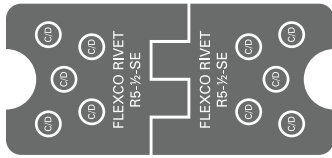


INTRODUCING MECHANICAL BELT FASTENING



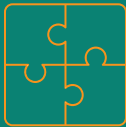
VS



Mechanical Belt Fastening
Joining belt ends with
metal hinges or plates

Vulcanisation
Joining belt ends through
heat and/or chemicals

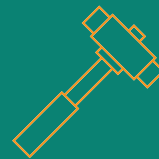
WHY MECHANICAL FASTENERS?



Highly compatible with
almost any type of belt
and other complementary
belt products



Easy to install,
reducing downtime



Resistant to temperature,
dirt and humidity, optimal
for harsh environments



Able to withstand
extremely high loads
and pressures



Easy to inspect visually



Available in a variety
of sizes, configurations
and materials



Boasting a whole host of diverse benefits,
mechanical fasteners might be a better
fit for your business operations.

OPTIMISE YOUR BELT FOR THE BEST RESULTS



Skiving

Helps to lower a belt's profile, allowing for better fastener grip and improved splice strength and life.



Solid Plate Fastener

Creates a tight and compact splice that prevents fine material such as sand or gravel from sifting through.



Rivet-Style Fastener

Protects the integrity of straight warp belts by penetrating them without damaging carcass fibres.

IDEAL FOR A WIDE RANGE OF APPLICATIONS



Aggregates


Mining
(coal, mineral)

Agriculture
(sugar, palm oil)

Glass
Processing


Cement


Power
Plant

Animal
Feed

Pulp &
Paper

SMART OPTION, GREAT VALUE

Overall Price Comparison – Vulcanisation vs Mechanical Splicing

Vulcanised

Based on belt width 1050mm	USD
Labour (3 workers / 10 hours)	676
Transportation	451
* Average Splicing Material Cost	751
Variable Cost	1,878
* Downtime (10 hours @ 13 tonnes/hour)	1,091,666
* Estimated Tonnage per year (75,000T)	None
* Cost of Vulcanising Machine	92,011
Total Cost	1,183,677

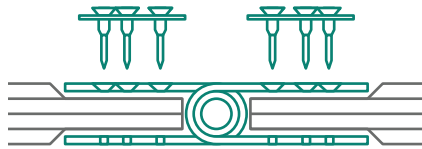
Mechanical

Based on belt width 1050mm	USD
Labour (3 workers / 2 hours)	59
Transportation	None
* Splicing Material Cost (Flexco SR Fasteners)	143
Variable Cost	201
* Downtime (2 hours @ 13 tonnes/hour)	218,333
* Estimated Tonnage per year (75,000T)	None
* Cost of Tool (MSRT-42-AL)	1,562
Total Cost	220,097

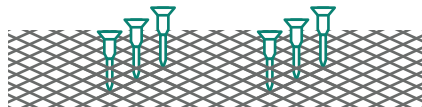
*Estimated based on 1050mm (42") splice. Pricing information will vary according to region, these are collected from Indonesia Vulcanisers and Flexco 2016 Product Guides.
USD Exchange rates as of 31 March 2017.

With easier installation, reduced downtime and flexible application, mechanical belt fasteners can boost your business from bottom line to overheads in the long run.

