

A world map in a teal color scheme, overlaid with several concentric circles of varying sizes, creating a ripple effect across the globe.

Introduction to Splicing Heavy Duty Belting

Flexco would like to thank:



Flexco would like to thank:



Safety on the Job

Safety

42% of conveyor-related accidents happen while performing maintenance, lubrication or checking the conveyor

Source: US MSHA Office of Injury and Employment Information



Safety on the Job

Safety

39% of reported injuries occurred while cleaning or shoveling was being done around the conveyor

Source: US MSHA Office of Injury and Employment Information



What's Important?

YOUR SAFETY

What's Covered

- Heavy Duty Conveyor Applications
- Key Conveyor Components and Terms
- Heavy Duty Conveyor Belting Basics
- Types of Splicing Methods
- S.L.A.M.
- Lock Out/Tag Out/Try Out
- Proper Belt Squaring
- Introduction to Splicing

Conveyor System Basics

What is a Conveyor System?

- Common piece of mechanical equipment
- Conveys materials from one location to another
- Often safer & more cost-effective than alternative methods



Heavy Duty Applications

Defining Heavy Duty

- Utilize conveyor belting greater than ½" in nominal thickness
- Generally have PIW (Pounds per Inch of Width) ratings above 200



Heavy Duty Applications

Heavy Duty Conveyors

- Have applications in a wide variety of industries
- Primarily used for bulk materials
- Can carry industrial and food grade materials
- Both indoor and outdoor applications
- Above ground and underground installations



