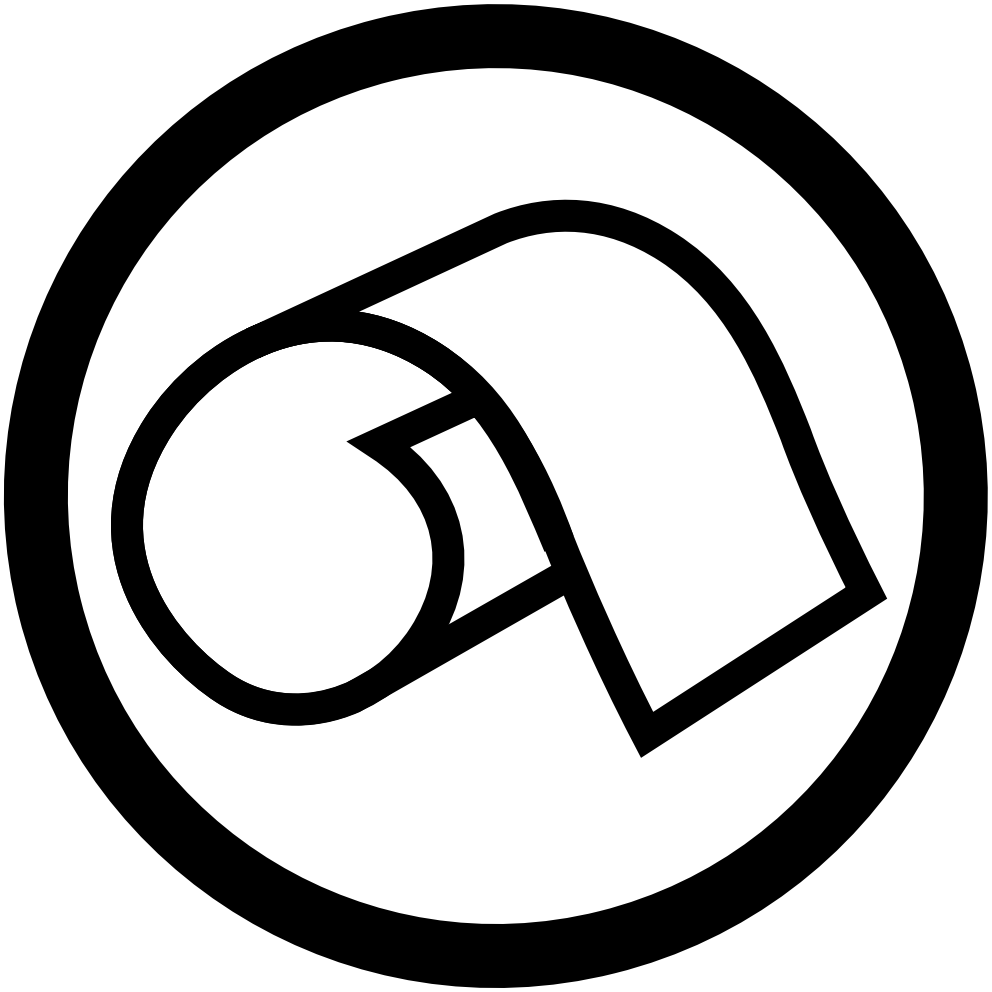
LVBT

Low Voltage, Heat-shrinkable Bus Insulation Tape



Raychem Corporation
Electrical Products Group
300 Constitution Drive
Menlo Park, CA 94025-1164
415) 361-4022

PII-51070, Rev AD
DCR C23217
PCN 907541-000
Effective Date: February 1991

Recommended Raychem Torches

Install heat-shrinkable tape or sheet with a "clean burning" torch--a propane fuel torch that does not deposit soot or contaminants on the product.

Clean burning torches include the Raychem FH-2609, FH-2629 (uses refillable propane cylinders) and FH-2616A1 (uses disposable cylinder).

Adjust regulator and torch as required to provide an overall 12-inch bushy flame.

The FH-2629 will be all blue, the other torches will have a 3- to 4-inch yellow tip. Use the yellow tip for shrinking.

Regulator Pressure

FH-2616A1	Full pressure
FH-2609	5 psig
FH-2629	15 psig

Warning: When installing electrical power system accessories, failure to follow applicable personnel safety requirements and written installation instructions could result in fire or explosion, and serious or fatal injuries.

