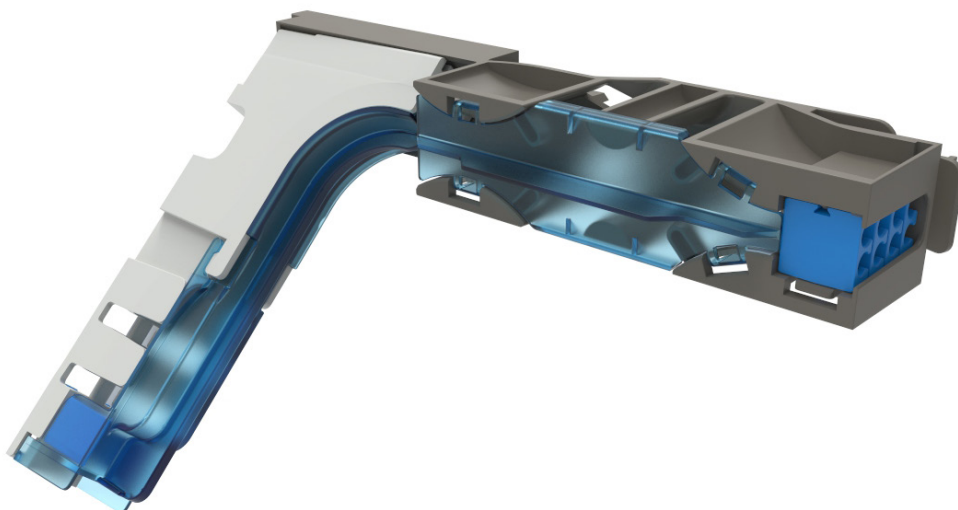




FACT FRAME

INSTALLATION INSTRUCTION: Cable Termination Unit

COMMScope®

FACT FRAME ANGLED CABLE TERMINATION UNIT

Contents

1.	General product information	2	12.	Stripping the Loose Tubes	14
2.	Warnings and caution	2	13.	Feeding Fiber Through Transportation Tubes.....	14
3.	Kit Content	2	14.	Installing Transportation Tubes on CTU	15
4.	CTU Position Determination	4	15.	Mounting Fanout Cover.....	17
5.	Mounting CTU Base.....	5	16.	Preparing FACT Element	18
6.	Cable Preparation	6	17.	Mounting Tray Tubeholder.....	19
7.	Strength Member Fixation	7	18.	Routing In Bottom Tray	20
8.	Cable / Flex Tube Fixation	8	19.	Routing In Top Tray	21
9.	Cable Bracket Cover Installation.....	9	20.	Result	22
10.	Cable Bracket On Base	10	21.	Trade-marks	24
11.	Routing Loose Tubes Over Elements	11	22.	Contact Information.....	24

1. General product information

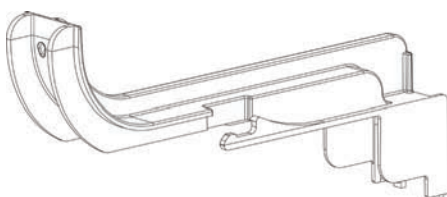
FACT Cable Termination Units (CTUs) enable quick and easy termination of a wide variety of cables on the FACT chassis. This allows the installer to prepare the cable termination on the CTU outside of the frame. It is recommended to use the same element count for the CTU kit as for the selected FACT chassis.

- Cables diameters:
 - * 1 Cable: maximum Ø14mm
 - * 2 Cables: maximum Ø8.5mm
 - * 4 Cables: maximum Ø5mm
- Flextube: Ø16mm -outer diameter- => 1 flextube (flextube holder)

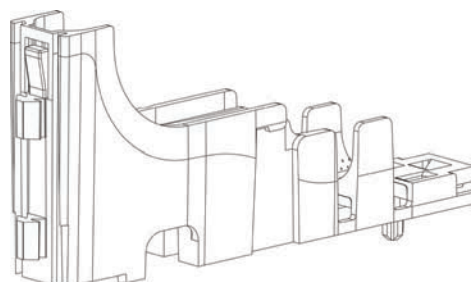
2. Warnings and caution

- Fiber optic cables may be damaged if bent or curved to a radius that is less than the recommended minimum bend radius. Always observe the recommended bend radius limit when installing fiber optic cables and patch cords.
- Exposure to laser radiation can seriously damage the retina of the eye. Do not look into the ends of any optical fiber. Do not assume the laser power is turned off or that the fiber is disconnected at the other end.

