments			
Single 2" flex tube adapter kit – 2x2 junction included (x=length in feet: OF, 5F, 10F, 15F)		FGS-MEX1-C-xF	FGSB-MEX1-C-xF
Dual 7/8" flex tube adapter kit – 2x2 junction included		FGS-KT03-CNH	FGS-KT03-CNH
Flex tube clamp kit of 10; attaches 7/8" flex tube to rack		FGS-HSHC-10	FGS-HSHC-10
Slotted flex tubes			
2" outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 30, 50, 75, 100, 125, 150, 200, 250, 350)		FGS-MIDY-xF	FGSB-MIDY-xF
7/8" outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 50, 75, 100, 125, 150, 200, 250)		FGS-MFTY-xF	FGSB-MFTY-xF

## 2x2 System Straight Section and Junction – 2" H x 2" W

#### Straight Section

The 2x2 straight section is a U-shaped trough that provides a protective raceway for optical fibers. Available in 6-foot lengths, the straight section carries fibers horizontally throughout the system. It can also be installed vertically when routing around obstructions. A warning label indicating caution around fiber optic cable is included with each junction kit.



Horizontal Straight Section (FGS-MSHA-C)

#### Ordering Information

Description	Part Number	
	Yellow System	Black System
<b>2x2 straight section;</b> horizontal straight section; 6' <i>long, cover included</i>	FGS-MSHA-C	FGSB-MSHA-C

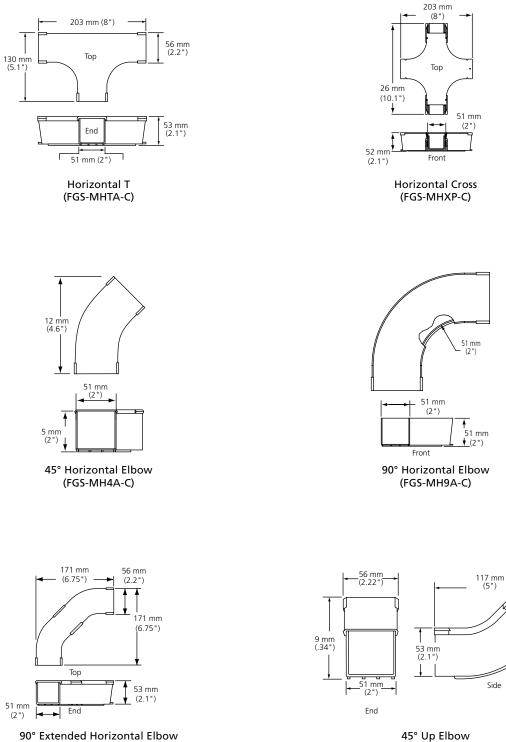
#### Junction

The 2x2 junction is used for mechanically joining FiberGuide<sup>®</sup> sections. No tools are required for assembly.



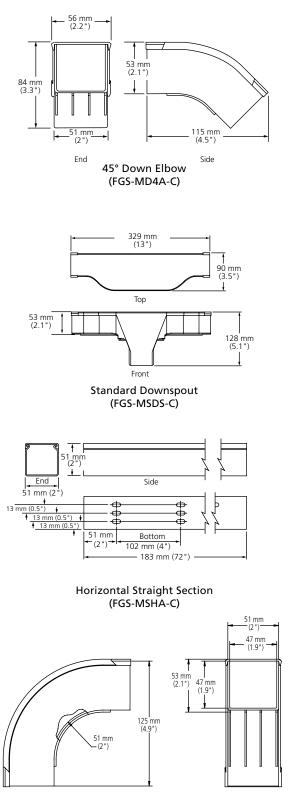
Junction (FGS-MJWR-C)

Description	Part Number	
	Yellow System Black System	
2x2 junction	FGS-MJWR-C	FGSB-MJWR-C

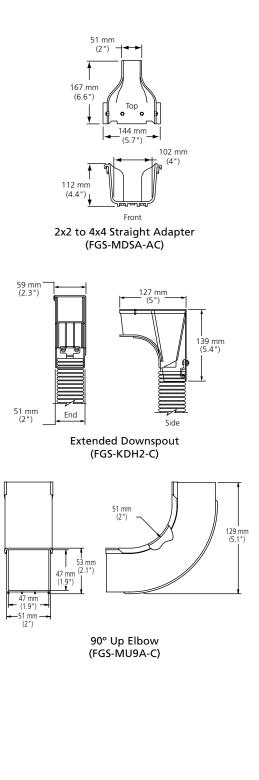


45° Up Elbow (FGS-MU4A-C) Side

(FGS-MH9A-C-45/2)



90° Down Elbow (FGS-MD9A-C)



## 2x6 System

Fittings, Downspouts and Attachments – 2" H x 6" W

#### Ordering Information

Description	Part Number	Part Number			
	Number of Junctions	Yellow System	Black System		
2x6 fittings					
Horizontal T	3	FGS-MHRT-G	FGSB-MHRT-G		
Horizontal cross	4	FGS-MHXP-G	FGSB-MHXP-G		
90° horizontal elbow	2	FGS-MH9E-G	FGSB-MH9E-G		
90° down elbow	2	FGS-MD9E-G	FGSB-MD9E-G		
45° horizontal elbow	2	FGS-MH4E-G	FGSB-MH4E-G		
45° up elbow, metal cover included	2	FGS-MU4E-G	FGSB-MU4E-G		
45° down elbow	2	FGS-MD4E-G	FGSB-MD4E-G		
2x6 conversions					
2x6 to 4x4 adapter	(1) 2x6, (1) 4x4	FGS-MDSA-GA	FGSB-MDSA-GA		
2x6 to 4x6 adapter	(1) 2x6, (1) 4x6	FGS-MDSA-GB	FGSB-MDSA-GB		
Trumpet flare		FGS-MTRM-G	FGSB-MTRM-G		
2x6 downspouts					
2x6 to 2x2 downspout	2	FGS-MDSP-G	FGSB-MDSP-G		
2x6 attachments					
Dual 2" flex tube adapter kit		FGS-KT03-G-0F	FGS-KT03-G-0F		
2x6 end cap		FGS-HMEC-G	FGS-HMEC-G		
Slotted flex tubes					
2" outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 30, 50, 75, 100, 125, 150, 200, 250, 350)		FGS-MIDY-XF	FGSB-MIDY-XF		

## Low-Profile Express Exit™

Designed for low-ceiling or height restricted environments, the Express Exit for the 2x6 FiberGuide system extends only two inches above the straight section sidewall. The Express Exit accommodates up to 150 (3 mm) patch cords, includes removable rear cable guides for additional cable management, and features a 2x2 exit opening. It is designed specifically for the 2x6 FiberGuide system and should not be used on any other FiberGuide system.



#### Ordering Information

Express Exit (FGS-MEXP-LP-G)

Description	Part Number	
	Yellow System	Black System
Low-Profile Express Exit™ (designed exclusively for the 2x6 system) Base, cover, mounting hardware, and support bracket included	FGS-MEXP-LP-G	FGSB-MEXP-LP-G

## 2x6 System

#### Fittings, Downspouts and Attachments – 2" H x 6" W





90° Horizontal Elbow (FGS-MH9E-G)



45° Up Elbow (FGS-MU4E-G) (Metal Cover Included)



2x6 to 4x6 Adapter (FGS-MDSA-GB)



Horizontal T (FGS-MHRT-G)



90° Down Elbow (FGS-MD9E-G)



45° Down Elbow (FGS-MD4E-G)



Trumpet Flare (FGS-MTRM-G)



Horizontal Cross (FGS-MHXP-G)



45° Horizontal Elbow (FGS-MH4E-G)



2x6 to 4x4 Adapter (FGS-MDSA-GA)



End Cap (FGS-HMEC-G)

## 2x6 System Straight Section and Junction – 2" H x 6" W

#### Straight Section

The unique four-channel design of the 2x6 FiberGuide<sup>®</sup> straight section allows the standard system to be attached to the support structure without the need to cut or drill any holes within the trough. This ensures that the patch cords will not come in contact with any screw heads or bolts.

#### Ordering Information

Description	Part Number		
	Yellow System	Black System	
<b>2x6 straight section;</b> horizontal straight section; 6' <i>long, cover sold seperately</i>	FGS-MSHS-G	FGSB-MSHS-G	
2x6 accessories			
Hinged cover kit for horizontal straight section; three mounting hinges and three clips included	FGS-MSNC-B/G	FGSB-MSNC-B/G	
Snap-on cover kit for horizontal straight section; six capture clips with mounting clasps included	FGS-MSSC-B/G	FGSB-MSSC-B/G	
Kit-10 black capture clips*	FGS-DHCP	FGS-DHCP	

\*See drawings on page 24 for more detail on how capture clips and hinges are used.



Straight Section (FGS-MSHS-G)



Hinged Cover Kit for Horizontal Straight Section (FGS-MSNC-B/G)



6-inch Snap-on Cover (FGS-MSSC-B/G)

#### Junction

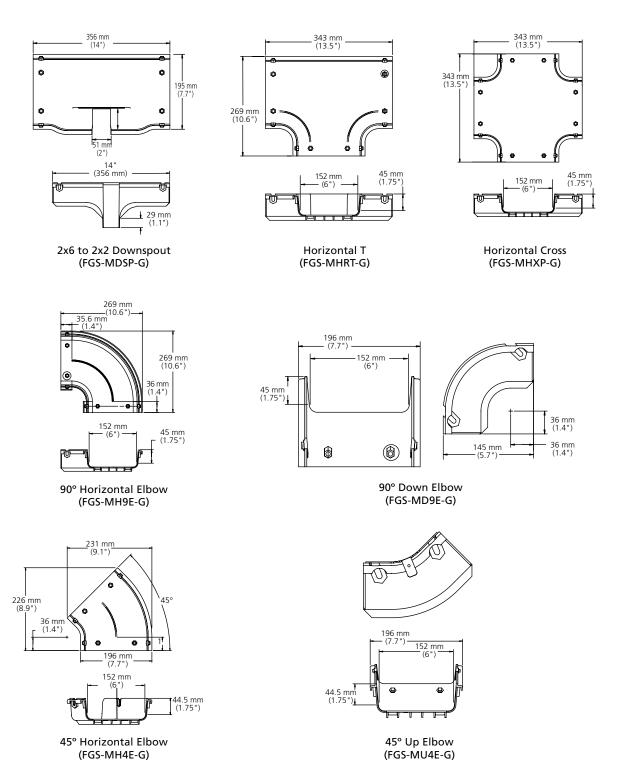
The one-piece junction employs factory-installed set screws to assure strength and durability. No cutting or drilling of the components is required for assembly. A warning label indicating caution around fiber optic cable is included with each junction kit.



