



Manufacturers of Conveyor Equipment and Engineering Solutions

Product Quick Reference Guide

A quality assured
company



Your Conveyor Partner

The CPS Difference

Conveyor Products and Solutions (CPS) prides itself as a leader in innovation and technology in the conveyor industry. CPS is an Australian manufacturer specialising in high quality conveyor rollers, idlers, pulleys and associated bulk materials handling components. The Company is committed to excellence in both quality in the manufacturing process and service regardless of customer location or order quantity by ensuring we deliver right, in full and on time.

Ongoing investment in automation with a dedicated focus on innovation and continuous improvement of our manufacturing processes ensure CPS conveyor products are of consistent quality, fit for purpose and meet the requirements of our customers.

We are committed to producing high quality products that deliver sustainable value to our clients. We are also committed to leading the industry with our engineering innovation, building long term relationships and delivering cost-effective solutions that meet the requirements of our customers globally.

“Our Purpose is to be the preferred partner in the conveyor industry by safely delivering sustainable value”

A quality assured company



Composite Bearing Housing

Precision Injected Moulded Housing

- Anti-static pin
- Press fit / no weld
- Perfectly balanced
- No pizza cutter slicing belts

Reverse Multi Labyrinth Seal

- Wash down duty

Bearing Seal

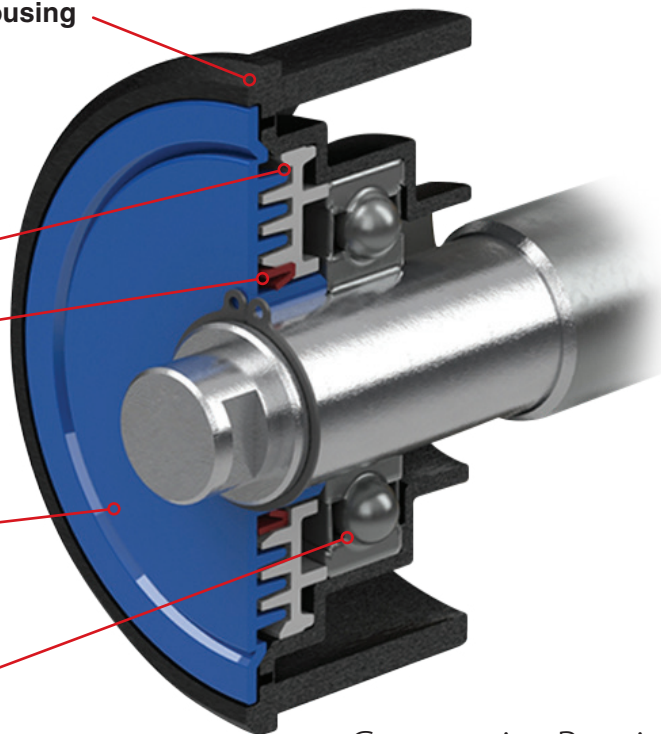
- Water tight
- No dust
- No rust

Fixed Face Flinger

- Non rotational
- Covers 80% roll end
- No rock jams
- No roller seizures

Bearings

- SKF Sealed for life ZZ C3
- 2RS options available



Composite Bearing Housings are used to produce all CPS conveyor rollers

Engineering Services

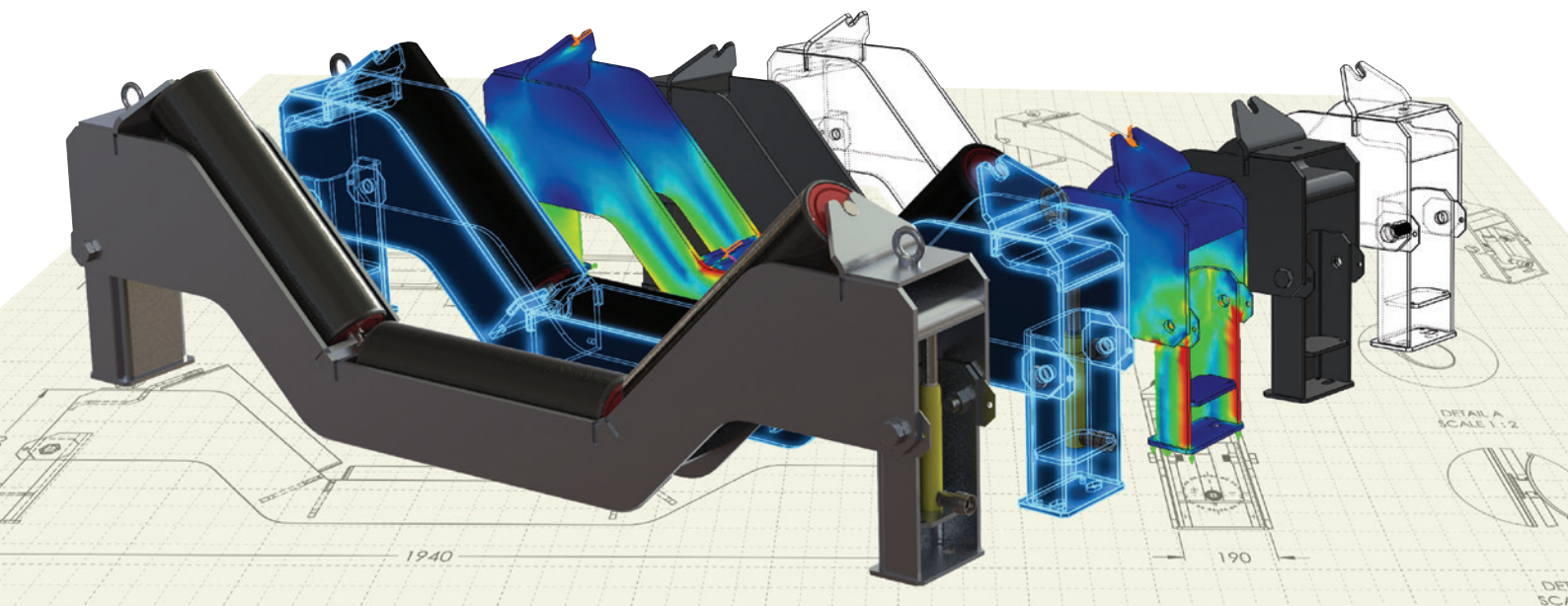
The Engineering Department at CPS is responsible for the continuous improvement in our products and manufacturing systems. Our team utilises the latest computer aided design and simulation software to assist in ensuring client needs are consistently exceeded. Engineering resources have been invested in automation systems maximising our capacity and guaranteeing our products are quick to market while cost