

Gel-sealed in-line fiber optic closure

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1 General

1.1 Installation Instruction description

The installation instruction describes the necessary steps to install the FOSC-350C.

The installation instruction illustrates the use on loose tube cables. If other cable types (slotted core or central core) are used, supplementary installation steps have to be made. Contact the local agent to get the relevant accessories and instructions.

1.2 Product description

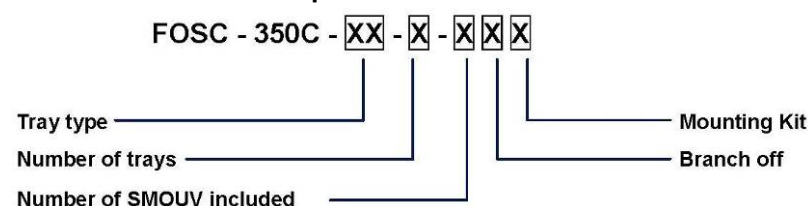
The FOSC-350C in-line closure is a gel-sealed fiber optic splice closure designed for cable joint applications in the telecom outside plant network. The closure has maximum splicing capacity of 96 splices and is suitable for deployment in aerial, underground or direct buried environments. Sealing is achieved via built-in gel technology, resulting in extremely convenient re-entry and re-sealing. The closure has four cable ports, two on both sides.

2 Sizing and product kit information

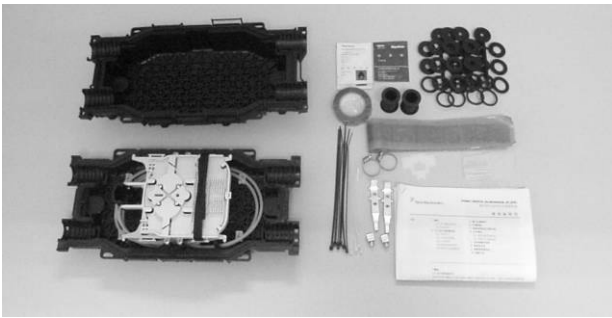
2.1 Dimensions

Cable diameter range in port	8 - 20 mm except when using 4pcs 48 trays
	8 - 17 mm when using 4pcs 48 trays
Closure outer dimension	367 x 182 x 106 mm

2.2 Part number description



2.3 Kit Content

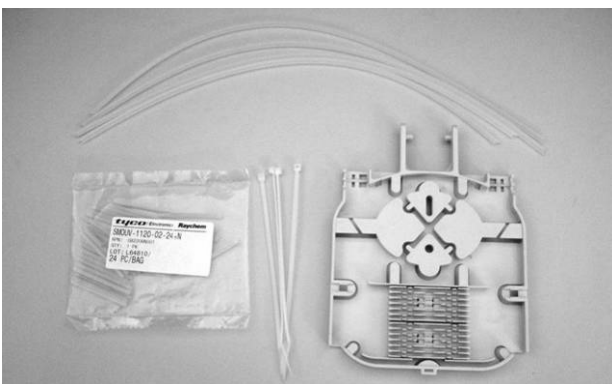


* Standard kit is listed below, alternative kits and accessories are available.

1. Body and cover
2. Splicing tray with splice holder
3. Cable attachment bracket (2pcs)
4. Strength member lug (2pcs)
5. Cable hose clamps (2pcs)
6. Transportation tubes
7. Set of sealing blocking rings (4pcs)
8. Gel strip (4pcs)
9. Cable plug (2pcs)
10. Cleaning tissue (2pcs)
11. Installation instruction
12. Fusion splice protectors (12 or 24pcs)
13. Tie wraps (4pcs)
14. Black UV resistant tie wrap (4pcs)
15. PVC tape
16. Velcro strip
17. Wedge
18. Silicon Oil

