

**Splice closure system for telephone distribution networks**

**TELECOM OUTSIDE PLANT**



**XAGA 500 Kit Contents**

- Heat-shrinkable reinforced sleeve
- Flexible channels + underclip
- Liner
- Cleaning tissue
- Emery paper
- Dessicant (Silica gel)
- Aluminium foils
- Branch-off kit
- Installation procedure
- Shield continuity wire assembly

**Note for branched joints**

The standard XAGA 500 kit is designed for max. 2 cables branched in one end only. Branched joints for more than 2 cables require the use of one additional branch-off kit (BOKT-5S or 5M) per added cable.

**Safety Rules**

- Check manhole for presence of gas and follow locally prescribed precautions.
- When working with open flame, use standard safety equipment such as gloves, safety glasses etc... as required by local practices.

**Recommended torches**

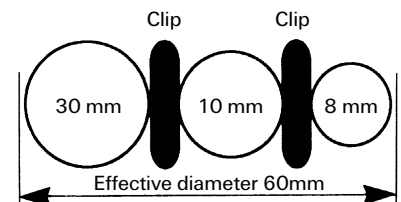
propane torch e.g. Raychem torch  
FH-T001-020: for sizes up to 75/15.  
FH-T001-030: for larger sizes.

**Selection chart (dimensions: mm)**

Raychem description	Splice bundle diameter	Min. cable diameter (O.D.)	Nominal Jacket opening (L)
XAGA 500 - 43/ 8-150	43	8	150
XAGA 500 - 43/ 8-300	43	8	300
XAGA 500 - 55/12-150	55	12	150
XAGA 500 - 55/12-300	55	12	300
XAGA 500 - 75/15-240	75	15	240
XAGA 500 - 75/15-300	75	15	300
XAGA 500 - 75/15-400	75	15	400
XAGA 500 - 100/25-260	100	25	260
XAGA 500 - 100/25-460	100	25	460
XAGA 500 - 125/30-265	125	30	265
XAGA 500 - 125/30-460	125	30	460

**Note:**

For joints with 2 or 3 cables in one end the overall diam. must be determined. Add 6 mm for every small clip or 8 mm for every medium clip. In each case the total diameter may not exceed the maximum splice bundle diameter. See below.

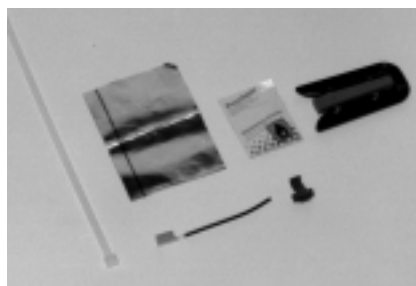


**Branching kit BOKT**

**Raychem part number**

**BOKT-5S-43/8-75/15** for XAGA 500-43/8-XXX, XAGA 500-55/12-XXX and XAGA 500-75/15-XXX

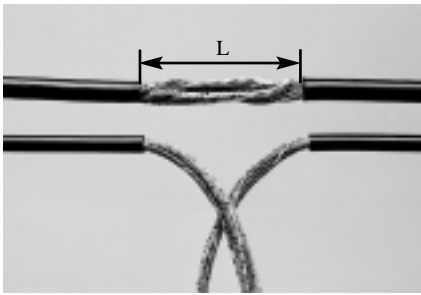
**BOKT-5M-92/25-125/30** for XAGA 500-100/25-XXX and XAGA 500-125/30-XXX



Use Kit XAGA 500-75/15-XXX depending on joint length.

**BOKT Kit Content**

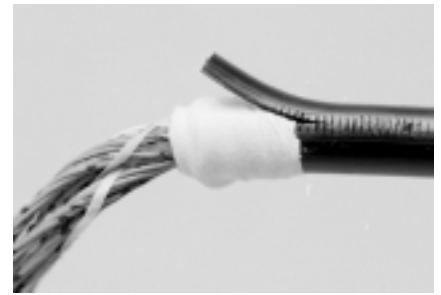
- Branch-off clip
- Shield continuity clip + connector
- Cleaning tissue
- Aluminium foil
- Tie wrap



**1** Remove cable jacket, following locally prescribed jointing techniques and hardware (length L). Maximum 3 cables at each end.