effective. The team aids our clients with technical support and can also provide in depth on site assistance. Extensive R&D and roller failure analyses are carried out in our dedicated CPS test centre. Our Engineering Department has an unrelenting commitment to quality, dependability and in delivering high performance results in everything we produce.

Combined with our experienced technical personnel, CPS has invested in the following software packages available for use on internal and external engineering projects to ensure the best possible solution is offered:

- Custom CPS conveyor idler and pulley design software.
- Solidworks Premium and Microstation drafting suite.
- ANSYS Mechanical FEA package.
- Helix static and dynamic conveyor design package.

As a solutions specialist we offer the following services:

- Technical and service personnel available for on-site analysis, inspections and custom solutions for key problem areas.
- Design, modification, analysis and optimisation of idler components.
- 3D CAD drafting software to create detailed in situ models.
- Reduction of downtime through innovative and practical engineering.
- Provide long term solutions, reducing the Total Cost of Ownership (TCO).
- Conveyor design review analysis, engineering services (on-site and off-site) and operation and maintenance consultancy services.



CPS Roller Range

CPS manufacture a complete range of light, medium and heavy duty conveyor rollers using Composite Bearing Housing technology CBH.™ which are suitable for all applications. Through innovation, our unique design and manufacturing process has resulted in a roller series manufactured to ensure optimum performance, reliability and durability. The roller construction and manufacturing methods contain several unique features that result in significant improvements over traditional rollers.



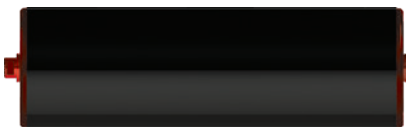
Steel Roller (89 - 178Ø)

Unlike conventional steel rollers manufactured using welded end hubs, the CPS steel rollers are produced using our composite bearing housing to ensure optimum performance, reliability and durability. Benefits include being belt friendly (no pizza cutter), superior balance, high impact resistance, and a shell which can be hot vulcanised rubber lagged or galvanised for special applications.



