
Impact and Containment Systems

Presented by

(800) 237-6951

f: (304) 525-8018



RICHWOOD

richwood.com

e: info@richwood.com

Our Mission

Richwood is a trusted partner of many of the world's largest and most productive bulk material handling facilities. Richwood has more than 40 years of experience providing clean conveyor belts, protecting and sealing load zones, aiding with wear and abrasion and preventing belt slippage and mis-tracking.

Founded in 1976 with a commitment to hard work, manufacturing quality products and partnering with clients, Richwood is guided by a mission of developing and manufacturing products that perform extraordinarily as they contribute to the productivity of their partner companies.

The unique concepts found in Richwood conveyor products are the result of practical application experience and collaboration from operators using Richwood products. This collaborative method of product development has resulted in the highest standards for equipment performance.

Conveyor belts are the backbone of mining operations. Richwood products keep the belt moving by eliminating some of the most common productivity killers such as material carryback, rips and tears to the conveyor belt, abrasion and impact damage, and the hazards of uncontained, fugitive material.

We believe fewer maintenance worries allows you to focus your attention where it is needed most, so you can experience greater efficiency and profitability.

For innovative conveyor solutions, Rely on Richwood!



(800) 237-6951

f: (304) 525-8018



RICHWOOD

Proven Solutions. Expert Advice.

richwood.com

e: info@richwood.com

Impact Saddles® and Cushion Arc®

Load Zone Support

Application: Aggregate

Material: 12" - granite

Belt Width: 60"

Belt Speed: 400 fpm

TPH: 1200

Before: Impact Idlers suffered premature bearing failure due to impact. Frames were getting bent in the center.

Recommendation: Richwood Impact Saddles® and Cushion Arc® Impact Idlers.

Result: Photo shows **product in service over two years** with all frames and rollers intact.



Benefits:

- curved profile eliminates pinch points
- supports entire belt
- long work life support frames
- easy to replace wear segments
- rollers and segments can be easily changed from one side of the belt



(800) 237-6951

f: (304) 525-8018



RICHWOOD

Proven Solutions. Expert Advice.

richwood.com

e: info@richwood.com

Impact Saddles® and Cushion Arc®

Load Zone Support

Application: Power Station

Material: Clean Coal

Belt Width: 48"

Belt Speed: 750 fpm

TPH: 2000

Before: Extreme pressure blowing out material, dust and debris not contained

Recommendation: Establish correct belting elevation. Provide proper belt support and impact protection as well as sealing and wear resistance.

Result: In-service photo at eight months. Material is contained, no more safety hazards.

Benefits:

- proper belt support permits reliable sealing of load zone
- no hassle with bolts to adjust skirting
- wear segments are easy to change out when needed
- safer work environment



