Compact Grid ™

Only from wirebelt®

CompactGrid™ - Conveyor Belt Setup Guide

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⚠ **DISCONNECT AND LOCKOUT POWER**
ANTES DE PROCEDER DESCONECTE Y AISLE LA FUENTE DE PODER

BEFORE YOU BEGIN

• Disconnect the power to the conveyor system

• Release all tensioning mechanisms

IMPORTANT NOTE:

If a belt has damage in more than one place, 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.

TOOLS YOU WILL NEED

• **New belt**
• **Allen wrenches**
• **CG splicing tool kit**
• **Safety glasses**

Below are the items you can expect receive with your CompactGrid conveyor belt order. The sprockets you receive will vary per your application specifications.

CompactGrid conveyor belt

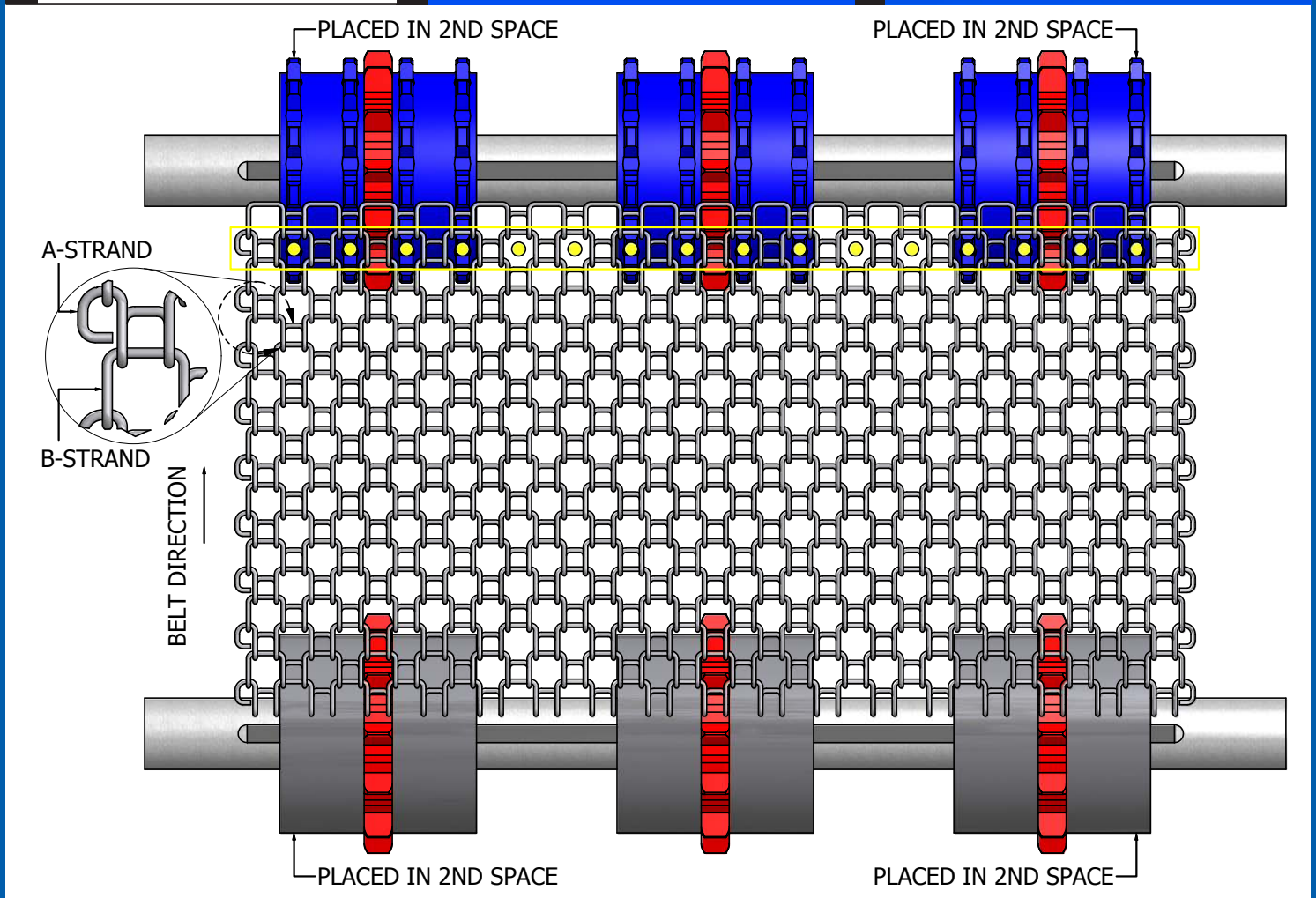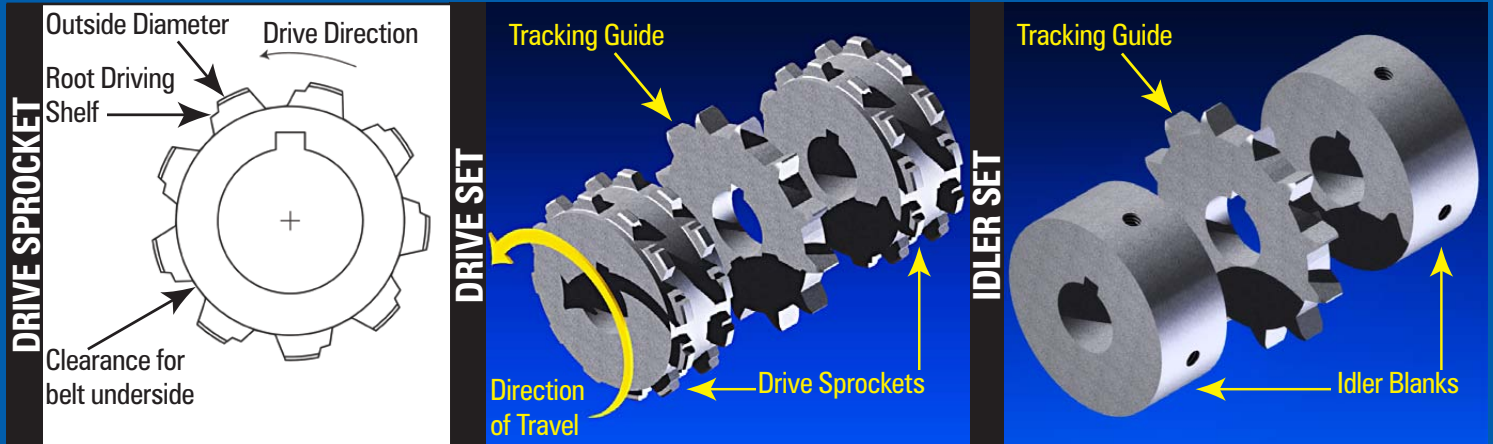CompactGrid splicing tool kit

