



# Growermetal's green and branded innovation drive

With a blend of sustainability, product development, and global reach, Growermetal SpA is strengthening its role as a trusted partner in the fastener industry, promoting a smart blend of technical know-how, research, and certified quality, according to the most demanding standards.

**A**t the heart of this approach is a constant focus on customer needs, combined with the innovative component of each solution. These two aspects go hand in hand with the company's commitment to sustainability in all internal processes, both in overall organisation and in the actual production of washers and stamped parts for various industries.

In fact, the adoption of ecological and responsible practices has become an essential part of Growermetal's *modus operandi*. This choice is driven by various factors, including increasingly strict sustainability regulations, a forward thinking company culture, operational efficiency benefits and cost reduction, enhanced environmental, social and

governance (ESG) governance, as well as specific B2B market demands, where environmental responsibility is a growing requirement that helps strengthen the trust between customer and supplier.

## A company built on sustainable transformation

This commitment led to the achievement of ISO 14001 environmental management certification in 2006, followed by ISO 50001 energy management certification in 2023. At the same time, Growermetal launched the Greenmetal Project, an internal management system aimed at aligning its environmental performance with four key pillars: supplier selection, careful choice of materials, process development, and resource optimisation. »



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» Among the most significant results, in the past year alone the company increased its renewable energy coverage with an additional 662kW of installed power from alternative sources, thanks to an expansion project of its photovoltaic panel coverage, reaching a milestone of 728,200kWh/year produced. Shifting the focus on energy efficiency, in the last twelve months Growermetal recorded a reduction of 20% in kWh per kg processed in the heat treatment department, along with recovery of heat from production processes, reused to heat company premises in winter.

Another improvement was in waste management, with the complete elimination of single-use bottles for general detergents and the recycling of 90% of plastic waste, which was regenerated and turned into new bags. Remarkable results were also achieved in water saving, with an 11% reduction in mains water usage thanks to rainwater reuse.

### Innovation strategy: From design to application

The increasing focus on sustainability has naturally influenced Growermetal's product strategy, with R&D gaining strong momentum especially starting in 2019, when the Grower TenKeep® safety washer was launched, marking the beginning of Growermetal's exclusive product line.

Since then, the company has promoted increasingly ambitious projects, forging partnerships with innovation oriented organisations. Notably, Growermetal was a founding member in the creation of a new research centre based on the Open Innovation concept, in collaboration with Politecnico di Milano and other local industrial players: The Joint Research Center MATT – Metal and Transformation Technologies. Meanwhile, Growermetal began expanding its target market to some of the most challenging industries, including aerospace. This led to the company obtaining EN 9100:2018 certification for the aerospace industry in 2021, followed by its entry into the Lombardia Aerospace Cluster in 2023.

More recently, the opening of the GIC – Growermetal Innovation Center – at the end of 2024 expanded the company's R&D capabilities, which have long fuelled the development of advanced and increasingly high-performing and sustainable solutions, positioning Growermetal among the technological pioneers of the fastener sector. Among the latest areas explored, special focus has been given to e-mobility, with the launch of dedicated products for electric vehicles and the implementation of lighter washers made from innovative materials and designs.

### Exploring new boundaries through product design

As a direct result of the increasing investment in R&D, Growermetal has boosted its production capacity both in terms of operational efficiency, thanks to a fully in-house centralised system and innovative solutions. The branded product line has expanded following two trends – the desire to enhance the performance of standard products, as well as the development of unique solutions based on specific customer needs and challenges in different applications.

With six exclusive designs, the fastener collection now includes washers and parts for aerospace, automotive, rail, industrial, construction and more:

- + **Grower TenKeep®**: Launched in 2019 and awarded third place in the prestigious Route to Fastener Innovation competition, this flat safety washer features serrations with different geometries on both sides. Its unique design ensures excellent anti-loosening performance for bolted joints even under extreme vibrations and dynamic loads, offering strong mechanical resistance without damaging the contact surface.
- + **Grower SpheraTech®**: This innovative washer set, launched in 2022, is made of inseparable components: a spherical top washer and a flat washer with a conical seat. This combination ensures secure tightening on non-parallel surfaces with up to 3° tilt, preventing joint damage due to bolt head or shank bending. For its characteristics, the inseparable set also earned second prize in the 2023 Route to Fastener Innovation competition.
- + **Grower Reaction®**: Designed to work in combination with Grower TenKeep®, this washer provides a fully concentric dispersion of reaction torque around and beneath the nut or bolt head being tightened or loosened, eliminating the need for a reaction arm. This enables safe and efficient installations even in hard to reach areas, making it the ideal solution for heavy-duty, petrochemical, mining, oil and gas, and earth moving applications.
- + **Grower Detecto®**: It features a smart sensor embedded in the washer body that remotely monitors bolted joints via Electromechanical Impedance method. The algorithm collects and processes data, using a trained model to issue alerts, significantly reducing the cost and time of manual inspections.
- + **Grower OhmLock®**: The first branded product specifically developed for electric mobility was launched at the IZB in Wolfsburg in October 2024. This washer is designed to fasten EV battery packs and features two surfaces with different geometries (upper serrations and lower dimples). Made of hardened and tempered carbon steel, it effectively prevents oxidation, offers high resistance to loosening from vibrations and stress, and ensures consistent current flow with no energy loss, striking the perfect balance between corrosion resistance and electrical conductivity.
- + **Grower Econical®**: The newest addition to Growermetal's product family, unveiled in March at the Fastener Fair Global in Stuttgart during the brand's 75<sup>th</sup> anniversary. As a natural evolution of the brand's growing eco-focus, Grower Econical® is a green version of standard conical washers being 20% lighter with a 15% increase in residual deflection and a 25% improvement in uniform load distribution. It features a sigmoidal design that minimises the risk of indentation and surface damage. These attributes earned it the top prize in the Route to Fastener Innovation competition.

Through its extensive washer range and branded line, Growermetal continues to view progress not as a destination, but as a responsibility. By combining research, sustainable goals and customer orientation the Italian company keeps turning challenges into structured initiatives, reaffirming its commitment to delivering long-term value through informed choices and forward looking action. +

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