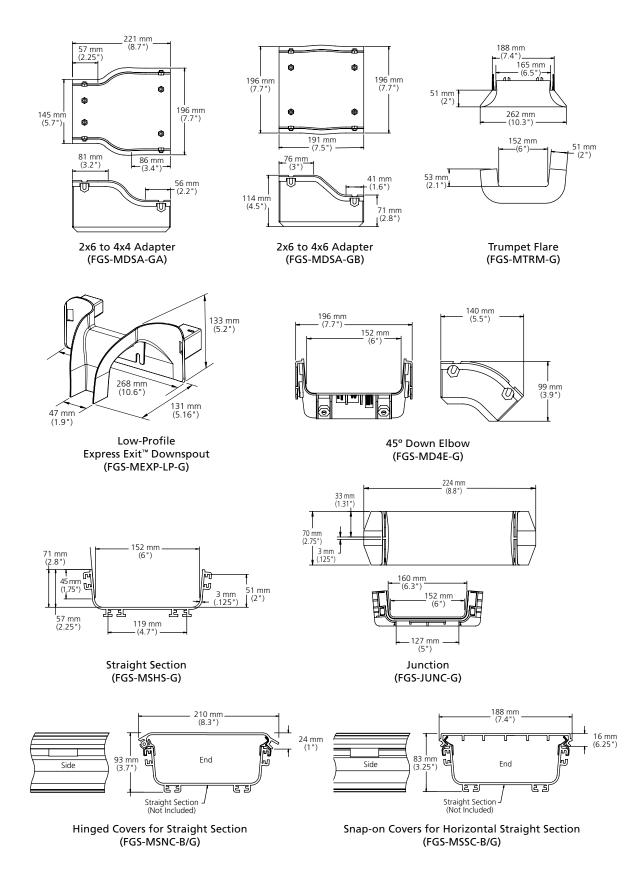
2x6 Junction (FGS-JUNC-G)

Description	Part Number	
	Yellow System Black System	
2x6 junction	FGS-JUNC-G	FGSB-JUNC-G

## 2x6 System Part Drawings



## 2x6 System Part Drawings



## 4x4 System Fittings – 4" H x 4" W

Description		Part Number				
	Number of Junctions	Yellow System	Yellow System Snap-on Cover	Black System	Black System Snap-on Cover	Fixed Metal Cover
4x4 fittings						
Horizontal T	3	FGS-MHRT-A	FGS-SHRT-A	FGSB-MHRT-A	FGSB-SHRT-A	FGS-CHRT-A
Horizontal cross	4	FGS-MHXP-A	FGS-SHXP-A	FGSB-MHXP-A	FGSB-SHXP-A	FGS-CHXP-A
90° horizontal elbow	2	FGS-MH9E-A	FGS-SH9E-A	FGSB-MH9E-A	FGSB-SH9E-A	FGS-CH9E-A
90° up elbow metal cover included	2	FGS-MU9E-A	FGS-SU9E-A	FGSB-MU9E-A	FGSB-SU9E-A	
90° down elbow	2	FGS-MD9E-A	FGS-SD9E-A	FGSB-MD9E-A	FGSB-SD9E-A	FGS-CD9E-A
45° horizontal elbow	2	FGS-MH4E-A	FGS-SH4E-A	FGSB-MH4E-A		FGS-CH4E-A
45° up elbow metal cover included	2	FGS-MU4E-A	FGS-SU4E-A	FGSB-MU4E-A		
45° down elbow	2	FGS-MD4E-A	FGS-SD4E-A	FGSB-MD4E-A	FGSB-SD4E-A	FGS-CD4E-A
4x4 conversions						
4x4 to 4x6 straight adapter	(1) 4x4, (1) 4x6	FGS-MDSA-AB	FGS-SDSA-AB	FGSB-MDSA-AB		FGS-CDSA-AI
4x4 expandable straight section	2	FGS-MVAR-A		FGSB-MVAR-A		
4 "Cut-in T; assembly hardware included		FGS-MHIS-A		FGSB-MHIS-A		
6"Cut-in T; assembly hardware included		FGS-MHIS-B		FGSB-MHIS-B		
12 "Cut-in T; assembly hardware included		FGS-MHIS-F		FGSB-MHIS-F		
Cut-in T fixture		FGS-MHIS-JIG-A/B/F		FGS-MHIS-JIG-A/B/F		
4x4 end cap		FGS-HMEC-Y		FGS-HMEC-A		

## 4x4 System Fittings – 4" H x 4" W



Horizontal T (FGS-MHRT-A)



90° Up Elbow Metal Cover Included (FGS-MU9E-A)



45° Up Elbow Metal Cover Included (FGS-MU4E-A)



Expandable Straight Section (FGS-MVAR-A)





Horizontal Cross (FGS-MHXP-A)



90° Down Elbow (FGS-MD9E-A)



45° Down Elbow (FGS-MD4E-A)



Cut-in T (FGS-MHIS-A)



Snap-on Plastic Cover (FGS-SH4E-A shown attached to 45° horizontal elbow with junctions)



90° Horizontal Elbow (FGS-MH9E-A)



45° Horizontal Elbow (FGS-MH4E-A)



4x4 to 4x6 Straight Adapter (FGS-MDSA-AB)



Cut-in T Fixture shown on straight section (FGS-MHIS-JIG-A/B/F)

## 4x4 System

#### Downspouts and Attachments – 4" H x 4" W

An array of 4x4 downspout options are available to feed fiber from overhead straight sections into fiber optic equipment below.

#### Ordering Information

Description	Part Number			
	Number of Junctions	Yellow System	Black System	
4x4 downspouts				
Downspout	2**	FGS-MDSP-A	FGSB-MDSP-A	
Cover for 4x4 downspout		FGS-MCDS-AB	FGSB-MCDS-AB	
Extended downspout	2*	FGS-MDSP-EX-A	FGSB-MDSP-EX-A	
Cover for 4x4 extended downspout		FGS-MCDS-EX-AB	FGSB-MCDS-EX-AB	
Insertable downspout		FGS-MDSP-A/I	FGSB-MDSP-A/I	
Trumpet flare used on both 4x4 and 4x6 downspouts; no 4" junction kit required		FGS-MTRM-A	FGSB-MTRM-A	
Downspout exit junction kit		FGS-MJWR-A	FGSB-MJWR-A	
4x4/4x6 downspout; insert converts bottom of downspout to 2x2" without using 2" to 4" adapter, saving vertical space		FGS-HDSI-AB FGS-HDSI-AB		
4x4 attachments				
Square to 2" round adapter for flex tube attachmen	t; junction kit FGS-N	1JWR-A required		
4"square to 2" round adapter kit	1	FGS-MSRA-A FGSB-MSRA-		
Dual 2" flex tube attachment		FGS-KT03-ANH	FGS-KT03-ANH	
Single 2" flex tube attachment		FGS-KT03-A1NH	FGS-KT03-A1NH	
Quad 2" flex tube attachment		FGS-KT03-A4-0F	FGS-KT03-A4-0F	
4x4 quad 7/8" flex tube attachment		FGS-KT07-A4-0F	FGS-KT07-A4-0F	
Slotted flex tubes				
2" outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 50, 75, 100, 125, 150, 200, 250)		FGS-MIDY-xF	FGSB-MIDY-xF	
7/8" outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 50, 75, 100, 125, 150, 200, 250)		FGS-MFTY-xF	FGSB-MFTY-xF	

\*A third junction is needed if drop is to a fitting or straight section.

\*\*This drop junction must be a junction type FGS-MJWR-A, FGSB-MJWR-A.



Downspout (FGS-MDSP-A)



Cover for 4x4 Downspout (FGS-MCDS-AB)



Extended Downspout (FGS-MDSP-EX-A)



Insertable Downspout (FGS-MDSP-A/I)



4x4/4x6 Downspout Insert (FGS-HDSI-AB)



Single 2" Flex Tube Attachment (FGS-KT03-A1NH)



Trumpet Flare (FGS-MTRM-A)



4" Square to 2" Round Adapter with Flex Tube (FGS-MSRA-A requires FGS-MJWR-A Junction Kit)



2" Quad Flex Tube Attachment (FGS-KT03-A4-0F)



Downspout Exit Junction Kit (FGS-MJWR-A)



Dual 2" Flex Tube Attachment (FGS-KT03-ANH)

## 4x4 System Straight Section and Snap-Fit<sup>™</sup> Junction – 4" H x 4" W

#### **Straight Section**

The unique four-channel design of the 4x4 FiberGuide<sup>®</sup> straight section allows the standard system to be attached to the support structure without the need to cut or drill any holes within the trough. This ensures that the patch cords will not come in contact with any screw heads or bolts, an important consideration in 4x4 systems where higher cable counts apply increased pressure on patch cords at the bottom of the trough.



#### Ordering Information

Description	Part Number	
	Yellow System	Black System
4x4 straight section		
Horizontal straight section; 6' long, cover sold seperately	FGS-MSHS-A	FGSB-MSHS-A
Expandable straight section	FGS-MVAR-A	FGSB-MVAR-A
4x4 accessories		
Hinged cover kit for horizontal straight section; includes three mounting hinges and three clips	FGS-MSNC-A	FGSB-MSNC-A
Snap-on cover kit for horizontal straight section; includes six capture clips with mounting clasps	FGS-MSSC-A	FGSB-MSSC-A
Kit - 10 black capture clips	FGS-DHCP	FGS-DHCP
Kit - 10 black capture clips and 10 hinges	FGS-DHHC (Yellow Hinge)	FGSB-DHHC (Black Hinge)

#### Snap-Fit<sup>™</sup> Junction

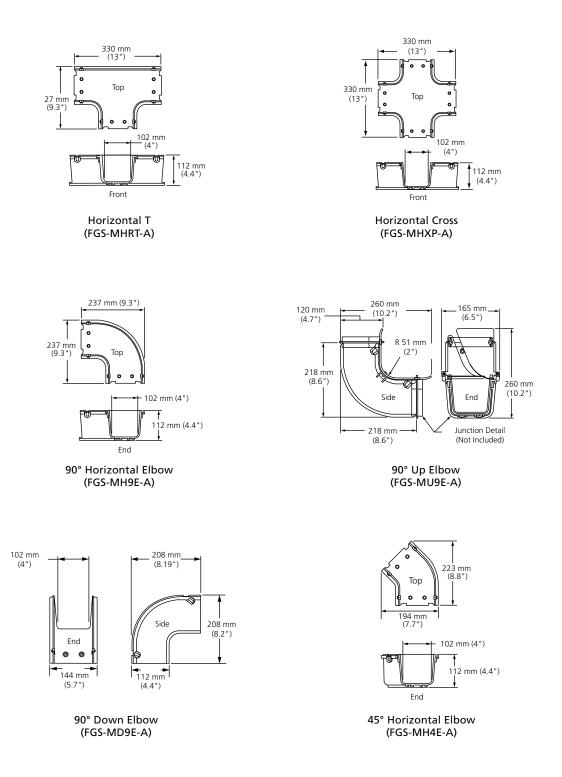
The Snap-Fit<sup>™</sup> junction assembly is available for the 4-inch FiberGuide<sup>®</sup> system. The Snap-Fit junction is a completely tool-less junction. No additional tools are required for installation or removal. The junction exhibits superior holding force and accommodates support brackets. A warning label indicating caution around fiber optic cable is included with each junction kit.



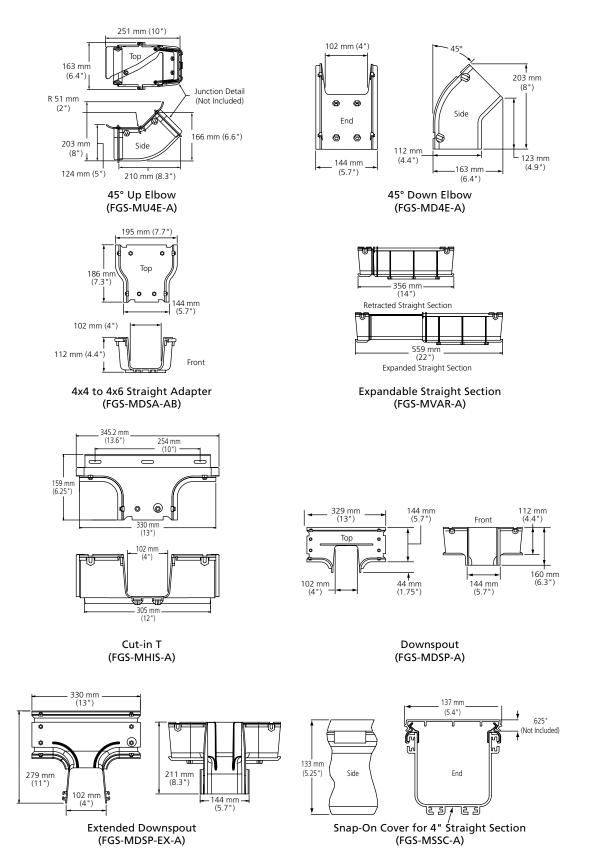
Snap-Fit Junction (FGS-MFAW-A)

Description	Part Number	
	Yellow System	Black System
4x4 Snap-Fit <sup>™</sup> junction	FGS-MFAW-A	FGSB-MFAW-A

