

Your trusted  
partner in

## PROTOTYPING & LOW-VOLUME PRODUCTION

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Plastics & Metals

LET'S SHAPE EXCELLENCE TOGETHER!





## EDITORIAL



# Turning your challenges into concrete successes

At EC International Group, we transform your ideas into concrete results through bespoke, reliable and high-performance solutions.

Our R&D centre in Barcelona is a real driving force for support, while our production plant and engineering hub in Dongguan place us at the heart of global industrial markets.

An agile yet structured organisation, delivering to more than 18 countries with responsiveness, proximity and full control.

Our strength: anticipating your needs, mastering cutting-edge technologies, and ensuring impeccable quality at every stage.

**Jérémie DUCHOUD**  
CEO & Chairman



# Expertise dedicated to the most demanding industries

Critical sectors, sensitive components, extreme requirements.

We meet every ambition.



AEROSPACE



SPACE & TELECOMMUNICATIONS



MILITARY & DEFENCE



AUTOMOTIVE



ROBOTICS



ENERGY



HOME APPLIANCES & CONSUMER GOODS



MEDICAL

# A tailored response to every need

To anticipate your requirements and accelerate your projects, our organisation is structured around two complementary Business Units:

## BUSINESS UNIT 1

### FAST & COST-EFFICIENT PROTOTYPING

- ▶ Simple and quick prototypes, produced through our global network of expert partners.
- ▶ Accelerated Time-to-Market with short lead times: rapid validation of your concepts.
- ▶ Limited client investment from the R&D phase onwards.
- ▶ Streamlined specifications.
- ▶ An agile solution for: design studies, ergonomic tests, initial technical and functional trials, across all industries.

## BUSINESS UNIT 2

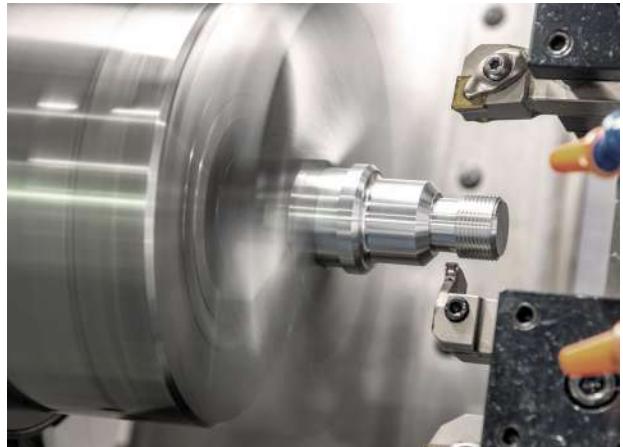
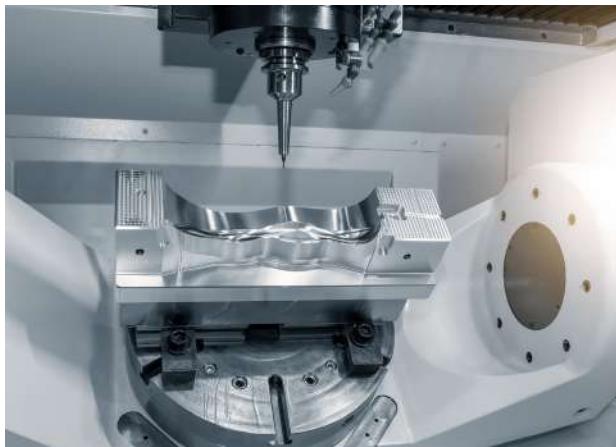
### COMPLEX PARTS & LOW-VOLUME PRODUCTION

- ▶ Manufacturing of complex parts and low-volume production, carried out in our plant or through selected partners.
- ▶ Advanced industrial processes & rigorous quality control.
- ▶ Detailed specifications with strict requirements.
- ▶ International certifications (EN/AS 9100, IATF 16949, ISO 13485, ...).
- ▶ Critical applications: aerospace, space & telecommunications, military & defence, automotive, robotics, energy, home appliances, medical...

