

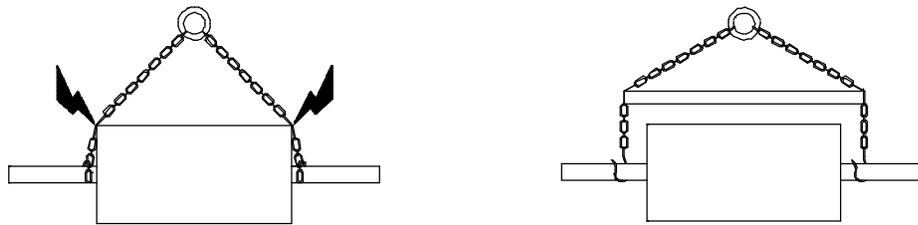
# TECHNICAL BULLETIN

## BAKING BANDS

ASSEMBLY INSTRUCTIONS

### Uncrating the Belt

- ◆ For ease of handling, most belts, because of their length and weight, are shipped in two or more sections.
- ◆ Care should be used in uncrating and handling to prevent damage. Avoid blows or concentrated pressure on the roll circumference. Slings should be used in a spreader bar design.
- ◆ Extra crimp connectors are included with every belt shipped. The box containing the connectors will be marked.



### System Reminders

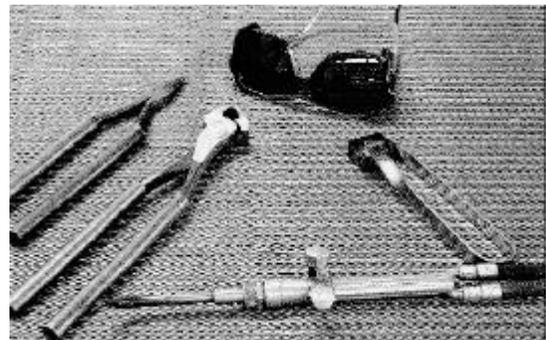
- ◆ If damage occurs, remove affected spirals or crimped connectors from belt.
- ◆ Use only flat faced terminal pulleys. **DO NOT** use crowned pulleys, they will cause irreparable belt damage. Avoid flanged pulleys, they will not control side travel.
- ◆ Temperature permitting, drive pulleys should be lagged. Snub rolls, pressure or pinch rolls reduce belt tension and are in general use on wire belt installations.
- ◆ Avoid applying more tension to the belt than required to initiate movement.

**REMEMBER TO WATCH FOR UNSEATED SPIRALS**  
 (See Technical Bulletin 003 on “Uncrating Woven Belts”).

**IMPORTANT: Keep the belt under some tension when removing from package.**  
**Failure to do so may result in “flipped” or twisted spirals.**

