# INSTRUCTIONS ON THE INSTALLATION OF BLOWN FIBRE
## (Point to Point Blowing Only)

## Description

- This document details the user instructions for the installation of MK2 Blown Fibre Units using the Sirocco Blowing head. This document details the operation of Point-to-Point blowing only.
- When installing 2 or 4 fibre EPFU the same fibre guides within the blowing head can be used. When installing an 8 or 12 fibre unit it is necessary to change the fibre guides.
- **All operators must comply with any local statutory Health & Safety regulations.**
- **Working with Compressed Air is potentially dangerous and any operator following these procedures must have successfully completed a Prysmian Cables & Systems UK Ltd approved training course.**

## Equipment Required

| Equipment Required: | Part No. |
|---|---|
| Sirocco Compressor (Petrol) or | XBFSC00002 |
| 220/240v DC (Electric) | XBFSC00013 |
| Air Hose | XBFSC00005 |
| Air Pressure Indicator/Valve | XBFSC00004 |
| Sirocco Blowing Head | XBFSC00010 |
| Fibre Unit Dispenser Pan | XBFSC00028 |
| Fibre Unit Pan Guide | XBFSC00007 |
| Fibre Unit Blowing Bead | XBFSC00001 |
| Air Flow Meter (part of kit 820/5) | XBFSC00011 |
| Air Stone (part of kit 820/5) | XBFSC00011 |
| Tube Cutter (part of kit 820/5) | XBFSC00011 |
| Tube End Stop | XBFSC00076 |
| 5 -5 mm Tube Connector | XBFSC00075 |
| Sirocco Tube Integrity & Length Tester (STILT) | XBFSC00030 |

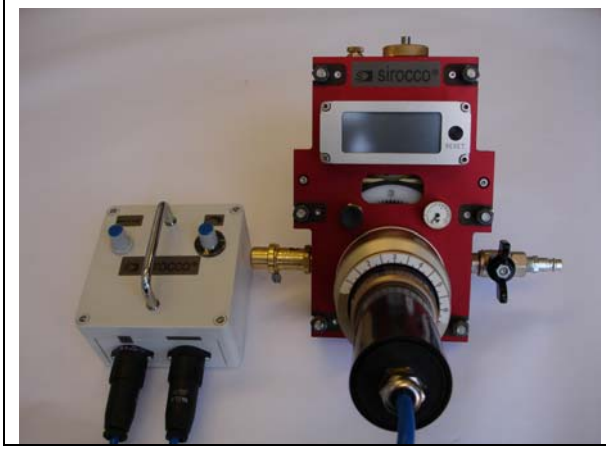
## Equipment

**Compressor Qty 1**

**Air Pressure Indicator/Valve Qty 1**

## Equipment (contd)

**Sirocco Blowing Head** **Qty 1**



**Fibre Unit Dispenser Pan** **Qty 1**

**Fibre Pan Guide** **Qty 1**

**Fibre Blowing Beads** **Qty 1**

**Air Hose** **Qty 1**

**STILT** **Qty 1**

## Ancillary Equipment

**Air Flow Meter** **Qty 1**

**Tube End Stop** **Qty 1**

**Air Stone** **Qty 1**

**Tube Cutter** **Qty 1**

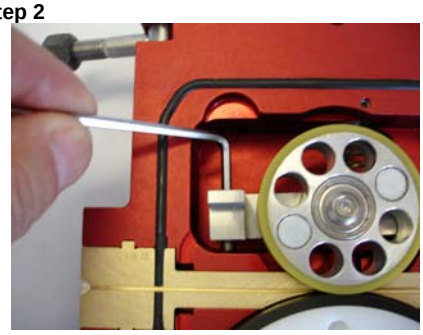
**5 – 5 mm Tube Connector** **Qty 1**

## Blowing Head Preparation

**Step 1**

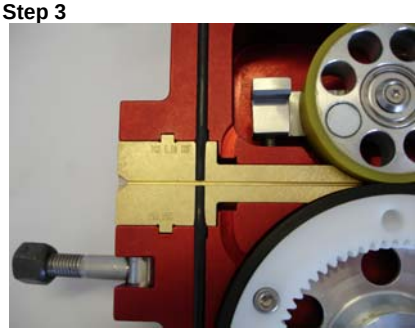
- Ensure that the large knurled knob at the top of the blowing head is fully wound out.