(800) 237-6951

f: (304) 525-8018



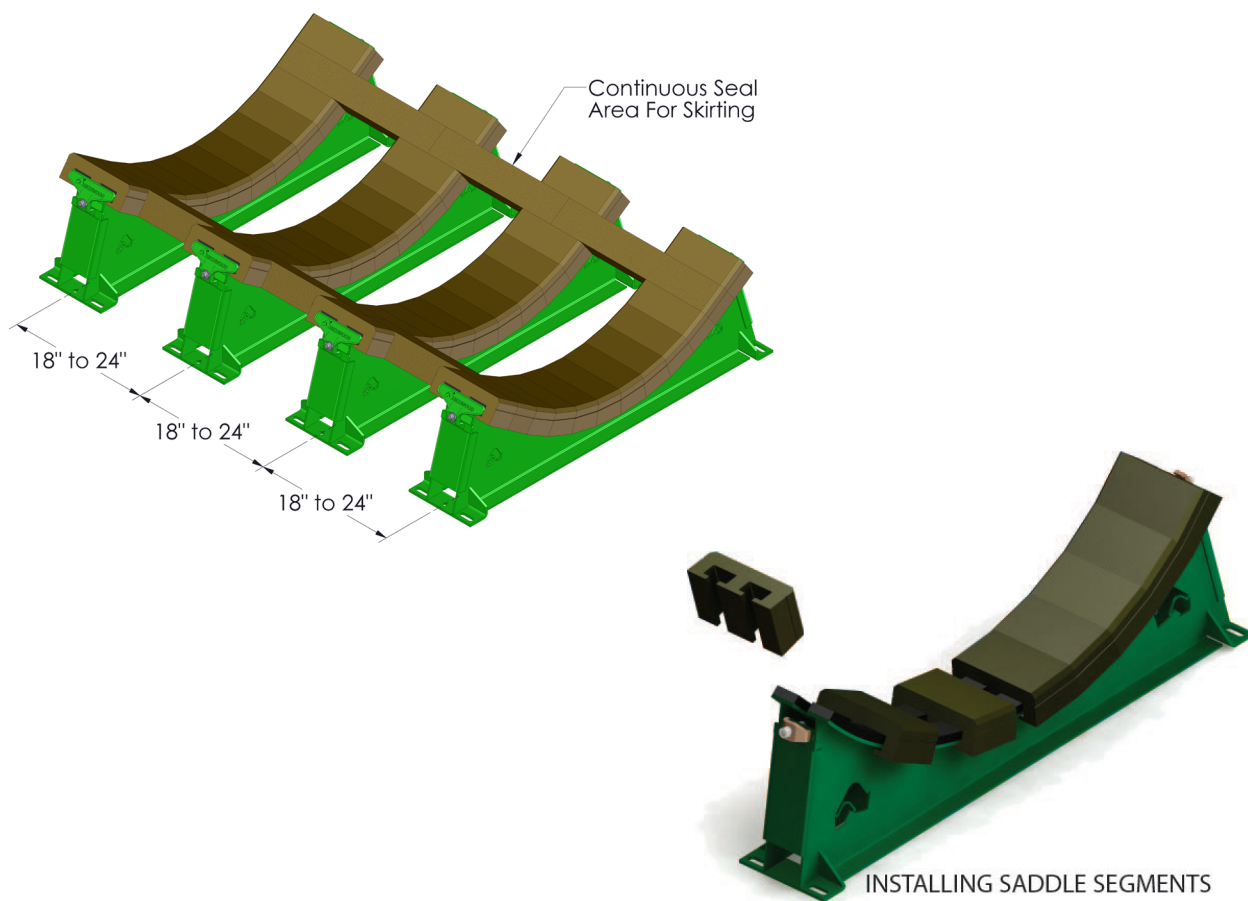
RICHWOOD

Proven Solutions. Expert Advice.

richwood.com

e: info@richwood.com

Impact Saddles® and Cushion Arc®



(800) 237-6951

f: (304) 525-8018



RICHWOOD

Proven Solutions. Expert Advice.

richwood.com

e: info@richwood.com

Impact Saddles® and Cushion Arc®

Load Zone Support

Application: Power Station

Material: Clean Coal

Belt Width: 60"

Belt Speed: 1100+ fpm

TPH: 6000

Before: Load was not stabilized, four previous attempt made to seal the area, daily clean up.

Recommendation: Establish correct belting elevation. With a proper foundation in place, design load zone with Impact Saddles® and Cushion Arcs® along with Richwood Canoe Liners® and Skirt-boards.

Result: Reliable load zone with proper impact protections, material containment and wear resistance.

