

Fiber Optic Splice Closure

Content

1 Introduction

2 General

- 2.1 Abbreviations
- 2.2 Kit content Unit
- 2.3 Tools
- 2.4 Accessories

3 Installation of the closure

4 Cable installation

- 4.1 Looped cable preparation
- 4.2 Drop cable preparation
- 4.3 Cable + strength member termination
for drop and looped cable
- 4.4 Installation of the closure

5 Installation of the gel block

6 Fiber routing to individual trays

- 7.1 Fibers routing to the trays (looped cable and track)
- 7.2 Fibers routing on the trays

7 Shield continuity

8 Closing the closure

9 Important steps

1 Introduction

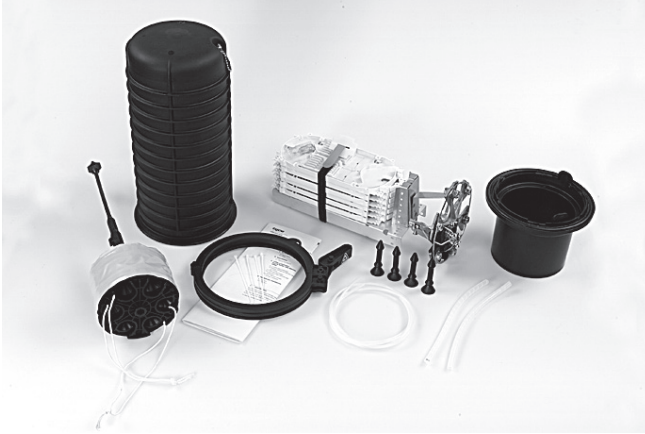
The FOSC-450 is an environmentally sealed enclosure for the fiber management system that provides the function of splicing in the external network.

The FOSC-450 has provision for all cable terminations and sealing requirements.

The closure is a single ended design made of a thermoplastic material. The base and dome are sealed with a clamp, pre installed Gel-O-ring system. For cable sealing, a wrap-around block with 6 ports is used that contains a pre-installed gel profile. One can terminate 6 cables, with a diameter of minimum 9 mm and maximum 25 mm. It can be opened and closed repeatedly without the need to replace the gel.

2 General

2.1 Kit content



- Dome
- Base with Gel-O-ring system
- Cable attachment plate with tower and tray pre-installed
- Gel block with trigger
- Clamp
- 2 cable retention devices
- 4 plugs for unused ports
- 6 Locking cable attachments
- Silicagel
- Trays with covers and hook and loop fastener (max. 6)
- Tray wedge
- Installation instruction

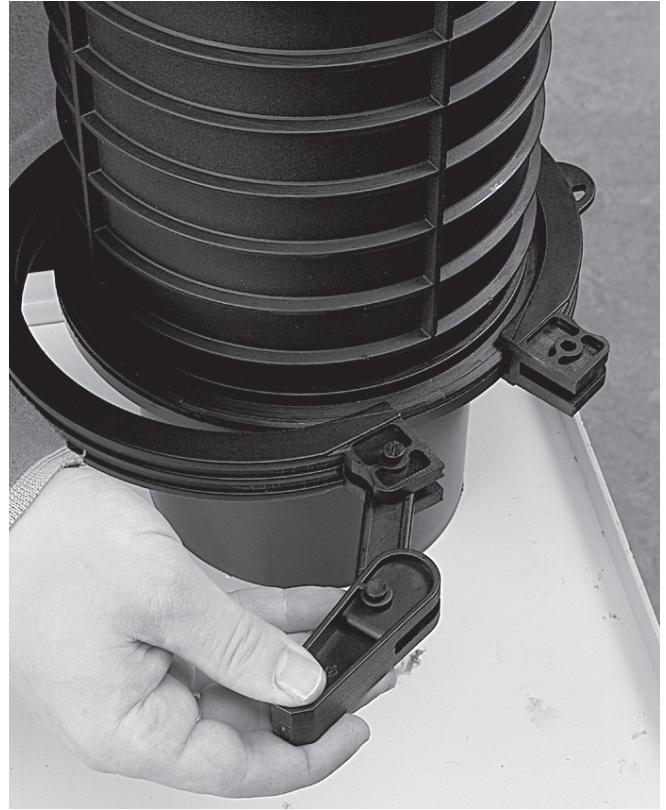
2.2 Tools

FACC-TUBE-STRIPPER-02 to strip loose tube
FOSC-450-CAPH-B/D workstand
FOSC-A/B-Pole-Mount
FOSC-A/B-Uni-Mount-A.P.R.V.

2.3 Accessories

FOSC-A-Tray-	A24	trays
	S24	
FOSC-ACC-A-Tray-	12	trays
	24	
FOSC-450-CA-S-	1	cable attachment device
	10	
FOSC-A-Shield-Con-Kit		Shield continuity wire
FOSC-FUNNEL-5+1-Kit		Kit to split central core into a loose tube construction (1 in, 5 out)
FOSC-FUNNEL-10+1-Kit		Kit to split central core into a loose tube construction (1 in, 10 out)
FOSC-450-MULTI4/7		Cable entrance kit for up to 4 cables in one port

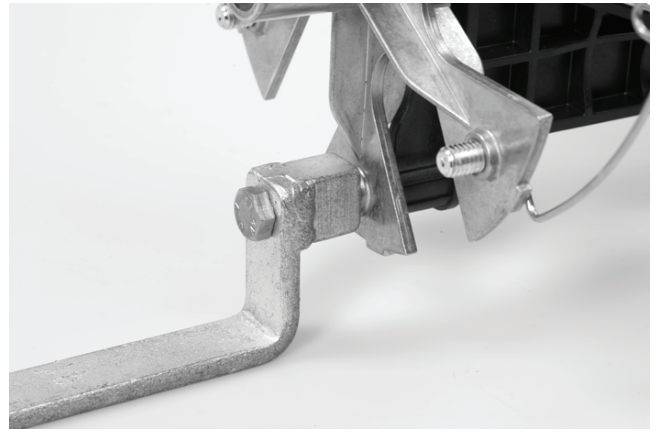
3 Installation of the closure



3.1 Open the clamp.



3.2 Remove the dome. Take out the frame.



3.3 Fix the work stand to the table. Install the frame on the work stand. There are two positions to mount it on the work stand (FOSC-450-CAPH-B/D).

3.4 Cable entrance positions
Looped cable only entrance ports 5 and 6 (see numbers on metal cross).

4 Cable installation

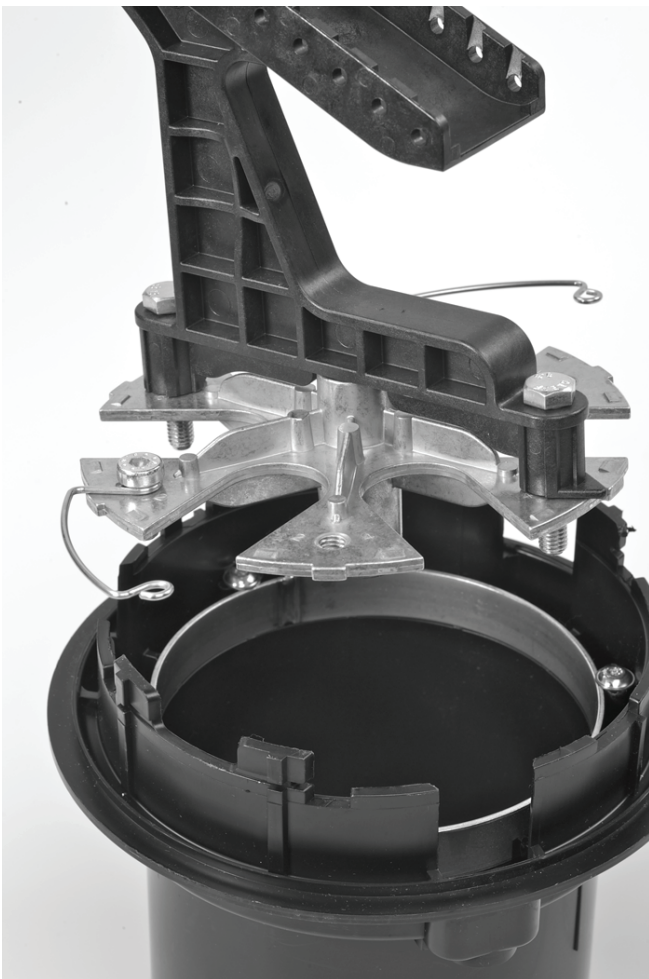
Before starting: slide the base over the cables !!