**Step 2**



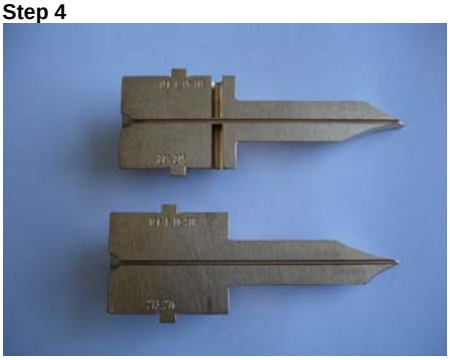
- Using the Allen key adjust the position of the idle roller so that it just starts to rotate when the drive wheel is spun.

**Step 3**



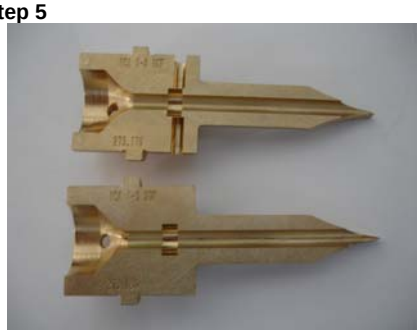
- Ensure that the correct fibre guides are located within both halves of the blowing head**.**

**Step 4**



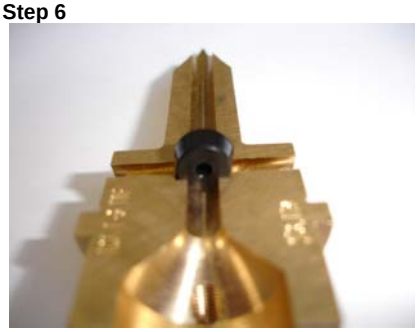
- 2 & 4 fibre unit guide.

**Step 5**



- 8 & 12 fibre unit guide

**Step 6**

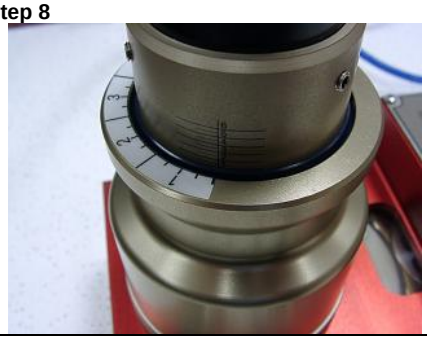


- 8 & 12 fibre unit guide showing correct orientation of fibre unit seal.

**Step 7**

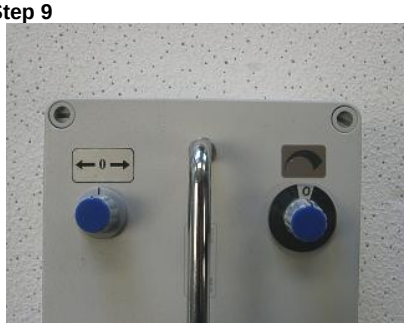
- Using the electrical leads connect the blowing head to the speed control and the speed control to the power socket on the compressor.

**Step 8**



- Set the clutch control to zero.

**Step 9**



- Set the speed control to zero.

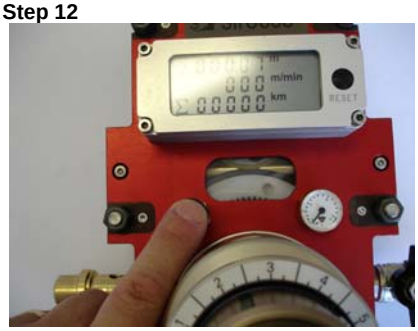
**Step 10**


- Start the compressor. Do not switch on the air supply.

