

APPLICATION TECHNOLOGY

FASTENING SOLUTIONS FOR ALL INDUSTRIES

AUTOMOTIVE FEATURE

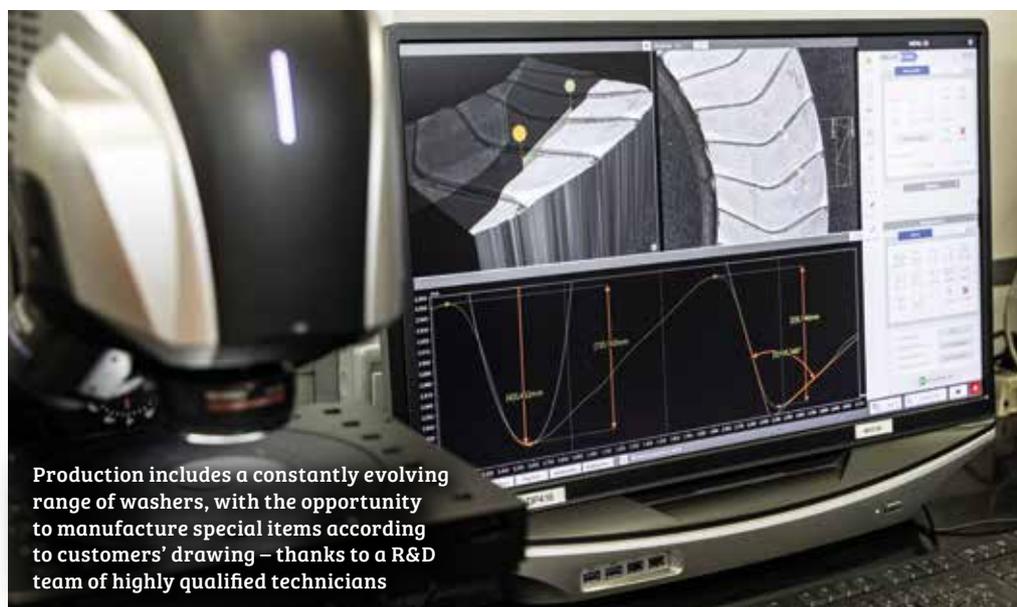
Reliably meeting the needs of the automotive industry

While automotive suppliers all over the world are facing an evolving array of issues and challenges, Growermetal is able to support customers with a high variety of safety washers, and blanked parts, that provide the best solutions in terms of quality, flexibility and accuracy.

Over recent years the automotive industry has been called to face many challenges, from technical and environmental implications, to the consequences related to the Covid-19 pandemic outbreak, as well as the impact of the Ukraine crisis.

While the dynamic market is bringing a relevant change in business manufacturing, global companies such as Growermetal SpA are reacting with solid efficiency, technical know-how and a natural inclination to innovation – in order to confirm its good market position and establish once more its reliability for every customer and partner looking for the best fastening solutions.

The Italian company has always been highly specialised in the production of safety washers and blanked parts, shaping a new definition of safety since its origin in 1950. From »



Production includes a constantly evolving range of washers, with the opportunity to manufacture special items according to customers' drawing – thanks to a R&D team of highly qualified technicians

EXPERIENCE DRIVEN BY INNOVATION



o ahead.

Take part in a world of safety.

With 70 years of experience, 4500 standard products and 2500 special parts created according to customer drawing, we manufacture washer solutions for the most challenging Automotive applications.

A certified range according to IATF 16949 standard, with a process that meets the requests of the most demanding regulations.

All this makes Growermetal a reliable partner, providing efficient products to the fasteners market. A knowledge inspired by innovation.



APPLICATION TECHNOLOGY

» that moment on, Growermetal has been run by the Cattaneo family, with the company inheriting the same vision of the founder Virginio Cattaneo – to provide an extended product portfolio suitable to a great variety of applications, with 100% Growermetal quality.

“Nowadays, after more than seventy years of corporate history and innovation goals, this purpose continues to be the business’ main strength, with products used in a variety of different applications – supported by a delivery service and a distribution that covers the European and global markets,” explains Paolo Cattaneo, CEO of Growermetal.

Certified solutions and treatments

Within the automotive industry in particular Growermetal has developed a great level of specialisation, reaching many important objectives by using its certified management system according to IATF 16949 – a technical requirement for the automotive sector that helped the company align itself to the requests to develop and manufacture products for automotive applications.

Another key part of Growermetal’s capabilities is represented by its in-house treatments, with a modern plant where zinc flake coating is carried out. The coating line has been specifically designed and constructed for carrying out surface coatings on washers, in order to achieve the best results both from an aesthetical point of view and in performance. The company uses exclusively original Dörken products that ensure high-quality and high performance coatings, offering a choice of different solutions of base coats such as DELTA-PROTEKT® and DELTA-TONE®, as well as a range of top coats including the DELTA-PROTEKT® VH range.

“All these acknowledgements, together with the capability to provide skills, experience, accuracy and consistency in every project or aspect of production (from the design of the single part to the delivery service), have contributed to Growermetal setting a whole new standard in the automotive industry,” points out Paolo.