Yeloroll M-PVC Roller (114 - 203Ø)

Manufactured using a specifically formulated modified PVC shell. They are 40% lighter than equivalent steel idlers, providing OH&S benefits, and significantly reduced noise levels. Other benefits include being belt friendly, highly corrosion resistant, non-magnetic, impact resistant, low breakaway mass and significantly less carry back. Yeloroll has been in production for 15 years with outstanding results. Excellent all-round polymer roller.



Steel Hybrid FRAS Roller (127 - 178Ø)

Specifically manufactured for underground coal mining using a steel shell and the CPS FRAS approved Composite Bearing Housing technology. The Steel Hybrid FRAS Roller provides the benefit of the belt friendly, optimal performing sealing arrangement in conjunction with a traditional steel shell. Ideally suited to high moisture or dusty applications where bearing sealing performance is paramount. Available as individual rollers or in suspended sets with an additional low noise option.



HT Composite FRAS Roller (127 - 152Ø)

Combining cutting edge composite and polymer technology has led to the introduction of the ultra lightweight HTC FRAS roller. The HTC FRAS roller has passed all the tests required by NSW Mine Safety as specified in MDG 3608. It is the first and only non-metallic conveyor roller of its kind to be fully fire resistant anti-static (FRAS) compliant and safe for all underground operations.



HDPE-GF Roller (127 - 245Ø)

This "Heavy Duty" fibre reinforced high-density polyethylene shell has increased strength, stiffness, creep resistance, dimensional stability and has three times the abrasion resistance of standard polymer shell rollers. A durable, naturally low-noise roller which is 35% lighter than a conventional steel roller. An excellent alternative to plain steel flat or vee return rollers on dirty belts.



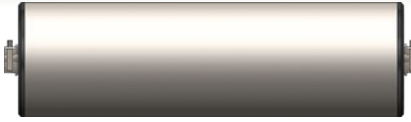
Aluminium Low Noise Roller (89 - 178Ø)

CPS aluminium rollers are manufactured using a high quality alloy tube. Due to the quality of our tube and housings the TIR (Total Indicated Run-out) & MIS (Maximum Indicated Slope) of our aluminium roller is naturally low. The standard balance of our aluminium rollers complies with ISO1940-1 G16. A reliable light weight, low noise option. Used extensively on the fast, high tonnage coal loading terminal conveyors.



Steel Low Noise Roller (89 - 178Ø)

Low noise steel rollers have the same extremely tight balance, surface finish, and TIR requirements of weigh rollers. This not only reduces noise, but also reduces reciprocating forces on the roller bearings and nearby structure, enhancing roller reliability and reducing power requirements. CPS spent 8 months on new low noise manufacturing methods with outstanding results. The quietest rollers tested at TUNRA in almost ten years - June 2016. Other low noise options are Yeloroll, HDPE GF and Aluminium subject to the application.



Weigh Roller (89 - 178Ø)

Weigh quality rollers are a vital part of the conveyor weigh scales to ensure minimal vibration and provide maximum accuracy. These specialised rollers are machined accurately to 0.05 TIR (Total Indicator Run-out) and a 3.2 µm surface finish, and maximum imbalance of 0.014 Nm/Roll and balance quality G16 as per ISO 1940-1. Other weigh roller options are Yeloroll, HDPE GF and Aluminium with all shaft ends fitted with jacking screws for fine tuning adjustments.



Polyurethane Full Sleeve Impact Roller (133, 159, 181 & 203Ø)

Manufactured using a heavy duty steel shell and highly wear resistant polyurethane. The full sleeve polyurethane impact roller is an excellent longer lasting alternative to bullnose or impact disc rollers installed on high impacting conveyor loading and transfer points. Ideal for applications where disc rollers fail due to ring elongation and/or wear. Also available in Fire Resistant Polyurethane.



Rubber Impact Roller (133, 159, 181 & 203Ø)

CPS manufacture a complete range of light, medium and heavy duty Impact rollers using a heavy duty steel shell, a range of robust rubber discs and the CPS multi-labyrinth sealing arrangement to ensure optimum performance reliability and durability. Impact Rollers are used in conveyor loading and transfer point applications to protect the belt where lump material is dropped from height in the transfers which can cause damage to the belt. Also available using FRAS rubber rings.



