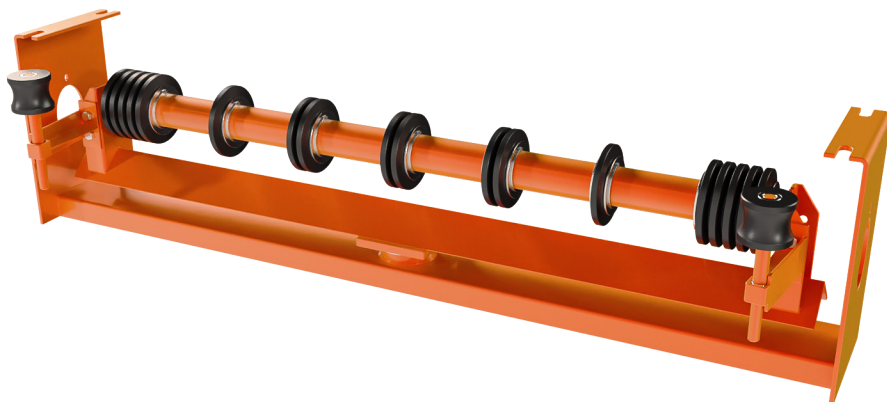


REPLACEMENT & AFTERMARKET

REPLACEMENT RETURN IDLERS



Collaborate / Create / Convey

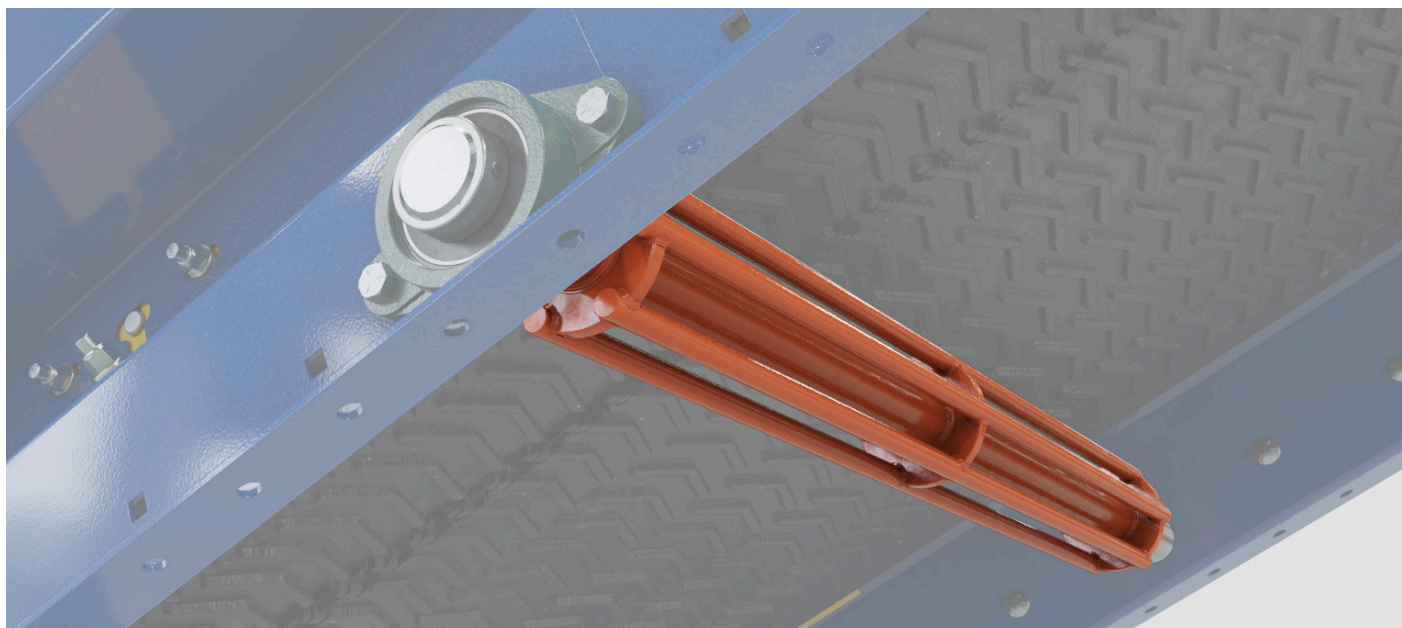
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REPLACEMENT RETURN IDLERS



Replacement Return Idlers

Return idlers carry the empty belt along the bottom strand of the conveyor, where carryback, fugitive material, and moisture collect after discharge. Left on the roll face, that buildup packs into an eccentric surface that throws the belt off track and accelerates wear on both the belt cover and the idler shell. Seized bearings and mistracked belts on the return run force unplanned stops, and every stop pulls tonnage off the schedule.