One final aspect that helps Growermetal stand out as a state of the art fastening system is its ability to work with customers on specific requests. “Being able to work alongside customers and develop innovative solutions is what truly puts Growermetal above the rest. Our production includes a constantly evolving range of washers, with the opportunity to manufacture special items according to customers’ drawing – thanks to a R&D team of highly qualified technicians.”

Discovering the complete range for automotive applications

Growermetal will be showcasing its authority as an automotive industry supply at IZB, the European trade fair for suppliers of the automotive industry, which will take place in Wolfsburg, Germany, from 11th – 13th October 2022. At the show the company will display its wide range of fastening solutions and products, including some of its flagship washers and parts, which includes:

- + **Flat captive washers for screws and nuts:** As the most common type of washers, round flat washers represent a versatile option for the broader uses. Located under the head of the bolt or under a nut to provide a greater load bearing surface, they prevent surface damage and embedment from nuts and bolts – providing at the same time a consistent surface for more predictable joints.
- + **Ribbed flat washers:** Flat washers with radial ribs and serration on one or both surfaces are used in the automotive industry in presence of soft bearing surfaces such as aluminium and plastic. Ribbed flat washers are then suitable for bolted joint connections in applications such as car body, engine, gearbox and other components, with teeth locking the washer on the bearing surface during tightening and preventing the screw from damaging it.
- + **Conical elastic washers for screws and nuts:** Thanks to the combination of the elastic compensation of expansion



Among the latest products introduced in the Growermetal washer family there are high thickness and precision flat washers

and contraction with the elimination of play, conical elastic washers are able to prevent loosening of assemblies. Designed to accommodate static loads, these products are ideal for applications requiring low vibration resistance and parts supporting temperature variation.

- + **Eccentric washers:** In the automotive industry, eccentric or cam washers are used in car and van suspension systems. The hexagonal hole washer is mounted and blocked on the underhead of the screw, while the counter washer is mounted in the two grooves of the bolt’s threaded part by the OEM during the assembling process of the car.
- + **Crown lock-washers for shaft:** Characterised by a great ease of use and affordability, crown lock-washers for shaft are ideal for the many applications where it is necessary to position and securely retain a bolt or screw until a nut is applied at a later stage to complete the assembly. When a nut is applied and tightened, the teeth on the retainer set-up a strut action that resists any loosening or back-off rotation.
- + **Corrugated elastic washers:** Providing slight to moderate spring forces, these products are designed to compensate for axial play and misalignment of an assembly and to reduce the risk of disassembly. Growermetal’s selection of corrugated elastic washers is subdivided into two different types of products, according to the material and type of application. In details, corrugated elastic washers are ideal for soft materials like copper, aluminium and plastic, while corrugated elastic damping washers compensate for axial play of a component.
- + **Cup washers and washers with special geometries:** Growermetal’s cup washers and washers with special geometries are particular products engineered and manufactured according to customers’ technical specifications and drawings. Cup washers are normally preassembled to nuts prior to the use by the automotive OEM.

The ultimate washer solutions

In addition to the wide portfolio of standard products, Growermetal has invested in its R&D department, in order to develop and design cutting edge fastening systems. The ultimate products developed by the company’s experts include special blanked and bended parts, high thickness and precision flat washers, EPDM and plastics moulded pieces and parts with glued EPDM inserts.

Special shaped blanked and bended parts

Thanks to its in-house process and experienced technicians, Growermetal designs, manufactures and engineers shaped blanked and bended items, according to customers’ specifications and drawings. This allows the maximum customisation of every part produced, creating the most suitable blanked and bended parts.

High thickness and precision flat washers

Among the latest products introduced in the Growermetal washer family are high thickness and precision flat washers –

special products engineered and manufactured by the company according to customers' technical specifications and drawings – to guarantee the best performance for different applications. These items are particularly suitable and widely used in the automotive industry and represent the most recent example of Growermetal research.

EPDM moulded part projects and parts with glued EPDM inserts

EPDM (Ethylene Propylene Diene Monomer) is a popular elastomer that offers a superior resistance to extreme outdoor conditions. Thanks to a composition developed with a sulfur or peroxide cure system, EPDM compounds show a great resistance to high temperature and an improved compression performance. Due to these characteristics and benefits, the company develops and designs moulded part projects where the washer and the EPDM part are co-stamped. In order to complete this new product range Growermetal can also manufacture with, when feasible, the EPDM inserts glued onto the metal piece. The gluing of EPDM inserts is carried out completely in-house, thanks to the latest cutting edge engineering robotic technology.

“Accuracy, consistency and flexibility are the main values of the assortment of automotive washers, which are the true expression of the company’s goal to fulfil the present and future needs of the industry – meeting automotive manufacturers’ expectations,” concludes Paolo. “This is a continuous evolution that is guided by experience and boosted by innovation, shaped to face every challenge.” +

www.growermetal.com



Other solutions introduced in the Growermetal product range include EPDM moulded part projects and parts with glued EPDM inserts

“Interesting industry alternatives”

“Insightful”

“Thought provoking”

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