

BRUGOLA



A historic Company pioneering innovation

The Company was founded in 1926, has **five production plants in Italy**, a **brand production factory in Michigan (USA)**, **1 logistic center in Desio (Milan Area)** and **11 logistics centers in the world**. We produce **1000 different types of bolts**, we manufacture **9 million bolts every day** and **8000 tons per year**. More than 500 employees contribute every day to the success of our Company.

Since 1926, we have been dedicating to manufacturing only top-quality sockets screws and special fasteners with highly sophisticated technological contents for heavy-duty applications in the **mechanical**, **engine**, and **robotized assembly sectors**.

We proudly supply **automotive** manufacturers worldwide and we are Full Service Provider for some of our Customer Plants.

Brugola OEB Industriale SpA
is a leading critical
fasteners and fixing
elements supplier
for the automotive
industry worldwide

BRUGOLA



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BRUGOLA



CONVENTIONAL
POWER TRAIN

CHASSIS AND BODY

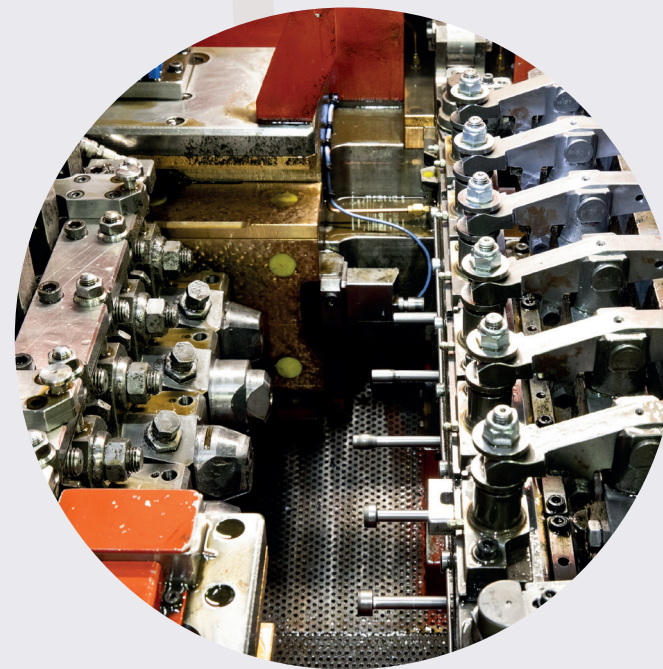
E-MOBILITY

A COMPREHENSIVE CONSULTING FOR FULLY CUSTOMIZED BOLTS AND FASTENERS

Brugola OEB is not a simple “built to print” supplier.

Our consulting covers **the entire product life cycle**, from the first stages of the project to the launch of the program, **including full logistic service** from material production to a line feed. Thus, we provide full support in engineering and development from the concept to the field.

In the pre-development stage, **the most advanced FEM and CAD system** allow us to support our customers in **defining the best bolt geometry and mechanical properties**, overcoming the limits of the traditional simplified calculation methods. Knowing some parameters such as the basic requirements, the type of load, and the space in which to mount the bolt, we perform a study to design fully customized fasteners.