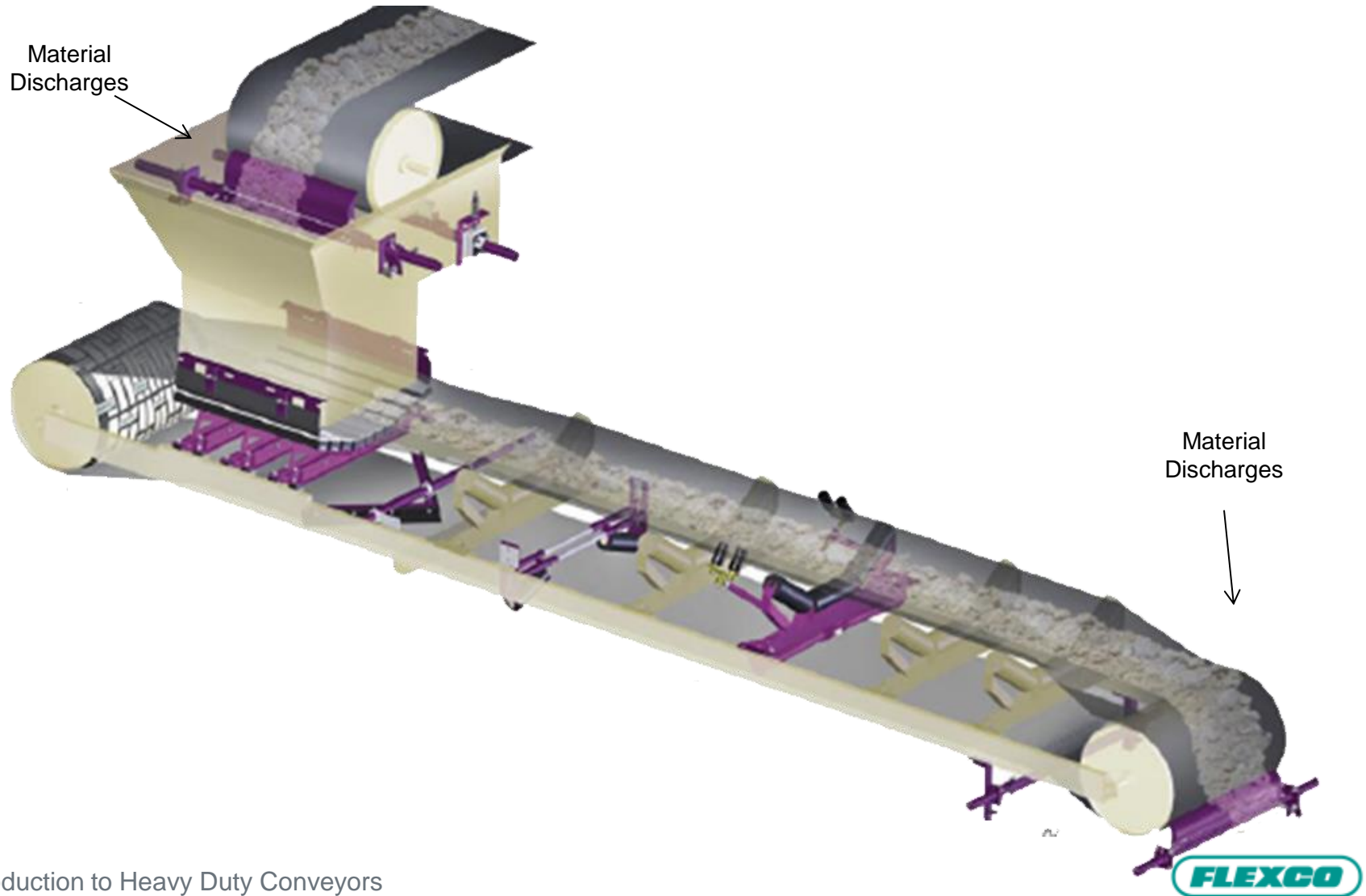
Heavy Duty Applications

Common Industry Applications

- Coal and Hard Rock
- Wood Processing
- Sand and Gravel
- Foundries
- Steel Mills
- Asphalt Plants
- Construction and Road Equipment
- Construction Machinery
- Grain Elevators



Conveyor Components



Heavy Duty Belting

Heavy Duty Belting

- Belt consists of one or more layers
- Most expensive wear component of the conveyor



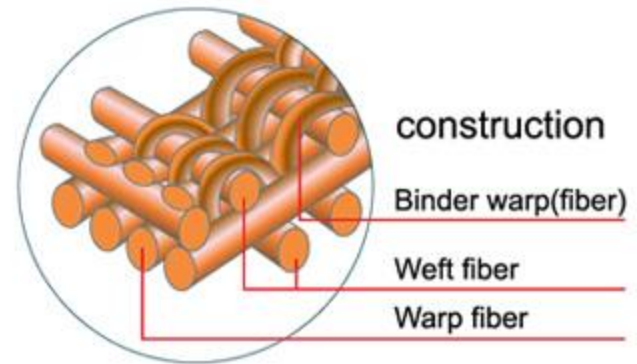
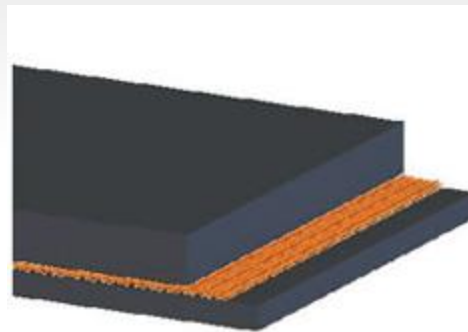
Heavy Duty Belting

