OAsys® INTERNAL PLANT

NJ4A B/FIBRE DIST KIT

Part Number: XKTSC00019 BT Item Code: 009474

Description

- Provides the facility to breakout and distribute the fibres of a 2 or 4 fibre Blown Fibre Bundle on a single fibre per tray basis.
- Each Bundle fibre can be routed to any Splice Tray within the Joint.
- Each kit contains sufficient components to prepare, install and route the Bundle fibres onto the splice trays.

Tools & Additional Items Required

Additional Items Required:	Prysmian Part No.	BT Item Code
Water Blocking Kit 5mm 2A	XAPSC00531	075692
Splice protectors 5A	XPESC00053	076071

Fixings:	No fixings required

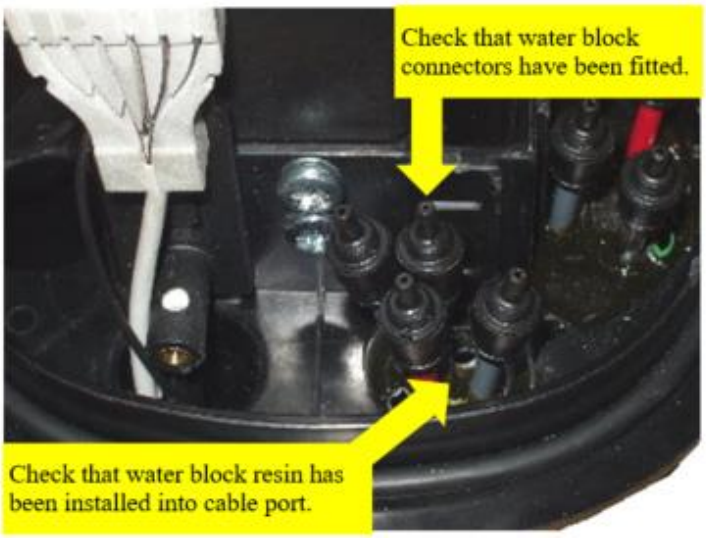
Tools:	Tube Cutter 2A

Component Parts (pictures not to scale)

1 NJ4A Dist Manifold 1x4 Qty 1	2 Transport Tube Qty 1.2mtrs	3 NJ4A 1x2 Manifold Qty 1	4 Installation Guide Qty 1
			

Blown Fibre Bundle Installation

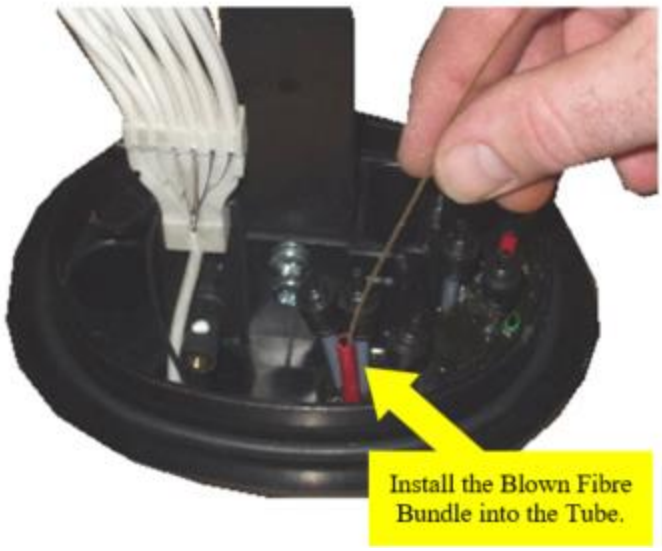
Step 1



- Before entering the joint refer to the joint re-entry and close procedure on page 4.
- Ensure that the cable has been installed correctly and that Water Block Connectors have been fitted to all the Blown Fibre Tubes.

