

Flat-Flex® single loop edge installing joining clip method

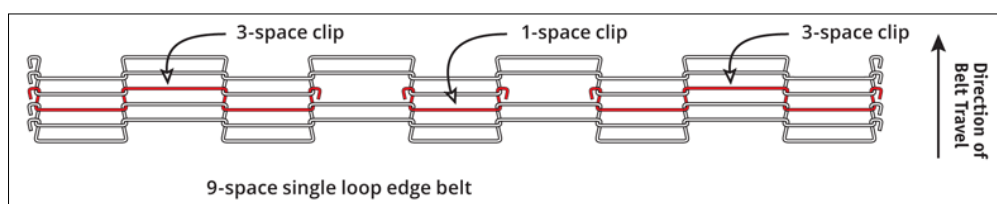
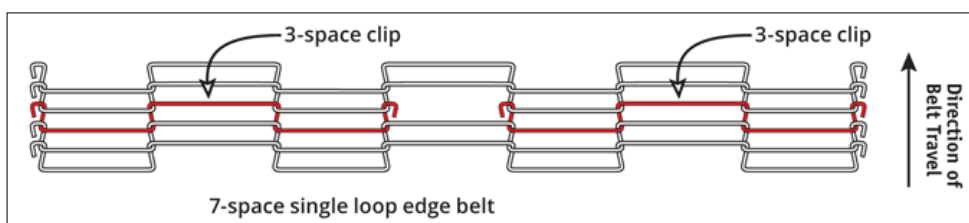
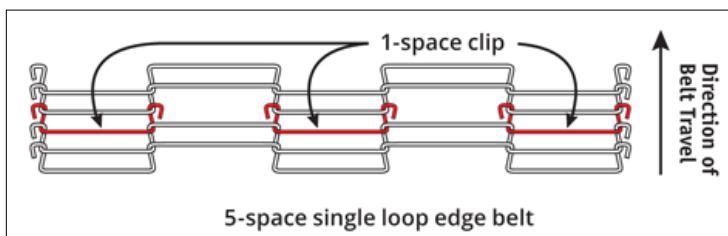
Joining clips come in two varieties: single space and 3-space clips. The 3-space clip is obviously stronger because its center space is woven into the belt as in the full strand joining method. These two types of clips should be used together, whenever possible to create a stronger joint and to help minimize the spacing gaps in the belt. (For example, a 7-space belt could be joined using two 3-space clips... whereas, a 9-space belt would use 1 single and two 3-space clips. See **"HOW MANY CLIPS"** below.)

Tools you will need:

- Safety glasses
- Flat end pliers
- Needle nose pliers
- Cable ties/soft wire/string (optional)
- Wire straightener (optional)
- Necessary tools for conveyor belt take up adjuster

IMPORTANT NOTE:

- Two different end loops from adjacent clips cannot be attached to the same Z-bend. Only one joining clip end loop per Z-bend is allowed.
- If a belt has damage in more than one place on account of fatigue, do not try to repair it. Install a new belt. Also, never save old belts to use for repairs because they have already been weakened from use. • Purchase several extra feet of new belt to use exclusively for repairs.
- The use of clips produces a double space pitch gap between adjacent clips and you should fully assess their use for both the product process and safe use in the operating environment.



1 BEFORE YOU BEGIN JOINING:

- Turn off and lockout power to the conveyor.
- Slacken any belt take up adjuster to allow the maximum take up capability when the belt is fitted.
- If possible move the two ends of the belt to be joined to the discharge end of the conveyor unit. This may help to hold the belt in position while joining.
- If necessary you may want to attached the two ends of the belt together to maintain stability, using cable ties, soft wire or string in the outside spaces. For wider belts it may be necessary to secure the 2 ends together at more regular intervals across the belt, which can be removed as the clips are woven in.
- Plan out the number, type and placement of joining clips by laying them out in position across the belt.
- Make certain that no two edge loops on the clip hook around the same Z-bend and that all closed loop edges point in the direction of belt travel.

2 BEGIN INSTALLATION WITH THE CENTER SPACE:

- Begin installation with the Center space
- If installing a single clip, install the clip around the center space on the far end of the belt.
- Using needle nose pliers grip the joining clip, and in turn hook the two single loop edges up through and into the center space on the opposite belt end.
- -OR- If a 3-space clip is used:
 - Gently bend the clip in the center and insert the clip ends down into the spaces either side of the center space.
 - Then insert the clip ends up through and into the center space of the opposite belt end and pull through until the center "locks" into place.
 - Then, gently straightening the wire, hook the single loop edge down through and around the space adjacent to the center space.
- Use the needle nose pliers to grip the single loop edge, hook it up through and into the space adjacent to the center space on the opposite end of the belt. Repeat for other edge loop.
- Straighten the wire with pliers or the wire straightener tool.

3 INSTALL THE NEXT JOINING CLIP ON AN OUTSIDE EDGE IF A SINGLE CLIP IS USED:

- Remove the tie holding the ends together.
- Insert the joining clip around and through the far end edge space of the belt.
- Connect the splice clip edge loop to the near side belt edge by gently flexing the splice clip edge loop up and through the near side outside space. The use of needle nose or flat end pliers may help in this process.
- Grip the joining clip with your pliers and hook the second edge loop up through and around the adjacent Z-bend on the near end of the belt.
- -OR- if a 3-space clip is used:
 - Remove the ties holding the edges together.
 - Bend and insert the joining clip around the second space in from the belt edge and insert the clip ends up through the second space into the opposite end of the belt. Pull through until center locks in place.
 - Using needle nose pliers connect the joining clip edge loop to the near side belt edge by gently flexing the joining clip edge loop up and through the near side outside space. Then hook the far outside edge loop up through the edge of the joining clip.
 - Then on the other end of the splice clip hook it down through space number three on the far belt edge, then flex the edge loop down and up through second space on the near end of the belt.
 - Straighten wire with pliers or Wire Belt's Wire Straightening tool.

4 INSTALL JOINING CLIP ON THE OPPOSITE EDGE:

- Install the same type of joining clip on the opposite edge in the same way

5 INSTALL THE REMAINING JOINING CLIPS:

- Install the remaining joining clips, as appropriate, across the belt. There should be the exact same number and type of joining clips on either side of the center clip (the first clip you installed)

6 RE-TIGHTEN THE CONVEYOR BELT TENSION

HOW MANY CLIPS

Number of Belt Spaces	Single Clips	Single + 3-Space Clips
3	2	0 + 1
5	3	1 + 1
7	4	0 + 2
9	5	1 + 2
11	6	0 + 3
13	7	1 + 3
15	8	0 + 4
17	9	1 + 4
19	10	0 + 5
21	11	1 + 5
23	12	0 + 6
25	13	1 + 6
27	14	0 + 7
29	15	1 + 7
31	16	0 + 8
33	17	1 + 8
35	18	0 + 9
37	19	1 + 9
39	20	0 + 10
41	21	1 + 10
43	22	0 + 11
45	23	1 + 11
47	24	0 + 12
49	25	1 + 12