Each return idler carries a machined cold-rolled steel shaft (C1018 or equivalent), with tube options in standard steel or ERW1020 and DOM tubing specified for CEMA Class F service. Roll options span standard steel, vulcanized rubber disc, spiral rubber, and polyurethane, each sealed for wet, dry, eco, or severe-duty environments. Flat, V-return, and self-aligning configurations cover CEMA classes B through F across belt widths of 18" – 96". Supply an existing brand and part number, and engineering matches the replacement to the original fit

APPLICATIONS



Recycling & Material Recovery

Sort lines and MRF conveyors run mixed streams of film, fines, organics, and wet residue that cling to the return strand of 8 to 12-man pulley-driven sortation systems. Rubber disc and self-cleaning return idlers flex to release that buildup, keeping picking-line belts tracking true between stations.



Aggregates & Crushing

Crushing and screening circuits load the air with abrasive dust that works into idler bearings on the return run. Dry-series sealed rollers block fine particulate at the bearing housing while steel rolls in CEMA C through F ratings carry the empty belt.



Wash Plants & Dredging

Washed sand, slurry, and constant moisture attack seals and corrode standard steel rolls. Wet- and eco-series seal packages guard the bearings while rubber and urethane rolls shed water-bound fines.



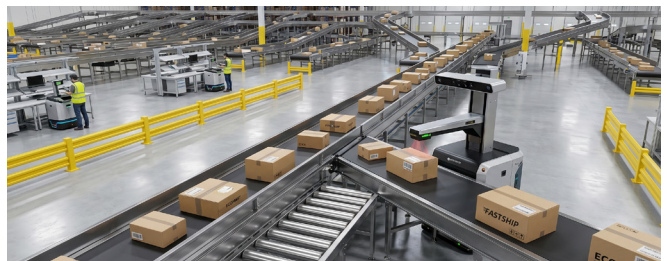
Overland & Long-Distance Conveying

Long spans at higher belt speeds magnify tracking drift and belt sag between supports. V-return and self-aligning idlers with long-distance seal packages center the belt across 8 – 10 foot spacing.



Bulk Material Handling

Trough conveyors move high-tonnage ore, coal, and aggregate that leaves abrasive carryback on the bottom strand. Flat and V-return idlers in single and two-roll configurations support the empty belt across widths up to 96".



Package Handling & Sorting

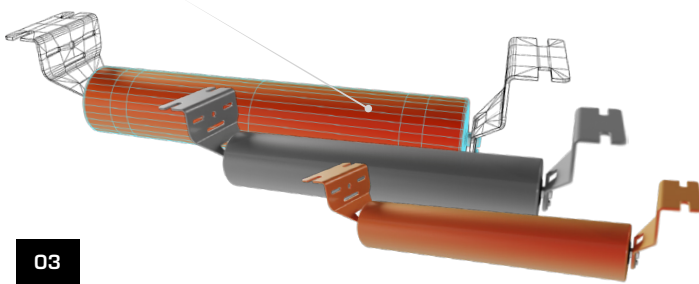
Flat belt and slider bed conveyors cycle continuously through distribution and sortation duty. Flat return idlers in CEMA B and C ratings hold the bottom run steady on lighter-gauge frames.