3. Kit Content

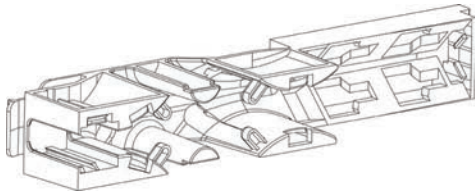


1x Cable Bracket Cover



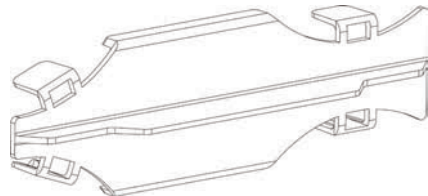
1x Cable Bracket

The quantity of these items should be multiplied by the number of elements



1x

CTU Base



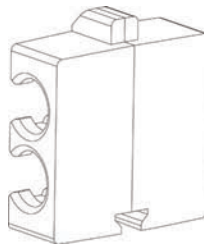
1x

Fanout Cover



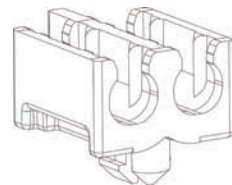
4x

Transportation tube
430mm



4x

Tube Holder



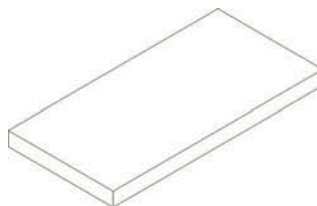
2x

Tube Holder Tray



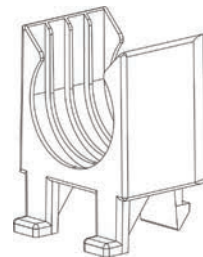
2x

Cable Tie



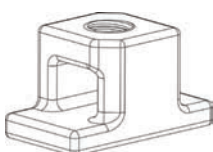
2x

Tape



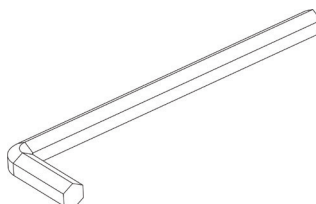
1x

Flextube Holder



1x

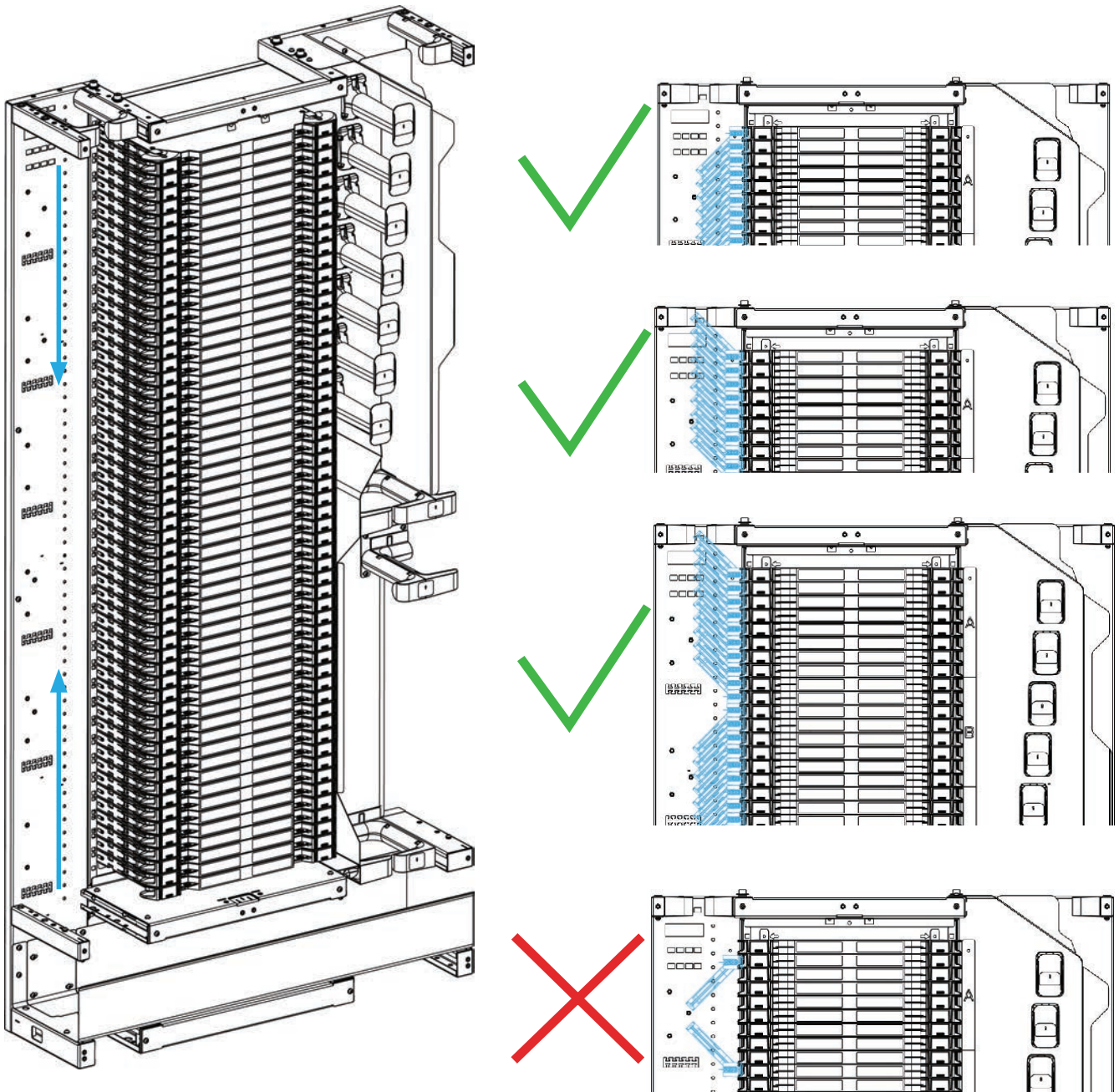
SM Holder + Bolt



1x

Allen key

4. CTU Position Determination - Step 1

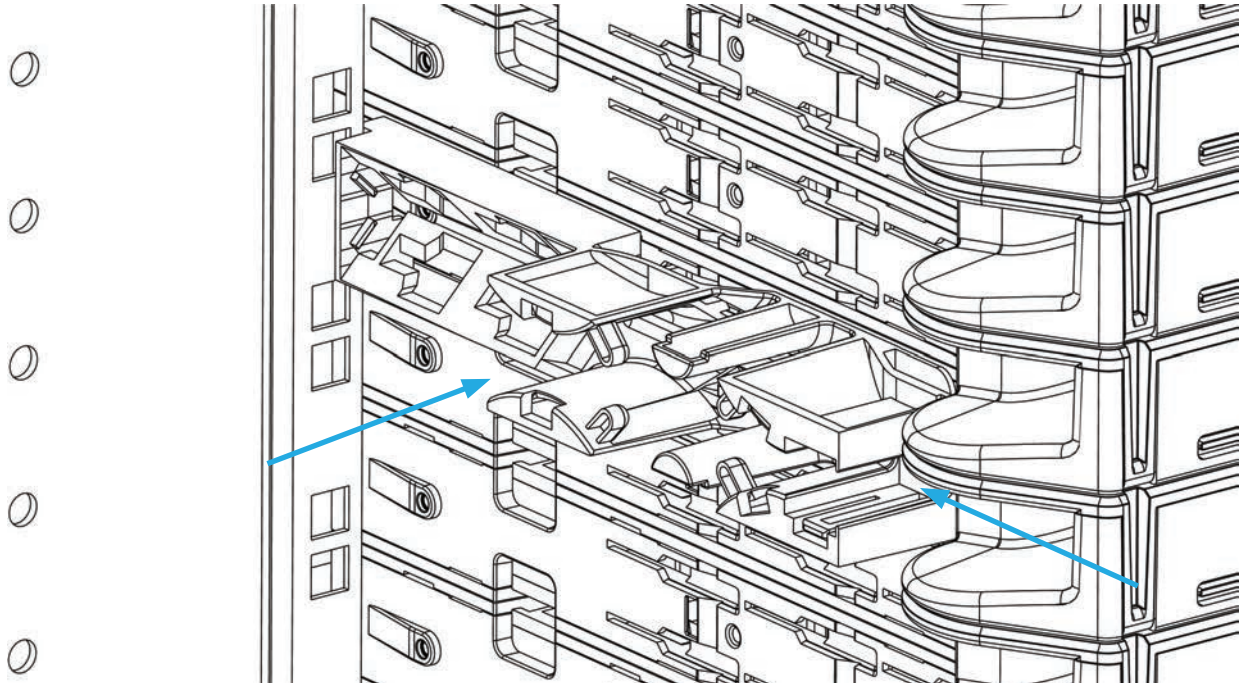


Step 1:

Determine where you want to install the cable termination unit(s). Cables can enter the frame from the top or the bottom. If there is a mix of directions, the CTU's facing up should always be installed on top of the CTU's facing down, to avoid crossings.

* This example shows a Right Hand Patch Cross Connect.

5. Mounting CTU Base - Step 2

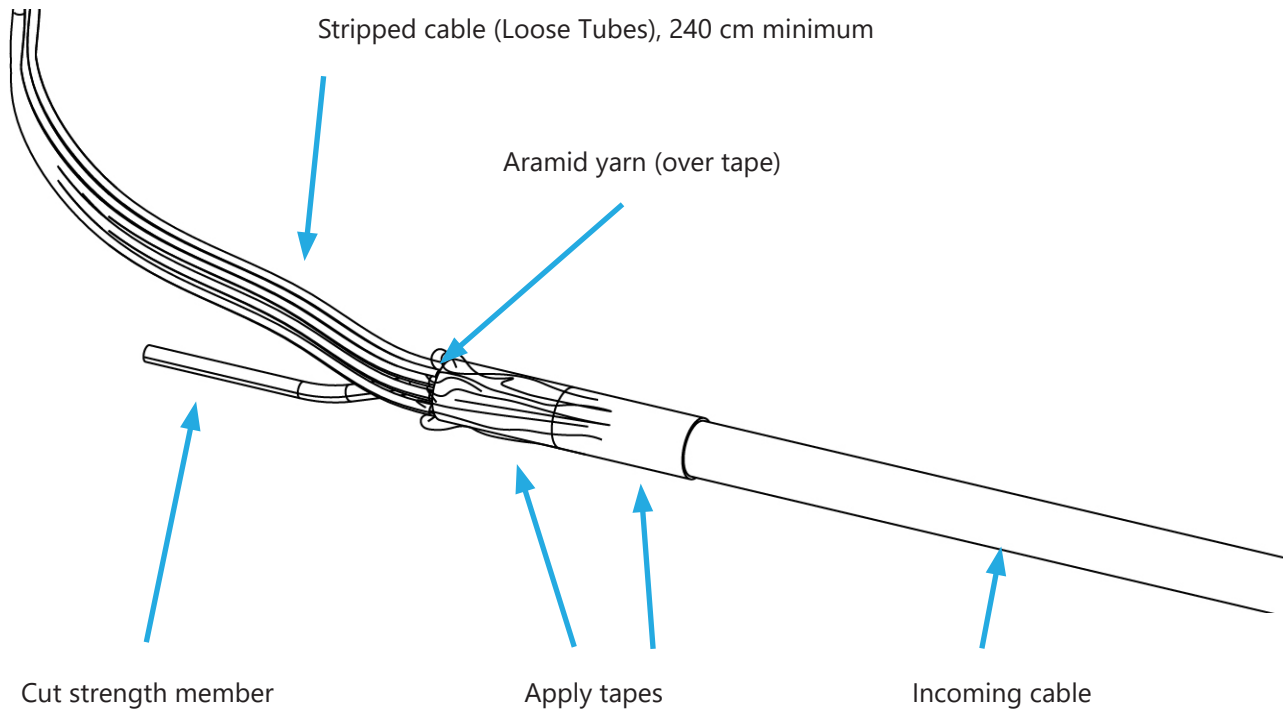


Step 2:

Open the FACT Element where you want to mount the base of the CTU. Push the base in the openings on the side of the FACT element. Slide the base towards the backside until you hear a “click”.

If the configuration uses flextubes iso cables, go directly to step 5*.

6. Cable Preparation - Step 3



Step 3:

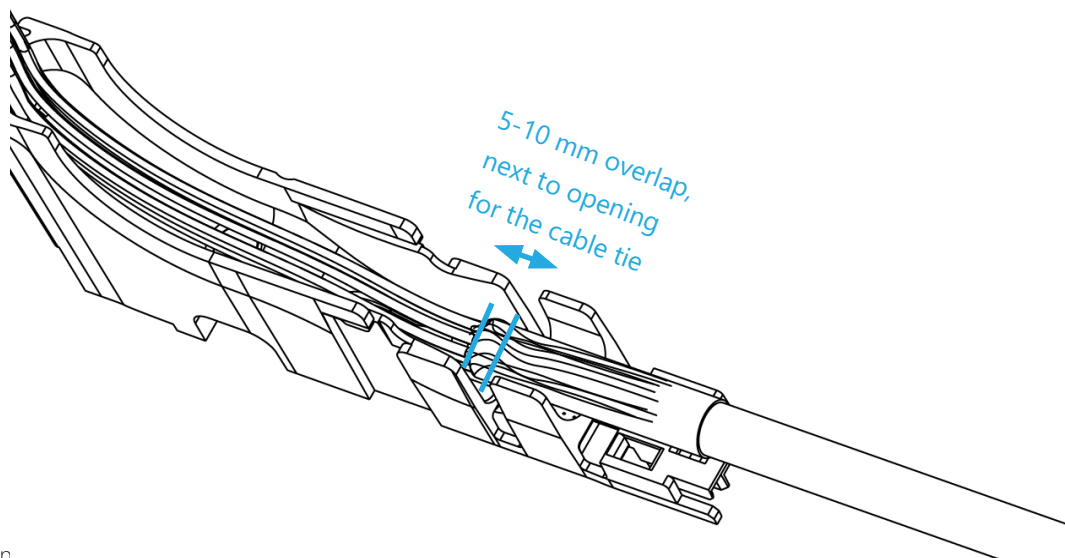
Strip the cable jacket and apply tape (1.5 loops around the cable(s)). Make sure that you have a minimum of 240 cm of stripped cable left. ***Always use the Central Strength Member (CSM) if possible (2 CSM's max). If not possible use aramid yarn.***

If CSM(s) can be used: cut these at 60-65 mm.

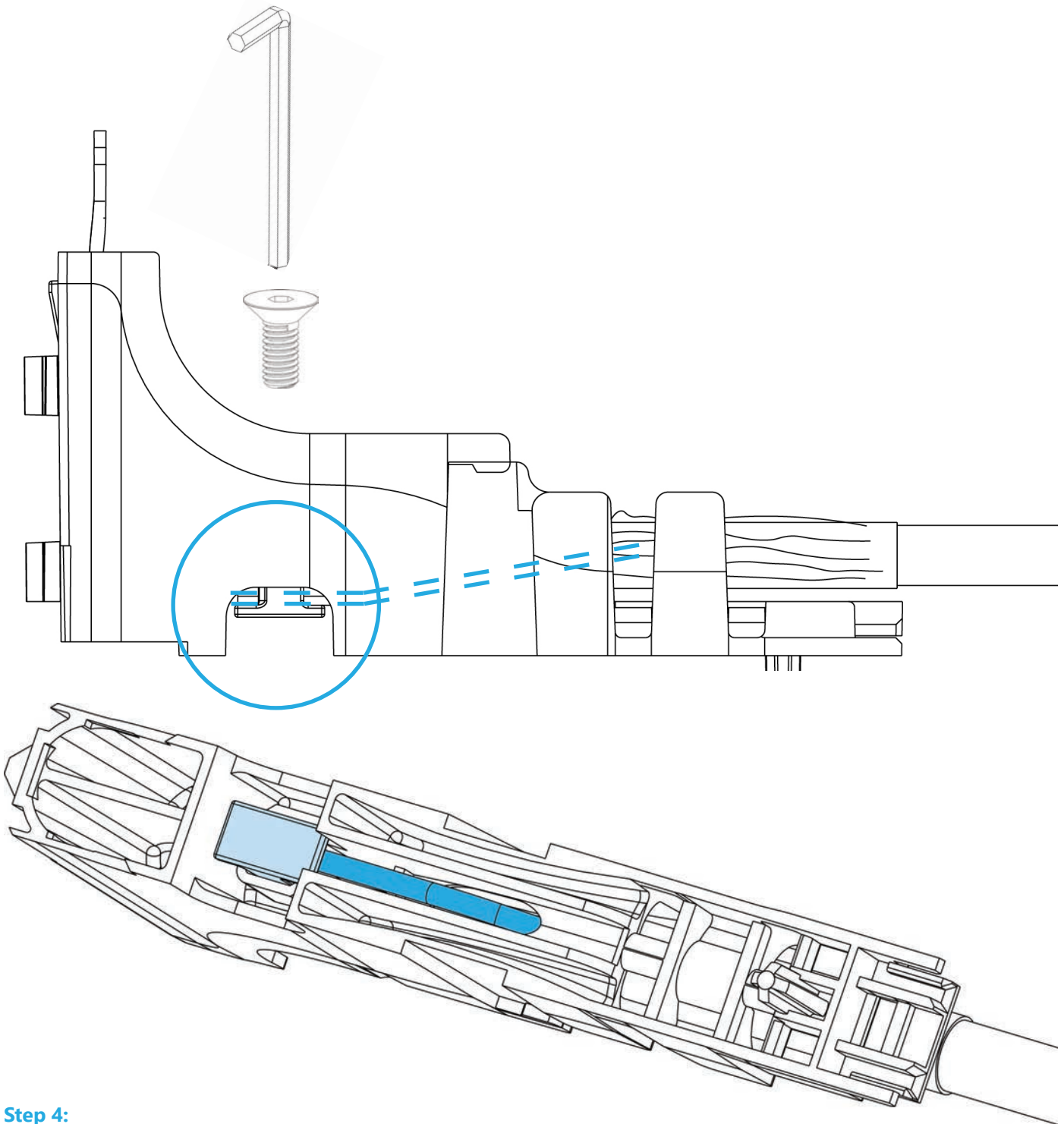
If CSM can't be used: cut these at the stripping point.