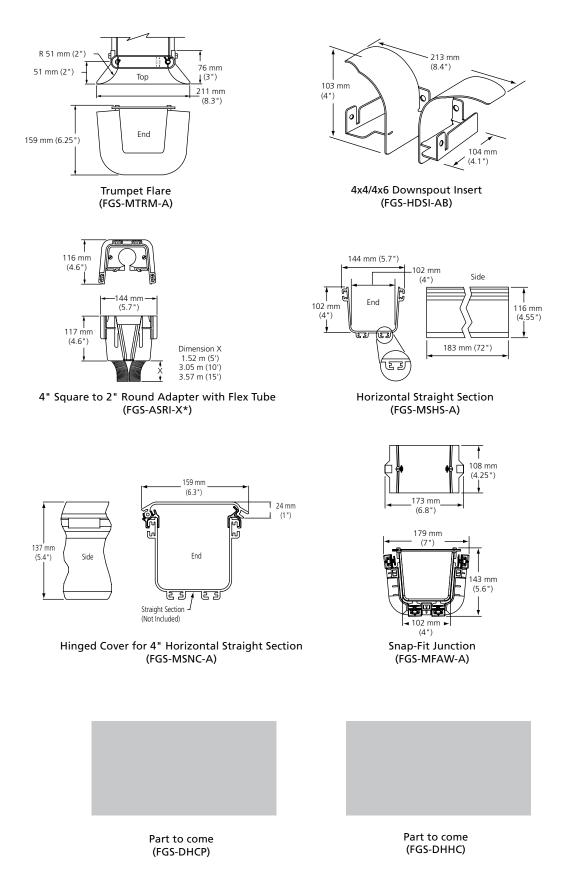
## 4x4 System Part Drawings



## 4x4 System Part Drawings



## 4x4 System Part Drawings



## 4x6 System Fittings – 4" H x 6" W

Description		Part Number	Part Number				
	Number of Junctions	Yellow System	Yellow System Snap-on Cover	Black System	Black System Snap-on Cover	Fixed Metal Cover	
4x6 fittings							
Horizontal T	3	FGS-MHRT-B	FGS-SHRT-B	FGSB-MHRT-B	FGSB-SHRT-B	FGS-CHRT-B	
Horizontal cross	4	FGS-MHXP-B	FGS-SHXP-B	FGSB-MHXP-B	FGSB-SHXP-B	FGS-CHXP-B	
90° horizontal elbow	2	FGS-MH9E-B	FGS-SH9E-B	FGSB-MH9E-B	FGSB-SH9E-B	FGS-CH9E-B	
90° up elbow metal cover included	2	FGS-MU9E-B		FGSB-MU9E-B			
90° down elbow	2	FGS-MD9E-B	FGS-SD9E-B	FGSB-MD9E-B	FGSB-SD9E-B	FGS-CD9E-B	
45° horizontal elbow	2	FGS-MH4E-B	FGS-SH4E-B	FGSB-MH4E-B		FGS-CH4E-B	
45° up elbow metal cover included	2	FGS-MU4E-B	FGS-SU4E-B	FGSB-MU4E-B			
45° down elbow	2	FGS-MD4E-B	FGS-SD4E-B	FGSB-MD4E-B	FGSB-SD4E-B	FGS-CD4E-B	
4x6 conversions							
4x4 to 4x6 straight adapter	(1) 4x4, (1) 4x6	FGS-MDSA-AB	FGS-SDSA-AB	FGSB-MDSA-AB	FGSB-SDSA-AB	FGS-CDSA-AB	
4x12 to single 4x6 adapter		FGS-MDSA-FB	FGS-SDSA-FB	FGSB-MDSA-FB	FGSB-SDSA-FB		
4x6 expandable straight section	2	FGS-MVAR-B		FGSB-MVAR-B			
4" Cut-in T; assembly hardware included		FGS-MHIS-A		FGSB-MHIS-A			
6" Cut-in T; assembly hardware included		FGS-MHIS-B		FGSB-MHIS-B			
12" Cut-in T; assembly hardware included		FGS-MHIS-F		FGSB-MHIS-F			
Cut-in T fixture		FGS-MHIS-JIG-A/B/F		FGS-MHIS-JIG-A/B/F			
4x6 end cap		FGS-HMEC-B		FGS-HMEC-B			

# 4x6 System Fittings – 4" H x 6" W



Horizontal T (FGS-MHRT-B)



90° Up Elbow Cover Included (FGS-MU9E-B)



45° Up Elbow Cover Included (FGS-MU4E-B)



Horizontal Cross (FGS-MHXP-B)



90° Down Elbow (FGS-MD9E-B)



45° Down Elbow (FGS-MD4E-B)



90° Horizontal Elbow (FGS-MH9E-B)



45° Horizontal Elbow (FGS-MH4E-B)



4x4 to 4x6 Straight Adapter (FGS-MDSA-AB)



Expandable Straight Section (FGS-MVAR-B)



4x12 to Single 4x6 Adapter (FGS-MDSA-FB)



6" Cut-in T (FGS-MHIS-B)



End Cap (FGS-HMEC-B)



Cut-in T Fixture (FGS-MHIS-JIG-A/B/F shown on a straight section)



Snap-on Plastic Cover (FGS-SH4E-B)

# 4x6 System

### Downspouts and Attachments – 4" H x 6" W

4x6 downspouts and attachments feed fiber from overhead straight sections into fiber optic equipment below. All 4x6 downspouts feature 4-inch exits and attach to the 4-inch x 4-inch attachments listed below.

### Ordering Information

Description		Part Number	umber	
	Number of Junctions	Yellow System	Black System	
4x6 downspouts		'		
Downspout Note: If a trumpet flare is required use a 4x4 flare (FGS-MTRM-A)	2*	FGS-MDSP-B	FGSB-MDSP-B	
Cover for 4x6 downspout and dual downspout	-	FGS-MCDS-AB**	FGSB-MCDS-AB**	
Extended downspout	2	FGS-MDSP-EX-B	FGSB-MDSP-EX-B	
Cover for 4x6 extended downspout	-	FGS-MCDS-EX-AB	FGSB-MCDS-EX-AB	
Insertable downspout	-	FGS-MDSP-B/I	FGSB-MDSP-B/I	
Dual drop downspout	2*	FGS-MDSP-2B	FGSB-MDSP-2B	
Dual drop downspout with divider	2	FGS-MDSP-2B-IMP	FGSB-MDSP-2B-IMP	
Trumpet flare for dual drop downspout with divider (kit of 2)		FGS-MTRM-2B-IMP	FGSB-MTRM-2B-IMF	
Downspout Exit Junction Kit, 4x4		FGS-MJWR-A	FGSB-MJWR-A	
Downspout Exit Junction Kit, 4x6		FGS-MJWR-B	FGSB-MJWR-B	
4x4/4x6 downspout insert; converts bottom of downspout to 2x2 without using 2" to 4" adapter, saving vertical space		FGS-HDSI-AB	FGS-HDSI-AB	
Trumpet flare; 4x4 — no 4" junction kit required		FGS-MTRM-A	FGSB-MTRM-A	
Trumpet flare; 4x6 — no 6" junction kit required	FGS-MTRM-B	FGSB-MTRM-B		
4x4 attachments			1	
Square to 2" round adapter to flex tube attachment; one 4x4 junction kit (FGS-MJWR-A) required to attach to a downspout drop				
4" square to 2" round adapter kit		FGS-MSRA-A	FGSB-MSRA-A	
Dual 2" flex tube attachment; no 4x4 junction kit required		FGS-KT03-ANH	FGS-KT03-ANH	
Dual 2" flex tub attachment with hose; no junction kit required. (X = length in feet: 5, 10, 15)		FGS-KT03-AxxF	FGSB-KT03-AxxF	
Single 2" flex tube attachment; no 4x4 junction kit required		FGS-KT03-A1NH	FGS-KT03-A1NH	
Quad 2" flex tube attachment; no 4x4 junction kit required		FGS-KT03-A4-0F	FGS-KT03-A4-0F	
4x4 quad 7/8" flex tube attachment; no 4x4 junction kit required		FGS-KT07-A4-0F	FGS-KT07-A4-0F	
4x6 attachments				
Dual 2" flex tube attachment; no 4x6 junction kit required (XX = 5ft, 10ft, 15ft)		FGSB-KT03-B		
Quad 2" flex tube attachment, 5' length; no 4x6 junction kit required (X = 0ft,	FGS-KT03-B-xxF	FGS-KT03-B4-xxF		
Slotted flex tubes				
2" outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 50, 75, 100, 125, 150, 200, 250)		FGS-MIDY-XF	FGSB-MIDY-XF	
7/8" outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 50, 75, 100, 125, 150, 200, 250)		FGS-MFTY-XF	FGSB-MFTY-XF	

\*A 4x4 junction is needed to drop to a fitting or a straight section. This drop junction must be a junction type FGS-MJWR-A or FGSB-MJWR-A. \*\*Dual downspout requires two covers.

# 4x6 System Downspouts and Attachments – 4" H x 6" W



Downspout (FGS-MDSP-B)



Insertable Downspout (FGS-MDSP-B/I)



Trumpet Flare Kit for Dual Downspout with Divider (FGS-MTRM-2B-IMP)



4x4/4x6 Downspout Insert (FGS-HDSI-AB)



Dual 2" Flex Tube Attachment (FGS-KT03-ANH) \*hose for reference only



Cover for 4x6 Downspout (FGS-MCDS-AB)



Dual Downspout (FGS-MDSP-2B)



Single 2" Flex Tube Attachment (FGS-KT03-A1) \*hose for reference only



Downspout Exit Junction Kit (FGS-MJWR-B)



2" Quad Flex Flex Tube Attachment (FGS-KT03-A4-0F) \*hose for reference only



Extended Downspout (FGS-MDSP-EX-B shown with and without cover)



Dual Downspout with Divider (FGS-MDSP-2B-IMP)



Trumpet Flare Kit (FGS-MTRM-B)



4" Square to 2" Round Adapter with Flex Tube FGS-MSRA-A (requires FGS-MJWR-A Junction Kit)

## 4x6 System

### Straight Section and Snap-Fit<sup>™</sup> Junction – 4" H x 6" W

### Straight Section

The unique four-channel design of the 4x6 FiberGuide<sup>®</sup> straight section allows the standard system to be attached to the support structure without the need to cut or drill any holes within the trough. This ensures that the patch cords will not come in contact with any screw heads or bolts, an important consideration in 4x6 systems where higher cable counts apply increased pressure on patch cords at the bottom of the trough.





Horizontal Straight Section (FGS-MSHS-B)

Expandable Straight Section (FGS-MVAR-B)



Hinged Cover Kit for Horizontal Straight Section (FGS-MSNC-B/G)



6" Snap-on Cover for Horizontal Straight Section (FGS-MSSC-B/G)

## Ordering Information

Description	Part Number		
	Yellow System	Black System	
4x6 straight sections			
Horizontal straight section; 6' long, cover sold seperately	FGS-MSHS-B	FGSB-MSHS-B	
Expandable straight section	FGS-MVAR-B	FGSB-MVAR-B	
Slack storage straight section	FGS-MSHS-STOR-B		
4x6 accessories			
Hinged cover kit for horizontal straight section; includes three mounting hinges and three clips	FGS-MSNC-B/G	FGSB-MSNC-B/G	
6" snap-on cover kit for horizontal straight section; includes six capture clips with mounting clasps	FGS-MSSC-B/G	FGSB-MSSC-B/G	
Kit - 10 black capture clips*	FGS-DHCP	FGS-DHCP	
Kit - 10 black capture clips and 10 hinges*	FGS-DHHC	FGSB-DHHC	

\*See drawings on page 39 for more detail on how capture clips and hinges are used.

### Snap-Fit<sup>™</sup> Junction

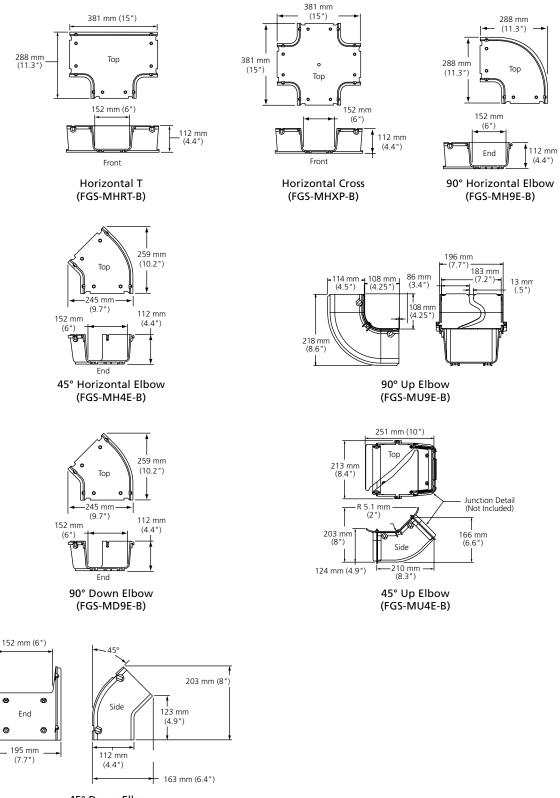
The Snap-Fit<sup>™</sup> junction assembly is available for the 6-inch FiberGuide<sup>®</sup> system. The new junction is a completely tool-less junction. No additional tools are required for installation or removal. The Snap-Fit Junction exhibits superior holding force and accommodates support brackets. A warning label indicating caution around fiber optic cable is included with each junction kit.



