



Belt Conveying Overview & Site Tour

Belt Conveyor & Component Testing Capabilities Overview

Presented by TUNRA Bulk Solids for Industry
Tuesday 9th August, 2022

The storage, handling and transportation of bulk solid materials are major activities for a vast number and variety of industries throughout the world. These range from the gentle handling of very small quantities of material in the pharmaceutical and chemical industries to the vast quantities handled and processed by the mining and mineral companies. This diversity is particularly evident in Australia where the wide-ranging nature and scale of operations is somewhat unique.

Considerable advances continue to be made in research, development, application and implementation of the technologies associated with belt conveying and associated testing.

TUNRA Bulk Solids are pleased to welcome you for a half-day presentation on the latest advancements in the belt conveying field, along with a site tour which will showcase TUNRA's state-of-the-art testing facilities which are ISO9001, ISO14001 and AS45001 Certified.

Topics Covered

- ▶ Advancements in the energy efficient design of belt conveyors
- ▶ Latest testing available for system components
- ▶ Case Studies

Who should attend

This will be of particular interest to:

- ▶ Mechanical, maintenance and process engineers / personnel
- ▶ Belt Manufacturers / suppliers

Industries including: mining and mineral processing, power generation, energy and environment, chemical, agricultural, food processing and manufacturing.

Why attend

- ▶ Diversifying your expertise and further knowledge of belt conveying advancements and associated testing
- ▶ Networking with experts in the field of materials handling
- ▶ Staying up to date with the latest developments in bulk solids research

Location - TUNRA Bulk Solids - NIER Site, A Block - 70 Vale St Shortland



Belt Capabilities Overview and Site Tour

- ▶ 1:15 pm Registration
- ▶ 1:30 pm Overview of TUNRA Bulk Solids
PRISCILLA FREIRE
Business Development Engineer
- ▶ 1:45 pm Belt Conveyor Component Testing Overview and Case Studies
JAYNE O'SHEA & YUSUF BADAT
Consulting Engineers
- ▶ 2:35 pm Current Belt Conveyor Research and Advancements
PETER ROBINSON
Research Associate - Centre for Bulk Solids
- ▶ 3:00 pm Afternoon Tea Break and Networking
- ▶ 3:20 pm Site Tour
DR JAYNE O'SHEA AND YUSUF BADAT
- ▶ 4:30 pm Conclusion

The comprehensive testing facilities of TUNRA Bulk Solids at the University of Newcastle, Australia enables a wide range of conveyor component testing services to the mining and manufacturing industries in reference to relevant International Standards and/or Guidelines.

Tests are conducted according to AS1332, AS1333, AS1334 and other associated Standards for all types of belting.

Conveyor idler rolls and Idlers are tested to SANS 1313, DIN22112 & MDG3608. Design Audits conducted in accordance with ISO5048, DIN22101, CEMA & other in-house procedures.

Belt Conveyor Testing Services Including

- ▶ FRAS tests according to MDG3608 and AS4606
- ▶ Independent belt conveyor testing, audits and reviews
- ▶ Idler roll noise testing, including self-noise and operating noise
- ▶ Belt cover ply adhesion and resistance to tear propagation
- ▶ Cord breaking force, static & dynamic cord pull-out strength
- ▶ Small and large sample indentation rolling resistance measurement
- ▶ Belt surcharge angle and maximum inclination angle
- ▶ Belt scraper efficiency
- ▶ Idler roll rotational resistance testing, including rim drag, break-away force and maximum start-up drag, MIS and TIR of idlers
- ▶ Idler dust and water ingress
- ▶ Conveyor belt tensile strength and elongation
- ▶ Troughability
- ▶ Abrasion testing for idler and belt components
- ▶ Inspections and failure analysis, as well as site inspections
- ▶ Thermal imaging



Why TUNRA Bulk Solids?

Experience and Expertise

We have provided expert solutions to industry for over 40 years and are the leading organisation for materials handling research and consulting in Australia and internationally

Research and Development

We have a proven track record in research and development through the close association with The University of Newcastle

Quality Service

We have highly qualified, well-trained and specialist staff that are committed to delivering excellence

First Class Facilities

Our laboratory is a state of the art facility located within the Newcastle Institute of Energy and Resources (NIER)

Industry Standards

We are accredited to ISO 9001, AS45001 and ISO14001

Independent

We are independent and not for profit



For further information regarding the half-day event

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