

Metso

Heavy-duty premium rollers

**For demanding
materials and
conditions**





Heavy duty rollers

Premium heavy-duty rollers last longer, resulting in fewer maintenance cycles — increasing worker safety. Fewer change-outs means less waste, helping you to reach your sustainability goals.

Increase availability

Premium rollers last longer in harsh environments thereby increasing overall availability.

Expand maintenance intervals

A longer lifespan allows for expanded maintenance intervals and can help empower maintenance staff to order replacement parts and schedule repairs.

Reliability

Using ordinary rollers for critical conveyors creates an unreliable conveying condition. Level up your equipment to match your demanding materials and conditions.

Sustainability

A longer product life cycle lessens environmental impact and positively contributes to sustainability goals.

Increased safety

Reduce the need to inspect and change conventional rollers in difficult-to-access and hazardous environments.

Assurance

Stay ahead of schedule and build confidence in budgeting, and productivity estimates.



Sustainable productivity

Sustainability

- Lessens environmental impact and positively contributes to your sustainability goals

Safety

- Reduces the frequency of manual inspections and replacements

Expand intervals

- Expands maintenance intervals and scheduled repairs

Increase availability

- Increases conveyor uptime and reduces unplanned shutdowns

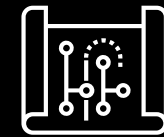
What makes these rollers outperform

Metso has designed a proprietary conveyor roller range aimed to outperform in durability and to help our customers improve conveying availability performance.

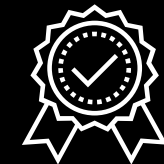
- Robust design engineered to operate and outperform in the toughest applications
- Tight tolerances provide reduced runout (TIR) values, consistent quality, smooth and long-lasting performance
- Manufactured with the highest quality raw materials and best-in-class bearing selection
- Metso proprietary seal design provides excellent contamination resistance in muddy, dusty and harsh environments, and prolongs bearing life
- Made-to-order retrofit capability — concept can be applied to any conveyor
- Dedicated production line in Sorocaba - Brazil



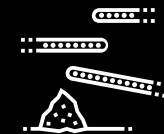
Time-tested solution with modern improvements



