

Autonomous Tensioning System With Optional Auto Drop Feature For Belt Cleaners

AU Patent 2017260567
US Patent 10829311

Autonomous Tensioning System

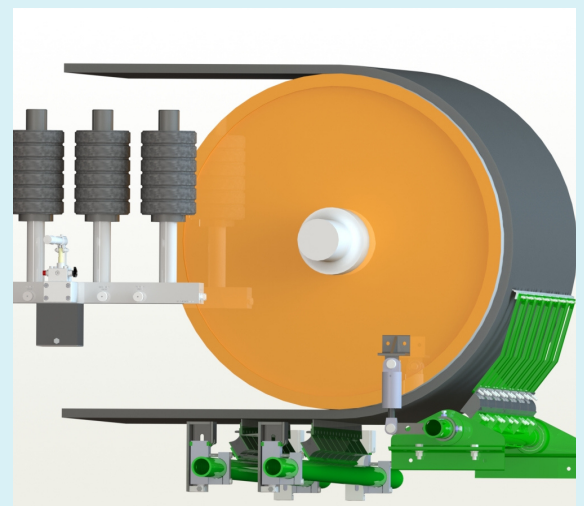
The Autonomous Tensioning System (ATS) is a unique, passive hydraulic system which optimises the performance of existing belt cleaner technology.

The system does not require any external power supply, making it both reliable and installation-friendly. It uses **gravity alone** to provide a constant applied force. The system floats up or down following variable belt profiles and uneven splices. This constant force maintains optimum cleaning performance of existing scrapers over periods of at least 12 weeks without intervention. With this system installed true value is yielded from the site's ongoing belt cleaner investment.



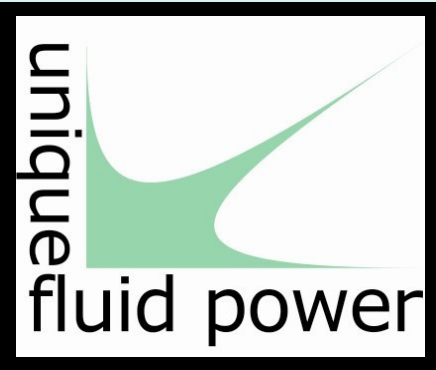
Key Benefits - ATS

- Safety improvements
 - Autonomous tensioner control
 - Reduced human intervention
 - Reduced formation of "widowmakers"
- Improved conveyor reliability
 - Repeatable and optimised belt cleaner loading
 - Reduction of carryback related failures
- Dust emissions reduction improves environmental compliance
- More saleable ore stays on the belt, thus increasing revenue:
on heavy carryback belts ROI can be <12 months



Installed on over 130 conveyors, of varying sizes.

Operating successfully in copper, bauxite and iron ore mines in
Australia & overseas.



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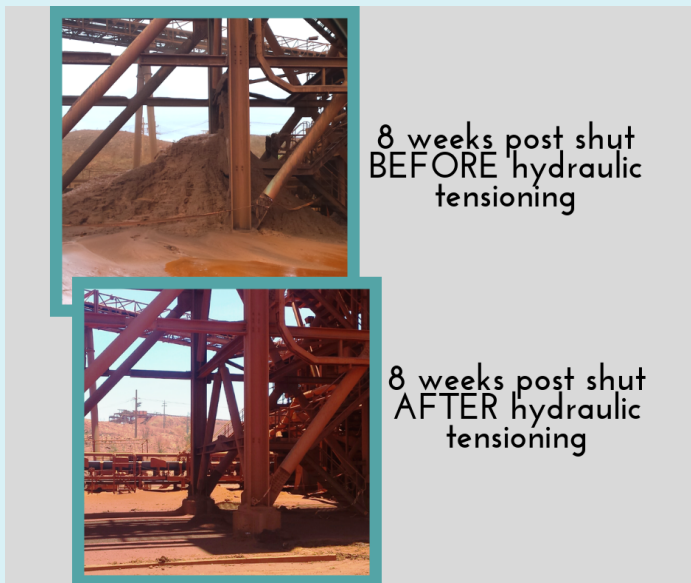
The belt cleaner Auto Drop System (ADS) has been designed to further optimise the performance of the ATS and the overall belt cleaning system. By introducing the ability to automatically and remotely remove the belt cleaners from the belt when not required it provides a truly targeted cleaning system.

By simply lifting the calibrated mass off the ATS it facilitates the complete relaxation of the associated belt cleaner. This is achieved without any change to the simple, robust, closed ATS hydraulic system. When the cleaners are required the ADS lowers the mass and the ATS rebalances itself providing the same optimum belt cleaner tension.

Key Benefits - ADS

- Safety improvement
 - Eliminates high blade temperatures caused by excessive empty belt running scenarios
- Improved conveyor reliability
 - Eliminates unnecessary wear and tear
 - Eliminates hot blade chattering

Auto Drop System



Additional info - ATS and ADS

- Primary and Secondary cleaner tensioners available.
- Secondary assemblies available in multiple formats to suit individual conveyor layouts and available space.
- Optimised with Belle Banne and similarly designed cleaners.
- Existing systems suitable for conveyor/belt widths of 900-3000mm.
- Commissioning service and comprehensive on-site training package available for this product.

Please contact us for more specifications:

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