



# Building Entrance Facility Solutions

COMMSCOPE®

# Building Entrance Facility Solutions

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The forward-looking facilities designer knows that fiber counts in both outside plant (OSP) and Intra-Facility Cable (IFC) increase rapidly, sometimes even before a project finishes. A critical piece of an advanced design is the building entrance termination point, where the OSP and IFC cables are joined, managed, distributed and protected.

CommScope has engineered its building entrance cabinet line to solve the most demanding requirements of an advanced building entrance strategy:

## **DENSITY**

CommScope's building entrance cabinets support up to and beyond 10,000 ribbon fibers in a single cabinet.

## **SPACE EFFICIENCY**

Our cabinets are sized from small to very large to use only the space that is necessary for your design.

## **FLEXIBILITY**

Our cabinets support small to very large cables (3456 fibers and more) in the same space, without sacrificing cable support or smooth routing, and are available in floor mount and wall mount options.

## **ACCESSIBILITY**

These products enable seamless access to each tray both during initial installation and when adding cables later. Each incoming and outgoing cable and subunit may be accessed individually at any time.

## **INSTALLER FRIENDLINESS**

Cables flow in a logical and uncluttered manner throughout the cabinets, speeding installation, documentation and cable adds in the future.

## **ROBUSTNESS**

Heavy duty construction and hardware protect cables and splices even in high traffic areas and during facility expansion.

CommScope knows how critical it is that every piece of your network infrastructure is optimized to the task at hand - and the unexpected tasks in the future. Our building entrance cabinet line is engineered to today's applications - and tomorrow's.

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### FEC Wall Mount Frame

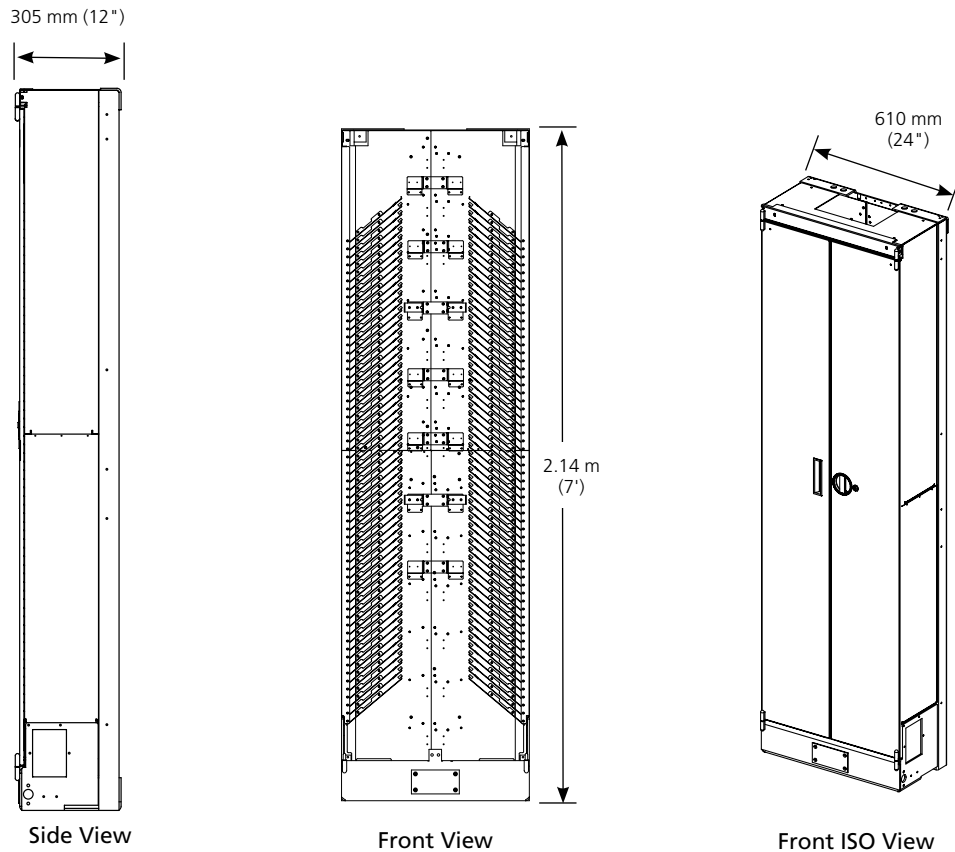
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# FEC Floor Mounted Frame

## Fiber splice cabinets

The FEC splice cabinet is a zone 4 rated, high-density splice solution, housing stranded fiber splices and ribbon fiber splices within a 24" W x 12" D X 7' H. Shipped complete with the necessary cable management, it features slots which secure and protect the round splice trays and can hold up to sixty splice trays on each vertical. The cabinet is shipped with lockable front doors and may be ordered for applications in which the cables enter from above or below.