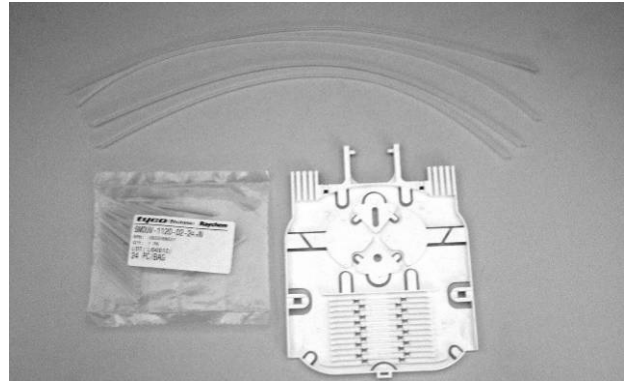
2.3 Additional tray kit

2.3.1 Tray kit – Tray 24



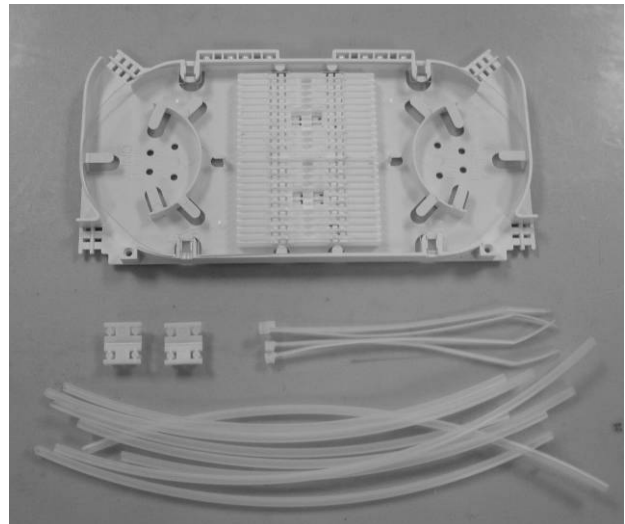
1. Splicing tray with splice holder
2. Fusion splice protectors (12 or 24pcs)
3. Transportation tubes
4. Tie wraps (4pcs)

2.4.2 Tray kit – Tray 12 (Thin tray)



1. Splicing tray
2. Fusion splice protectors (12pcs)
4. Transportation tube

2.4.3 Tray kit – Tray 48I



1. Splicing tray with splice holder
2. Transportation tubes
3. Tie wraps (4pcs)
4. Living hinge (2pcs)

2.5 Additional cable kit



1. Set of sealing blocking rings (2pcs)
2. Cable attachment bracket
3. Cable hose clamp
4. Strength member lug
5. Black UV resistant tie wrap (2pcs)
6. PVC tape
7. Cleaning tissue
8. Gel strip
9. Silicon Oil
10. Wire saddle
11. M3 screw

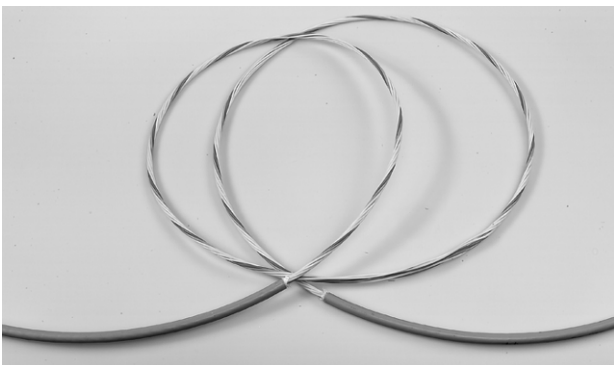
3 Installation conditions precautions

- 3.1 The closures can be installed at temperature between -5°C and 40°C.
- 3.2 Follow the installation instruction steps to ensure the performance of the closure.
- 3.3 It is necessary to take precautions and keep the working space clean to protect the closure sealing materials and splices.

4 Cable preparation

4.1 Looped cable

- 4.1.1 Make a window cut of 2600 mm.



- 4.1.2 Cut the strength member on both sides at a distance of 50 mm from the cable window cut.



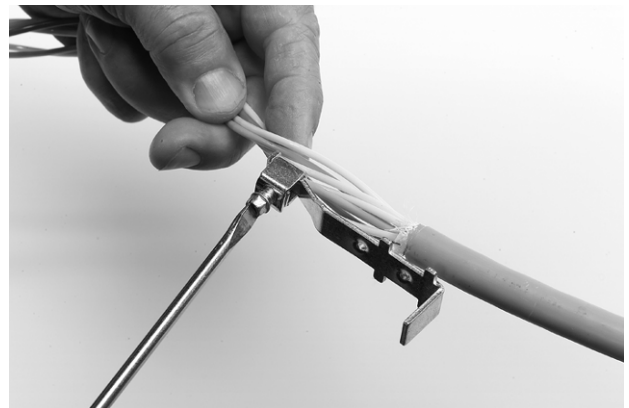
- 4.1.3 Cut the loose tube of the to be spliced fibers in the middle (1300mm) and continue the installation on 4.2.3

4.2 Drop cables

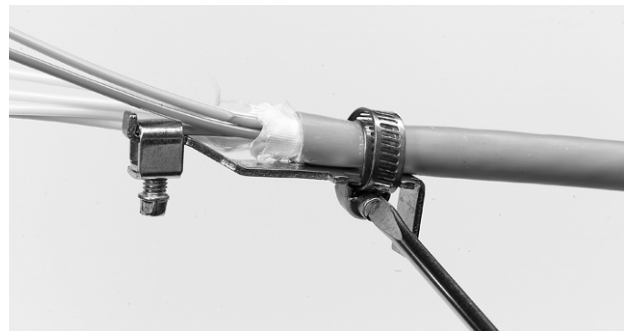
- 4.2.1 Remove the cable sheath over 1300 mm.