Blown Fibre Bundle Installation

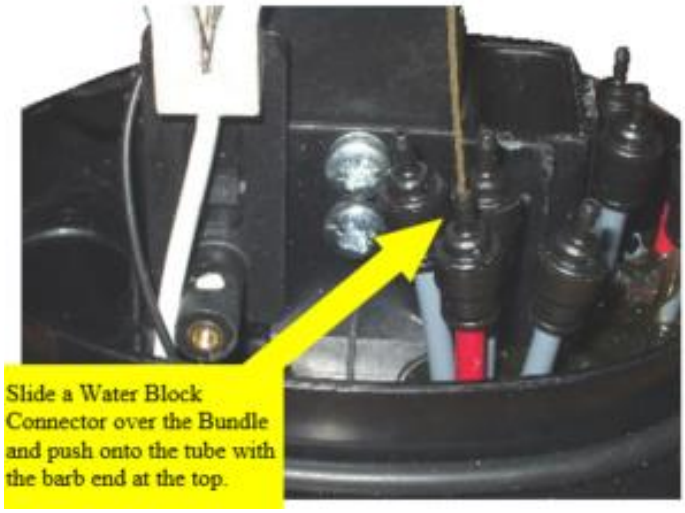
Step 2



- Identify the required Blown Fibre Tube and remove and discard the Water Block Connector.
- Install the Blown Fibre Bundle using approved practices.

Blown Fibre Bundle Installation

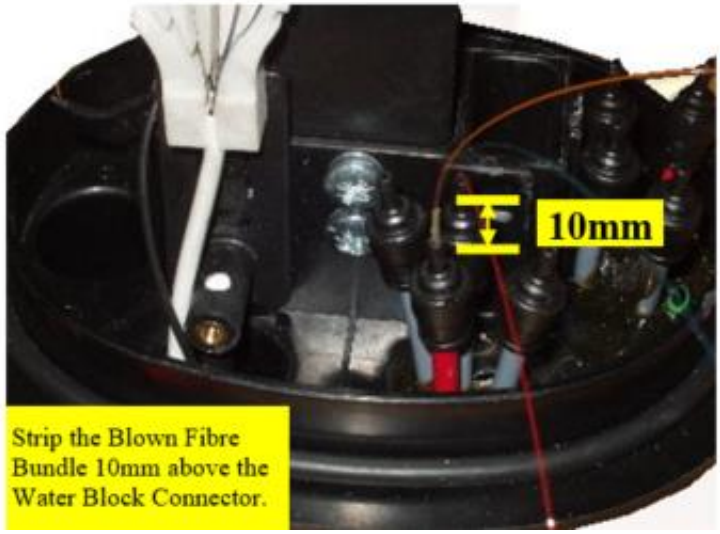
Step 3



- Slide **a new** Water Block Connector (BT Item Code: 075692) over the Bundle with the barb end uppermost and plug it onto the Blown Fibre Tube.

Blown Fibre Bundle Routing and Splicing

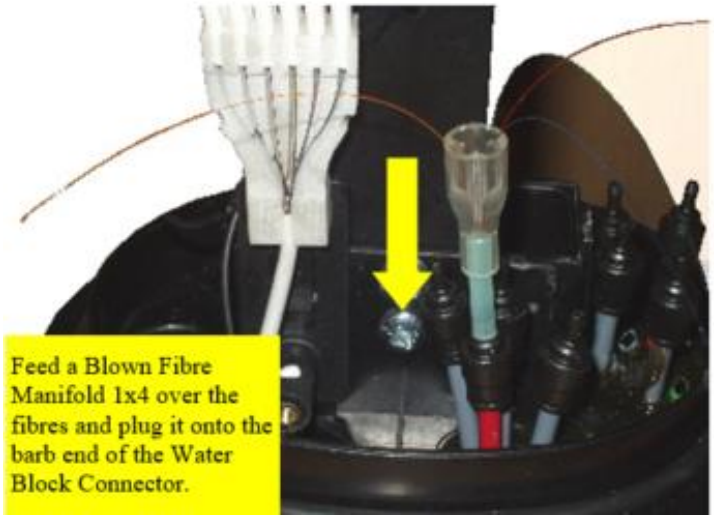
Step 4



- Strip the Blown Fibre Bundle to expose the fibres 10mm above the top of the Water Block Connector.