**Step 11**

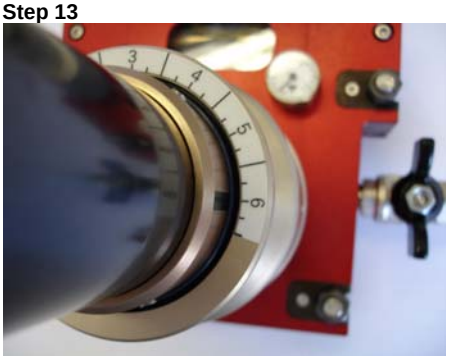
- Set direction of motor and increase the speed control to maximum.

**Step 12**



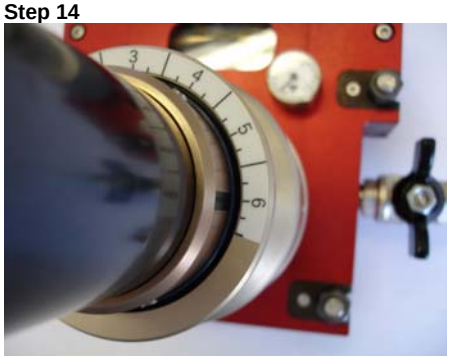
- Hold in the drive wheel stop.

**Step 13**



- Increase the clutch setting to maximum and then back to minimum.

**Step 14**



- Repeat this operation twice more.

**Step 15**

- Change the direction of the motor and repeat steps 13 & 14

**Step 16**

- Switch off the compressor.

## Fibre Unit Preparation

**Step 17**

- Remove the lid and the retaining ring from the fibre unit Storage Pan.

**Step 18**

- Locate the top end of the fibre unit and remove from the pan. Ensure that the unit is unwinding freely from the pan.

**Step 19**

- Pass the fibre unit through the centre of the Pan Guide. Locate the Pan Guide over the Storage Pan.

## Clutch Setting

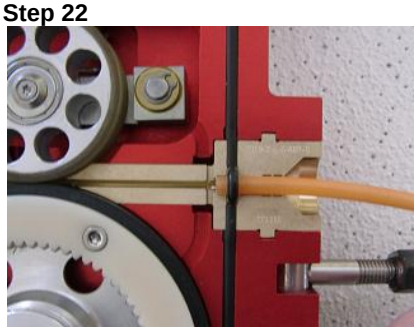
**Step 20**

- Place a split 'O' ring over a 5 mts length of blown fibre tubing.

**Step 21**

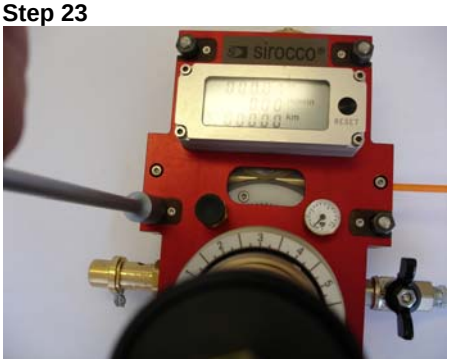
- Fit a tube end stop over the other end of the blown fibre tube.

**Step 22**



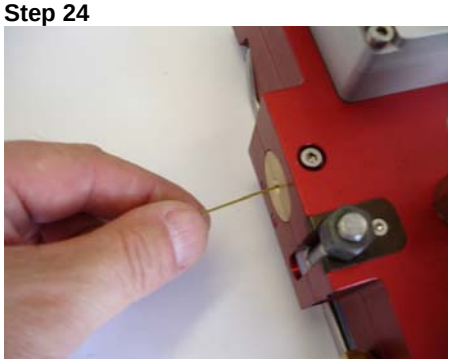
- Position the blown fibre tube into the blowing head. Ensure that the split in the 'O' ring is in the bottom of the groove.

**Step 23**




- Close the blowing head and tighten nuts holding the blowing head together.

