Tyco Electronics

FOSC-600 C and D

INSTALLATION INSTRUCTION

In-line and butt version
Cold applied re-usable fiber optic closure

Contents

1 Introduction

1.1 Product description

The closure is wraparound and is suitable for underground, buried, and aerial applications.
The FOSC 600 closure uses compressed-gel cable seals.
The closure can contain up to nine single fusion trays with a slack basket or up to six ribbon trays with no slack basket in the D type.
The closure accommodate single or mass-fusion splices in hinged, stacked, or ribbon trays.

1.2 Capacity

	In line		Butt		
	Basket	No basket	basket	No basket	
FOSC 600 C	3	3	5	5	Single trays
	2	2	2	3	Double trays
FOSC 600 D	7	8	9	9	Single trays
	3 (+1)	4	4 (+ 1)	6	Double (and single) trays

2 General

2.1 Kit content

C-size

D-size

- Central part: top and bottom part
- Gel cable seal
- Gel cable seal port plugs
- Slack basket
- Plastic bend control
- Cable attachment assembly
- Hose clamps
- Closure mounting brackets
- Bond wires
- ID label cards
- Gel seal lubricant
- Transportation tube
- Cleaning tissue
- Tie wraps
- Silica gel

2.2 Tools

Locally approved cleaning solution for fiber
Clean, dry rags

2.3 Accessories

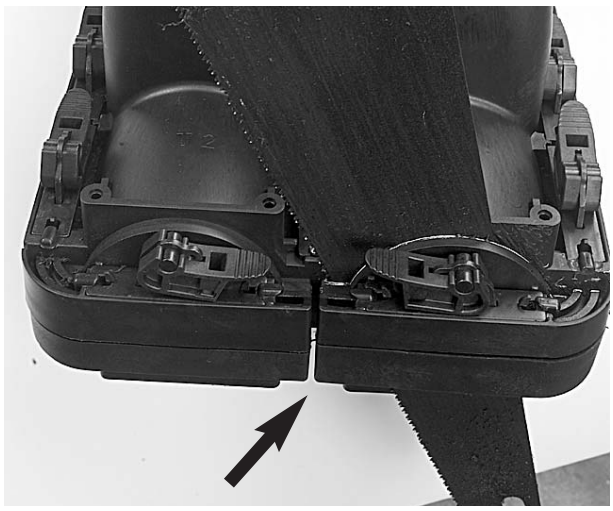
FOSC-ACC-D-Tray-36 or 72 or Ribbon
FOSC600-Gel-Block-4 out or 3 out
FOSC600-Grommet (seal)

3 Installation

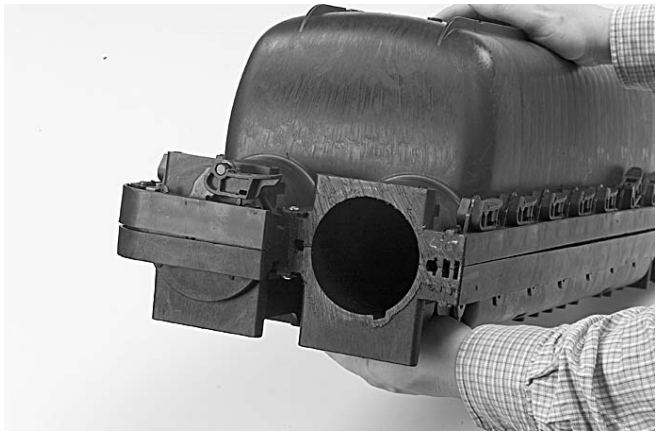
3.1 Closure preparation

3.1.1 Mark with white marker where to cut open the port.

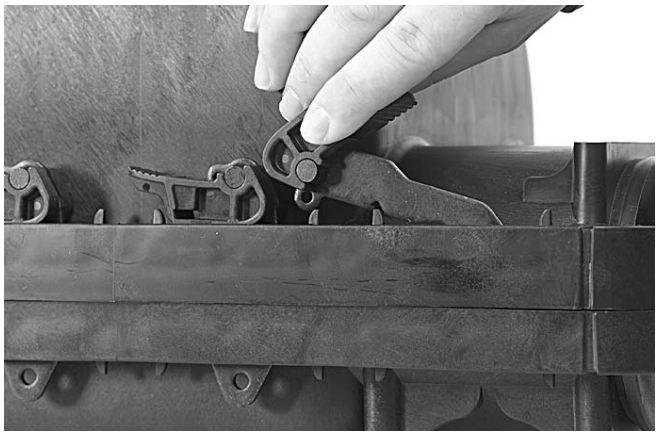
3.1.2 Start in this position.



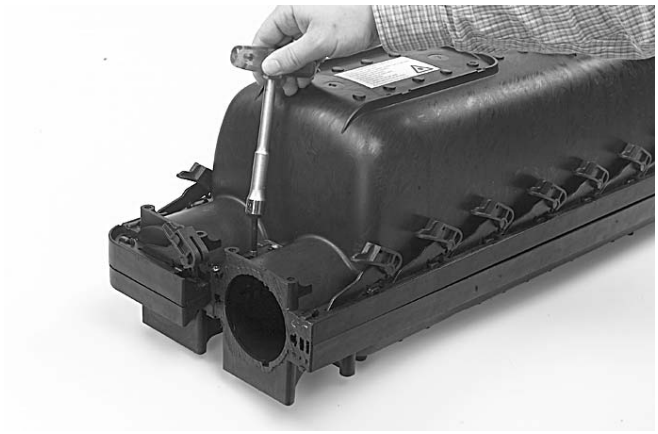
3.1.3 **Do not** pass the open slot between the two ports.



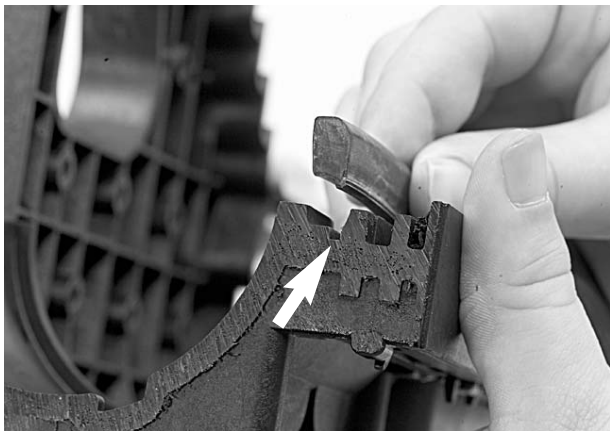
3.1.4 Deburr the edges.



3.1.5 Open the latches.

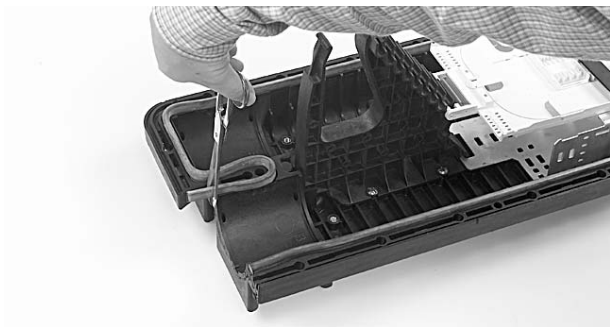


3.1.6 Loosen the bolts and lift the top part, revealing the closure bottom part. Leave the bolts in the top part of the closure.