Blown Fibre Bundle Routing and Splicing

Step 5



- Feed a Distribution Manifold 1x4 **(1)** over the fibres and plug the tube onto the barb of the Water Block Connector.
- Separate the fibres into the appropriate groups ensuring that they are not crossed at the butt.

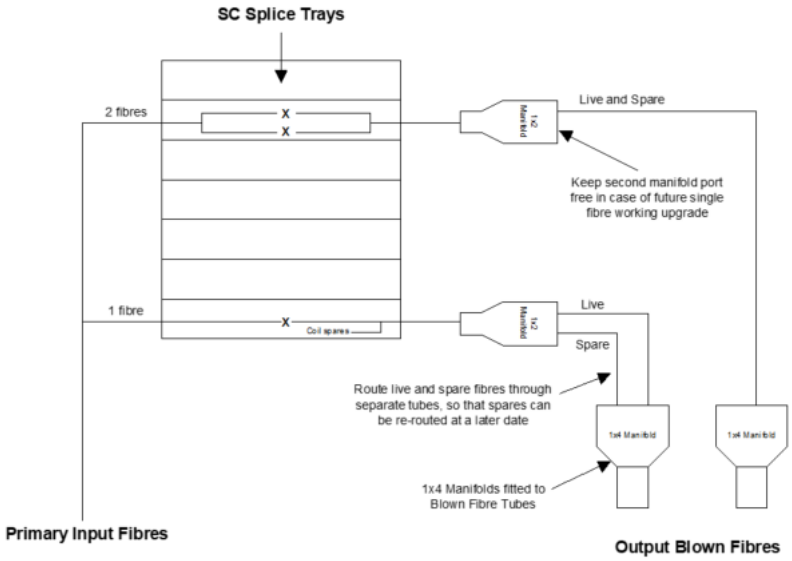
Blown Fibre Bundle Routing and Splicing

Step 6

- Remove the tray retention tool from the top of the joint spine by squeezing the ends in the direction of the yellow arrows, as shown above, and pushing from the rear of the spine in the direction of the green arrow.

Blown Fibre Bundle Routing and Splicing

Step 7



ROUTING OF BLOWN FIBRE BUNDLES-

- In cases where 1 primary fibre is routed onto each splice tray (single fibre working), separate the fibres of the Blown Bundle at the cable butt using an NJ4A 1 x 4 Manifold. Route the live fibre and the spare fibres of the bundle through separate tubes to an NJ4A 1 x 2 Manifold as shown. This enables the spare fibres to be removed and re-routed later if required without disturbing the live circuit.
- In cases where 2 primary fibres are routed to each splice tray (single circuit working), separate the fibres of the Blown Bundle at the cable butt using an NJ4A 1 x 4 Manifold. Route the live fibre/s and the spare fibres of the bundle through one piece of transport tube to an NJ4A 1 x 2 Manifold as shown. This provides a spare port at the NJ4A 1x 2 Manifold. This enables fibres from other Blown Bundles to be routed onto the tray in the future in cases where single fibre working upgrades may be required.

