

## Shaping the impossible

Vsystem specializes in the manufacturing of products obtained via plastic deformation and welding, the construction of elements that are geometrically complex, with limited tolerances or in exotic materials, such as titanium and nickel alloys, special/stainless steels, and the bending of thin-walled tubes in nickel and titanium alloy. Our manufacturing strengths include solutions relating to hydroforming, thin-walled tube bending, and precision welded joints, the quality of which are reinforced by the state-of-the-art technology Vsystem can offer and the continuous updating of solutions, personnel, and quality processes within the company.



## TECHNOLOGY

Motorsport, F1, aerospace, defense and medical are all sectors in which the need for expertise, ongoing excellence and cutting-edge technological solutions are the norm. Vsystem supports its clients on their continual innovation path by producing:

### TUBE BENDING

Vsystem specializes in the bending of thin-walled tubes (within the range of 0.6 to 1.2 mm) in nickel and titanium alloys that is done using the latest-generation all electric 9-axis tube bending system.

Equipped with appropriate tools developed in-house, the machine allows for the manufacturing of complex parts with a radius/diameter ratio equal to 1:1 and no straight parts between the curves. The maximum bendable outer diameter equates to 80 mm.

### HYDROFORMING

Hydroforming is a manufacturing process which uses a high-pressure fluid to achieve the plastic deformation of tubes. This method makes it possible to obtain components with localized section variations along the tube's entire axial length.

This technology is ideal for tubes with complex geometry that must satisfy very strict dimensional requirements and fluid dynamic configurations.

### WELDING

Our staff, who possess TIG welding certificates for nickel and titanium alloys and stainless steels, have ten years of experience welding all types of materials with this technology. We are able to carry out the manual and automated welding of steel, stainless or otherwise, aluminum and magnesium alloys, and titanium and nickel alloys.

Welding cabins are also available for the creation of joints in a totally inert atmosphere.

## SERVICES

Our clients can take advantage of our technology and expertise with a view to: co-design and feasibility studies, equipment design, dimensional tests, non-destructive tests, macro- and micro-graphic analyses of the welded joints, and seal tests.

## THE VECA GROUP



Veca Group is an Italian industrial firm that produces individual mechanical components and assemblies according to client specifications, carrying out functional testing in-house. The Group's rapid supply chain is guaranteed by its companies, VECA, Vsystem, RETME, AMT, and IMAR, specialists in hydroforming, the processing of special materials, grinding, additive manufacturing, milling, and turning. Sixty years of experience, a full range of expertise and the Group's internal production chain allow Vsystem to directly manage the main production processes, with the aim of guaranteeing the stability of the supplied product over time, reducing subcontracting risks to a minimum, and ensuring the utmost confidentiality in terms of the technologies applied. The transfer of significant experience in the most competitive motorsport categories to the best-performing markets and UNI EN ISO 9100:2018 certification for the aerospace, military and defense sectors make Vsystem the ideal partner for your business.



## QUALITY

Whether non-destructive testing (NDT), seal tests, or the inspection of welded joints, Vsystem is tenacious when it comes to the pursuit of quality, as this constitutes the best guarantee for our clients.

### Our certifications include:

**UNI EN ISO 9001:2015**

Quality management system

**UNI EN ISO 9100:2018**

Quality management system for aviation, military and defense

**UNI EN ISO 3834-2:2006**

Quality requirements for fusion welding of metallic materials



More information



## OUR FACILITIES

Located in Fiorano Modenese, the factory comprises an 850 m<sup>2</sup> covered area, to which another 1100 m<sup>2</sup> space will soon be added (currently under construction). An additional 300 m<sup>2</sup> are dedicated to office space and the climatized metrology room. A production space of almost 2000 m<sup>2</sup> that guarantees the movement of raw materials and finished products for the production of small- and medium-sized series of components destined for the automotive, motorsport, aerospace and defense segments.

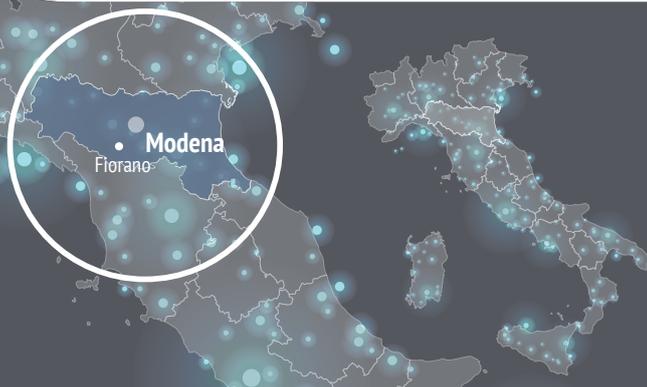


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