4.1 Looped cable preparation

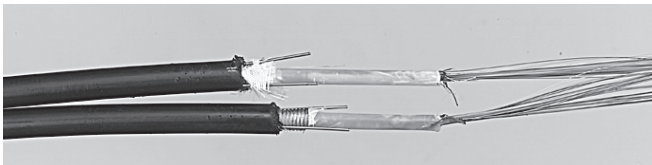
Loose tube cable



4.1.1 Make a window cut of 3.5 m. Cut the strength member at a distance of 50 mm.



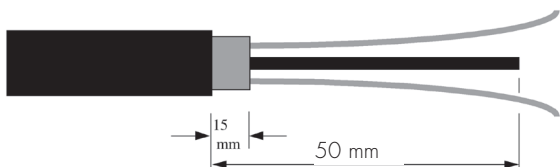
Central core cable



4.1.2 Make a window cut of 4.2 m, cut away the strength member at a distance of 35 mm from the outer jacket. Cut the inner jacket at 90 mm from the outer jacket.

4.2 Drop cable preparation

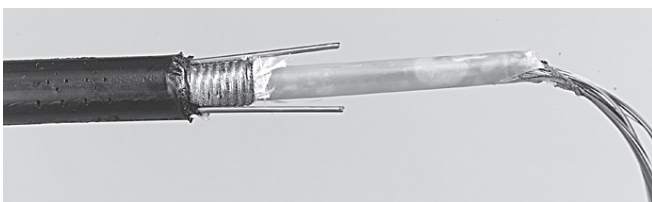
Loose tube cable



4.2.1 Remove the jacket over a length of 1.4 m, cut the strength member at a distance of 50 mm from the outer jacket.

4.2.2 Strip the loose tube at a distance of 55 mm from the outer jacket, remove and degrease fiber bundle.

Central core cable



4.2.3 Remove the jacket over a length of 1.4 m, cut the strength members at a distance of 35 mm from the outer jacket. Cut the inner jacket at 90 mm from the outer jacket.

Modular cable

4.2.4 Remove the jacket over a length of 1,4 m, cut the strength member at a distance of 40 mm from the outer jacket.

4.3 Cable + strength member termination for drop and looped cable

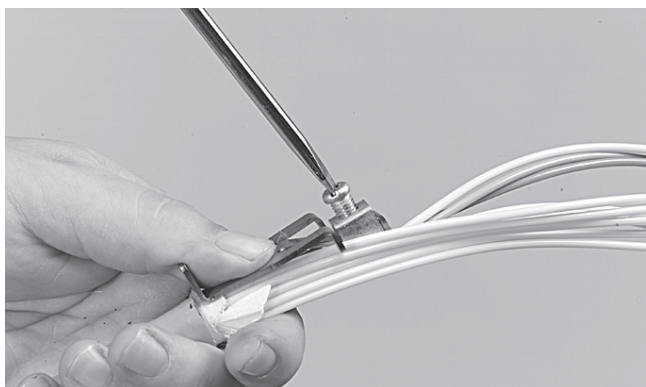
Loose tube cable



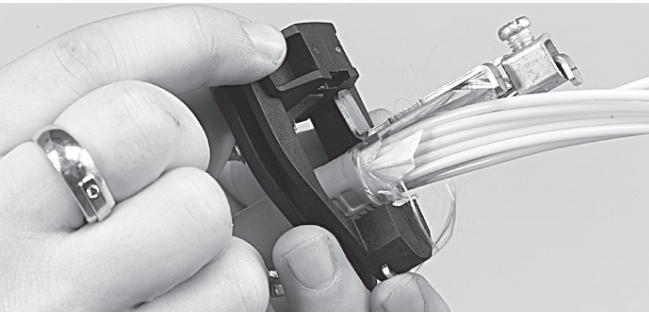
4.3.1 When the cable has many loose tubes, one can use the single bracket. You can use the single bracket when the cable has many loose tubes.



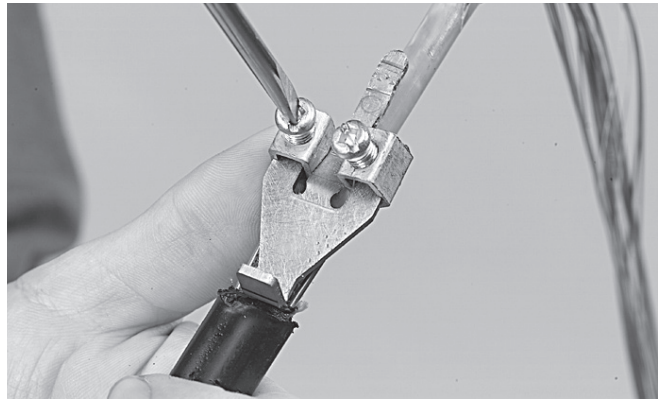
4.3.2 Install the strength member termination plate.



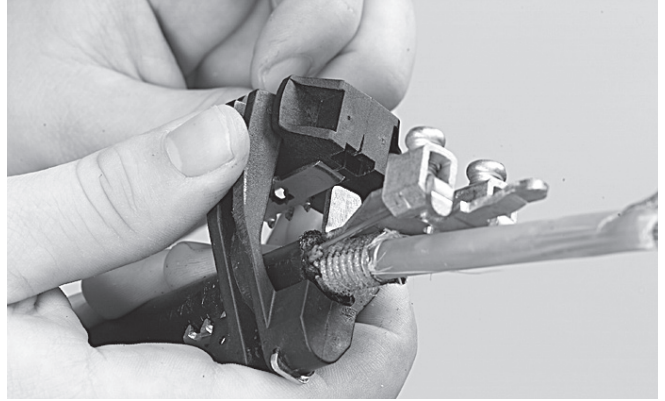
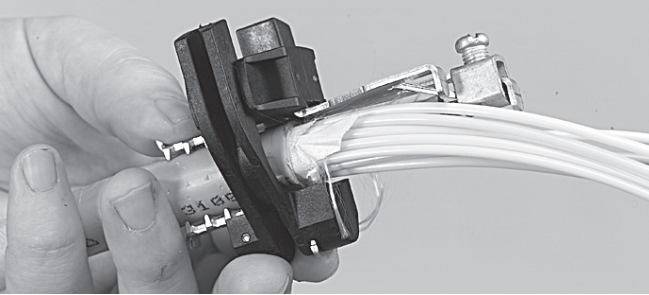
4.3.3 Tighten the screw.



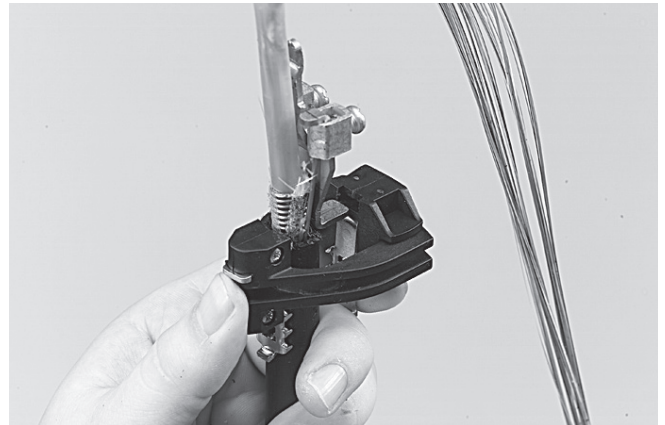
4.3.4 Slide the strength member termination plate into the cable retention device.



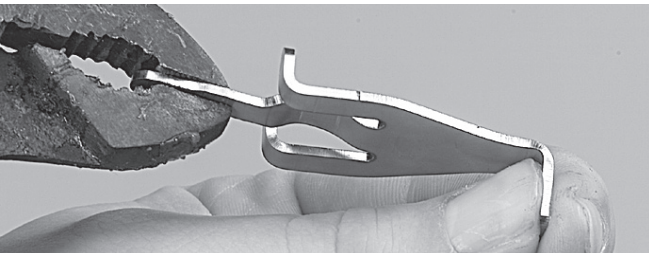
4.3.8 Tighten the screws.