Standard Stacking sprockets

Slim Profile sprockets

wirebelt®

INSTRUCTIONS

1. Begin by placing all the drive sets on the drive shaft.
2. Place each outside drive set in the second space in from the edges of the belt (shown below). Make sure to count the spaces in from the strand with the C-Cure Edge Loop (A-Strand below).
3. Align and space the remaining drive sets as near evenly as possible between two outside sets making sure the guide sprockets are positioned in the same corresponding large space. For the idler setup, repeat steps 1-3.
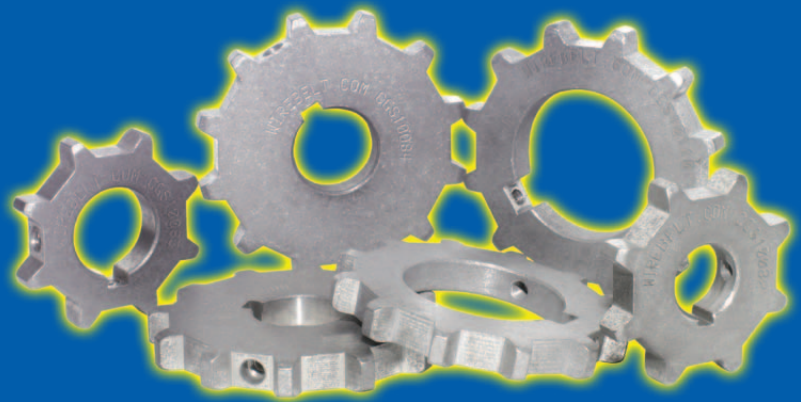
DRIVE SPROCKET