Cut the aramid yarn at 40-50mm of the stripping point and position over tape as illustrated.

Position the cable in the CTU:



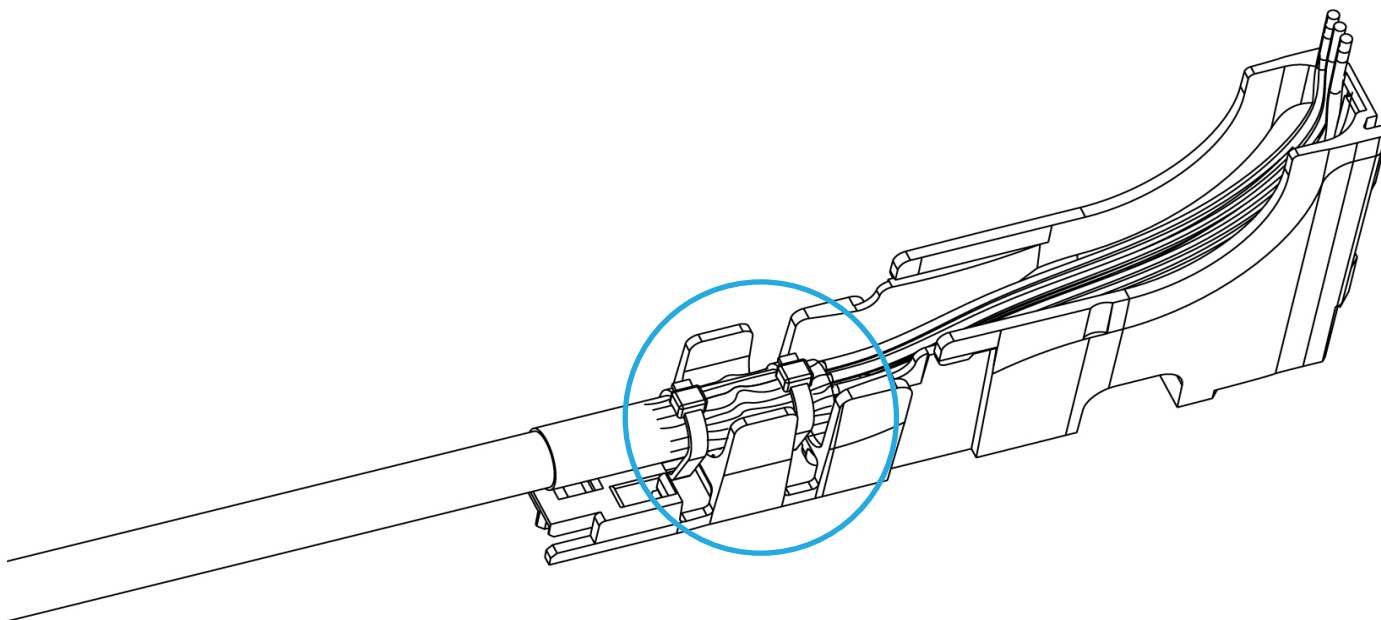
7. Strength Member Fixation - Step 4



Step 4:

Loosen the bolt of the strength member holder and position the prepared cable in the cable bracket. Feed the strength member through the strength member holder. Retighten the bolt on the other side (the strength member should be secured now).

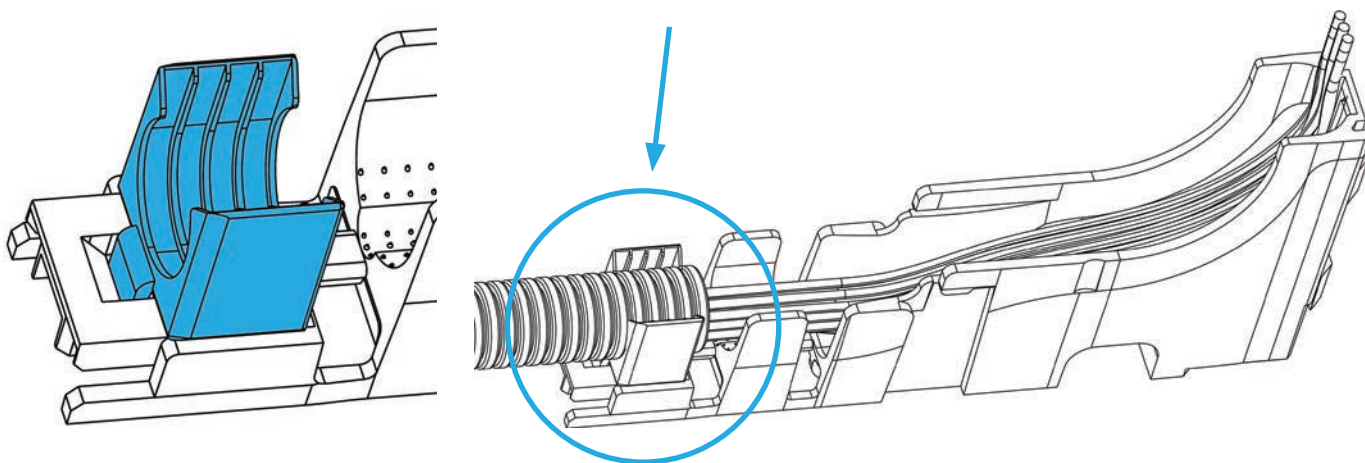
8. Cable / Flex Tube Fixation - Step 5



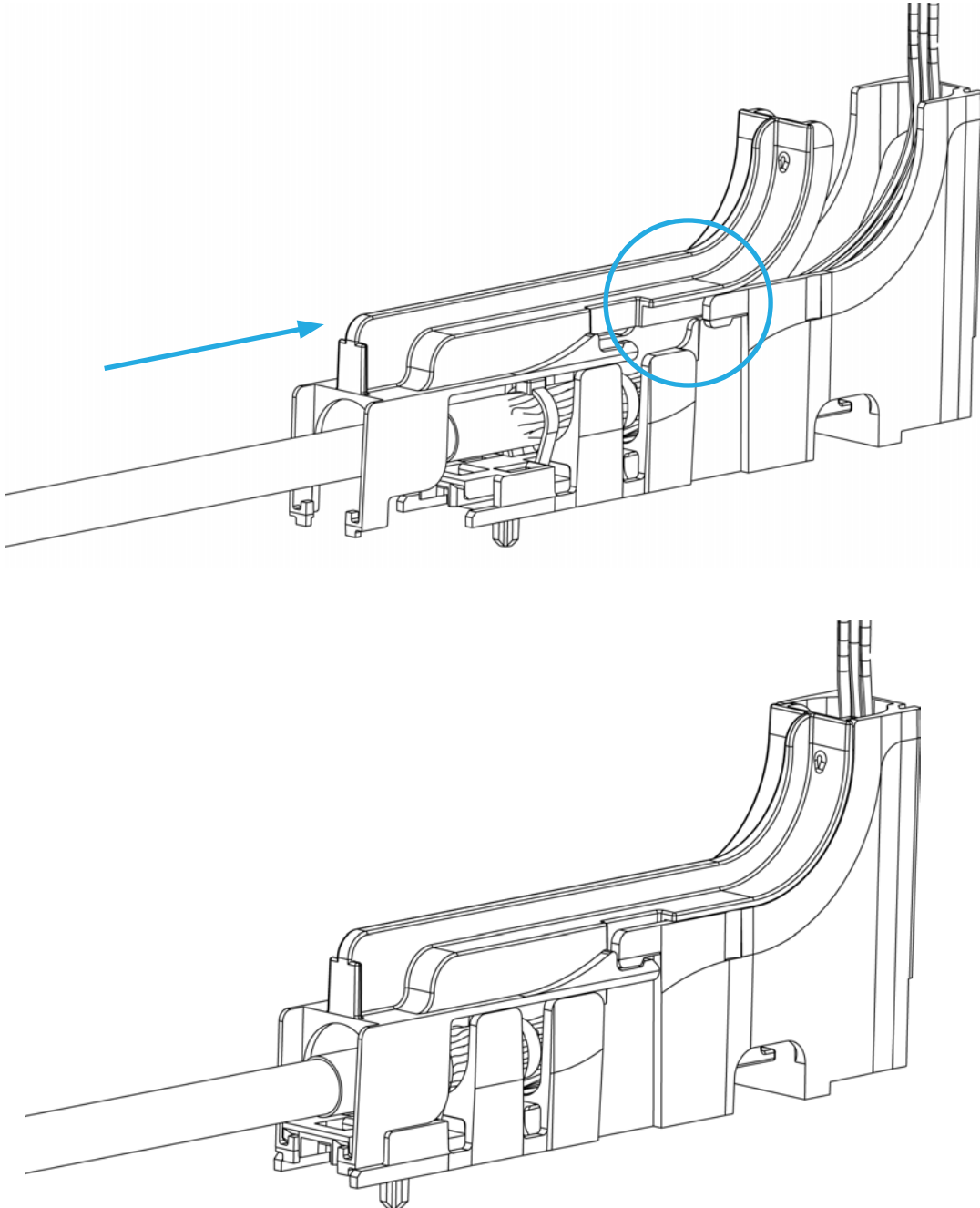
Step 5:

Apply 2 cable ties to secure the cable. The aramid yarn should be positioned between the cable ties and the tape.

* If a 16mm flextube (iso incoming cable) is used, the flextube holder should be mounted on the cable bracket. The flextube is mounted in this holder (sliding it in from the top).