4.3.5 Install the cable retention device on the cable, tighten the hose clamp.



Central core cable



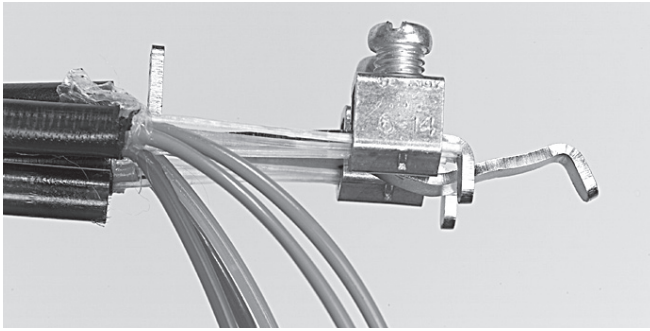
4.3.6 For two strength members, first bend the central plate backwards.



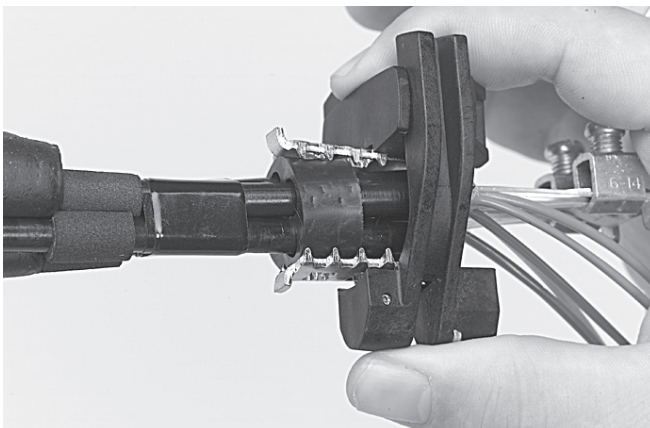
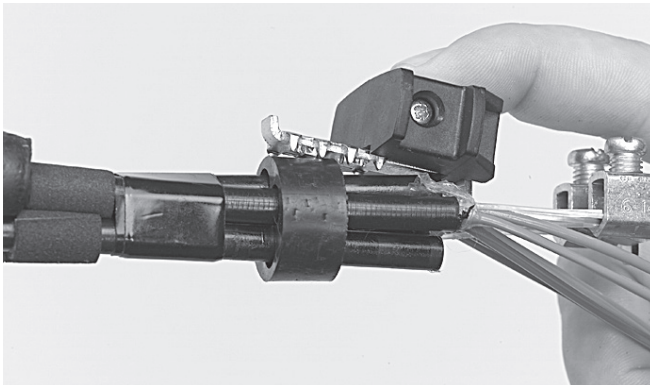
4.3.9 Install the cable retention device on the cable, tighten the hose clamp.



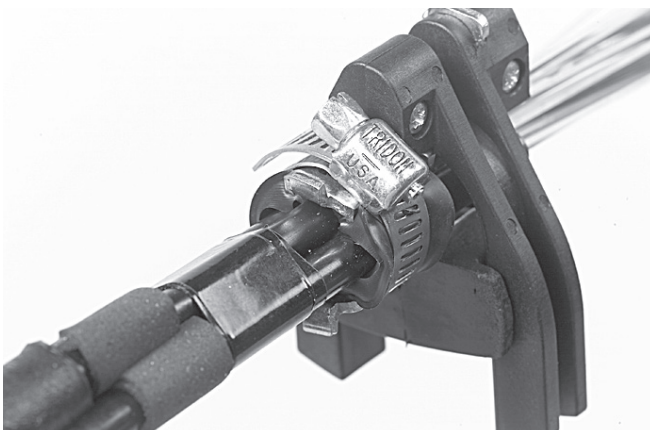
4.3.7 Install the strength member termination plate.



4.3.10 Install the strength member bracket.

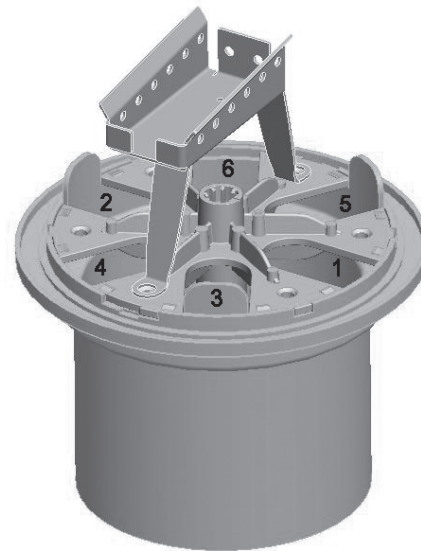


4.3.11 Install the cable retention device , position the teethes onto the grommet.



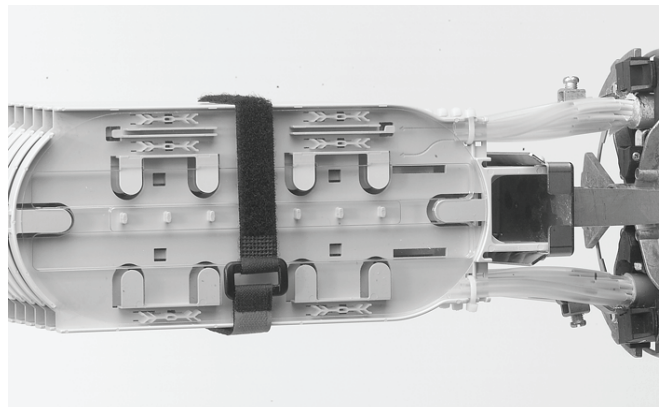
4.3.12 Install the hose clamp around the cable retention device.

4.4 Installation of the closure



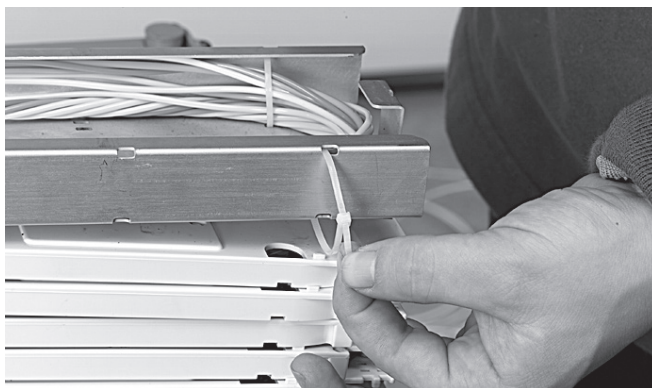
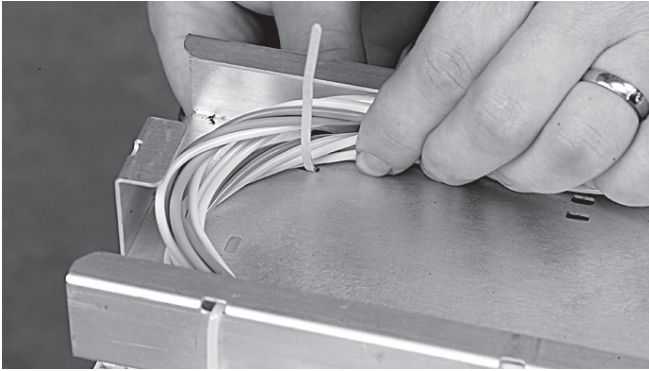
4.4.1 In case of looped cable, and if the basket is used, install the cables in ports 5 and 6 (as on drawing).