**Step 24**



- With the motor running slowly thread the fibre unit into the blowing head.

**Step 25**

- Set the clutch setting to 2.5.

**Step 26**


- Increase the speed control to the maximum installation speed of the fibre unit.

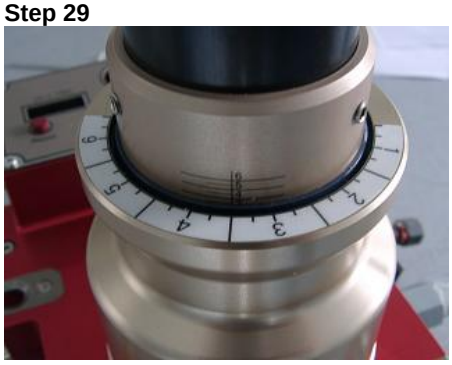
**Step 27**


- When the fibre unit reaches the tube-sealing cap the clutch will operate thus ensuring that no damage occurs to the fibre unit.

**Step 28**

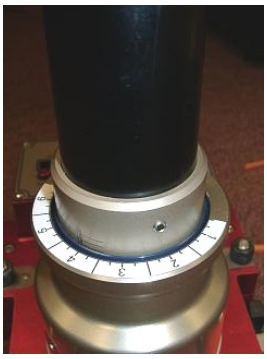

- Reverse the direction of the motor and recover the fibre unit for 4 mts.

**Step 29**



- Increase the clutch setting and repeat steps 25 to 27 until the operation of the clutch fails to prevent the fibre unit from being damaged. Note: the figure in the photo is for demonstration purposes only.

**Step 30**

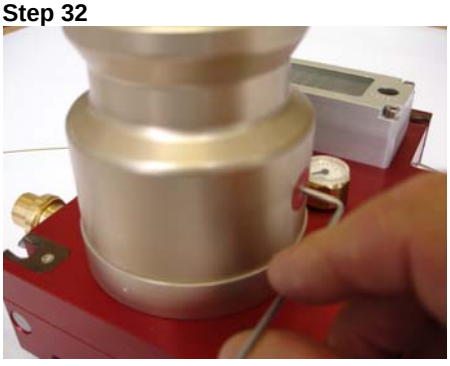


- **A clutch setting 0.25 below the figure determined in step 26 is the maximum setting that can be used.** Note: the figure in the photo is for demonstration purposes only.

**Step 31**

- Set the clutch setting to a figure (typically 0.25) below that determined in step 26. Note: the figure in the photo is for demonstration purposes only.

**Step 32**



- Lock the clutch setting figure using the grub screw.

## Testing the Route

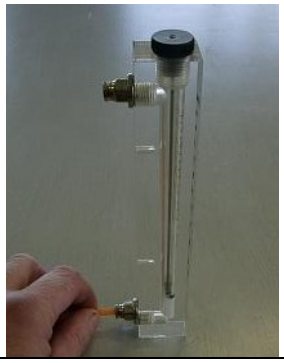
**Step 33**

- Determine the length and the integrity of the route using the STILT. Refer to operating instruction **OI-002** for the detailed method.

**Step 34**

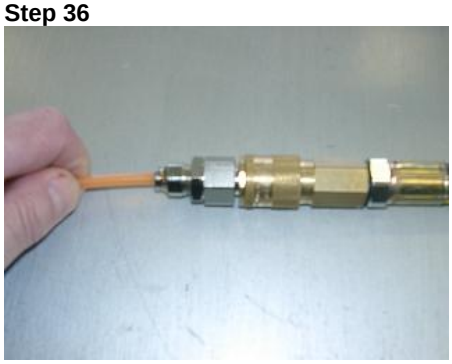
- Having proved the integrity of the route it is necessary to determine the airflow through the route.

**Step 35**



- Connect the airflow gauge onto the correct tube at the far end of the route.

**Step 36**



- Connect the air hose from the air pressure indicator/valve direct onto the tube into which the fibre unit is to be installed.