Benefits:

- proper belt support permits reliable sealing of load zone
- easily adjustable wear linings
- Impact Saddle® and Cushion Arc® easy change out wear segments
- safer work environment



(800) 237-6951

f: (304) 525-8018



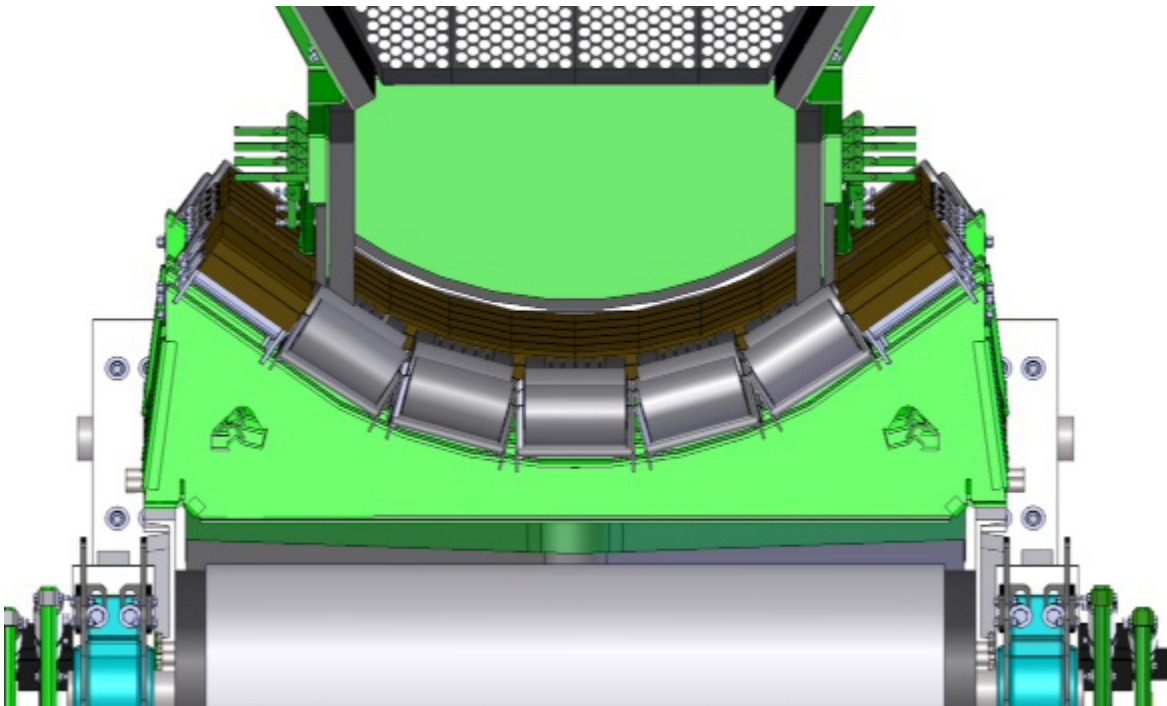
RICHWOOD

Proven Solutions. Expert Advice.

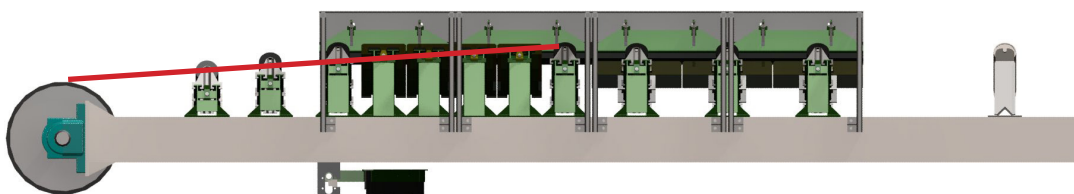
richwood.com

e: info@richwood.com

Impact Saddles® and Cushion Arc®



To build a worry free load zone, the belt must be fully transitioned before entry into the impact bed. CEMA standard 575 provides guidelines to achieve this transition. With this in mind, Richwood engineers evaluate a load zone from the ground up and consider each recommendation accordingly.



(800) 237-6951

f: (304) 525-8018



RICHWOOD

Proven Solutions. Expert Advice.

richwood.com

e: info@richwood.com

Canoe Liners® and Skirt Rubber

Load Zone Material Containment

Application: Barge Unloader

Material: Clean Coal 2"-

Belt Width: 72"

Belt Speed: 625 fpm

TPH: 4000

Before: Unsafe load zone. A vacuum truck was needed 2-3 times per week.