KEY FEATURES

01

ERW Steel Tube Construction:

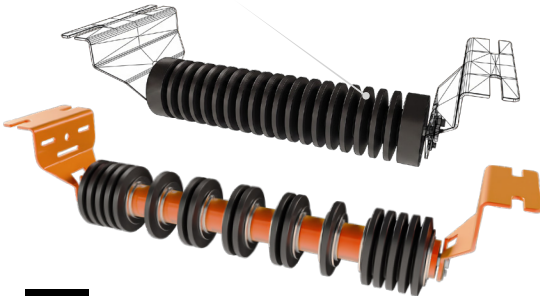
Rolled and welded from ERW1020 tubing in 4" – 7" diameters to keep the shell concentric under continuous belt contact.



03

Vulcanized Rubber Disc Rings:

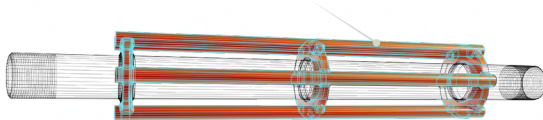
Flex under belt load to release clay, fines, and wet aggregate, with spiral and grooved patterns adding a sweeping cleaning action for difficult materials.



05

Gapped Beater Bar Array:

Spaces steel rods around the roll axis so vibration knocks carryback loose while the open gaps prevent material buildup on the roll.



07

Four-Series Seal System:

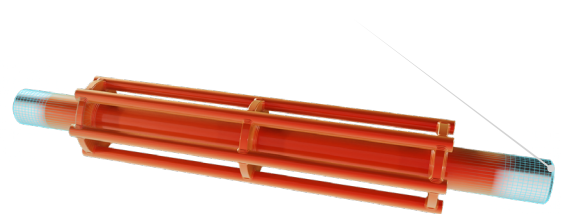
Pairs titanium, eco, dry, or wet seal configurations with standard ball, tapered, or spherical bearings to close the bearing housing against the operating environment.



02

C1018 Cold-Rolled Shaft:

Machined from cold-rolled steel to hold bore tolerance at the bearing seats and resist deflection across belt widths up to 96".



04

Polyurethane Roll Compound:

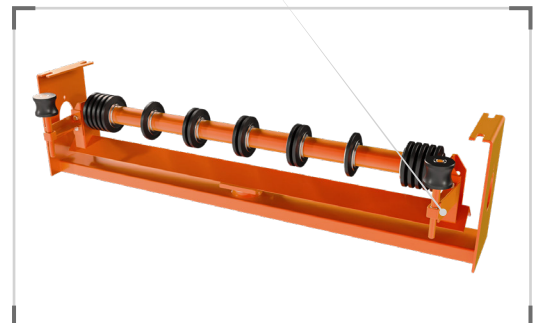
Resists abrasion and chemical attack while outlasting rubber rolls by roughly 3X in comparable material handling applications.

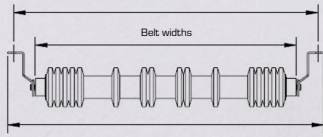


06

CEMA Duty Classification:

Rates every roll assembly to CEMA B, C, D, E, or F loading based on belt width, belt speed, and conveyor length





REPLACEMENT RETURN IDLERES SPECIFICATIONS

Parameter	Standard specification
CEMA classes	B, C, D, E, F
Belt widths	18" – 96"; custom widths available
Roll diameters	4" – 7"
Typical return spacing	8 – 10 ft*
Configurations	Flat, V-return, self-aligning; single and two-roll
Bearing types	Standard ball, tapered, spherical
Seal series	Titanium (severe duty), Eco (washed sand and fines), Dry (crushing, screening, dusty aggregate), Wet (wash plants, dredging, high moisture)
Shaft material	Cold-rolled steel (C1018 or equivalent)
Tube material	Standard steel, ERW steel (ERW1020), DOM tubing (Class F applications)
Roll surface options	Steel, vulcanized rubber disc, spiral rubber, grooved rubber, urethane
Mounting types	Standard drop bracket, channel inset (low profile), web mount
Finish options	Painted, galvanized, stainless steel

Note: *Spacing adjusted for belt tension, belt width, and load characteristics. Heavier belts or higher tensions may require closer spacing.