- 4.2.2 Cut the strength member up to 50 mm from the cable jacket end.

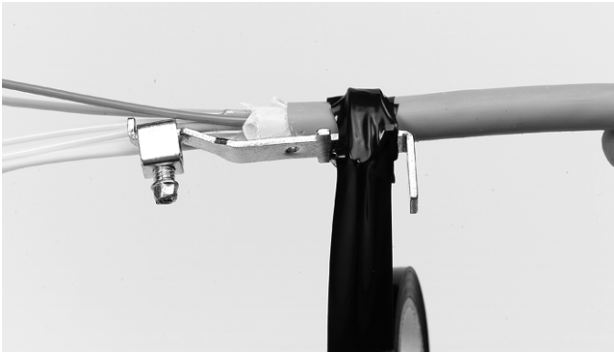
- 4.2.3 Install the strength member into the holding lug and secure the lug to the cable attachment bracket with the bolt.



- 4.2.4 Terminate and secure the cable attachment bracket to the cable sheath with the cable hose clamp.



4.2.5 Assure that the lug lip, the securing bolt and the hose clamp head are positioned downwards to the bottom of the closure. Protect the cable hose clamp and the termination with some layers of PVC tape.



5 Cable installation (closure preparation)

5.1 Clean the cable sheath with the cleaning tissue



5.2 Select the appropriate blocking rings according to the cable outer diameter. It is preferred that the blocking ring is slightly larger than the cable diameter.



5.3 Cut the selected rings on the mark.



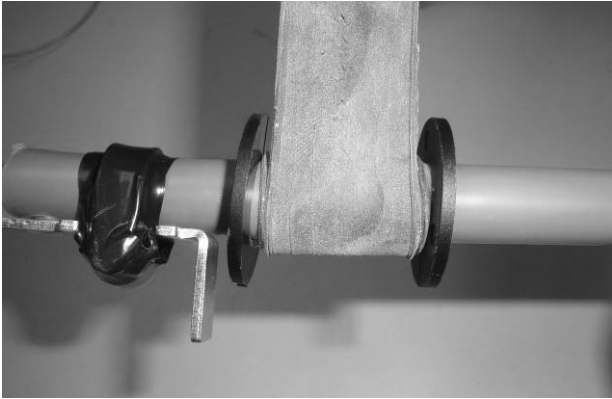
5.4 Insert the cable attachment bracket into the bracket holding slot as shown.



5.5 Mark the cable where blocking rings will be installed as shown. Install the rings over the cable with the slit positioned under the cable.



5.6 Wrap gel strip around cable between the two blocking rings. Press first part of the strip onto the cable to ensure the strip sticks to the cable firmly. Make sure the strip is wrapped smoothly without twisting between layers.



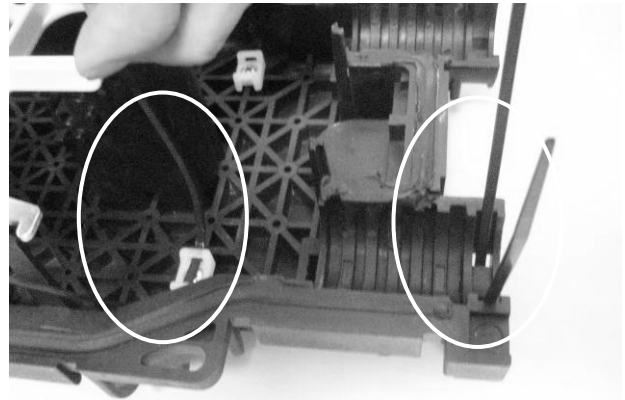
5.7 Verify with a flat tool. Continue wrapping the strip smoothly till the area between the two blocking rings is filled with gel strip.



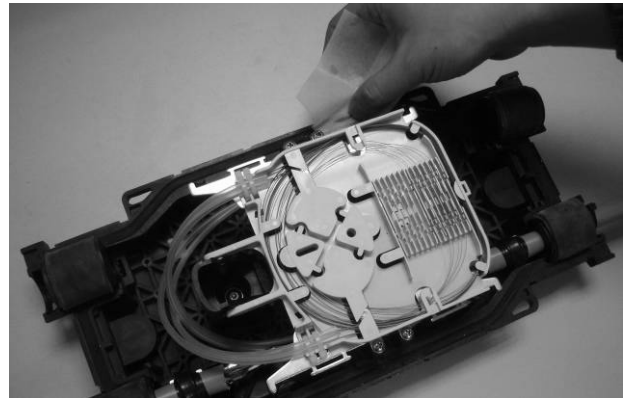
5.8 Apply unused cable ports with cable plugs. Wrap cable plug with gel strip in the same way as wrapping cable.