Recommendation: Design a load zone with support structure and Richwood Canoe Liners® and Skirt Rubber.

Result: Reliable load zone with proper material containment and wear resistance.

Benefits:

- properly sealed load zone
- easily adjustable wear linings
- specially formulated rubber for long life
- safer work environment



(800) 237-6951

f: (304) 525-8018



RICHWOOD

Proven Solutions. Expert Advice.

richwood.com

e: info@richwood.com

Impact Saddles® and Cushion Arc®



Load Zone Support

Application: One of the largest and fastest coal exporting facilities in the Northern Hemisphere

Material: Coal

Belt Width: 96"

Belt Speed: 900 fpm

TPH: 7000

48 million tons annually

Before: Idler fail within a few months of installation. Numerous attempts to remedy the situation with no improvement. Idlers were heavy and awkward to change out.

Recommendation: Entirety of belts is an impact zone. This required light weight impact idlers that were durable, could function with high tension belts and corrosive material. Richwood Impact Saddles® and Cushion Arcs® provided the solution.

Benefits:

- 74% reduction in shiploader delays
- zero transition point tears where Richwood Impact Saddles are installed
- easy maintenance in hard to reach areas
- improved employee safety
- improved equipment reliability
- equipment downtime minimized

(800) 237-6951

f: (304) 525-8018



RICHWOOD

Proven Solutions. Expert Advice.

richwood.com

e: info@richwood.com

Cushion Arc® Impact Idler

The Richwood Cushion Arc® Impact Idler is designed for optimum profile support of conveyor belting. The radius design eliminates idler junction pinch points found in conventional idlers and matches the contour curve of Richwood's Impact Saddle®.

Cushion Arc® Impact Idlers may be installed in load zones as a direct replacement for conventional impact idlers or combined with Richwood Impact Saddles® to form perfectly matched, extended length load zones. Combining Cushion Arc® Impact Idlers with Impact Saddles® will protect the conveyor against excessive drag of a sagging belt in an extended length impact area and distribute impact forces between idlers and saddles for optimum service life. In shorter length load zones Cushion Arc® Impact Idlers are applied immediately entering and exiting the impact bed for best profile support for belting.

Cushion Arc® rollers are constructed using sealed ball bearings, a 1 ¼" solid steel shaft and are available in rubber cushion or steel rollers. This extra heavy duty construction, combined with short roller shaft length, substantially limits deflection of the roller shaft under load, protecting bearings to deliver maximum bearing life. The bearings are protected by a specially designed labyrinth seal that keeps the dirt out and grease in. The bearings are sealed for life and do not require additional lubrication.

Cushion Arc® design permits roller replacement from the side of the conveyor with the frame and belt in place. The simple slide on, slide off replacement procedure works just like the Richwood Impact Saddle wear segments. Each individual roller is held in its own support frame that slides onto the main support frame. The main support frame is designed to be the strongest available in the industry, providing a platform that will withstand extreme stress and keep on working.

Load zone support systems using the Impact Saddle® and Cushion Arc® Impact Idler will work together to solve just about any conveyor impact problem.



- *Solid steel independent roller shafts*
- *Extra heavy duty steel inner shell*
- *High quality R2000 rubber solid molded impact rollers*
- *Radial ball bearings*
- *6" diameter rubber impact roller*
- *Fully protected ball bearings with multiple seal design*