Snap-Fit Junction (FGS-MFAW-B)

Description	Part Number	
	Yellow System	Black System
4x6 Snap-fit junction	FGS-MFAW-B	FGSB-MFAW-B

# 4x6 System Part Drawings

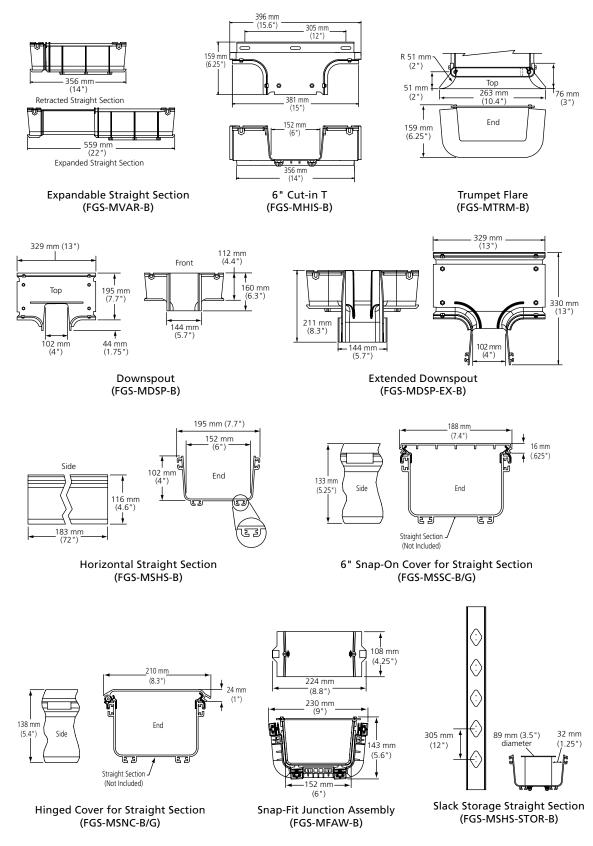


45° Down Elbow (FGS-MD4E-B)

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# 4x6 System Part Drawings



# 4x12 System Fittings – 4" H x 12" W

Description	ption Part Number				
	Number of Junctions	Yellow System	Yellow System Snap-on Cover	Black System	Black System Snap-on Cover
4x12 fittings					
Horizontal T	3	FGS-MHRT-F	FGS-SHRT-F	FGSB-MHRT-F	FGSB-SHRT-F
Horizontal cross	4	FGS-MHXP-F	FGS-SHXP-F	FGSB-MHXP-F	FGSB-SHXP-F
90° horizontal elbow	2	FGS-MH9E-F	FGS-SH9E-F	FGSB-MH9E-F	FGSB-SH9E-F
90° down elbow	2	FGS-MD9E-F	FGS-SD9E-F	FGSB-MD9E-F	FGSB-SD9E-F
45° horizontal elbow	2	FGS-MH4E-F	FGS-SH4E-F	FGSB-MH4E-F	FGSB-SH4E-F
45° up elbow	2	FGS-MU4E-F	FGS-SU4E-F	FGSB-MU4E-F	FGSB-SU4E-F
45° down elbow	2	FGS-MD4E-F	FGS-SD4E-F	FGSB-MD4E-F	FGSB-SD4E-F
Horizontal T with single 6" exit	(2) 4x12, (1) 4x6	FGS-MHRT-F/B	FGS-SHRT-F/B	FGSB-MHRT-F/B	FGSB-SHRT-F/B
Horizontal cross with two 6" exits	(2) 4x12, (2) 4x6	FGS-MHXP-B/F	FGS-SHXP-B/F	FGSB-MHXP-B/F	FGSB-SHXP-B/F
4x12 conversions					
4x12 to dual 4x6 adapter	(1) 4x12, (2) 4x6	FGS-MDSA-F2B	FGS-SDSA-F2B	FGSB-MDSA-F2B	FGSB-SDSA-F2B
4x12 to single 4x6 adapter	(1) 4x12, (1) 4x6	FGS-MDSA-FB	FGS-SDSA-FB	FGSB-MDSA-FB	FGSB-SDSA-FB
4x12 to 4x6 right adapter; includes fastening hardware		FGS-MDSA-FB-R		FGS-MDSA-FB-R	
Fixed metal cover for right adapter		FGS-VDSA-FB-R		FGS-VDSA-FB-R	
4x12 to 4x6 left adapter; includes fastening hardware		FGS-MDSA-FB-L		FGS-MDSA-FB-L	
Fixed metal cover for left adapter		FGS-VDSA-FB-L		FGS-VDSA-FB-L	
Expandable straight section	2	FGS-MVAR-F	-	FGSB-MVAR-F	-
4" Cut-in T; assembly hardware included	-	FGS-MHIS-A	-	FGSB-MHIS-A	-
6" Cut-in T; assembly hardware included	-	FGS-MHIS-B	-	FGSB-MHIS-B	-
12" Cut-in T; assembly hardware included	-	FGS-MHIS-F	-	FGSB-MHIS-F	-
Cut-in T fixture	-	FGS-MHIS-JIG-A/B/F	-	FGS-MHIS-JIG-A/B/F	-
4x12 end cap		FGS-HMEC-F		FGS-HMEC-F	
4x12 variable support locator kits for; Ea	ch kit contains a	all necessary mounting h	ardware. Fitting sold s	eparately.	
FGS-MDSP-F (downspout)		FGS-MDSP-F-VS		FGS-MDSP-F-VS	
FGS-MHRT-F (horizontal T)		FGS-MHRT-F-VS		FGS-MHRT-F-VS	
FGS-MHXP-F (horizontal cross)		FGS-MHXP-F-VS		FGS-MHXP-F-VS	
FGS-MH9E-F (90° horizontal elbow)		FGS-MH9E-F-VS		FGS-MH9E-F-VS	
FGS-MHRT-F/B (horizontal T – 6"/12")		FGS-MHRT-F/B-VS		FGS-MHRT-F/B-VS	
FGS-MHXP-B/F (horizontal cross- 6"/12"	)	FGS-MHXP-B/F-VS		FGS-MHXP-B/F-VS	

# 4x12 System Fittings – 4" H x 12" W



# 4x12 System

## Downspouts and Attachments – $4^{\prime\prime}$ H x 12 $^{\prime\prime}$ W

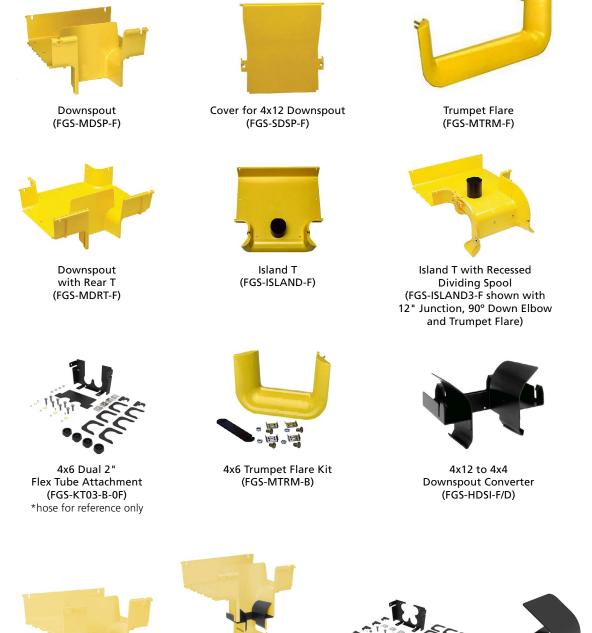
An array of 4x12 downspouts and attachments are available to feed fiber from overhead straight sections into fiber optic equipment below. The 4x12 downspout features a 4x6 exit and accepts the 4x6 exit attachments listed below.

## Ordering Information

Description		Part Number	
	Number of Junctions	Yellow System	Black System
4x12 downspouts			
Downspout	2*	FGS-MDSP-F	FGSB-MDSP-F
Cover for 4x12 downspout	-	FGS-SDSP-F	FGSB-SDSP-F
Insertable downspout	-	FGS-MDSP-F/I	FGSB-MDSP-F/I
Trumpet flare	-	FGS-MTRM-F	FGSB-MTRM-F
Downspout with rear T	3*	FGS-MDRT-F	FGSB-MDRT-F
Island T with spool and factory installed trumpet flare; designed for use over CommScope Next Generation Frame Storage Bay	2	FGS-ISLAND-F	
Island T with recessed dividing spool	3	FGS-ISLAND3-F	FGSB-ISLAND3-F
4x12 attachments			
4x6 dual 2" flex tube attachment		FGS-KT03-B-0F	FGS-KT03-B-0F
4x6 trumpet flare kit; used on 4x12 downspouts		FGS-MTRM-B	FGSB-MTRM-B
4x12 to 4x4 downspout converter; converts downspout opening to accept 4x4 slotted duct	_	FGS-HDSI-F/D	FGS-HDSI-F/D
4x12 to 2x2 downspout converter	-	FGS-HDSI-F/C	FGS-HDSI-F/C
Quad flex tube attachment		FGS-KT03-B4-0F	FGS-KT03-B4-0F
Slotted flex tubes			
2" outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 50, 75, 100, 125, 150, 200, 250)		FGS-MIDY-XF	FGSB-MIDY-XF

\*An additional junction is needed if drop is to fitting or straight section. This 4x6 junction must be a junction type FGS-MFAW-B, FGSB-MFAW-B.

# 4x12 System Downspouts and Attachments – 4" H x 12" W





The FGS-HSDI-F/D attached to both the 4x12 downspout and the 4x4 slotted duct without the use of hardware



Quad flex tube attachment (FGS-KT03-B4-0F)



Downspout converter 4x12 to 2x2 (FGS-HDSI-F/C)

# 4x12 System

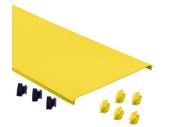
## Straight Section – 4" H x 12" W

The unique nine-channel design of the 4x12 FiberGuide<sup>®</sup> straight section provides unmatched strength and allows the attachment of support structure without the need to cut or drill holes within the raceway. This ensures that the patch cords will not come in contact with any screw heads or bolts, an important consideration in 4x4, 4x6, and 4x12 systems where higher cable counts apply increased pressure on the patch cords at the bottom of the raceway.

The 4x12 system covers feature a snap-on design. This allows the cover to be used in environments with limited headroom. Two 3-foot cover sections come with each order, making it easy for one person to remove the covers. Each cover kit includes a tether kit. The straight section covers are designed to be placed over the 4x12 downspouts, speeding installation time by reducing the number of measurements and cuts that need to be made.



Horizontal Straight Section (FGS-MSHS-F)



12" Hinged Cover for Horizontal Straight Section (FGS-MSNC-F)



Horizontal Straight Section Cover (FGS-MSSC-F includes two 3' Lengths and Tethering Hardware)



Straight Section Cover in Tethered Position



Expandable Straight Section (FGS-MVAR-F)



Straight Section Cover Attached to Straight Section

Description	Part Number	
	Yellow System	Black System
4x12 straight section		
Horizontal straight section; 6' long, cover sold seperately	FGS-MSHS-F	FGSB-MSHS-F
Expandable straight section	FGS-MVAR-F	FGSB-MVAR-F
Slack storage straight section	FGS-MSHS-STOR-F	FGSB-MSHS-STOR-F
4x12 accessories		
Hinged cover kit for horizontal straight section; includes five mounting hinges and three clips	FGS-MSNC-F	FGSB-MSNC-F
Snap-on cover kit* for horizontal straight section; includes 3' covers, optional tethering kit	FGS-MSSC-F	FGSB-MSSC-F
Kit - 10 black capture clips*	FGS-DHCP	FGS-DHCP
Kit - 10 black capture clips and 10 hinges	FGS-DHHC	FGSB-DHHC

\*See drawings on page 48 for more detail on how capture clips and hinges are used.