Two Types of Heavy Duty Conveyor Belting

- Plied Belting



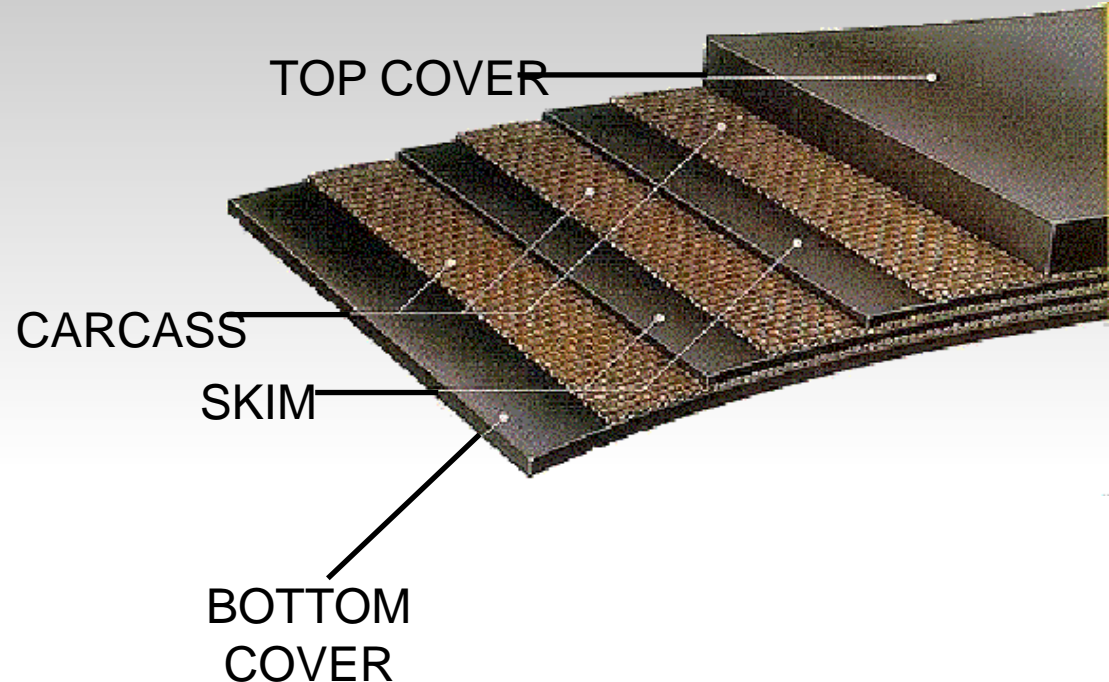
- Straight Warp



Heavy Duty Belting

Components of a Heavy Duty Belt

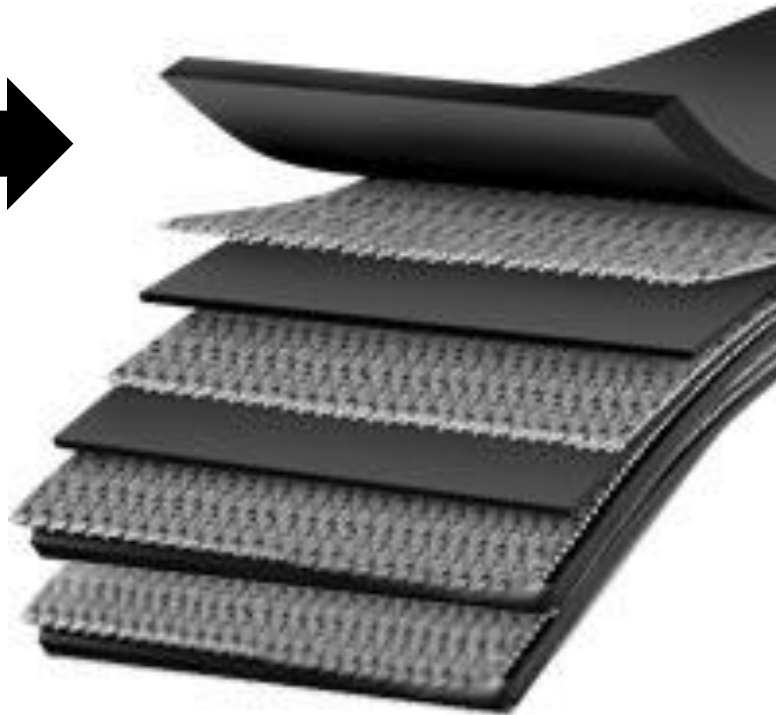
- Carcass, strength member
- Skims, the rubber between the fabric plies
- Belt covers