The FEC splice cabinet is offered in putty and black versions.



### FULLY CONFIGURED SPLICE CABINET (PUTTY)

(see the following pages for stranded and ribbon splice capacities)

CATALOG NUMBER	DESCRIPTION	DIMENSIONS (HxWxD)
MX6-SPL6030-A-D7Z4	Cable enters from underfloor	2.14 m x 610 mm x 305 mm (7' x 24" x 12")
MX6-SPL6030-A-U7Z4	Cable enters from top	

### SPLICE CABINET CABLE CLAMPS

FEC-ACCCLMP01	OSP cable
MX6-SPLIFCCLMP	IFC cable
MX6-BAYTEMPLATE	Isolation pad for splice cabinet A template for cabinet installation providing isolation between the cabinet and the ground

Note: Splice trays sold separately

# FEC Floor Mounted Frame

## Fiber splice cabinets

### FULLY CONFIGURED SPLICE CABINET (BLACK)

(see the following pages for stranded and ribbon splice capacities)

CATALOG NUMBER	DESCRIPTION	DIMENSIONS (HxWxD)
MX6-BSPL-1440-U7	Cable enters from top	2.14 m x 610 mm x 305 mm (7' x 24" x 12")
<b>SPLICE CABINET CABLE CLAMPS</b>		
FEC-ACCCLMP01	OSP cable	
MX6-BAYTEMPLATE	Isolation pad for splice cabinet A template for cabinet installation providing isolation between the cabinet and the ground	
<b>ACCESSORIES</b>		
NG4-SNKT-BULK	Snap-in Cable Retention Rings (Qty. 40)	
NG4-SPCAB-MTBKT	Optional External Trunk Mounting Bracket	
NG4-CBOU-288	Breakout kit 288 fiber cable	
NG4-CBOU-1728	Kit of 6 - 288 fiber breakouts	
NG4-CBOU-BULK	Kit of 24 - 288 fiber breakouts	

Note: Splice trays sold separately

### SPLICE BAY CAPACITY: MX6-BSPL-1440-U7

Table 1 summarizes the FEC HD Bay (black) ribbon cable splice capacity.

TABLE 1: SPECIFICATIONS	
PARAMETER	SPECIFICATION
Fiber count	Up to 11,520 ribbon fibers
Round splice tray capacity	96 splices per tray (96 OSP– 96 IFC ribbon fibers)
Round splice trays per bay	up to 120

### CABLE SIZES USED IN FEC SPLICE BAY: MX6-BSPL-1440-U7

Table 2 has bay configuration guidelines for OSP cable sizes commonly used within the FEC Splice Bay.

Table 3 has comparable information for IFC cables.

TABLE 2: OSP CABLE SIZES COMMONLY USED WITH FEC SPLICE BAY			
FIBERS PER CABLE	CABLES PER BAY	TRAYS TO OCCUPY	TOTAL SPLICES
864	12	108	10,368
1152	10	120	11,520
1728	6	108	10,368
3456	3	108	10,368

TABLE 3: IFC CABLE SIZES COMMONLY USED WITH FEC SPLICE BAY			
FIBERS PER CABLE	CABLES PER BAY	TRAYS TO OCCUPY	TOTAL SPLICES
288	40	120	11,520
432	26	117	11,232
576	20	120	11,520
864	12	108	10,368

# FEC Floor Mounted Frame

## Frame Accessories

### FRAME INSTALLATION KIT

Frame installation kits may be used on network frames and are seismic zone 4 rated.

CATALOG NUMBER	DESCRIPTION
RAC-MX0616	<b>Concrete floor frame installation kit, includes:</b> (2) M8 bolts, 90 mm (3.5") (4) M8 nuts (8) flat washers (4) lock washers shims and anchor plates
RAC-MX0615	<b>Raised floor frame installation kit, includes:</b> (4) threaded rods M12 x 1 m (3.28") (12) heavy nuts, lock and flat washers (4) nuts with springs, M12 (2) 1.8 m (5.9") unistrut (1) anchor kit
FDF-ACC146	<b>xxx floor frame installation kit, includes:</b> Designation card holder 1 each Two-bar channel 4 each Framing clip with 0.56 4 each Framing clip with 0.69 4 each Clip J-bolt 4 each, 1/2" – 13" x 18" long Threaded rod 2 each, 5/8" x 18" long Hex nut 4 each, 1/2" x 13" Hex nut 4 each, 5/8" x 11"

### SPLICE TRAY

The round splice tray used in the FEC simplifies installation and maintenance. The tray stores up to 9.8-feet of slack allowing the installer to roll the tray away from the frame to perform splicing.