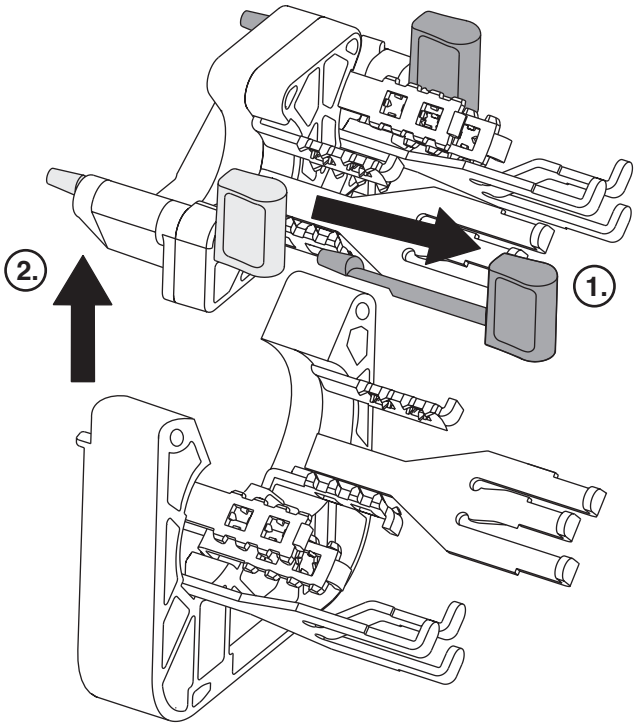
3.1.7 Make sure the groove and rubber seal are clean. Insert the rubber seal correctly.The small edge of the rubber seal has to match the small slot in the seal cavity (see arrow).

3.1.8 Insert the rubber seal in the groove starting at the open port.
Note: do not stretch the seal.

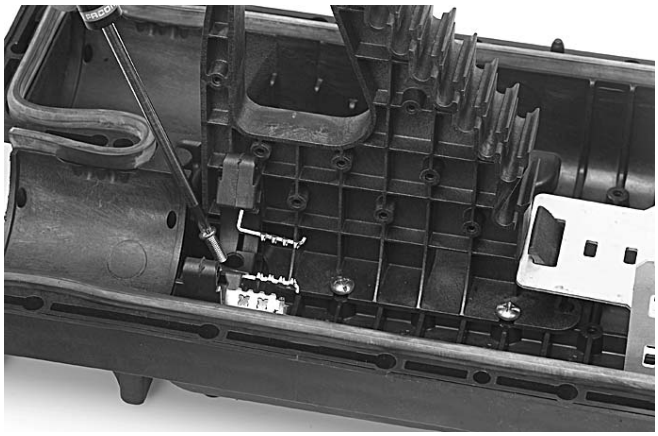


3.1.9 If the seal is too long at the end; cut the excess.

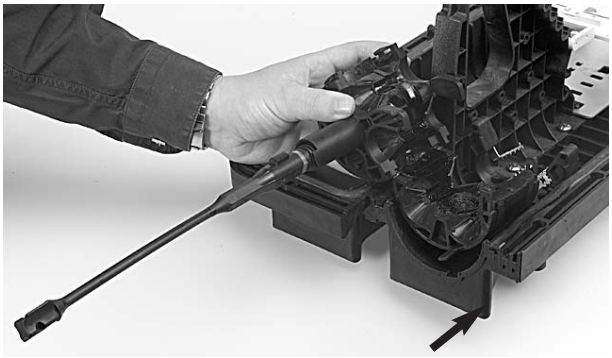
3.1.10 For an in-line application, it is necessary to open two ports.
For a butt application, it might be necessary to open a second port, depending the cable configuration.
Note: when opening a second port, close the closure with the seal installed and repeat the steps 3.1.1 till 3.1.4.



3.1.11 Remove the top half of the cable attachment assembly by removing the two pins.

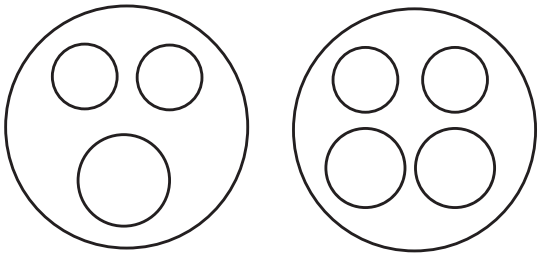


3.1.12 Secure the bottom part of the cable attachment assembly in the closure with two screws.



3.1.13 Position the gel block tabs in the open slots with the trigger outside the closure. The larger ports in the gel block are in the bottom of the closure. Fill bottom ports with larger diameter cables, then fill top ports with small diameter cables.

3.2 Cable types and sizes



3 and 4-way gel block

3-way gel block

Upper Small Ports: 2 ports 8 - 20 mm

Lower Large Port: 1 port 28 - 35 mm

4-way gel block

Upper Small Ports: 2 ports 8 - 22 mm

Lower Large Ports: 2 ports 10 - 28 mm

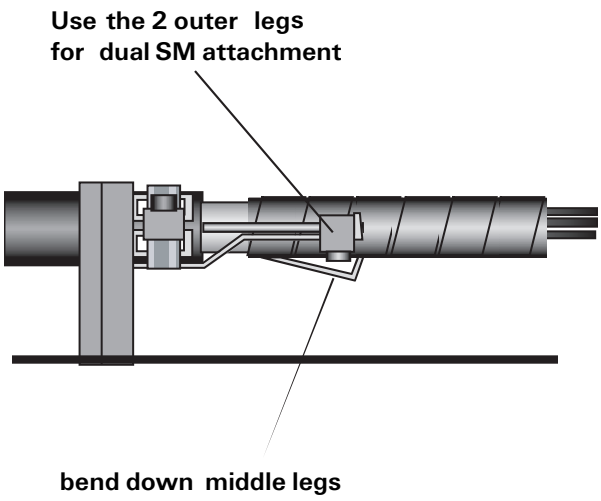
If both the lower large ports are filled with the maximum cable diameter (28 mm), the maximum cable diameter in the upper small ports becomes 20 mm.