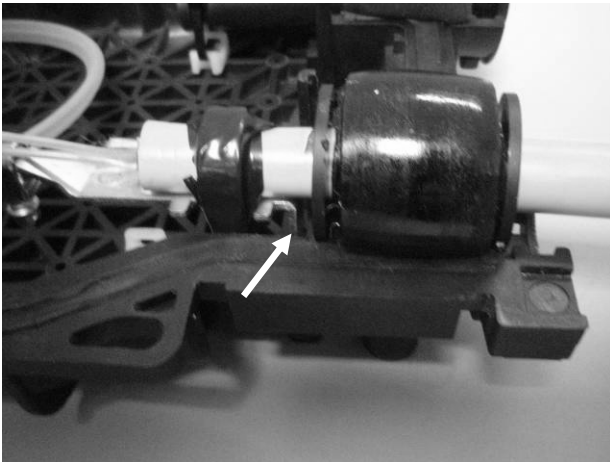
5.9 At the cable port where cable will be installed, install two pieces of black tie wraps.



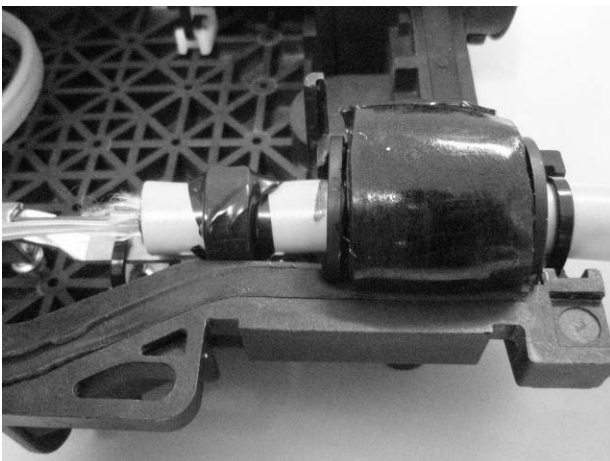
5.10 Daub the cable gel block, cable plug and gel on bottom shell with lubricant.



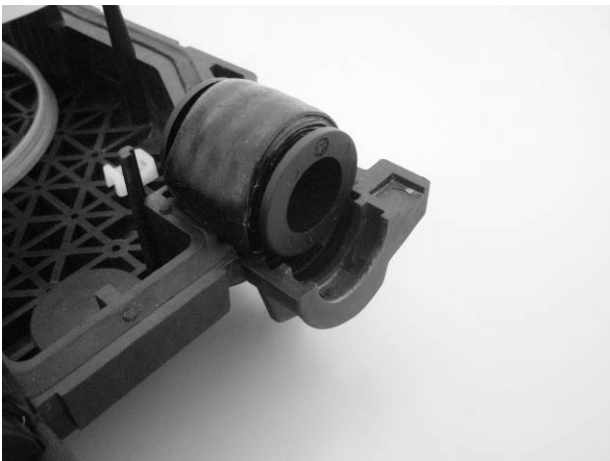
5.11 Position the cable with the pre-installed cable sealing block into the cable port and insert the cable attachment bracket into the holding slot as picture shown.



5.12 Secure the cable with the black tie wraps.



5.13 Install a cable plug (hole towards outside) in all unused closure cable ports.



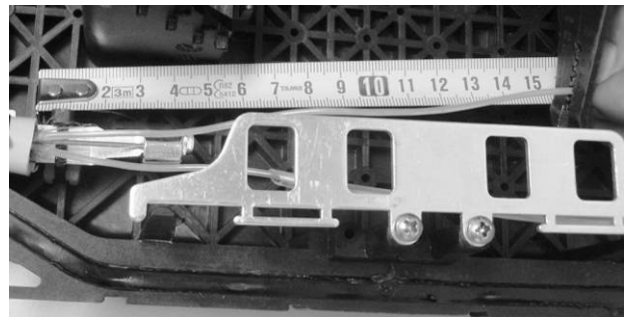
6 Fiber preparation

6.1 When using Tray 24

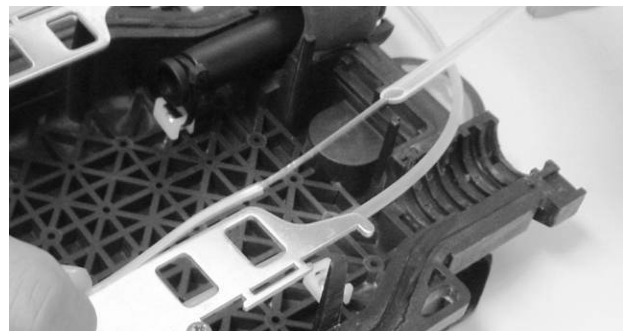
6.1.1 In case of a looped cable, coil the loops and store them in the space in front of the tower of the closure (loops can be stored around the tower as well).