Mounting cables in case of track joint

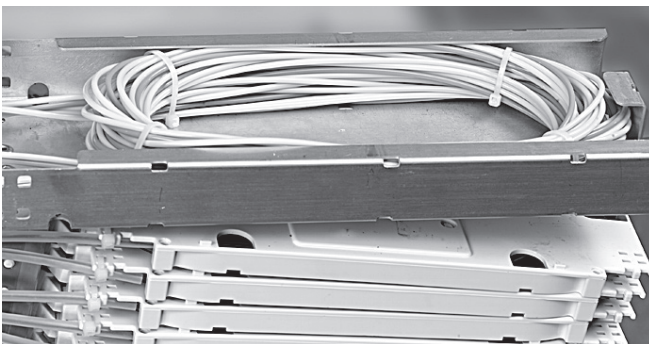


4.4.2 Install the cables in port 1 and 2.

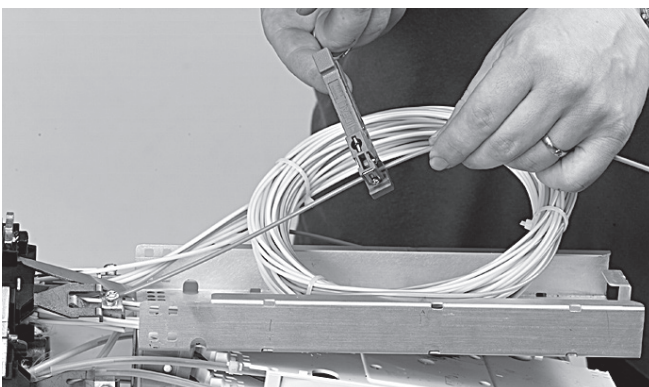
Loose tube cable



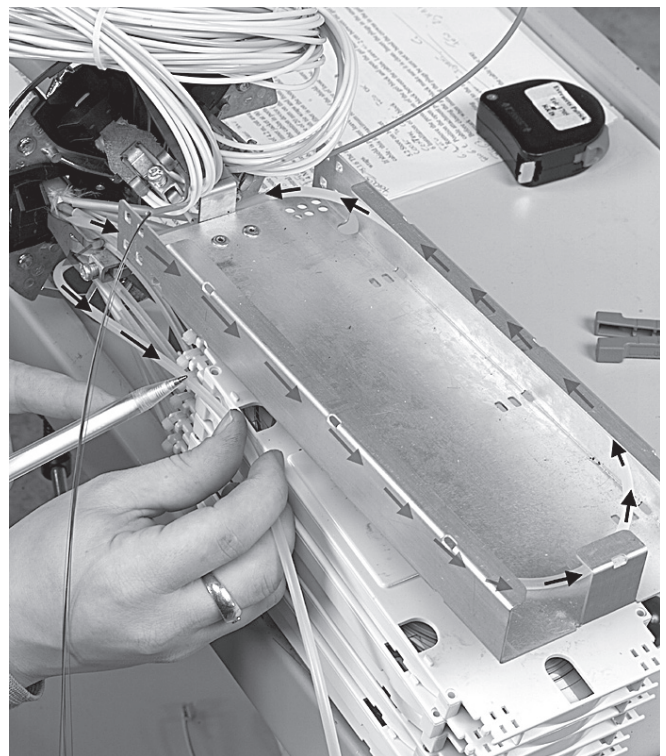
4.4.3 Secure the loop onto the basket with tie-wraps.



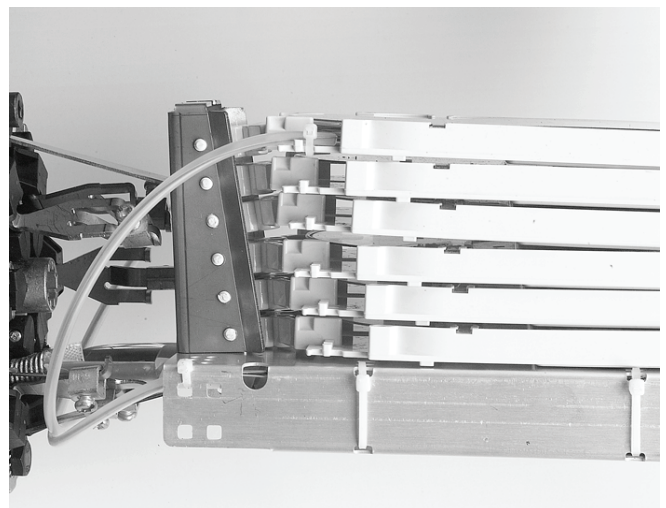
4.4.4 In case of max. capacity, no securing onto the basket.



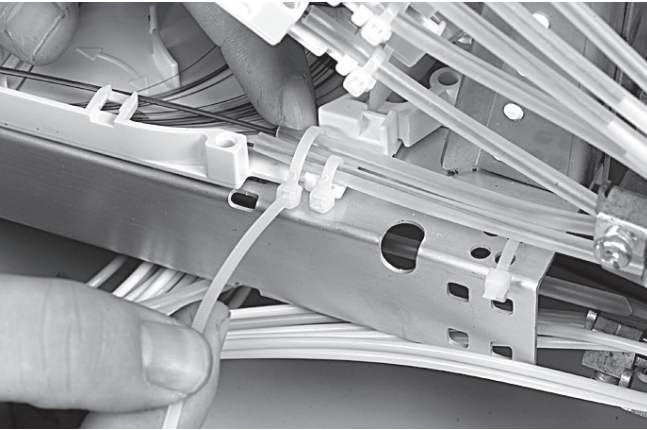
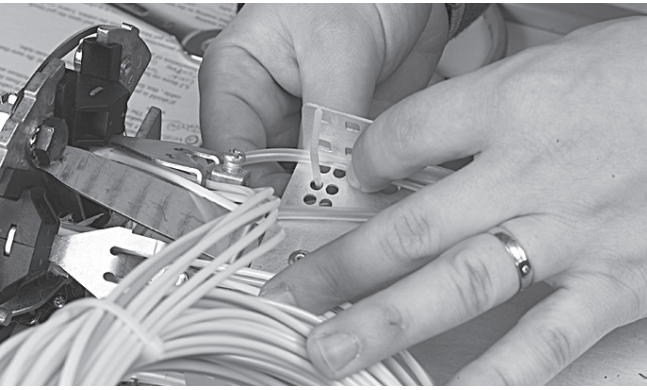
4.4.5 Select a tube and cut in the middle. Strip the loose tube at 20 cm from the outer jacket.



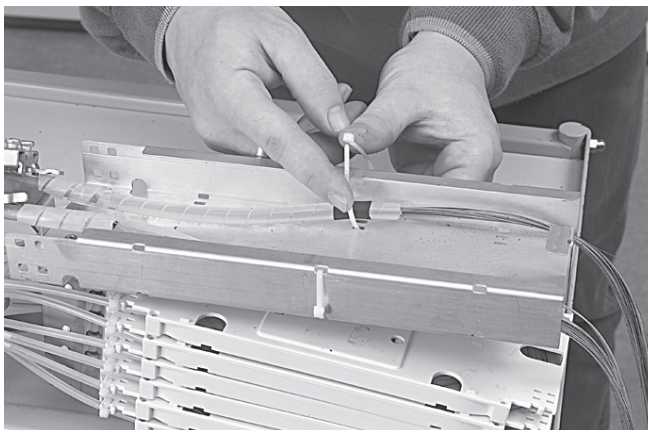
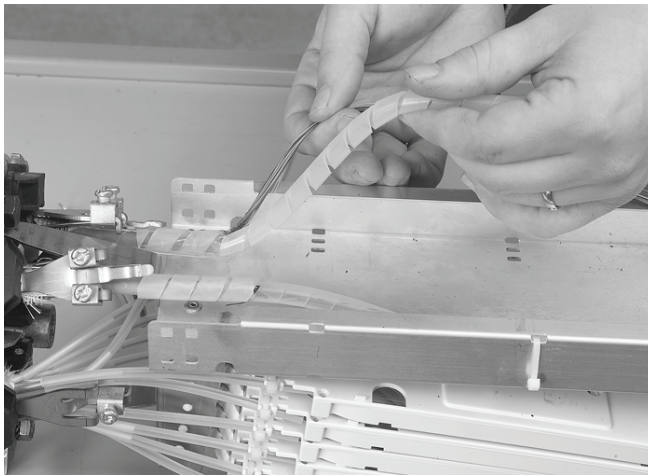
4.4.6 Measure the length of the transportation tube by routing the transportation tube from the loose tube through the basket to the tray, mark the tube and cut. Feed the fibers through the transportation tube.



