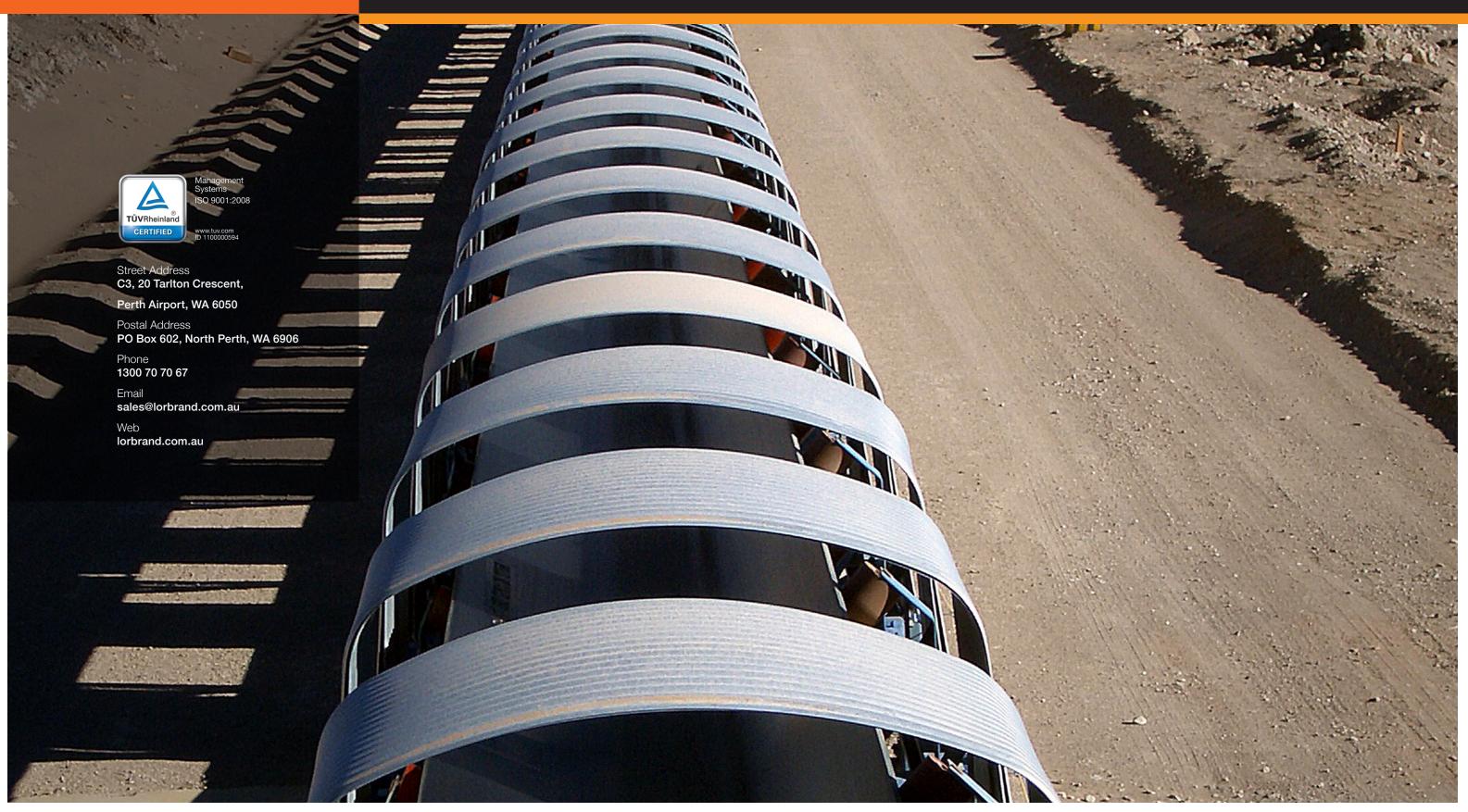


Product & Company Profile Specialist designers and manufacturers of heavy duty conveyor components.





Lorbrand Australia

Lorbrand are specialist manufacturers of conveyor idlers, pulleys and conveyor structure.

Our history has seen us grow from a small workshop located in South Africa in 1987, to today having offices in four countries and manufacturing in three.

Globally our distributor network spans over 15 countries, providing support to our existing clients and projects.

