

Case study

Temporary bundling in high-volume cable assembly environments

Reducing cost and waste in rail vehicle manufacturing with releasable cable ties

The challenge



Dense cable bundles during temporary installation phase

Single-use cable ties driving cost, waste and inefficiency

A leading rail vehicle manufacturer in Poland needed to improve efficiency and reduce the quantity of single-use ties used for temporary fastening during the assembly of electrical installations in the carriages.

In modern rail vehicle production, long and heavy cable harnesses must be temporarily secured during installation and testing before they are finally routed and permanently fastened.

This temporary fixing phase is critical. It must ensure safe handling of complex cable bundles while keeping assembly flexible. At the same time, it can generate significant material consumption and recurring costs if inefficient solutions are used.

Existing process was limiting flexibility and increasing rework effort

The existing process relied on single-use nylon cable ties for temporary fixing. This created several operational and cost-related issues:

- high material consumption and ongoing purchasing costs
- large volumes of plastic waste during installation and rework
- time-intensive mounting and removal during assembly
- risk of damaging cable insulation when cutting ties.

In high-density cable environments, such as rail vehicle interiors, these factors directly impact efficiency, safety and sustainability.

The manufacturer required a solution that could combine strength, flexibility and multiple-use, while supporting safe handling of large cable bundles under production conditions.

The solution

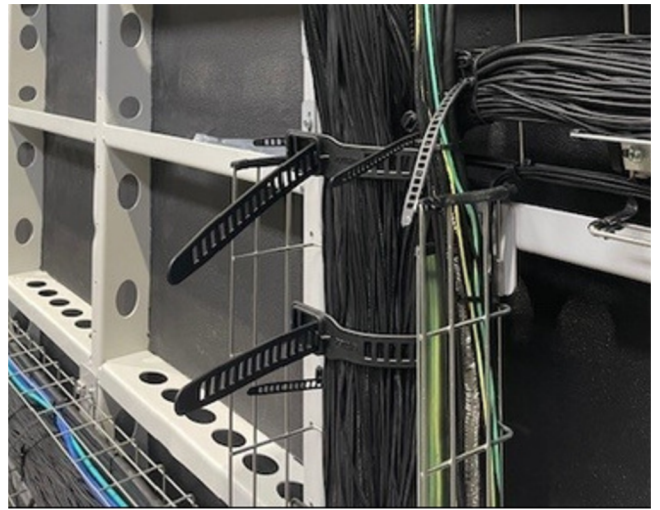
Releasable cable ties for flexible, temporary installation

Strong, releasable and designed for real production conditions

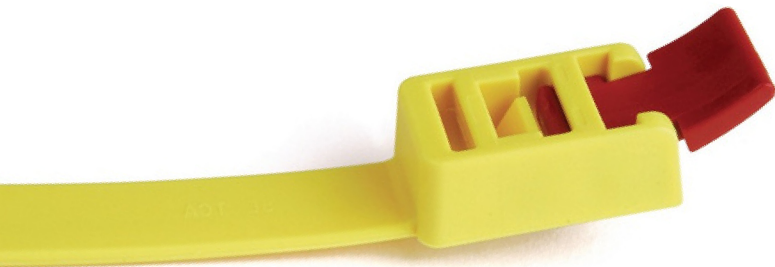
HellermannTyton introduced a multiple-use cable management approach using releasable SpeedyTie® and Softfix cable ties for temporary fixing during assembly.

The solution was nominated for several key reasons:

1. high tensile strength (large and heavy bundles)
2. releasable design (multiple reuse)
3. reduced risk of cable damage (no rework)
4. faster installation and removal (handling)



Harness routing with temporary fixing



SpeedyTie allows quick, one-handed release and repositioning, supporting efficient workflows during installation and testing.



Softfix complements this by providing gentle fastening with a degree of elasticity where protection of sensitive cables is essential.

Together, these fastening products deliver a durable and practical solution tailored to real production conditions, without requiring changes to existing tools or processes.

The result

Elimination of single-use cable ties for temporary assembly steps



Secure bundling of heavy cables during assembly

Measurable operational gains

Overall, the manufacturer achieved a more efficient, flexible and sustainable approach to temporary cable management, combining lower operating costs with measurable reductions in material consumption and waste.

The releasable fastening solution was introduced directly into existing assembly processes with minimal disruption. Assembly teams were trained in the correct use of the products, allowing a gradual transition away from single-use cable ties without changes to tools, layouts or production workflows.

The result was a rapid improvement in both operational efficiency and resource consumption. Installers could release, reposition and reuse fasteners whenever cable routing changes were required, reducing rework effort and supporting a more flexible installation process.

By replacing single-use cable ties used during temporary fixing and testing stages, the manufacturer eliminated approximately 70,000 cable ties per year.

The switch to releasable ties generated annual cost avoidance in the five-figure euro range, with the investment paying for itself in less than four months.

Proven long-term performance

More than a year after implementation, SpeedyTie and SoftFix continue to be used in daily production, demonstrating their durability under demanding rail vehicle assembly conditions.

This long-term use confirms the practicality of multiple-use fasteners for temporary cable management, while helping reduce plastic waste and support the manufacturer's efficiency objectives.

The result is a more efficient installation process that combines operational flexibility with lower material consumption.

**Contact us to benefit from our expertise
in solving your application challenges**



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