Outside Diameter
Drive Direction
Root Driving Shelf
Clearance for belt underside

DRIVE SET

Tracking Guide
Direction of Travel
Drive Sprockets

IDLER SET

Tracking Guide
Idler Blanks

PLACED IN 2ND SPACE
PLACED IN 2ND SPACE

A-STRAND
B-STRAND
BELT DIRECTION

PLACED IN 2ND SPACE
PLACED IN 2ND SPACE
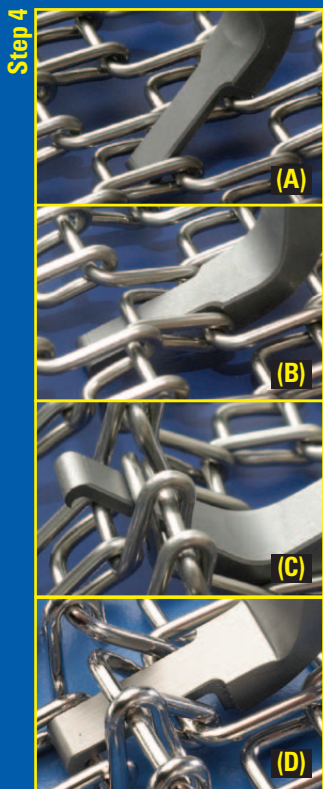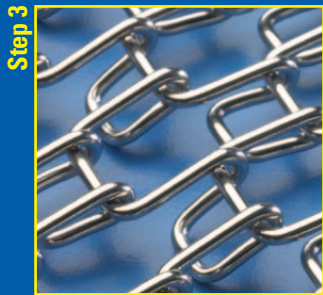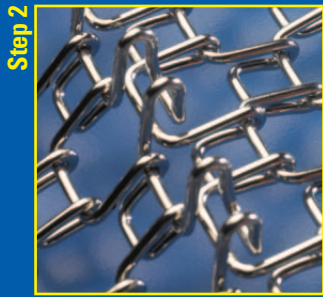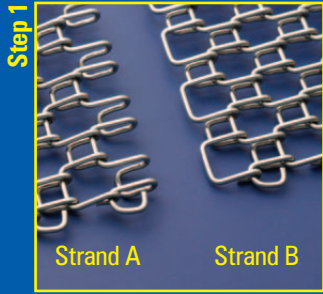
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Slim Profile sprockets are an alternative solution for driving your CompactGrid conveyor belts. Slim Profile sprockets have less mass than our Standard Stacking CompactGrid drive components which means your conveyor won't work as hard to keep your process moving, increasing energy efficiency. Less mass also means the sprockets are manufactured using less material, translating into cost saving for you. Available in stainless steel or polyacetal plastic, they are easily installed on your drive setup. So call our Technical Services department to find out if your application and conveyor setup is appropriate for Slim Profile sprockets.

INSTRUCTIONS

1. Begin by placing all sprockets on the drive shaft.

2. Place each edge sprocket in the second space in from the edges of the belt. Make sure to count in from the strand with the C-Cure Edge loop (A-Strand below).

3. Align and space the remaining sprockets between two edge sprockets. The drawing below may be used as a reference for a typical drive shaft setup.

PLACED IN 2^(ND) SPACE   PLACED IN 2^(ND) SPACE

BELT DIRECTION

A-Strand

B-Strand

Step 1

Strand A   Strand B

Step 2

Step 3

Step 4

(A)

(B)

(C)