CATALOG NUMBER	NUMBER OF FIBERS	TYPE OF SPLICE	SPLICE SLEEVES
FST-DRS12-HS	12	Single Fiber Heat Shrink	FST-ACC001
FST-DRS24-HS	24	Single Fiber Heat Shrink	FST-ACC001
FST-DRS72-MF	72	Mass Fusion	FST-ACC006
FST-DRSHD-MF	96	Mass Fusion, High Density Ribbon *	FST-ACC006

\* FEC bay MX6-BSPL-1440-U7 only



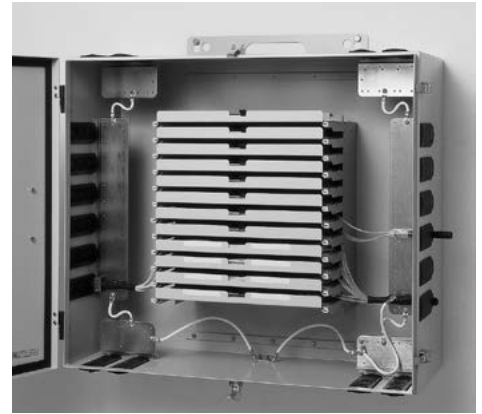
# FEC Wall Mount Frame

## Introduction

CommScope's FEC Wall Mount Frame provides splicing, administration and storage for outside plant (OSP) and intrafacility cables (IFC). The cabinets are designed for deployment in a building equipment area. The FEC offers a cost-effective, space-saving alternative to splicing on the fiber frame.

Equipped with splice drawers and available in several configurations, the FEC's largest configuration accommodates up to 864 stranded fibers or 10,368 ribbon fibers. Bend radius protection and discrete subunit routing paths ensure easy access and prevent excess attenuation.

This cabinet accommodates a wide variety of cable types and splicing methods.



## PRODUCT OVERVIEW

Recommended applications	Off-frame splice location for outside plant (OSP) cables to be spliced to intrafacility (IFC) cable
Description	Accommodates multiple fiber splicing requirements with various cabinet sizes
Cable management	Superior
Routing paths	Clear
Physical protection	Robust
Access splice point	Easy

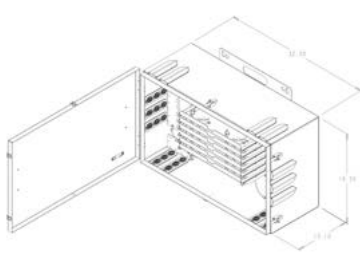
# FEC Wall Mount Frame

## Ordering Guide

**DETERMINE THE CABINET CONFIGURATION THAT BEST SUITS YOUR APPLICATION.**

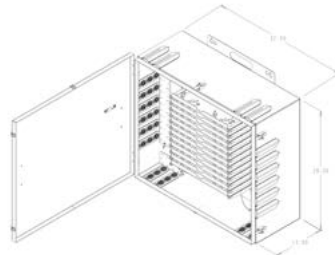
CATALOG NUMBER STANDARD DRAWER CONFIGURATION	CABINET SIZE		NO. OF DRAWERS INCLUDED WITH CABINET	WEIGHT	DIMENSIONS (HXWXD)
	STRANDED FIBERS	RIBBON FIBERS			
FEC-144	144	432	6	40 lbs (18.18 kg)	19.48" x 32" x 13" (49.47 x 81.28 x 33.02 cm)
FEC-288	288	864	12	80 lbs (36.3 kg)	28" x 32" x 13" (71.12 x 81.28 x 33.02 cm)
FEC-432RM	432	1,296	18	95 lbs (43.2 kg)	36" x 26" x 15" (91.44 x 66.04 x 38.1 cm)
FEC-576	576	1,728	24	120 lbs (54.4 kg)	45" x 32" x 13" (114.3 x 81.28 x 33.02 cm)
FEC-864	864	2,592	36	160 lbs (72.6 kg)	62" x 32" x 13" (157.48 x 81.28 x 33.02 cm)
FEC-10K *	864	10,368	36	160 lbs (72.6 kg)	62" x 32" x 13" (157.48 x 81.28 x 33.02 cm)

\* Work with your Field Engineer on this option.