**2** In order to install the shield continuity, use tool to cut the cable jacket (over a length of 20 mm and a width of 10 mm).



**3** Put cotton or PVC tape underneath the cable jacket strip. (see picture) Make the splice according to normal practice.



**4** Install shield continuity clip with standard pair of pliers.



**5** Take the dessicant out of the aluminium bag(s) and place within the joint.



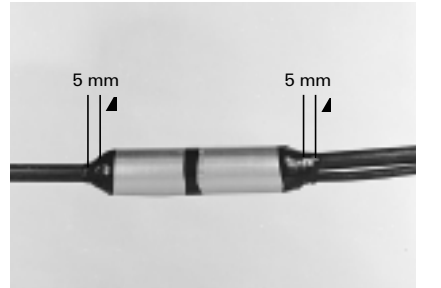
**6** For joints with three or more cables, install continuity wire on shield continuity wire assembly using crimp connector.



**7** Before installation of the liner, preshape the liner cylindrically by rolling. Wrap the liner tightly around the splice bundle and secure with tape.



**8** Tape the crowns, starting from the liner body (10 mm) down to the cable with a 50% overlap (use heat resistant tape).



**9** Tape maximum 5 mm onto the cable.



**10** Remove solvent impregnated tissue from its package and clean the cables over a distance of approx. 100 mm.

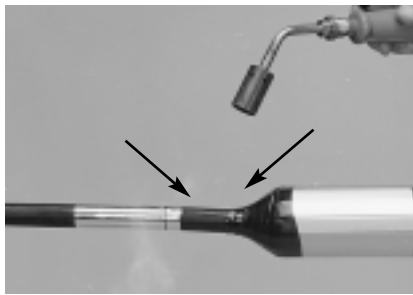


**11** Abrade the cables circumferentially over the same length as before.

**12** Use measuring strip (at bottom of installation instruction) from the end of liner and mark bondline length on all cables.



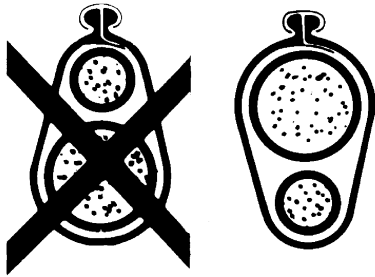
**13** Apply the aluminium foil to the cables, positioning the blue line at the mark of the bond length and smooth the aluminium foil.



**14** Flame brush the cable areas between the indicated arrows.  
For Pe cables, preheat during 10 seconds.  
For lead cables, preheat up to 60°C (hot to the touch).



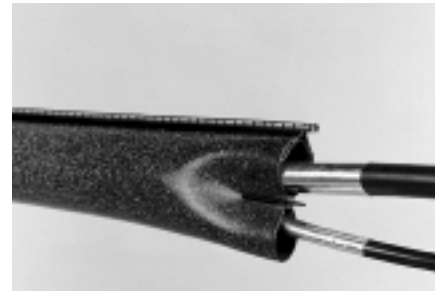
**15** Wrap the sleeve around the splice. Press the underclip (if applicable) over the rail at the centre of the sleeve.



**16** Position the wraparound sleeve such that the adhesive flap and sleeve rails are over the largest cables (see drawing).



**17** Pull flexible channels over the sleeve rails until they butt on top of the underclip. Centre the sleeve over the joint such that the sleeve length matches the blue lines on the aluminium foils.



**18** Insert the branch-off clip(s) completely between cables. Allow equal sleeve recovery space around cables.

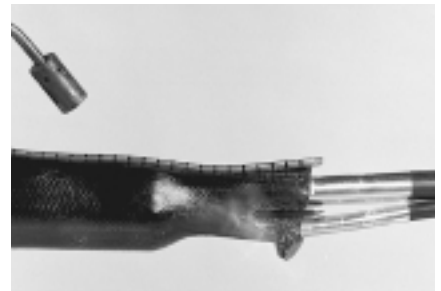
**Note:** From size 100/25 and up use medium size branching clip. (BOKT-5M-XX).