**Step 37**

- Connect the airflow gauge onto the correct tube at the far end of the route.

**Step 38**


- Start on the compressor and open the air valve.





PRYSMIAN CABLES & SYSTEMS

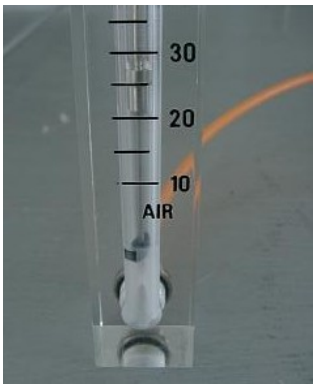
**Step 39**

- Open the air valve on the air pressure indicator/valve.

**Step 40**

- Ensure that the air pressure is at a minimum value of 9.5 bars.

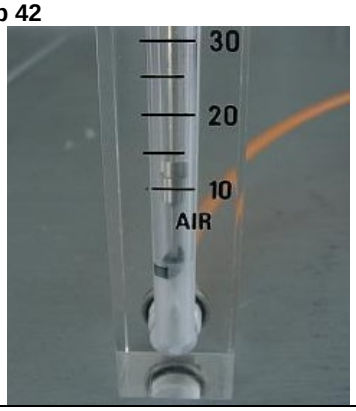
**Step 41**




- After 5 minutes record the airflow. The reading should be above 18l/min.

**If the airflow is above this value then the fibre unit can be installed.**

**Step 42**




- If the airflow is below 18l/min then the installation route should be inspected for air leaks.

**Step 43**

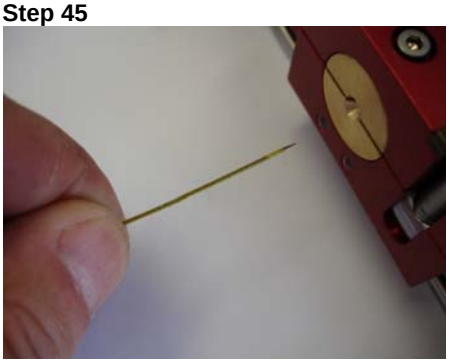
- Turn off the air supply and switch off the compressor.

**Step 44**

- When the airflow drops to 0 remove the air flow meter from the end of the tube and replace it with the air stone.

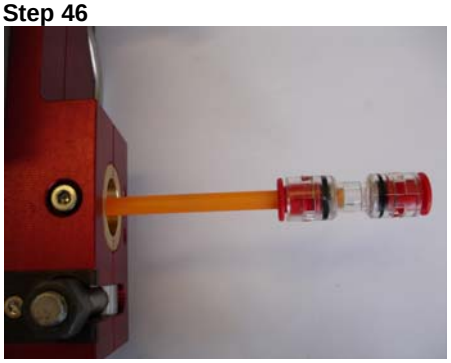
## Installing The Unit

**Step 45**



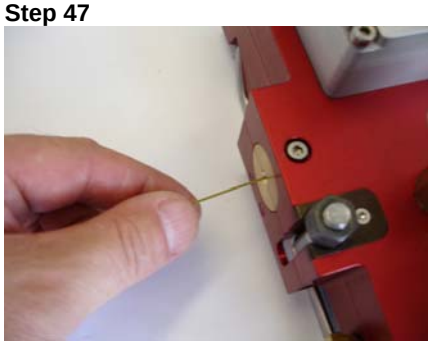
- Using the motor in the reverse direction remove the blown fibre unit from the blowing head.

**Step 46**



- Cut the blown fibre tube approx. 100mm from the blowing head and fit a tube connector.

**Step 47**



- With the motor running slowly thread the fibre unit into the blowing head.