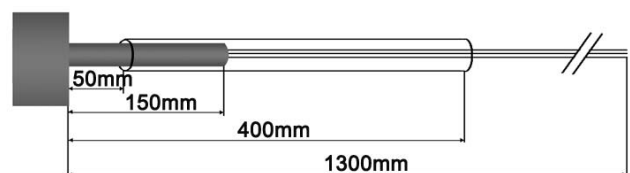
6.1.2 Remove the loose tubes of the to be spliced fiber bundles up to 150 mm from the cable jacket (see drawing 6.1.4).



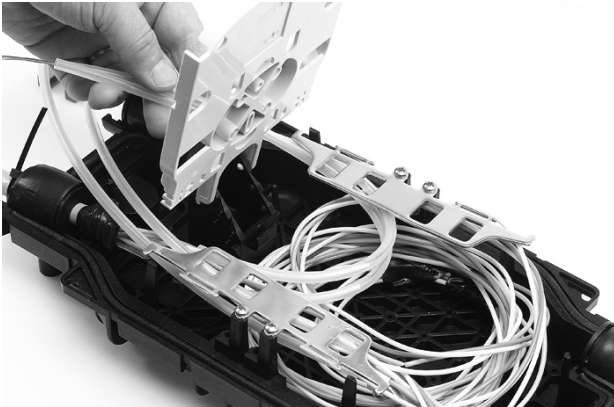
6.1.3 Degrease the fiber bundle. Slide the transportation tubes over the fibers up to 50 mm from the cable jacket end (see drawing 6.1.4).



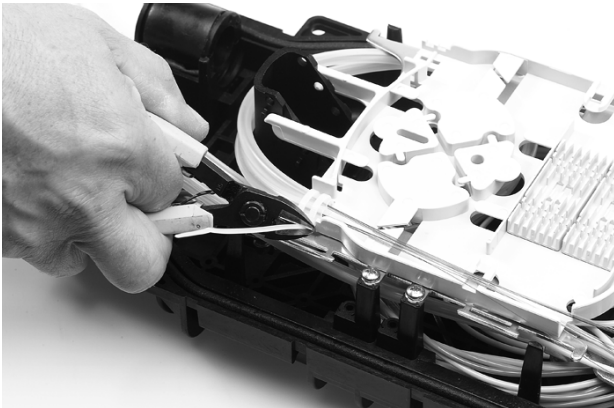
6.1.4 Sketch for tube installation.



6.1.5 Route the transportation tubes to the tray entrance. Always route the tubes around the tray tower before entering the tray.



6.1.6 Secure the transportation tube at the splice tray entrance with two tie-wraps.



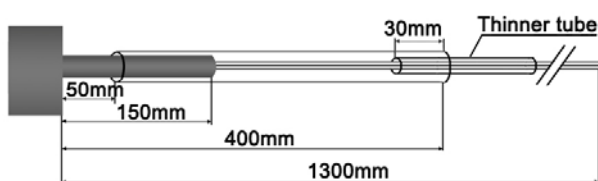
6.2 When using Tray 12 (thin tray)

6.2.1 Same as 6.1.1

6.2.2 Same as 6.1.2

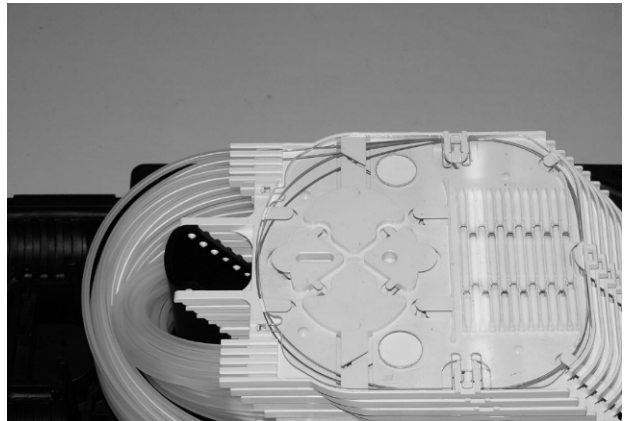
6.2.3 Degrease the fiber bundle. Slide the thicker transportation tubes over the fibers up to 50 mm from the cable jacket end and then insert the thinner transportation tube into the thicker one with overlap 30mm (see drawing 6.2.4).

6.2.4 Sketch for tube installation.



6.2.5 Same as 6.1.5

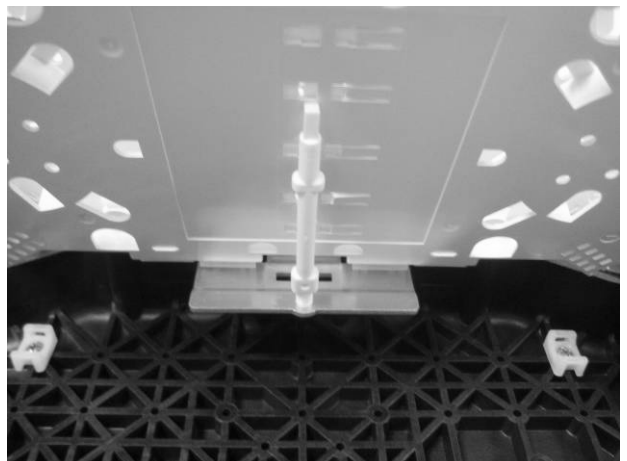
6.2.6 Insert the thinner transportation tube to the splice tray entrance directly.