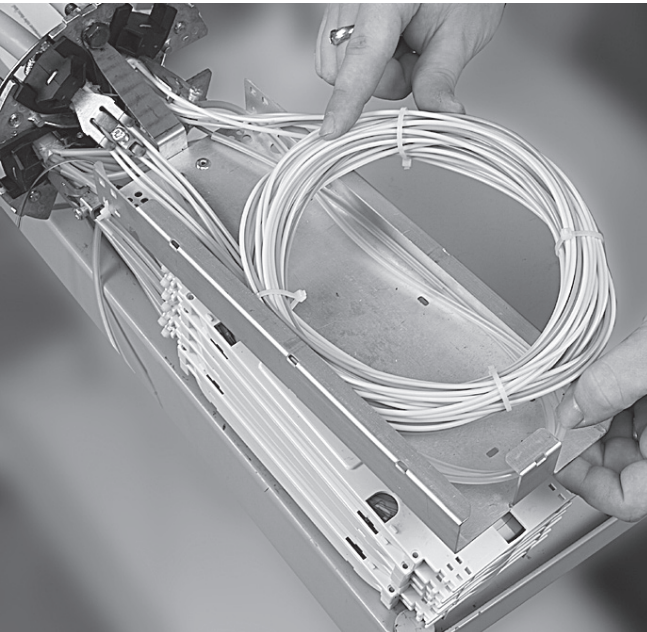
4.4.7 Routing of the transportation tube to the tray.



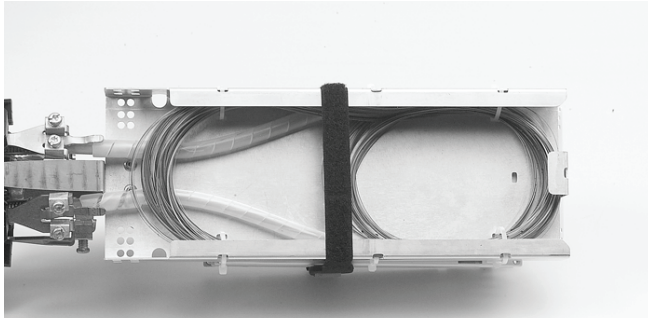
4.4.8 Use tie-wraps to hold the transportation tube in place in the basket and the tray.



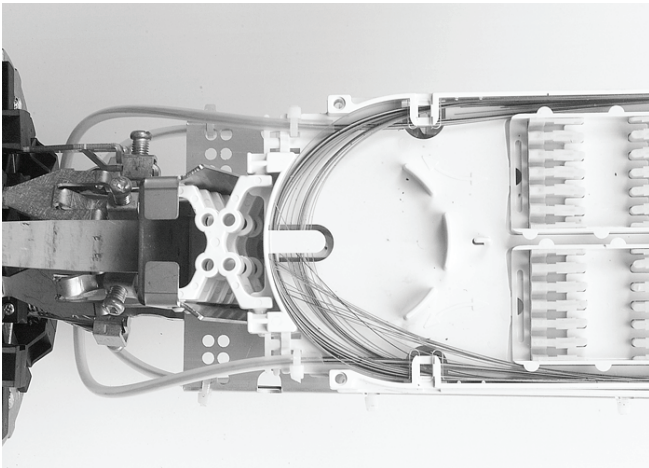
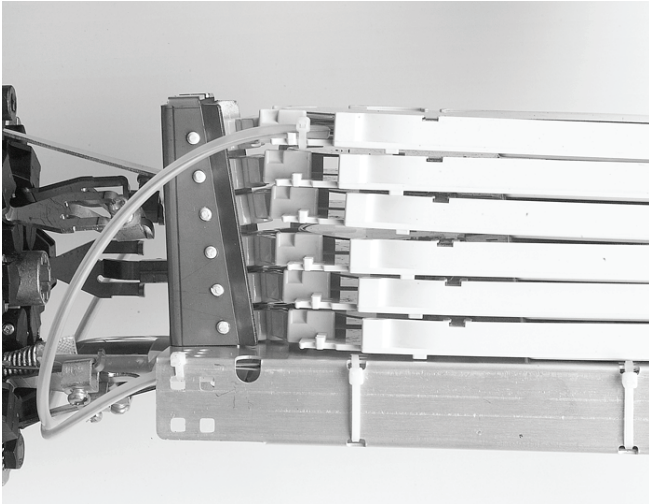
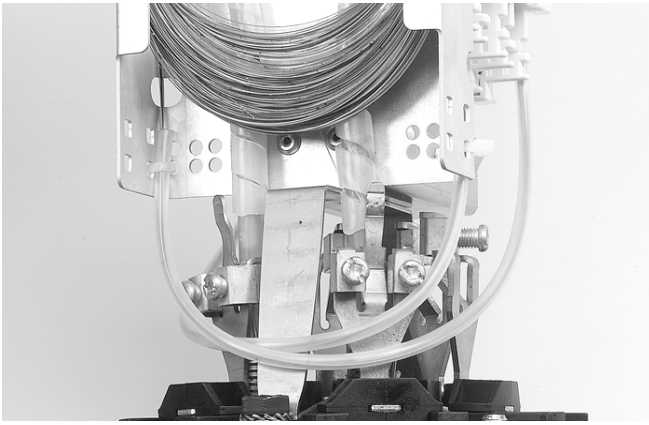
4.4.10 Install the spiral tubes of 20 cm on the cable. Fix the spiral tube on the basket in the middle with tie-wraps and route the bare fiber in the basket, wrap some foam around the spiral tube for good fixation with the tie-wrap.



4.4.9 Place back the looped cable in the basket on top of the routed fibers to the tray.

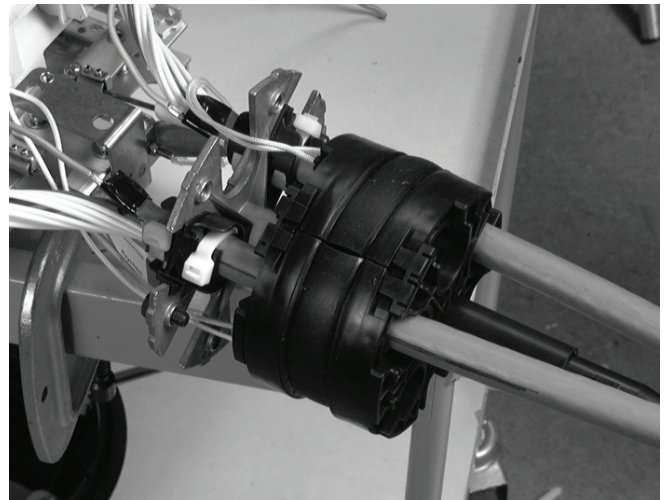
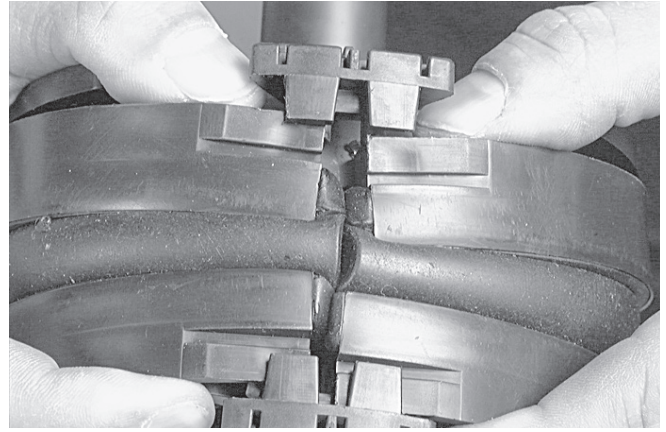


4.4.11 Keep the bare fibers in place using tie-wraps.

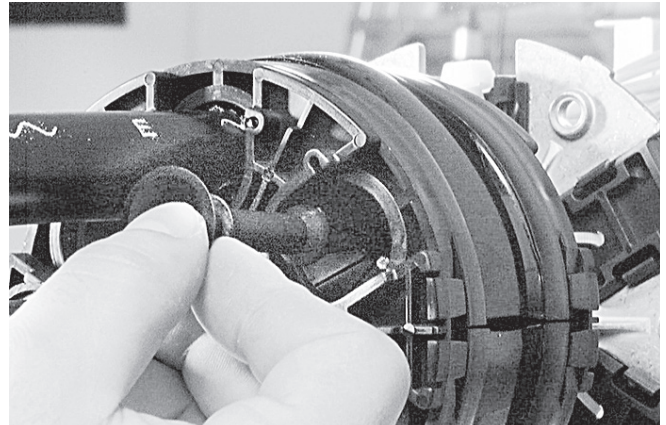


4.4.12 Cut the looped fiber, use transportation tube to route the fiber to the trays. For the length of the tube, route the tube from the basket to the tray, mark and cut.