(800) 237-6951

f: (304) 525-8018

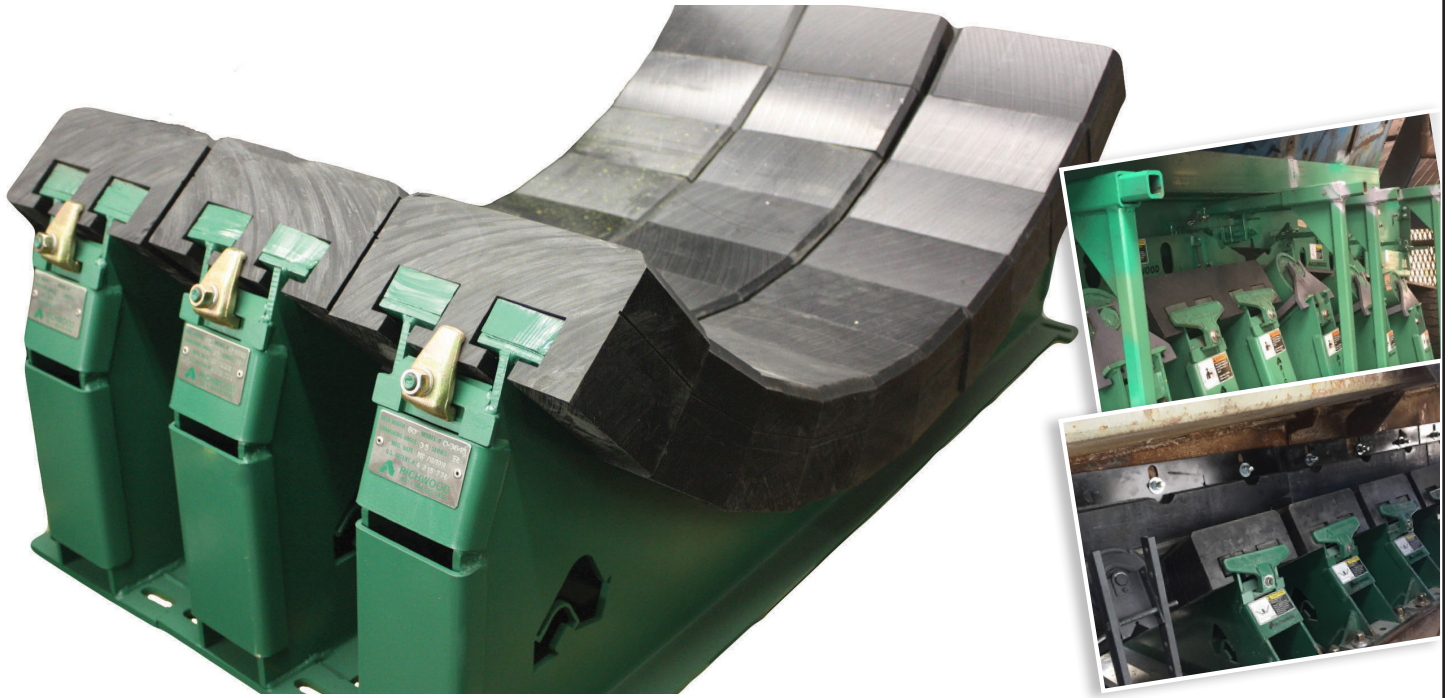


Proven Solutions. Expert Advice.

richwood.com

e: info@richwood.com

Magnum Impact Saddles®



Protect Busy Load Zones

The Richwood Impact Saddles® you know and trust are also available in a Magnum Series for the heaviest-duty applications.

Trouble-free load zones require impact protection and consistent support. Richwood Magnum Impact Saddles® are built with an extreme duty rated steel support frame, rubber impact absorption layer to help dissipate material impact and Ultra High Molecular Weight polyethylene wear segments that perform in the toughest environments.

Full parameters of each application are specifically evaluated for proper Impact Saddle® duty rating. Once the evaluation is complete, Richwood will recommend and design the right solution for you.

Richwood engineered load zone solutions keep severe bulk material handling applications well equipped to handle the demands of increased production. Rely on Richwood!

Specifications:

Directly Interchangeable with CEMA idlers

Unique segment design allows change out from one side of the conveyor

Smooth profile eliminates pinch points or gaps

Exceeds CEMA H rating

Made in USA.