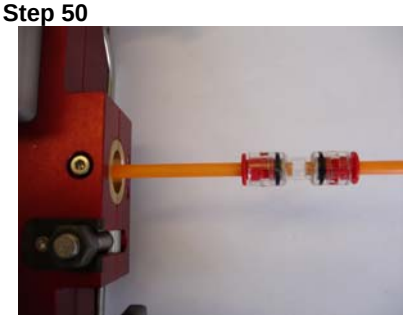
**Step 48**

- When the fibre unit emerges from the connector stop the motor and using a pair of pliers crimp a Blown Fibre Bead onto the end of the fibre unit.

**Step 49**

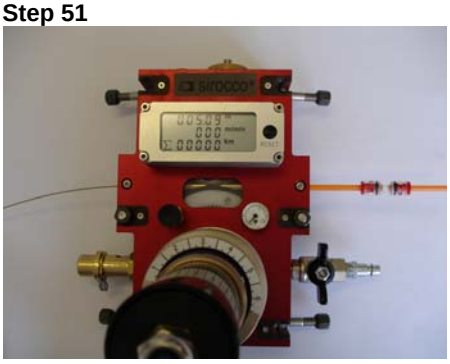
- Gently shake the fibre unit to ensure that the Blown Fibre bead is fixed to the fibre unit. If it falls off fit a new Blown Fibre Bead.

**Step 50**



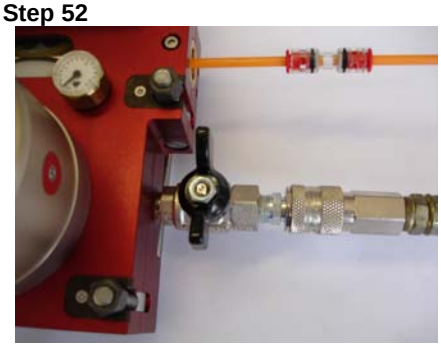
- Connect the tube into which the fibre unit is to be blown to the connector.

**Step 51**



- Position the Blowing head assembly in line with the Blown Fibre Cable. The route between the Blowing Head and the cable should be as straight as possible.

**Step 52**



- Connect the air hose from the pressure regulator to the blowing head

**Step 53**

- Connect the air hose from the compressor to the pressure regulator.



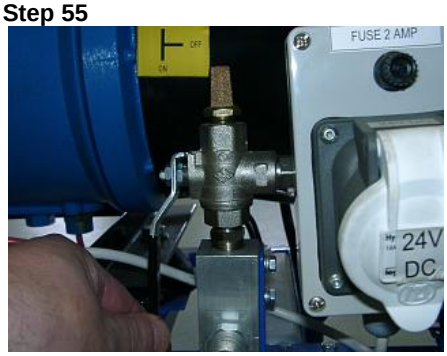


PRYSMIAN CABLES & SYSTEMS

**Step 54**


- Zero the length counter on the blowing head. This is achieved by pressing the reset button down for 5 seconds.

**Step 55**




- Start the compressor and open the air valve on the compressor.

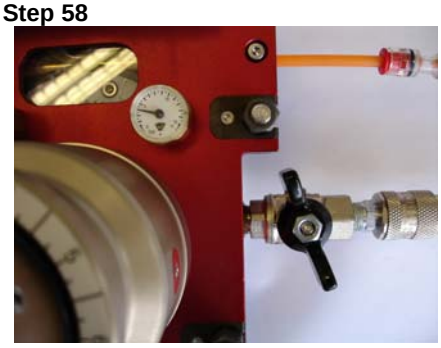
**Step 56**

- Open the air valve on the air pressure indicator/valve. Check that the pressure gauge indicates approx. 10 bar

**Step 57**


- Increase the speed control to approximately 10 m/min. Check to see if the fibre unit is being installed correctly. If not, stop and rectify any problems.