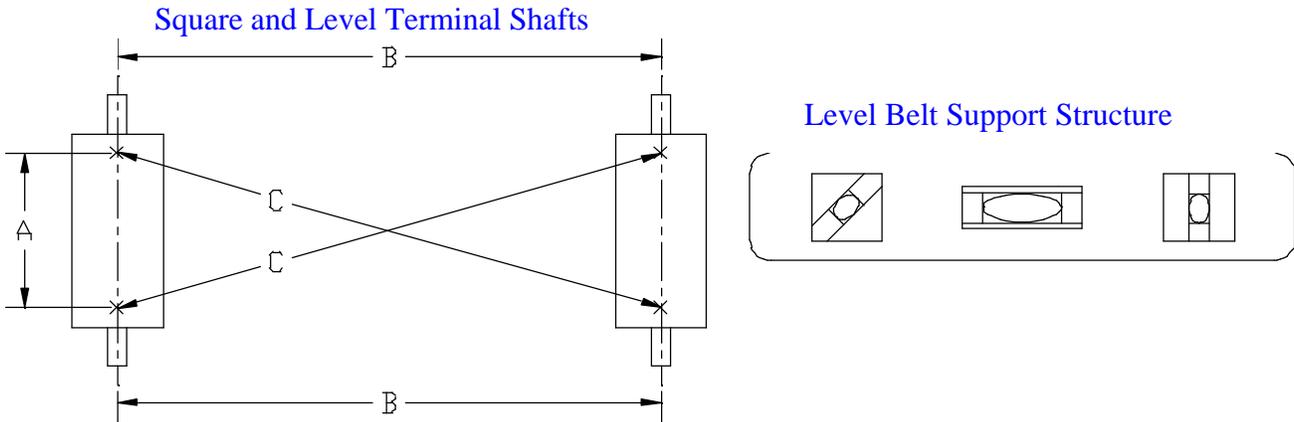
### **BEFORE INSTALLING BELT**

- ◆ Tools required to connect belt sections and make the belt endless:
  - Sharp nosed pliers
  - Wire cutters
  - Welding glasses
  - Igniter
  - Small tip acetylene torch.
- ◆ Tools required to break or separate the belt:
  - Pliers and wire cutters
- ◆ Use proper safety equipment, including face and eye protection, during all grinding or welding operations *as mandated by your company’s safety policy.*



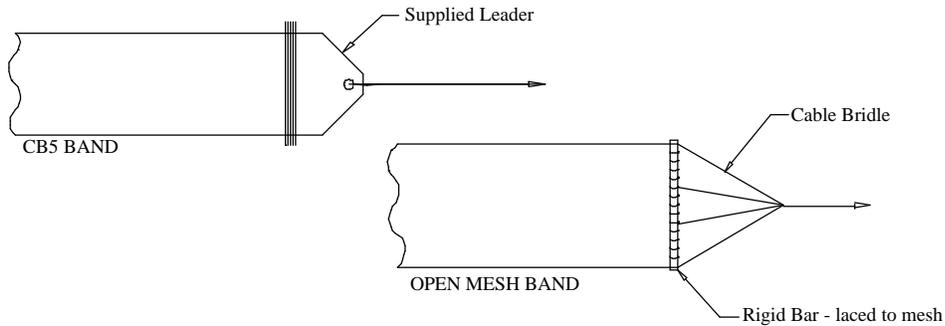
**BEFORE INSTALLING BELT**

- ◆ Permanent belt damage can occur if terminals are cocked. See Ashworth bulletin “Baking Bands - installation, tracking, and maintenance” for conveyor alignment details.
- ◆ Insure belt support surface is free from obstructions such as warped hearth plates or protruding framework. Insure intermediate belt support rollers, if used, are free turning.
- ◆ Make certain that the take-up mechanism is functioning properly.
- ◆ Insure no spirals are turned up and are free to hinge around crimped connectors as designed.
- ◆ All belt lengths end with a left-hand spiral (counter clockwise winding) and begin with a right and spiral (clockwise winding). Insure belt ends remain in this condition.



**INSTALLING BELT**

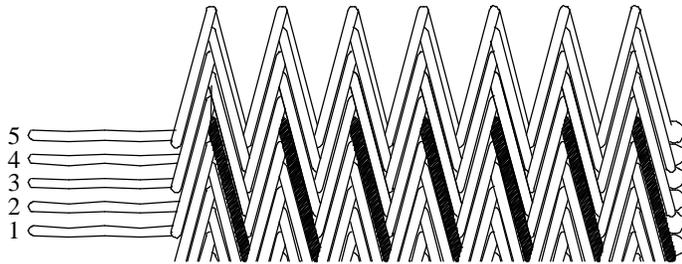
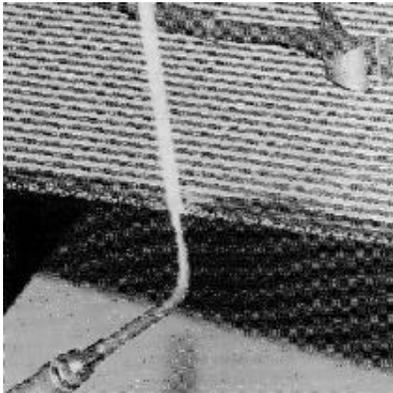
- ◆ There is no top or bottom side to belt - either can be up (however the CB5 has a side marked “Bake Side” which was the topside of the band when tracked in the factory).
- ◆ Direction of travel - insure the spiral leads the crimped connector to which it is welded.
- ◆ If replacing an old belt, splice leading spiral of new belt to trailing spiral of old belt. See “SPlicing BELT ENDS TOGETHER”.
- ◆ If there is no old belt on conveyor, exert equal pull across mesh width through conveyor to avoid distortion. For wide CB5 bands use the bar method to avoid distortion from the concentrated pull of a single cable attachment (i.e., weld or braze a section of the leader or old band to a suitable bar and use a multi-strand bridle).