# 4x12 System

### Snap-Fit<sup>™</sup> Junction – 4" H x 12" W

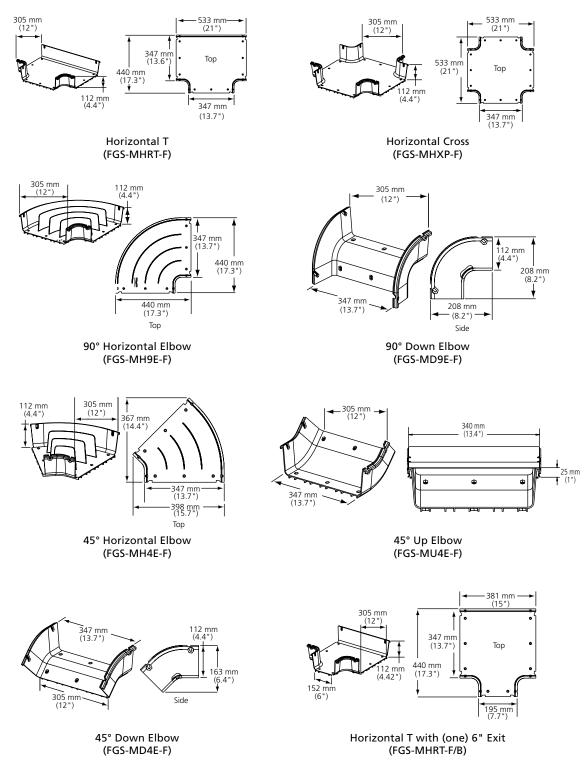
The new Snap-Fit<sup>™</sup> junction is available for the 12-inch FiberGuide<sup>®</sup> system. The Snap-Fit junction is a completely tool-less junction. No additional tools are required for installation or removal. The Snap-Fit junction exhibits superior holding force and accommodates support brackets.



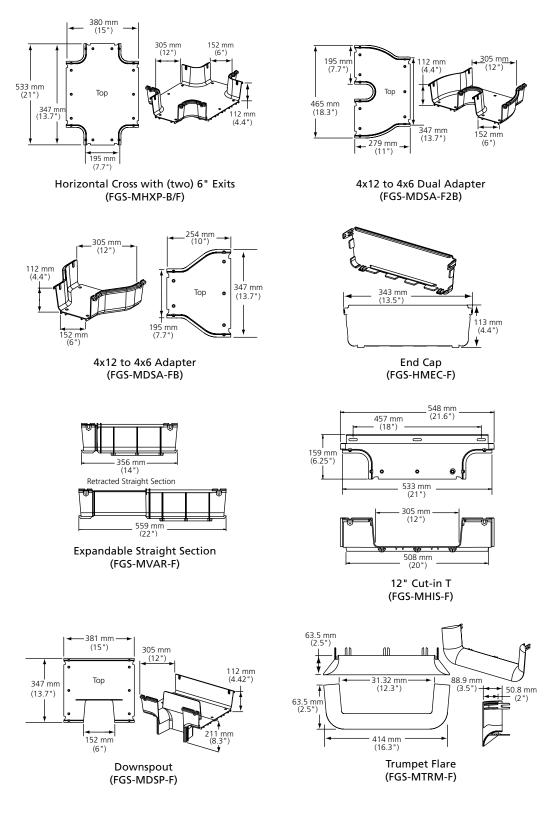
4x12 Snap-Fit Junction (FGS-MFAW-F)

Description	Part Number	
	Yellow System	Black System
4x12 Snap-Fit <sup>™</sup> junction	FGS-MFAW-F	FGSB-MFAW-F

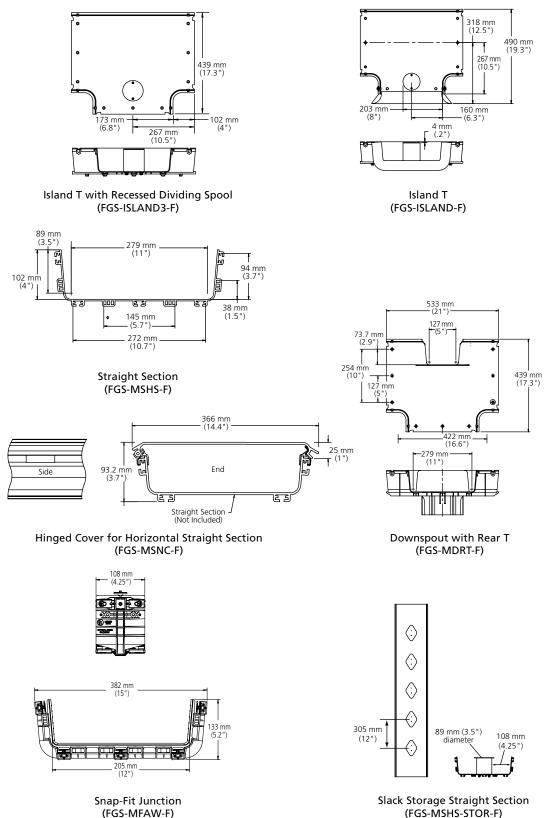
# 4x12 System Part Drawings



# 4x12 System Part Drawings



4x12 System Part Drawings



# 4x24 System Fittings – 4" H x 24" W







Horizontal Cross with Dual 12" Exits (FGS-MHXP-F/H)



Horizontal T with Single 12" Exit (FGS-MHRT-H/F)



Horizontal Cross (FGS-MHXP-H)



12" Cut-in T (FGS-MHIS-F/H)



45° Down Elbow (FGSB-MD4E-H)



4x24 to 4x12 Adapter (FGSB-MDSA-HF)



45° Up Elbow (FGSB-MU4E-H)

## Ordering Information

Description	Part Number	
	Yellow System	Black System
4x24 fittings		
45° horizontal ebow	FGS-MH4E-H	FGSB-MH4E-H
Horizontal T with single 12" exit	FGS-MHRT-H/F	FGSB-MHRT-H/F
Horizontal T with three 24" exits	FGS-MHRT-H	FGSB-MHRT-H
Horizontal cross	FGS-MHXP-H	FGSB-MHXP-H
Horizontal cross with dual 12" exits	FGS-MHXP-F/H	FGSB-MHXP-F/H
45° up elbow	FGS-MU4E-H	FGSB-MU4E-H
45° down elbow	FGS-MD4E-H	FGSB-MD4E-H
4x24 conversions		
12" cut-in T for 4x24*	FGS-MHIS-F/H	-
6" cut-in T for 4x24*	FGS-MHIS-B/H	-
4" cut-in T for 4x24*	FGS-MHIS-A/H	FGSB-MHIS-A/H
4x24 to 4x12 adapter	FGS-MDSA-HF	FGSB-MDSA-HF
4x24 end cap	FGS-HMEC-H	FGS-HMEC-H

\*Designed exclusively for the 4x24" system.

# 4x24 System

### Downspouts – 4" H x 24" W

4x24 downspouts and attachments feed fiber from overhead straight sections into fiber optic equipment below.



Island T with Single 12" Exit (FGS-ISLAND-H/F)



Trumpet Flare (FGS-MTRM-H)

Description	Part Number	
	Yellow System	Black System
Island T with single 12" exit	FGS-ISLAND-H/F	FGSB-ISLAND-H/F
Trumpet flare	FGS-MTRM-H	FGS-MTRM-H

## 4x24 System

Straight Section, Snap-Fit<sup>™</sup> Junctions and covers – 4" H x 24" W

### **Straight Section**

The unique double wall channel design of the 4x24 straight section provides exceptional strength and durability for high fiber count applications and allows the standard system to be attached to the support structure without the need to cut or drill any holes within the trough. The six channel design ensures that the patch cords will not come in contact with any screw heads or bolts, an important consideration in 4x24 systems where higher cable counts apply increased pressure on patch cords at the bottom of the trough.



Straight Section (FGS-MSHS-H)

### Ordering Information

Description	Part Number	
	Yellow System	Black System
4x24 straight section; horizontal straight section, 6' long	FGS-MSHS-H	FGSB-MSHS-H

### **Snap-Fit Junction**

The Snap-Fit<sup>™</sup> Junction assembly is available for the 24-inch FiberGuide<sup>®</sup> System. The Snap-Fit junction is a completely tool-less junction. No additional tools are required for installation or removal. The junction exhibits superior holding force and accommodates support brackets. A warning label is included with each junction kit.



#### Snap-Fit Junction (FGS-MFAW-H)

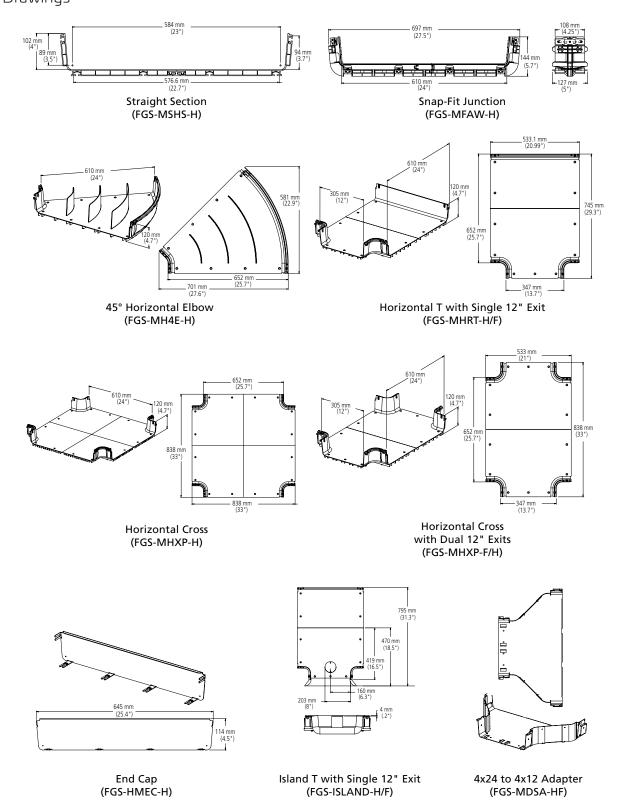
### Ordering Information

Description	Part Number	
	Yellow System	Black System
4x24 Snap-Fit <sup>™</sup> junction	FGS-MFAW-H	FGSB-MFAW-H

### **Cover Kits**

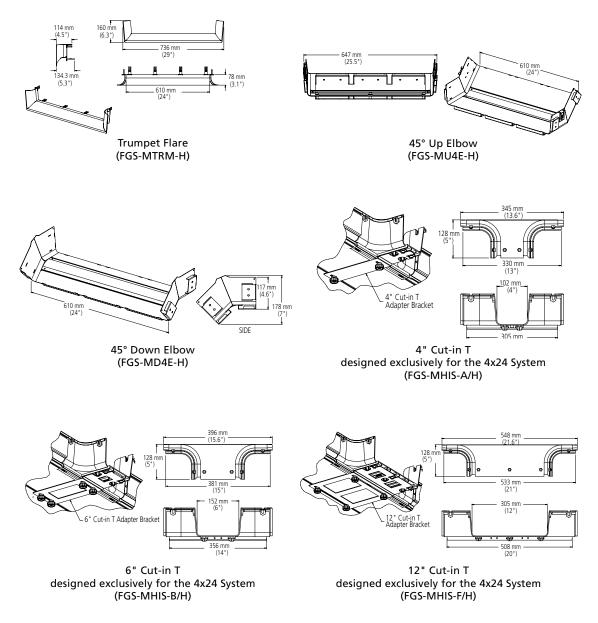
Description	Part Number
Cover for 4"x24"x6' straight section - FGS-MSHS-H	FGS-FSFC-H
Cover for 4"x24" horizontal tee with single 12" Exit - FGS-MHRT-H/F	FGS-FHRT-H/F
Cover for 4"x24" horizontal cross with dual 12" Exits - FGS-MHXP-F/H	FGS-FHXP-F/H
Cover for 4"x24" horizontal cross - FGS-MHXP-H	FGS-FHXP-H
Cover for 4"x24" 45° horizontal elbow - FGS-MH4E-H	FGS-FH4E-H
Cover for 4"x24" horizontal tee - FGS-MHRT-H	FGS-FHRT-H
Cover for 4"x24" 45° down elbow - FGS-MD4E-H	FGS-FD4E-H
Cover for 4"x24" to 4"x12" reducer - FGS-MDSA-HF	FGS-FDSA-HF

4x24 System Part Drawings



# 4x24 System

## Part Drawings



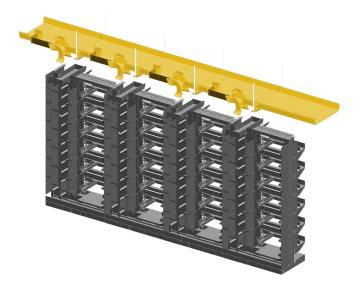
# FiberGuide FlexExit

FiberGuide raceway systems offer the greatest breadth of optical raceway products in the industry. FiberGuide systems add greater flexibility and drive down installation time to ensure a smooth deployment. It is designed to protect and route fiber optic patch cords, multi-fiber cable assemblies and intrafacility fiber cable (IFC) to and from fiber splice enclosures, fiber distribution frames and fiber optic terminal devices.