Our facilities span over 20,000sqm, are equipped with state of the art equipment, ensuring only the best quality product reaches our clients.

Through continued investment and engineering development, we now fabricate in excess of 750,000 idlers per annum and 2,000 pulleys. Making us one of the largest suppliers of conveyor idlers and pulleys globally.

Our idlers are renown for their low running friction and breakaway mass, making them the idler of choice for overland and in plant conveyors.

Our unique roll construction means that our

bearings are perfectly aligned, reducing the risks of premature roll failure.

Our pulley facility is equipped to fabricate some of the largest pulleys in the world, with in house capability to manufacture pulleys up to 2.6m in diameter and shaft lengths up to 7m.

We complete 99% of all manufactured components in house, ensuring we have complete quality control from start to finish. Ensuring only the highest quality components are delivered to our clients.

Our Achievements

- Sasol Impumelelo Project 27km single flight overland conveyor which is the longest traditional style single flight conveyor in the world.
- Henderson Mine Colorado 26km of overland conveyors, PC2 the longest commissioning ..

Suppliers to the worlds

- Five largest copper producers
- Two largest iron ore producers



single flight conveyor in the world at time of

Lorbrand Idlers

Steel Idlers

Lorbrand offer one of the largest ranges of steel conveyor idlers suitable for all applications and environments. Our steel idlers are typically the lowest running friction roller available and are widely used in overland applications due to their high energy efficiency

Key Aspects:

- Diameters 89-250mm
- Roll Lengths 150-3000mm face length
- Bearing Sizes* Standard range 6204 to 6312
- Noise typically less then 75dBa
- Centrifugal Labyrinth sealing arrangement
- Material Specifications CEMA or industry specific requirements

Impact Idlers

Lorbrand Impact Idlers are fitted with our proprietry steel reinforced rubber impact discs which are press fitted onto a conventional steel roller body. Each rubber disc is positively located and there is no possibility of rubbers moving due to impact loads. Spacers and endstops are not required.

Key Aspects:

- Diameters 127 250mm
- Roll Lengths 150-2200mm
- TIR Typically less then 1mm
- Bearing Sizes 6306-6310
- Material Specifications CEMA or industry specific requirements

Hybrid Idlers

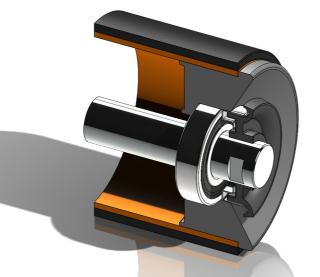
Lorbrand hybrid Idlers are fitted with an internal steel sleeve, composite bearing housings and are machine finished HDPE sleeved. This combination makes them strong, light weight, suitable for high tonnage applications and conveyor belts greater then 1600mm wide.

Key Aspects:

- Diameters 152-178mm
- Roll Lengths 150-2200mm
- TIR Typically less then 0.3mm
- Noise Typically 5-10dBa less then their steel equivalent
- Bearing Sizes 6306-6310
- Material Specifications CEMA or industry specific requirements







Aluminium Idlers

Lorbrand aluminium Idlers are fitted with composite bearing housings, and high quality Aluminium tubing. Making them, light weight, suitable for high tonnage applications and coastal applications that are susceptible to corrosion.

Key Aspects:

- Diameters 152-178mm
- Roll Lengths 150-2200mm
- TIR Typically less then 0.3mm
- Noise Typically 5-10dBa less then their steel equivalent
- Bearing Sizes 6306-6310
- Material Specifications Aluminium (Australian sourced)

Composite Idlers

Lorbrand composite idlers utilise our proprietary tubing and unique friction welded bearing housings and are 50% lighter then their steel equivalents.

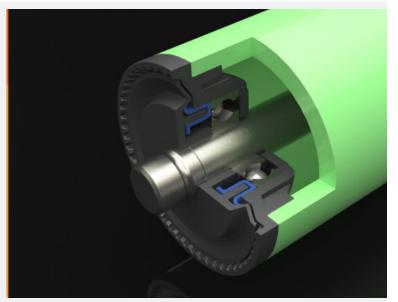
Key Aspects:

- Diameters 114-220mm
- Roll Lengths 150-1500mm in most sizes, rolls greater then 1500mm fabricated on application.
- TIR Typically less then 0.3mm
- Bearing Sizes 6205 to 6310
- Noise typically less then 5-10dBa less then their steel equivalent
- Material Specifications Shafting to CEMA or Industry requirements

