SST (SUPER SMALL TRANSITION) FIELD-INSTALLABLE FLEXIBLE FANOUT KITS AND BREAKOUT KITS

Components for the 12 inch or 24 inch Flexible Sleeve Fanout Kit and 12 inch or 24 inch Flexible Sleeve Breakout Kit include:

1. Gland Assembly (Tread Lock-nut, Washer, Nut)
2. Housing
3. 12 inch or 24 inch Flexible Sleeve (with pre-mounted gland assemblies)
4. Coupler
5. Furcation Kit with Tubes and Manifold (Fanout Kit Part Numbers begin with “SSTS00”)
6. Breakout Kit with Mesh and Manifold (Breakout Kit Part Numbers begin with “SSTBB00”)

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5

6

Table 1 – Cable Preparation Length

FURCATION LENGTH OF KIT	FITTING	CABLE PREPARATION LENGTH
40 in.	12in Flexible	80 in.
	24in Flexible	92 in.
80 in.	12in Flexible	120 in.
	24in Flexible	132 in.
120 in.	12in Flexible	160 in.
	24in Flexible	172 in.

INSTRUCTIONS FOR THE FLEXIBLE FANOUT KIT AND BREAKOUT KIT

NOTE – For illustration purposes, the images in this document alternate between the Fanout Kit and Breakout Kit components; but the procedures are the same.

1. Cable Preparation Length

Using **Table 1** above, determine the correct cable preparation length based upon the kit furcation length and fitting type being used, and *mark the cable outer jacket* measuring from the termination end. If additional fiber length exiting the tubes/mesh is required for the application, add the additional length to the measurements in **Table 1**.

INSTRUCTIONS FOR THE FLEXIBLE FANOUT KIT AND BREAKOUT KIT (cont.)

2. Cable and Kit Preparation

A. If provided, remove the nut from the gland assembly, this is not required for kit assembly. Leave the flexible washer on the gland assembly.

B. Slide the gland assembly and then the coupler on the cable past the preparation length mark from **step 1** (**Figure 1**). Then remove the measured length of cable jacket as per the cable manufacturer's instructions.

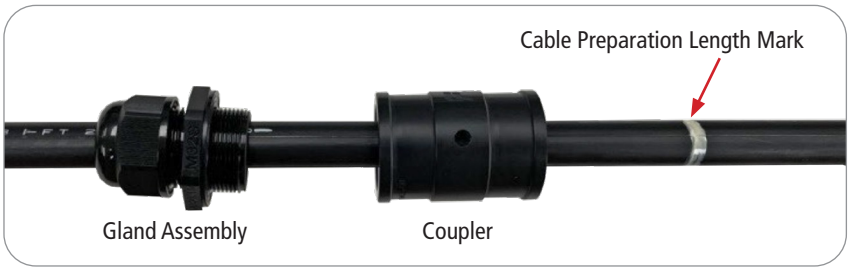

Figure 1

C. Next route the fibers through the coupler, flexible sleeve, and then housing in that order (**Figure 2a**).

NOTE – tape can be used at the end of the fibers to enable ease of routing through the coupler, sleeve and housing (**Figure 2b**).

Figure 2a

Figure 2b – Taped fiber ends

INSTRUCTIONS FOR THE FLEXIBLE FANOUT KIT AND BREAKOUT KIT (cont.)

D. Assemble the coupler and housing to the 12 inch or 24 inch flexible sleeve by screwing the coupler to the sleeve's pre-mounted gland on the side nearest to the end of the cable jacket. Then screw the housing to the sleeve's pre-mounted gland on the side facing the end of the bare fibers (**Figure 3a**).

The cable should now have the gland assembly over the outer jacket; and the coupler, flexible sleeve (12 in. or 24 in.), and housing joined and installed over the bare fiber (**Figure 3b**).

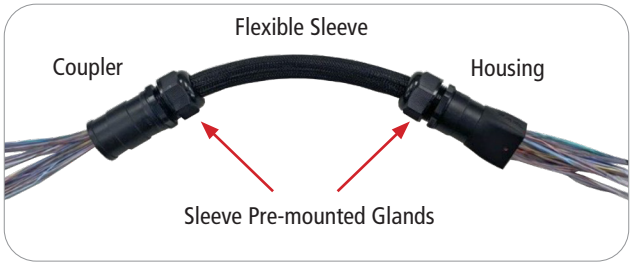

Figure 3a

Figure 3b

3. Installing the Fibers Into the Furcation Manifold

A. Prior to preparing the fibers for insertion into the furcation manifold, if able, it is recommended to securely tape the manifold to a flat surface in either a vertical or horizontal position (**Figure 4**) or into a vice to make threading easier.