Heavy Duty Belting

Top Cover

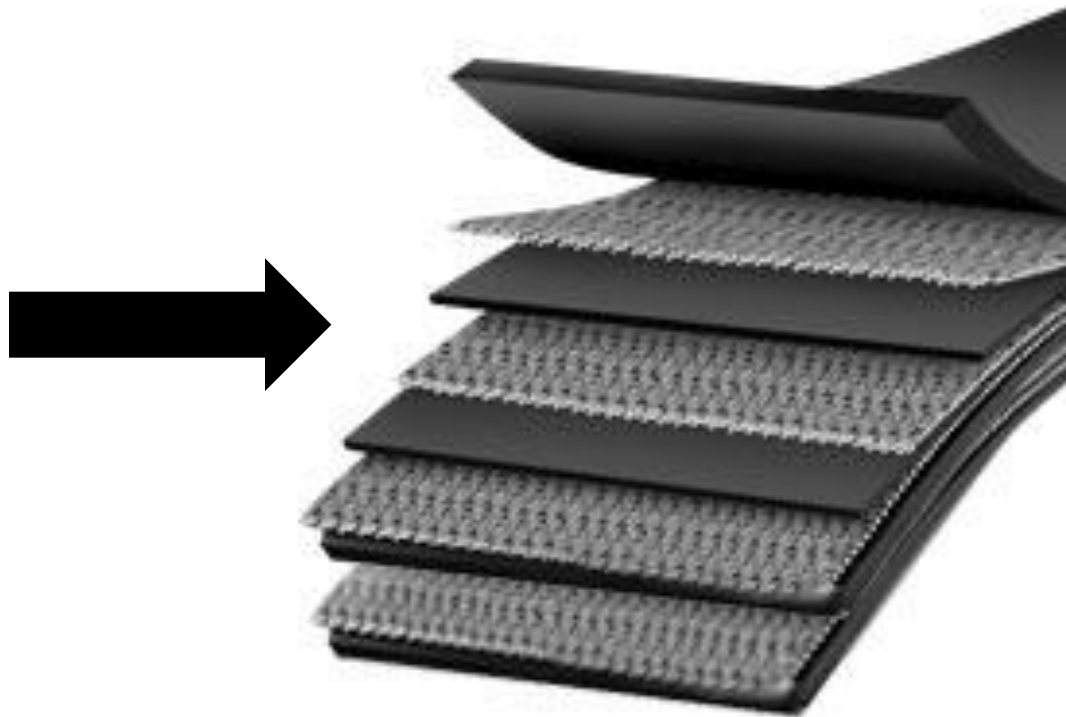
- Where material is carried
- A variety of materials used
- Protects carcass



Heavy Duty Belting

Carcass

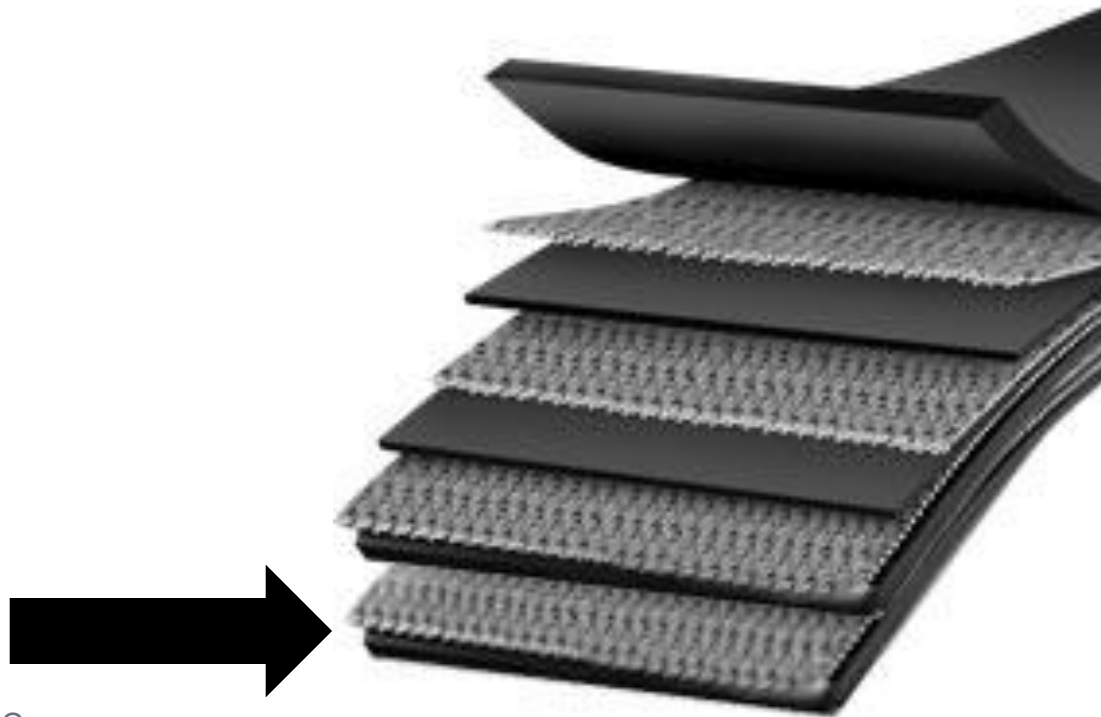
- Gives belt its strength
- Can be one or more layers (plies) of fabric