5 Installation of the gel block



5.1 Remove the protection from the gel block and open the gel block. Position the open gel block between the cables. Leave ± 2 cm between the gel block and the cable attachment plate.

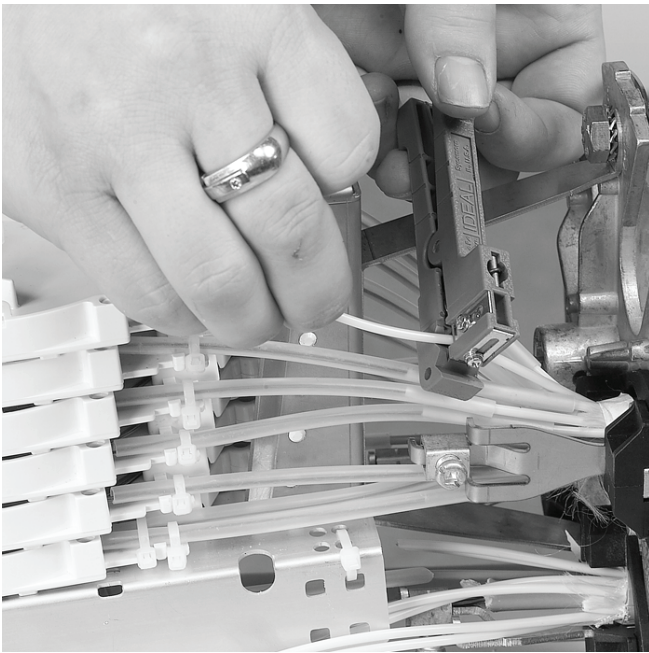


5.2 Before closing the gel block make sure it is clean. Insert the plugs in the unused ports.
Remark: when installing the plugs be sure not to bend the crowns in the gel block.

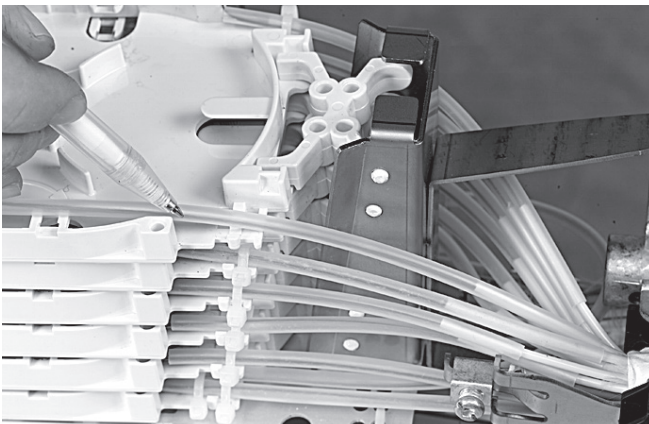
6 Fiber routing

6.1 Fiber routing to the tray

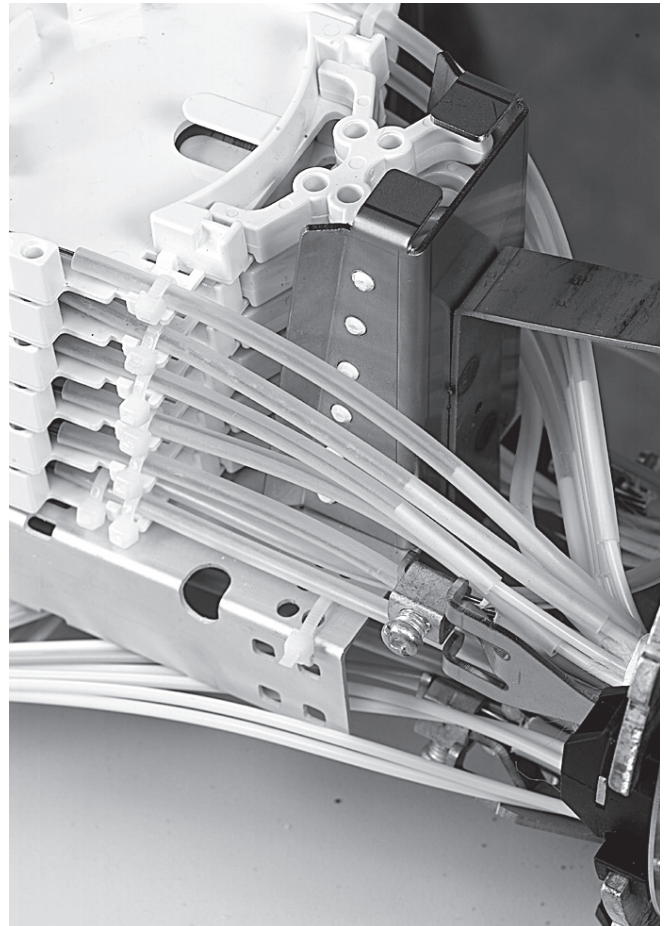
Loose tube (looped cable and track joint)



6.1.1 Direct from the cable to the tray. Strip the loose tube at 55 mm from the outer jacket.



6.1.2 Select a transportation tube that fits over the loose tube. Slide the transportation tube over the fibers and the loose tube. Place the transportation tube on the tray, mark at 15 mm of the tray edge and cut.

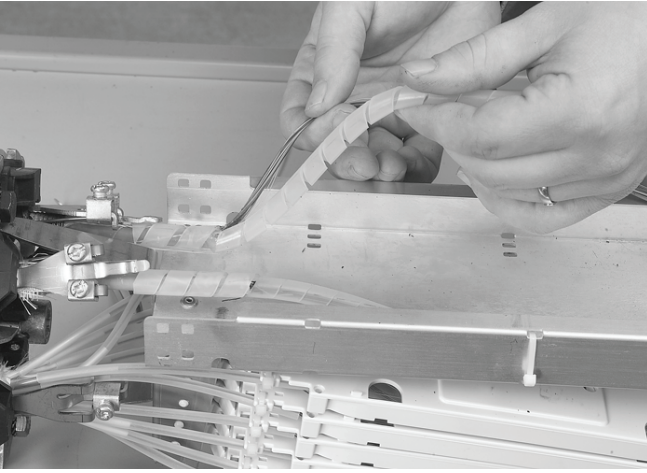


6.1.3 For proper routing to the individual trays.

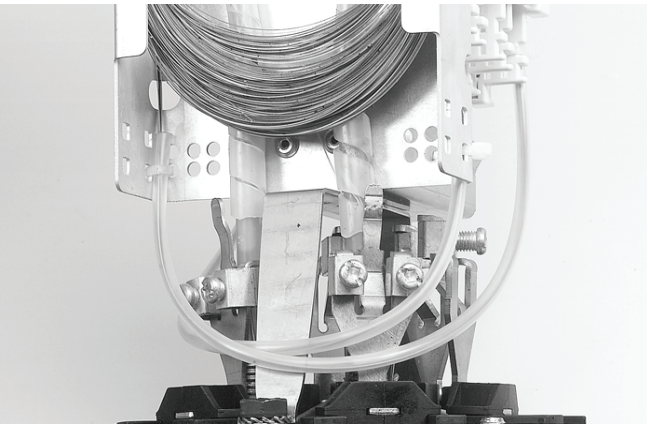
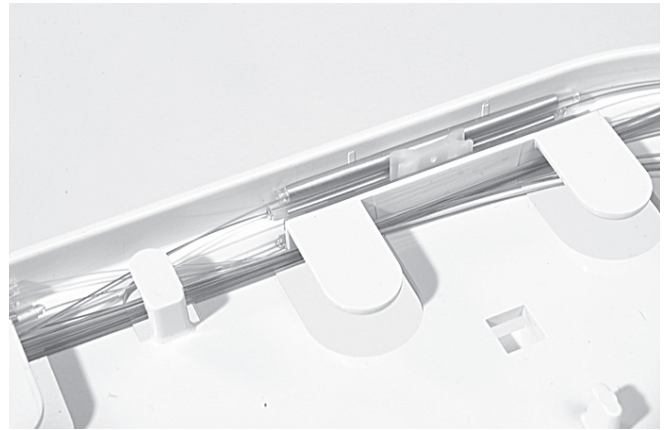
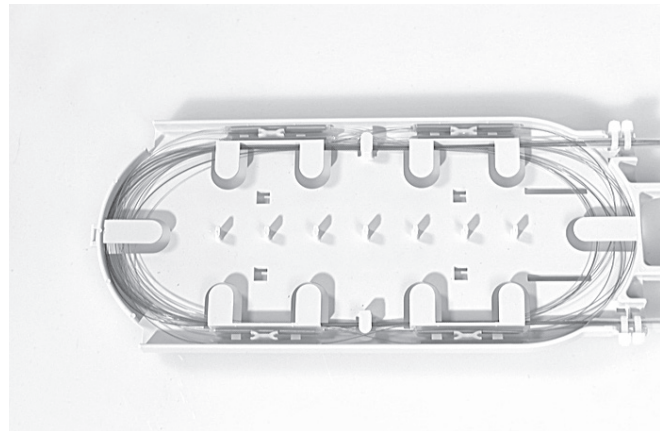


6.1.4 Cable installed with single bracketlet.

Central core



6.1.4 First to the basket (see 5.1.11).



6.1.5 From the basket to the trays with the transportation tube. Routing always from one side to the other side, see picture.

