

REPLACEMENT & AFTERMARKET

BOLT SPLICE KITS



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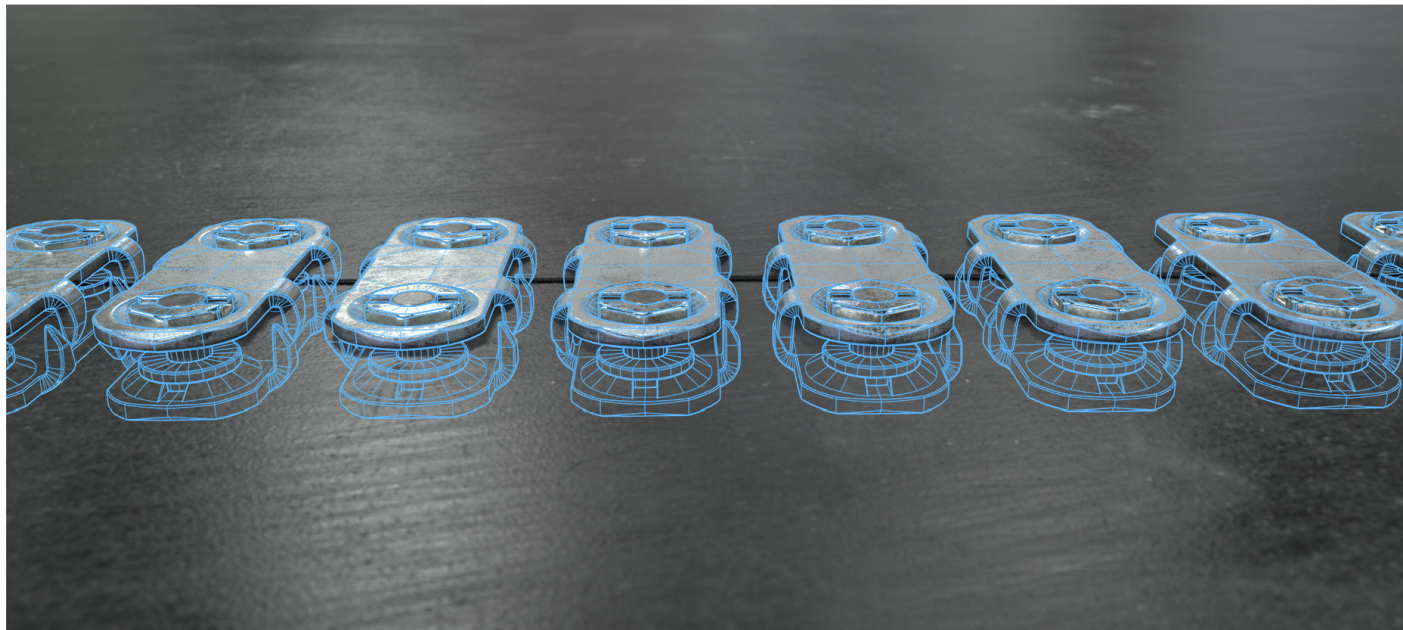
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BOLT SPLICE KITS



Bolt Splice Kits

The splice is the highest-stress point on any conveyor belt, and on lines carrying sand, cement fines, or crushed stone it is also the primary leak path. A splice with an open gap sifts fine material onto return-side idlers and pulleys, fouling components and building cleanup labor into every shift. When the joint itself fails under tension, the line stops, and vulcanized repair demands hours of downtime with heat equipment and controlled conditions that field environments rarely allow.

Bolt splice kits close that gap with solid upper and lower plates compressed through the full belt thickness by high-tensile bolts, forming a sift-free joint rated from 150 – 700 PIW across belt thicknesses of 3/16" – 1-1/4". A hinged bolt configuration serves pulleys down to 6" where solid plates cannot flex, rated to 300 PIW with a removable pin that opens the joint for belt separation. Both systems install in 2 – 4 hours with portable hand or power tools, with no heat source or vulcanizing equipment required. Kit selection matches fastener size to belt thickness, PIW rating, and minimum pulley diameter for full-rated service.

APPLICATIONS



Recycling & Waste Management

Sorting lines and transfer conveyors move shredded scrap, glass fines, and contaminated streams that grind at every joint and sift through any open splice. Bolt solid plate kits in abrasion-resistant steel compress the joint closed against fines while restoring worn belts unfit for vulcanization with portable tools.