# Prototyping & Low-volume production

## CNC Machining

**Precision, speed, reliability.** We manufacture your technical components with High-Speed Machining, using a state-of-the-art machine fleet, optimised by Artificial Intelligence. Demanding geometries mastered, lead times reduced, quality guaranteed.



### CNC MILLING

#### Achieve your most complex shapes

The ideal technology for components with varied geometries.

#### OUR STRENGTHS

- ▶ **Lead times:** from just 4 days
- ▶ **Minimum tolerances:** down to  $\pm 0.005$  mm
- ▶ **3-, 4- and 5-axis state-of-the-art machines:** DMG MORI, HSC machining, AI optimisation
- ▶ **Large dimensions:** up to 2,200 x 1,050 x 750 mm
- ▶ **Scalability from single units to low-volume production:** bespoke CNC milling
- ▶ All types of **metals and plastics**
- ▶ **Finishes & surface treatments** on request

*Sinker EDM available.*

### STANDARD CNC TURNING

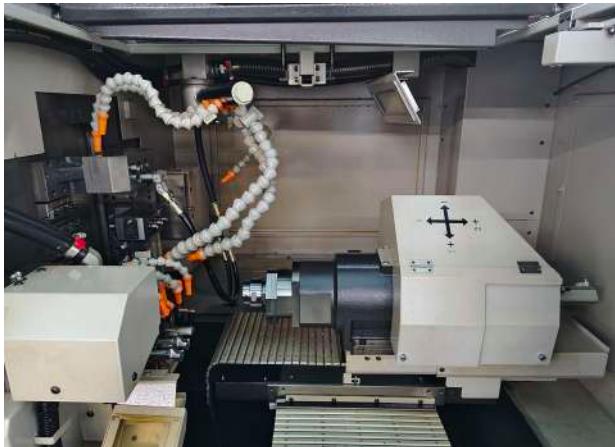
#### Align speed and precision

A fast and reliable solution for high-performance cylindrical components.

#### OUR STRENGTHS

- ▶ **Lead times:** from just 3 days
- ▶ **Maximum quantity:** up to 500 units
- ▶ **Minimum tolerances:** down to  $\pm 0.005$  mm
- ▶ **Machine fleet:** 2- and 3-axis CNC lathes
- ▶ **Large dimensions:** Ø 330 mm or 460 mm x 495 mm
- ▶ **Scalability from single units to low-volume production:** bespoke CNC turning
- ▶ Wide range of **plastics and metals**
- ▶ **Finishes & surface treatments** on request

*Sinker EDM available.*



## AUTOMATIC CNC TURNING

### **Harness the potential of automation**

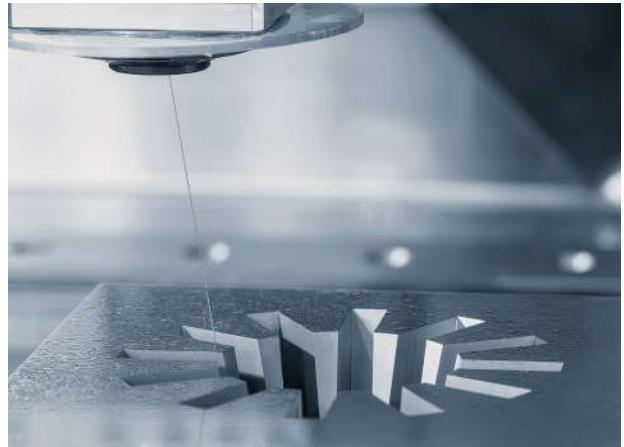
An optimised solution for your series of cylindrical parts.

#### **OUR STRENGTHS**

*For low-volume production only.*

- **Lead times:** from just 3 days
- **Maximum quantity:** up to 120,000 units
- **Minimum tolerances:** down to  $\pm 0.005$  mm
- **State-of-the-art machine fleet:** Swiss-type 6-axis TSUGAMI CNC lathes, AI-optimised
- **Large dimensions:** up to  $\varnothing 26$  mm x 495 mm
- **Wide range of plastics and metals**
- **Finishes & surface treatments** on request

*Sinker EDM available.*



## WIRE EDM

### **Make complexity your asset**

The perfect technology for geometries and shapes otherwise inaccessible.