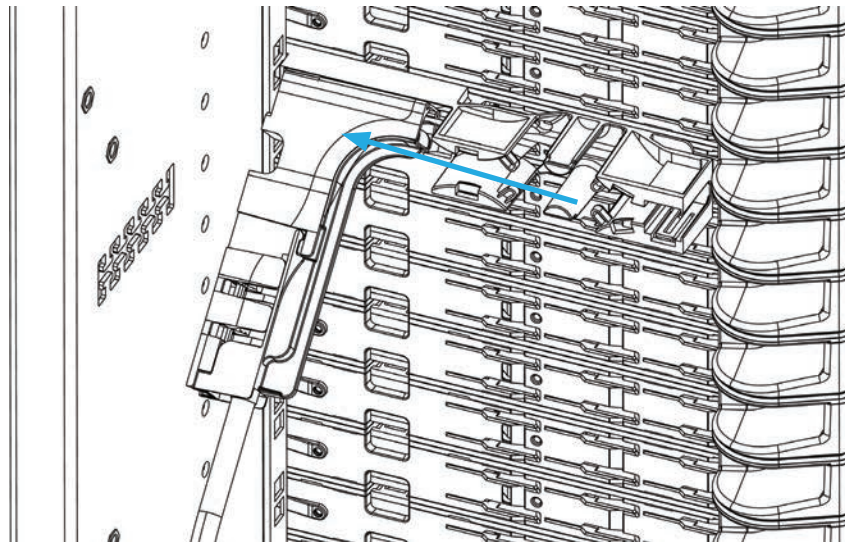
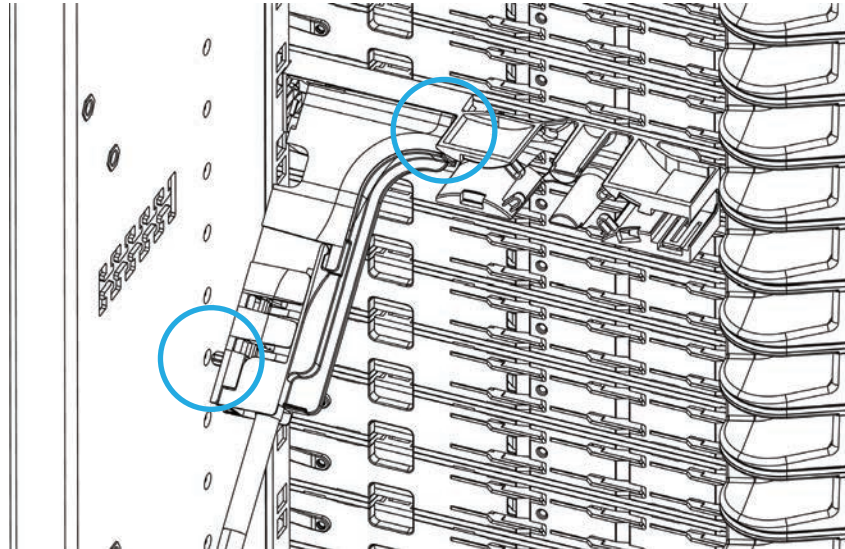
9. Cable Bracket Cover Installation - Step 6



Step 6:

Align the cable bracket cover in the slot of the cable bracket. Slide it to the front until it "clicks". Be careful that no tubes or fibers are pinched between the cover and the bracket.

10. Cable Bracket On Base - Step 7



Step 7:

Align the cable bracket in the base at an angle of 45°. Push and slide the bracket towards the back of the base until it clicks. Make sure that the alignment pin (at the bottom of the cable bracket) is inserted in the hole (backside of the frame).

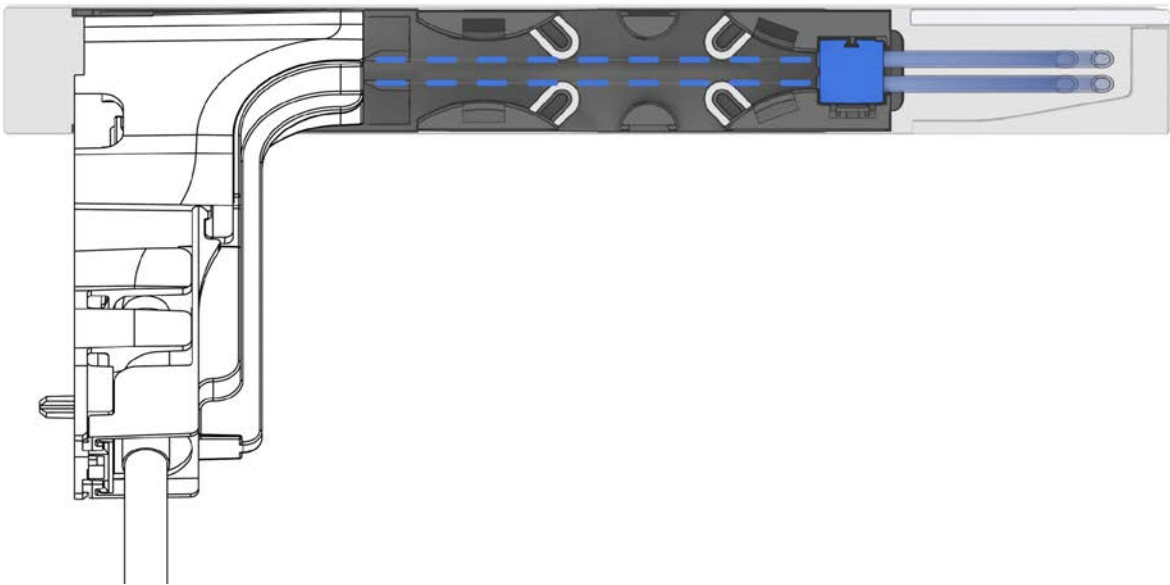
In this example, the incoming cable is coming from the bottom. So here a 45° angle / down is used.

11. Routing Loose Tubes Over Elements - Step 8

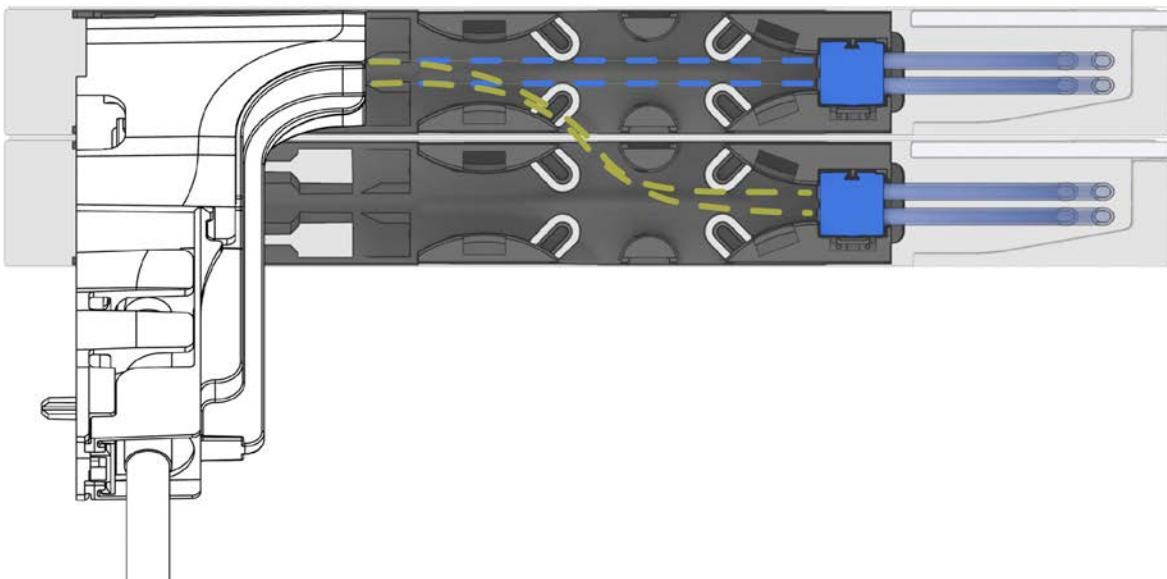
Step 8:

Depending on the configuration, the incoming cable(s) / flex tube(s) will be routed over the FACT elements. These illustrations show the recommended routing routes for the loose tubes over the FACT elements.

Routing over one element:

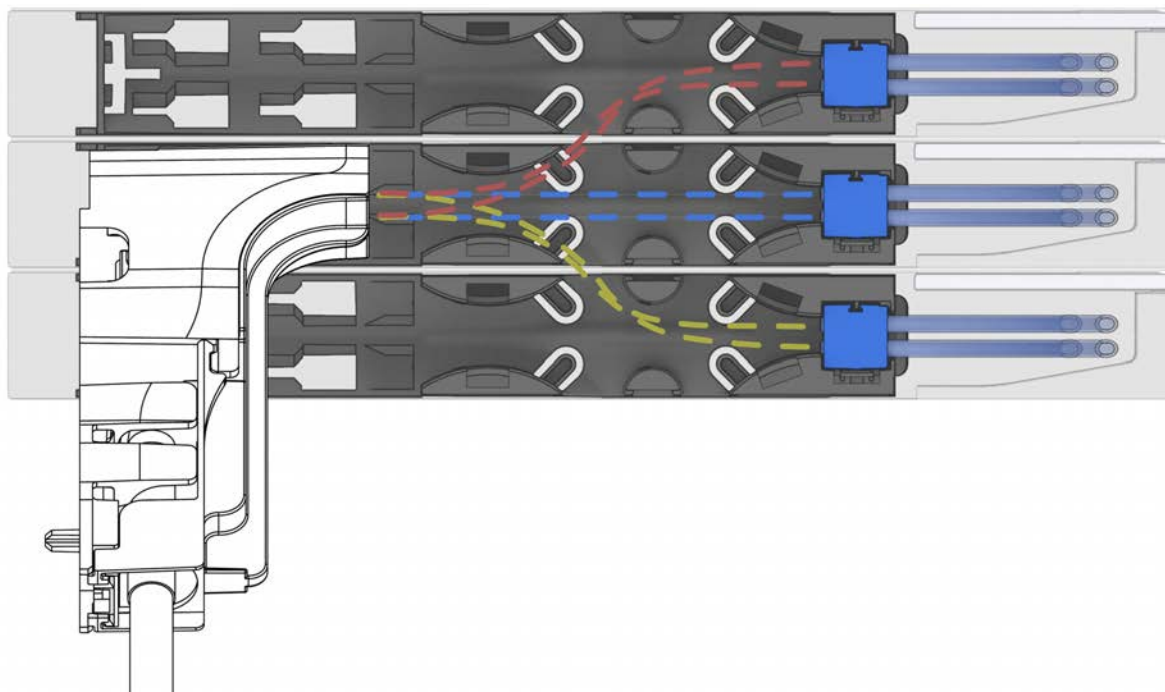


Routing over two elements:

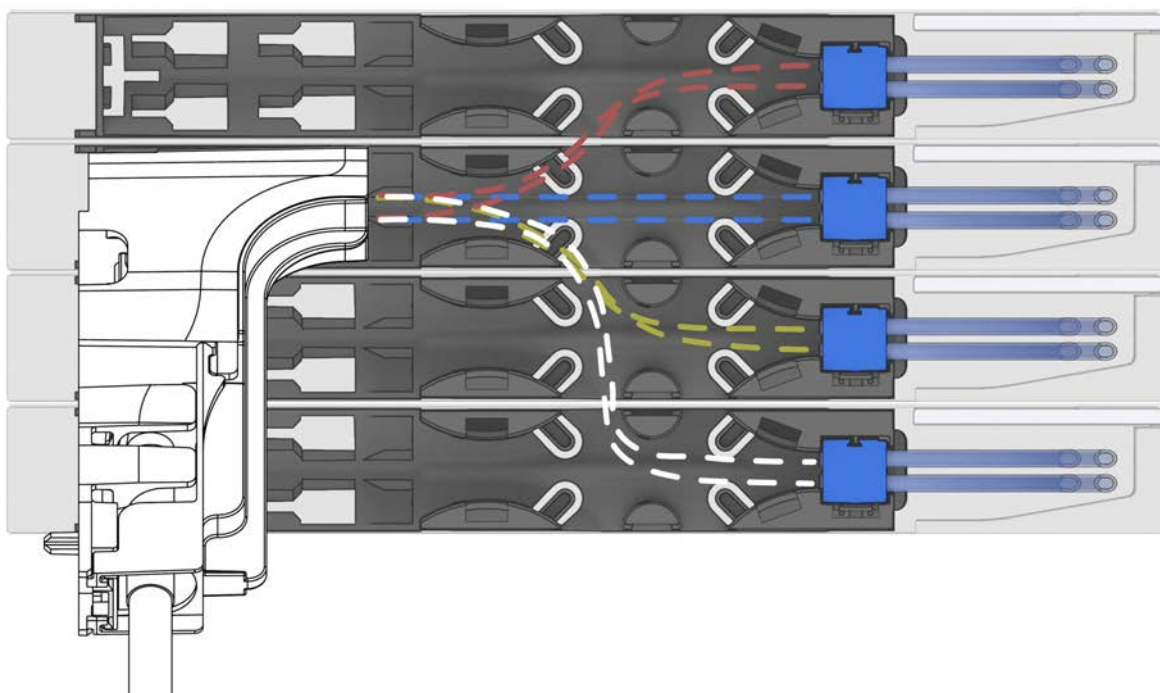


11. Routing Loose Tubes Over Elements - Step 8

Routing over three elements:

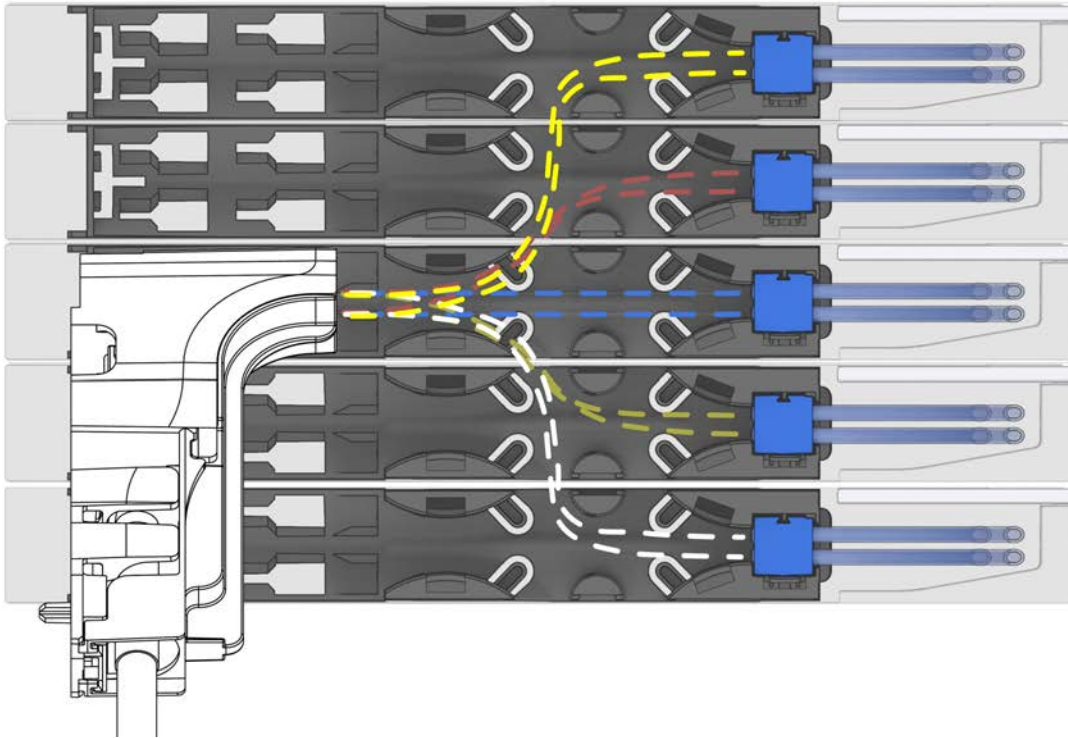


Routing over four elements:

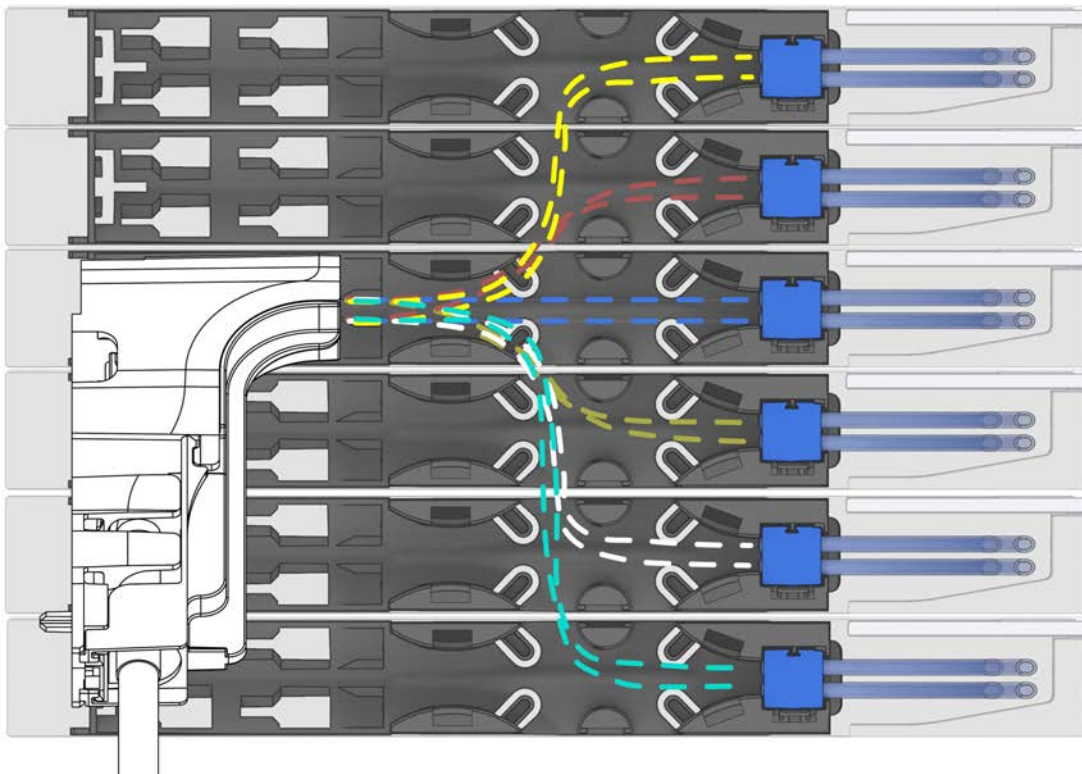


11. Routing Loose Tubes Over Elements - Step 8

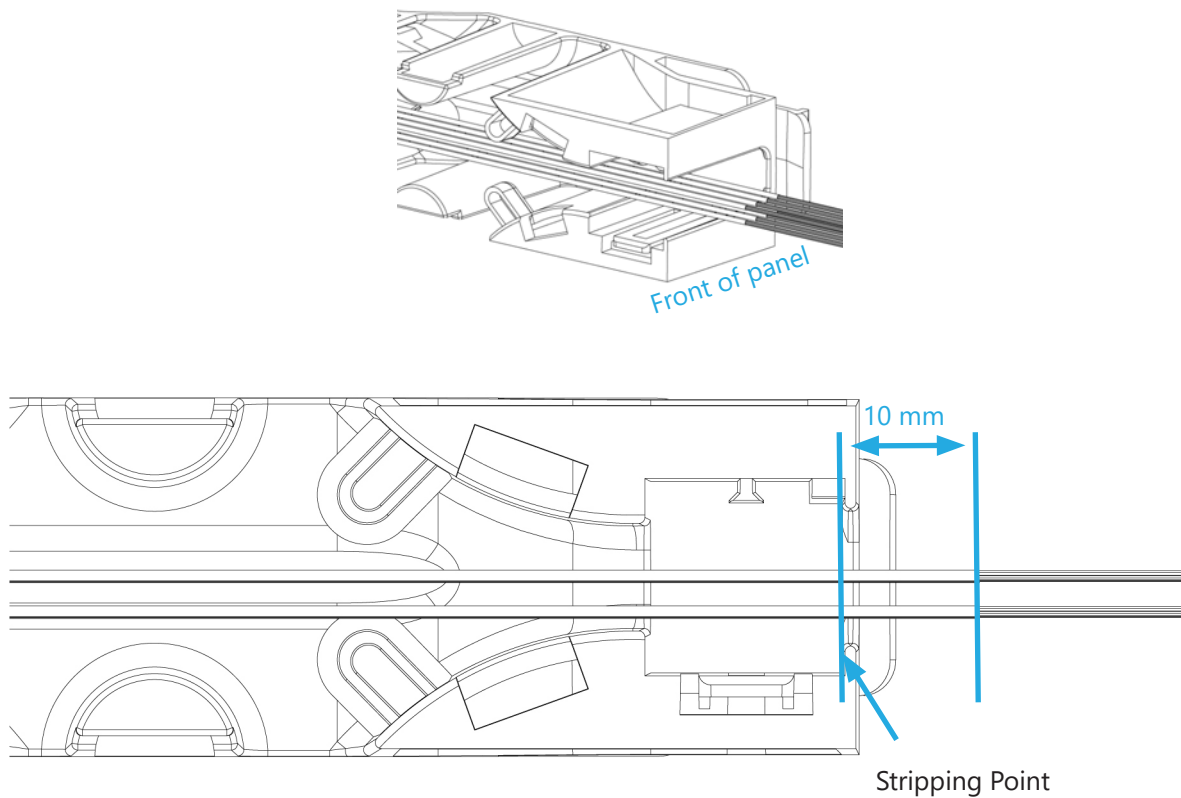
Routing over five elements:



Routing over six elements:



12. Stripping the Loose Tubes - Step 9



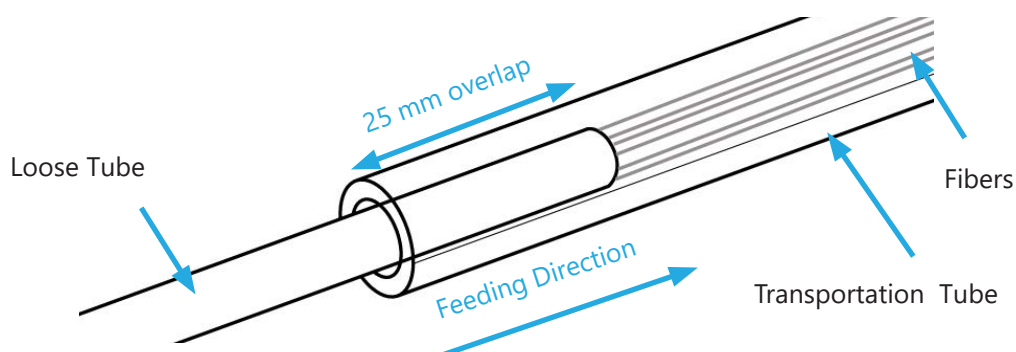
Step 9:

Strip the loose tubes as illustrated, at 10 mm of the stripping point. The unstripped part of the loose tube has to be 25 mm in the transportation tube (when installed in the final position). Start feeding the fibers through the transportation tube.