Idlers Options

- Impact Rollers With standard bearing housings or our proprietary solid bearing housing design for extreme impact zones.
- Hollow Shafts For rolls with a >650mm face length
- HDPE Sleeved
- Rubber lagged
- Rubber Disc Rolls Standard & Abrasion Rubbers
- Polyurethane Disc Rolls Used in extreme abrasive conditions
- Machined & Balanced rolls for use in weightometers
- Low noise rollers
- Live shaft Idlers
- Special bearing configurations Spherical roller bearings & low torque low friction bearings.*





Frame Options

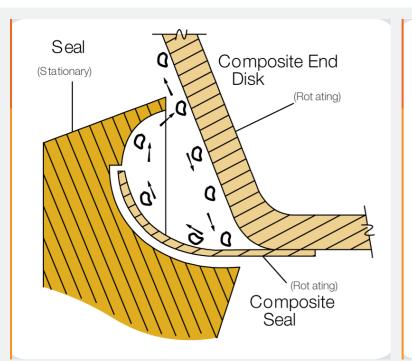
- Standard trough idler frames
- Offset Trough idler frames
- Impact Frames: Available in standard single idler configurations or with twin idler rows for high impact zones
- Retractable frames
- Vee Return
- Trough and Return training frames
- Suspended/Garland Sets
- Frame Finish: All frames available galvanized or painted to client specifications
- Stainless Steel frames available on request.

Lorbrand Seal Arrangement

Industry Leading Technology

Lorbrand idler rolls are fitted with our unique centrifugal non-contact labyrinth seal. This unique sealing arrangement, enables our rolls to have exceptionally low running frictions and breakaway masses, making all Lorbrand idlers the most energy efficient idlers available to the bulk materials handling and resources industries.

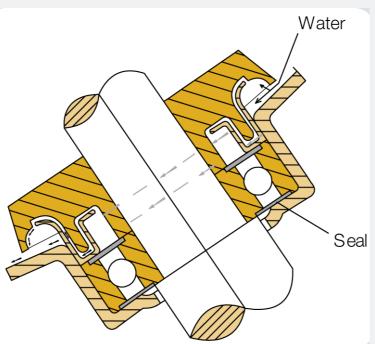
All Lorbrand idler rolls utilise deep groove, greased for life bearings complete with seals on both sides are recommended instead of cheaper alternatives. The bearing seals form the final barrier against dirt ingress especially rust particles, which are formed due to condensation inside the shell tube.



Primary Sealing

The secret to the success of the primary sealing area lies in the fact that dirt, which enters, is ALLOWED TO ESCAPE.

The reinforced plastic seal collects dirt and flings it radially outward due to centrifugal force (3 - 9 times gravitational). Most roll manufacturers fail to realize that dirt WILL penetrate the primary sealing area and that the only way to expel this dirt is by centrifugal force. Most primary seals are thus dirt-catchers!



Secondary Sealing

Dirt, which enters secondary sealing area, is again propelled outwards by centrifugal force. All sealing surfaces are clean and free from contact and do not require packing with grease.

The sealing arrangement is so designed that water drains out of the seal when the idler is stationary. Most secondary seals on the market are of the labyrinth type and centrifugal force actually helps keep dirt in the sealing area where it can work its way to the bearing.



Lorbrand Structure and Pulleys

Overland and Underground Conveyor Structure

Overland conveyors are increasingly being considered as an economical and environmentally friendly alternative to transporting ore by traditional haulage methods over long distances.

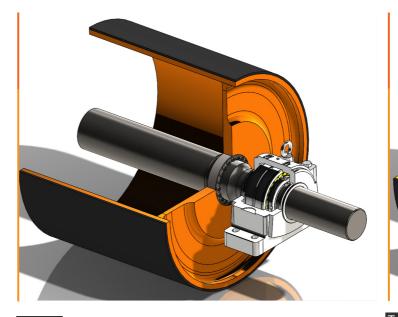
With energy efficiency is increasingly becoming a major consideration for all bulk material applications, the correct selection of idler and structure manufacturers is critical to the long term performance of the overland system.

Lorbrand manufacture multiple styles overland and underground structure, designed to suit an array of applications, withstand extreme environmental conditions which can be customised to minimise the use of tracking frames to navigate vertical and horizontal curves.

