

T E C H N I C A L B U L L E T I N

POSITIVE DRIVE CHAIN EDGE BELTS

Positive Drive Chain Edge belts are also known as PDCE's or simply Chain Edge belts. Simply stated, the belts generally consist of a mesh or woven fabric which is transported on the conveyor by chain attached to either side of the mesh. The two strands of chain are connected together by a cross support, usually a round rod. Connecting sections of belt therefore is done in parts: first the mesh must be connected then the chain is connected to the mesh.

MESH:

Refer to installation instructions based on type of mesh used in this belt, e.g. balanced weave, conventional weave, compound balanced weave.

CROSS SUPPORT:

Chain edge belts have different types of rods, which are used to connect the mesh to the strands of chain. *Install as follows:*

- ◆ Round Rod or Turned Down Rod: Insert rod through mesh at proper spacing interval. Note that if the rod is turned down, one end will likely have a longer turned down portion.
- ◆ Pipe/Rod: Insert pipe through mesh then insert rod through pipe and opposite side chain. Pull rod back through near side chain.
- ◆ Flat Bar, channel, angle: A splice will rarely occur at a chain attachment -- it will usually fall between cross support locations. When it is required, bolt the cross support to the attachment on each strand of chain then weld or braze the underside to the mesh at the slots in the cross support.

CHAIN:

Chain edge belts can employ almost any type of chain but most frequently use standard ANSI roller chain, double pitch roller chain, engineering chain or pintle chain. Usually, the chain is attached by the cross rods at the pin location. This is referred to as "rods engage chain as pins". The rods may also be connected to the chain through a midpitch hole or bolted to an attachment.

OPTIONS:

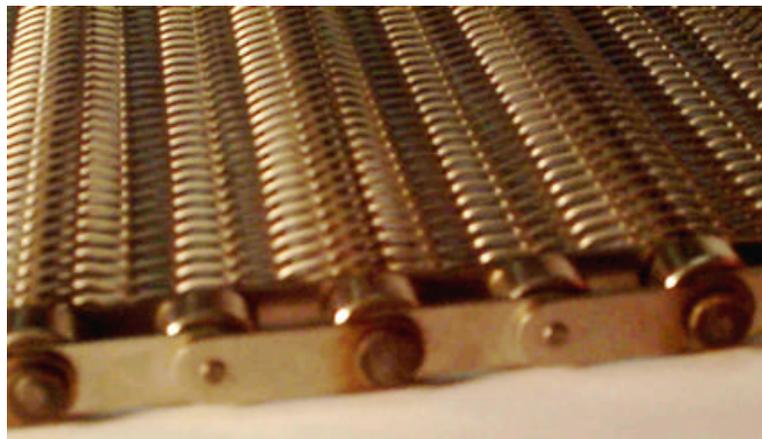
Guard edge plates, lifts or flights, and wipers are common attachments used with chain edge belts. Guard edge plates are generally attached to the cross support at the time of assembly. These should be installed in the same pattern as the rest of the belt. In some cases, the plates are welded to the chain or tabs are inserted into the mesh.

TO SPLICE TOGETHER BELT SECTIONS:

1. Attach the mesh (if applicable).
 - If splice is NOT at a cross rod location:
 2. Install guard edge plates if applicable.
 3. Connect each strand of chain with connecting links as supplied.
 - If splice is at a cross rod location:
 1. Line up one strand of chain, leaving the other strand unattached and out of the way. If the belt has more than two strands of chain, line up all but one edge.
 2. Insert rod through mesh and through chain and guard edge plates (if applicable) on opposite belt edge. If rod has a turned down end, insert the end with the longer turned down portion in first. Pull back to engage chain on near side.

INSTALLING THE BELT:

1. Make sure that the conveyor path is free of any obstructions.
2. Make sure that the shafts are square and sprockets are properly aligned.
3. Pull in the first section of belt. In new applications, it may be necessary to use a rope and pull from the opposite end. In existing applications, the new belt can be spiced to the old belt.
4. Splice each remaining section of belt to the previous section until all sections are pulled into the conveyor.
5. Be sure that take-up is in its forward position and make the final splice to make the belt endless.



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

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Ashworth Jonge Poerink bv
 Borne, The Netherlands
 Tel: +31-74-265-6565
 Fax: +31-74-266-1134
 Email: ashworth@ashworth.nl

Ashworth Bros., Inc.
 Winchester, VA U.S.A.
 Phone: 540-662-3494
 Fax: 800-532-1730
 Email: ashworth@ashworth.com
 Website: www.ashworth.com

Ashworth Europe Ltd.
 Kingswinford, United Kingdom
 Tel: +44-1384-355000
 Fax: +44-1384-355001
 Email:
 ashworth@ashwortheurope.co.uk