13. Feeding Fiber Through Transportation Tubes - Step 10

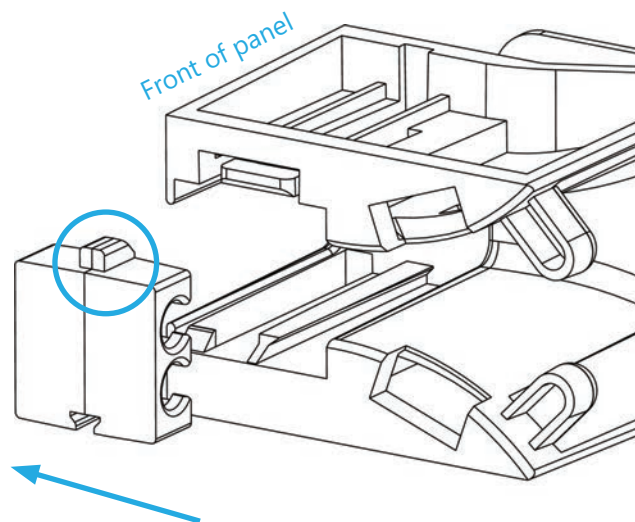
Step 10:

The unstripped part of the loose tube has to be 25 mm in the transportation tube (when installed in the final position). Start feeding the fibers through the transportation tube.

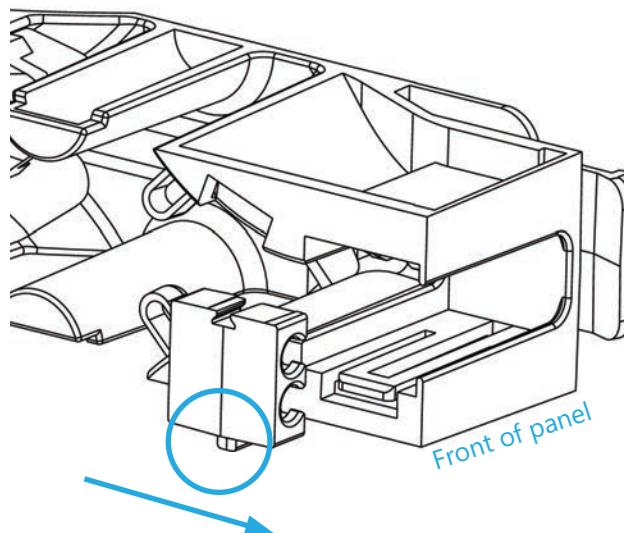


14. Installing Transportation Tubes on CTU - Step 11

Left Hand Patch Configuration

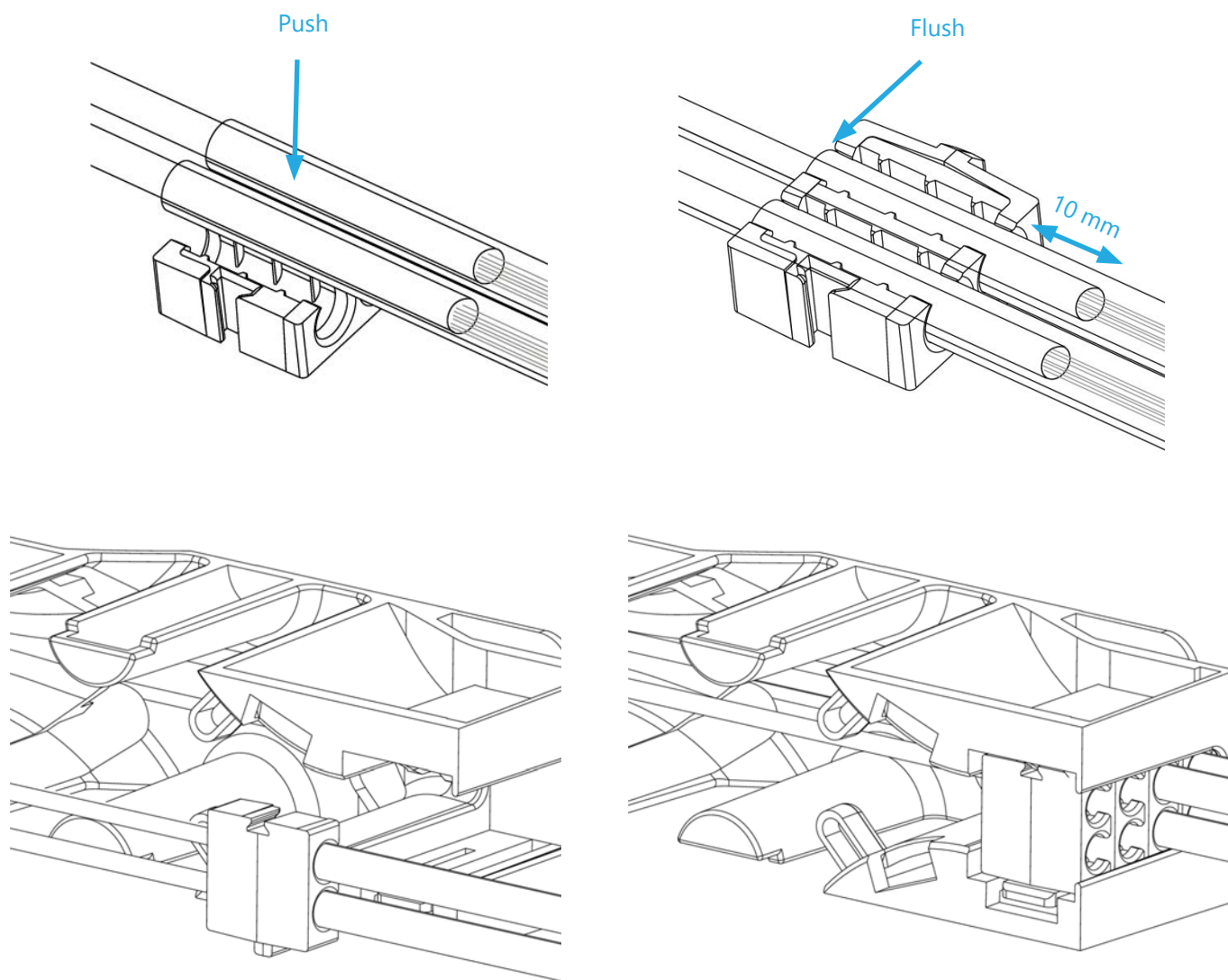


Right Hand Patch Configuration



Step 11a:

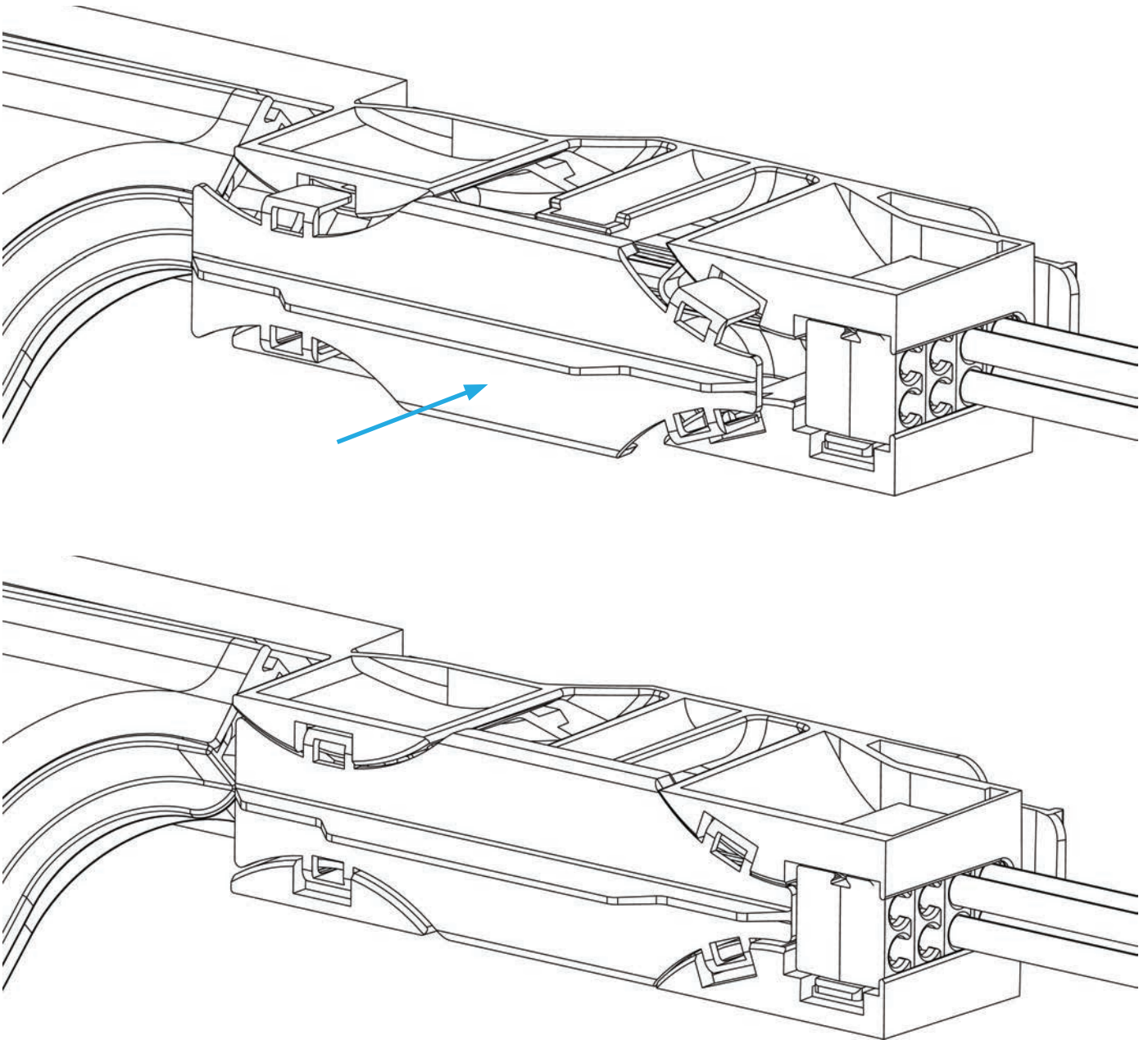
Before installing the transportation tubes in the tube holders, determine the configuration. The openings in the tube holders should face the inside of the base when installed. The layout of the tube holder is not symmetric. Look at the notch and dove tail to be sure it will be installed correct. The arrow indicates the direction of the transportation tubes, leaving the base.