To avoid risk of accidental fire or explosion when using gas torches, always check all connections for leaks before igniting the torch and follow the torch manufacturer's safety instructions.

To minimize any effect of fumes produced by gas torches, always provide good ventilation of confined work spaces.

General Shrinking Instructions

- Apply outer 3- to 4-inch tip of the flame to heat-shrinkable material with a rapid brushing motion.
- Keep flame moving to avoid scorching.

- Unless otherwise instructed, start shrinking at the beginning of the wrap, working around the bus with a smooth brushing motion.

Note: Inspect installation. Reheat any flat spots or wrinkles, paying particular attention to the back of the bus.

General Information

Bus surface must be free of sharp edges or burrs and thoroughly cleaned and degreased before applying.

Rolls of LVBT are supplied with the adhesive side out. Make sure to wrap the adhesive side in when applying.

If applying LVBT over two different size bus bars, start wrapping on the smaller size and work toward the larger bus.

Installation Instructions

1. Product selection.

Check kit selection with bus dimensions in Table 1.

2. Select application.

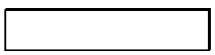
Choose the application (Choice 1-5) and follow the directions given.

Table 1

Catalog Number	Width	Length
LVBT-1-R	1" *(25mm)*	25' *(7.6m)*
LVBT-2-R	2" *(50mm)*	25' *(7.6m)*
LVBT-4-R	4" *(100mm)*	25' *(7.6m)*

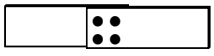
Recommended Product	Rectangular Bar Bus Width	Bus Length Insulated per Roll
LVBT-1-R	1 inch *(25mm)*	3.8 feet *(1.2m)*
LVBT-2-R	2 inches *(50mm)*	4.8 feet *(1.5m)*
LVBT-2-R	3 inches *(75mm)*	3.5 feet *(1.1m)*
LVBT-2-R	4 inches *(100mm)*	2.7 feet *(0.8m)*
LVBT-2-R	6 inches *(150mm)*	1.9 feet *(0.6m)*
LVBT-4-R	8 inches *(200mm)*	2.9 feet *(0.9m)*

CHOICE 1



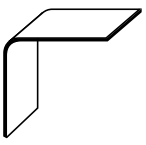
If **Straight Run**, go to **page 3**.

CHOICE 2



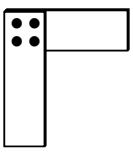
If **Bolted Connection**, go to **page 4**.

CHOICE 3



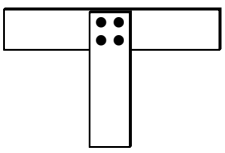
If **90° Bend**, go to **page 5**.

CHOICE 4



If **Elbow Connection**, go to **page 6**.

CHOICE 5



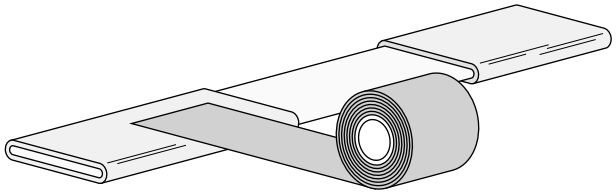
If **Tee Connection**, go to **page 7**.

CHOICE 1

If Straight Bus Run

3. Wrap LVBT.

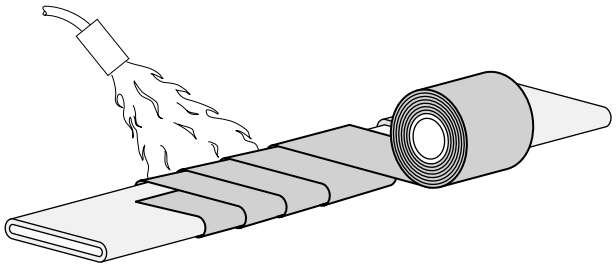
Place LVBT adhesive side down, overlapping existing insulation by a minimum of 2" *(50mm).*



721

Wrap the LVBT, applying 1/2-laps across the bare bus. Use sufficient tension to provide a snug fit, but **do not stretch.**

To prevent diameter buildup, apply a small amount of heat to every few wraps of LVBT.