#### **OUR STRENGTHS**

- **Lead times:** from just 6 days
- **Minimum tolerances:** down to  $\pm 0.005$  mm
- **Scalability from single units to low-volume production:** agile and efficient solutions
- **Wide choice of metals**
- **Finishes & surface treatments** according to project requirements

*Sinker EDM available.*

# Prototyping & Low-volume production

## Industrial sheet metal work

**Flexibility, precision, repeatability.** We cut and bend your metal components with perfect control of shapes, thicknesses, and volumes. Tight tolerances, optimised lead times, consistent quality.



### SHEET METAL CUTTING & BENDING

#### Shape your parts with precision

Precision, consistency, and flexibility for varied geometries.

#### OUR STRENGTHS

- **Lead times:** from just 4 days
- **Minimum tolerances:** according to 2D drawing
- **Maximum thickness:** up to 6.35 mm
- **Cutting capacity:** up to 2,000 mm
- **Bending capacity:** up to 400 tonnes
- **Advanced technologies:** laser cutting, CNC punching, waterjet cutting, CNC press brakes,...
- **Scalability from single units to low-volume production:** bespoke cutting & bending
- Wide range of **metallic materials**

### SHEET METAL STAMPING

#### Shape the material to your ambition

Size, complexity, requirements: bespoke parts meeting the highest standards.

#### OUR STRENGTHS

- **Lead times:** from just 7 days
- **Minimum tolerances:** according to 2D drawing
- **Maximum thickness:** up to 6.35 mm
- **Stamping capacity:** up to 200 tonnes
- **Scalability from single units to low-volume production:** bespoke sheet metal stamping
- From **standard metals** to the **rarest alloys**

# Forming processes

**Repeatability, volume, performance.** We support you from mould creation to the delivery of functional parts that meet your expectations. Complex geometries, specific properties, flawless finishes.



## INJECTION MOULDING

### Ensure repeatability of your parts

The ideal technology for producing technical components in volume with consistent quality.



## COMPRESSION MOULDING

### Overcome constraints

The ideal solution for complex geometries and specialised materials.

## OUR STRENGTHS

- ▶ **Lead times:** from just 3 weeks
- ▶ **Mould classes / Lifespan:**  
Prototypes: up to 5,000 parts  
Pre-series: up to 20,000 parts  
Low-volume production: up to 200,000 parts
- ▶ **Minimum tolerances:** NFT 58000 standard – reduced class (up to precision class for certain dimensions)
- ▶ **Export or local moulds, single or multi-cavity**
- ▶ **Press tonnage capacity:** up to 2,200 tonnes
- ▶ **Surface finishes:** SPI & VDI 3400 standards
- ▶ **Materials:** thermoplastics, thermosets, elastomers, including liquid silicone rubber (LSR)

## OUR STRENGTHS

- ▶ **Lead times:** from just 2 weeks
- ▶ **Mould classes / Lifespan:**  
Prototypes: up to 5,000 parts  
Pre-series: up to 20,000 parts  
Low-volume production: up to 200,000 parts
- ▶ **Minimum tolerances:** ISO 3302-1 – M3 (up to ISO 3302-1 – M1 for certain dimensions)
- ▶ **Export or local moulds, single or multi-cavity**
- ▶ **Surface finishes:** SPI & VDI 3400 standards
- ▶ **Materials:** thermosets, rubbers, and elastomers

# Prototyping

## Complementary services for your projects

Complementary technologies to meet your specific needs.

An agile response to your industrial challenges.



### VACUUM CASTING

- ▶ Functional prototypes
- ▶ Over 30 polyurethane resins available
- ▶ Large parts up to 2,000 mm long

**Lead times:** from just 5 days



### EXTRUSION plastic & metal

- ▶ Custom extruded profiles
- ▶ Minimum tolerances: according to 2D drawing
- ▶ Variety of plastics and aluminium

**Lead times:** from just 8 days



### 3D PRINTING (SLA, SLS, MJF)

- ▶ Total design freedom
- ▶ Up to 1,200 x 600 x 400 mm (SLA) or 380 x 280 x 380 mm (SLS, MJF)
- ▶ Wide range of materials

**Lead times:** from just 2 days



### DIE CASTING

- ▶ Mould lifespan: up to 100,000 parts
- ▶ Minimum tolerances: ISO 8062-3 – DCTG 3 class
- ▶ High-performance alloys: aluminium, magnesium, zamak

**Lead times:** from just 5 weeks

# Certifications, documentation & inspection reports

## Compliance & Traceability

Comprehensive quality documentation, ensuring reliability and transparency.