Types of Overland Structure

- Rigid Idler Structure in-line or offset idlers fixed to the overland structure
- Suspended Idler Structure in-line suspended idler sets, used for temporary or underground applications



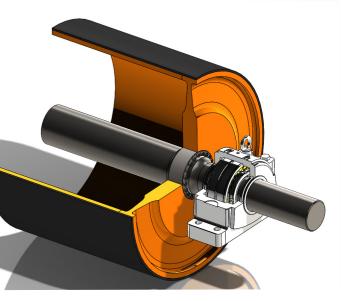


Turbine

Lorbrand Turbine Pulleys are designed using our proprietary inhouse software and are capable of being fabricated up to 2.6m in diameter with shaft lengths up to 7m.

All Lorbrand Turbine pulleys utilise the following

- Solid Plate End Discs
- 100% full-penetration weld between end-discs and rim
- Hot rolled or forged shafting with turned and polished transitions on turn-downs
- 350 plate used as standard
- Bikon, Ringspann or Ringfeder locking elements
- Machined pulley O.D. As required per application
- Static or Dynamic Balancing, as required per application
- Lagging Options Hot Vulcanized Rubber, Ceramic Rubber Backed, Direct Bond Ceramic and Polyurethane Lagging
- FEA Analysis completed on request



T Bottom/Engineered

Lorbrand T-Bottom Pulleys are designed using our proprietary inhouse software for extra heavy duty and extreme load applications. Are capable of being fabricated up to 2.6m in diameter with shaft lengths up to 7m.

All Lorbrand T-Bottom pulleys utilise the following

• Solid Plate End Discs

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- Our unique T-Bottom design, formulated to minimise shell end disc stress and displacement.
- 100% full-penetration weld between end-discs and rim
- Hot rolled or forged shafting with turned and polished transitions on turn-downs
- 350 plate used as standard
- Bikon, Ringspann or Ringfeder locking elements
- Machined pulley O.D. As required per application
- Static or Dynamic Balancing, as required per application
- Lagging Options Hot Vulcanized Rubber, Ceramic Rubber Backed, Direct Bond Ceramic and Polyurethane Lagging
- FEA Analysis completed on request

Lorbrand Conveyor Accessories

Lorbrand offer a complete range of conveyor accessories specifically designed, fabricated and sourced to delivery performance and efficiency lifters have been deigned and manufactured in Australia specifically to gains to any conveying application.

Through our strive for excellence, we have chosen a number of partners who's products are unique and deliver efficiency gains to the end user.

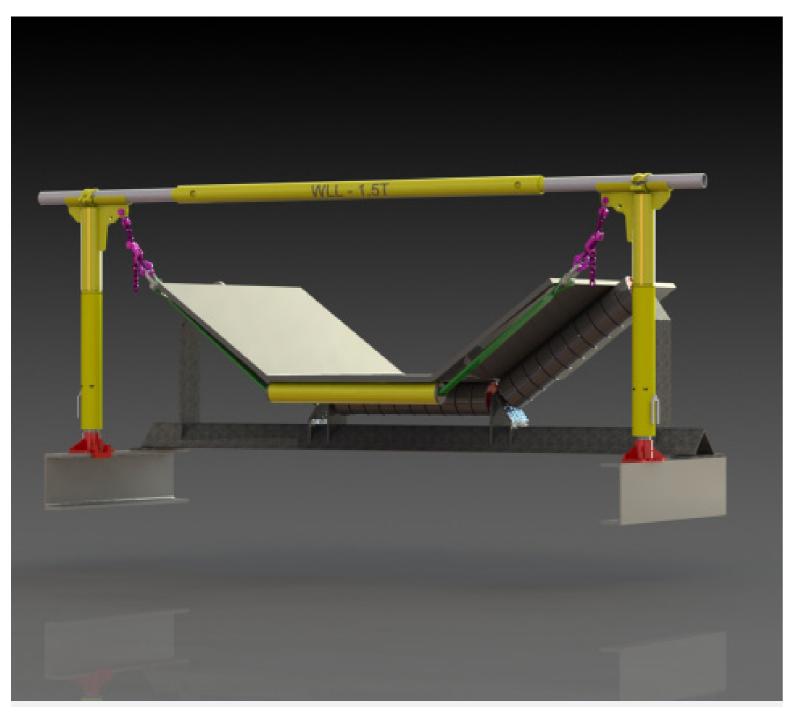
- Impact Beds
- Primary & Secondary Belt Cleaners
- Conveyor Skirt Systems
- Conveyor Belting
- Conveyor Belt Lifters
- General Accessories

Conveyor Belt Lifters

Light weight and ergonomically designed, Lorbrand conveyor belt meet the challenges faced by conveyor belt maintenance crews and operators.