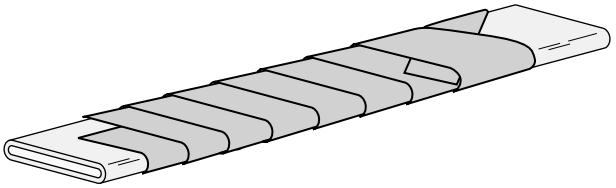


722

4. Secure end.

Overlap insulation on other side by a minimum of 2" *(50mm).*

Pull snugly into place and use a slip knot to secure the end of the tape. Slip the loose end under the last wrap and pull tightly.



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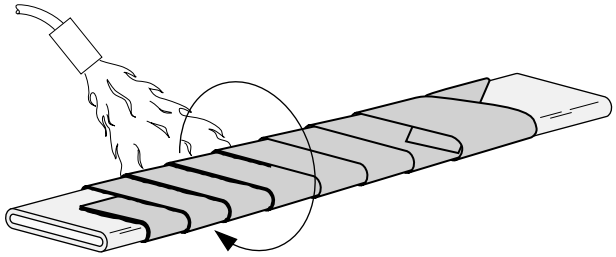
5. Shrink LVBT.

Begin shrinking at the start of the wrap, working the torch with a smooth brushing motion around the bus. As the tape shrinks, work torch as before toward the other end of the wrap.



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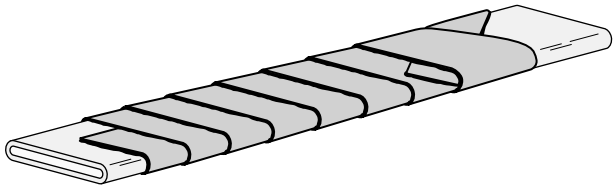
Shrinking is complete when a uniform bead of adhesive is visible between wraps.

Note: Allow to cool before moving or placing in service.

Installation is complete.



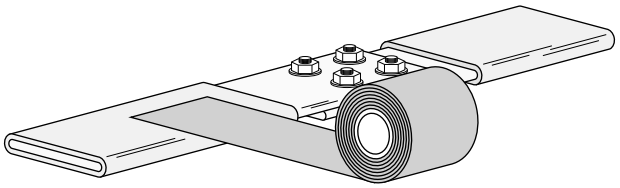
725

CHOICE 2

If Bolted Connection

3. Wrap LVBT.

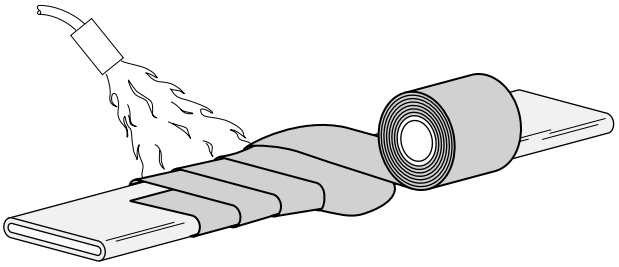
Place LVBT adhesive side down, overlapping existing insulation by a minimum of 2" *(50mm).*



726

Wrap the LVBT, applying 1/2-laps across the bolts. Use sufficient tension to provide a snug fit, but **do not stretch.**

To prevent diameter buildup, apply a small amount of heat to every few wraps of LVBT.

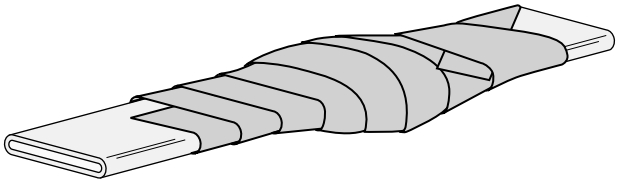


727

4. Secure end.

Overlap insulation on other side by 2" *(50mm).*

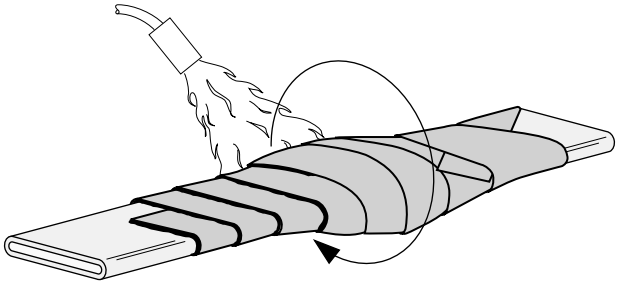
Pull snugly into place and use a slip knot to secure the end of the tape. Slip the loose end under the last wrap and pull tightly.



728

5. Shrink LVBT.

Begin shrinking at the start of the wrap, working the torch with a smooth brushing motion around the bus. As the tape shrinks, work torch as before toward the other end of the wrap.