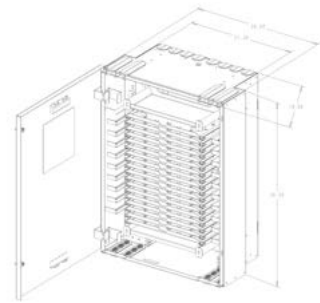
### 144-Position

- Equipped with 6 drawers
- 144 stranded fiber capacity
- 432 ribbon fiber capacity
- \* wall and unistrut mount only



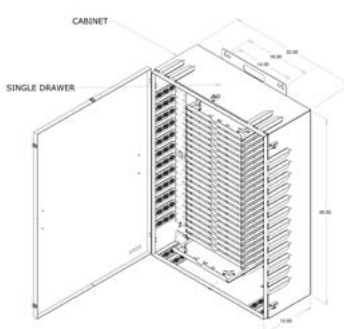
### 288-Position

- Equipped with 12 drawers
- 288 stranded fiber capacity
- 864 ribbon fiber capacity
- \* wall and unistrut mount only



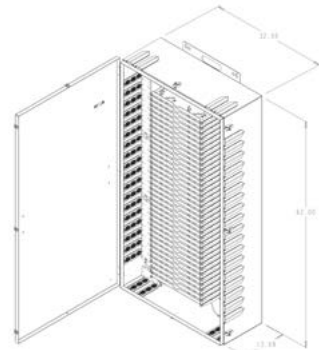
### 432-Position

- Equipped with 18 drawers
- 23-INCH RACK MOUNT ONLY
- EIA and WECCO rack spacing compatible
- 432 stranded fiber capacity
- 1296 ribbon fiber capacity



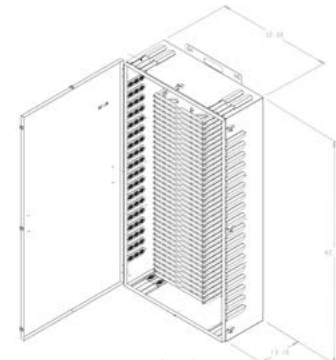
### 576-Position

- Equipped with 24 drawers
- 576 stranded fiber capacity
- 1728 ribbon fiber capacity
- \* wall and unistrut mount only



### 864-Position

- Equipped with 36 drawers
- 864 stranded fiber capacity
- 2592 ribbon fiber capacity
- \* wall and unistrut mount only



### FEC-10K

- Equipped with 36 drawers
- 864 stranded fiber capacity
- 10368 ribbon fiber capacity
- \* wall and unistrut mount only



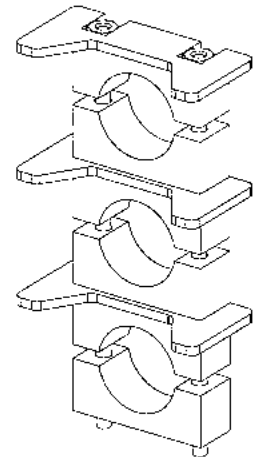
# FEC Wall Mount Frame

## Accessories

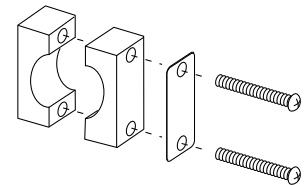
### CABLE CLAMPING KIT

CATALOG NUMBER	DESCRIPTION
	<b>IFC/OSP cable clamp kit</b> for wall mount configurations. Secure three cables to a single cable entry point on the cabinet. Clamp kits can be separated and used as single clamps.
OSP-CLPFEC-LG	Cables with a maximum diameter of 10 mm (0.4") to 30 mm (1.2")
OSP-CLPFEC	Cables with a maximum diameter of 5 mm (0.2") to 18 mm (0.7")
	<b>Individual IFC/OSP cable clamp</b> for wall mount configurations. Secure one cable to a single cable entry point on the cabinet.
OSP-CLPSST	Cables with a maximum diameter of 5 mm (0.2") to 18 mm (0.7")
	<b>Individual IFC/OSP cable clamp</b> for rack or wall mount configurations. Secure one cable to a single cable entry point on the cabinet.
FEC-ACCCLMP01	Cables with a maximum diameter of 10 mm (0.4") to 30 mm (1.2")
	<b>Individual soft IFC only cable clamp</b> for wall mount configurations. Secure one cable to a single cable entry point on the cabinet.
OSP-CLPSST-IFCL	Cables with a maximum diameter of 20 mm (0.8") to 28 mm (1.1")
OSP-CLPSST-IFCS	Cables with a maximum diameter of 5 mm (0.2") to 18 mm (0.7")
	<b>OSP cable clamp kit</b> for wall mount configurations of the <b>FEC-10K only</b> . Secure one cable to a single cable entry point on the cabinet (kit of 6).
OSP-CLPFEC-XL *	Cables with a maximum diameter of 32mm (1.25") to 38mm (1.5")

\* Cannot be used with other configurations



**IFC/OSP Cable Clamp Kit**  
(OSP-CLPFEC-LG Shown)



**Individual IFC/OSP Cable Clamp**  
(OSP-CLPSST Shown)

### SPLICE TRAY

Standard-style FEC cabinets will accept two single trays or one dual tray per drawer.