### Inspection reports

Compliant with ISO 2859-1 sampling guidelines

#### ► **Metrology reports:**

- **Standard:** verification of critical dimensions
- **Full dimensional control:** 100% inspection of dimensions
- **CMM:** high-precision three-dimensional measurement

► **FAI (First Article Inspection):** validation of initial parts

► **Production flowchart:** description of manufacturing process steps

► **QCP:** quality control plan

► **Cpk:** process stability and repeatability

### Documentation & certificates

► **PPAP:** quality documentation proving the ability to repeatedly produce compliant parts

► **Certificates of conformity** in accordance with EN 10204 (types 2.1 / 2.2 / 3.1) or CoC

► **Raw material certificate:** plastics and metals

► **Material analysis certificate:** plastics and metals

► **RoHS & REACH:** European environmental compliance

*Non-exhaustive lists*

**At EC International Group, quality is a cornerstone of our strategy.**

## Certified excellence

Our certifications ensure manufacturing in full compliance with the strictest international standards.



### ISO 9001:2015

Continuous improvement process to guarantee high-quality services and components.



### EN/AS 9100:2018

Quality standard for aerospace, space, defence, and military sectors, ensuring traceability, reliability, safety, and technical excellence.



### ISO 14001:2015

Commitment to sustainable development, with efficient resource management and reduced environmental impact.



### IATF 16949:2016

Automotive standard guaranteeing optimised manufacturing, defect reduction, and rigorous traceability.



### ISO 45001:2018

Occupational health and safety management system focused on risk prevention and employee protection.



### ISO 13485:2016

Essential standard for the design and manufacture of medical devices, ensuring safety, regulatory compliance and quality.

# Got a project? Speak to our experts

## Our teams support you at every stage

To guarantee an accurate quotation and an optimal technical study, please provide the following elements:

### DOCUMENTS TO PROVIDE

- BOM (Bill of Materials) or specifications
- 3D drawing for each part reference (*.step, .iges or .xt format*)
- 2D drawing for each part (*PDF*)



Your online  
quotation here

## Your satisfaction, our commitments

### GUARANTEED OPERATIONAL RESPONSIVENESS

Rapid processing of your requests.  
Strict monitoring from manufacturing to delivery.

### EXPERT SUPPORT

Dedicated team, integrated R&D centre, and a single point of contact.  
Personalised client portal.

### CONTROLLED QUALITY, GUARANTEED COMPLIANCE

Rigorous quality control, complete traceability.  
Certifications, documentation, and metrology reports.

### INDUSTRIAL EXCELLENCE

Continuous innovation strategy, annual investments.  
State-of-the-art machine fleet, integrating AI for ultra high-performance production, including DMG MORI and TSUGAMI.

# An organisation dedicated to your projects

## A strategic international presence

With 13 locations across Europe and Asia-Pacific, we ensure local presence, responsiveness, and rapid delivery to more than 18 countries.

### EUROPE

#### ► HEADQUARTERS

**France:** Rumilly

#### ► R&D CENTRE

**Spain:** Barcelona

#### ► SALES OFFICES

**France:** Rumilly, Lyon, Toulouse, Paris

**Italy:** Turin, Milan

**Spain:** Barcelona, Madrid

### ASIA-PACIFIC

#### ► PRODUCTION PLANT

**China:** Dongguan

#### ► ENGINEERING CENTRE

**China:** Dongguan

#### ► SALES OFFICES

**China:** Dongguan

**Japan:** Nagoya



**Wherever you are, we support you with responsiveness and proximity.**

”



EC Group  
worldwide



LET'S SHAPE EXCELLENCE TOGETHER!



ISO 9001:2015



ISO 14001:2015



ISO 45001:2018



EN/AS 9100:2018



IATF 16949:2016



ISO 13485:2016





International  
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