REPLACEMENT RETURN IDLERES SPECIFICATIONS

Roll Type

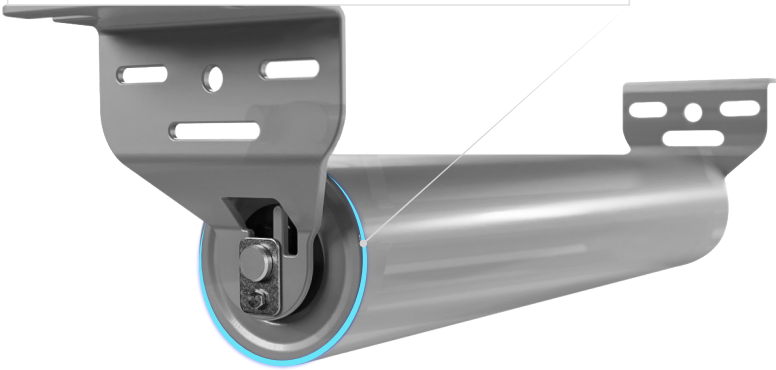
Roll Type	Flat, V-return; single and two-roll	Best For
Steel	Flat, V-return; single and two-roll	General service across CEMA B – F
Rubber	Flat, V-return, self-aligning	Sticky materials and corrosive environments
Rubber disc	Standard, spiral, grooved	Clay, fines, wet aggregates, carryback control
Urethane	Standard, spiral, beater	Chemical exposure, abrasion, extended replacement intervals
Beater bar	Gapped steel rod	Heavy carryback removal and buildup prevention

THE ENGINEERING ADVANTAGE

This section outlines the fabrication and selection methodology behind the return idler line, covering tube specification, seal-to-environment pairing, mounting geometry, and replacement matching to ensure correct fit and full service on the return strand.

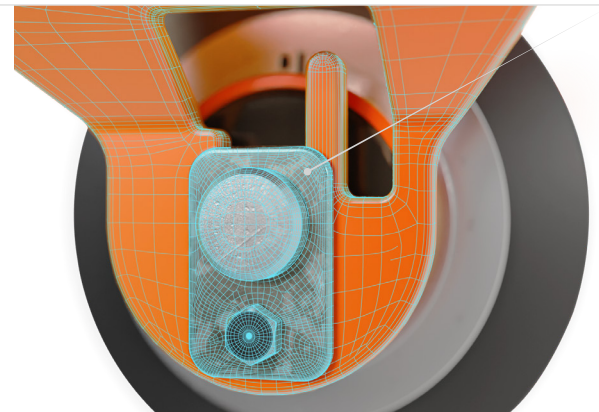
DOM Tubing Specification:

Specifies drawn-over-mandrel tubing for CEMA Class F builds, where tighter wall uniformity carries the shell through the highest belt loads and speeds.



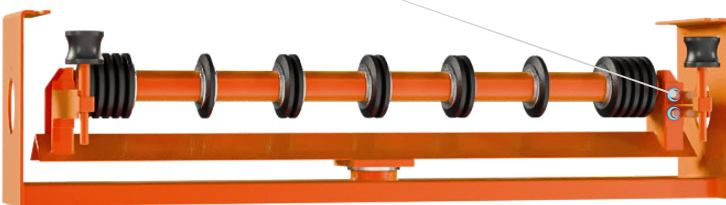
Seal-to-Environment Pairing:

Matches titanium, eco, dry, or wet seal packages to the documented operating condition, from washed fines and dust to high-moisture and overland service.



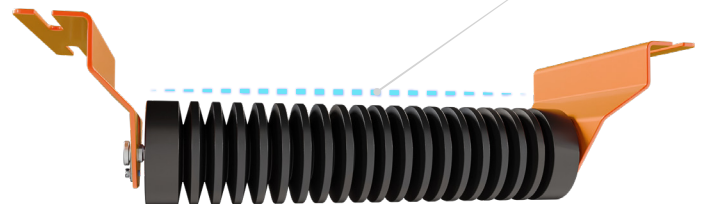
Multi-Pattern Mounting Fabrication:

Fabricates standard drop bracket, low-profile channel inset, and web mount frames to install into existing conveyor structure without modification.



Direct Cross-Reference Matching:

Converts an existing brand and part number or photos, belt width, and application details into a dimensionally verified replacement specification reviewed by the engineering team.



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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