CATALOG NUMBER			DESCRIPTION
<b>Single Tray (12-position)</b> 9 mm x 299 mm x 127 mm (0.3" x 11.75" x 5")	<b>Dual Tray (24-position)</b> 14 mm x 299 mm x 127 mm (0.5" x 11.75" x 5")	<b>Splice Sleeve Protector</b>	<b>Standard Splice Trays</b>
FST-MT	FST-D-MT	FST-ACC006	Mass fusion ribbon
FST-HS	FST-D-HS	FST-ACC001	Heat shrink (single fiber fusion)
FST-FT	FST-D-FT	FST-ACC001	Bare fiber
N/A	FOSC-ACC-C-TRAY-RIBN-24	SMOUV-1120-R2/12-02 **	24 Mass Fusion Splices (288 fibers total) *
*Only used in the FEC-10K **SMOUV Splice Protection Sleeves (min order qty. 1000) Heat-shrinkable Mass Fusion 12-Fiber Ribbon			

# FEC Wall Mount Frame

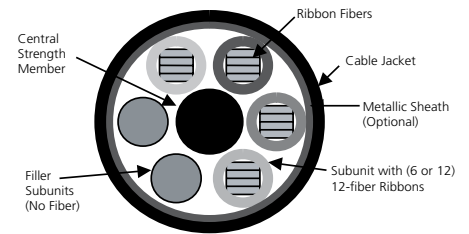
## Accessories

### Breakout Kit for Ribbon in Loose Buffer Tube (RLBT) OSP Cable

Ribbon in loose buffer tube OSP cables are constructed as shown in Figure 1. All RLBT cables feature six subunits surrounding a central strength member. Depending on the fiber count of the cable, some of the subunits may be used as filler subunits (a solid plastic unit without any fiber). Each subunit containing fiber is comprised of six or twelve ribbons featuring 12 fibers per ribbon.

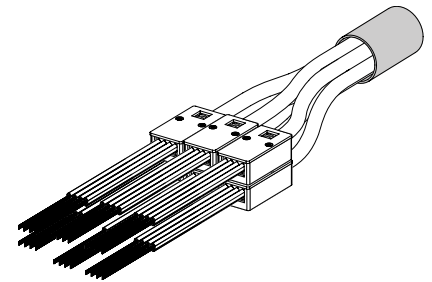
Breakout kits for RLBT cables contain multiple breakout bases, each with 5-meter lengths of protective tubing (see Figure 2). The protective tubing accommodates up to six ribbons. One breakout kit fits into each individual subunit. For mass fusion ribbon splicing applications in the FEC, CommScope recommends splicing up to 72 fibers (six ribbons) in a dual splice tray. The tray should be equipped with an "MT" splice chip (see page 94 for information on mechanical or mass fusion ribbon trays). For single fusion splicing applications, CommScope recommends 24 fibers per drawer using either two single trays or one dual tray. This kit is used to protect fiber ribbons between the cable clamp and the splice tray.

Breakout kits are designed for use in controlled environments only.



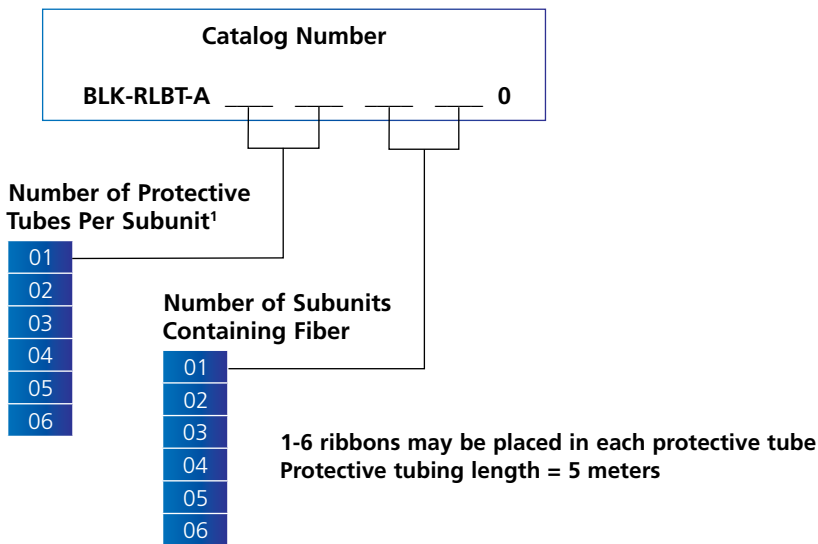
**Figure 1**

Ribbon buffer tube (RLBT) OSP cable



**Figure 2**

Breakout kit for RLBT OSP Cable



<sup>1</sup> The number of protective tubes per subunit is calculated as follows:

Divide the number of fibers per subunit (typically 72 or 144) by the number of fibers (12, 24, 36, 48, 72) to be spliced in each splice tray.