With a focus on weight and minimising operator injury through the use of heavy components and potential failure, our patented lifters have the following features:

- Components designed to weigh a maximum of 10kg
- Lifting capacity up to 1.5 tonnes
- Made from Aluminium, making them lightweight and durable
- Hydraulically operated with built in redundancy to stop belt collapses.





Air Scrape

Airscrape belt skirting is a unique noncontact skirt sealing system, designed and manufactured by Cleanscrape GMBH, Germany.

The Airscrape system creates a centrifugal force through its underside vanes, which suck dirt back into the conveyor system eliminating

Key Benefits

- Eliminates belt damage due to the absence of skirt contact
- Prolonged skirt life due to lack of belt contact
- Easy installation with no clamps or • additional components required.
- Continuous skirting with no gaps

- newest and most effective primary conveyor belt cleaner to be introduced to the global Designed and manufactured by Cleanscrape

GMBH, Germany, the Cleanscrape belt cleaners minimise maintenance costs, downtime and almost eliminate the requirement spillage. of continual cleaner maintenance.

Cleansrape primary belt cleaners are the

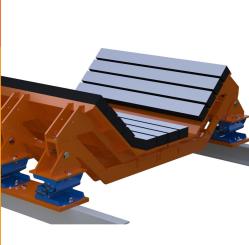
The unique design of the Cleanscrape belt cleaners, provides the following benefits to any conveying application,

• Ultra long blade life

market.

- Low contact on conveyor belting, minimises belt wear and reduces the risk of scraper induced tears.
- Up to 95% cleaning efficiency •
- Reduce scraper maintenance costs by up • to 95%
- Extend the life of secondary cleaners by up to 50%
- Extend the life of conveyor idlers, pulley lagging through the elimination of carryback.
- Light weight reducing risks of injury to operators.





Impact Cradles

Lorbrand manufacture a complete range of impact beds and suspended impact cradle assemblies.

Designed specifically to tackle the most extreme of applications, we use a combination of the following designs to solve impact zone problems.

- Rigid Impact Tables all elements constructed of heavy duty steel with rigid Rubber/HDPE impact bars
- Hybrid Impact Tables Combination cradles typically with the centre line being constructed using impact rolls and the wings with Rubber/HDPE impact bars
- Suspended Impact Cradles utilise our unique shock absorption system, super heavy duty impact rolls and extra heavy duty frames.

Lorbrand Conveyor Accessories

Conveyor Belting

Lorbrand has key relationships with some of the worlds leading manufacturers of conveyor belting and offer a complete range of belts suitable for nearly all conveying applications.

Product Range:

- Steel Cord Belt
- EP/PN Fabric Ply Conveyor Belts
- Crows Foot Weave & Solid Woven Belting
- Abrasion resistant belt covers
- FRAS approved conveyor belting
- Heat, Fire & Chemical resistant belting
- Chevron Conveyor belting

Conveyor Guarding

Designed and manufactured within Australia, Lorbrand conveyor guarding is designed for quick and easy operation, while meeting all relevant Australian codes.

Key Benefits:

- Ergonomic panel design—integrated handles promote ease of removal and combat manual handling injuries.
- Unique hook mounting system—reduced chance of guard jamming in support post by conveyor spillage.
- Lightweight pressed support posts—can be base mounted or conveyor stringer (rear) mounted.
- Unique easy turn locking system—simple to operate and nonremovable.



Conveyor Accessories

In addition to our core products, Lorbrand offer a complete range of conveyor accessories designed to reduce operator downtime and delivery savings to the end user.

A complete list of additional products we supply is outlined below;

- CoBond Conveyor Belt Repair Kits
- Conveyor belt cleaners and spare parts to suit commonly used H, P & U type cleaners
- Conveyor skirting polyurethane and rubber skirting
- Belt Fasteners
- Splicing tools and accessories