

PARTICLE SIZE DISTRIBUTION (PSD) & FLOW ANALYSER



SizeScan™ Advantages

SizeScan determines real-time Particle Size Distribution (PSD) and volumetric flow of conveyed materials. It uses the latest 3D infrared camera technology and proprietary imaging algorithms to deliver continuous, accurate measurement of conveyed bulk materials.

- Provides real-time Particle Size Distribution (PSD) analysis, eliminating manual sampling and laboratory delays.
- Directly measures volume and mass flow rate.
- Reliable performance in dusty environments.

- 24/7 real-time monitoring, eliminating manual inspections.
- Simple, one-off calibration process during planned shutdown.
- Foreign Object Detection (FOD) option to detect contaminants or equipment-damaging scrap.
- Web-based interface accessible from anywhere.
- Simple installation: adjustable frame bolts directly onto conveyor stringers.
- Calibrated to belt cut sieve analysis.

SizeScan™ Applications

Real-time PSD and volumetric analysis enables active process control decisions that maximise product value and minimise operating and maintenance costs.

Typical applications include:

- Empty belt detection.
- Optimised blast fragmentation.
- Monitoring feed to SAG or AG mill (if sufficient large particles for grinding).
- Assess crusher output (gap control).

- Monitoring product sizing.
- Optimising raw material mix for downstream processing.
- Monitoring HPGR feed to ensure sizes are below limits.
- Equipment damage prevention.
- Scrap / foreign object detection.

SizeScan™ Description

The SizeScan PSD & Flow system employs cutting-edge 3D infrared camera technology and proprietary imaging algorithms to analyse conveyed bulk materials. Unlike traditional 'segmentation' methods that can misdiagnose a bed of fines as large particles, our state-of-the-art algorithm provides superior accuracy. The non-contact system does not interfere with conveyor operations and provides comprehensive real-time monitoring. The 3D Camera is a Class 1 Laser product and presents no eye or skin hazards.

Real-time outputs include:

- Continuous P-values (e.g., P80, P50, P20) and full size distribution curves.
- Real-time volumetric flow (m³/h) and mass flow (t/h).
- Video feed with a graphical overlay of the material burden.



SizeScan in operation with invisible IR beam shown in red.
(Note: Safe Class 1 Laser Product.)

- Cumulative volume (m³) and mass (tonnes) for daily or batch reporting.
- All key metrics are logged for trend analysis and process review.

Scantech's Analysers

Scantech provides the recycling, energy, mining, coal, steel and cement sectors with analysers for a wide range of applications and environments. Scantech can deliver online solutions that suit your process, reduce your operating costs and minimise Health, Safety and Environmental risks for your operations. Whether you need to monitor moisture, ash, sulphur, mineral or energy content we have the right application for your needs and budget. Real time analysis during

the various phases of production provides operators with significant opportunities for plant optimisation and quality control. Over the past four decades, Scantech analysers have become a standard process control tool in the resources and recycling sectors. Scantech analysers are a fundamental component of companies' digital technology strategies utilising real time measurement systems to enable core processes to become fully integrated, autonomous, remote and automated.



Scantech Products have Patented Technology & Registered Trademarks

ADELAIDE OFFICE

PO Box 64 Unley
South Australia 5061
AUSTRALIA
Tel: +61 8 8350 0200
Fax: +61 8 8350 0188

BRISBANE OFFICE

PO Box 1485 Springwood
Queensland 4127
AUSTRALIA

Scantech Products

- GEOSCAN GOLD Premium On-belt Elemental Analyser for Minerals
- GEOSCAN-M On-belt Elemental Analyser for Minerals
- IRONSCAN 1500 On-belt Natural Gamma Iron Ore Analyser
- MINERALSCAN 1500 On-belt Natural Gamma Minerals Analyser
- MINERALSCAN 2100 On-belt Density Analyser
- ReadMoist CM 200 On-belt Conductive Material Moisture Analyser
- GEOSCAN-Y Elemental Analyser for Slurry
- GEOSCAN-R On-belt Elemental Analyser for Recycling
- ReadMoist TBM 280 Through Bale Moisture Monitor
- ReadMoist CM 200-R On-belt Conductive Material Moisture Analyser for Recycling
- BALZSCAN 9500X On-belt Elemental Analyser for Alternative Fuels
- BALZSCAN 2100 On-belt Ash Analyser for Alternative Fuels
- ReadMoist TBM 280 Through Bale Moisture Monitor for Alternative Fuels
- GEOSCAN-C On-belt Elemental Analyser for Cement
- BLENDSCAN Process Control for the Cement Industry
- ReadMoist TBM 260 Through Bin Moisture Analyser for Concrete
- GEOSCAN-S On-belt Elemental Analyser for Steel
- ReadMoist CM 200-S On-belt Conductive Material Moisture Analyser for Steel
- COALSCAN 9500X On-belt Elemental Analyser for Coal
- COALSCAN 1500 On-belt Natural Gamma Ash Analyser
- COALSCAN 2100 On-belt Ash Analyser
- CIFA 350 Carbon in Fly Ash Analyser
- ReadMoist TBM 210/220/230/240 Through Belt Moisture Analysers
- ReadMoist TBM 260 Through Bin Moisture Analyser
- SIZESCAN Particle Size Distribution Analyser

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