Example: If each subunit has 144 fibers with 36 fibers per tray, then each subunit would require four protective tubes.

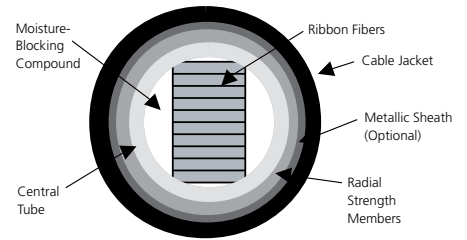
Other configurations are available upon request. Please contact CommScope Technical Assistance Center.

## Breakout Kit for Ribbon Central Tube (RCT) OSP Cable

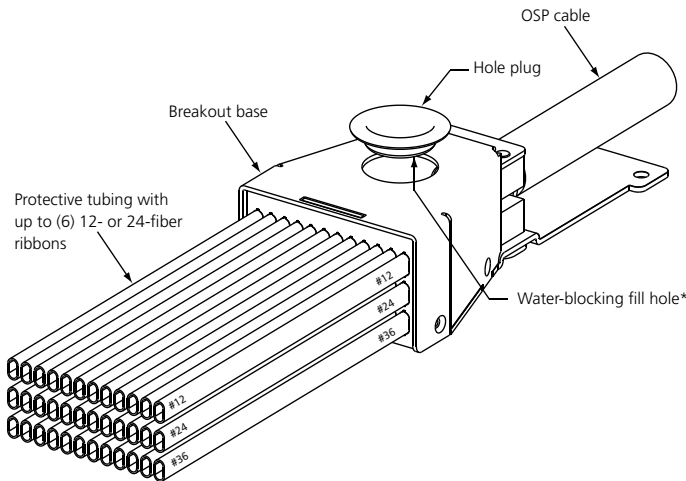
Ribbon central tube OSP cables are constructed as shown in Figure 1. The ribbons in RCT cables feature 12 or 24 fibers per ribbon. Cables with 288 or more fibers are typically built with ribbons featuring 24 fibers per ribbon. Each cable consists of a single central tube that encloses the ribbons.

Breakout kits for RCT cables contain a single breakout base attached to the central tube. Protective tubing is attached to the breakout base in 5-meter lengths (see Figure 2). Smaller protective tubing can accommodate up to six ribbons featuring 12 fibers per ribbon. Larger tubing is used for ribbons with 24 fibers per ribbon.

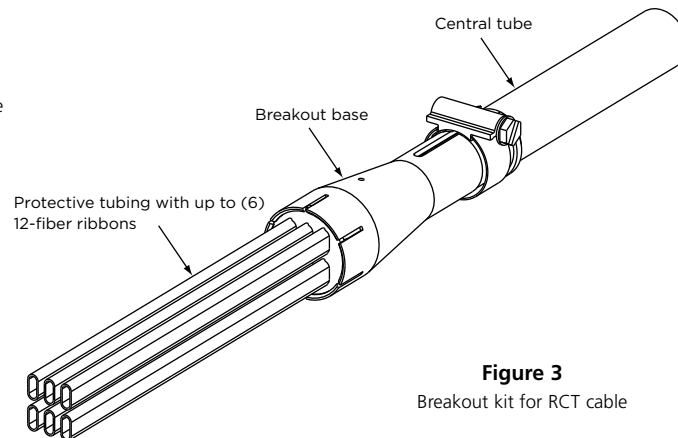
For mass fusion ribbon splicing in the FEC, CommScope recommends splicing 72 fibers per drawer. For ribbon featuring 12 fibers per ribbon, six ribbons would be spliced in each drawer. For ribbon featuring 24 fibers per ribbon, three ribbons would be spliced in each drawer. An “MT” chip is required for mass fusion ribbon splicing in a dual splice tray.