6.3 When using Tray 48

6.3.1 Standard installation – installation processing at ground

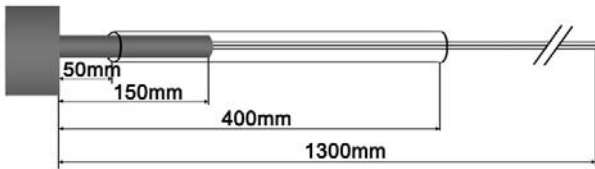
6.3.1.1 Get access to closure bottom by lifting up trays with tray wedge.



6.3.1.2 In case of looped cable, coil the loops and store them in the space under tray.

6.3.1.3 Remove the loose tube of the fiber bundles to be spliced up to 150mm from the cable jacket.

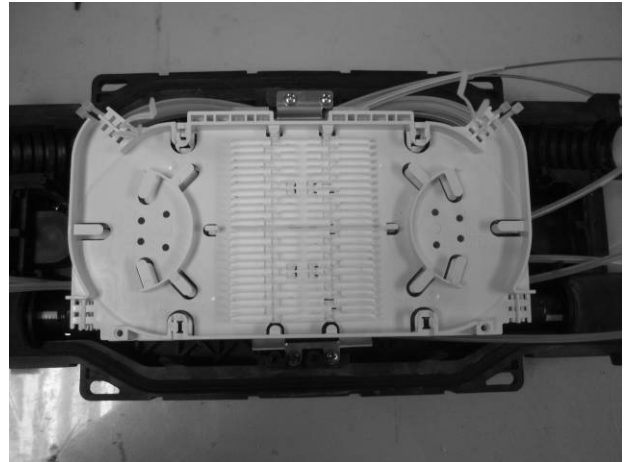
6.3.1.4 Degrease the fiber bundle. Slide the transportation tubes over the fibers up to 50mm from the cable jacket (See below drawing).



6.3.1.5 Route the transportation tubes to the tray entrance.



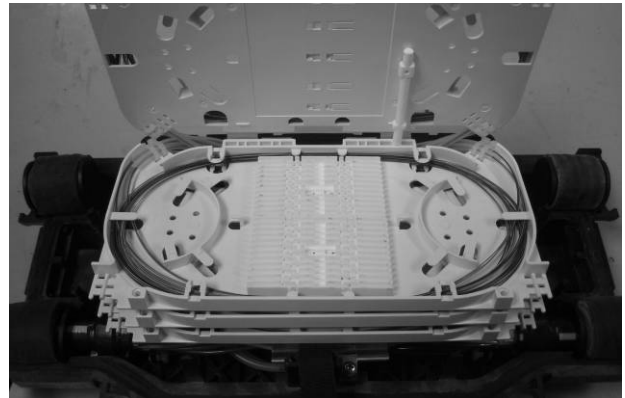
6.3.1.6 Install two piece tie wraps at each side of tray entrance.



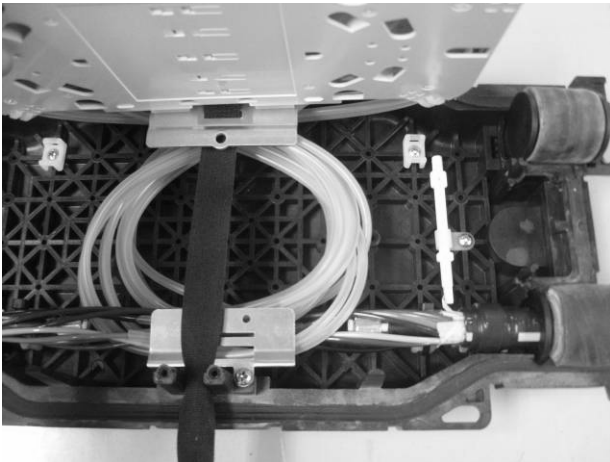
6.3.1.7 Secure the transportation tubes at tray entrance with tie wraps.