Heavy Duty Belting

Bottom Cover

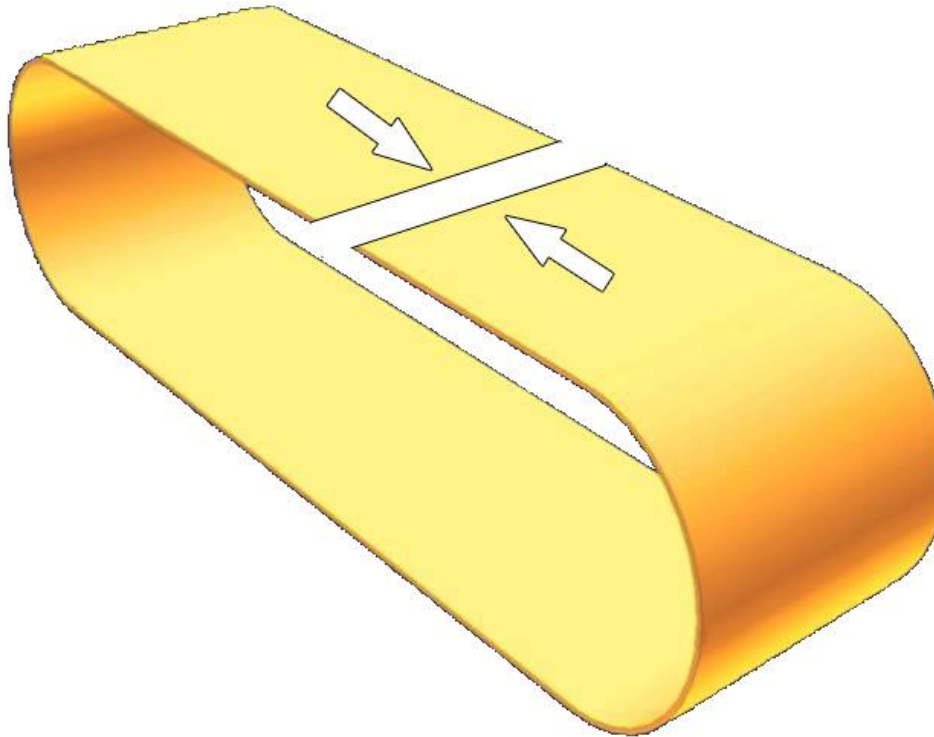
- Contacts pulleys and idlers and protects bottom of belt



