

REPLACEMENT & AFTERMARKET

FLAT IDLERS



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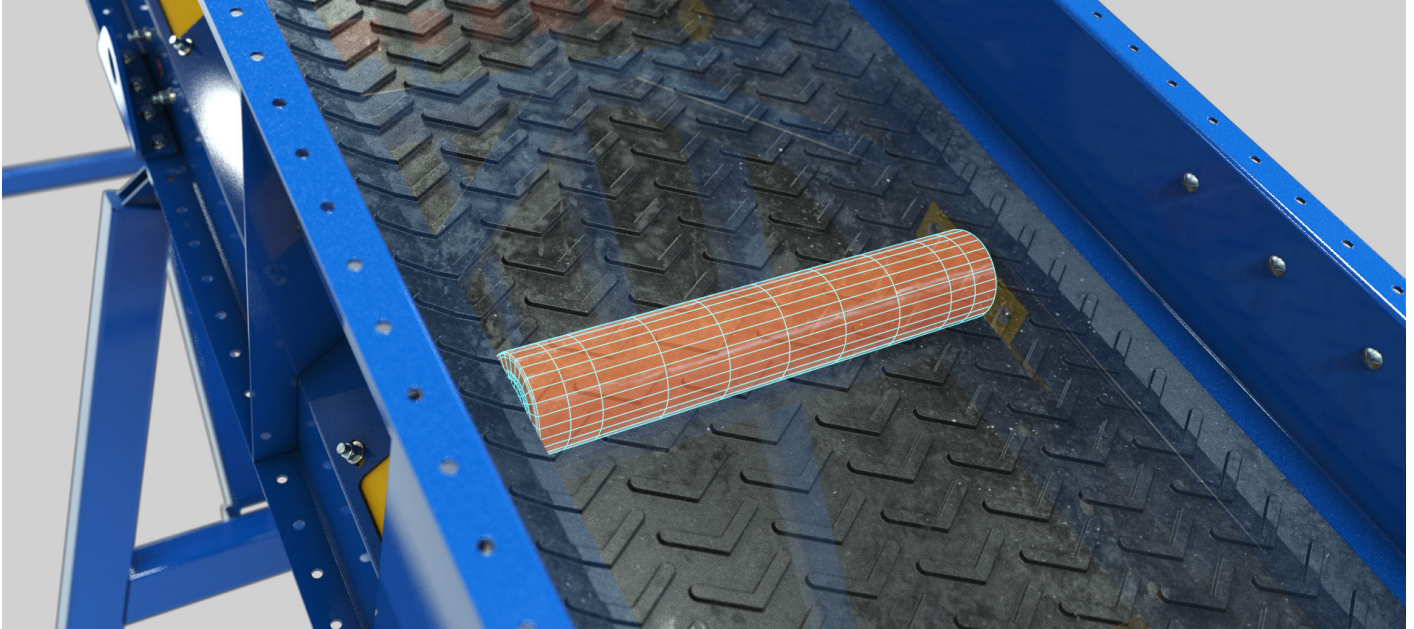
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FLAT IDLERS



Flat Idlers

Flat carrying idlers support flat belt configurations across picking, sorting, feeding, and general unit load transport operations. Unsupported belts experience excessive sag, tracking instability, and accelerated structural fatigue. This structural misalignment forces premature bearing wear and drives frequent component replacement cycles.

Heavy-gauge structural steel frames and continuous welds handle high dynamic material loads. The assemblies fit single-roll or multi-roll positions based on belt widths scaling up to 120 inches. Rigid manufacturing matches strict CEMA minimum thickness requirements and maintains specific mounting bracket dimensions for direct drop-in replacement.



Steel Flat Idlers

Solid steel rolls provide rigid structural support in dry to moderate operating environments requiring high temperature tolerance. CEMA B through F ratings accommodate single-roll or multi-roll configurations to match standard load profiles.



Rubber-Lagged Flat Idlers

Elastomeric lagging sheds sticky bulk materials, resists corrosive environments, and dampens operational noise. The high-friction vulcanized surface increases belt grip to maintain tracking stability on high-speed or inclined installations.

APPLICATIONS



Recycling Sort Stations

Flat idlers are built for heavy impact and abrasive conditions, ensuring reliable belt support and reduced downtime in harsh waste and mining operations.



Package Handling & Sortation

High-throughput facilities process continuous unit loads that demand strict tracking stability and minimal belt sag. Class B and C single-roll assemblies provide consistent structural support across 18" – 120" belt widths to keep flat belts aligned.