6.3.1.8 During installation on lower trays, keep the upper tray open with tray wedge.

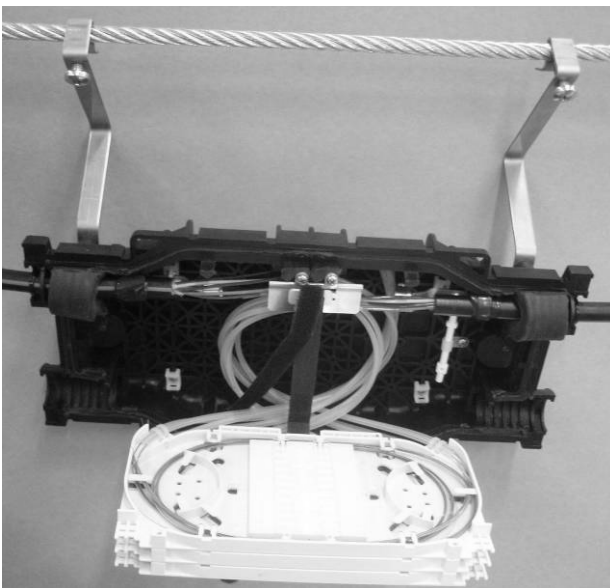


6.3.1.9 Store the tray wedge at the tray wedge holder.



6.3.2 Aerial installation – installation processing at strand

6.3.2.1 Fix closure onto strand with hanger bracket.



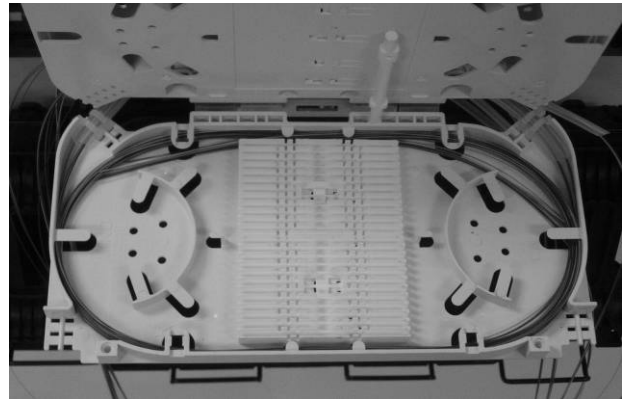
6.3.2.2 Same as 6.3.1.2

6.3.2.3 Same as 6.3.1.3

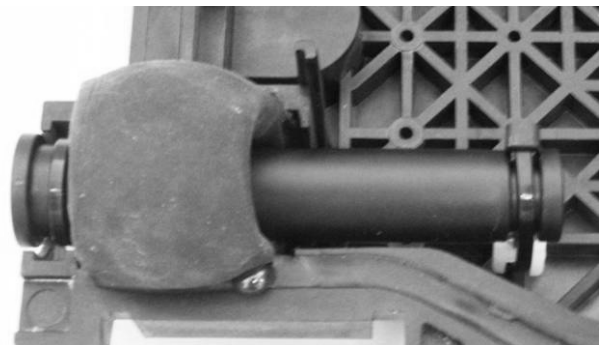
6.3.2.4 Same as 6.3.1.4

6.3.2.5 Same as 6.3.1.5

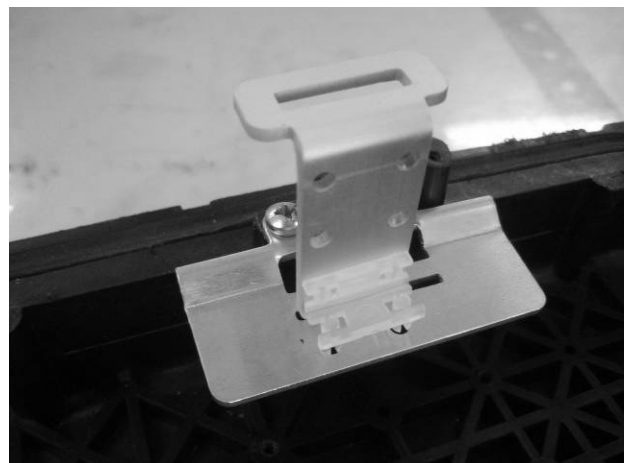
6.3.2.6 Install two pieces of tie wrap at each side of tray entrance. Secure the transportation tubes at tray entrance with tie wraps.



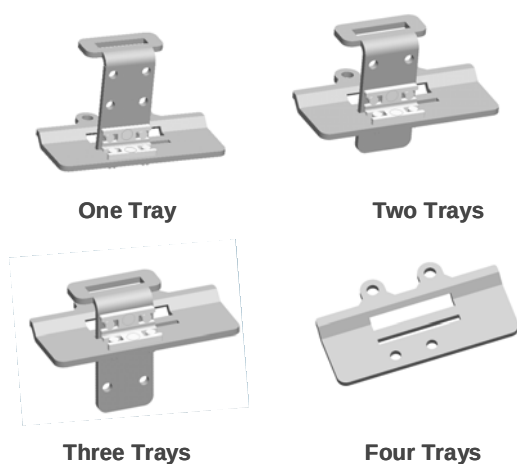
6.3.2.7 Fix cable plugs (the side with sealing block rings towards outside) in all unused cable ports with black tie wraps.



