



Full-spectrum services and washer solutions

Guided by a long history in the fastener sector, and an innovation-oriented approach, Growermetal is able to supply its products to international customers – combining a wide range of parts, coatings and in-house services.

When Virginio Cattaneo founded the first site of Growermetal back in 1950, the company was a family-run small business in the north of Italy. The first expansion phase started in 1962, with the transfer of the headquarter to the current site in Calco, followed by a further evolution in the late 1960s. The constant growth experienced by the Italian manufacturer led to the Growermetal name becoming popular within the sector by the beginning of the new millennium – resulting in two sales sites being established overseas in 2014 and 2016, respectively located in the USA and in Brazil.

Today, more than seventy years later, Growermetal is one of the leading washer manufacturers and suppliers, serving international brands in the automotive, aerospace, railway, power generation, electromechanics and construction markets, as well as various other industries. How does a business maintain such a reputation in a challenging and ever-evolving sector?

“It is no surprise that the standards and requirements of the market pay particular attention to the safety, competitiveness and performance of the fastening solutions available,” says Paolo Cattaneo, CEO of Growermetal SpA. “In a scenario characterised by constant change, we are committed to delivering the best possible services and products in order to boost the business of our customers.”

To answer the needs of the market, there are several forces in action. “Offering a solid heritage is one thing, but it is not enough. Our purpose is to combine the long experience gained as a washer manufacturer, with the ambition to explore new possibilities for the market – working side by side with customers and their teams to define the most suitable solutions for every application.”

An integrated process for every need

In order to achieve these goals, Growermetal’s production processes provide different services – ranging from manufacturing

to storage, all developed in-house. This centralisation of resources brings many advantages, such as allowing Growermetal to deliver solutions in shorter times, operating with flexibility, and allowing interventions during manufacturing, in order to prevent problems and monitor every piece produced.

The proximity and synergy between the departments has also contributed to the expansion of the washer range, which includes more than 4,500 standard designs divided into two main families of products – blanked parts and products made of wire – which are suitable for different application fields. Nowadays, Growermetal’s portfolio includes teathed and toothed washers with internal or external teeth, safety washers, conical elastic washers, conical ribbed washers, flat washers, coiled spring washers, spring washers for railway applications, corrugated washers, electric terminal washers, spherical washers, sealing push-in caps and other designs – all available in different materials, including carbon steel, stainless steel, aluminium, bronze, copper and other alloys and raw materials upon customers’ requests.

In addition to the different types of washers, Growermetal offer is completed by pushing caps, metallic parts with EPDM inserts and special blanked and bended parts, as well as a collection of more than 2,500 washer designs produced exclusively from customers’ drawings.

Coatings and treatments to boost performance

Washers are often used in challenging environments, such as infrastructures subjected to extreme conditions, high vibrations and dynamic loads. In these contexts, long-lasting performances and secure joints are essential.

“Inside Growermetal we can handle and manufacture a great number of washers, according to the requests received, whilst guaranteeing full compliance to demanding standards,” states Paolo Cattaneo. “One of the most relevant benefits related >>

» to our production is the opportunity to provide a full spectrum service to our local and international customers, which includes a number of coatings and special treatments aimed at improving the characteristics of the material used; the durability of the washers; and their resistance.”

In addition to outsourced processes such as galvanic zinc plating, zinc nickel plating, nickel plating, copper plating and phosphating, Growermetal also provides heat treatments and two extra in-house coatings – mechanical zinc plating and zinc flake coating – with two production lines specifically designed to process washers and flat parts.

Since 2009, Growermetal has carried out the mechanical zinc plating inside a modern plant and using exclusively original MacDermid® chemicals. The process earned Growermetal the ‘Technology and Innovation’ award at the Surface Expo in 2010 followed by another acknowledgment in 2016, when Growermetal was approved as a unique plater in the Europe, Middle East and Africa (EMEA) markets for the mechanical zinc plating process, according to the automotive standard FCA PS.50042.

This allows Growermetal to add a superior quality to its range of washers and also to meet the needs of third parties – making the treatment available for its products. Talking about the characteristics of the treatment, this high-quality and high performance anticorrosive coating brings many benefits, including hydrogen embrittlement prevention; the absence of sticking parts; uniform coating; outstanding corrosion prevention; good electrical conductivity and low energy consumption during the process.

When it comes to zinc flake coatings, the fully automatic line at Growermetal enables it to merge a versatile range of high-quality zinc flake coatings with the ability to accomplish the requests of customers in shorter times. In order to ensure the best solutions, the company uses exclusively original DÖRKEN products, which include a choice of different solutions of basecoat (e.g Delta-Protekt® and DELTA®-TONE range) and top coat (e.g Delta-Protekt®VH range).

This leads to a coating characterised by high cathodic protection level, long-term corrosion resistance, thin and uniform layer thickness, high resistance to chemical products, protection from mechanical impacts and good electric conductivity, with the possibility to modify the friction coefficient according to the requirements.

Innovation and digitalisation at customers service

Growermetal investments have also combined with a constant focus on innovation, an approach that has contributed to the company’s evolution from many points of view, as underlined by



Paolo Cattaneo: “Growermetal’s innovation strategy involves our equipment and process, but also new partnerships and products, with the creation of a branded line of exclusive designs developed by our R&D team. This process should not be seen as a radical change in our production – where our washer line still constitutes the core of the business – but as a strategy to bring greater safety, reliability, and efficiency, and keep up with the latest market trends and developments.”

One of the main effects of this approach was Growermetal’s entry into projects like the Joint Research Center MATT – Metal And Transformation Technologies in 2020. Born from the partnership between the Politecnico di Milano and other companies, the project is based on the concept of open innovation, with the objective of developing research through shared knowledge and tools.

Talking about the new opportunities, digitalisation is at the center of some of the most recent experimentations, which included both product development and data processing. With regard to the implications of digitalisation in process improvement, Growermetal is implementing new digital data collection systems at various production stages. Through the constant recording of data and monitoring of the activities, this system helps Growermetal’s team in preventing problems and non-conformities – improving the manufacturing process.

“Traceability helps during the different steps of the service from manufacturing to the storage and transfer of finished products, with different positive effects concerning productivity standards. In particular, in applications that require superior levels of safety, the integration of software improves precision and efficiency, boosting the business of our customers,” explains Paolo Cattaneo.

The adoption of these technologies opens up great opportunities also in facing the environmental challenges. When it comes to sustainability, digitalisation at Growermetal has contributed to lower the energy demand, reducing resource consumption whilst boosting productivity. “As a company increasingly focused on sustainability, it’s our duty to embrace change exploring the opportunities linked to digital transformation,” says Raffaele Motta, Growermetal’s HSE manager. “Our ambition is to align our conduct to the evolution of these technologies, finding new ways to create a more transparent, responsible and efficient productive model. Now we are already seeing the benefits of this digital evolution in Growermetal, with many sustainable positive results both from the economical point of view, through more efficient production, and the environmental side, with a remarkable reduction of our impact.” +

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