Introduction to Splicing

Splicing A Belt

- The process of joining two belt ends together to create a continuous band



Introduction to Splicing

Two Splicing Methods

1. Mechanically fastening belt ends together



2. Vulcanize - large press uses heat, chemicals and pressure to bond belt into a continuous band



Preparing to Splice

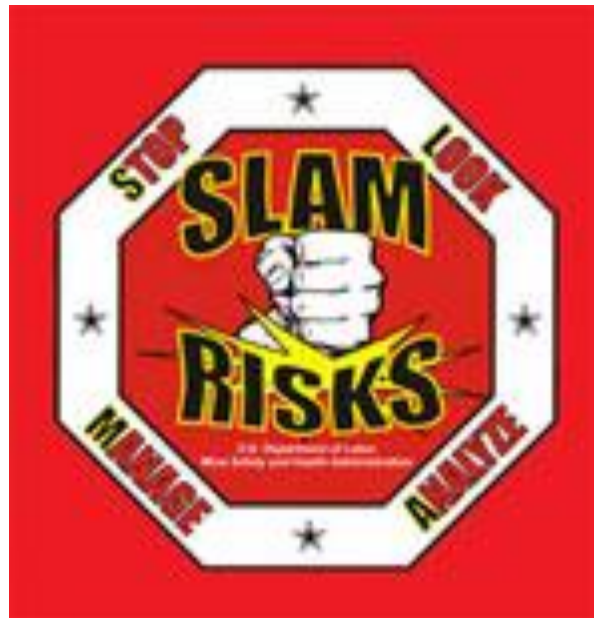
Getting tools ready and knowing proper splice

- Pick correct splice for the belt
- Get tools ready, and make sure they are safe to use
- Make sure that splice is spotted in safe place to work



S.L.A.M.

- **S**top Think through the task
- **L**ook Identify the hazards for each job step
- **A**nalyze Determine if you have the proper knowledge, training, and tools
- **M**anage Remove or control hazards and use proper equipment