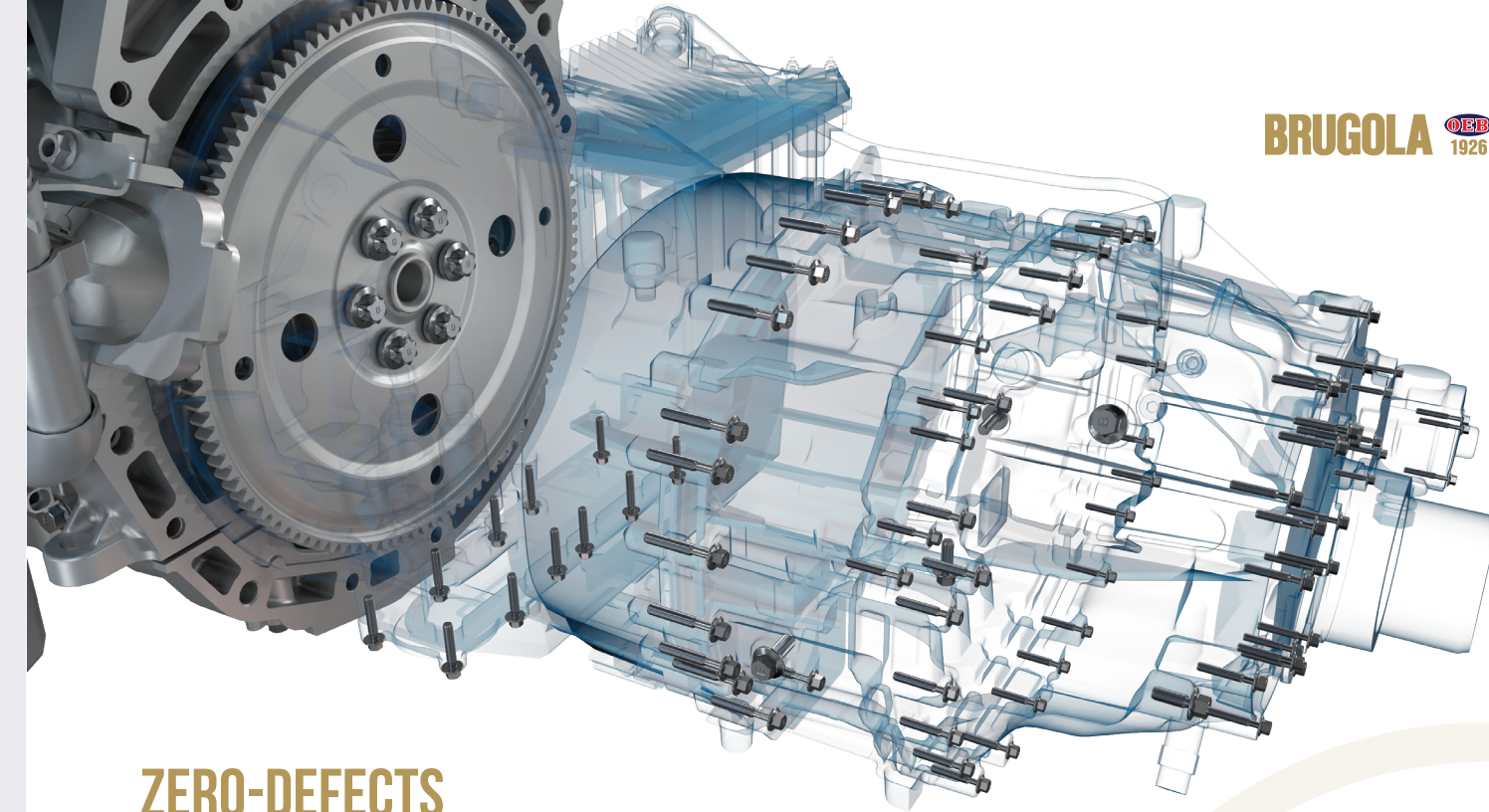
In addition, we conduct **tests on our prototypes** to understand how the fastener will behave before it is manufactured.

Proprietary software allows us to precisely predict the bolt deliverable clamping load into the plastic region, which is the typical use of the engine critical fasteners. By doing so, the customer will have a picture of **the performance and capabilities of the bolt even before it goes to pre-series**.

The whole process is well managed according to the **APQP concepts and method**. The design and production validations are done in our **modern and well-equipped labs**, where we can also simulate the assembly of actual parts by using special wrenches Wi-Fi connected to the R&D dept desks.

Detailed reports are made for our customers to better support their final design choice, basing their decision on the reliable data we supply.

Customer “on-site visits” at either Engineering Depts during the product development and at the Assembling Plants for SOP are an evidence of our fully committed relationships with them. After the best product definition by R&D dept, the Process designer Engineers simulate the cold forging operation by using sophisticated state-of-art software.



BRUGOLA OEB 1926

ZERO-DEFECTS AND TOTAL QUALITY PRODUCTS

Prototype parts are built on production machines, off tool-off process, allowing us to drastically reduce the TTM and allowing a high rate of FTT. **Production machines are all equipped with force and phase sensors** in order to keep under constant control the most important product features.

Our fasteners applications do not allow for errors or imperfections, that's why **100% of our products are checked** at the end of the production cycle to ensure Zero-Defect bolts. This is another feature setting us apart from the competition. The focus on meeting the continuous and changing demands of the market has driven us to constantly

devote ourselves to innovation and technological development, always striving for perfection. Our company is born out of a pioneering vision and a **natural aptitude for taking on technical challenges**, always researching and **achieving Total Quality in each of our products**.

Also the packaging is designed to avoid any shock that may damage the products.

With a strong belief in our values, we have evolved throughout the years, obtaining all the important results which we are proud of. Today, we continue to build our future with quality, and we defend it with our commitment - always.