(800) 237-6951

f: (304) 525-8018



RICHWOOD

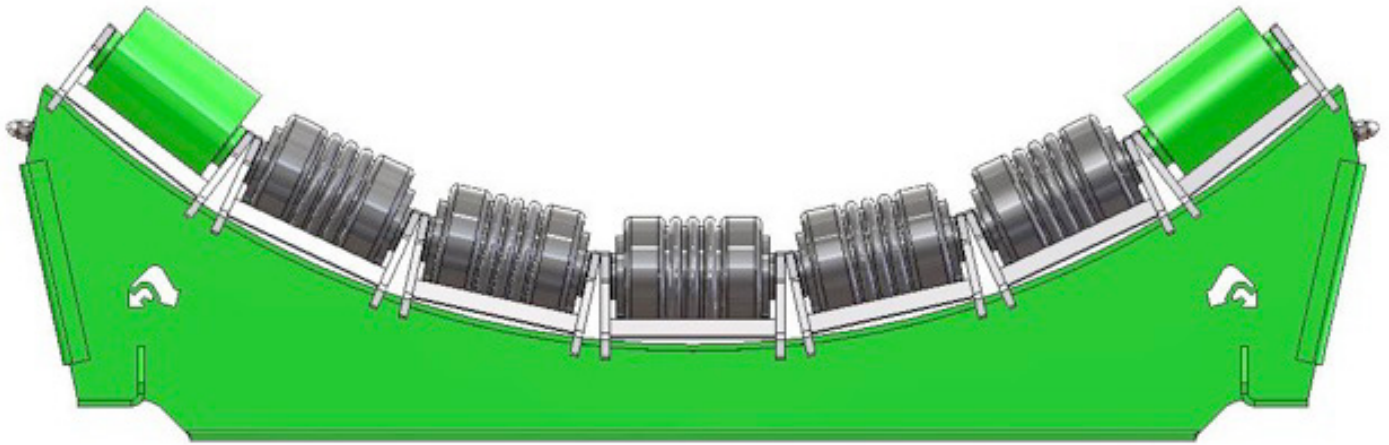
Proven Solutions. Expert Advice.

richwood.com

e: info@richwood.com

©Richwood 2016

Cushion Arc® Magnum Impact Idler



Specifications

- Direct interchangeability with CEMA standard idlers.
- Unique curved T-rail fastening system allows easy roll change from the side of the conveyor.
- Five, seven, or nine rolls per idler, depending on conveyor width, make a smooth profile to reduce belt pinch points in the loading area.
- 7" diameter rolls:
 - Rubber rolls with 2 3/32" thick rubber to dissipate impact and shock load.
 - Steel Rolls – 1/2" thick wall.
- With (6) 30mm deep groove radial ball bearings per roll, Magnum Series Cushion Arc® Idler Rolls exceed CEMA F load rating requirements.
- 1 3/8" Solid Shaft.

(800) 237-6951

f: (304) 525-8018

 **RICHWOOD**
Proven Solutions. Expert Advice.

richwood.com

e: info@richwood.com

©Richwood 2016



Impact Saddle®

Impact Saddles® are designed for replacement of idlers at conveyor loading points.

- *Curved trough support design prevents pinch points in loading area.*
- *Segmented U.H.M.W. polyethylene wear surface with T-Rail Fastening System.*
- *Rubber cushion to dissipate impact shock load.*
- *Direct interchangeability with CEMA standard idlers.*
- *Heavy-duty frame to withstand even the worst applications.*
- *Series R, Series E and Magnum Series – individual Impact Saddles® are 12” long to exchange with idlers on a one-for-one basis. Series B Impact Saddles® are 6” long per unit.*
- *Full belt support for skirt seal prevents belt sag.*
- *Patented trough transition units available for belts loading in transition area.*

(800) 237-6951

f: (304) 525-8018

 **RICHWOOD**
Proven Solutions. Expert Advice.

richwood.com

e: info@richwood.com