

# DRY CARGO *international*

WWW.DRYCARGOMAG.COM

ISSUE NO. 231 JANUARY 2020



## FEATURES

---

■ Bulk Trades Outlook

---

■ Bulk Carrier Market

---

■ Bulk in the Netherlands

---

■ German Engineering

---

■ Continuous Ship Unloaders & Technologies

---

*The world's leading and only monthly magazine for the dry bulk industry*

# New conveyor belt cleaner design: reduce

A new conveyor belt cleaner has been designed with an innovative method of holding the urethane blade in place without the need to mill any slots for holding pins. Combining the benefits of previous designs into one product, the QCI+TM Belt Cleaner from Martin Engineering can be cut to length to fit virtually any application, reducing the need for customers to stock multiple blade sizes to accommodate different belt widths. Operators simply trim the blade to the desired size from the stock 9ft (2.74m) length to match the material path, slide in the blade holders and lock them in position. The new blade can be retrofitted to virtually any Martin main frame and most competing designs.

"In most belt cleaner designs, the blade is pinned in place, but this new approach

uses a hole right in the aluminium extrusion to keep the blade firmly in position," explained Conveyor Products Manager Dave Mueller. "The biggest benefit to customers is the ability to buy long length blades and cut them to size without doing any machining. Most customers have a number of different belt widths, so in the past they've had to stock different blade sizes. But this design can accommodate a wide range of belts with a single product."

In some applications, existing cleaner designs are limited by the placement of the pin holes. In the case of a 36" (91.4 cm) wide belt that has a material path of just 20" (51 cm), for example, there might be pin holes at 2" (5cm), 6" (15cm) and 8" (20.3cm), with no holes for a 20" blade. The result would be the dreaded 'smiley



*The new QCI+ holds the urethane blade in place without milling slots for pins.*

face' wear pattern, and the uneven blade wear shortened its service life.

"With this design, the blade holders slide and lock on a blade guide rail, and are adjustable to whatever width is needed to match the material path," Mueller said. "That contributes to better cleaning efficiency and longer blade life."

The mainframes on the QCI+ are three-piece assemblies, with a square centre section and a torque tube sliding into each end. The tubes are formed from high-strength steel and engage in the corners of the square main frame. They transmit the torque from the tensioner through the tubes and into the main frame to maintain blade tension.

The torque tube lock collars are designed to be an interference fit with the square mainframe. To assemble, the tube is installed first, then the collars are added and set in position. The length of the mainframe is adjusted next, and finally the set screws on the collars are tightened down. In most applications, the simple sequence can be performed by a single worker in just a few minutes. The new design is compatible with any of the Martin tensioning systems.

Urethane belt cleaner blades from Martin Engineering are designed with the company's patented Constant-Area Radial Pressure (CARP) technology to deliver consistent cleaning throughout all stages of blade life. Martin designed and developed the concept, patented in 1990, which has been adopted worldwide. The innovative cleaners maintain the same contact area, blade angle and pressure to effectively remove virtually any type of material carryback, even as the blade wears



*The blade holders slide on a guide rail, and can be adjusted to match the material path.*

# inventory with cut-to-length

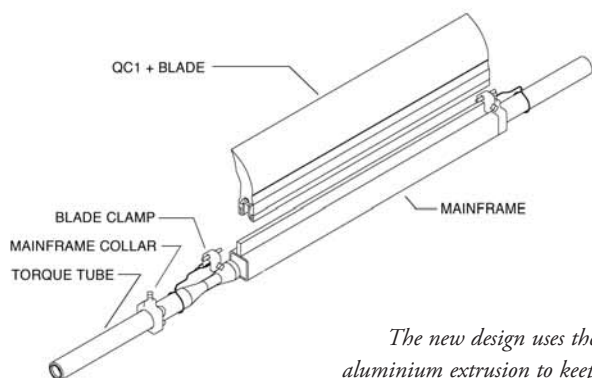
down over time.

Five different urethane formulations are currently available for the QC1+:

- ❖ standard orange for most applications (approved by MSHA for mining applications);
- ❖ brown for chemical resistance;
- ❖ green for high-temperature applications;
- ❖ clear for dry products such as sand and gravel; and
- ❖ navy blue for tacky materials such as cement.

The product is initially being launched in the USA, followed by other regions over the coming year.

This design introduces a new generation of belt cleaning technology," Mueller added. "It's a truly revolutionary product that delivers the cleanest belt and the longest blade life — at the lowest cost."



*The new design uses the aluminium extrusion to keep the blade firmly in position.*

Martin Engineering has been a global innovator in the bulk material handling industry for 75 years, developing new solutions to common problems and participating in industry organizations to improve safety and productivity. The company's series of *Foundations* books is an internationally-recognized resource for safety, maintenance and operations training — with more than 20,000 print copies in circulation around the world. The entire 500+ page volumes can also be downloaded as free PDFs from the Martin web site. Martin Engineering products, sales, service and training are available from 19 factory-owned facilities worldwide, with wholly-owned business units in Argentina, Australia, Brazil, Chile, China, Colombia, France, Germany, India, Indonesia, Italy, Japan, Mexico, Peru, Russia, Spain, South Africa, Turkey, the USA and UK. The firm employs more than 1,000 people, approximately 400 of whom hold advanced degrees.

## New project for Bedeschi: shiploader for Riga Bulk Terminal

Bedeschi, a renowned manufacturing and engineering company, works extensively in the grain sector. It has a global outlook, and is skilled in the design, production and supply of machines and integrated systems for grain handling and storage (shiploaders, ship-unloaders, belt conveyors, pipe conveyors, enclosed conveyors and any ancillary equipment).

Bedeschi has been awarded a new project to supply Riga Bulk Terminal in Latvia with a travelling, slewing and luffing shiploader, performing eco-friendly loading of grain at 1,200 tonnes per hour into vessels up to 60,000dwt. The shiploader will be similar to the one shown.