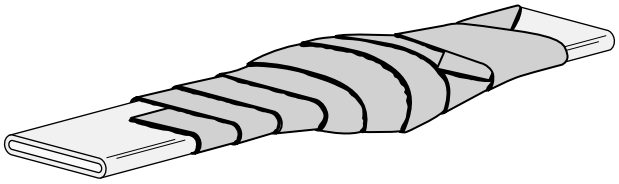


729

Shrinking is complete when a uniform bead of adhesive is visible between wraps.

Note: Allow to cool before moving or placing in service.

Installation is complete.



730

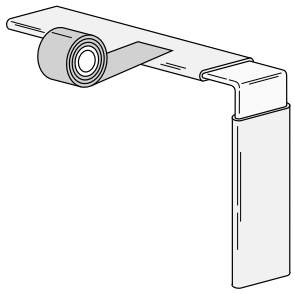
CHOICE 3

If 90° Bend

3. Wrap LVBT.

a. Place LVBT adhesive side down, overlapping existing insulation by a minimum of 2" *(50mm).*

a.

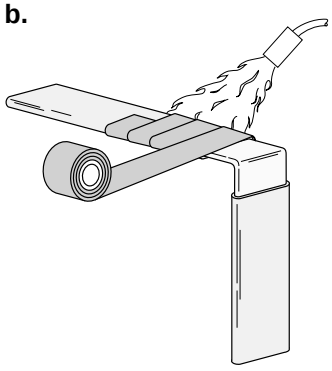


731

b. Wrap the LVBT, applying 1/2-laps around the bend. Use sufficient tension to provide a snug fit, but **do not stretch.**

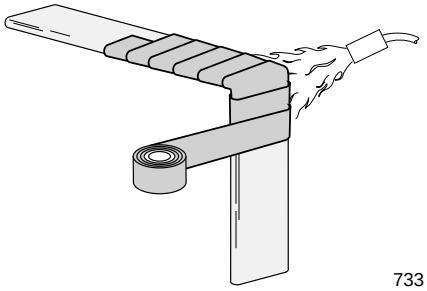
c. To prevent diameter buildup, apply a small amount of heat to every few wraps of LVBT.

b.



732

c.

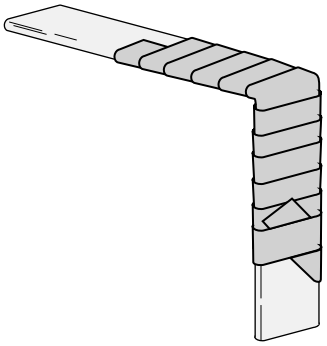


733

4. Secure end.

Overlap insulation on other side by 2" *(50mm).*

Pull snugly into place and use a slip knot to secure the end of the tape. Slip the loose end under the last wrap and pull tightly.



734

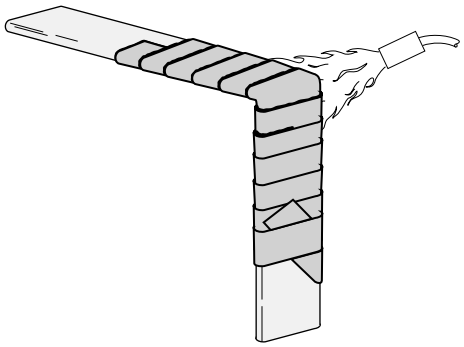
5. Shrink LVBT.

Begin shrinking at the start of the wrap, working the torch with a smooth brushing motion around the bus. As the tape shrinks, work torch as before toward the other end of the wrap.

Shrinking is complete when a uniform bead of adhesive is visible between wraps.

Note: Allow to cool before moving or placing in service.

Installation is complete.