Step 11b:

Push the transportation tubes in the tube holder as illustrated (flush with the inner edge of the tube holder). Two transportation tubes per holder. Depending on the configuration some tube holders will have no transportation tubes. Slide in the tube holders with transportation tubes first, then fill it up with empty tube holders.

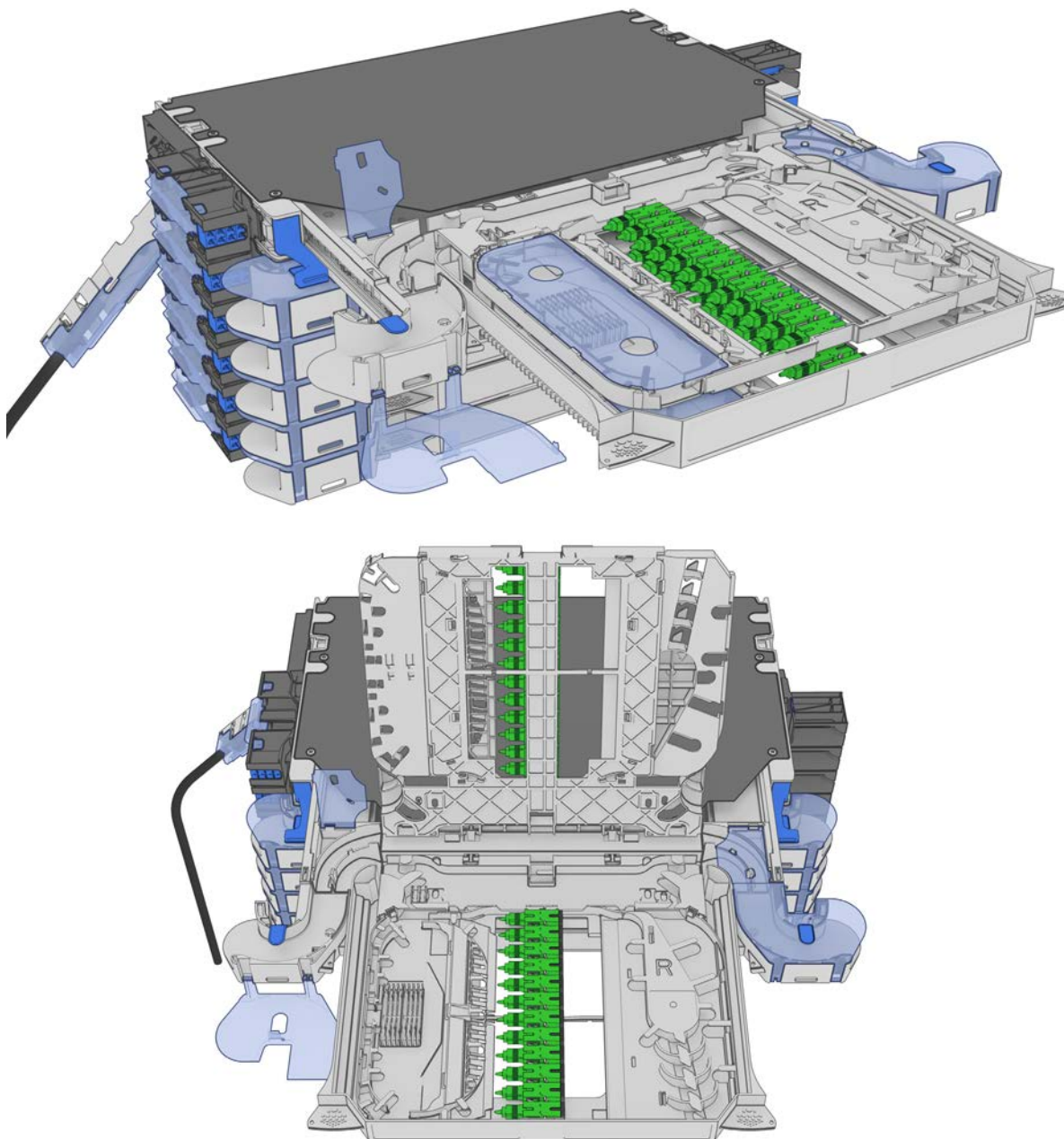
15. Mounting Fanout Cover - Step 12



Step 12:

Mount the fanout cover(s) on the base(s) by pushing it on, until you hear a “click”.

16. Preparing FACT Element - Step 13

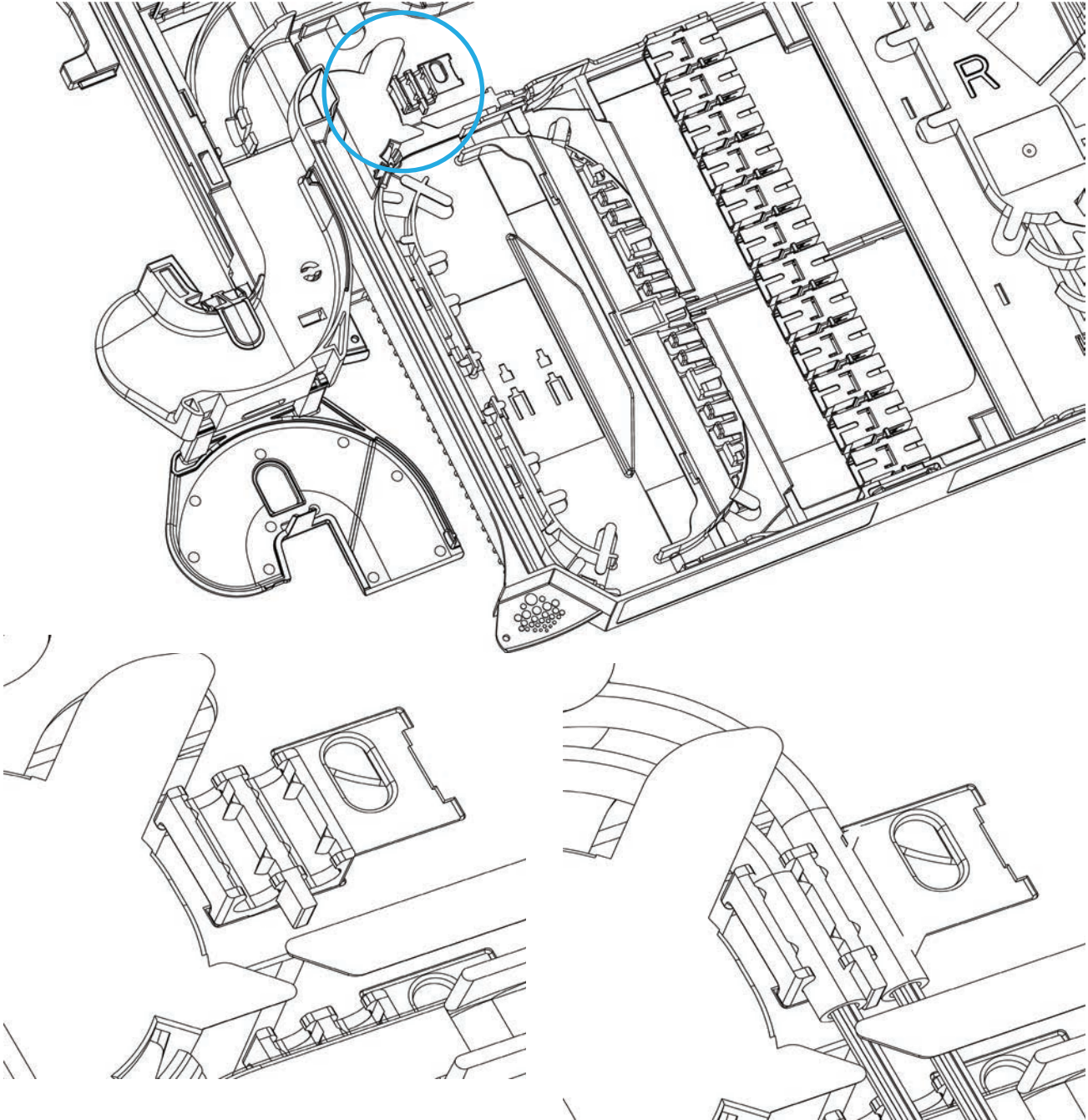


Step 13:

Slide out the preferred FACT element and open all covers (the retaining feature in the front bend control can be opened as well, if needed). Rotate the top tray to a 90° position (remove the cover of the splice island).

* A Right Hand Patch SC FACT element is shown here.