Blown Fibre Bundle Routing and Splicing

Step 8

Gain access to the required tray by hinging trays above up

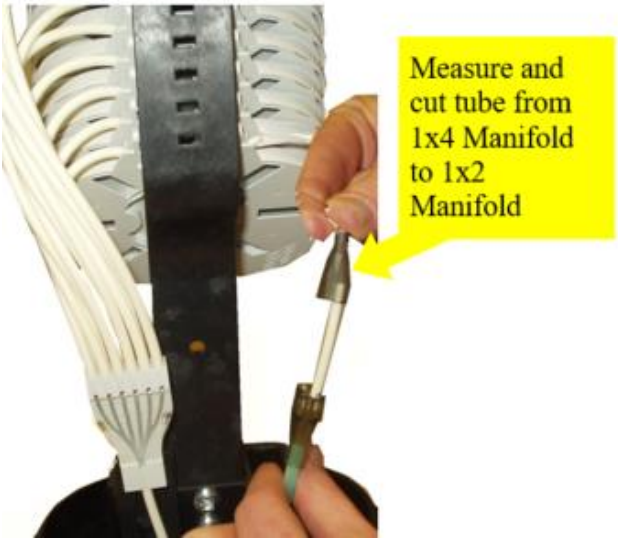
- Obtain access to the required splice tray by hinging up the splice trays above.

Step 9

- Insert the tray retention tool the opposite way up from before, into the slot in the joint spine, above the required tray. Push until it locks.

Blown Fibre Bundle Routing and Splicing

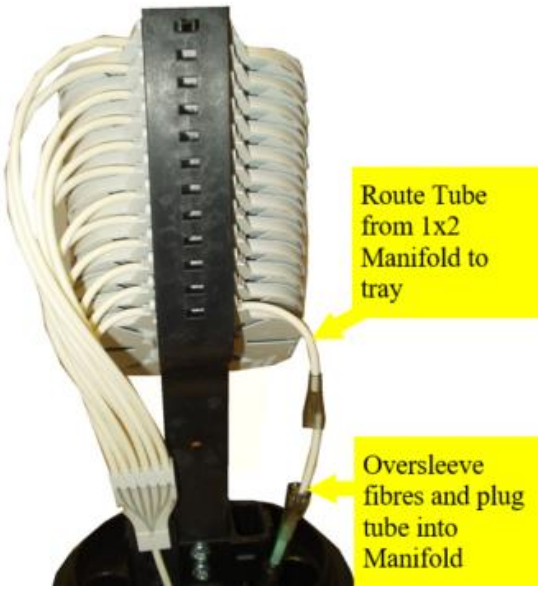
Step 10



- Route a length of Transport Tube 4mm **(2)** from the appropriate port of the Distribution Manifold 1x4 **(1)** to entry port of an NJ4A 1 x 2 Manifold. Ensure that the minimum bend radius of 30mm is not compromised.
- Mark the tube and cut to length using a Tube Cutter 2A.

Blown Fibre Bundle Routing and Splicing

Step 11



- Oversleeve the bundle fibre with the Transport Tube **(2)** and plug the tube into the appropriate port of the Distribution Manifold 1x4 **(1)**.
- Push the tube down by 10mm until the stop position is reached.
- Route a second length of Transport Tube from one of the exit ports of the NJ4A 1 x 2 Manifold to the entry port of the appropriate splice tray.
- Cut the tube to length and oversleeve the fibres. Ensure that the tube is fully located into the port of the 1 x 2 Manifold.

Blown Fibre Bundle Routing and Splicing

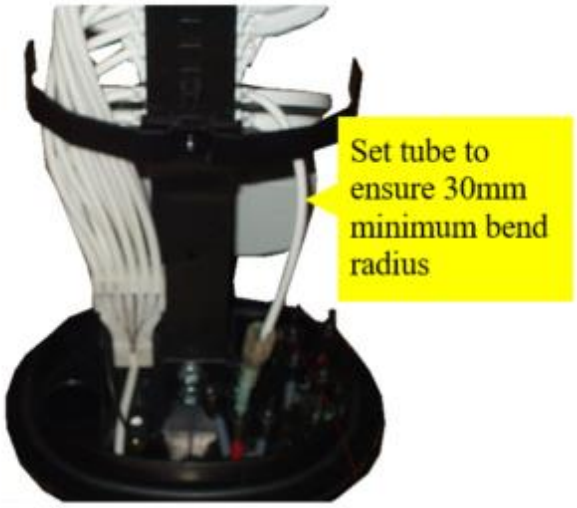
Step 12

- Feed the fibres through the slot on the tray entry port and plug the Transport Tube **(2)** into the port.
- Push the tube fully home until the stop position is reached.

