

HellermannTyton

How to Bundle Rail Vehicle Cables in Record Time and without Wasting Material

The millions of cable ties used every year in the manufacture of rail vehicles is a testament to their indispensable role.

But when you consider that it takes more than 10 seconds to apply a cable tie by hand, this is a significant amount of time for what is essentially a straightforward process. This begs the question: Is there a more efficient method for large-scale industrial use? Read on to discover a remarkably fast solution that can revolutionise this aspect of rail vehicle wire harness production.

HellermannTyton's ATS Flex bundling system is a real game-changer in mass processing of cable ties in wire harness production. Not only does it repeatedly complete a bundling cycle in a mere second, it also ensures consistent tying force and eliminates the risk of sharp edges that could potentially injure workers or damage wire insulation during assembly.

Looping, Threading, Tensioning and Cutting at the Touch of a Button

The ATS flex distinguishes itself through its operational simplicity – looping, threading, tensioning and cutting are all executed at the touch of a button. Unlike a conventional cable tie, the ATS strap and locking head are fed separately from two different dispenser reels. This innovative approach allows the tool to automatically feed the strap through the locking head and cut it precisely, ensuring no material wastage.

A key feature of the tool system is its mechanical diameter detection, which is critical to maintaining a



The ATS Flex with three different jaw sizes

Overhead suspension kit

secure fastener in the vibration-intensive environment of rail vehicles. The correct jaw size and speed are automatically determined during the set-up phase. The system is supplied with jaws in three different sizes: 30mm, 50mm and 80mm. These help to optimise the cycle times for different bundle diameters. A 100mm jaw is available separately for larger bundles.

The strap and locking heads are made from PA6V0, which is certified to the EN 45545-2 European railway standard for fire safety. The outside serration of the tie strap is particularly suitable for minimising the risk of damage in applications involving sensitive cable insulation.



Reducing the Cost of Material Waste

A major benefit of the ATS Flex system is its ability to drastically reduce material waste, in line with the wider environmental objectives of the rail industry. While trains are inherently environmentally friendly once in service, manufacturers still face challenges in minimising the use of resources during production. The ATS Flex addresses this by precisely optimising the length of the tie strap for each bundle, effectively eliminating the need for post-application material removal and the associated waste management processes.

This not only translates to significant savings in material costs, but also in the time and resources spent on waste collection, storage and recycling. By way of illustration, using the ATS Flex system can save approximately 100kg of strap waste compared to the use of 150,000 conventional cable ties, highlighting both the environmental and economic advantages for rail vehicle manufacturers.

Benefiting from Speed and Versatility

The versatility and speed of the ATS Flex make it an exemplary solution for high-volume industrial bundling applications. Its adaptability allows it to be seamlessly integrated into fully automated production lines, mounted on a workbench or used with an overhead

suspension device for manual handling, to suit a wide range of assembly environments. For organisations that use over 200,000 cable ties per year, the return on investment is rapid, with subsequent applications at a fraction of the cost.

In summary, the HellermannTyton's ATS Flex bundling system offers unrivalled efficiency, safety and environmental benefits for rail vehicle manufacturers. Its ability to speed up cable bundling processes while minimising material waste is a compelling reason for rail vehicle manufacturers to consider this technology.

Click [here](#) to find out more about HellermannTyton's portfolio of cable management solutions for the railway industry, or to request an on-site demonstration of the ATS Flex bundling system.

HellermannTyton manufactures cable management products for fastening, fixing, routing, connecting, insulating, protecting and identifying cables

www.hellermanntyton.com

HellermannTyton