3.3 Cable preparation and installation

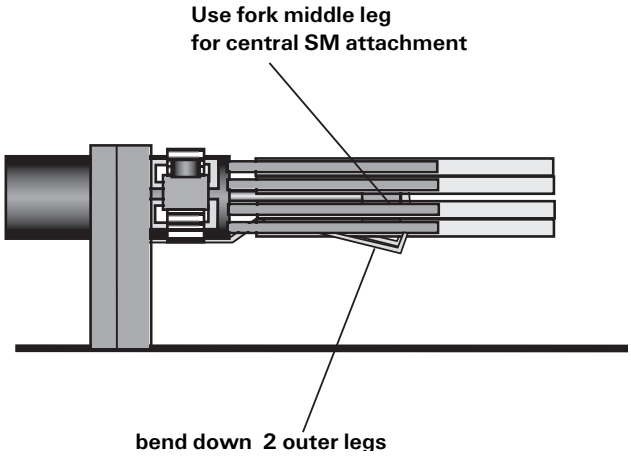
3.3.1 Remove the outer jacket:

Loose buffer tube:	Drop : 2,10 m Loop : 4,20 m
Ribbon:	Drop: 2,10 m Loop: 4,20 m
LBT Ribbon:	Drop : 2,10 m Loop: 4,20 m
Central core:	Drop : 2,10 m Loop: 4,20 m

Central core - Ribbon

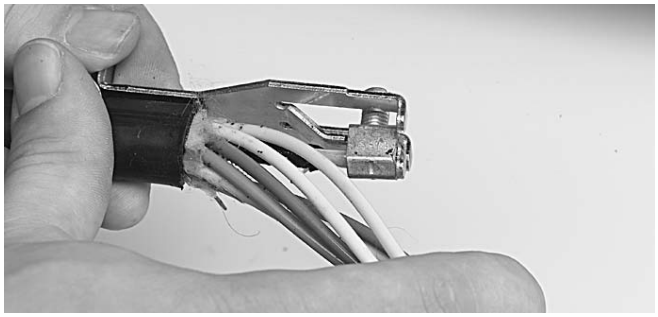


Loose tube

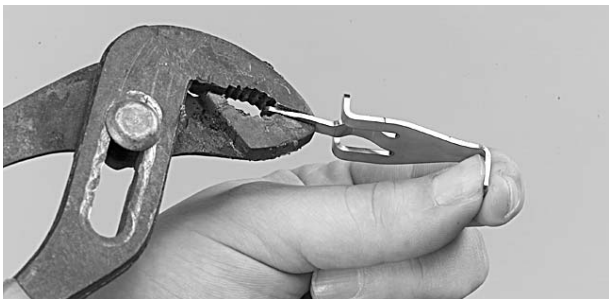


3.3.1 Cut the strength member(s) at 32 mm.
Note: if shield is present, attach the bond wire to the sheath.

3.3.2 Install the strength member termination onto the strength member attachment forks depending the cable type.

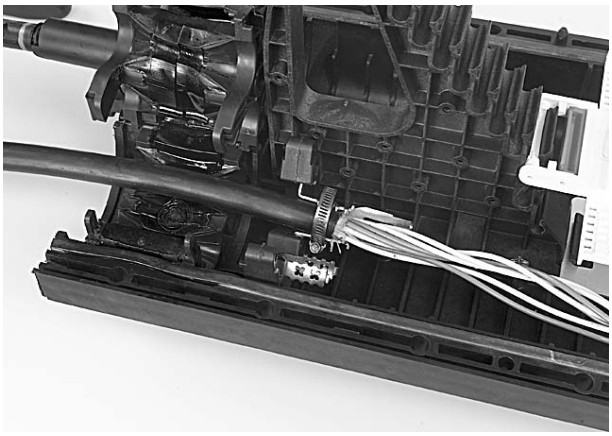


3.3.3 For **central strength members**, use the fork middle leg. Slide the strength member into the strength member termination and tighten the screw. Bend the fork outer legs out of the way.
Note: For large central strength members, use the larger square bolt (only in 3 port kit).

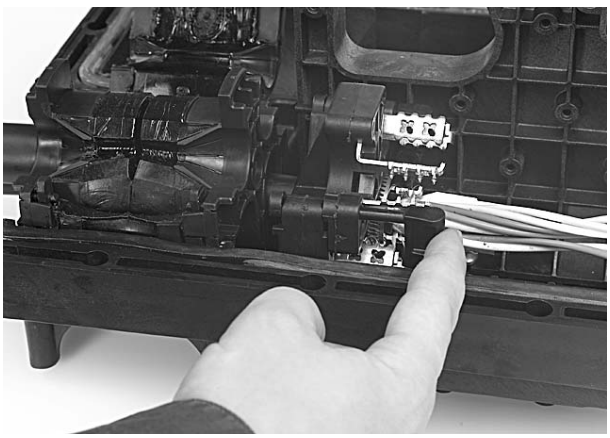


3.3.4 For **dual strength members**, bend the fork middle leg out of the way and use the two outer legs.

3.3.5 Install the strength member bracket into the cable attachment assembly by pushing the metal tab into the slot.

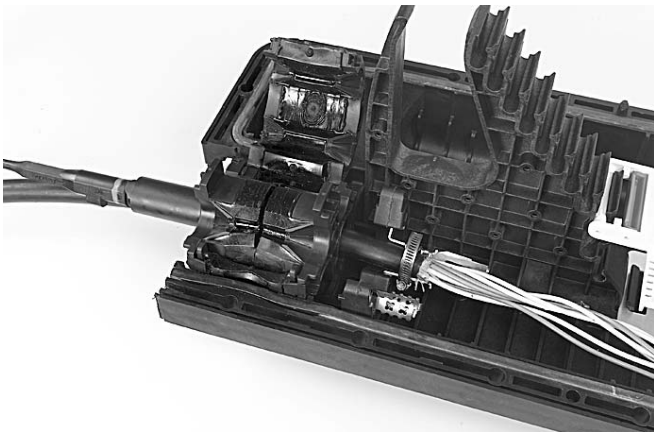


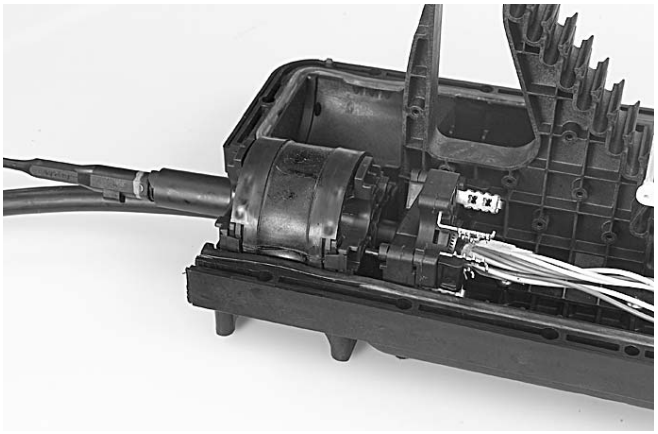
3.3.6 Adjust the sheath retention clips until they grip the cable sheath. Wrap a hose clamp around the sheath retention clips and cable, secure the hose clamp.
Note: make sure that the hose clamp bolts are to the side of the cable and will not be trapped between the cables and closure or interfere with upper cable attachments.



3.3.7 Install top cable attachment assembly and secure with the removed two pins. Repeat steps 3.3.2-3.3.7 if cables are installed in the top ports.

3.4 Cable sealing

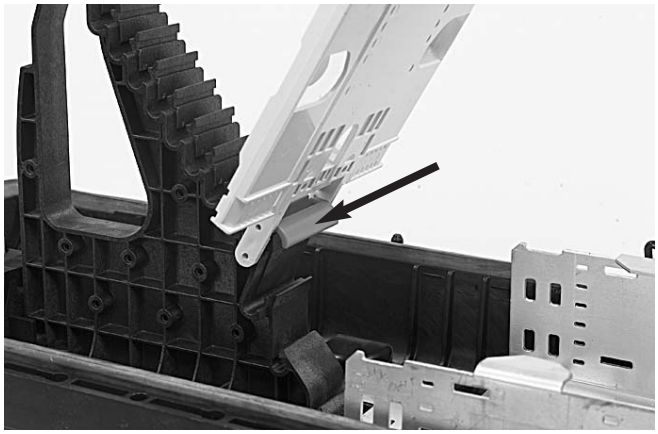




3.4.1 When all cables in the lower ports are installed, close the middle part of the gel block. With all cables in place, close and lock the top part of the gel block.
Note: insert a port plug into each empty port .