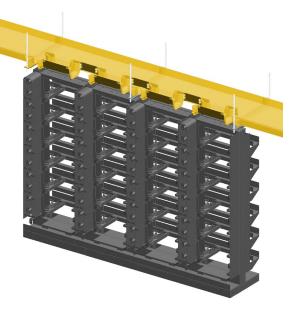
FiberGuide flex exit was designed to ensure a precise fiber drop from the raceway system into CommScope's NG4access optical distribution frame (ODF) or other high-density frame solutions. It easily installs on the sidewall of the existing raceway system, and promotes 4, 6 or 12 inch fiber drops. The FiberGuide flex exit easily adjusts vertically, side-to-side and forward for precise alignment with the ODF equipment.

### Benefits

- · Accommodates large fiber drops into high-density optical distributions frames
- · Eliminates the need for custom engineering of raceway
- · Accommodates large 12" and 24" raceway systems
- $\cdot\,$  Increases flexibility of existing 12 or 24" raceway systems
- · Provides optimal bend radius protection
- · Durability built to provide long-lasting protection for your network



Rear Fiber Entry for Cross-Connect Applications



Dual Front Fiber Entry for Interconnect Applications



### Flex Exit Kit

Includes molded flex exit, sliding expansion plate and misc. support and configuration hardware. Trumpet flare or 90° down elbows must be purchased separately (see below).

### Cut-in Jig

The cut-in jig provides a protective guide to remove FiberGuide side wall to install the flex exit. The cut-in jig also provides a protection guide for preparing the FiberGuide raceway for cut-in depths applications.

Description	Part Number	Part Number	
Flex Exit Kit	FGS-FLEXEXIT-F/H		
Cut-in Jig	FGS-FLEXJIG-F/H	FGS-FLEXJIG-F/H	
Trumpet Flares (Any size trumpet flares can be attached to either exit side or both s	ides of the flex exit and does not re	quire a snap fit junction kit.)	
4" trumpet flare (no junction required)	FGS-MTRM-A	FGS-MTRM-A	
6" trumpet flare (no junction required)	FGS-MTRM-B	FGS-MTRM-B	
12" trumpet flare (no junction required)	FGS-MTRM-F	FGS-MTRM-F	
<b>90° Down Elbows and Snap Fit Junctions*</b> (Any size 90° down elbow can be attached to either exit side or both sides of the flex exit and requires a snap fit junction kit to secure to the flex exit.)	90° Down Elbow	Snap Fit Junction	
4″ 90° down elbow and junction	FGS-MD9E-A	FGS-MFAW-A	
6″ 90° down elbow and junction	FGS-MD9E-B	FGS-MFAW-B	
12" 90° down elbow and junction	FGS-MD9E-F	FGS-MFAW-F	

# Express Exit<sup>™</sup> Family

## For 4x4, 4x6, 4x12, and 4x24 Systems

The patented\* Express Exit<sup>™</sup> family accommodates various raceway environments and applications.

By simply securing an Express Exit to the sidewall of any 4x4, 4x6, 4x12, or 4x24 FiberGuide<sup>®</sup> straight section, jumpers can be permanently or temporarily routed to fiber optic terminal (FOT) equipment below. No cutting of the FiberGuide system is required. Positioning a drop with a member of the Express Exit family greatly simplifies installation, protects the integrity of fibers already present in the raceway, and increases overall flexibility of the raceway system. All Express Exits guarantee 2-inch bend radius protection.



**Express Exit Family** 

Express Exit Style	Height Above Sidewall	Exit Opening		2 mm Patch Cord Capacity	Hinged Rear Cover	Exit Fin Inserts
2-Inch Express Exit	4"	2" x 2"1	150	350	No	No
Low-Profile Express Exit	2 "	2" x 2"1	150	350	No	No
4-Inch Express Exit	4"	4" x 4"2	300	700	Yes	Yes

<sup>1</sup>Accepts all standard 2x2 " attachments.

<sup>2</sup>Accepts all standard 4x4" attachments.

### 4-Inch Express Exit™

The 4-Inch Express Exit is designed to distribute and manage medium cable counts to FOT or ODF equipment. It features a 4-inch by 4-inch exit opening to accept all standard 4x4 downspout attachments and includes insertable exit fins and removable rear cable guides for additional cable management.



See page 35 for 4-Inch Express Exit downspout attachments.

#### 4-Inch Express Exit

Description	Part Number	Part Number		
	Yellow System	Black System		
4-inch Express Exit™				
Express Exit; base, base cover, mounting hardware, support bracket, and exit inserts included	FGS-MEXP-E-A/B/F	FGSB-MEXP-E-A/B/F		
4-inch accessories				
Express Exit rear hinged cover kit; one 4x4, 4x6, 4x12 rear hinged cover	FGS-MEXC-E-A/B/F	FGSB-MEXC-E-A/B/F		
Express Exit rear hinged cover for 4x4 raceway	FGS-MEXC-E-A	FGSB-MEXC-E-A		
Express Exit rear hinged cover for 4x6 raceway	FGS-MEXC-E-B	FGSB-MEXC-E-B		
Express Exit rear hinged cover for 4x12 raceway	FGS-MEXC-E-F	FGSB-MEXC-E-F		

# Express Exit<sup>™</sup> Family

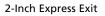
For 4x4, 4x6, 4x12, and 4x24 Systems

### 2-Inch Express Exit<sup>™</sup>

The 2-Inch Express Exit accommodates up to 350, 2 mm patch cords. The patch cords are routed from a 4x4, 4x6, 4x12 or 4x24 straight section to FOT equipment below the raceway.

### Ordering Information

	2
-0	



Description	Part Number		
	Yellow System	Black System	
2-Inch Express Exit <sup>™</sup> base, base cover, mounting hardware and support bracket included	FGS-MEXP-A/B/F	FGSB-MEXP-A/B/F	

### Low-Profile Express Exit™

Designed for low-ceiling or height-restricted environments, the Low-Profile Express Exit features a front-removable cover and extends only 2 inches above the FiberGuide<sup>®</sup> straight section sidewall. It also includes removable rear cable guides for additional cable management.

### Ordering Information

Description	Part Number	Part Number		
	Yellow System	Black System		
Low-Profile Express Exit <sup>™</sup> base, base cover, mounting hardware and support bracket included	FGS-MEXP-LP-A/B/F	FGSB-MEXP-LP-A/B/F		

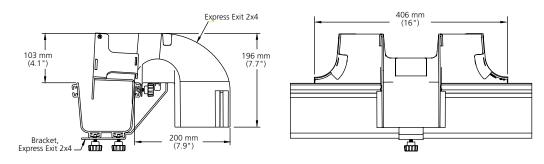
### Attachments for 2-Inch Express Exit<sup>™</sup> and Low-Profile Express Exit<sup>™</sup>

### Ordering Information

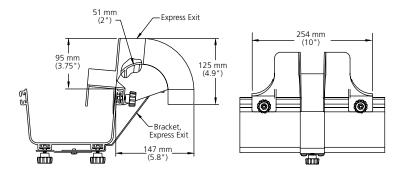
Description	Part Number	
	Yellow System	Black System
2x2 attachments		
2x2 flex tube attachment – 2x2 junction included		
KIT, ADAPTER, 2X2 TO 2" Fiber Hose	FGS-MEX1-C-0F	FGS-MEX1-C-0F
Dual 7/8" flex tube attachment – 2x2 junction included		
KIT, ADPTR, 2" FGS - (2) 7/8" hose	FGS-KT03-CNH	FGS-KT03-CNH
Flex tube clamp kit of 10; attaches 7/8" flex tube to rack	FGS-HSHC-10	FGS-HSHC-10
Slotted flex tubes		
2" outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 50, 75, 100, 125, 150, 200, 250)	FGS-MIDY-XF	FGSB-MIDY-XF
7/8″ outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 50, 75, 100, 125, 150, 200, 250)	FGS-MFTY-XF	FGSB-MFTY-XF

Low-Profile Express Exit

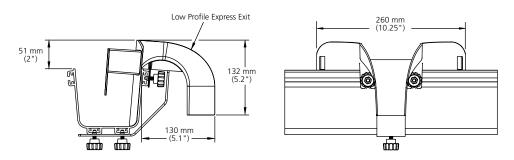
Express Exit™ Part Drawings



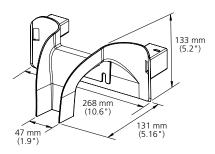
4-Inch Express Exit (FGS-MEXP-E-A/B/F shown attached to 4x4 straight section)



2-Inch Express Exit (FGS-MEXP-A/B/F; fits 4x4, 4x6 and 4x12 systems; shown attached to 4x6 straight section)



Low-Profile Express Exit (FGS-MEXP-LP-A/B/F; fits 4x4, 4x6 and 4x12 systems; shown attached to 4x4 straight section)



Low-Profile Express Exit Designed Exclusively for 2x6 System (FGS-MEXP-LP-G shown attached to 2x6 straight section)

# FlexVertical kits

FlexVertical is a vertical routing kit that allows easy and safe routing of fiber cables & cords from the horizontal tray to the cabinet or rack. FlexVertical consists of configurable components that snap together and install onto an existing FiberGuide exit (such as an ExpressExit or traditional downspout).

- **More flexibility:** the rotation is controlled within 1 degree increments with a lockin mechanism for stability and to avoid unwanted movement.
- **Tool-less installation (no hardware):** FlexVertical connects to the exit via a "snap-on" mechanism requiring minimal hardware making it easy to install. Easier access to patchcords is provided via an easy latching mechanism.
- · New, trumpet style exit to the vertical space
- The FlexVertical kits easily mount to a rack or inside a cabinet with simple mounting hardware, (ideal for in-cabinet solutions).
- Inside the FlexVertical raceway, fiber is well protected with minimal risk of overbending or pinching and is easily accessible.



FGS-FLEXV-4F-C



FGS-FLEXV-4F-A2C

## Ordering Information

Description	Part Number
FiberGuide FLEXV KIT, 2 in x 2 in, 4 ft.	FGS-FLEXV-4F-C
FiberGuide Dual FLEXV Kit, 4 in x 4 in to dual 2 in x 2 in, 4 ft.	FGS-FLEXV-4F-A2C
FiberGuide Universal Aapter Kit, 2 in x 2 in, 7ft.	FGS-FLEXVAD-7F-C



FGS-FLEXVAD-7F-C

# Vertical Fiber Management Systems

## Vertical Solid and Slotted Duct Kits now with Hinged Covers



2x2 Solid Vertical Duct Kit (FGS-KTW1-JN)



2x4 Solid Vertical Duct Kit (FGS-KTW2-RN)



4x4 Slotted Vertical Duct Kit (FGS-KTW2-J)



90° Inside Elbow (FGS-V9E44)



4-Inch Vertical to 2x2 Trumpet Fitting (FGS-TRMP42)



2-Inch Exit Trumpet (FGS-VQE22)



4-Inch Exit Trumpet (FGS-VQE44)



4x4 Modified Trumpet Flare Kit (FGS-MTRM-D)

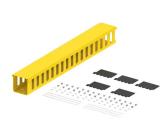


2x4 Trumpet Flair Kit (FGS-MTRM-DS)

### Applications



2x2 Slotted Duct with 2-Inch Exit Trumpet (FGS-KTW1-JA with FGS-VQE22 attached)



4x4 Slotted Duct with 4-Inch Exit Trumpet (FGS-KTW2-K)



4x4 Slotted Duct with Entrance Trumpet Flare at top and 4-Inch to 2x2 Exit Trumpet (FGS-KTW2-K with FGS-MTRM-D and FGS-TRMP42 attached)



2x2 Slotted Duct with 2-Inch Exit Trumpet in horizontal application - can be attached to the 4-Inch to 2x2 Exit Trumpet (FGS-KTW1-JA with FGS-VQE22 attached)