WARNING: When pushing the tube in, ensure that fingers are close to the end to prevent the tube from kinking.

Blown Fibre Bundle Routing and Splicing

Step 13



- Measure the fibre length on the tray to 1.5 metres and cut away any excess fibre length.
- Set the bend of the Transport Tube **(6)** to ensure that the minimum bend radius of 30mm is not compromised.
- Ensure that the tube is correctly positioned inside the tube retention cradle.

Blown Fibre Bundle Routing and Splicing

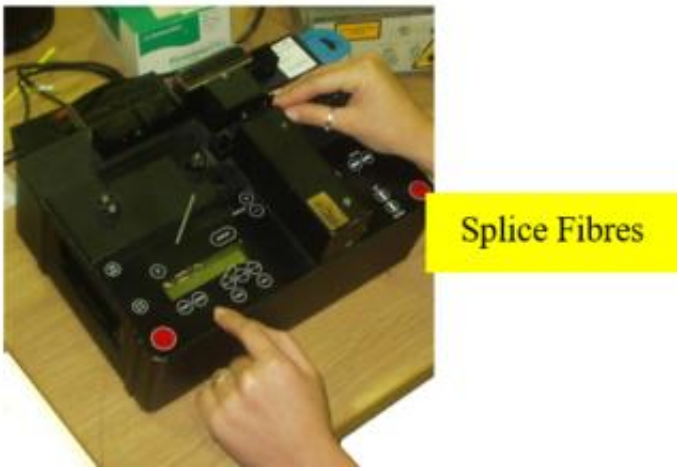
Step 14

Store the fibre ends in the central mandrel track to ease later access

- Route the fibres around the storage area of the tray, in the opposite direction to the input fibres and coil the beneath the tray tabs.
- Store the fibre ends in the central mandrel tracks for later access.

Blown Fibre Bundle Routing and Splicing

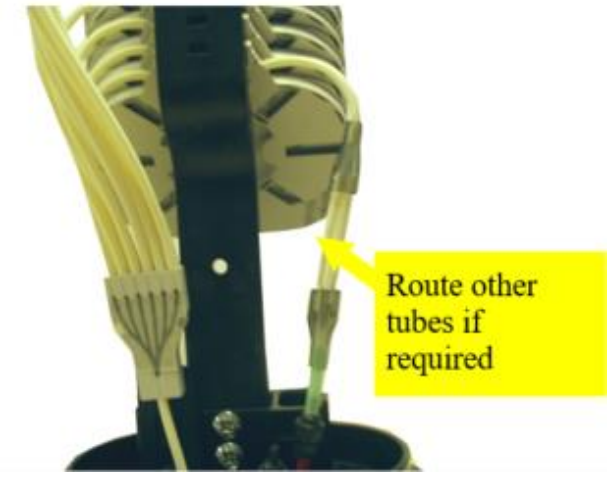
Step 15



- Splice the fibres.

Blown Fibre Bundle Routing and Splicing

Step 16



- Route any other fibres from the bundle if required, to their appropriate splice trays.

Step 17

When entering the Node Joint 4A it is very important to pull the pressure relief valve located on the base of the joint to ensure the enclosure is fully vented and is not pressurised before removing the Cap.

When closing the joint assembly, it is important to check the following points have been completed:

1. Check the general condition of the enclosure for any sign of damage,
2. Ensure that the 'O' seal and the mating surfaces of the enclosure are clean and free from debris,
3. Replace the Desiccant pack and dispose of the old one in the appropriate manner.
4. Once completed, ensure the clamp is correctly located onto the assembly as per step 38.

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