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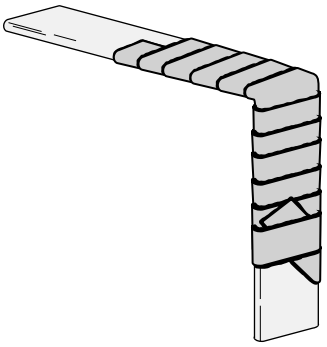


736

CHOICE 4

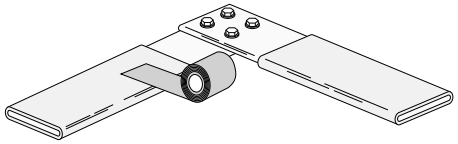
If Elbow Connection

3. Wrap LVBT.

a. Place LVBT adhesive side down, overlapping existing insulation by a minimum of 2" *(50mm).*

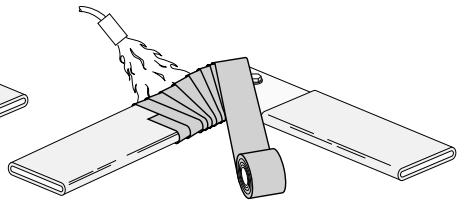
b. Wrap the LVBT, applying 1/2-laps to the corner. Use sufficient tension to provide a snug fit, but **do not stretch.** To prevent diameter buildup, apply a small amount of heat to every few wraps of LVBT.

a.



737

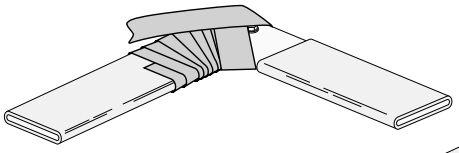
b.



738

c., d. Wrap across corner as shown, and continue down other leg to overlap existing insulation by 2" *(50mm).*

c.



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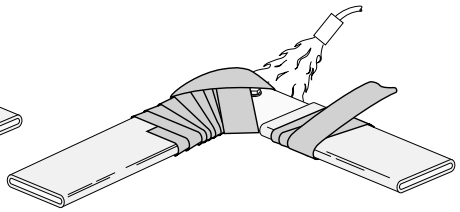
d.

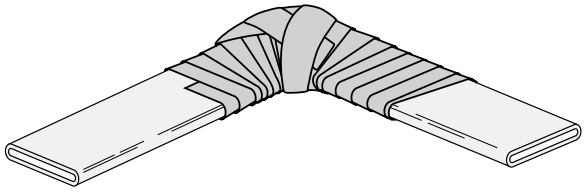


740

4. Secure end.

Wrap back toward connection and cover corner again as shown.

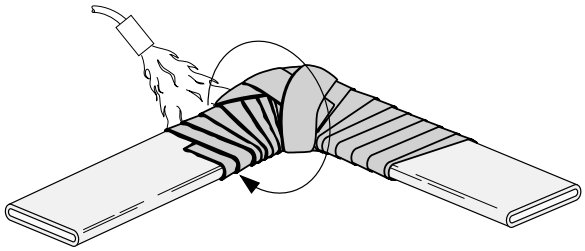
Pull snugly into place and use a slip knot to secure the end of the tape. Slip the loose end under the last wrap and pull tightly.



741

5. Shrink LVBT.

Begin shrinking at the start of the wrap, working the torch with a smooth brushing motion around the bus. As the tape shrinks, work torch as before toward the other end of the wrap.

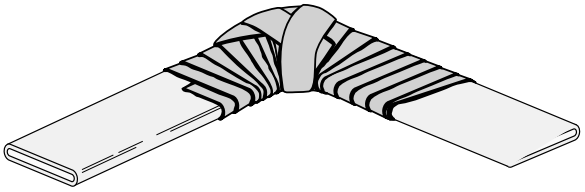


742

Shrinking is complete when a uniform bead of adhesive is visible between wraps.

Note: Allow to cool before moving or placing in service.

Installation is complete.



743

CHOICE 5

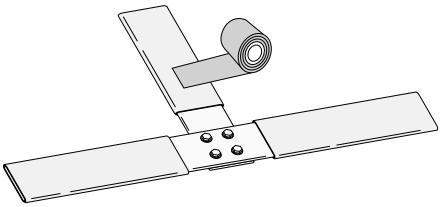
If Tee Connection

3. Wrap LVBT.

a. Place LVBT adhesive side down, overlapping existing insulation by a minimum of 2" *(50mm).*

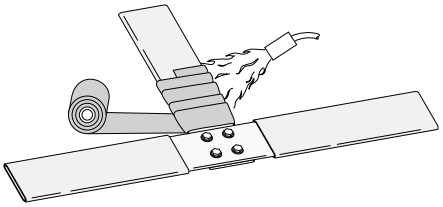
b. Wrap the LVBT, applying 1/2-laps to the connection. Use sufficient tension to provide a snug fit, but **do not stretch.** To prevent diameter buildup, apply a small amount of heat to every few wraps of LVBT.

a.