**19 Notes for heating:**

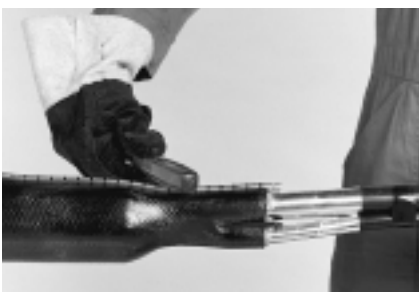
- Regulate flame to a total length of approx. 300 mm with a yellow tip of approx. 100 mm.
- During the shrinkage, move flame continuously to avoid local overheating
- Apply heat until the temperature indicating paint has changed colour completely with the exception of the immediate vicinity of the clips and channels where a green area of approx. 2 mm may remain.



**20** Start heating in the centre of the sleeve 180 degrees from the channel area. Continuously heating circumferentially (heating equally on both sides) until arrival at the channel area. The recovery in the channel area should take place towards the end of the installation. Continue heating until the thermo-indicating paint has changed colour from green to black.



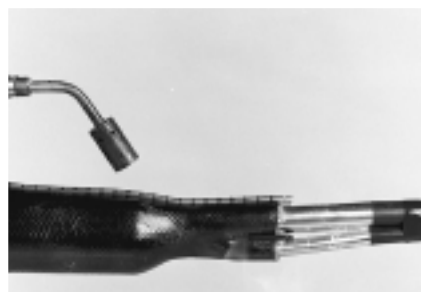
**21** When temperature sensitive paint has completely changed to black, gradually and progressively move towards the end of the sleeve.



**22** Press the channel with a blunt tool to give the channel the shape of the liner transition.

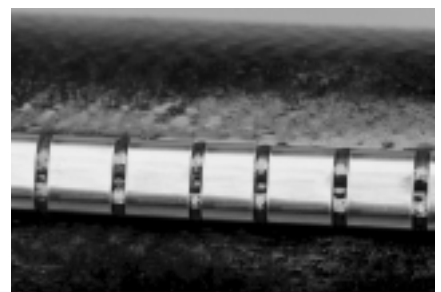
**Note for branched joints :**

Pull branched cables together with tiwrap from BOKT-kit. Repeat operations 20 and 21 starting in the centre towards the other end. Wait approx. 15 min. (cooling) before handling cable.



**23** Postheat the clip and the rail and channel area at the cable ends.

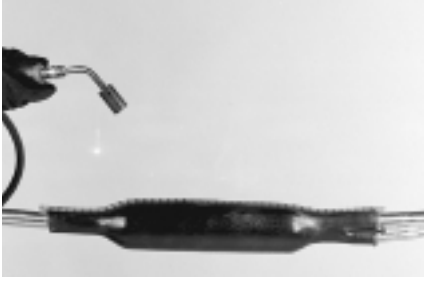
**Note:** If environmental temperature is below 0°C, postheat extra to make sure that adhesive flows.



**24** When all temperature paint has been changed on the first half of the closure, two separate white lines should be visible in the slots of the channel.

If the lines are not visible apply more heat at that point until the white lines appear.

# XAGA 500 - Re-entry



**1** Heat the channel area.



**2** Cut off the channel starting from the cable end up to the centre of the splice, to avoid cable cutting.



**3** Heat the sleeve circumference of the splice body and cut as shown.



**4** Heat the clip area and remove the clip with a pair of pliers.



**5** Remove the sleeve end with a suitable tool by pulling the sleeve gently off the cables. Apply more heat if necessary.



**6** While the adhesive is hot, separate the cables with appropriate tool to facilitate clip insertion when reclosing.



**7** Remove the aluminium flap of sleeve with a pair of pliers; if necessary reheat.



**8** Remove the PVC tape on the crowns of liner.



**9** Do the same at the other side. Longitudinally cut the sleeve and liner and remove both.

## Re-closing

Use new XAGA 500 kit and repeat operations from number 7.

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