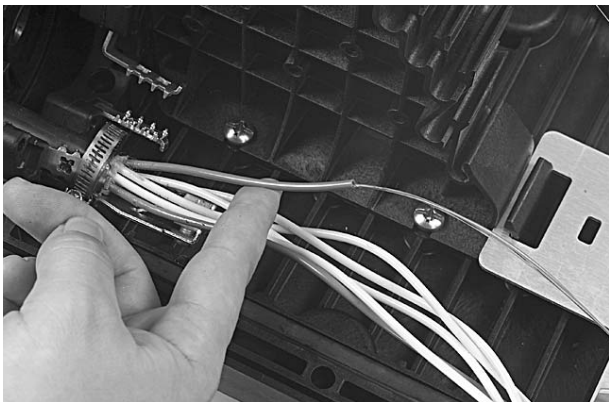
3.5 Fiber routing

3.5.1 Do not route directly to the splice trays, pass around the tower. For in line applications it is recommended not to use the top ports in the gel block on the opposite side of the tower.



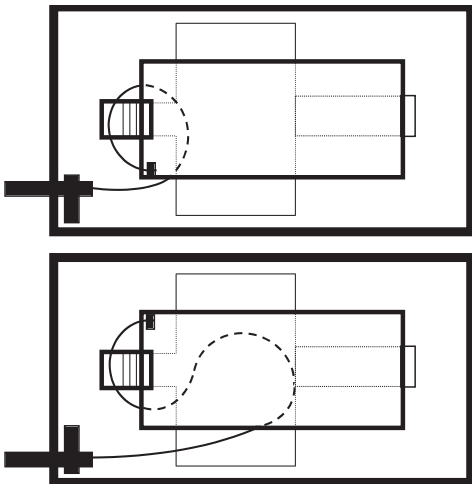
3.5.2 The tray can be blocked with the tray support wedge. Turn the wedge to the shown position.

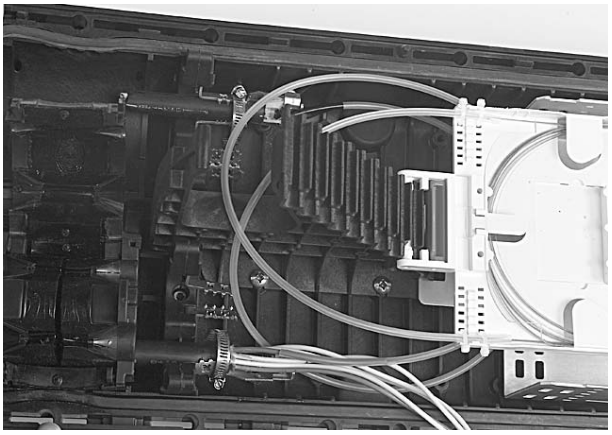
Loose tube (Butt and In-line configuration)



3.5.3 Cut the loose tube at 100 mm from the outer jacket. Cut and slide the FOPT approximately 50 mm over the loose tube.

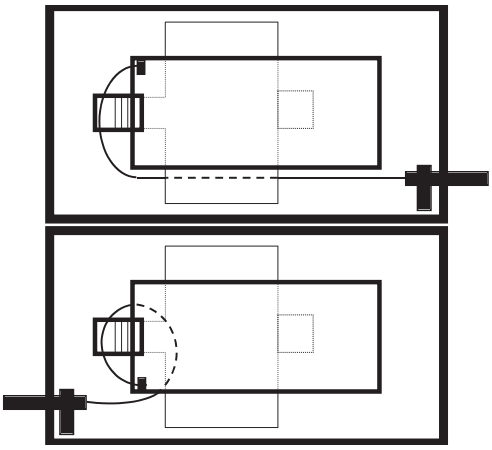
Butt configuration



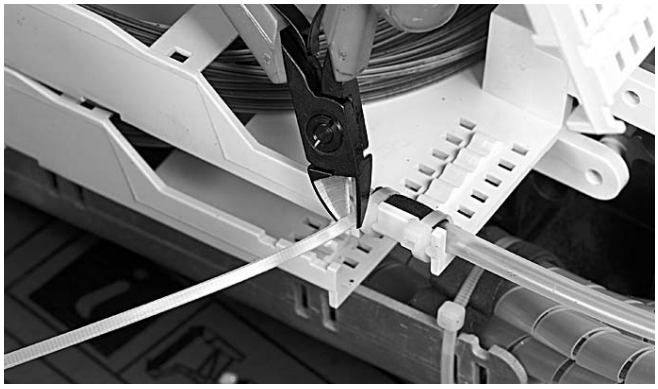


3.5.4 Route the FOPT as shown to the tray.
Note: around the tower.

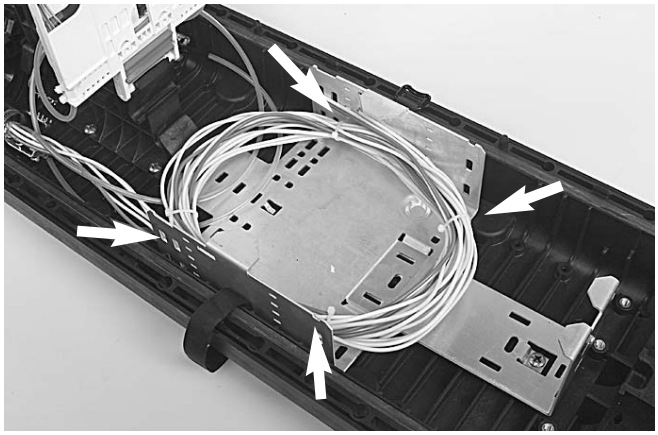
In line configuration



3.5.5 Route the FOPT as shown.
Note: tubes entering opposite of the tower are routed under the basket.



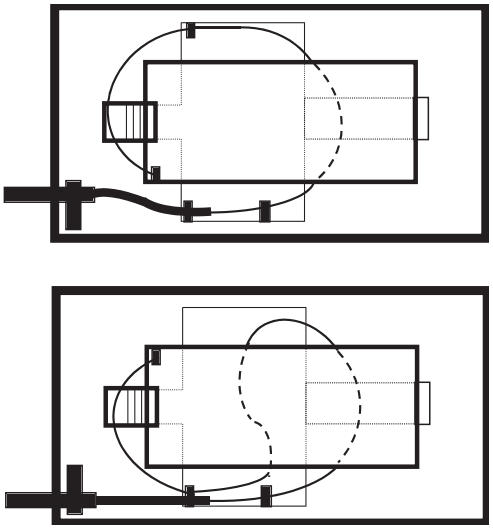
3.5.6 Mark the FOPT at 15 mm on the tray and remove the tube excess. Secure the FOPT with 2 tie-wraps and trim the tails.

