Flexco's quick solution for belt damage

LAST year Adimitra Baratama Coal encountered a big problem - one of the belts at the busy operation was ripped and the damage was extensive enough to shut the entire conveyor down. Upon checking the supply of belting in inventory, Adimitra manager Wandy Gunawan and his maintenance team realized they only had about half the belting needed to get the conveyor running again.

They contacted the belt manufacturer to get belting to the site as soon as possible but the order would take about two months to arrive and Wandy Gunawan did not want to lose valuable production time. Based on past experience, he contacted Flexco. "I knew that by presenting the challenge I was facing to the Flexco team, I would get a solution.

"Flexco's team not only discussed the problem over the phone, they also came out to evaluate the site and observe the rip."

"When we arrived, employees were removing the ripped belt," Flexco sales manager Dany Koesoema said. "It was a good opportunity for me to show them the installation tools and explain procedures for punching the belt and installing fasteners on the used belts."

"They offered their advice and recommendations, and I discussed it with my team," Wandy Gunawan said. "Their timely action and product demonstrations were very helpful." The unscheduled downtime was already costing valuable production time and it was decided to use Flexco Bolt Solid Plate 190 fasteners to repair the 1000 metre rip. This fastening system provides a strong, sift-free splice with superior holding ability for use in tough material handling applications. It also allows for quick and easy onsite installation.

Dany Koesoema says the design and plate compression on both the top and bottom sides of the belt is key to the strength. High tensile strength bolts compress top and bottom plates to distribute splice tension across the entire width of the fastener plate.

Specially-formed teeth penetrate deep into the belt carcass for added strength without damaging the carcass fibres. Ideal for use in tough, abrasive applications like coal, the Bolt Solid Plate Fastening System can be easily installed with portable hand tools or power tools. Exclusive piloted bolts feature tapered tips that cradle the nuts securely in place, reducing installation time.

The Flexco system can also be used to repair conveyor belt holes and edge tears or combined with three-bolt rip-repair fasteners to fix jagged, length-wise belt tears.

"The Flexco team supervised our splicing contractors and shared valuable information and experiences with our mechanical supervisor during the install," Wandy Gunawan said. "This was very valuable."

Only five days passed between the time the belt went down and the time it was running again. While consulting with Flexco regarding the repair, Wandy Gunawan was introduced to the advantages of mechanical belt fasteners as a standard splice. Unlike hot splicing, fasteners could be installed upon receipt by the onsite crew instead of waiting for a vulcanizing crew to arrive. As a result, Adimitra elected to install mechanical splices to join the belt in addition to the rip repair.

Flexco was able to repair a conveyor tear (above) at Adimitra Baratama Coal's operations using Flexco Bolt Solid Plate 190 fasteners (below).

"When they saw that they only needed about one hour for one splice and that it could be done by their own crew, they decided to join the belt with mechanical fasteners as well," Koesoema said. "They also appreciated the fact that there is less belt waste when using fasteners."

Flexco SR™ Rivet Hinged fasteners were chosen to join the belt together. Ideal for rubber plied and PVC solid woven belting, the Flexco SR Rivet Hinged System delivers the performance, long life, and easy installation that maximize belt availability. Plates are secured to the belt with a staggered pattern of rivets.

The Flexco rivet design allows the rivets to pass between carcass fibres, without severing them, providing maximum holding ability and evenly-distributed splice tension across the width of the belt. Belts can be easily separated by removing the hinge pin.

The Scalloped Edge™ design features a low profile, reducing the fastener's exposure to cleaner blades, skirt rubbers and return idlers. The reduced wear and tear on the fasteners extends the life of the splice. Flexco SR fasteners are also available with power installation to reduce worker fatigue and ensure uniform splices. Installation of the fasteners in the 1900 metre belt took about two and a half days.

"The conveyor is loading safely and properly with the Flexco splice and rip repair," Wandy Gunawan said. "We consider the Flexco fasteners to be a lifesaver and have decided that they can be used on our belts in both normal and emergency conditions."