

Doors, technology and design

With a successful history of 17 years, Metallarte is specialized in the design and creation of entrance doors, pre assembled panels, pre assembled alu frames for caravans and motorhomes. A specialist in aluminum, it also creates luggage racks, exterior ladders, bunk ladders for the lofts, slides for the shower doors, underbody frames and steel hinges



Metallarte is an international company specializing in the design and production of doors for the recreational vehicles. The Italian company is able to provide pre assembled panels, preassembled alu frames and complete doors thanks also to its collaboration with qualified external providers. It is important to remember, in fact, that in the area of Val D'Elsa in Tuscany numerous businesses have developed linked to the birth and development of several of the most famous brands of campers and caravan that have done the caravanning history in Europe. The entrance doors are designed entirely by Metallarte, who collaborates actively with specialized design studios. The project may also be carried out all the way to the plans necessary

for producing the thermoforming molds for the interior panel. The doors of Metallarte are distinguished by numerous qualifying factors: a high level of personalization, flexibility and innovative technologies in production and assembly (such as gasketing).

Among entrance doors and service doors and other products for the OEM market, Metallarte today supplies the largest manufacturers of recreational vehicles: the brands of the French group, Trigano, Sea, Rapido; the Slovenian brand Adria; almost all of the Italian brands, among which Laika stands out; Auto Trail in the UK and several manufacturers in Australia and New Zealand.

Metallarte also specializes in the production of luggage racks, exterior ladders, bunk ladders for the lofts, slides for the shower doors, underbody frames and steel hinges. It is capable, moreover, of creating alu frames for entrance and service doors with exceptional measures up to 2.5 meters x 1.5 meters.

Innovation and evolution

Metallarte is created in 1996 and begins a pattern of growth in the caravanning sector. In 2003 saw a positive impulse with the arrival of Michele Checcucci, who is the main shareholder and CEO. The company strategy of the new administrator is based on a profound knowledge of the market and the needs of the OEM sector. The strength of the new management soon became its maximum flexibility and speed in responding to the needs of the clientele through a fast decision making processes and an operative philosophy of efficiency without ever neglecting quality. In order to create a sample, just hours rather than weeks are necessary. In 2005 Metallarte obtained the certification UNI EN ISO 9001:2000 (the so-called Vision 2000) that, not only guarantees the quality of the product process, but also enhances the indicators of efficacy/efficiency and implies investigations of customer satisfaction. The productive establishment is developed in two warehouses for a surface area of 3,800 square meters entirely covered with photovoltaic panels able to deliver power of up to 270 kW. The company has approximately 28 employees.

The 4-axis production centre, which has a useable surface of 7.6 meters by 0.50 meters, allows the possibility of any type of mechanical process while at the same time guaranteeing extreme precision. There are, however, many modern instruments utilized in the productive process, such as the saw for the aluminum double headed, the three-axial "CNC" folding machines, the "clenching" method (a method of cold welding that allows the assembly of plates through a local warping of the materials) and two machines for the FIPFG (formed-in-place foam gasket), an innovative system for the creation of seals adopted by Metallarte and applied to the doors for campers and caravan.

FIPFG (formed-in-place foam gasket)



Michele Checcucci,
CEO of Metallarte

“Our unique aspect is that of having optimized the process of production through gasketing - says CEO of Metallarte, Michele Checcucci - We are able to provide pre assembled entrance or service door. Basically, a semifinished product that does not need adhesives”. The process of “gasketing” implies that the foam seals are foamed directly onto the part by using the FIPFG (formed-in-place foam gasket) technology. The systems consist of a resin and a hardener which are mixed together at a prescribed ratio. This produces a flexible sealing foam within a few minutes. After the polymerization the seal is dry to the touch and the piece is able to be assembled.

“We have patented the application of this technology to our pre assembled entrance and service doors in the RV sector. And we have patented as well the vacuum mounting system - continues Michele Checcucci - One of the two machines dedicated to the FIPFG process deposits a layer of polyurethane liquid on the internal part of the frame in aluminum. This substance solidifies in a short time, maintaining the characteristics of compressibility and elevates weatherproofing. It becomes, therefore, a complete anti-infiltration seal placed between the “sandwich” panel and the frame. With this system we have abandoned the use of glues, even if for some manufacturers we continue with the traditional method”.

The “sandwich” panel is placed in the frame on the work desk. Here a pump creates the vacuum and allows the panel to adhere perfectly to the seal. The whole is then assembled through the metallic platelets fixed with O-ring rivets.

“This process of vacuum assembly allows us to verify the perfect tightness of assembly - continues further Michele Checcucci - In order to obtain the complete weather proofing we added an O-ring to each rivet, relying on a special machine for this combination. For many clients we produce the pre-assembled panels with this technique. For others we supplied the know-how to create the assembly directly at their plants, providing the necessary components and, if necessary, also the work desk with the pump for the vacuuming”.

