

Growermetal's commitment to safety has contributed to the development of innovative projects and new designs. The Fastener Fair USA in Nashville, Tennessee, from 16<sup>th</sup> – 17<sup>th</sup> May, will be another occasion to showcase the latest technologies of the Italian company.

how even the smallest detail plays a key role in enhancing safety and Growermetal is well aware of this fact.

Since 1950 the Italian company has worked to provide high-quality safety washers, railway washers, and blanked parts, to its local and international customers. Throughout this time, the company has guaranteed it meets the most demanding standards by putting innovation at the centre of its strategy, combining it with a full range of internal departments, such as treatments and coatings, production and testing, material selection and storage services.

astening solutions and parts are the perfect example of

In this journey, the attention to the latest trends has sustained the growth of the business, making the company one of the leaders in a variety of areas. Thanks to this, and after more than seventy years of history, Growermetal delivers its service worldwide, bringing integrated and innovative solutions to the European and global markets.

To allow clients to make an overview and experience the results of this process, trade shows represent one of the most strategic occasions for the company. Among the next events on the global scale, Growermetal will soon travel to North America, to attend the Fastener Fair USA, stand 722, which takes place from  $16^{\rm th}-17^{\rm th}$  May 2023.

## **Fastener Fair USA: An overview**

Fastener Fair USA is one of America's most important shows dedicated to the full scenario of the supply chain and distribution, addressing mechanical and design engineers, purchasers, wholesalers and OEMs but also master distributors, equipment makers, processors and end users.

The variety of the proposal extends to the sectors involved, with companies and products from every segment, including aerospace, automotive, construction, furniture, appliances and other fastener professionals.



Growermetal stand: 722

With such a proposal, Fastener Fair USA also represents access to the latest industry trends, which attracts an international audience and provides a platform where Growermetal will be able to connect with other experts and show the potential of its solutions to visitors, providing an insight into its developments.

## The latest innovations and solutions

With an exclusive set-up, stand 722 will be the perfect stage to present Growermetal's services along with its latest products. During the fair days, a great focus will be reserved to the functions and characteristics of new washers and parts, with a preview of the recently developed fastening technologies.

However, there will be space also for the other flagship products that represent Growermetal's fastener range, which includes more than 4,500 standard washers and more than 2,500 different customised parts. A portfolio that includes the more diverse applications, ranging from the automotive and railway sector to the aerospace and electronic segments. This vast array of services and products is the result of Growermetal's innovation strategy, sustained by the continuous investments in research, testing and cutting edge technologies, but also by a completely in-house manufacturing model.

Aware of the market's trends and eager to provide compelling solutions to its customers, during recent months all Growermetal's departments have been focusing on R&D, working on the different fields related to the company's production – including the electric vehicles industry and the busbar for EV batteries projects.

## A complete collection for the electronic industry

Within the electromechanical and electronic segment, Growermetal produces a series of standard washers and parts, according to customers drawings, in different raw materials – such as heat treated carbon steel, stainless steel AISI 304 and 316, copper, brass and bronze – which includes:

+ Electric terminal washers: The square or rectangular geometries of Growermetal's special electric terminal washers for SEMS and metric are the most suitable to offer a user-friendly fixing and an improved electric wire clamping. The combination of the screw and the square washer makes the fixing of wires in electrical facilities particularly easy and these products allow a good performance for the crimping of electrical appliances, such as switches and terminal blocks. Thanks to the distinctive flat or 'roof' shapes, and with ribs on

the underside, the range enables safe clamping of different sizes of cross section electric wire – with the possibility of the maximum personalisation according to customer specification.

+ Conical elastic washers and
Sperrkant washers: The
designs of the conical
elastic contact and
conical elastic Sperrkant
washer range offer an
elastic preload in a bolted
joint connection – reducing
the risk of unwanted loosening.
These products are indicated whenever

it is necessary for vibration resistance, whilst preserving the bearing surface from damages, but also for applications where parts are subjected to temperature variations or in presence of slotted holes. This performance is guaranteed by the combination of the ribs on the upper surface of the washer and its conical geometry, offering washers which are also ideal for applications with hexagonal bolt head screws, flanged bolt head or oversized holes and socket head screws.

+ External and internal teethed lock washers: When it comes to electrical applications, the teeth of the external teethed washers and internal teethed washers

the connection with products that are suitable for light applications, and soft materials, such as mild steel, aluminium or plastic. The design of these ranges, with a geometry according to the DIN 6798 and DIN 6797 standards, is made of teeth respectively on the outer profile of the part or extending inwards

from the inside edge of the washer – offering an effective action against loosening. For external teethed washers, this effect is maximised on flat bearing surfaces that are larger than their outer diameter, whilst internal teethed washers are recommended when the head of the bolt is smaller than the external diameter of the washer and are effective in particular on non-flat bearing surfaces.

+ Internal-external teethed lock washers: In this particular category, washers are characterised by the presence of teeth

extend both inward from the inside edge of the washer and on the outer edge. A geometry that makes these products highly effective on flat bearing surfaces. when the diameter of the bore is significantly larger than the diameter of the screw. Thanks to the teeth that bite

into the bearing surface and the underhead of the bolt, the design of Growermetal's internal-external teethed washer opposes to the

teethed washer opposes to the loosening force.

"When it comes to washers for

"When it comes to washers for electronic applications, the strength of the complete range lies in the flexibility of the proposal; the quality of the treatments; and the possibility to manufacture special items according to the customer's needs. Characteristics that have contributed to the creation of long-term partnerships, keeping Growermetal up with the times," explains Paolo Cattaneo, CEO at Growermetal SpA.



Growermetal delivers its service worldwide, bringing integrated and innovative solutions to the European and global markets."

"Fastener Fair USA will be an occasion to build new networks with colleagues and make new contacts. It will also be the final chapter of Growermetal's Fastener Fair tour after the Italian edition and the global event in Stuttgart. The US show will not only provide a unique setting to get in touch with the latest developments in the industry, but also represents a stage to share skills, ideas and projects with other international leaders. Aspects that Growermetal holds in high regard, in order to grow and innovate its business model."

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