L.O.T.O

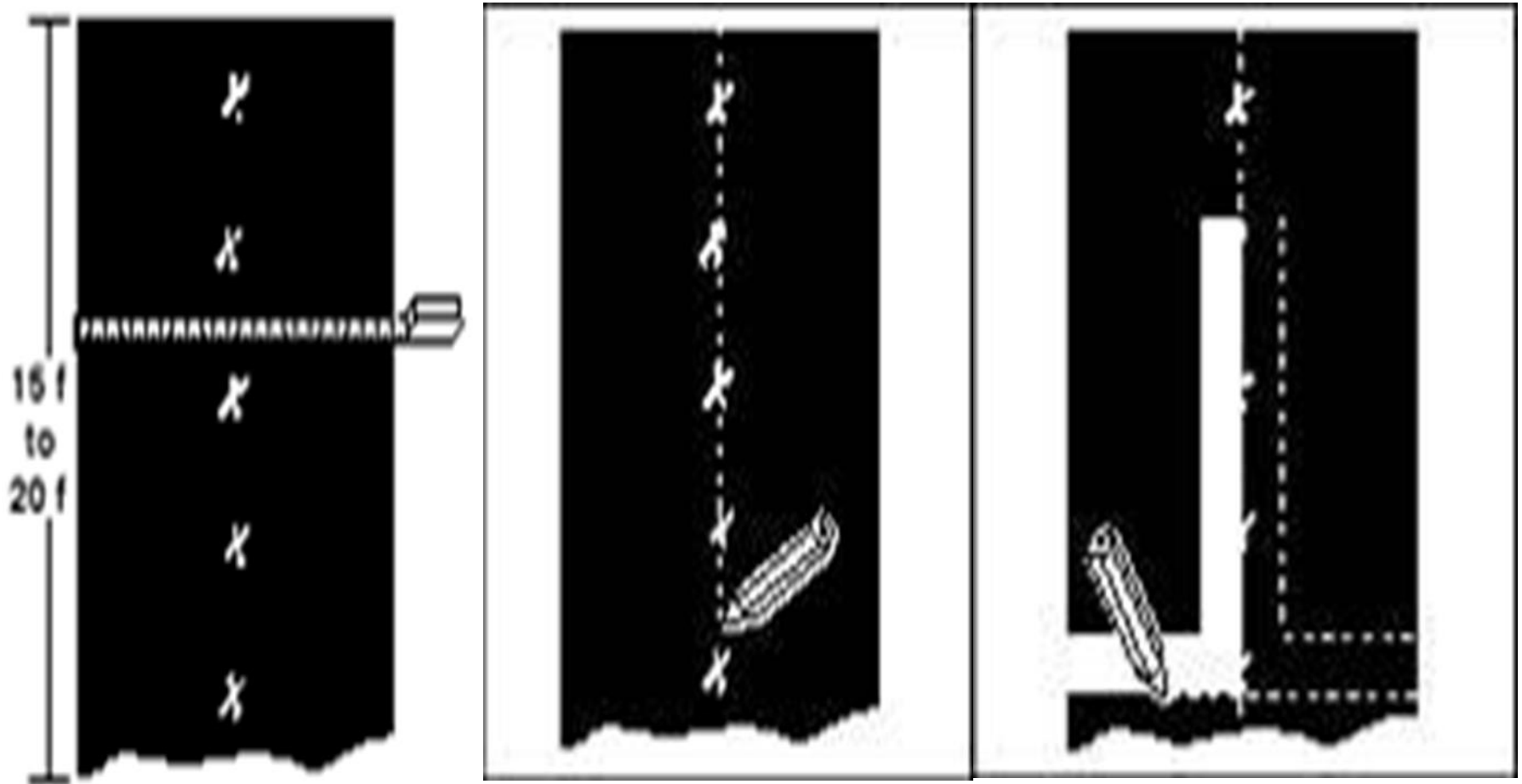


Preparing to Splice

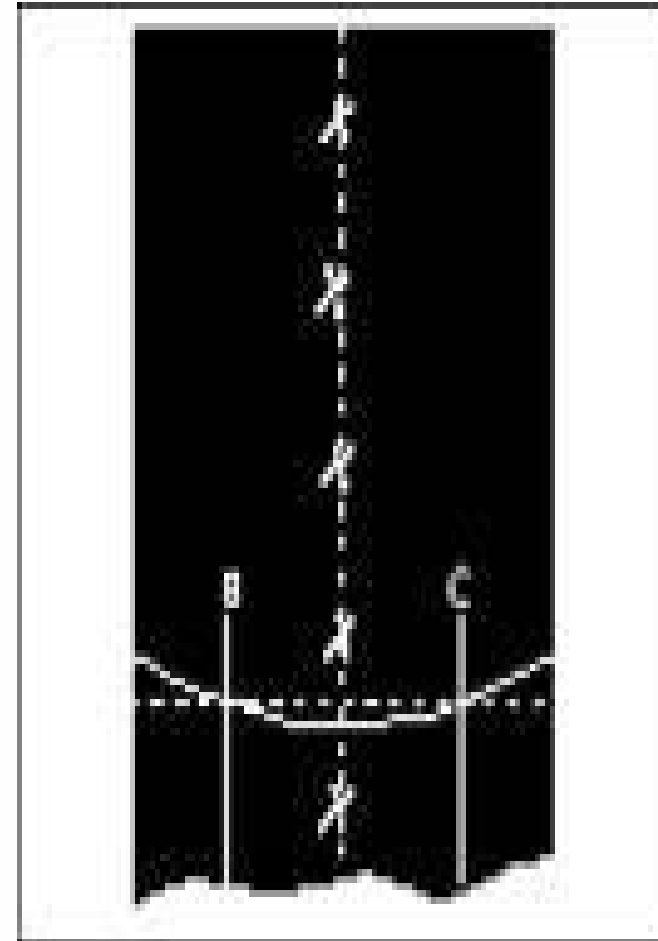
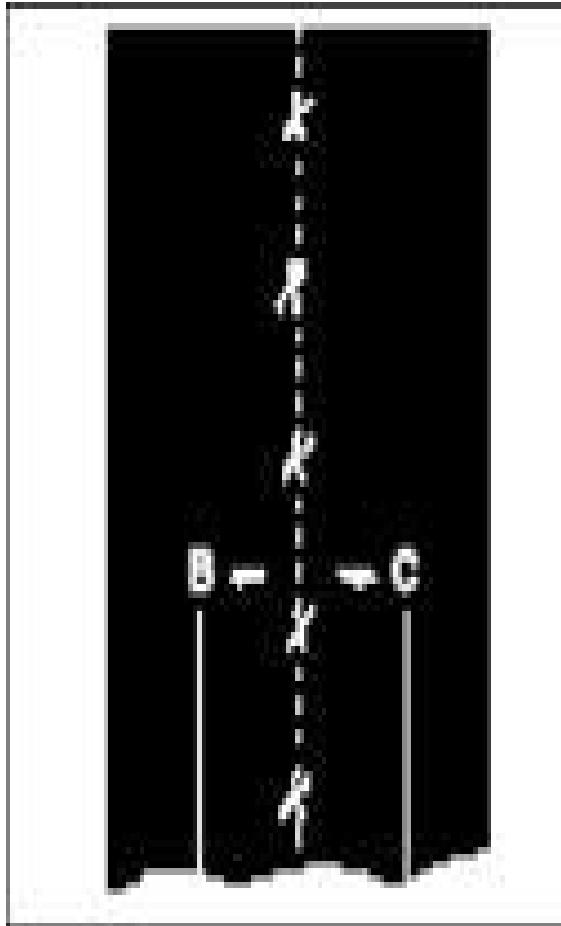
“Dogging” off the Belt



