

Dyna Engineering's safer scraper solution

The usually tricky task of removing a primary or secondary scraper from a conveyor belt for maintenance or replacement has been made a whole lot easier and safer.

ACCESS TO CONVEYOR BELT

cleaning equipment can often be awkward and usually requires maintenance personnel to work in confined spaces. In many cases the work is also elevated, further adding to safety issues.

The pressure to perform maintenance efficiently and effectively can be difficult and dangerous. An Australian-designed solution allows for scrapers to be removed quickly and safely, reducing these safety risks.

The DYNAFastFit has no need for fitters or maintenance people to get inside the chute, eliminating confined space permits and scaffolding. This allows

maintenance to be performed in a more secure location such as on walkways or platforms, even on the back of a ute or in a nearby workshop. The design also allows for the removal of the scraper shaft and blades without losing any of the settings as it is completely self-aligning, self-lubricating and self-locating.

Thomas Greaves, General Manager at DYNA Engineering, says the focus of the complete scraper assembly redesign was to ensure maintenance work on scrapers is safer and easier.

"It makes the job of the plant fitter a breeze by allowing fast removal of the scraper from the

chute. It's a simple matter of removing two bolts so the scraper shaft and blades can be pulled out of the chute in one easy motion" he said.

"Performing maintenance work outside planned shutdown hours can be a real cost-saver when you consider reduced reliance on overtime during shutdowns and increased equipment life because of more thorough maintenance. Personnel working conditions also improve because performing out of chute maintenance encourages correct working positions, avoiding poor ergonomics and reducing high risk work."



DYNAFastFit scrapers can be detached and removed from the chute more quickly and far more safely than with conventional scrapers.



The polyurethane blades can wear into the shape of the belt, helping to maintain effective cleaning through varying conditions.

Adaptable design

The DYNA FastFit scraper can be adapted to almost any location and style of scraper. The company says it currently has ready-to-go designs for all primary, secondary, tertiary and reversing scrapers. They are constructed completely out of stainless-steel and will not rust, corrode, or sustain paint damage. Its range of primary and secondary versions is available with either polyurethane or carbide (tungsten) blades for belt widths from 350 millimetres to 3500 millimetres wide.

Polyurethane is a softer material when compared to carbide and can be used on new, older, or worn belts. It is particularly effective when the surface has become worn or uneven. They are generally not tough enough to damage the conveyor belt itself and thus are more forgiving when something goes wrong. As conveyor

belts wear, deformities, cracks, and dents are common occurrences. The polyurethane blades can wear into the shape of the belt in a reasonable time frame, thus maintaining effective cleaning through varying conditions.

The disadvantage of polyurethane is that the softer material has a faster wear rate. Polyurethane wears at a faster rate than carbide due to the differences in hardness, therefore polyurethane blades are made with greater wear allowance to obtain an acceptable wear life.

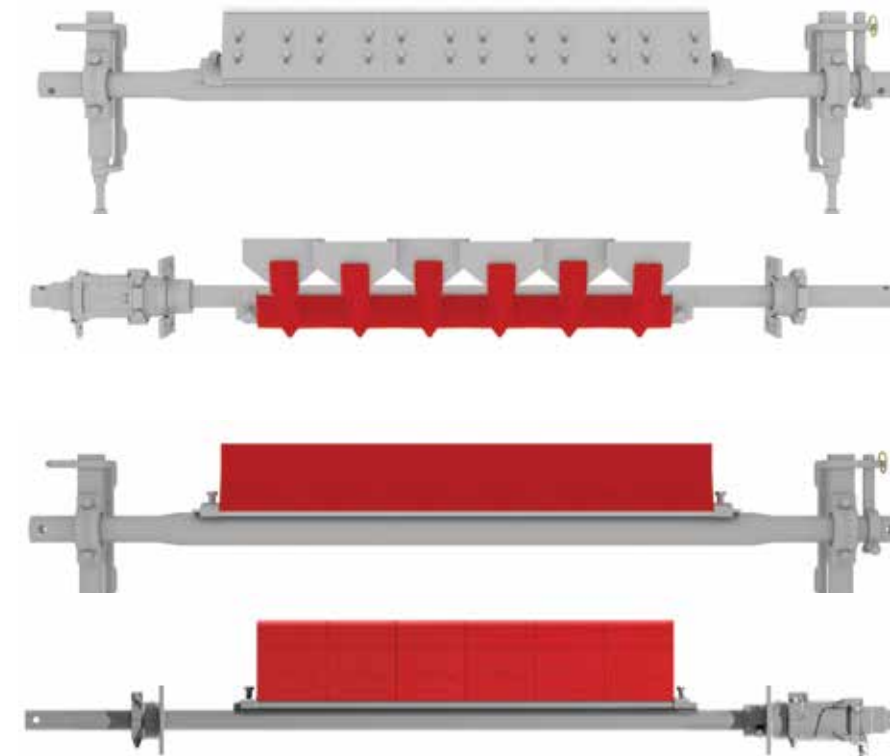
Carbide refers to tungsten carbide which is valued for its physical hardness, strength, and resistance to chemical attack even at high temperatures. Due to its high-resistance properties, carbide blades are chosen for heavy duty applications as the wear rate of the blades is low. However, the same

properties can cause issues with worn or damaged belts.

Carbide blades are generally the best for new conveyor systems when the belt is undamaged or unworn. As the belt becomes worn, carbide blades can be switched over to polyurethane when required. When comparing polyurethane and carbide the main consideration is wear life and risk of wear, versus the application needs and the condition of the conveyor belt.

Modular range benefits

DYNA FastFit belt scraper's modular design is a useful feature as parts are interchangeable between different models and types, and many of the spare parts are common across the range. One example is the mounting bracket for the blades. The blades are mounted on a standard track mounting system. This allows any blade type to be installed without the need for replacing the scraper, which is the normal situation when compared to conventional alternatives. Different adjusters are available for each scraper and are fitted without modification. The choice of adjusters includes twist lock, pin lock, compression spring, tension spring, air, water, oil and gravity. Most adjusters can be fitted on either end of the shaft. **B**



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Handy tip from Thomas:

If you need to begin running the conveyor as soon as possible, consider installing a spare scraper. By doing so, maintenance can be performed on the removed scraper back at the workshop with less time pressure and greater safety. Then, at the next shutdown, you can simply reinstall the repaired scraper and begin the process again.