6.2 Fiber routing on the tray

6.2.1 Splicing

For heat shrinkable splice protectors:

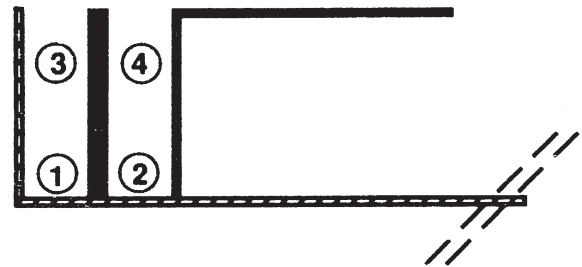
- slide the heat-shrinkable splice protector over one fiber.
- fuse the fibers according to local recommendations and procedures.
- after the fusion splice is made, install the heat shrinkable splice protection (e.g. smouv) with appropriate heating source.
- allow the splice protection to cool down to ambient temperature.

For ANT splice protectors:

- fuse the fibers according to local recommendations and procedures.
- after the fusion splice is made, install the ANT splice protector with appropriate tool.

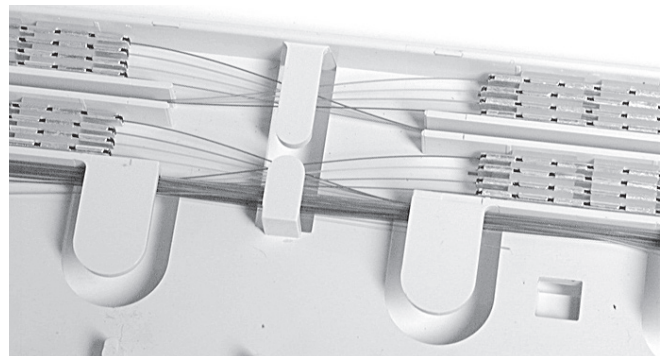
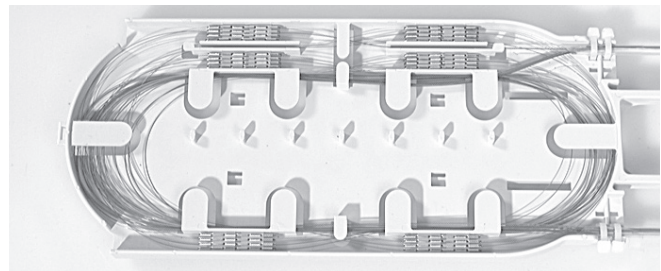
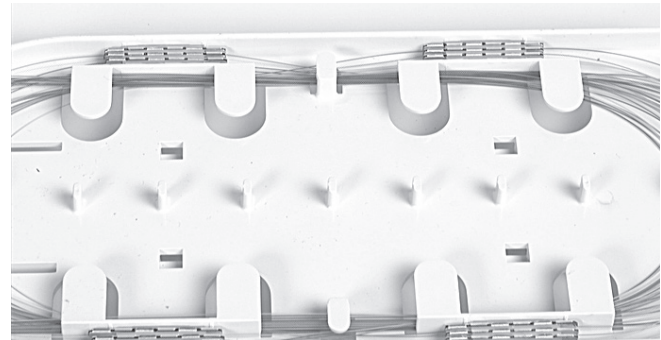
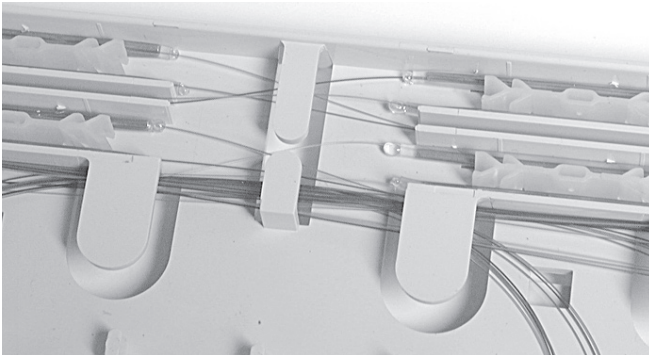
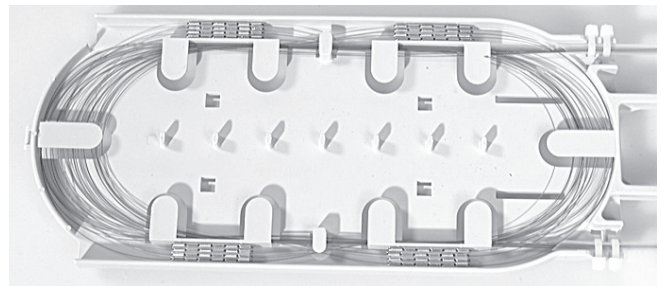
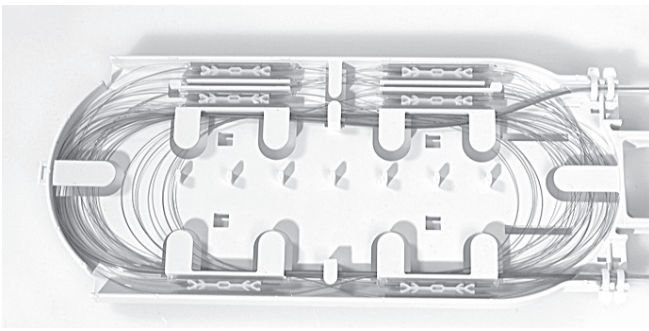
6.2.2 Storage

After each splice is made, the splice should be stored in the splice holder. Do not deform the splice during insertion. The fiber slack should be coiled into the tray. Follow the routing as shown.



6.2.3 If a tray for up to 16 heat shrinkable fusion splice protectors is used

- The tray organizer has 6 locations to store splice protectors. Each location can hold maximum 4 fusion splice protectors of type smouv-1120-02 (length 45 mm, installed outer diameter is 2,4 mm) or equivalent.
- After each splice is made, the splice should be stored as indicated on the drawing. First protector in position 1, the second in position 2. Continue for other fibers. Fiber nr 5 will be in position 1 of next location.
- If splice protectors are stored on the side with the 4 locations, the fibers from the locations on the outside are first guided through the passage between the locations and then coiled into the tray.

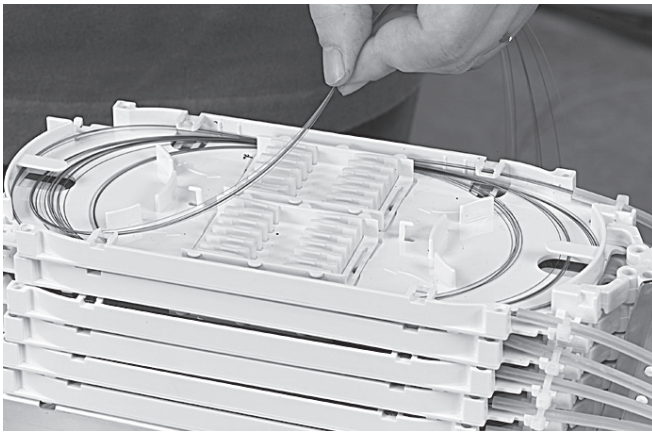


6.2.4 If a tray for up to 24 heat-shrinkable fusion splice protectors is used (FOSC-A-TRAY-S24)

- The tray organizer has 6 locations to store splice protectors. Each location can hold maximum 4 fusion splice protectors of type smouv-1120-02 (length 45 mm, installed outer diameter is 2,4 mm) or equivalent.
- After each splice is made, the splice should be stored as indicated on the drawing. First protector in position 1, the second in position 2. Continue for other fibers. Fiber nr. 5 will be in position 1 of next location.
- If splice protectors are stored on the side with the 4 locations, the fibers from the locations on the outside are first guided through the passage between the locations and then coiled into the tray.