B. Carefully fanout each fiber sub-group in order based off the desired fiber grouping per tube/mesh (**Figures 5a and 5b**).

NOTE – tape can be used at the end of the fibers to enable ease of routing through the manifold and tubing/mesh (**Figure 5c**).

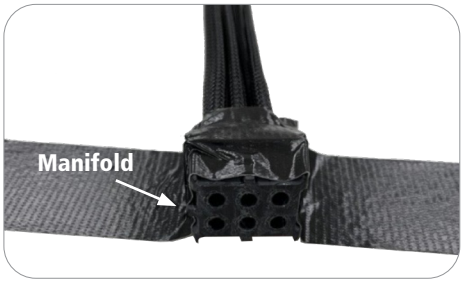

Figure 4

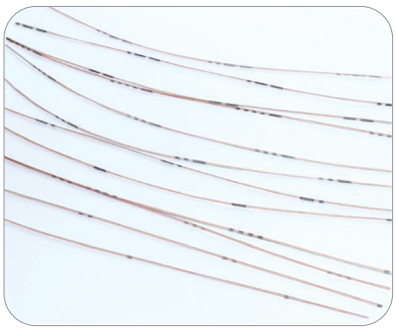

Figure 5a – Fibers with band markings

Figure 5b – Fibers in string binder groups

Figure 5c – Taping fiber ends

INSTRUCTIONS FOR THE FLEXIBLE FANOUT KIT AND BREAKOUT KIT (cont.)

C. Insert each fiber sub-group into the manifold for routing into the individual fanout tubes/breakout mesh (**Figure 6a**) until the fiber emerges from the end.

When multiple fiber sub-groups need to be routed through the same fanout tube/breakout mesh, tape the leading end of the fiber bundles (including string binders) together so they can be inserted simultaneously to prevent kinking or binding of fibers within the tube/mesh (**Figure 6b**).

Be careful not to twist or wrap the fiber bundles around each other during this process.

It is recommended to start the first sub-group at the bottom left of the manifold and work from left to right within the row, then upward when each row is complete (**Figure 6a**).

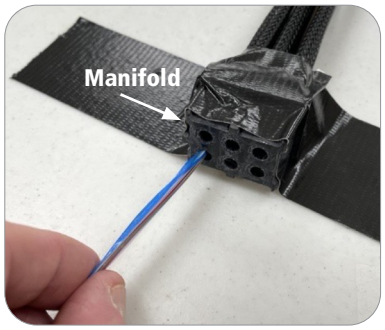

Figure 6a – Manifold taped to flat surface

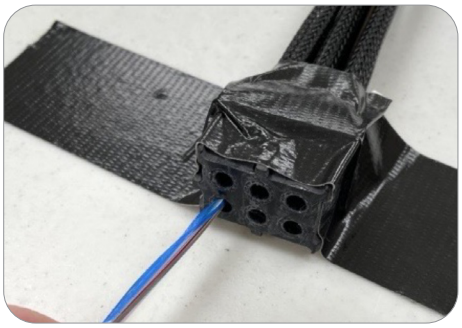

Figure 6b – Taped fiber ends

D. Once all the fiber bundles have exited the tubes/mesh, mark and identify each with the labels provided in the kit.

E. Remove the manifold if it was secured to a surface or vice in **step 3A**.

Next gently pull on the fiber bundle ends (**Figure 7a**) to carefully slide tubes/mesh along the fibers to bring the manifold and the housing together (**Figure 7b**).

Leave 1-2 inches of fiber visible between the manifold and the end of the housing, do not yet join the housing to the manifold (**Figure 7b**).

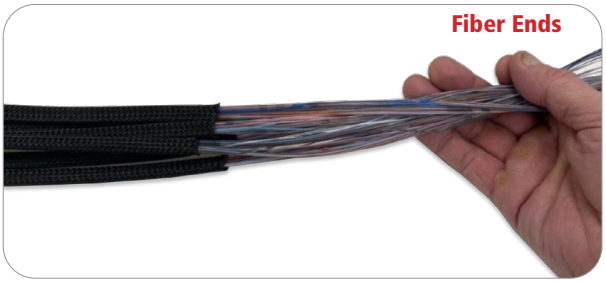

Figure 7a

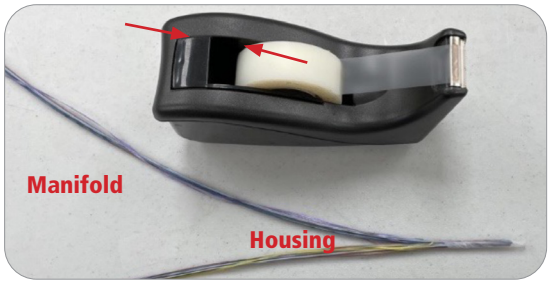

Figure 7b

INSTRUCTIONS FOR THE FLEXIBLE FANOUT KIT AND BREAKOUT KIT (cont.)

