



# CBM - Steel Cord Belt Scanning

Maximising the return on your assets

## BUSINESS CHALLENGE

Obtaining the maximum value for every maintenance dollar you spend has always been the greatest challenge for companies needing to maintain physical assets.

The primary purpose of the Steel Cord Belt Scanning system is, to detect steel cord damage and splice irregularities, by means of non destructive testing during the conveyor belts normal operation, via our remote, semi remote or field inspection services, (depending on service) without the need to stop the conveyor belt or have personnel on site.

## SOLUTION

With shrinking maintenance windows and limited downtime access, CBM has developed a system to minimize interruption while scanning all forms of steel cord conveyor belting. Steel Cord Scanning via the Magnetic Flux Leakage system is designed to detect anomalies or damage within the steel cords and splices of conveyor belting, invisible to the naked eye.

When the system is operating, it locates areas of cord breakage, partially damaged, corroded cords and integrity of splices. This information is available instantly with no conveyor downtime (depending upon the system combination Remote, Semi Remote or Full conveyor inspection), enabling full production to continue with limited or no interruption.

CBM's Engineer's analyse and generate comprehensive reports using this data.

The data is captured via intelligent software on site or sent remotely via data connection to be inspected by engineers for anomalies. Damage can be identified immediately for notification and inspection. This is achieved through data comparison against the last captured data.

Periodic interrogation (with a remote or semi remote installation) of the conveyor is useful in monitoring on-going cord damage, the condition of splices (new and old) and to predict the necessity of section replacement.

This CBM System is suitable for both surface and underground applications.

## WHY CHOOSE CBM

### ➤ Recognition

Founded in 1980, CBM is a worldwide leader in Conveyor Belt Monitoring. CBM has a long tradition of R&D and bringing to market beneficial technologies.

### ➤ Knowledge & Expertise

Technical knowledge and constant training of our staff and distributors, ability to provide timely targeted information, are strengths appreciated by our clients.

### ➤ Independence

CBM is completely independent of the conveyor belt manufacturers and our systems are designed to work on all manufactured conveyor belts, of any speed and all material types.

This ensures safety and security for the companies that we service.



Partner of Choice

## RELATED SERVICES

- CBM – Longitudinal Rip Detection
- CBM – Vision & Profile Monitoring
- CBM – Reporting
- CBM – Remote Monitoring
- CBM – Fabric Belt Scanning
- CBM – Conveyor System Inspection
- CBM – Cover Thickness Testing
- CBM – Longitudinal Thickness Testing

## CASE STUDY



One of the belts that we currently steel cord scan is in the southern NSW coalfields.

CBM scan this belt on a monthly basis to ensure that no new areas of cord damage or splice irregularities have occurred since the previous scan.

In this case, the colliery concerned contacted CBM, as one of their belts had sustained some significant cord damage to conveyor belting.

This would normally be a mid order event. The fact that these cords were damaged raised concerns as this would make the belting more prone to further deterioration and a loss of belt edge tension and integrity.

After repairs, CBM resumed steel cord scanning the belt every 12hrs for 5 days to discern if any change was occurring in the repaired area.

After 5 days and no evidence of change the scanning frequency was extended to weekly then resuming once a month, when comfortable with the damaged areas integrity, stability and resistance to change.

This situation highlights steel cord scanning's effectiveness to both determine areas of damage and the flexibility to monitor these areas consistently during these types of emergency situations.

## OUR APPROACH

Clear, concise, easy to read and above all, rapid indications regarding conveyor belt safety and durability.

Provision of the most comprehensive condition monitoring of conveyor belts and systems in the world today.

Non Contact / Remote Monitoring / Minimal Ongoing Costs / Operating In All Conditions

## FAQ

### Do I need to have all my Belts Scanned?

Not at all, we only implement in a way that is going to suit your companies' requirements

### What are the key benefits?

- Detection of splice and cord damage or change
- Effective maintenance & budgetary planning

### Who owns the Data?

You do – we keep a back up of that data and it forms part of the database for our engineers to analyse and make comparative recommendations. You receive regular reports and recommendations at a frequency that best suits your site operations.

### Do I have to shut down the belt for the scan?

It depends upon which of our systems you elected to have. With the Remote and SemiRemote no, with all the others a short shutdown is required when setting and removing the equipment. The scanning occurs while the belt is operating and available for production



## CONTACT

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## FOR MORE INFORMATION

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