Polyurethane Composite Disc Roller (159 & 181Ø)

This leading edge lightweight Polyurethane Composite Disc Roller has been designed by CPS to specifically provide a safe reliable solution when dealing with return rollers on the underside of the belt. Manufactured using a composite shell, highly wear resistant polyurethane discs and HDPE spacers, the Polyurethane composite disc roller reduces the weight by up to 60% of an equivalent steel disc roller, providing significant OH&S benefits. Operational benefits include being belt friendly (no pizza cutting) and corrosive resistant while significantly reducing carryback on the belt.



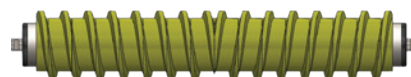
Polyurethane Disc Roller (133, 159 & 181Ø)

Manufactured using a steel shell and highly wear resistant polyurethane discs. An even longer lasting solution than rubber disc rollers, in areas where return rollers are failing regularly due to carry back and shell wear. An excellent alternative to plain steel and rubber disc flat or vee return rollers in critical high wear areas such as the head and tail end. This product is also available utilising a light weight composite shell, reducing the weight by up to 60% or in Fire Resistant Polyurethane.



Rubber Disc Roller (133 & 159Ø)

Manufactured using a steel shell and rubber discs. Offers a maintenance free solution in areas where return rollers are failing regularly due to carry back and shell wear. A good alternative to plain steel rollers on the return side.



Polyurethane Cleaning Roller (140 & 165Ø)

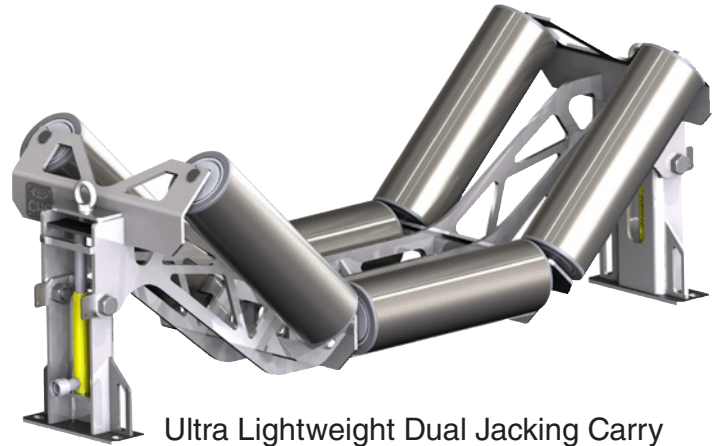
Manufactured using highly wear resistant polyurethane spiral rings which prevent and assist in cleaning off sticky carry back from the belt. These rollers offer a maintenance free solution to conveyor belt cleaning and tracking as an alternative to plain steel or disc flat & vee return rollers.

Hollow Shaft Technology

Designed to reduce overall weight by up to 55%, the hollow shaft technology is available on the continually growing range of CPS roller options to provide an additional engineered weight reduction solution. Ideally suited to applications where manual handling safety and structural concerns are affected by the inherent weight of standard solid shaft rollers.

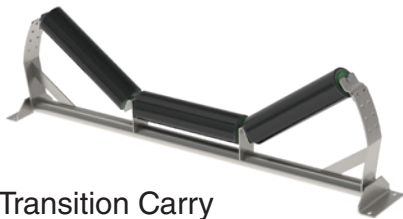
CPS Idler Range

CPS designs and manufactures premium quality conveyor idler frames in standard belt width sizes or completely customised to suit individual client requests. Frames are designed using the latest 3D Computer Aided Design software, then processed through our ANSYS Finite Element Analysis system to ensure the frames are fit for duty. CPS utilise multiple manufacturing methods, including robotic welding, to produce idler frames and other associated structure to tolerance levels previously unseen in the conveyor industry. Our idler frames are also available with a substantially reduced lead time compared to offshore supply options, with exceptional quality and finish, ensuring that CPS conveyor idlers function as designed, every time.



