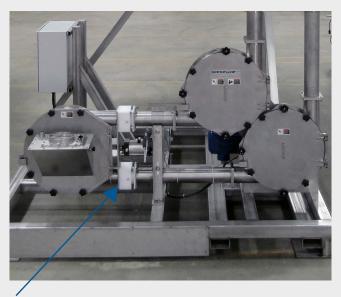
Technical
Data Sheet
#8002

For the Aero Mechanical Conveyor (UK Patent 1245509, US Patent 7,798,313)

The DART Automatic Rope Tensioner offers the ultimate in reduced maintenance and peace of mind for users of Aero Mechanical Conveyors.

Aero Mechanical Conveyors are effectively 'mechanical' pneumatic conveyors offering many advantages of vacuum conveyors but at a reduced capital cost. It also has reduced running costs and operates without the hassle associated with the filtration equipment required to separate your product from the conveying air.



DART Automatic Rope Tensioner

The addition of a DART Automatic Rope Tensioning device can prevent needless maintenance issues, particularly during the initial running-in period of the conveyor or critical 24/7 operation when correct tensioning of the rope assembly is essential to ensure smooth operation.

Regular inspection and maintenance are not always an option if resources are stretched, or if the conveyor is in an inaccessible location, so the DART automatic rope tensioner is a valuable option.

We have examples of well-maintained and tensioned aero-mechanical conveyors running for 15 years before spares parts are required.

The DART Automatic Rope Tensioner is offered in four versions:

1. Basic Model

Clean dry air, from 0.35 to 4 bar/ 5 to 60psi, is used to maintain a constant force in the conveying rope and disc assembly via a regulator. The pneumatic circuit maintains the force in the event of interruption to the air supply. Alternatively an optional pressure switch provides a signal which can shut down the conveyor until the air supply is restored.

2. Air Purged Seals

This option is essential where there is a likelihood of product becoming trapped in the sliding seals and thus compromising the effectiveness of the tensioning apparatus.

3. Basic Control Panel

This model has the benefit of sensors on the pneumatic cylinder that tensions the rope. These sensors warn that the inspection of the rope is required and warn when maximum rope stretch has been reached and that a replacement is essential. This panel can be offered complete with a Motor Starter for the conveyor.

4. Control Panel & Tension Feedback System

This model uses a load cell system that actually checks the tension is at the correct force. This is determined by the diameter and length of conveyor. It maintains it at a level by constantly adjusting air supply to accommodate changing conditions. This is especially desirable where the product or the ambient air is subjected to significant changes in temperature.