

New entrant to conveyor monitoring market in Australia

Conveyor Belt Gateway (CBG), a German conveyor belting and technology company manufacturing in China, is taking its conveyor monitoring product – CBGuard – global, recently appointing an Australian distributor.



CBGuard system in place on a conveyor.



Report showing steel cord damage.



Belt splice analysis.

CBG seeks to combine German technical prowess with low-cost Chinese manufacture. The company, which offers conveyor belts, monitoring equipment, and vulcanizing machines, emphasises strict quality control of its Chinese output.

According to CBG, it has over 300 of its CBGuard branded monitoring systems in operation in China. In 2016, the company began promoting an upgraded version of the system globally. Closer to home, CBG has appointed Conveyor Belt Monitoring of Mona Vale in Sydney as its exclusive distributor.

“Conveyor Belt Monitoring is going to install the first CBGuard system in Australia soon,” said Bernd Küsel, president of CBG, based in Hamburg.

There is intense market competition in conveyor monitoring, with a wide variety of technologies and systems available from companies like ContiTech, Fenner Dunlop, Beltscan Systems and Phoenix. CBGuard works with x-rays, which immediately differentiates it from most of its competitors, bar Phoenix.

“No other technology can provide such a wealth of information,” said Mr Küsel of the CBGuard technology. “All other systems on the market, except for Phoenix’s system, can only cover certain parts of a conveyor belt, and with poorer quality. The CBGuard system is much more compact and smarter than the Phoenix system. And it is affordable.”

CBGuard consists of an X-ray generator with tube, a receiver and a control unit. X-rays penetrate a conveyor belt and impinge

on the detection board, forming a grey-scale photograph based on different absorptions of the conveyor belt areas. This happens millions of times per second with a running belt.

The system is designed as a standalone system. It can be used as an integral part of the plant’s monitoring network and can communicate with other electronically monitored conveyor parts and logistical processes.

CBGuard weighs 700 kgs and has a size of 1,9 x 0,7 x 1,1 metres when installed on a 1200 mm wide belt. It can accommodate belt widths of up to 3200 mm, belt thicknesses of up to 60 mm and velocities up to 9 m/s.

The system is installed on the bottom part – return run – of the conveyor. The belt needs to run flat through the device. A concrete foundation and a safety fence, at a distance of around two metres, have to be provided.

“The radiation source is insulated. Beyond this fence, the radiation is less than 1 microSievert per hour, close to background levels,” explained Mr Küsel.

Like other monitoring systems, CBGuard can inform sites’ management on maintenance. It can also be programmed to automatically stop the belt if it detects potentially catastrophic failures such as the opening of a belt splice or the slitting of the belt. ■

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