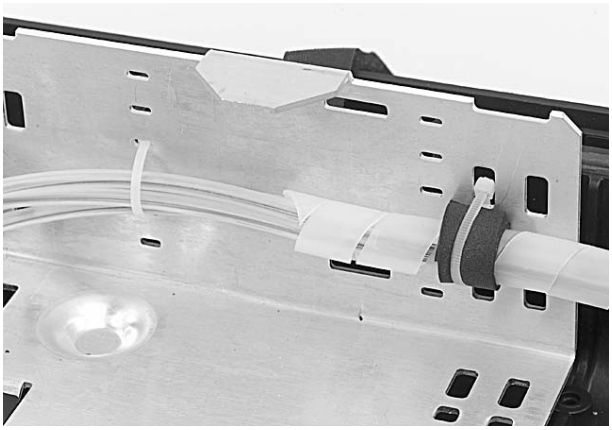


3.5.7 Loose tubes can be stored in the basket and secured with tie-wraps (see arrows).

Central core

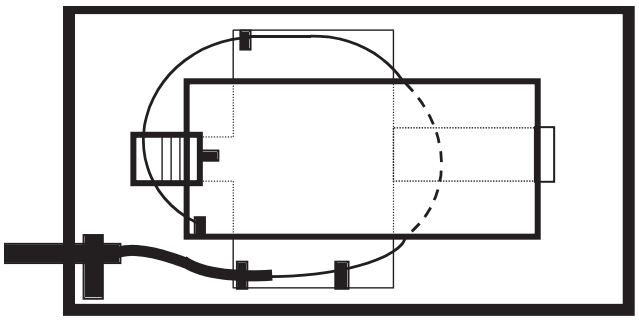
Butt configuration

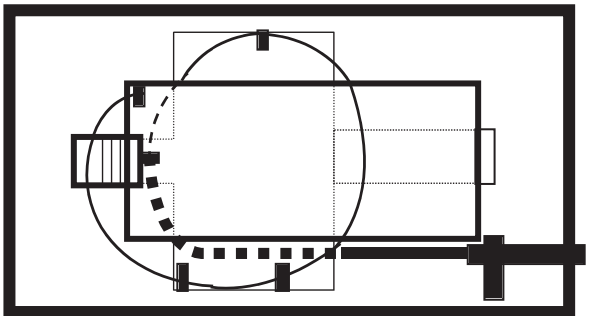


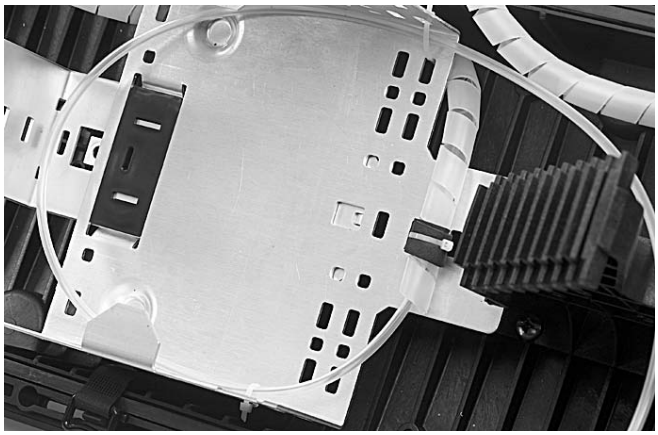


3.5.8 Secure the spiral tube coming from the cable to the basket. Insert the FOPT 50 mm inside the spiral tube and secure it to the basket. Route the FOPT as shown.

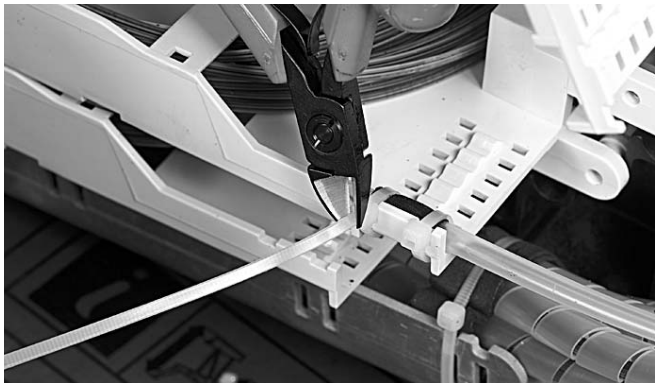
In line configuration







3.5.9 Route and secure the spiral tube as shown. Insert the FOPT 50 mm inside the spiral tube and secure it to the basket.

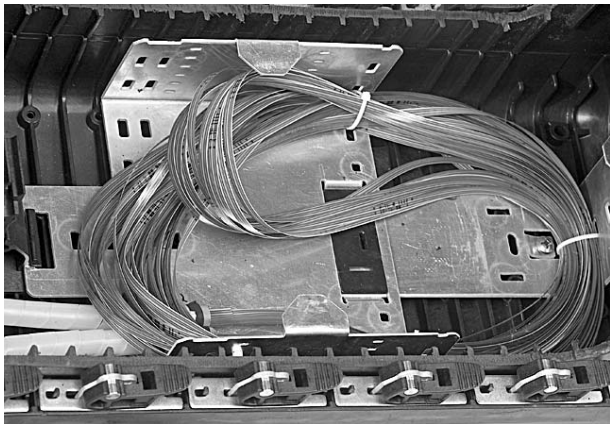


3.5.6 Mark the FOPT at 15 mm on the tray and remove the tube excess. Secure the FOPT with 2 tie-wraps and trim the tails.

Ribbon

A Loop storage in the basket

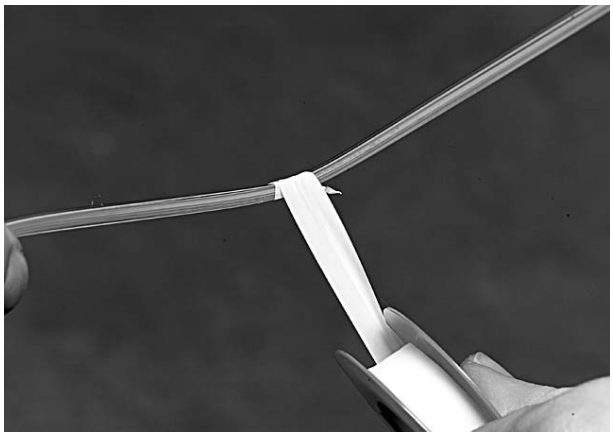
Preparation, termination and routing is done according to the appropriate previous section (loose tube, central core, butt or in-line).