**Step 58**

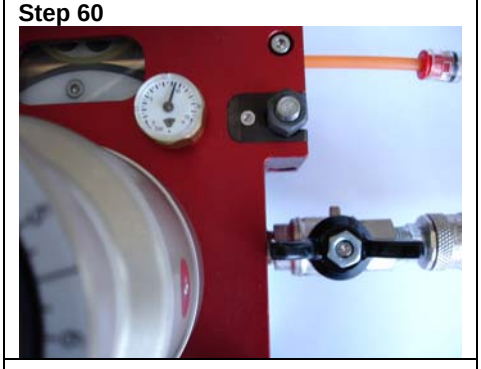


- After approx. 20 mts of fibre unit has been installed turn on the air supply to the blowing head. Regulate the air pressure to 4 bar using the valve on the blowing head.

**Step 59**


- Increase the installation speed to approx. 15 m/min.

**Step 60**



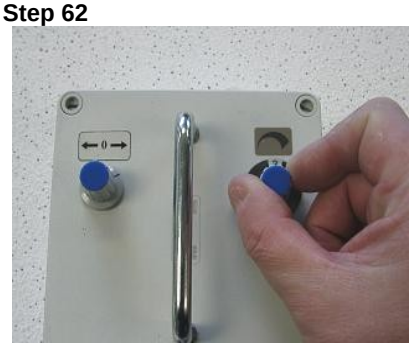
- After approx. 75 mts of fibre unit has been installed increase the air pressure to maximum and increase the installation speed to between 25 - 30 m/min.

**Step 61**

X

- Continue to monitor the installation process. If in any doubt about the process **STOP THE INSTALLATION AND INVESTIGATE**

**Step 62**



- When the fibre reaches the end of the route reduce the installation speed to 0 and turn off the air at the compressor valve.

**Step 63**

- Switch off the compressor.

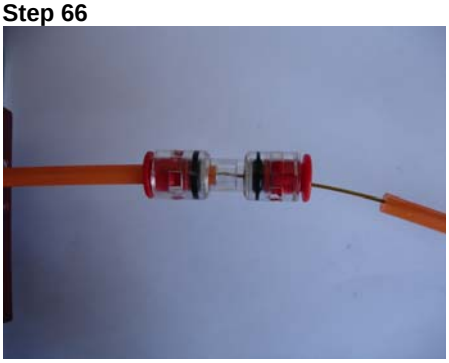
**Step 64**

- Allow 5 minutes for the air pressure within the route to reduce to 0.

**Step 65**

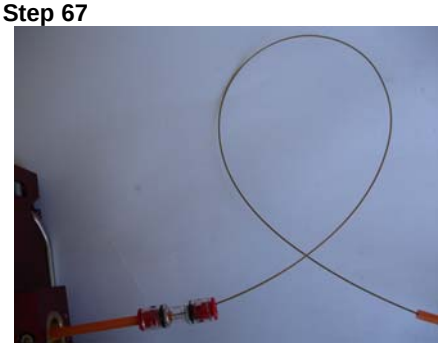
- Disconnect the air hose from the blowing head.

**Step 66**



- Disconnect the tube connector just in front of the blowing head.

**Step 67**



- Using the blowing head drive out the required quantity of fibre unit required for joint/rack configuration

**Step 68**

- Cut the fibre unit and coil this length of fibre unit and store safely.

**Step 69**

- Remove the air stone from the tube.

## Replacement Part Numbers

| Item | Prysmian Part No. | Plumettaz Part No. |
|---|---|---|
| Tube Clamp | XBFSC00032 | N273.112 |
| 2 & 4 Fibre Guide | XBFSC00056 | N.273.120 |
| 8 & 12 Fibre Guide | XBFSC00057 | N.273.057 |
| 8 & 12 Fibre Seal | XBFSC00050 | N273.132 |
| 8 Fibre Brass Guide | XBFSC00174 | N273.147 |
| 5mm Duct Insert | XBFSC00058 | N273.084 |
| 5mm Duct 'O' Ring | XBFSC00097 | N273.066 |
| Drive Wheel | XBFSC00059 | P273.230 |
| Idle Wheel | XBFSC00060 | N273.123 |
| Blowing Head Control Unit | XBFSC00109 | TBD |
| Air Stone | XBFSC00052 | n/a |





PRYSMIAN CABLES & SYSTEMS