## Vertical Fiber Management Systems 2" and 4" Vertical Solid and Slotted Duct Kits and Components

Description	Part Number	
	Yellow System	Black System
x2 System (1" wide x 2" deep)		
2x1, vertical slotted duct kit (4" slot spacing), pop-off covers	FGS-KTW1-E	FGSB-KTW1-E
2x2 to 2x1 conversion piece	FGS-ACC063	FGSB-ACC063
(order when converting from 2x2 to 2x1 system)		103D-ACCOUS
2x2 System (2" wide x 2" deep)		
2x2, 6' vertical duct kit*, slotted (1.5" slot spacing) hinged cover	FGS-KTW1-JA	FGSB-KTW1-JA
2x2 6' Vertical duct kit*, slotted (1.5" slot spacing) snap-on cover	FGS-KTW1-CA	FGSB-KTW-CA
2x2 6' vertical duct kit*, slotted (1.5" slot spacing) snap-on cover and retaining clips	FGS-KTW1-CA-RC	
2x2, 6' vertical duct kit*, slotted (4" slot spacing) hinged cover	FGS-KTW1-JB	FGSB-KTW1-JB
2x2 6' Vertical duct kit*, slotted (4" slot spacing) snap-on cover	FGS-KTW1-C	FGSB-KTW1-C
2x2 6'vertical duct kit*, solid	FGS-KTW4-C	FGSB-KTW4-C
2x2, 6' vertical duct kit*, solid, hinged cover	FGS-KTW1-JN	FGSB-KTW1-JN
x4 system (2" wide x 4" deep)		
2x4, 6' vertical duct kit*, slotted (2" slot spacing) hinged cover	FGS-KTW2-R	FGSB-KTW2-R
2x4, 6.58' vertical duct kit, slotted (2" slot spacing) snap-on cover	FGS-KTW2-RL	FGS-KTW2-RL
2x4, 6' vertical duct kit*, solid, hinged cover	FGS-KTW2-RN	FGSB-KTW2-RN
Ix4 system (4" wide x 4" deep)		
4x4, 6' vertical duct kit*, slotted (2" slot spacing) hinged cover	FGS-KTW2-K	FGSB-KTW2-K
4x4, 6' vertical duct kit*, slotted (3" slot spacing), snap-on cover	FGS-KTW2-D	FGSB-KTW2-D
4x4, 6' vertical duct kit*, slotted (3" slot spacing) with spools and snap-on cover	FGS-KTW2-D-IMP	
4x4, 6' vertical duct kit*, slotted (3" slot spacing) with spools and split see-through cover	FGS-KTW2-D-IMP-B	
4x4, 6' vertical duct kit*, slotted (4" slot spacing) hinged cover	FGS-KTW2-J	FGSB-KTW2-J
4x4, 6' vertical duct kit*, solid, hinged cover	FGS-KTW2-JN	FGSB-KTW2-JN
4x4, 6' vertical bracket kit*, solid, snap-on cover, bracket kit, end cap	FGS-KTW2-D-L3	
4x4, 6' vertical duct kit*, solid, snap-on cover	FGS-KTW2-F	
4x4, 6' vertical duct kit*, solid, snap-on cover, kit of 10	FGS-KTW2-FL	
Ix2 system (4" wide x 2" deep)		
4x2, 6' vertical duct kit*, slotted (1.5" slot spacing) hinged cover	FGS-KTW2-T	
4x2, 6' vertical duct kit*, solid, hinged cover	FGS-KTW2-TN	
4x2, 6' vertical duct kit*, slotted, (1.5" slot spacing) snap-on cover	FGS-KTW2-E	FGSB-KTW2-E
rumpets and elbows		
4" deep vertical to 2x2 trumpet to horizontal fitting	FGS-TRMP42	FGSB-TRMP42
4" deep vertical to 4x4 trumpet to horizontal fitting	FGS-TRMP44	FGSB-TRMP44
4" exit to horizontal trumpet for vertical channel, 1" bend radius	FGS-VQE44	FGS-VQE44
2" exit to horizontal trumpet for vertical channel, 1" bend radius	FGS-VQE22	FGS-VQE22
2x4 entrance trumpet flare kit	FGS-MTRM-DS	
4x4 entrance trumpet flare kit	FGS-MTRM-D	FGSB-MTRM-D
4" deep 90° inside elbow	FGS-V9E44	
Components		
2x2 vertical slotted duct (1.5" slot spacing); 6' Long	FGS-MSHS-CB	
Hinged cover for 2x2 duct; 6' long	FGS-MSHC-J	
2x4 slotted duct, 2" slot spacing	FGS-MSHS-K	FGSB-MSHS-K
2x4 solid duct, vertical	FGS-MSHS-KN	FGSB-MSHS-KN
4x4 slotted duct, 2* slot spacing	FGS-MSHS-KT	FGSB-MSHS-KT
4" cover - hinged	FGS-MSHC-K	. 550 (0515-101
4x4 slotted duct, 4" slot spacing	FGS-MSHS-KF	FGSB-MSHS-KF
4x4 solid duct, vertical	FGS-MSHS-KF	1/2010/10/2010
	נא-נחנואו-נט ו	
End caps		
Av4	FGS-HMEC-D	
4x4		
4x4 4x2 2x2	FGS-HMEC-E FGS-HMEC-CA	

# Vertical Fiber Management Systems

## 2"x 2" Accessories



Description	Part Number	Part Number		
	Yellow System	Black System		
2x2 System				
2x2 vertical slotted duct universal mounting bracket; kit of 5 – typically five brackets used for every 6' section of 2x2 vertical duct	FGS-HWMB-C	FGS-HWMB-C		
2x2 adapter junction kit; used to join new 2x2 Vertical duct with hinged cover to standard 2x2 FiberGuide® profile	FGS-MJWRM-C			

# Vertical Fiber Management Systems

4"x 4" and 4"x 2" Accessories



4"x 4" Vertical Duct Mounting Bracket (FGS-HWMB-D)

Description	Part Number	
	Yellow System	Black System
4x2 System (4" wide x 2" deep)		
typically three brackets used for every 6' section of 4x4 vertical duct	FGS-HWMB-D	FGS-HWMB-D
4x2 vertical slotted duct mounting bracket; kit of 10	FGS-HKW2-E	FGS-HKW2-E
4x2 vertical slotted duct cap	FGS-HMEC-E	FGS-HMEC-E
4x4 System		
4x4 adapter junction kit; used to join new 4x4 vertical duct with hinged cover to standard 4x4 FiberGuide® profile	FGS-MJWR-D	FGSB-MJWR-D
4x4 vertical slotted duct mounting bracket; typically three brackets used for every 6' section of 4x4 vertical duct	FGS-HWMB-D	FGS-HWMB-D

# 2x2 System Support Kits Direct Support Kits



Ladder Rack Support Kit (FGS-HLR2-C shown alone and attached to ladder rack)



Digital Cableway Support Kit (FGS-HDCB-C)



Bay Top Support Short L Bracket Kit (FGS-BTBS-C)

Bay Top Support Long L

Bracket Kit

(FGS-BTBL-C)



Under Floor Support Kit (FGS-HUFB-C shown alone and attached to .62" round pipe)

## Ordering Information

Description	Part Number
2x2 direct support kits	
Ladder rack support kit; for use with 3.5" (maximum) ladder rack	FGS-HLR2-C
Bay top support short L bracket kit	FGS-BTBS-C
Bay top support long L bracket kit	FGS-BTBL-C
Digital cableway support kit	FGS-HDCB-C
Under floor support kit; can be secured to .62" to 1.2" round or square post	FGS-HUFB-C

Note: Recommended spacing of direct support kits is every 2' to 3'.

Custom brackets are available, please contact CommScope

# 2x2 System Support Kits

Aluminum Track Support Kit







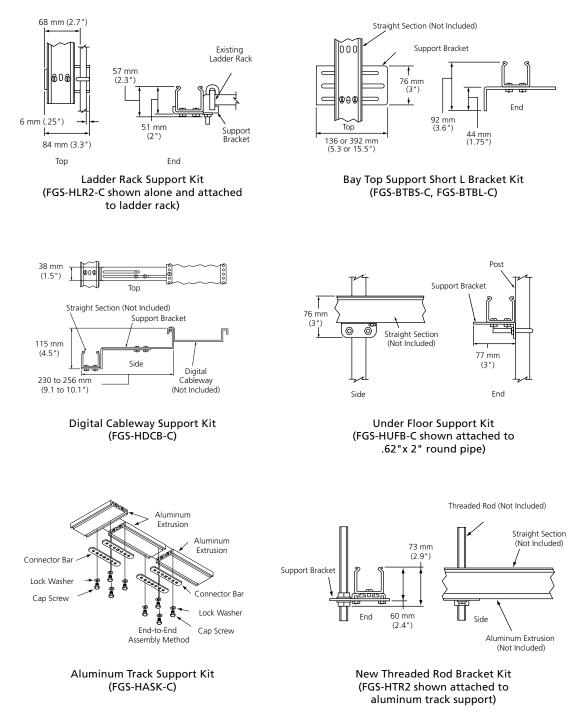
Aluminum Track Support Kit (FGS-HASK-C)

New Threaded Rod Bracket Kit (FGS-HTR2-XX shown alone and attached to aluminum track support) Existing Threaded Rod Bracket Kit (FGS-HTR2-2-5/8)

Description	Part Number
<b>2x2 aluminum track support kit;</b> 6' long, track connecting bar kit included – aluminum track is self-supporting for spans up to 6'	FGS-HASK-C
2x2 bracket kits; used to support aluminum track kits	
New threaded rod bracket kit; 5/8"	FGS-HTR2-5/8
New threaded rod bracket kit; 1/2"	FGS-HTR2-1/2
Existing threaded rod bracket kit; 5/8" for up to two 2x2 FiberGuide® Systems	FGS-HTR2-2-5/8
Track connecting bar kit; used to join two aluminum track kits; order only if extras are needed	FGS-HAEJ-C

# 2x2 System Support Kits

## Support Kit Drawings



## 2x6, 4x4, 4x6 System Support Kits



Ladder Rack Cantilever Support Bracket Kit (FGS-HDLB-4)



Existing Threaded Rod Bracket Kit (FGS-HETR-XX shown alone and attached to threaded rod)



Top Support C-Bracket Kit (FGS-HNTS-XX)

### Ordering Information



L Bay Support Bracket Kit (FGS-HLBK shown alone and attached to 4x4 FiberGuide)





Modified New Threaded Rod Bracket Kit (FGS-HNTR-5/8-A shown alone and attached to threaded rod)



Modified Existing Threaded Rod Bracket Kit (FGS-HETR-5/8-A shown alone and attached to threaded rod)



New Threaded Rod Bracket kit (FGS-HNTR-XX shown alone and attached to threaded rod)



••\*\*

Top Support Low Profile C-bracket Kit (FGS-HNTS-XX-LP)



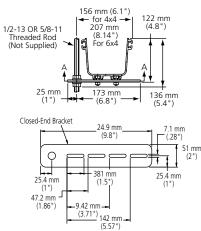
Center Support Bracket Kit (FGS-HTUB-XX)

Description	Part Number
x6, 4x4, 4x6 system support kits	
Ladder rack cantilever support bracket kit	FGS-HDLB-4
L bay support bracket kit	FGS-HLBK
Ladder rack clip	FGS-HLDR-V
New threaded rod bracket kit; (XX = size: 1/2", 5/8", 12 mm, 14 mm, 16 mm)	FGS-HNTR-XX
Existing threaded rod bracket kit; (XX = size: 1/2", 5/8", 12 mm, 14 mm, 16 mm)	FGS-HETR-XX
Modified new threaded rod bracket kit; 5/8"	FGS-HNTR-5/8-A
Top support low-profile C-bracket kit; (XX = size: 1/2", 5/8", 12 mm, 14 mm, 16 mm)	FGS-HNTS-XX-LP
Top support C-bracket kit; (XX = size: 1/2", 5/8", 12 mm, 14 mm, 16 mm)	FGS-HNTS-XX
Modified existing threaded rod bracket kit; 5/8"	FGS-HETR-5/8-A
Center support bracket kit; (XX = size: 1/2", 5/8", 12 mm, 14 mm, 16 mm, 20 mm)	FGS-HTUB-XX
Digital cableway bracket kit; 305 mm (12")	FGS-HCBL-12
Digital cableway bracket kit; 381 mm (15")	FGS-HCBL-15
Ladder rack center support bracket kit	FGS-HNLR-AB
OMX frame center support bracket kit; 16 mm (.63")	FGS-HOMX-16MM
Under floor support bracket kit	FGS-HUFB-A

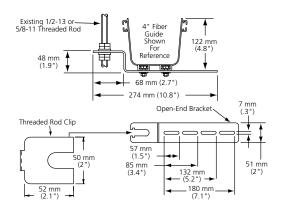
Custom brackets are available, please contact CommScope.