(D)
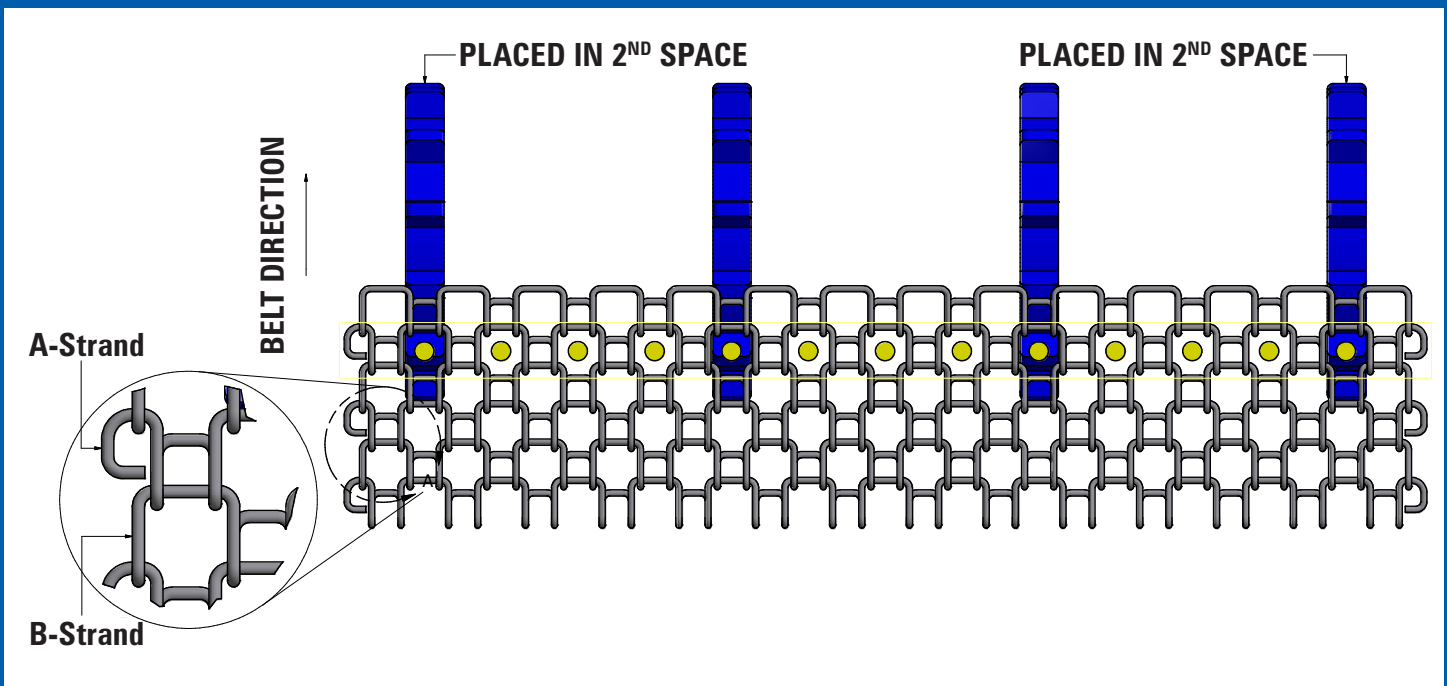
TOOLS YOU WILL NEED

- New Belt
- Splicing Levers
- Splicing Pliers
- Allen Wrenches
- Safety Glasses

Before you begin splicing

- Disconnect the power to the conveyor system
- Release all tensioning mechanisms

IMPORTANT NOTE: If a belt has damage in more than one place, _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.

Splicing tool kit

Wire Belt has custom designed the Compact Grid Splicing Tool Kit to make splicing as simple and easy as possible. Each Tool Kit includes two CG-Splice Levers, and one set of CG-Splice Pliers. These tools are especially designed to help align and crimp the belt into place. The CG-Splice Pliers are designed to provide a perfectly shaped crimp, making the splice joint complete without damaging surrounding wire strands, or over-crimping the splice strand.

Step 1

Once the belt has been passed through the conveyor circuit and properly located on the drive and idler components, the leading belt-end hooks (Strand A) will align with the trailing belt-end loops (Strand B)… as shown in this photo.

Step 2

Insert the leading belt-end hooks (Strand A) into the trailing belt-end loops (Strand B) as shown.

Step 3

Once the hooks and loops are joined together, the belt should be slightly tensioned before the final steps in the splicing operation are performed. Be careful not to over-tension the belt at this point, because a little slack will be required for the next step.

Step 4

Insert the CG-Splice Levers into the belt hooks and loops as shown here. Apply a slight amount of pressure to the lever to form a tented position. Hook the end of the lever into the next strand to lock the tented strand in place. (As shown Step 4 A–D).

