

K-Conveyor Pulleys are designed and manufactured for maximum service life and fit for purpose application. Manufactured against customer specification or using the latest software to ensure infinite equipment life. Shafts are designed to comply with AS1403.

Standard/Optional Features:

- Machined or Cast end-discs.
- Full Penetration Welds to the end disc.
- Static and/or dynamic balancing to application or customer requirements.
- Shaft Material K1045 or 4140.
- Key-less connection of shaft to end-disc, selected to transmit the design torque and resist the shaft bending moment.
- Shells made of rolled steel-plate or pipe.
- Pulley shell surfaces available in plain steel, vulcanised rubber (120° diamond shaped pattern) or ceramic tiles.
- FRAS, Polyurethane and Slide Lagging also available.
- Crowned or flat face options available.
- Stainless Steel options available for corrosive or magnetic applications.
- Welds fully stress relieved and crack tested via Magnetic Particle inspection and Ultrasonic Testing.

Ceramic Lagging





Engineering Design Review (If required):

- 1. Shaft selection and design.
- 2. Shell selection and design.
- 3. Overhung load analysis.
- 4. Bearing and housing selection.
- 5. Pulley rationalisation for spares.

Diamond Lagging







K-Conveyor Spiral Pulley



K-Conveyor Wing Pulley



K-Conveyor Spiral, Wing and HD Wing **Pulleys**

In general, these types of specialised pulleys are made for difficult applications where material build-up occurs on the pulley face causing mistracking and belt damage. Fugitive material is ejected to either side of the pulley via the centre tapered cone.

K-Conveyor Spiral Pulleys are designed to be used for dry and free- flowing materials. The rotation of the pulley engages the selfcleaning action therefore releasing foreign material through and on to the inner tapered cone then to the outside of the conveyor.

K-Conveyor Wing Pulleys can be used for large lump, sharp and sticky materials and are designed to be used in adverse, very abrasive and dirty applications, especially where there is material build-up on a solid conveyor pulley shell.

K-Conveyor HD Wing Pulleys are designed for applications where the standard wing design maybe inadequate for the duty.

Specifications subject to change without notice. Certified drawings are available on request.

K-Conveyor HD Wing Pulley



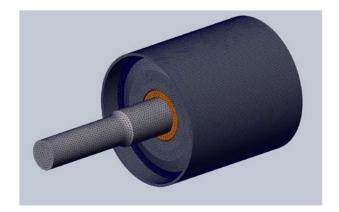
All of these types of specialised pulleys are sensitive to high load and high belt speeds. Consultation with one of our Field Applications Engineering/Specialist Team is recommended to determine a suitable design.

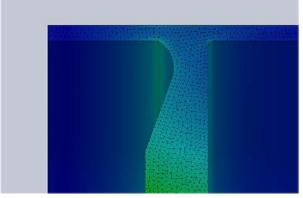
Both K-Conveyor Spiral and Wing Pulleys are available in all belt widths and diameters with the option of stainless-steel construction.





Kinder Australia utilises finite element analysis together with classical stress calculations for determination of stresses and deflections in conveyor pulley shells. Minimising of stresses at critical locations around the pulley such as the welded shell-end disc connection is important to prevent fatique cracking.







The K-Warning Conveyor Belt Tracking Sign is highly visible, when displayed warns maintenance teams against adjusting belt tension at the pulley to compensate for a mis-tracking belt.

Part Number: K-TAG-BT (Pulley Warning Sign)

Having the K-Warning Conveyor Belt Tracking sign on display, creates awareness of a common issue where maintenance team change the alignment of a pulley to track the belt. This action goes against the best practice for belt tracking that all pulleys should run parallel to each other.

The K-Warning sign should ideally be riveted to structure in a visible location near pulleys.

This type of adjustment can lead to uneven tension across the width of the belt. Under tensioning of the belt may cause drive traction issues and increases belt sag belt which leads to spillage. Over tensioning may damage the belt splice or plies.







The Kinder and NVMS collaboration ensures our diverse bulk materials handling industry customer base have access to cutting edge, best practice and value add Machine Protection and Condition Monitoring. These solutions are specifically suited for Kinder's comprehensive K-Conveyor Pulleys range and applications.



NVMS provide machine protection systems for rotating, reciprocating equipment and other highly critical plant assets. Their solutions include temperature and vibration monitoring for heavy industries.

NVMS also specialises in the application and delivery of solutions across all industry sectors. This covers API670 compliant technology, TUV, SIL approved systems, wired and wireless solutions and portable data collection.