17. Mounting Tray Tubeholder - Step 14

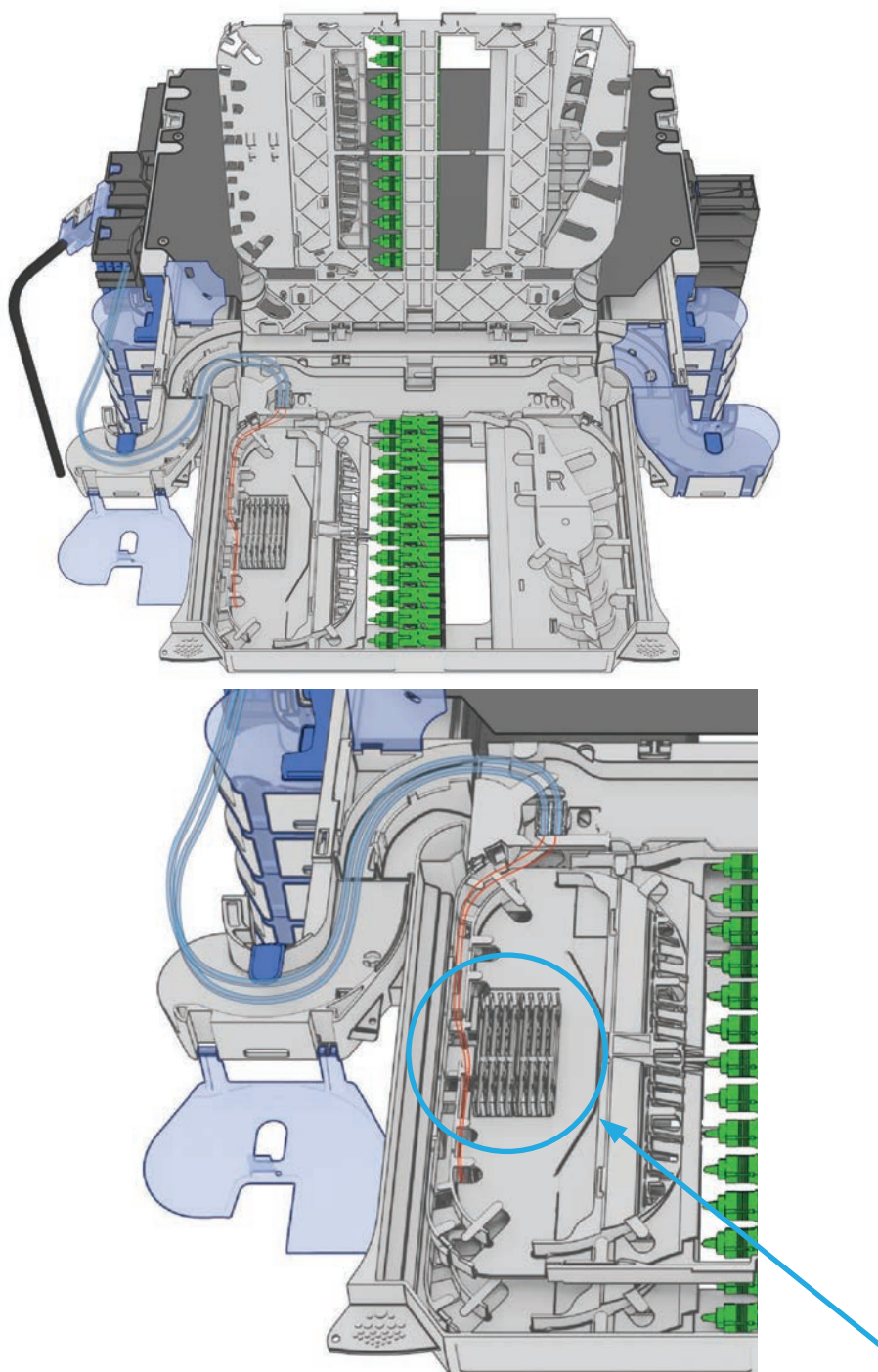


Step 14:

Mount the other type of tube holder, by clicking it in from the top. Use the inner position (closest to the bend control) with the "extruding edge in the middle", facing the front of the tray.

Guide the tubes through the channels, starting at the CTU. Push the transportation tubes in the tubeholder (route the fibers under the lip of the splice island first, to avoid damage). The end of the transportation tubes should lay flush with the extruding edge.

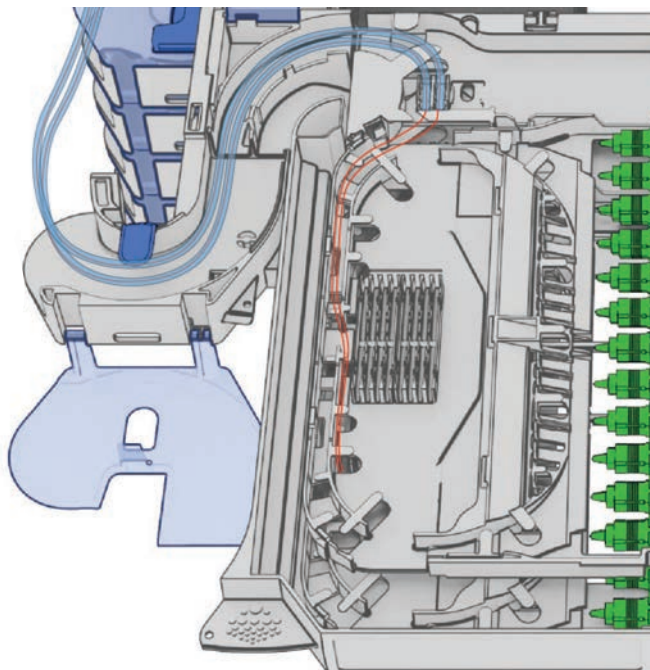
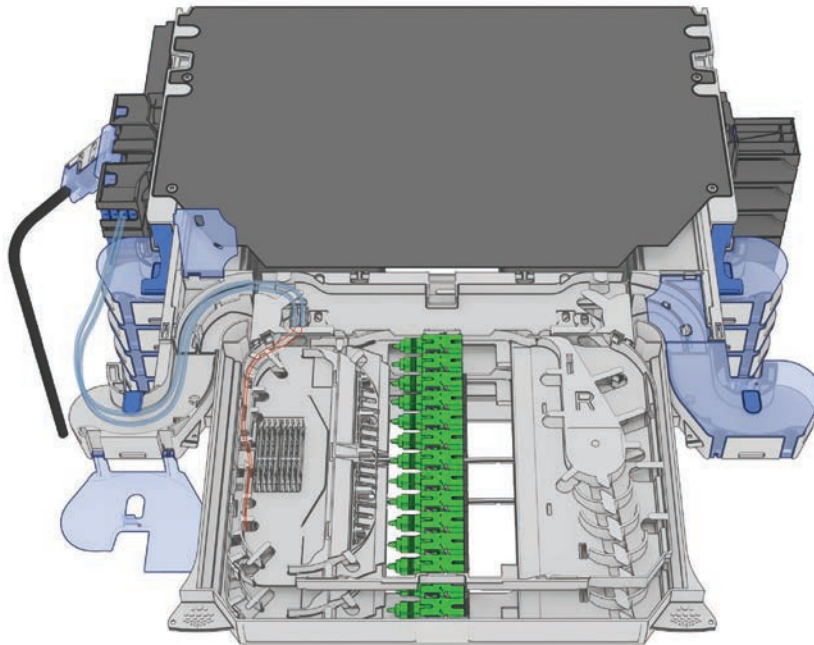
18. Routing In Bottom Tray - Step 15



Step 15:

Guide the fibers in the splice island. Make sure the fibers follow the correct path. Take the fibers out of the splice island, splice them and reroute them in the splice island. Remount the cover on top of the splice island.

19. Routing In Top Tray - Step 16

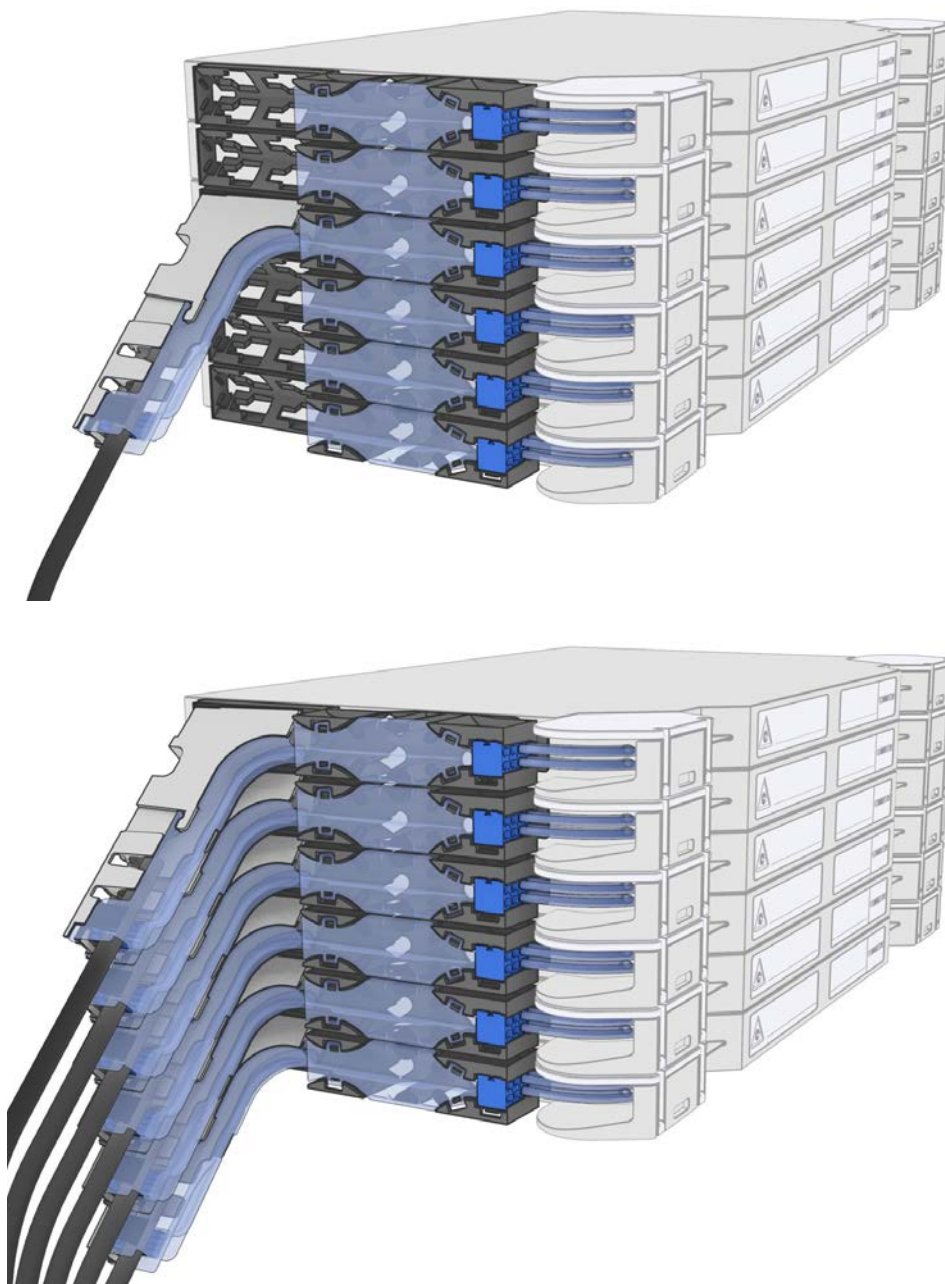


Step 16:

Close the top tray and repeat the previous steps to route the other tray in the element.

Close all covers and slide back the tray to its original position.

20. Result - Step 17



Step 17:

This can be a possible end result. The top illustration shows a configuration with a fanout cable that is wired out over six FACT elements. The bottom illustration shows a configuration with six fanout cables that are wired out over six FACT elements.

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