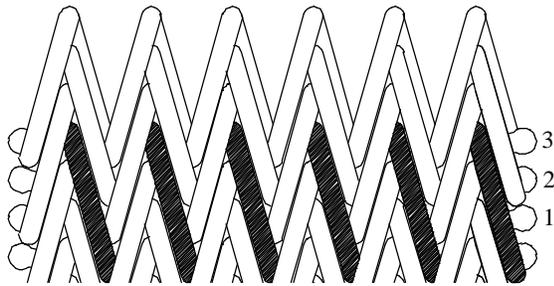
- ◆ Before applying tension, insure all spirals are seated into the connectors and lie flat.
- NOTE:** The overall thickness must pass through the narrowest opening in the band path. The connection should be observed at all times to insure that it does not hang up on any open structure during its passage.

## **SPLICING BELT ENDS TOGETHER**

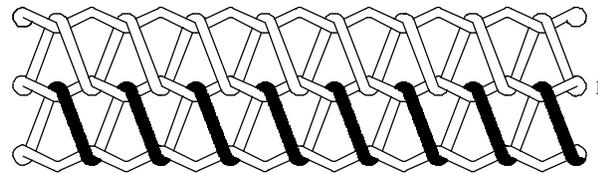
1. Bring the two ends together with the belt edges in line.
2. Mesh the end spirals together permitting insertion of the correct number of connecting wires (depending on mesh). For Balanced Weave and Compound Balanced Weave Belts, ensure all right hand spirals are joined with left hand spirals or vice-versa.
3. Insert crimped connector(s) and make sure that each wire extends beyond each edge of the band, and that it is correctly seated with the crimp formation laying in the plane of the belt. A good shake of the joint after inserting the connectors will often seat things nicely.
4. For all splices, trim the connector(s) such that approximately 1/16 inch [1.6 mm] overhangs the end spirals. Apply a simple weld to fasten connector to end spirals using a small tip acetylene torch with reduced pressure and a neutral flame.



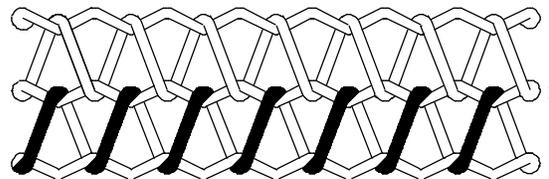
**COMPOUND BALANCED (CB5) 5 CONNECTORS**