**Figure 1**  
Ribbon central tube (RCT)  
OSP cable construction



**Figure 2**  
Breakout kit for RCT cable



**Figure 3**  
Breakout kit for RCT cable

# FEC Wall Mount Frame

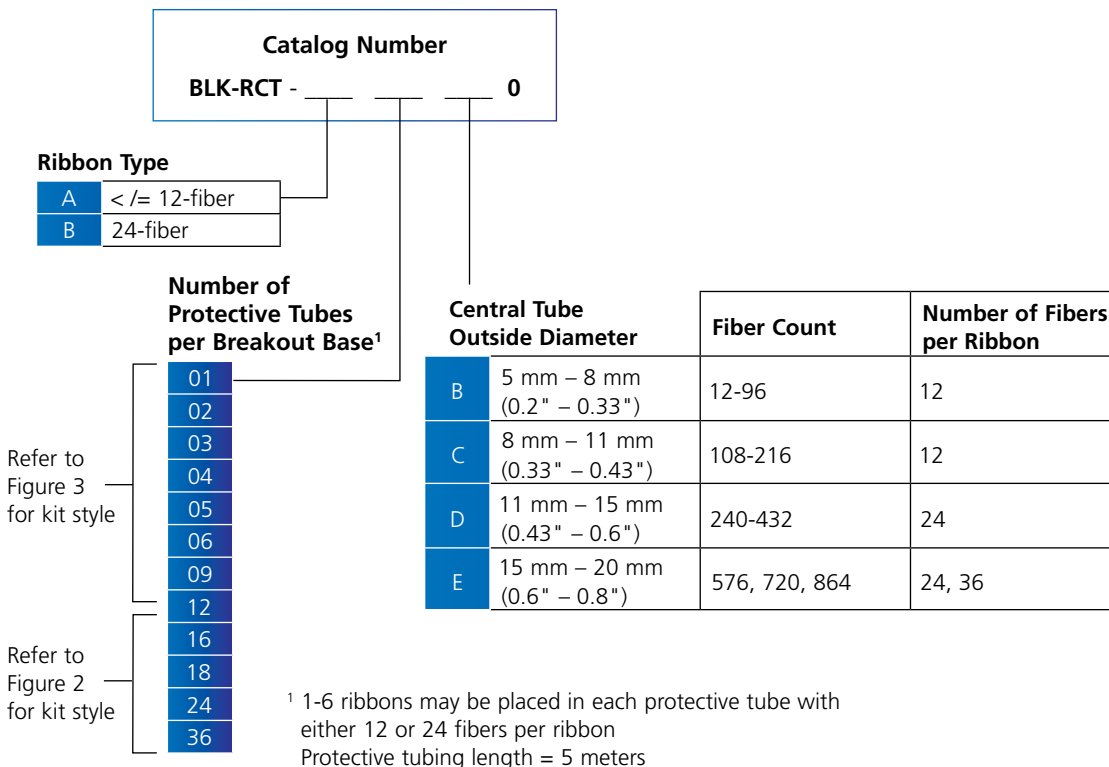
## Accessories

### RCT Breakout Kit Typical Configurations

432- and 864-fiber ribbon in central tube (RCT) OSP cables featuring 24 fibers per ribbon are common. The table below shows the number of protective tubes per breakout base required for 432- and 864-fiber cables based on the number of fibers per tray. This kit is used to protect fiber ribbons between the cable clamp and splice tray.

NUMBER OF FIBERS PER TRAY	NUMBER OF RIBBONS PER PROTECTIVE TUBE	432-FIBER CENTRAL TUBE OSP CABLE, 24-FIBER RIBBON	864-FIBER CENTRAL TUBE OSP CABLE, 24-FIBER RIBBON
24	1	18	36
48	2	9	18
72	3	6	12
96	4	N/A	9
144	6	3	6

Breakout kits with 36 protective tubes use a large breakout base, kits with 9–18 protective tubes use a medium breakout base and kits with 6 protective tubes use a small breakout base.



**<sup>1</sup> The number of protective tubes per central tube is calculated as follows:**

Divide the number of fibers per central tube (typically between 144 and 864) by the number of fibers (12, 24, 36, 48, 72) to be spliced in each splice tray.

Example: If the central tube has 864 fibers with 36 fibers per splice tray, then the breakout base would require 24 protective tubes.

Other configurations are available upon request. Please contact CommScope's Technical Assistance Center.