Engineered to outperform in the toughest applications



Consistent quality and long-lasting performance



Carrying, impact, transition, and return rollers can all be premium



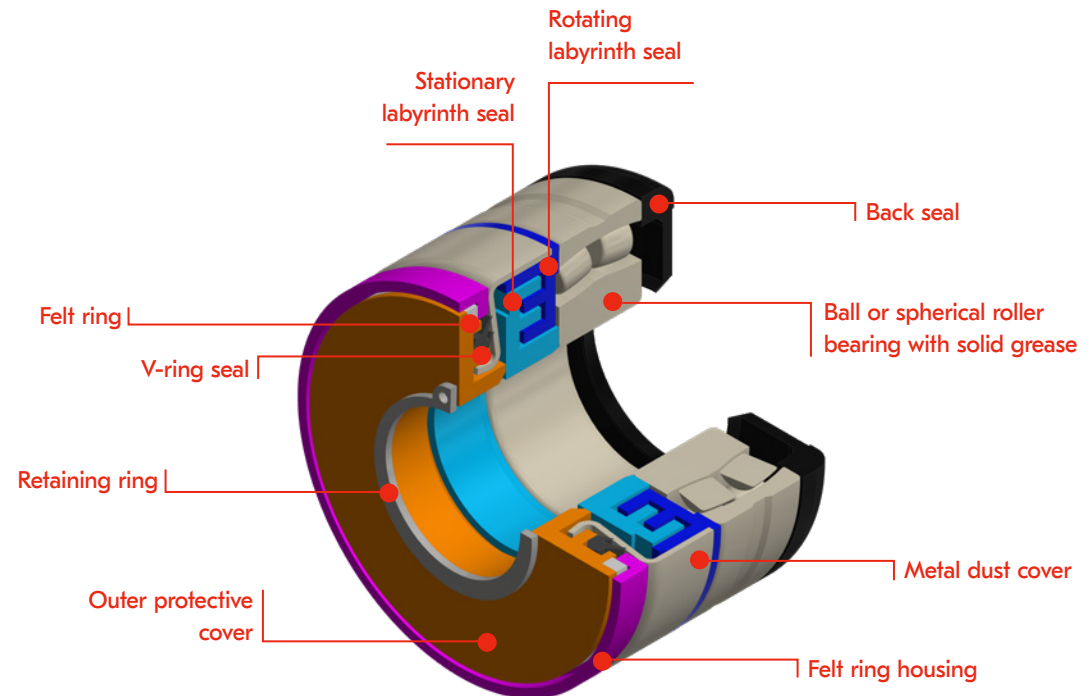
Labyrinth sealing design

Platinum heavy-duty

Premium labyrinth design combined with felt and rubber seals

Features

- Applicable in extremely dusty or wet environments
- Combination of felt ring and v-ring contact seals protects roller from contaminants
- Highly effective horizontal labyrinth seal
- Solid grease-filled deep-groove ball or spherical roller bearingssolid grease or similar
- Approved design according to ABNT NBR 16169 Mud Tank Test





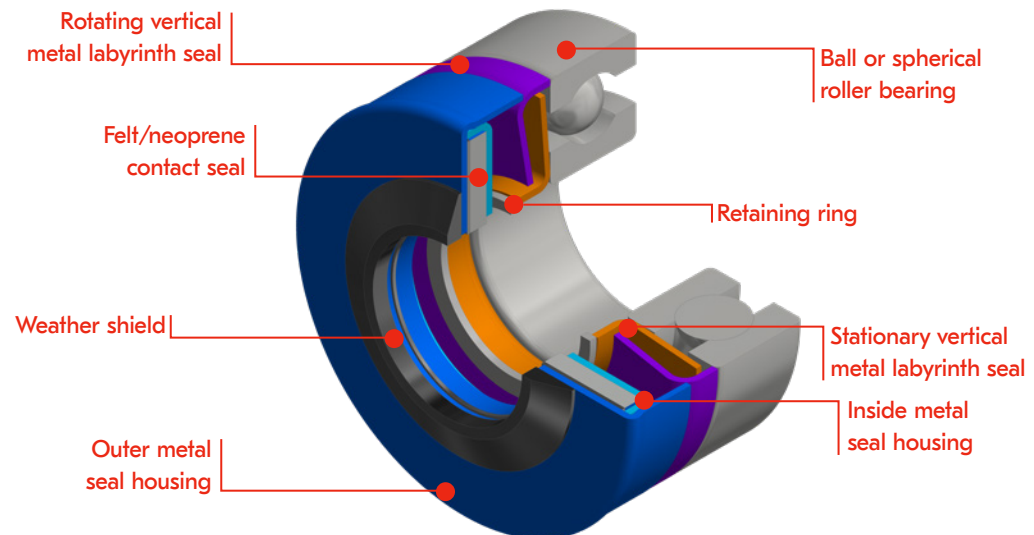
Multi-compound sealing design

Gold heavy-duty

Compound design combined with metal, felt and neoprene seals create a premium product

