



TECNOLOGIE DEL SERRAGGIO MINUTERIE METALLICHE



I.C.F. is the ideal **partner** for companies that use standard or special **screws** and **small metal parts**. It is a **reference point** for customers who wish to receive the best **technical, logistic and economical solutions**.

The company was founded in 1990 as a manufacturing companies **partner** in the **mechanical** and systems **industry**, manufacturers of motorcycles, automotive, industrial vehicle components, electrical engineering and it is aimed at all those who need **special custom-made products** with certified characteristics, normalized products with **high quality standard**, screws, fasteners, small metal parts and pieces produced from quality mechanical machining.



I.C.F. operates on the market with a **timeless attitude**: "Do well from the beginning". The aim is offer a product with high quality standards, an efficient logistics and a global management, aimed at satisfying the Customer.

I.C.F., if involved, actively participates in the phase of **design, planning** and **production**, and together with the Customer uses an approach, called **comakership**, in which, thanks to the deep knowledge of productive processes and standards, it provides the **technical support** and the necessary analytical skills in terms of cost effectiveness.

Through the knowledge and the control of the product, as well as the process in all its phases, from the material selection to the last testing, **I.C.F.** contributes towards guiding the design so as to **guarantee the full satisfaction** and the compliance with the requirements agreed with the Customer.



PRODUCTS

I.C.F. offers **screws and fasteners**, with production processes like cold-pressed, hot-pressed and CNC turning or traditional machining.

Materials used: steel, stainless steel, copper and its alloys, brass, aluminium and its alloys.

- Screws according to international standards as EN, ISO, DIN, ASTM-ANSI, metrical, self-tapping, thread forming, self-drilling, etc.);
- Nuts according to international or proprietary standards (hexagonal, lock, flanged, self-locking, etc.);
- Washers (flat, grower, shim washers, disc springs, etc.);
- Fasteners (Grub screws, rivets, pivots, pins, elastic pins, tabs/pin keys, bushings, stop rings, circlips, fastening clips, etc.);
- Stud bolts, threaded bars, eyebolts.

Special customized production:

The best solutions are proposed starting from the reception of the sample, the construction drawing or the simple demand. The Customer may define the most suitable solution, through a productive process selected from cold-pressed, hot-pressed and CNC turning or traditional machining. Heat treatments, appropriate to the materials, as well as the surface protections, will give functional properties and the **desired aesthetic characteristics** to the components.

I.C.F. is able to supply these products through a **selected and controlled** network of qualified producers, in order to meet the specific Customer's needs by optimizing all the departments involved:

- **Production and control:** 100% selection on demand and specific controls;
- **Packaging:** packaging customization (boxes, bags, little bags, kit with standardized bags, stackable plastic storage boxes, skin packs);
- **Logistics:** direct service to the assembly lines, Free Pass, Kanban etc.



In order to give all the necessary **functional, anticorrosive and aesthetic** characteristics to the final product, I.C.F. utilize the most advanced surface coating systems, applied by specialists of the sector.

Heat treatments are performed to obtain the final mechanical characteristics:

- Hardening and tempering;
- Case-hardening;
- Nitriding;
- Carburizing and carbonitriding.

Specific **surface protections** are applied to products in order to ensure the resistance to corrosion in the operating environment, suggesting the best technical solution to the customers basing on the proof tests and field experiences:

- **Galvanic treatments** with zinc and its alloys (zinc, zinc-nickel and zinc-iron) according to ISO 4042, DIN 50979, ASTM B633 etc.
- **Zinc-Flake coatings** according to ISO 10683, widely used in the automotive to obtain high corrosion resistance on parts that cannot be coated with electro galvanization methods.
- **Hot dip galvanization** according to ISO 10684.

For all these coatings, it is possible to provide a wide range of top-coat to confer special functional and aesthetic properties to the finished product.

Systems for the locking of threaded parts can be applied in a wide range of products, such as **adhesive, sealant, self-locking**, etc.



QUALITY

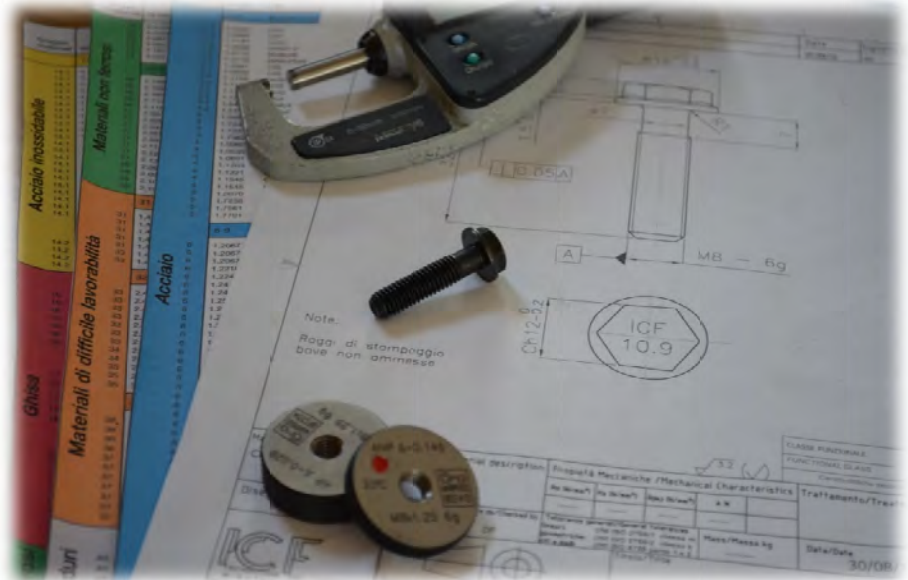
I.C.F. has developed and implemented a Quality Management System (QMS) in order to document the company's activities, so as to better meet the Customer's expectations and assert its abilities in the business management, as recognized by the market. The Quality Management System (QMS) meets the requirements of the international norm **ISO 9001:2015**.

The Quality Management System (QMS) allows to document both production processes and **organizational skills**, meeting requirements and expectations of the most demanding customers.

Our commitment is to ensure the regularity of supplies of products and services that fully satisfy customer requirements and the organization is fully engaged to comply with this mission. The continuous study of national and international standards combined with the **experience** gained in over twenty years of activity, has allowed to form a highly qualified technical team, specialized in the field of processes validation.

The **APQP** (Advanced Product Quality Planning) and **PPAP** (Production Part Approval Process) methodologies are the expressions of the activities carried out to ensure the **product approval** by the customer before to start the series supplies.

The product realized and distributed by **I.C.F.** is **verified** through **all production steps** and a traceability system it has been implemented to collect documented information through all the manufacturing processes. All data are stored and can be provided even after the delivery to the customers.



The control and verification of the product take place in the company **tests laboratory**, in which qualified personnel, through the use of dedicated equipment, perform the quality inspections. Some of the equipment used are:

- Threaded gauges for the inspection of all type of threads;
- Special gauges;
- Measuring instruments (micrometers, calipers, dials);
- Surface roughness;
- Optical measuring machine;
- Hardness tester;
- Metallographic Equipment for the heat-treatments check;

The laboratory is also equipped with a **salt spray test chamber** to carry out corrosion tests according to the main standards: ASTM B 117 – ISO 9227 – DIN 50021 SS.

I.C.F. also use qualified external laboratories to carry out special tests.