Step 5

With the CG-Splice Levers in place, and the belt in a slightly "tented" position, the CG-Splice Pliers can be used to crimp down the leading belt hooks (As shown below figure A). The CG-Splice pliers are designed to fit within the mesh of the belt, which enables the strand to be crimped to the proper depth. To correctly crimp your belt into position, start the crimping process 5 spaces in from the edge of the belt (As shown below figure B). Crimp moving outward towards the edge of the belt. Repeat this process on the opposite side of the belt. Now that you have the outer edges locked, you may crimp the remaining center spaces to complete the splice.
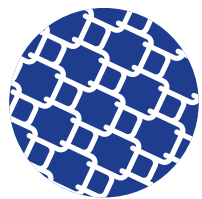
Step 5

(A)

(B)

5
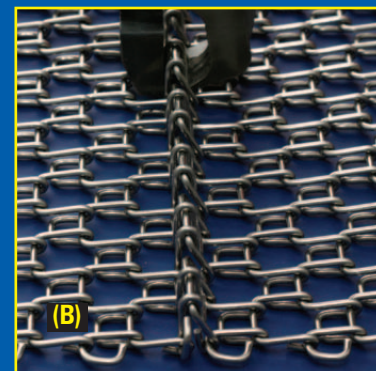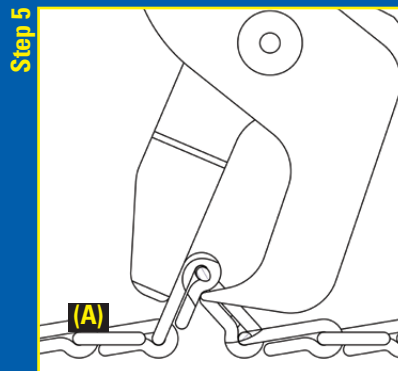
Do's

- Do use a rubber friction drive (Non-heat application) if sprocket drive is not possible.

  - Friction drives are not suitable for all applications.

- Do make sure the outside supports are wide enough at the outside edges of the belt. If too narrow, the belt can fall off and snag under the supports.

- Do verify shaft diameters at the sprockets not at the bearings (some shafts can be turned down at the bearing).

- Do make sure drive shaft is keyed.

- Do allow enough clearance between the edge of the belt to the conveyor frame.

  - Consult product catalog/Technical Services for needed clearance.

- Do consult with Technical Services for appropriate drive and idler components.

  - Standard Stacking vs. Slim Profile.

- Do consult with Technical Services prior to quote.

- Do take a sample of CompactGrid belting for fine tuning of the drive and idler locations.

- Do place Slim Profile sprockets in the second space from the outer edges.

- Do place the tracking guide in the fifth space from the outside edges with the drive sprockets positioned each side.

- Do make sure if all shafts in the circuit rotate at the same speed of the belt. Shafts that do not will create friction and produce more aggressive belt wear.

- Do make sure conveyor and shafts are square.

- Do make sure there is a belt wrap of 120º - 180º for optimal performance.

- Do listen for any clicking at the sprockets to determine if they are positioned in the large spaces correctly.

- Do use a pull drive belt circuit system whenever possible (preferred method).

- Do make sure the tabs do not contact each other in any part of the circuit. Failure to do so will result in a belt failure.

- Do use herringbone pattern if possible.

  - Longitudinal and cross rollers are acceptable.

- Do eliminate any sharp edges on support rails or any obstacle that contacts the belt.

- Do eliminate any catch points on all that interfere with the belt circuit.

- Do extend wear strip supports into drive components in a push drive application to prevent belt bunching and catching against the leading edge of wear strips (dip applicator).

<u>Don'ts</u>

- Do not place components on shafts that are in close proximity to each other.

- Do not use a stainless steel friction drive.

- Do not place sprockets in the first space at the outer edges.

- Do not quote the CompactGrid belt larger than the existing belt.

- Do not use unkeyed CompactGrid drive sprockets.

  - Idlers shaft guides can rotate freely (no keyway) but must be retained in position for belt tracking.

- Do not drill and dimple shafts and keys as sprockets/blanks may have to be repositioned when a new belt is fitted.

- Do not set the position of the drive and idler components strictly with a tape measure – only for initial reference setting.

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