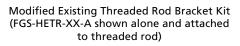
# 2x6, 4x4, and 4x6 System Support Kits

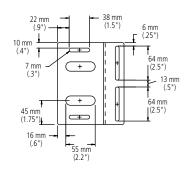
## Support Kit Drawings



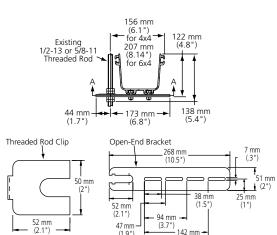
New Threaded Rod Bracket Kit (FGS-HNTR-XX shown alone and attached to threaded rod)







OMX Frame Center Support Bracket Kit (FGS-HOMX-16MM)



Existing Threaded Rod Bracket Kit (FGS-HETR-XX shown alone and attached to threaded rod)

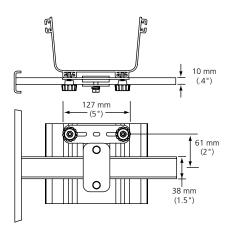
(3.7")

142 mm <del>-</del>

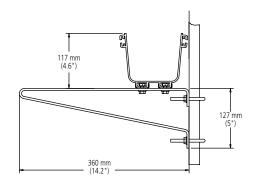
(5.6")

47 mm

(1.9")



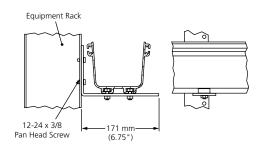
Ladder Rack Center Support Bracket Kit (FGS-HNLR-AB)

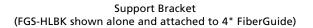


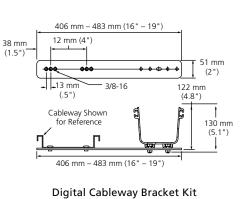
Under Floor Support Bracket Kit (FGS-HUFB-A)

# 2x6, 4x4, and 4x6 System Support Kits

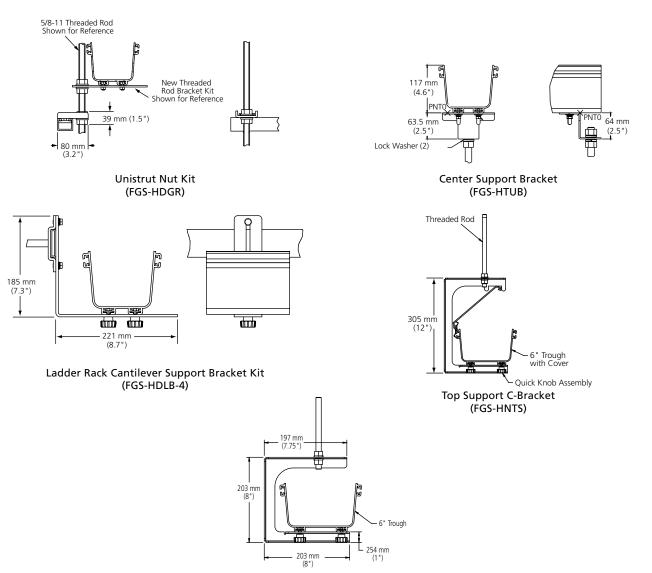
## Support Kit Drawings







(FGS-HCBL shown alone and attached to 4" FiberGuide®)



Top Support Low-Profile C-Bracket (FGS-HNTS-LP)

# 4x12 System Support Kits



Existing Ladder Rack Center Support Bracket Kit (FGS-HETP-F-XX)



Top Support Low-Profile Threaded Rod Bracket Kit (FGS-HNTS-F-XX-LP shown alone and attached to threaded rod)



Trapeze Bracket Kit (FGS-HNTP-F-XX)



Top Support Threaded Rod Bracket Kit (FGS-HNTS-F-XX)



Center Support Threaded Rod Bracket Kit (FGS-HTUB-F-XX shown alone and attached to threaded rod)



New Threaded Rod Bracket Kit (FGS-HNTR-F-XX)



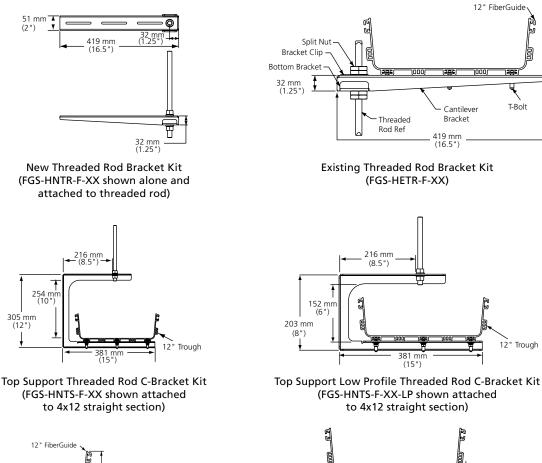
Existing Threaded Rod Bracket Kit (FGS-HETR-F-XX)

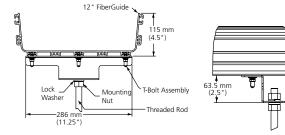
Description	Part Number
4x12 system support kits	
New ladder rack center support bracket kit	FGS-HNLR-F
Existing ladder rack center support bracket kit; (XX = size: 1/2", 5/8", 12 mm, 14 mm, 16 mm)	FGS-HETP-F-XX
Trapeze bracket kit; (XX = size: 1/2", 5/8", 12 mm, 14 mm, 16 mm)	FGS-HNTP-F-XX
Center support threaded rod bracket kit; (XX = size: 1/2", 5/8", 12 mm, 14 mm, 16 mm, 20 mm)	FGS-HTUB-F-XX
Top support low-profile threaded rod C-bracket kit; (XX = size: 1/2", 5/8", 12 mm, 14 mm, 16 mm)	FGS-HNTS-F-XX-LP
Top support threaded rod C-bracket kit; (XX = size: 1/2", 5/8", 12 mm, 14 mm, 16 mm)	FGS-HNTS-F-XX
New threaded rod bracket kit; (XX = size: 5/8", 14 mm, 16 mm, 18 mm)	FGS-HNTR-F-XX
Existing threaded rod bracket kit; (XX = size: 5/8", 14 mm, 16 mm)	FGS-HETR-F-XX

# 4x12 System Support Kits

51 mm (2")

Support Kit Drawings

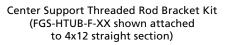


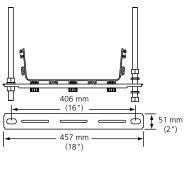


216 mm

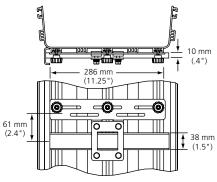
254 mr (10")

305 mm (12")



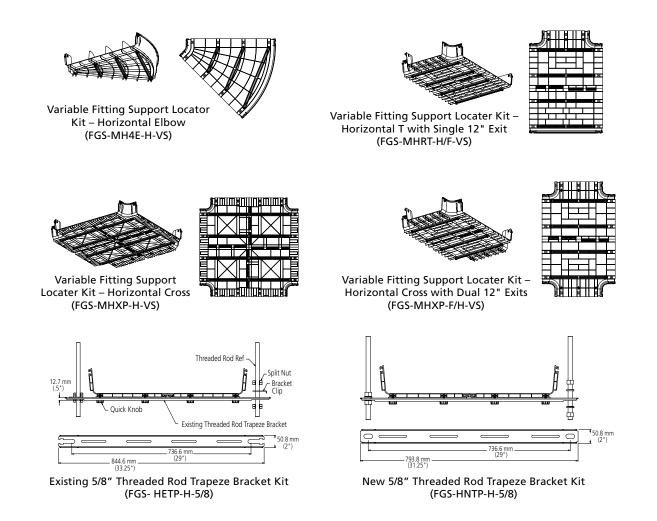


Trapeze Bracket Kit (FGS-HNTP-F)



Ladder Rack Center Support Bracket (FGS-HNLR-F)

# 4x24 System Support Kits



Description	Part Number
x24 System Support Kits	
Variable fitting support locater kit for;	
Horizontal elbow	FGS-MH4E-H-VS
Horizontal T with single 12" exit	FGS-MHRT-H/F-VS
Horizontal cross	FGS-MHXP-H-VS
Horizontal cross with dual 12" exits	FGS-MHXP-F/H-VS
Threaded rod trapeze bracket kit for;	
Existing; 5/8"	FGS-HETP-H-5/8
New; 5/8"	FGS-HNTP-H-5/8

# Support Kit Accessories 2x2, 2x6, 4x4, 4x6, 4x12, 4x24 Support Kit Accessories



Threaded Rod (FGS-HTHR)



Ladder Rack Bracket Kit FGS-HLDR shown alone and attached to ladder rack



Auxiliary Framing Kit (FGS-HFCK)



Unistrut Nut Kit (FGS-HDGR)



Adjustable Angle Support Brackets (FGS-HASB)

Description	Part Number
Threaded rod	
5/8" - 11 x 12"	FGS-HTHR-5/8-12
5/8" - 11 x 30"	FGS-HTHR-5/8-30
5/8" - 11 x 72"	FGS-HTHR-5/8-72
1/2" - 13 x 12"	FGS-HTHR-1/2-12
1/2" - 13 x 30"	FGS-HTHR-1/2-30
1/2" - 13 x 72"	FGS-HTHR-1/2-72
<b>Threaded rod;</b> (XX = size: 12 mm, 14 mm, 16 mm) (NN = length: 30 cm, 75 cm)	FGS-HTHR-XX-NN
Auxiliary framing kit	
2x 9/16" x 3/16" for 5/8" rod	FGS-HFCK-5/8
2x 9/16" x 3/16" for 1/2" rod	FGS-HFCK-1/2
Adjustable angle support brackets with 5/8" threaded rod	
11 x 36" rod	FGS-HASB-5/8-36
11 x 48" rod	FGS-HASB-5/8-48
Adjustable angle support brackets with 1/2" threaded rod	
13 x 36" rod	FGS-HASB-1/2-36
13 x 48" rod	FGS-HASB-1/2-48
Ladder rack bracket kit for radiused ladder racking	FGS-HLDR-A
Ladder rack bracket kit; (XX = size: 1/2", 5/8", 12 mm, 16 mm)	FGS-HLDR-XX
Unistrut nut kit; 5/8"	FGS-HDGR
Frame mounting hardware kit; (XX = size: 1/2", 5/8", 12 mm, 14 mm, 16 mm)	FGS-HKFM-XX

# System Accessories



2" Outer Diameter Slotted Flex Tube (FGS-MIDY)



7/8" Outer Diameter Slotted Flex Tube (FGS-MFTY)



Single Hinges for 4" and 6" Covers (FGS-HHGK)



Retainer Rings (FGS-HFRR-10)



Flex Tube Clamp (FGS-HHEC-10)



Storage Spools (FGS-MSTOR-A/B/F)



Shown Installed (FGS-MSTOR-A/B/F)



Mitre Box and Saw (FGS-MKIT-ABF)



Retrofit Fin – Kit of 10 (FGS-MFIN-10)



Quick Knobs - Kit of 10 (FGS-KQKB)

# System Accessories

Description	Part Number	
	Yellow System	Black System
Slotted and solid flex tubes		
2" outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 50, 75, 100, 125, 150, 200, 250)	FGS-MIDY-XF	FGSB-MIDY-XF
1" outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 50, 75, 100, 125, 150, 200, 250)	FGS-MLDY-XF	FGSB-MLDY-XF
7/8" outer diameter slotted flex tube; (X = length in feet: 5, 10, 15, 20, 25, 50, 75, 100, 125, 150, 200, 250)	FGS-MFTY-XF	FGSB-MFTY-XF
2" outer diameter solid flex tube; (X = length in feet: 5, 10, 15, 20, 25, 30, 50, 75, 100, 125, 150, 200, 250)	FGS-MISY-XF	FGSB-MISY-XF
Hinges; single hinges for 4x4 and 4x6 covers	FGS-HHGK	
Retainer rings; kit of 10 – used to retain fibers in 2" flex tube	FGS-HFRR-10	
Description	Part Number	
Flex tube clamp; kit of 10 – used to secure 2" flex tube to 2" vertical ducts	FGS-HHEC-10	
Storage spools for dark fiber jumpers; kit of 2	FGS-MSTOR-A/B/F	
Mitre box with saw		
Used to cut 2x2, 4x4, 4x6, and 4x12 FiberGuide® straight sections to size	FGS-MKIT-ABF	
Used to cut 2x2, 4x4, and 4x6 FiberGuide straight sections to size	FGS-MKIT	
Used to cut 4x24 FiberGuide straight sections to size	FGS-MKIT-H	
Saw; 26" miter, FGS	FGS-MSAW26	
IFC tie down for;		
4x4 system	FGS-HIFC-A	
4x6 system	FGS-HIFC-B	
4x12 system	FGS-HIFC-F	
Quick knobs with T-bolt and cover slip; kit of 10	FGS-KQKB	
Reverse junction adapter kit for 4x4, 4x6, and 4x12 systems; used to connect two parts rotated 180°	FGS-HRJA-A/B/F	
Retrofit fin; kit of 10	FGS-MFIN-10	

Notes	

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