# FEC Wall Mount Frame

## Accessories

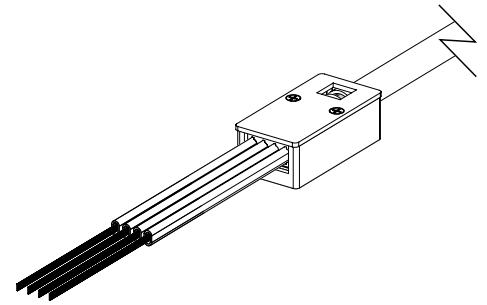
### Breakout Kit for Intrafacility (IFC) Ribbon Cables

CommScope's ribbon IFC cables have a central tube construction. The ribbons in IFC cables feature 12 fibers per ribbon. A central tube encloses the ribbons and features fiber counts ranging from 24 fibers to 216 fibers. Central tubes with 72, 96, 144 and 216 fibers are most common. IFC ribbon cables are used in off-frame splicing applications where mass fusion ribbon splicing is used.

The breakout kits for IFC cables contain a single breakout base attached to the central tube. Protective tubing is attached to the breakout base in 5-meter lengths and can accommodate up to six ribbons featuring 12 fibers per ribbon.

For mass fusion ribbon splicing in the FEC, CommScope recommends splicing 72 fibers per drawer. For ribbon featuring 12 fibers per ribbon, six ribbons would be spliced in each drawer. For ribbon featuring 24 fibers per ribbon, three ribbons would be spliced in each drawer. An "MT" chip is required for mass fusion ribbon splicing in a dual splice tray.

The breakout kits for 72, 96, 144, 216 and 432 fiber IFC cables are shown in the table below. This kit is used to protect fiber ribbons between the cable clamp and the splice tray.



**Breakout Kit for IFC  
Ribbon Cables**

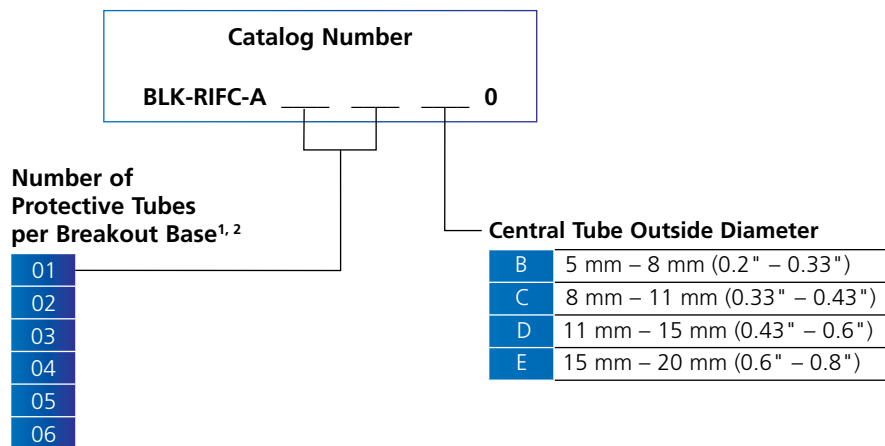
CATALOG NUMBER	IFC CABLE FIBER COUNT	NUMBER OF FIBERS PER TRAY
BLK-RIFC-A02B0	72	36
BLK-RIFC-A01B0	72	72
BLK-RIFC-A02B0	96	48
BLK-RIFC-A04C0	144	36
BLK-RIFC-A02C0	144	72
BLK-RIFC-A06C0	216	36
BLK-RIFC-A03C0	216	72
BLK-RIFC-A06E0	432	72

# FEC Wall Mount Frame

## Accessories

### IFC Breakout Kit Typical Configurations

When splicing IFC ribbon cables in the FEC cabinet, CommScope recommends 72 fibers per drawer. Fewer splices can be used, but the FEC easily accommodates 72 fibers per drawer in mass fusion ribbon splicing applications.



<sup>1</sup> 1–6 ribbons may be placed in each protective tube CommScope recommends 6 ribbon units (72 fibers) per tube. Protective tubing length = 5 meters

**<sup>2</sup> The number of protective tubes per central tube is calculated as follows:**

Divide the number of fibers per central tube (typically between 72 and 216) by the number of fibers (12, 24, 36, 48, 72) to be spliced in each splice tray.

Example: If the central tube has 144 fibers with 36 fibers per splice tray, then the breakout base would require four protective tubes.

Other configurations are available upon request. Please contact CommScope's Technical Assistance Center.

# FEC Wall Mount Frame

## Accessories

### Grounding/Moisture Blocking Kits

Kit used to properly block gel filled stranded and ribbon cables.

CATALOG NUMBER	DESCRIPTION
FBK-OSP002	<b>Grounding/Moisture blocking kit;</b> Includes components for grounding and blocking gel filled fiber cables: blocking gel, heat shrink and grounding accessories
BLK-MSTRKIT	<b>Moisture blocking kit;</b> Includes components for blocking gel filled fiber cables: syringe, blocking gel

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