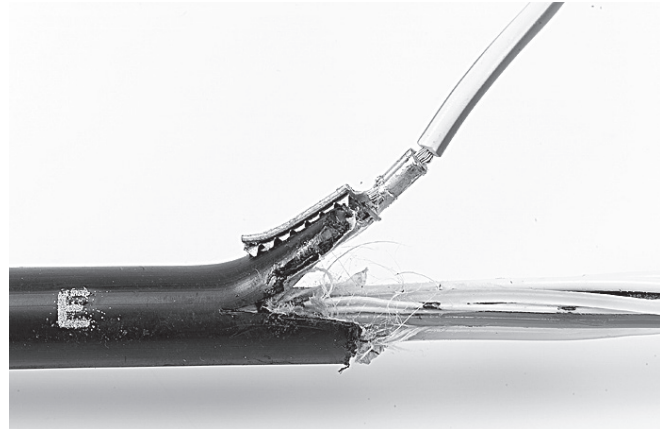
6.2.6 If a tray for up to 24 ant splice protectors is used (FOSC-A-TRAY-A24).

- The tray organizer has 6 locations to store splice protectors. Each location can hold maximum 4 fusion splice protectors of type ANT.
- After each splice is made, the splice should be stored in the splice holder.
- If splice protectors are positioned on the side with the 4 locations, The fibers from the locations on the outside are first routed through the passage between the locations and then coiled into the tray.

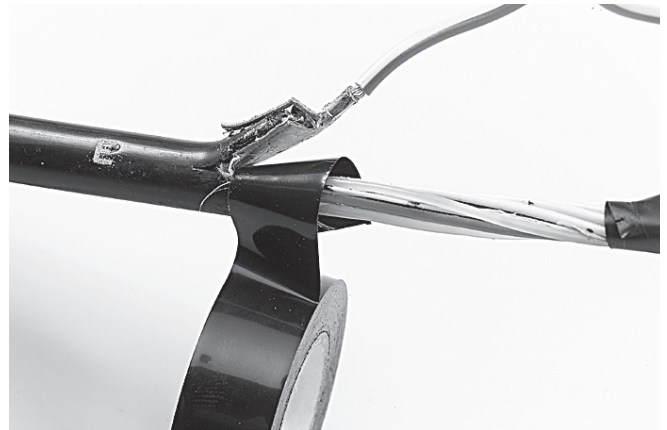


6.2.7 Follow the arrows on the trays. For this tray smouv-1120-02 and SMOUV-1120-02 can be used for splice protection (FOSC-ACC-A-TRAY-12).

7 Shield continuity

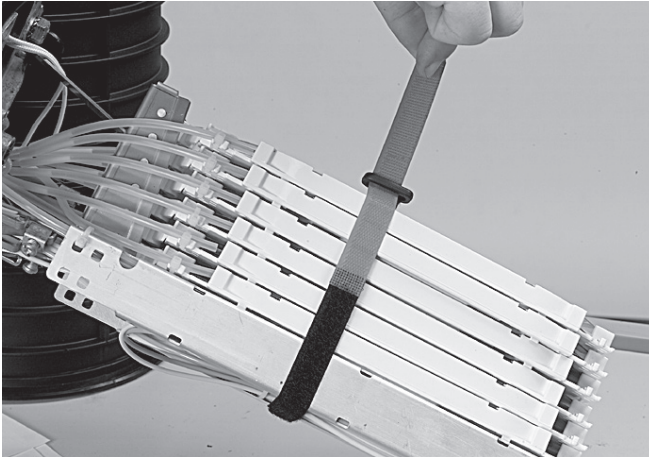


7.1 Install the grounding wire as shown on the picture.



7.2 Protect with tape.

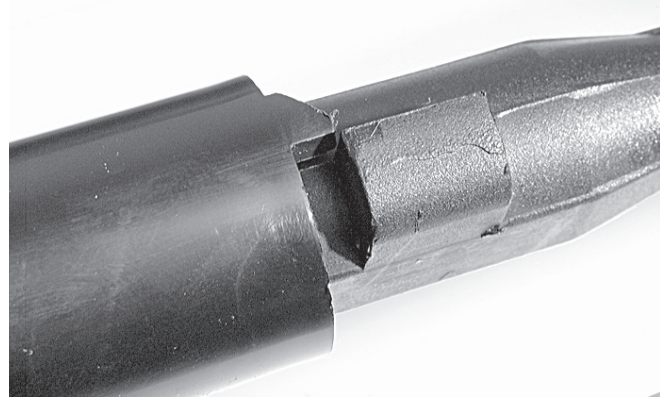
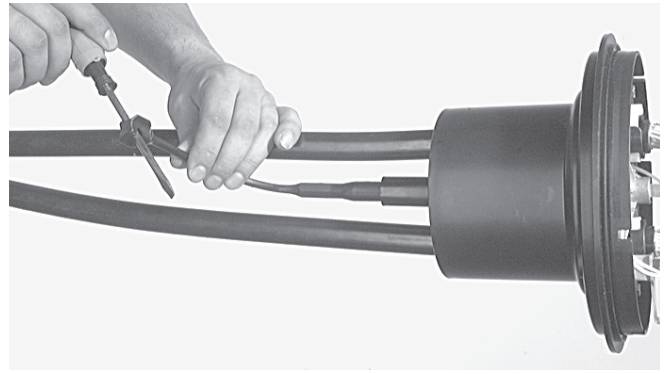
8 Closing the closure



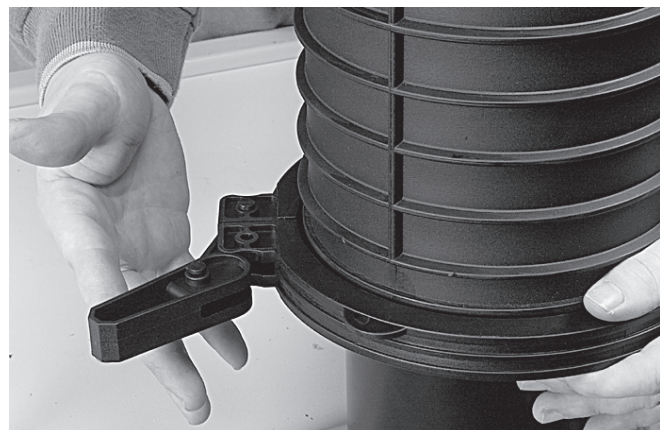
8.1 Place the hook and loop fastener over the trays and basket, place the hook and loop fastener eye on top of the trays.



8.2 Slide the base back over the Gel block and insert the frame into the base (check proper position).



8.3 Tighten the trigger until it butts. If necessary, use wrench (n° 12) to tighten the trigger.



8.4 Place the dome. At the end turn the dome until it fits. Use the clamp to seal dome and base.

9 Important steps

- Before starting, slide the base over the cables.
- Routing from the basket to the trays, always from one side to the other side.
- Avoid in all cases crossing of fibers and loose tubes.
- Replace the silica gel after each re-entry.
- Do not mount the closure with the base pointing up.

To find out more about CommScope® products, visit us on the web at www.commscope.com

For technical assistance, customer service, or to report any missing/damaged parts, visit us at:
<http://www.commscope.com/SupportCenter>

© 2017 CommScope, Inc. All rights reserved.

FOSC, SMOUV and all trademarks identified by ® or ™ are registered trademarks or trademarks, respectively, of CommScope, Inc.

This document is for planning purposes only and is not intended to modify or supplement any specifications or warranties relating to CommScope products or services.

This product is covered by one or more U.S. patents or their foreign equivalents. For patents, see:
www.commscope.com/ProductPatent/ProductPatent.aspx.