**COMPOUND BALANCED (CB3) 3 CONNECTORS**



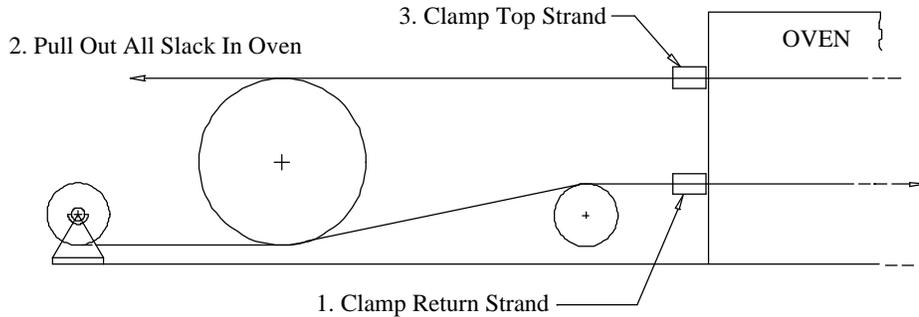
**UNILATERAL WEAVE 1 CONNECTOR**



**BALANCED WEAVE 1 CONNECTOR**

## SPLICING BELT ENDS TOGETHER

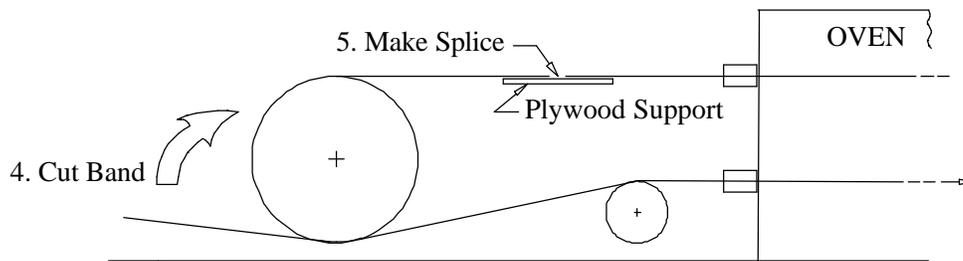
5. To make the final splice:
- Ensure take-up is in shortest position.
  - Clamp the band where it first enters the oven. Mark the clamp position with chalk or crayon to detect any signs of slippage.
  - Pull until the band is tight throughout the oven.



- Clamp the band at the oven exit.

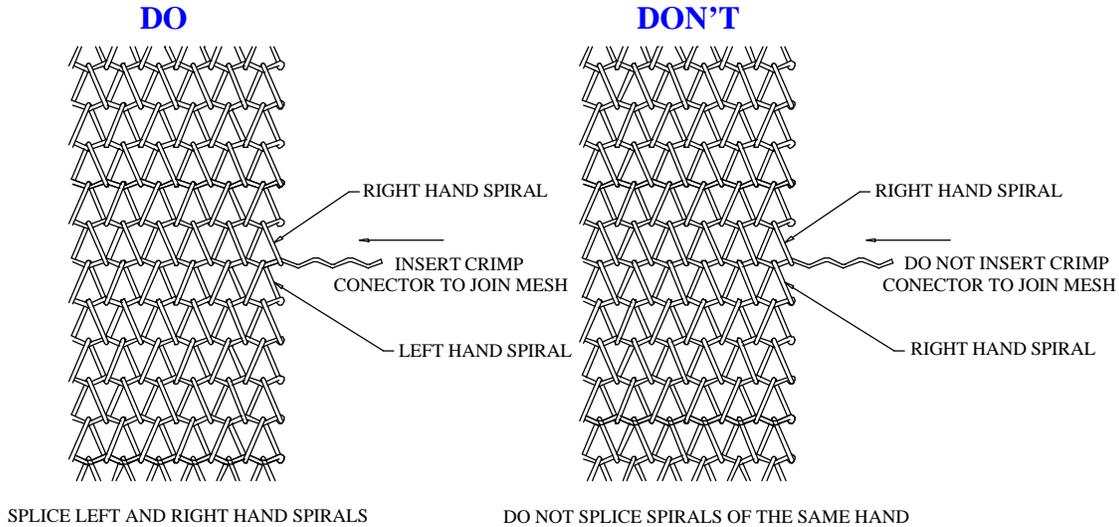
**NOTE:** The overall thickness must pass through the narrowest opening in the band path. The connection should be observed at all times to insure that it does not hang up on any open structure during its passage.

- Disconnect the rope or cable and remove any excess band so that the final splice will fall on top between the oven and the drum. Make the final cut so that a right hand spiral is mating with a left hand spiral (exception: Unilateral weaves have all the same hand spiral.) A wide board or plywood under this area provides a good working surface.
- Insert the connectors and remove all clamps.
- Repeat step 4 for welding.



## REMOVING STRETCH FROM BELTS

1. Belt length will need to be removed when the take-up mechanism is near its maximum stroke.
2. Identify a section of the belt to be removed. Insure end spirals of section to be removed are of opposite weave.
3. Remove as much belt as possible, however insure enough belt remains to easily splice ends together.
4. On one belt edge, cut at the weld junction leaving the weld on the crimped connector. On other belt edge, cut at the weld junction leaving the weld on the end spiral. Remove the connector, pulling on the connector's end containing the weld.
5. See "SPlicing BELT ENDS TOGETHER" to reattach belt.



See Ashworth bulletins "Baking Bands - installation, tracking, and maintenance" on tracking the band and "Control Systems" for details.

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