744

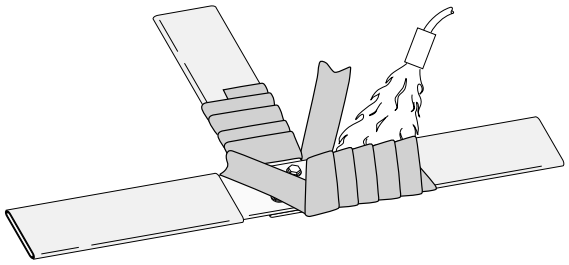
b.



745

c. Apply one diagonal wrap of LVBT across the bolt area, then wrap to overlap the existing insulation by 2" *(50mm)*, as shown. Heat as necessary to prevent diameter buildup.

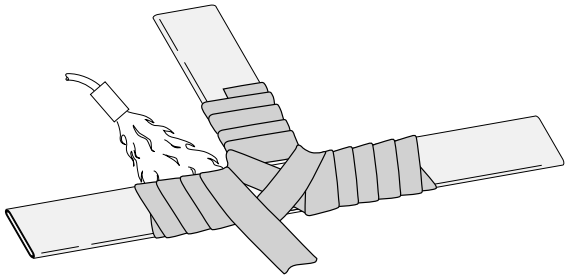
c.



746

d. Wrap LVBT back to the connection, then diagonally across the bolt area and continue on to overlap the existing insulation on the other side by 2" *(50mm)*. Heat as necessary.

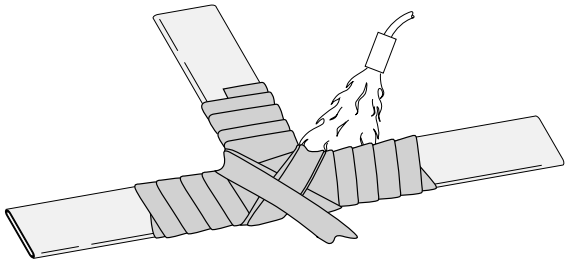
d.



747

e. Wrap LVBT back to the connection. Begin wrapping a "Figure 8" pattern over the connection area as shown. Repeat until bolt area is covered.

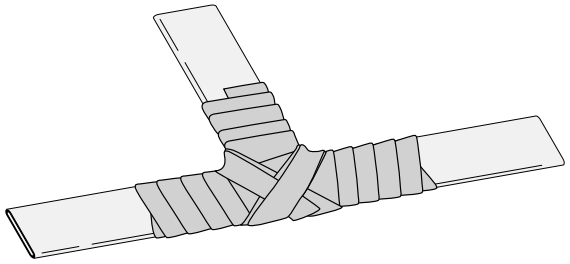
e.



748

4. Secure end.

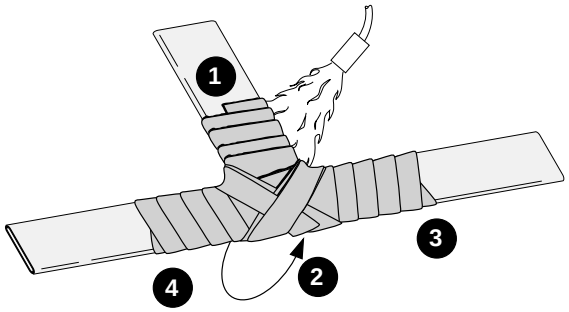
Pull snugly into place and use a slip knot to secure the end of the tape. Slip the loose end under the last wrap and pull tightly.



749

5. Shrink LVBT.

Begin shrinking at the start of the wrap (1), working the torch with a smooth brushing motion around the bus. As the tape shrinks,work torch as before toward the other end of the connection (2) to each leg (3) and (4).

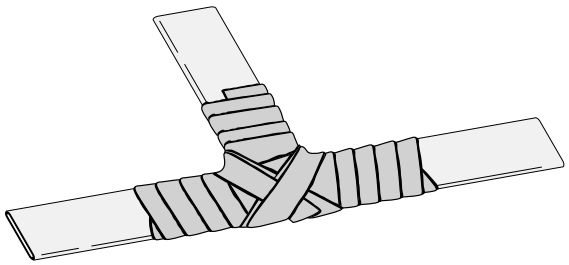


750

Shrinking is complete when a uniform bead of adhesive is visible between wraps.

Note: Allow to cool before moving or placing in service.

Installation is complete.



751