

# **Mechanical and Mechatronic Components**

Contributing to the mobility of goods and people all over the world

We are specialists in cold transformation and overmolding of metal.

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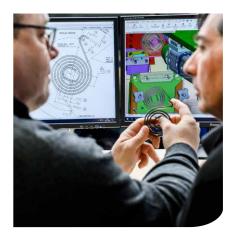
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## Know How and Experience

# We have been producing springs and sub-assemblies for over 50 years

#### **Co-engineering**

Our engineers are specialised in mechanical design, material science and production processes. We design and engineer components and, more importantly, analyse how products behave in their destined environment. We work hand in hand with our clients' teams to co-engineer custom made components that perfectly fit specific needs.



#### **Design methods**

We use a set of tried and tested processes and procedures including:

- Design calculations that take into account the surrounding environment, including working temperatures, relaxation and endurance
- A validated reference database
- Simulation of spring behaviour using finite element tools

#### Quality

Ongoing improvement drives our ambition and our "Kaizen" attitude. 5S and Quick Response Quality Control are the primary industrial methods that we use in our production sites to ensure that every component matches specifications. We deploy lean manufacturing methods including Total Productive Maintenance, Single Minute Exchange of Die, Plan Do Check Act and 8Do.



CGR have a wide global reach, capable of producing a large spectrum of products in Europe, South America and Asia."

Thomas, client in the automotive industry

#### Certifications

We control our supply chain from the validation of raw materials, co-design, development and the qualification of prototypes right through to production and delivery on time to our customers. We are certified **ISO 9001**, **IATF 16949**, **EN/AS 9100** and **ISO 14001**.

# Markets and Applications

### Aerospace

# We are the european leader in springs for the aerospace industry

For over 50 years, we have been co-engineering and manufacturing springs and components for aircrafts. Our products are custom made according to stringent international standards. They are manufactured in production sites exclusively dedicated to the aerospace industry.

We control the complete supply chain, from raw material sourcing through to engineering design, prototype qualification and serial production.

#### Applications

Our made-to-measure springs, sub-assemblies, joints and sheet-metal components are found in the most sensible aircraft equipments.

### Automotive

# We are a world leader in springs and mechatronics for the automotive industry

We have been partnering the tier one suppliers in the automotive industry since 1965. Our dedicated production sites, spread across 4 continents, co-engineer and produce wire springs, flat springs, cold formed components and mechatronics. We are one of the most important suppliers of the patented press fit EloPIN.

#### Applications

Our components are integrated into active and passive safety devices, engine undercovers, air bags, steering columns, wipers, engines, vehicle access connections, brakes, seatings, mechanisms as well as other automotive equipment.

What makes the difference at CGR? There is this unique family spirit. We are doing quality work."

Stéphane, operator at CGR's aerospace division

CGR are reliable with a strong client focus, from engineering through to quality and customer support. They have an open-minded culture which enables them to be agile, dynamic and reactive."

Patrick, client in the automotive industry



# Skills and Technologies

## **Electric Engineering**

# We provide a wide range of springs components to the electrical industry

Our production lines are capable of producing high volumes in consistent quality to satisfy increasing demand worldwide. Our large spectrum of technical products is co-designed in close collaboration with our clients and custom made to fit specific technical requirements.

#### Applications

Our clients integrate our springs and sub-assemblies into micro-switches, switch disconnectors, thermal relays, surge protectors and other electrotechnical equipment.

CGR's multiple production technologies including cutting, forming and overmolding enable us to concentrate our supplier panel."

Nicolas, client in the electrical industry

## Mechatronics

Stamped contacts Precision cutting Sheet-metal processing Metal deposition Polymere injection Thermoplastics injection Overmolding Automatized assembly

### **Cold Forming**

Tube forming Wire forming Cable crimping Laminate forming Compression springs Tension springs Torsion springs Push-pull springs Rewinder springs Sub-assemblies Metal spinning

## Machining

Classic tooling Electro-erosion Additive manufacturing



## Local Presence, Global Reach



# A healthy and motivating work culture

Our workforce has been the heartbeat of our organization since the beginning. It is our first priority to create a working environment that is healthy, motivating and empowering. We strive for an honest and open company culture that inspires trust, commitment and respect.

Our competitive edge has enabled us to triple our activity over the last decade. Yet, despite our fast growth, we have kept our human spirit. Clients appreciate our accessible and reliable customer support.

Despite fast growth, CGR has managed to promote a strong bond between team members. Staff are autonomous and responsible for the decisions that they take."

Carlos, operator in CGR's automotive division

## **CGR in numbers**

**1963** foundation year

1.500 employees

180 M€ turnover

20 plants

8 countries

4 continents

More than **1000** customers worlwide



### **Contact us**

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