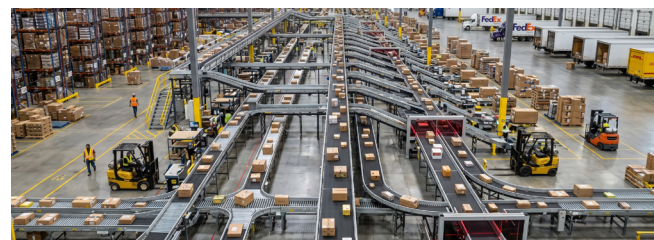
Wet Processing & Dredging

High-moisture wash plants expose standard bearing housings to immediate water contamination and failure. Wet Idler Seal configurations block fluid intrusion while rubber-lagged rolls shed accumulated sticky materials.



Crushing & Screening

Dusty handling operations force abrasive particulate into rotating components, halting belt progression. Dry Idler Seals specify a reinforced physical barrier to isolate moving internal bearings from ambient dirt.



Noise-Sensitive Facilities

Enclosed operational spaces require mechanical acoustic dampening during continuous 600 FPM belt transit. Rubber-Lagged Roll configurations reduce decibel output while simultaneously increasing traction for tracking.



Severe-Duty Outdoor Handling

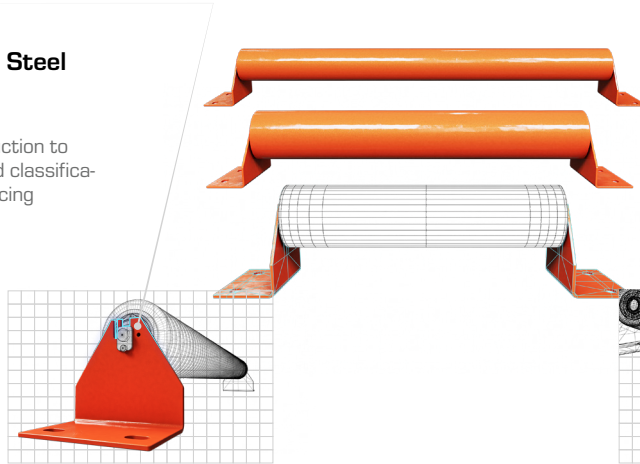
Extreme ambient sites subject structural frames to continuous high-tension impact forces. Titanium Idler Seals pair with 7-gauge steel roll shells to handle maximum dynamic material capacities.

KEY FEATURES

01

Heavy-Gauge Structural Steel Frame:

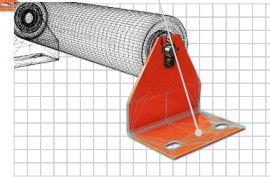
Fabricated with welded construction to support CEMA B through F load classifications across standard idler spacing intervals.



03

Channel Inset Mounting Bracket :

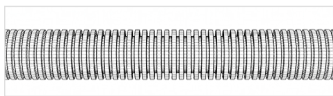
Constructed to provide a low-profile installation fit for clearance-restricted conveyor system structures.



02

Rubber-Lagged Roll Surface:

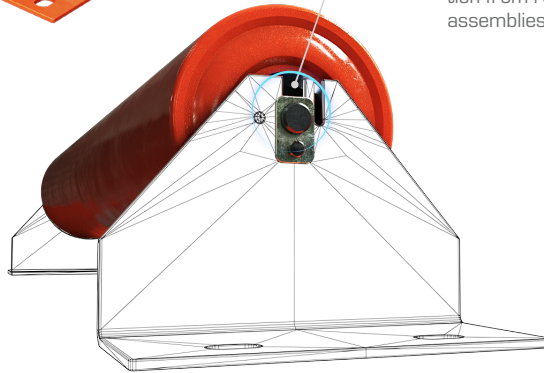
Formulated to shed sticky bulk materials and increase belt grip on inclined or high-speed conveyor installations.



04

Titanium Idler Seal Upgrade:

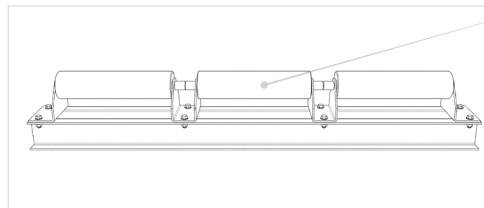
Machined to create a durable isolation barrier that prevents abrasive contamination from reaching internal bearing assemblies.

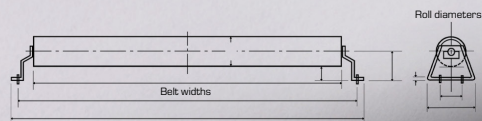


05

Multi-Roll Assembly Configuration:

Arranged to distribute heavy material loads and support wide flat belts exceeding 48 inches across the carrying position.





