



Testing & Measuring Equipment

LA-CO Industries Europe

Solving the Two Biggest Challenges in Fastener Inspection

Fast curing times, fluorescent visibility and no harmful solvents: LA-CO Industries' latest innovation sets a new standard for fastener inspection across rolling stock manufacturing and maintenance, writes Géraldine Salesse, Marketing Manager, LA-CO Industries.

In the world of railway engineering every component matters. The operational integrity of a train relies on the performance of countless individual parts working in harmony. Among the most critical yet easily overlooked of these are the nuts, bolts and fasteners that hold vital assemblies together.

Subjected to constant vibration, mechanical stress and thermal cycling, these fasteners can loosen over time posing a significant safety risk. For decades maintenance and manufacturing teams have sought a simple reliable way to monitor these crucial connections. The answer lies in a highly effective visual inspection method using tamper-evident paint.



Industrial Marking Solutions

LA-CO Industries, a global leader in industrial marking solutions, has long provided the railway industry with its MARKAL Security Check Paint Markers. These markers apply a thick paint seal across a fastener and its adjacent surface creating a clear visual indicator.

If the fastener moves or is tampered with the brittle seal breaks providing an immediate, unmistakable sign that attention is required. This simple yet powerful tool transforms the complex task of torque verification into a straightforward visual check.



Now building on this legacy of safety, and listening closely to the needs of both OEMs and maintenance operators, LA-CO Industries is proud to announce the launch of its new and innovative SECURITY CHECK+ Fast Dry range, which will be officially presented at InnoTrans 2026 in Berlin. This next-generation product line's engineered to solve two of the biggest challenges in the industry: production downtime and inspection visibility.

The OEM Challenge

For OEMs and their suppliers, efficiency is paramount. On a busy production line where rolling stock components are assembled, waiting for a paint marker to dry isn't an option.

OEMs and their partners must comply with stringent safety standards set by rail operators. These often mandate the marking of all safety-critical bolted assemblies. However, a slow-drying paint can create a serious bottleneck, as you cannot handle a component or move to the next production stage if the markings are still wet.

The standard MARKAL Security Check Original formulation, while highly effective, can take up to a week to fully cure. In a high-throughput assembly environment factory floor workers reported this

could cause delays, and this feedback was the primary driver behind the development of the SECURITY CHECK+ Fast Dry formulation.

By re-engineering the paint's chemical composition, LA-CO Industries has drastically reduced the full curing time to approximately 48 hours. This allows OEMs to maintain production velocity without compromising on the quality and reliability of the tamper-evident mark. The result is faster return-to-service of equipment, reduced delays and improved productivity.

A Need for Visibility

Once a train enters service, the operational environment changes dramatically. Fleet maintenance teams face a different set of challenges. A train returning for a major service interval after hundreds of thousands of kilometres is covered in dust, grease and brake residue. Maintenance crews need to inspect an incredible number of marked fasteners, often in poorly lit conditions under the train or on the roof. Visibility is everything.

The SECURITY CHECK+ Fast Dry markers currently come in a range of vivid, high-contrast options including orange, pink, green, blue and yellow. However, visibility can be hampered underneath a train. To address this, LA-CO Industries developed new fluorescent colours for the range. When illuminated with a black UV torch, the fluorescent marks glow brightly cutting through the grime, making it incredibly easy for inspectors to spot a broken seal from a distance.

This is a game-changer for maintenance efficiency. Instead of painstakingly inspecting each bolt up close, a technician can quickly scan an entire bogie or roof assembly. It saves valuable time and reduces the risk of a loosened fastener being missed, which is fundamental for ensuring operational safety.

Innovation that Sets a New Standard

The development of the SECURITY CHECK+ Fast Dry range focused on meeting user needs without compromise. While other fast-drying markers exist on the market, they often come with trade-offs. Some achieve speed by using aggressive solvents which are

hazardous to user health and the environment, and are restricted in Europe. Others have a thin liquid consistency that fails to provide the thick brittle seal required by railway standards for a reliable check.

The new MARKAL formulation is unique. It delivers both fast curing times and enhanced fluorescent visibility while remaining free from harmful solvents and maintaining the essential thickness for a robust tamper-evident mark. This combination of features makes it the only solution on the market that effectively meets the distinct needs of both OEM production lines and frontline maintenance crews.

Partnership and Innovation

The launch of the SECURITY CHECK+ Fast Dry markers at InnoTrans 2026 represents more than just a new product. It's a testament to LA-CO Industries' commitment to partnership and innovation. We're not just selling a marker; we're providing a solution. We listen to our partners in the railway industry – from the engineers at Hyundai Rotem and Alstom, through to the maintenance teams at SNCF and Deutsche Bahn – and develop products that make their jobs safer and more efficient. This new range is a direct result of that collaboration and we're excited to share it with the industry.

As the rail sector continues to advance the fundamentals of safety and reliability remain the bedrock of progress. With the new MARKAL Security Check+ range, a simple line of paint continues to make a world of difference. Visit LA-CO at **InnoTrans at Hall 8.1, Booth 135**.

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