Aggregates & Cement

Sand, gravel, and cement fines exploit any gap in a mechanical joint, spilling material onto return-side components. Solid plate compression seals the splice across fastener sizes rated from 150 – 700 PIW, covering light aggregate through maximum-capacity service.



Mining

Coal and heavy aggregate load belts at high tension over large-diameter pulleys. Heavy fastener sizes carry ratings to 700 PIW in hardened abrasion-resistant grades built for high-abrasion material streams.



Agriculture

Grain elevators and flour mills classify as explosive dust environments where metal-to-metal contact cannot generate a spark. Spark-resistant alloy fasteners eliminate ignition sources while the sift-free plate design contains fine grain and feed.



Food Processing

Washdown cycles, sanitation standards, and magnetic separation equipment rule out standard plated hardware. Non-magnetic stainless steel fasteners withstand repeated washdown and pass separation equipment without magnetic interference.



General Material Handling

Packaging lines and light-duty systems run thinner belts over pulleys as small as 6". Hinged bolt fasteners flex around small-diameter pulleys, and a removable hinge pin opens the joint for belt length adjustments without destroying the splice.

KEY FEATURES

01

Vertical Penetration Tooth Option:

VP tooth orientation drives vertically through hard, thin, or worn belt covers where horizontal penetration loses holding engagement.

02

Top-and-Bottom Plate Compression:

Solid upper and lower plates clamp through the full belt thickness under bolt tension, closing the joint against sift-through in fine material service.

03

Piloted High-Tensile Bolts:

Tapered bolt tips cradle nuts securely during installation while tensile capacity above 5,000 lb holds constant compression under operating belt tension.

04

Formed Tooth Geometry:

Tooth profiles penetrate deep into the belt carcass for pull-out resistance, engaging fabric layers without severing rubber plies or cord reinforcements.

06

Low-Profile Nut Cups:

Nuts nest flush within recessed plate cups, presenting a smooth splice surface to belt scrapers, cleaners, and transfer chutes.

05

Removable Hinge Pin:

A withdrawable pin joins the hinged plate loops, opening the splice for belt length adjustments and removal without cutting the joint.





BOLT SPLICE KITS SPECIFICATIONS

Solid Plate Fastener

Fastener size	Belt thickness range	PIW rating	Min. pulley diameter	VP variant	Applications
1	3/16" - 7/16" (5 - 11 mm)	150 PIW	12" (300 mm)	No	Light aggregate, crushed stone
140	3/16" - 7/16" (5 - 11 mm)	225 PIW	14" (360 mm)	Yes (140VP)	Sand, gravel, light aggregate
190	5/16" - 9/16" (8 - 14 mm)	375 PIW	18" (460 mm)	Yes (190VP)	General aggregate, crushed stone
1-1/2	7/16" - 11/16" (11 - 17 mm)	300 PIW	12" (300 mm)	No	Medium-duty aggregate
2	9/16" - 13/16" (14 - 21 mm)	440 PIW	30" (760 mm)	Yes (2VP)	Aggregate, coal, salt
2*	15/16" - 1-1/4" (24 - 32 mm)	700 PIW	20" (510 mm)	No	Heavy aggregate, mining
2-1/4	9/16" - 1-3/16" (14 - 30 mm)	620 PIW	36" (920 mm)	No	Heavy-duty bulk material
2-1/2	3/4" - 1" (19 - 25 mm)	450 PIW	42" (1070 mm)	No	Cement, coal, heavy aggregate
3	15/16"+ (24 mm+)	560 PIW	48" (1220 mm)	No	Maximum-capacity applications

Note: Size 2 fasteners used with the No. 3 lead bolt pattern require extra-long size 2-1/4 bolts on belts over 7/8" (22 mm).

Hinged Plate Fastener

Fastener size	Belt thickness range	PIW rating	Minimum pulley diameter	Application
375X	1/4" - 13/32" (6 - 11 mm)	190 PIW	6" (152 mm)	Small pulley systems, light-duty applications
550	1/4" - 5/8" (6 - 16 mm)	300 PIW	9" (230 mm)	Small pulley systems requiring higher strength

Note: Specifications shown represent specific sizes. Consult product listings for complete sizing information and carton quantities.