FLAT IDLERS SPECIFICATIONS

Parameter	Standard Specification
Configuration	Single-roll, multi-roll flat
Belt widths	18" – 120"
Roll diameter	4" – 8" (102 mm – 203 mm)
Shell thickness	10 gauge – 7 gauge (3.4 mm – 4.5 mm)
CEMA class	B, C, D, E, F
Bearing types	Ball, tapered roller, spherical, sealed for life
Frame material	Heavy-gauge structural steel, welded construction
Shaft diameter	20 mm – 50 mm
Maximum speed	-20°F – 200°F standard
Temperature range	-20°F – 200°F standard

Configuration Reference

Seal Type	Primary Application	Protection Level
Dry Seal	Crushing, screening, dusty aggregate	Reinforced barrier
Wet Seal	Wash plants, dredging, high-moisture	Enhanced protection
Eco Seal	Washed sand and fines	Combined extreme condition protection
Titanium Seal	Severe-duty operations	Maximum durability

THE ENGINEERING ADVANTAGE

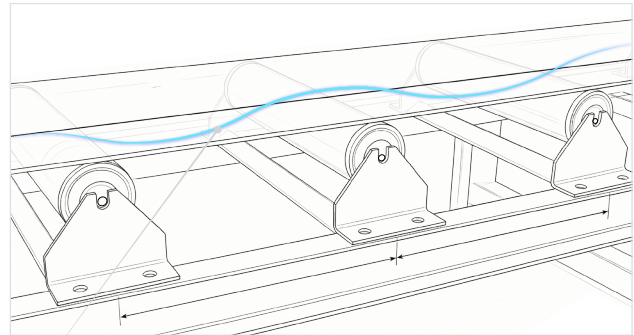
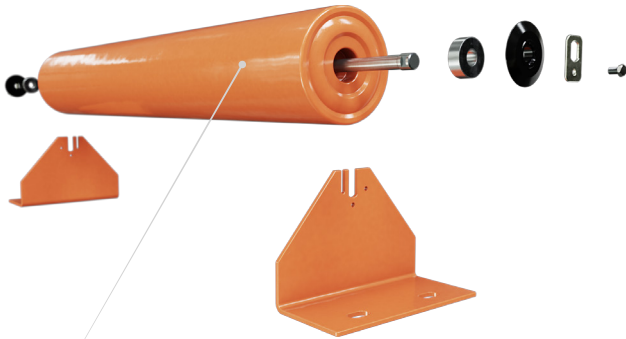
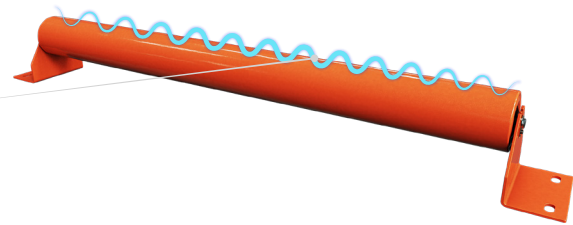
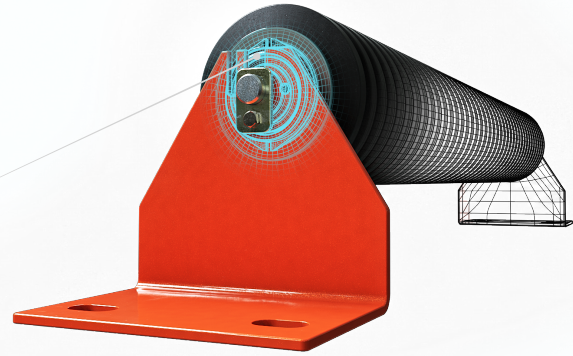
This section outlines the core engineering methodology behind Flat Carrying Idlers, covering load calculation and sealing principles to ensure exact CEMA specification alignment.

Targeted Environment Sealing:

Engineered with four distinct bearing seal packages—Titanium, Eco, Wet, and Dry to block specific operational contaminants.

Dynamic Load Calculation:

Calculated using belt width, belt speed, and material density parameters to designate the required CEMA B through F structural rating.



Component Inertia Alignment:

Specified to balance shell thickness and roll material, ensuring rotational inertia does not exceed bearing dynamic load limits at maximum speeds.

Sag Ratio Control:

Determines precise idler spacing intervals to restrict belt sag below 3% of the distance and eliminate operational tracking instability.

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.

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