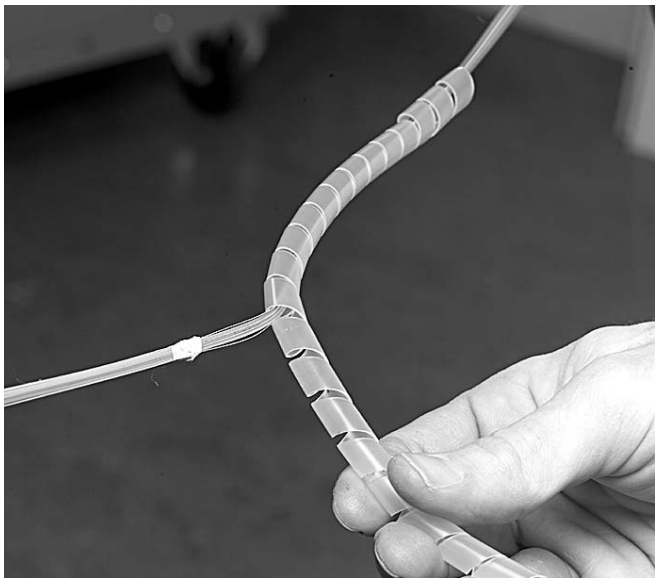
3.5.11 Uncut loops can be stored in the basket. Secure them by means of tie-wraps.
Note: do not tighten.

B Loop storage on trays

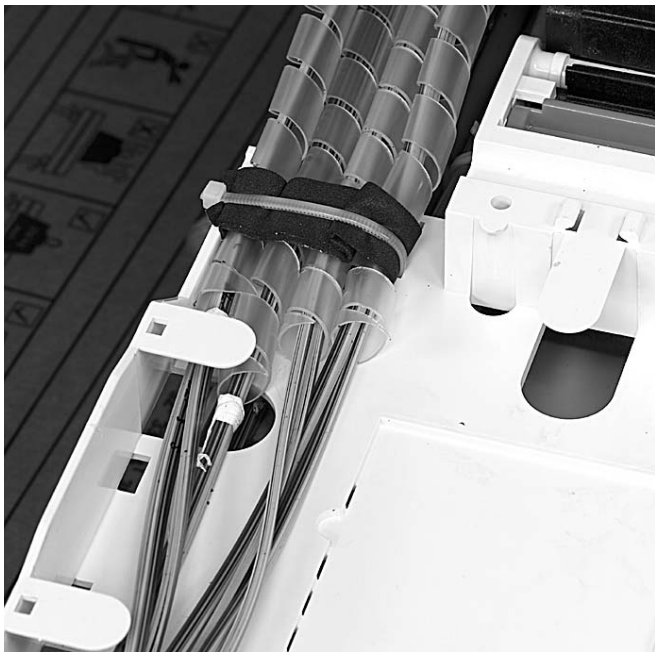
3.5.12 Take appropriate ribbons (bundles) out of the basket, make sure all ribbons are positioned with the same color up and in numerical order. Take all ribbons as shown and straighten them over 1.2 meter (twists are pushed away from basket).
Note: the 1.2 meter is measured from the basket entrance (side were tray holder is).



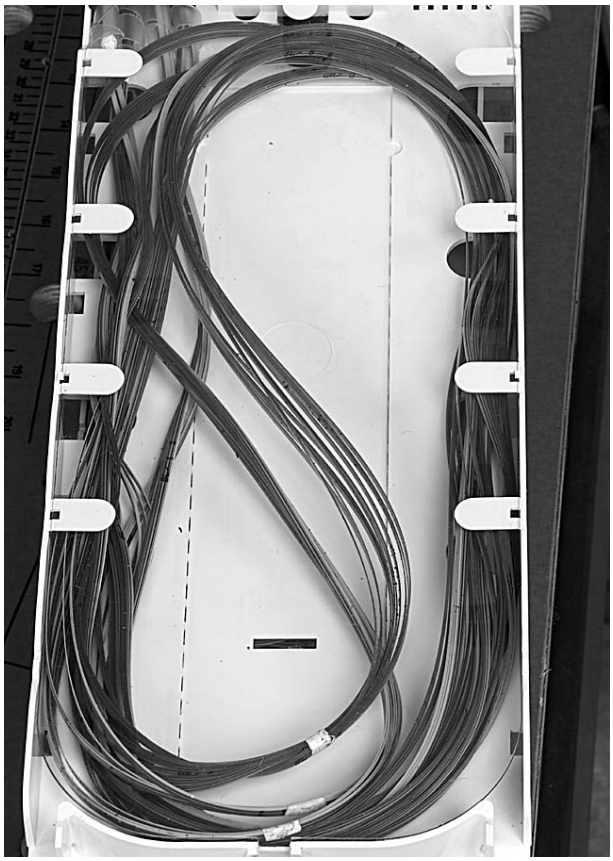
3.5.13 Put a piece of teflon tape at 1.2 meter on the straightened ribbon bundle.
Note: the 1.2 meter is measured from the basket entrance (side were tray holder is).



3.5.14 Wrap the spiral tube around the ribbons.



3.5.15 Put a strip of foam around the spiral tubes and strap them with a tie-wrap to the tray.

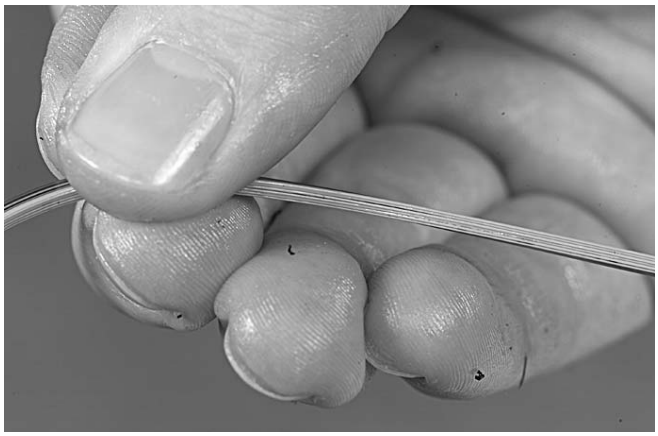


3.5.16 Arrange the ribbon fibers in the tray for storage.
Note: pictures show the maximum (24 ribbon, 12 loops) amount of ribbons stored, in this case no splicing is allowed. Splice holders can be removed of the tray.

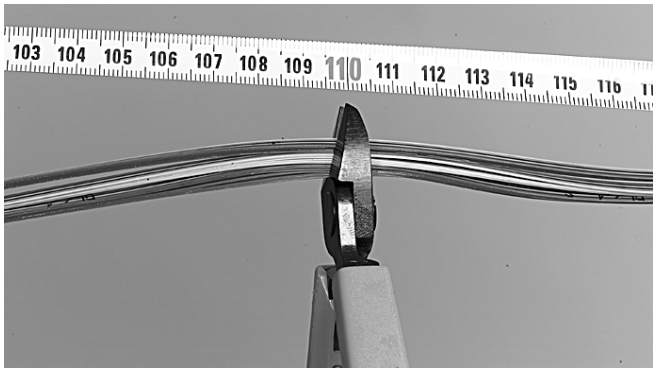
- If splicing of both ends has to be done later, put only 12 ribbon-12 loops at the tray (or 6 ribbon - 24 loops).
- If splicing of only one end has to be done later, maximum capacity should be 24 ribbon-12 loops (or 12 ribbon - 24 loops).
- If no splicing needs to be done, a maximum of 48 ribbon-12 can be stored (or 24 ribbon-24).