Ultra Lightweight Dual Jacking Carry

A selection of Idler types



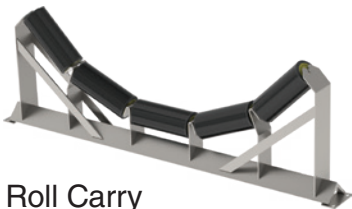
Transition Carry



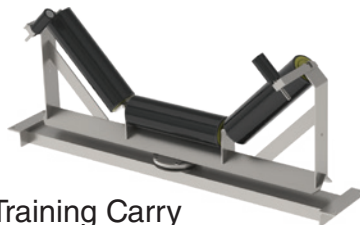
Jacking Carry



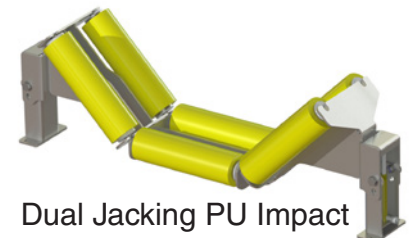
Retractable Carry



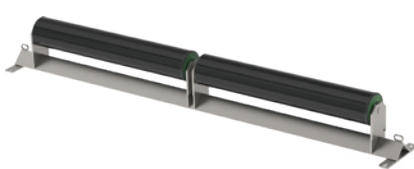
5 Roll Carry



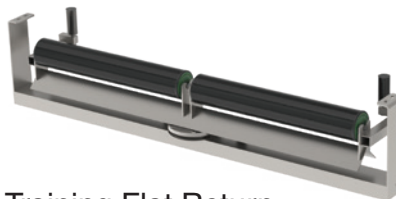
Training Carry



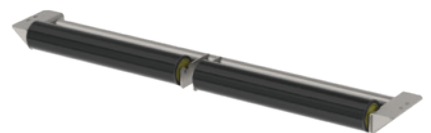
Dual Jacking PU Impact



Flat Carry



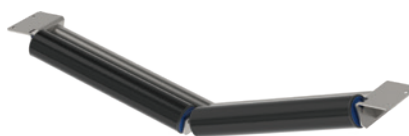
Training Flat Return



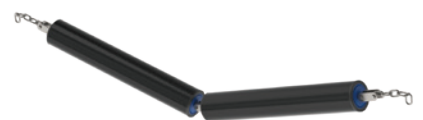
Flat Return



Flat PU Disc Return



Vee Return



Suspended Return

OEM Pulley Manufacturing

Custom designed by the CPS Engineering Team utilising recognised industry and proprietary software packages. All pulleys are individually engineered, optimised and manufactured to the highest standards, meeting all client specifications. CPS offer extensive customised pulley options, delivering our clients a truly fit for purpose solution for any application.

Locally engineered using industry leading design processes

- Numerical analysis
- Finite Element Analysis
- 3D CAD modelling
- Shells and Shafts designed for infinite life

Locally manufactured to the highest standards to meet all client specifications Live shaft or dead shaft

- Drive or non-drive
- Flat or crowned
- Australian grade steels
- Seamless pipe and rolled plate shells
- Non-destructive testing on all shells and shafts
- Highest quality components – SKF and NSK bearings, Ringfeder locking assemblies

Refurbishment Services

The CPS pulley refurbishment process is a cost-effective alternative to purchasing a new pulley in certain cases. Our in-house engineering team will strip down and analyse the pulley before providing a detailed report outlining the condition of the pulley and the components that require replacing. If the pulley is in a repairable condition the cost can be as little as a third of a new pulley for an “as new” reliable product.

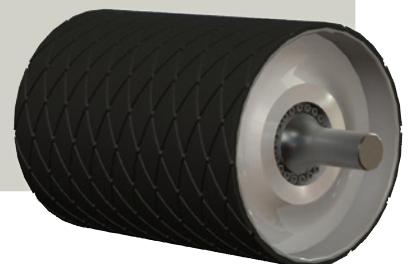
Our refurbishment services include:

- Complete strip down and cleaning of parts
- Refurbishment viability report
- Removal of old lagging
- Third party non-destructive testing of shaft and shell
- Re-machining if required
- Re-lagging
- Re-assembly of pulley with new locking assemblies and bearings if required

Our pulley refurbishment services allow customers to have pulleys rebuilt, tested and certified for re-use in the field, reducing costs for customers and providing a faster turnaround than building new pulleys.

Customised lagging systems include

- Hot vulcanized & cold bonded rubber backed ceramic in FRAS and non-FRAS
- Hot vulcanized & cold bonded rubber in FRAS and non-FRAS
- Direct bonded ceramic tiles
- Hot cast Polyurethane -smooth, grooved and diamond pattern
- Painted Steel





Manufacturers of Conveyor Equipment and Engineering Solutions



15 YEARS
2003 - 2018



Your Conveyor Partner

Head Office - Perth, Western Australia

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National Sales Offices

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