Squaring the Belt



Squaring the Belt



Cutting the Belt

Belt Cutters

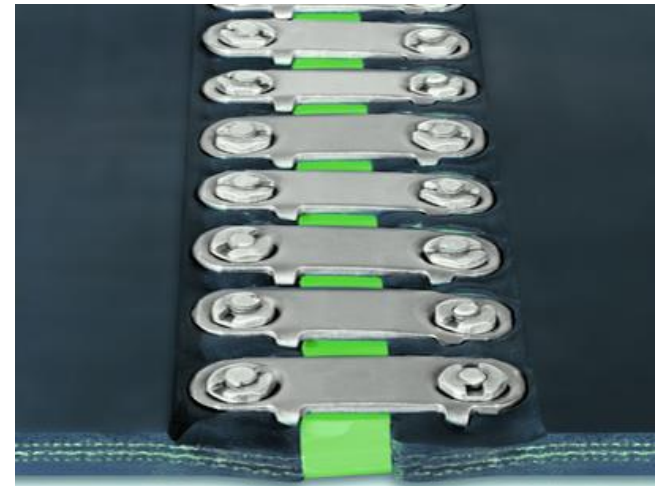
- Razor Knives
- Enclosed Belt Cutters
- Electric Belt Cutters



Skiving the Belt

Skiving

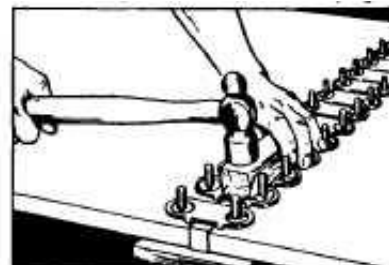
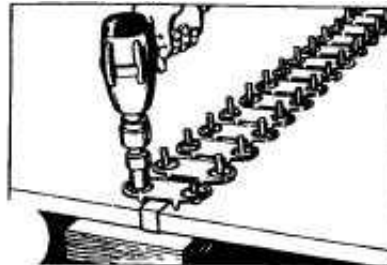
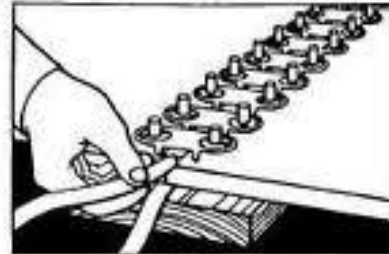
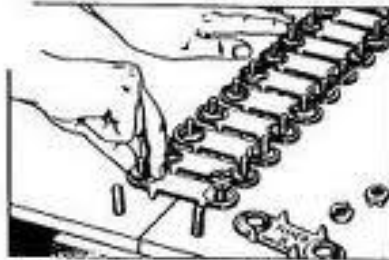
- Process of preparing belt for mechanical fasteners
- Removes top cover on edges of belts to be fastened
- Creates a lower profile splice
- Can improve splice life
- Less wear on conveyor components such as cleaners



Installing the Fasteners

Installing

- Punch Holes using Template
- Insert Fasteners from the bottom
- Put on Top Plates and Nuts
- Put in Tape
- Tighten Nuts
- Break off Bolts
- Mushroom



Bolt Solid Plate Installation Tips

- The use of Flexco-Lok tape will result in a smooth splice!



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Partners in Productivity

Installing the Fasteners



Safety Comes First



Summary

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- Key Conveyor Components and Terms
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