C Splicing of ribbons

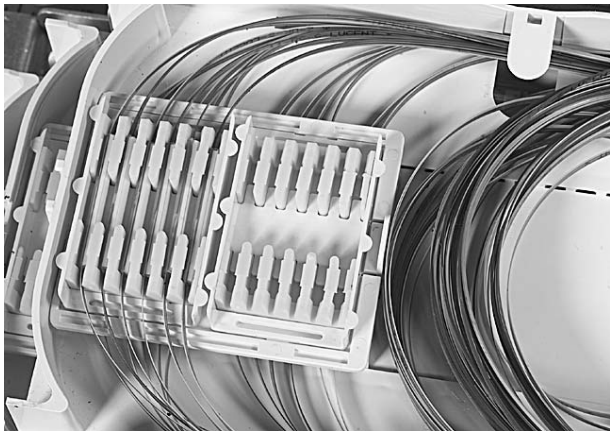
3.5.17 In case a loop needs to be spliced, cut the ribbon in the middle of the loop. Clean the ribbons.



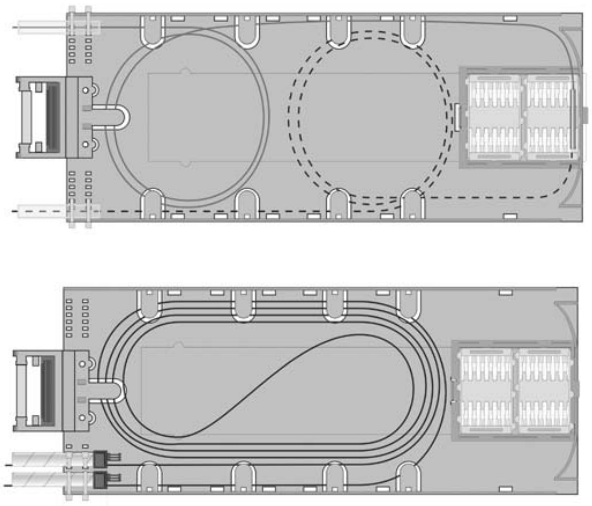
3.5.18 All ribbon fibers have to be free of torsions when spliced. Take the different ribbon fibers of one cable between two fingers (same color up). Slide the fingers over the ribbon fibers, moving towards the end of the cable. Refer to the splice manufacterer's instructions for directions of fiber splicing.



3.5.19 Cut the ribbon fibers at a length of110cm, measured from the tray's entrance (easier for storage in tray, see drawing at point 6.4.6).
Note: when intertray jumping is required, do not cut the ribbons shorter before they are on the appropriate tray.



3.5.20 On the tray there's the possibility to store the splices in two different compartments (top and bottom). The first completed splices have to be stored in the bottom compartment, in the splice holders farthest from the hinge. When all bottom slots are full, the top slots can be filled.



3.5.21 Route the ribbon fibers on the tray in an orderly fashion, as shown on the drawing.
Note: Store the ribbons as much as possible in bundles. Avoid crossings.

3.6 Fiber splicing and capacity

FOSC 600 C

Can contain up to 5 single fusion trays with a slack basket or 3 ribbon trays with no slack basket.

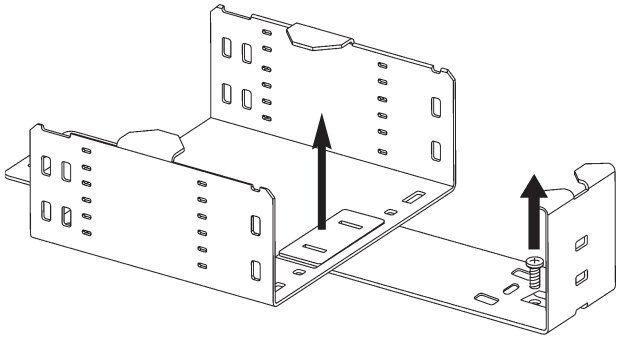
FOSC 600 D

Can contain up to 9 single fusion trays with a slack basket or 6 ribbon trays with no slack basket.

3.7 Basket

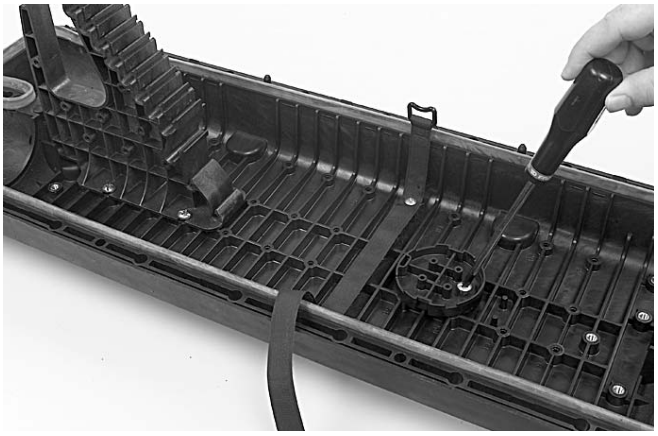
Use the basket for slack of tubes and for routing the tubes to the trays.

The basket is shipped in the correct position for butt configuration. For in line configuration, an adjustment must be made to the basket.

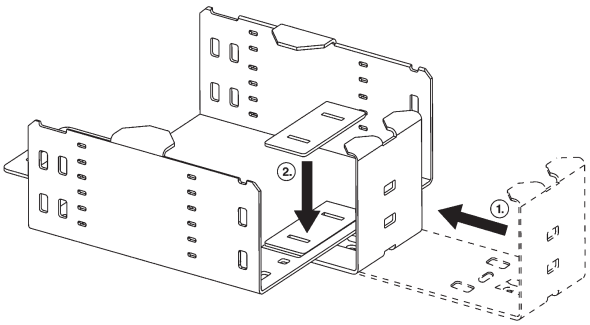


3.7.1 Remove the plastic insert and the screw that secures the non hinged end of the basket to the closure.
Note: use this screw to install the spacer (see 3.7.3).

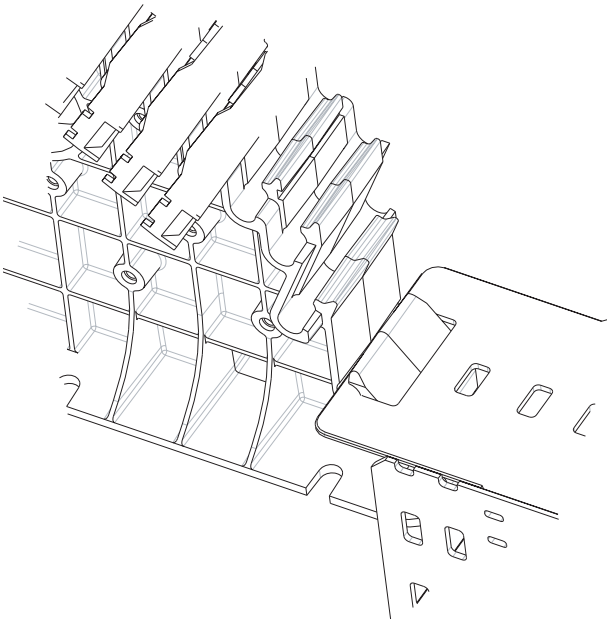
3.7.2 Remove the basket.



3.7.3 Install a spacer as shown, use the screw that was removed from the butt installed basket. The second spacer snaps on the first.