F. Slide the gland assembly (that was placed on the cable jacket in **step 2B**) up the cable jacket so that the end of the cable jacket aligns with the end of the gland assembly opposite the tread lock-nut (**Figure 8a**).

Mark this location on the cable outer jacket (**Figure 8a**), but do not tighten the gland tread lock-nut to the cable jacket yet. This mark provides a reference point to ensure proper positioning of where the fibers exit the cable jacket inside the gland assembly.

Next screw the gland assembly to the coupler being careful not to twist the fibers.

Then using the location mark just made on the outer jacket, reposition the tread lock-nut of the gland assembly (now joined with the coupler) to the mark (**Figure 8b**), and secure it to the cable outer jacket by screwing the tread-lock nut until it is fixed securely on the cable. (**Figure 8b**).

Ensure the gland is fixed tightly on the cable so no slippage will occur.

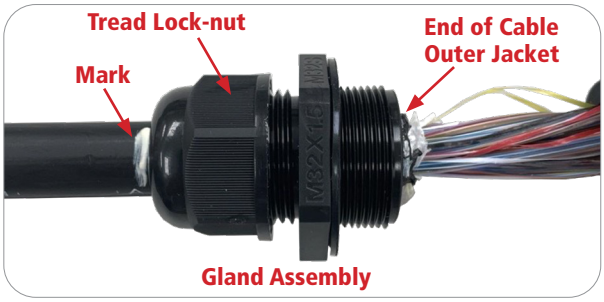

Figure 8a

Figure 8b

4. Joining the Manifold and Housing

Move the manifold toward the housing by holding the fiber ends that have exited the tubes/mesh and slide the manifold along the fibers toward the housing.

Ensure no fiber slack or twist is created at the housing-manifold junction which could create fiber macro-bends inside the housing.

Join the housing to the manifold (**Figure 9a**) taking care to orient the housing so the three notches inside the housing align with the three protrusions on the tube manifold (**Figures 9b and 9c**).

Snap the housing and manifold together, an audible click will indicate engagement.

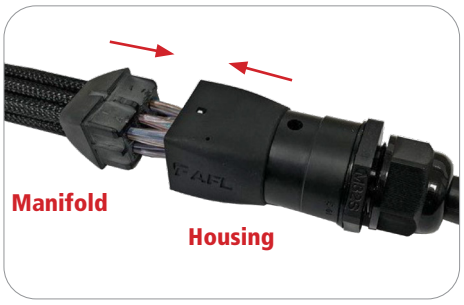

Figure 9a

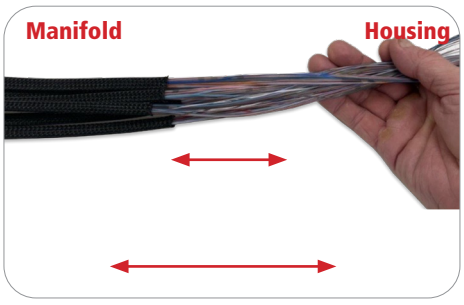

Figure 9b

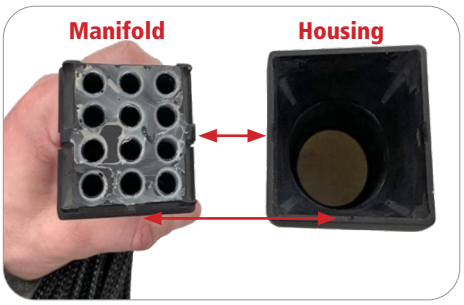

Figure 9c

INSTRUCTIONS FOR THE FLEXIBLE FANOUT KIT AND BREAKOUT KIT (cont.)

5. Completed Assembly

The fanout/breakout kit is now fully assembled (**Figures 10 and 11**).

Figure 10

Figure 11

6. Fiber End Preparation

As the last step, gently pull all fiber ends exiting the fanout/breakout tubes to ensure there are no bends inside the tubes/mesh.

Remove the last 3 inches of fiber exiting the tubes/mesh to remove any tape or fiber that may have been damaged during the preparation process.

There should now be at least 12-14 inches of bare fiber exposed from the of the tubes/mesh, if additional fiber length exiting the tubes/mesh is required for the application, add the additional length to the measurements in Table 1.

The sub-unitized fibers may now be dressed and terminated as per the application.