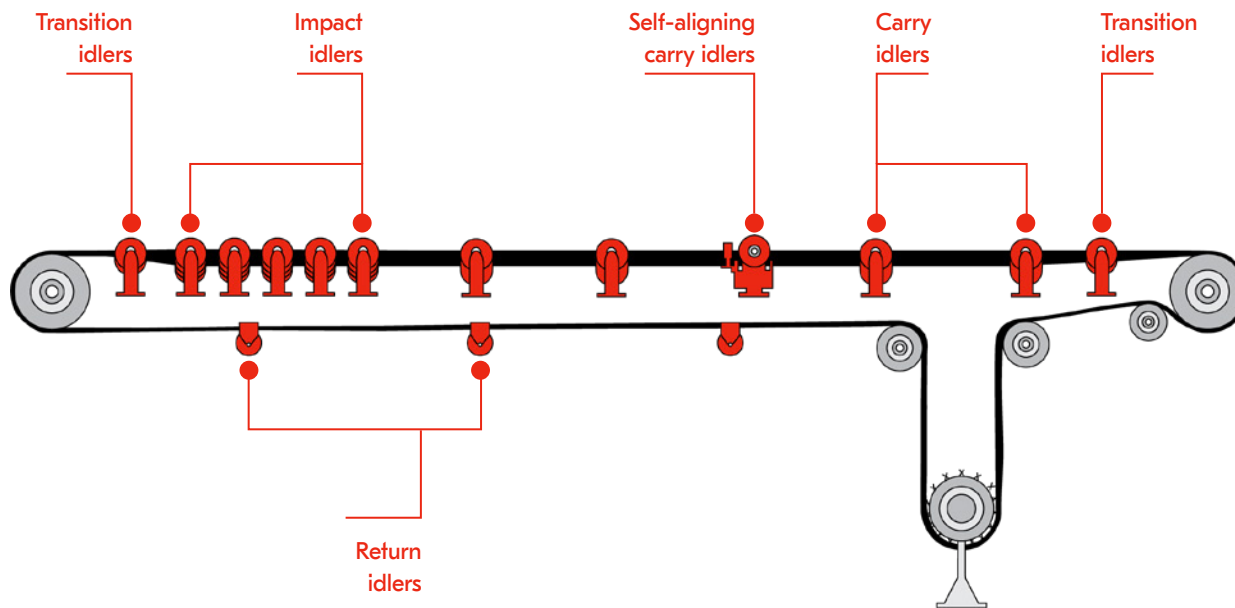
Features

- Developed by Stephens-Adamson for mining conditions, used in thousands of rollers in North America
- Unique vertical labyrinth and felt/neoprene contact seal
- Weather shield keeps out moisture and reduces possibility of grease emulsification
- Double-sealed deep-groove precision ball or spherical roller bearing available



Premium heavy-duty

Where can the Metso Premium rollers be used? Any position like carrying, impact, transition and return rollers can all be retrofitted to stand up to your harsh environment with these premium heavy-duty features.



This is a simplified conveyor used to illustrate basic belt conveyor components. Many variations of elevation, loading, discharge, idlers and idler spacing, pulleys, and accessories are possible.





Technical features

Roller

The assembled roller is measured in three places and the maximum TIR (Total Indicator Runout) on the outside of the shell exceeds the standards of:

- Conveyor Equipment Manufacturers Association (CEMA)
- German Institute for Standardization Registered Association (DIN)
- Brazilian Association of Technical Standards (ABNT)
- South African Bureau of Standards (SABS)

Shaft

- Engineered to withstand heavy loads and harsh conditions
- Material is cold drawn steel C1045 or similar
- International Organization for Standardization (ISO 286) upper and lower limit deviations for shafts tolerance of js6 tolerance at bearing seat
- Bearing seat 0.8 µm surface finish (roughness)
- Maximum allowable endplay is 0.38 mm

Tubing

- Electric-resistance welded carbon steel tubing conforms to American Society of Testing and Materials (ASTM) standard A513/A513M or similar
- Weld flash is controlled to 0.010 in

Total Indicated Runout (mm) ≥ 152 mm

Roll length in mm (CEMA / DIN / SABS-SANS)	CEMA	DIN	SABS-SANS	ABNT (≤ 3 m/s)	Metso Premium
<533 (530 / 570)	0.9	0.6	0.7	0.8	0.6
>533-914 (531-900 / 570-994)	1.1	0.9	0.9	0.8	0.8
>914-1397 (901-1600 / 994-1378)	1.7	1.6	1.7	2.3	1.6
>1397-2489 (... / 1378-2518)	2.4	-	2.3	2.3	2.3



End bell

- Precise assembly of the bearing at the end bell results in a longer lifetime of the bearing
- Cast end bell ASTM A36 steel or similar
- End bell tailor-made according to application's requirements
- M7 inner diameter tolerance at bearing seat

Bearings

- Choice as per design specifications, use of high-end bearing brands
- Deep-grooved ball bearing 2RS seal or ZZ shield
- Spherical roller bearings with integral sealing and re-lubrication features

Grease

Multiple options available. Solid grease for Platinum version and LGNL 2 lithium-based high-load grease for the Gold version. Low temperature options also available.

Metso is a frontrunner in providing sustainable technologies, end-to-end solutions and services for the aggregates, minerals processing and metals refining industries globally. By helping our customers increase their productivity, improve their energy and water efficiency and environmental performance with our process and product expertise, we are the **partner for positive change**.

Metso

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