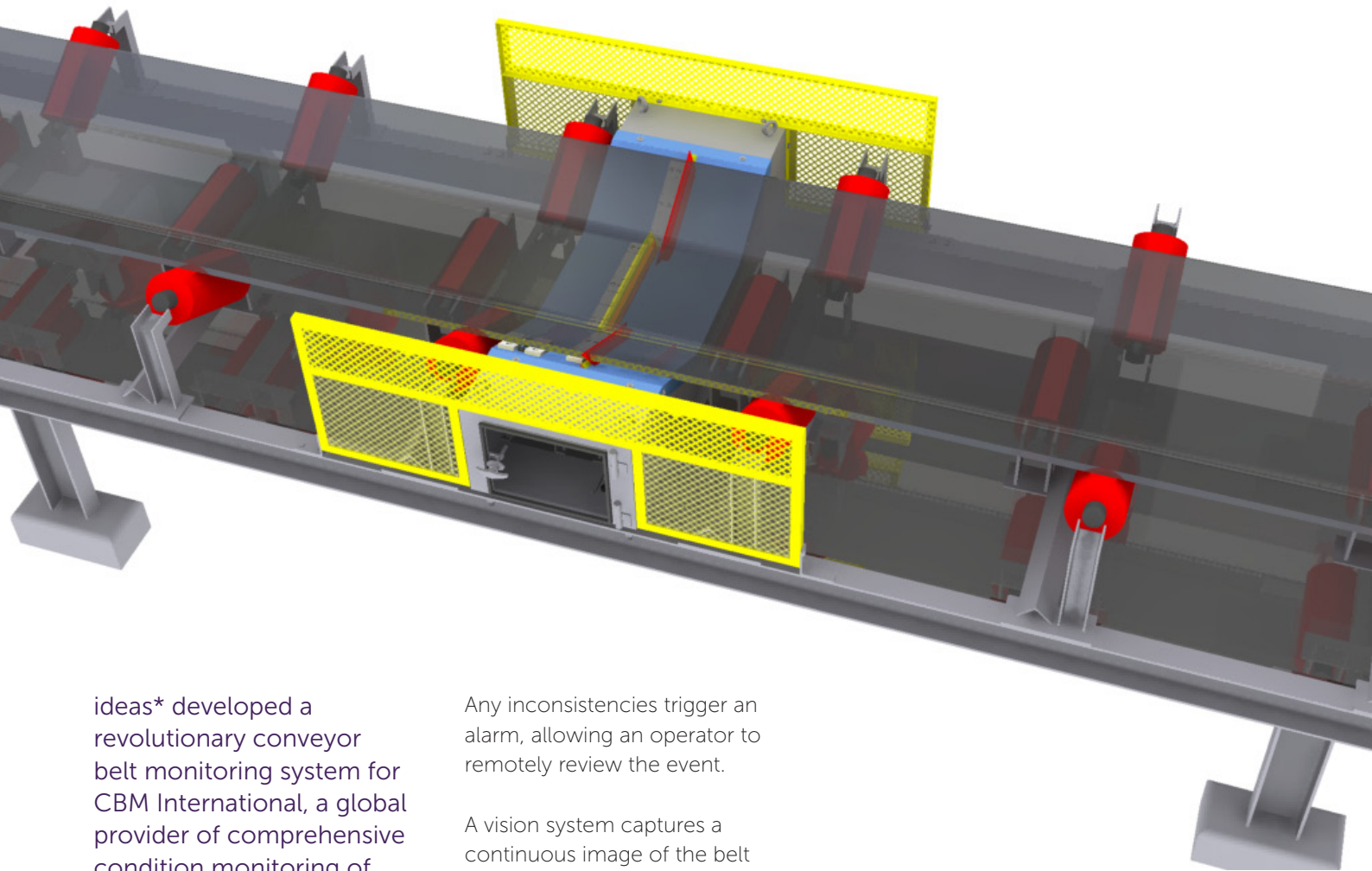


# Conveyor Belt Monitoring System

Client: CBM International

ideas<sup>o</sup>  
smart thinking



ideas\* developed a revolutionary conveyor belt monitoring system for CBM International, a global provider of comprehensive condition monitoring of conveyor belts and systems.

The system utilises the latest vision and laser technology, including 3D imaging to monitor both the external and internal condition of the belt.

Following successful prototype trials, the first system was installed on an iron ore conveyor at BlueScope Steel in NSW.

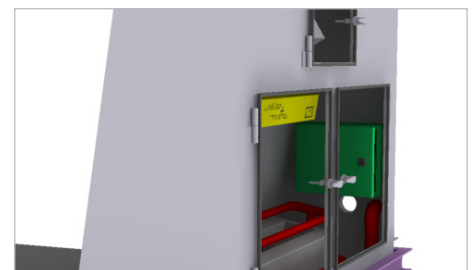
A profile detector continuously maps a 3D image of the load-side of the conveyor belt, monitoring for any changes in profile to indicate wear or damage such as delamination, bulging or splits to the belt.

Any inconsistencies trigger an alarm, allowing an operator to remotely review the event.

A vision system captures a continuous image of the belt allowing the operator to view the belt condition and even compare with a previous time.

A second unit monitors the underside of the belt for rips. This can be positioned directly after a load transition point, monitoring for belt rips from events such as liner plate dislodgement.

A direct web interface allows the belt condition and all events to be monitored in real time from anywhere around the globe. This capability makes the system ideal for monitoring the typical hazardous and/or remote environments associated with large industrial conveyors.



Rendered CAD Design of the profile detection system.