6.3.2.8 The height of tray supporting bracket at opposite to tray living hinge side is adjustable to fit with different number of trays. Remove the original living hinge, adjust the bracket to new height and fix it with new living hinge.



Note: Do this only when adding or removing trays.



7.5 In case of two or more trays, use tray wedge to keep the upper trays in upward position during installation on lower tray.



7.6 After use, the tray wedge can be stored on the tower underneath the installed trays.



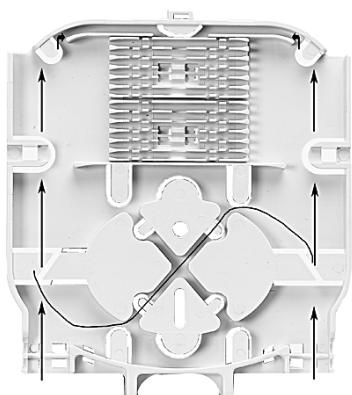
7 Splicing and fiber storage

7.1 Position the FOSC-350C close to the splicing machine in a convenient location and secure the closure.

7.2 Slide the heat-shrinkable splice protection over one fiber and fuse fibers according to local recommendations and procedures. After the fusion splice is made, install the heat-shrinkable splice protection (e.g. SMOUV) with an appropriate heating source. Allow the splice protection to cool down to ambient temperature.

7.3 After each splice is made, the splice should be stored in the splice holder in the appropriate position. Do not deform the splice protector during insertion.

7.4 Incoming fibers should be routed first behind the splice holder before the over-length is coiled into the tray. Route the fibers through the cross of the tray as shown.



7.7 Secure the trays by installing the Velcro strip around the trays.

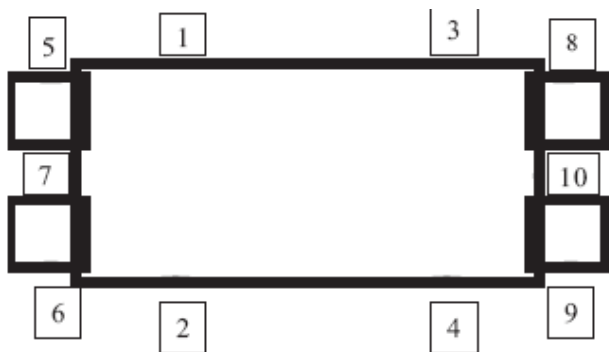


8 Closing of the closure

8.1 Close the cover by closing the latches in the proper sequence shown in 8.2.



8.2

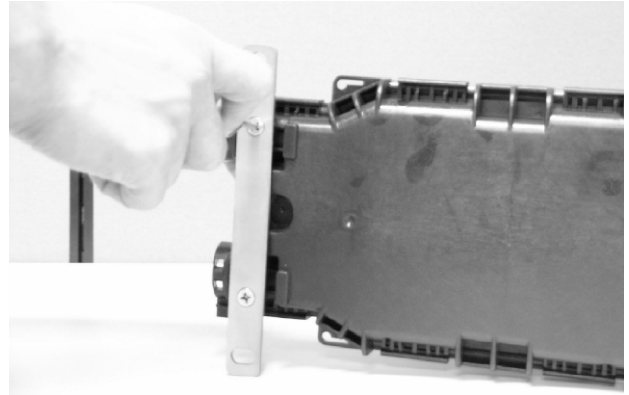


9 Field mounting of the closure

9.1 Termination on aerial cables. Use the special designed bracket to secure the closure onto the supporting wire of the aerial cable. Install the two pieces bracket facing with bowing outwards to interlock the aerial cable.

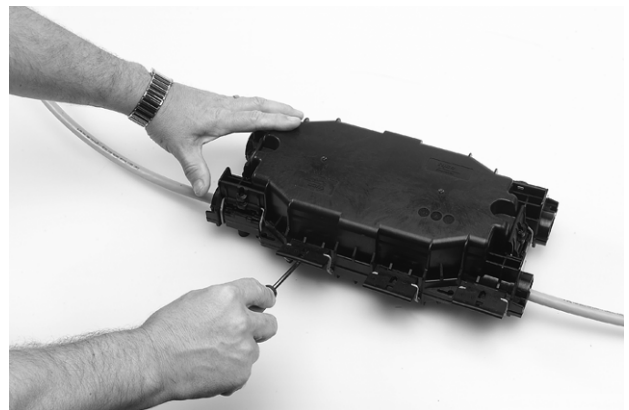


9.2 Termination in manholes. Secure the closure to the manhole frames with bolts in the provided positions on the bottom part of the closure.



10 Re-opening

10.1 Remove the latches in the reversed order as described in 8.2.



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