BOLT SPLICE KITS SPECIFICATIONS

Fastener Materials

Material type	Characteristics	Applications
AISI grade steel	Standard material with plating for general corrosion resistance	Most applications, dry environments, non-corrosive materials
Abrasion resistant	Hardened steel resists wear from high-abrasion materials	Coal, aggregate, mining, crushed stone
Spark resistant	Alloy composition prevents spark generation from metal contact	Grain handling, flour mills, explosive dust environments
Corrosion resistant	Stainless steel or corrosion-resistant alloys	Washdown environments, chemical exposure, salt handling
Non-magnetic	Stainless steel with minimal magnetic permeability	Food processing, pharmaceutical, magnetic separation equipment
Impact resistant	Enhanced impact toughness for high-drop applications	Receiving hoppers, high-impact loading zones
Covered	Top plates with bonded rubber layer	Impact protection, belt cleaner compatibility, reduced noise

Note: Listed material types apply to solid plate fastener sizes. Material availability for hinged systems varies by size.

THE ENGINEERING ADVANTAGE

This section outlines the fastening and manufacturing methodology behind bolt splice kits, covering material grade selection, hole preparation, and plate assembly to ensure full-rated splice service across the fastener range.

Seven-Grade Material Selection:

Plate grades span AISI plated steel, abrasion-resistant, spark-resistant, corrosion-resistant stainless, non-magnetic stainless, impact-resistant, and rubber-covered options, each matched to a defined operating environment.

Curved Template Hole Preparation:

Curved templates position bolt holes accurately across the full belt end, distributing splice tension uniformly and preventing crooked joint geometry during punching or boring.

Rubber-Bonded Top Plate Option:

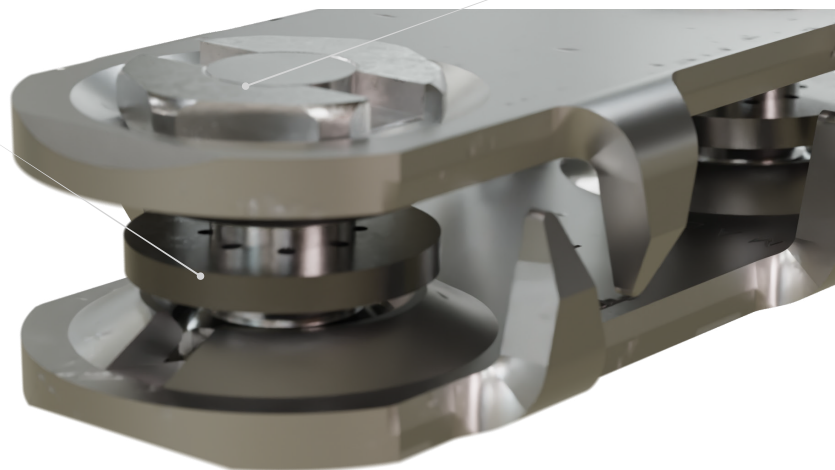
A bonded rubber layer over the top plate absorbs loading-zone impact and maintains cleaner blade contact across the splice surface.

Parallel-Break Bolt Trimming:

Bolt breakers snap excess bolt length with a rocking motion parallel to the splice line, finishing the joint flush without loosening installed fasteners.

Pre-Installed Bolt Assembly:

Bottom plates ship with piloted bolts factory-installed, cutting installation steps and locking the correct bolt type to each fastener size.



CONTACT INFORMATION

OUR ENGINEERS WILL SPEC THE EXACT PART FOR YOUR SYSTEM

For product specifications, engineering support, or order inquiries, please contact our team using the information provided below. Our specialists are available to ensure accurate recommendations and efficient service for your application requirements.

Reach Us Directly

Email

Send us your questions or requests, and we'll respond promptly.

sales@fluentconveyors.com

Phone

Call us for immediate assistance and technical support.

[+1\(866\) 764-2980](tel:+18667642980)

Business Hours

Monday - Friday

8:00 AM – 5:00 PM MST

Departments

Sales & Quoting

Product pricing, availability, and order placement.

sales@fluentconveyors.com

Customer Service

Product pricing, availability, and order placement.

[+1 \(303\) 390-1228](tel:+13033901228)

Engineering

Technical specs, application review, custom configurations.

engineering@fluentconveyors.com