IMPROVING BELT DURABILITY WITH HEAVY-DUTY SPLICING



Before Installation

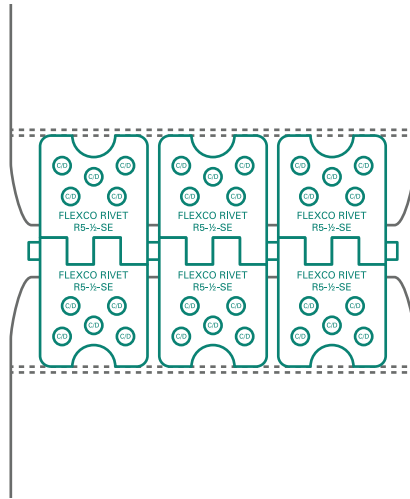


Installation of fasteners without
damaging belt fibres



After Installation

Flexco® SR™ Rivet Hinged
Section View



Flexco® SR™ Rivet Hinged
Top View

Industry

Cement Production

Application

Coal-powered dryers

Product

Flexco® SR Rivet Hinged Fasteners

Objective

Improve belt splicing process
and splice quality

Conveyor Detail

Belting

Three-ply, EP150, rubber,
750-1000mm wide, belt
thickness 12mm

Belt Lengths

30 belts, ranging from 10m to 150m
long between end pulley centres

Typical Speed

Up to 3.3' (2.5m) /sec

Configuration

Mixture of horizontal and inclined
conveyor, mostly troughed at 30
degrees, running 24/7 with most of
the conveyor operating at outdoor
environments with relatively low
operating tension of 86 – 114 P.I.W.
(15 -20 kN/m)

Typical Load

Around 70,000 ton of coal
per month

CASE STUDY



Problem

On average, each belt required three
to four splices a year and would
deteriorate after nine months due to
the moist and dusty environment,
resulting in high downtime.



Solution

Flexco® Bolt Solid Plate was
introduced as an interim repair
solution while Flexco® SR™ Rivet
Hinged Fasteners were used for
permanent splicing.



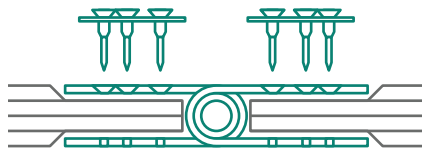
Result

The resulting splice was stronger
than the previous vulcanised splice,
reducing downtime from 14 hours to
just 2.5 hours.

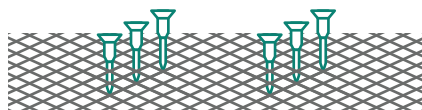
The labour count for belt repair also
halved from four to two. The splice
remains in good condition even after
a year of operation.

**Switch to mechanical
fasteners today!**

CHEMICAL FERTILISER PLANT SLASHES CONVEYOR DOWNTIME & COSTS



Before Installation

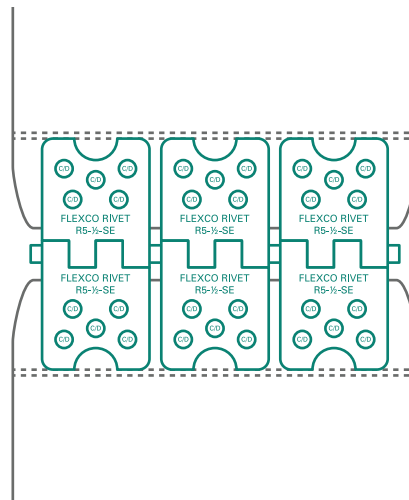


Installation of fasteners without damaging belt fibres



After Installation

Flexco® SR™ Rivet Hinged
Section View



Flexco® SR™ Rivet Hinged
Top View

Industry

Chemical fertiliser production

Application

Process-stream bulk conveyors

Product

Flexco® SR Rivet Hinged Fasteners

Objective

Minimise frequency, downtime and cost of vulcanised conveyor belt resplicing

Conveyor Detail

Belting

Three-ply heat-resistant rubber, 32 – 40" (812 – 1016mm) wide

Belt Lengths

20 "problem" belts, ranging from 10' to 197' (3 – 60m) long between end pulley centres, deployed across three production lines

Typical Speed

Up to 3.3' (1m) / sec

Configuration

Primarily horizontal (some slightly inclined), most troughed at 35 degrees, with relatively low operating tension of 86 – 114 P.I.W. (15 – 20 kN/m)

Typical Load

Up to 200 tpm of NPK fertilizer granules and fines, received from a rotary dryer at up to 212°F (100°C)

CASE STUDY



Problem

Due to hot loads and high cycling around small pulleys, the existing vulcanised splices were deteriorating rapidly, causing production lines to come to a standstill. It would take up to 12 hours for a vulcanising contractor to rejoin the belt, incurring losses of over \$35,000 a year.



Solution

The belt was re-spliced with Flexco® Rivet Hinged Fasteners, which were countersunk flush with the belt's top cover after the skiving process.



Result

The fasteners lasted up to five times longer than previous vulcanised splices. With minimised downtime and easy installation, the fasteners netted the plant a six-figure savings every year.

Switch to mechanical fasteners today!