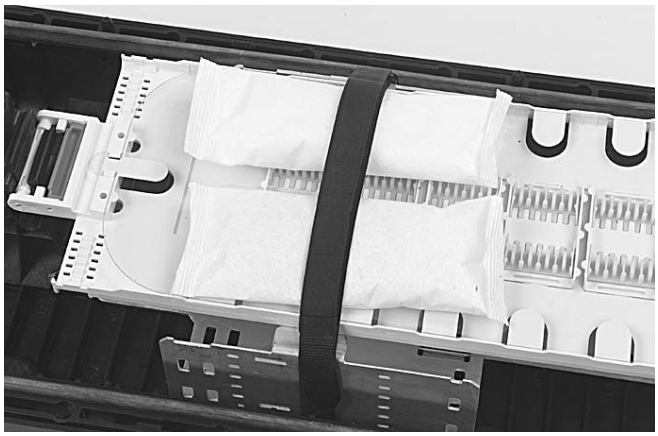


3.7.4 Install the plastic insert to secure the basket.



3.7.5 Install the basket in the second position from the bottom in the tower.

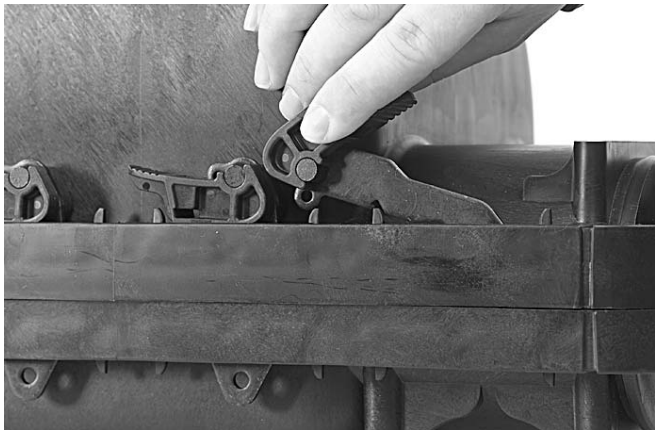
3.8 Closing the closure



3.8.1 Place silica gel on the tray. When tower is fully loaded with trays, place silica gel at the side of the trays (between the trays and the Velcro).

3.8.2 Make sure that the rubber gasket in the bottom half of the closure is clean and well secured in the groove.

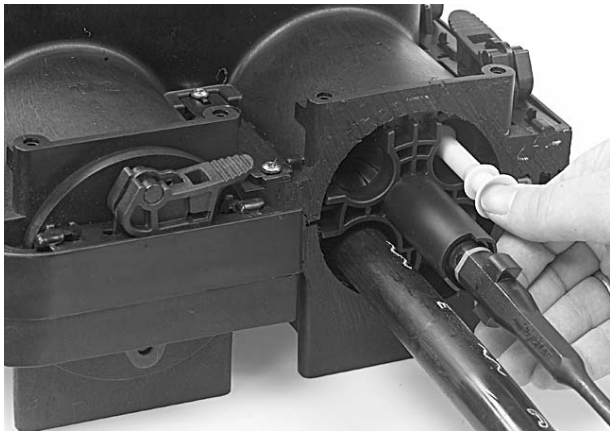
3.8.3 Make sure that the latches are properly aligned.



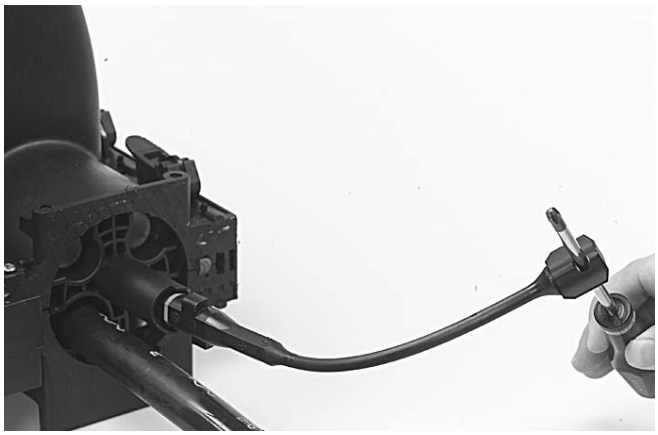
3.8.4 Place the top half of the closure body onto the bottom half. Turn top half upside down and at a 45 degree angle. The latches should fall into place.

3.8.5 Use a nut driver to tighten the captured bolt at each end of the closure.

Secure all latches around the outside of the closure by inserting a screwdriver into each latch. Check the bolts again to make sure they are tight.



3.8.6 In the ports which are not used, install a plug.



3.8.7 Turn the trigger of each gel block clockwise till the physical stop. Insert a screwdriver through the loop in the trigger to apply extra torque, if required.

3.9 Adding a cable to an existing closure

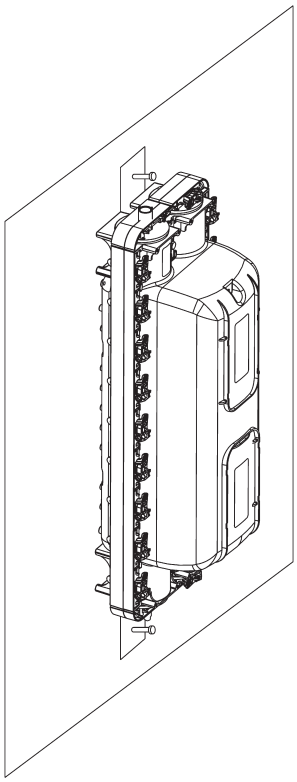
3.9.1 Loosen each installed gel block by turning the trigger counter clockwise. Insert a screwdriver through the loop of the trigger to apply extra torque, if required.

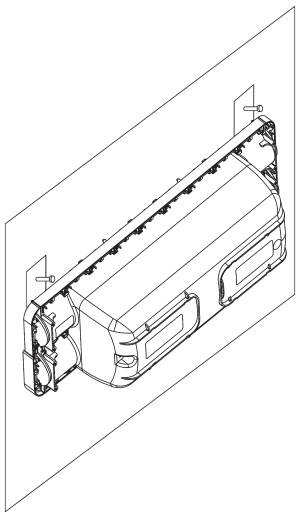
3.9.2 Unlatch each of the latches in order, using a screwdriver. Hooks must be completely disengaged and in the up position so they don't trap the closure cover in place.

3.9.3 Loosen the captured bolts at each end of the closure.

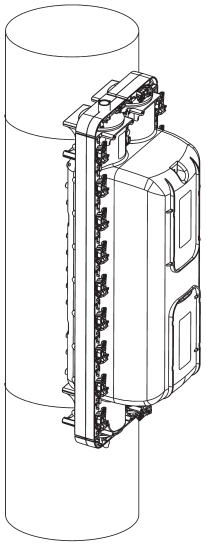
3.9.4 Lift up the top half of the closure and set it aside. From here follow the section "installing cable".

3.10 Mounting the closure





A Wall mounting.



B Pole mounting.

Aerial mounting brackets sold separately.

Tyco Electronics Raychem NV
Diestsesteenweg 692
B-3010 Kessel-Lo, Belgium
Tel.: 32-16-351 011
Fax: 32-16-351 697
www.tycoelectronics.com

TC 664/IP/2 06/04 ♻