



ARRK would be delighted to be a link in the development chain of your products.

# COMMITTED BY YOUR SIDE

In reality, we go well beyond that... Fully committed to working alongside our customers, we strive to exceed your expectations and find for you reliable solutions to meet your needs in the best way possible.

Being completely devoted to our employees, we help them continually develop their skills and expertise. This managerial philosophy directly benefits all of our customers who can thus take advantage of the latest technical developments and constantly updated expertise as well as our complete investment in our customers and their projects.

**Our goal?** To use our expertise in the field of plastics processing and metals to offer you unique products and services.

For us, each project is important. Through ongoing communication, we make sure that we perfectly understand your expectations so we can fulfil them.

With us, you can be sure that you're putting your ideas in the best of hands!



From a single part to a medium-sized batch, our activity fits the model of custom manufacturing.

# PASSIONNATE ABOUT YOUR PRODUCTS

While they are specialised in different sectors, all our employees share the same love for their profession.

Our different departments work together hand in hand in a spirit of companionship, all aimed at the singular goal of providing the best parts possible.

Excellence is the core component of our vision of the company.

# **EXCEEDING EXPECTATIONS FOR YOUR PROJECTS**

Product quality, meeting costs and delivery deadlines are the objectives that we deem essential. To these objectives we also add a human element.

Our goal is to provide you with a real added value by keeping you informed about our ideas from the design up to the production of your parts.

ARRK growth enables us to continually invest in innovation. This allows us to outfit our production centres with the latest technologies. We aim for much more than simple reliability. We aim for perfection.



# OUR SPECIALISATIONS THAT SUPPORT YOU

The ARRK group brings together highly qualified specialists that analyse the feasibility of each product and ensure that it functions at the highest level.

## **ENGINEERING**

We have extensive expertise with many different areas of focus, from design and development to system integration and concept validation.

We offer high-quality service and work quickly and precisely.

As the central service of the ARRK group, prototyping relies on the latest technologies in 3D printing to create full-scale tests or a scaled-down version of your products.

### **PROTOTYPING**

As players with local accessibility, our prototyping sites are strategically located in Europe to boost communication and coordination.

These project incubators, dispatched to different sites, bring together technical project advisers and production teams to give your ideas the chance to come to life quickly and practically.

From the simplest objects to the most complex parts, we evaluate programme's costs with precision up to its final delivery.

Our prototyping technologies, which use a wide range of materials, make it possible for us to provide personalised responses to all our customers, from private individuals to large industrial companies.



We also offer our skills in the field of tooling and moulding for plastic injection.

# **RAPID TOOLING**

We can create tools of up to 50 tons to satisfy your needs, wherever you are in the world.

Are you a local designer or part of a multinational?

Are you working in the automotive sector, sports, transports, consumer goods or something more specific?

Whatever your tooling needs are, regardless of the volume or R&D requirements, we are available to support.



With our many injection presses, from 80 to 3,200 tons, we can produce many different types of plastic parts in small to medium-volume production runs.

# PRODUCTION IN SMALL-VOLUME BATCHES

We also provide many associated processes, like painting, chrome plating, welding, stamping, marking and assembly. Our dedicated composite processes also enable us to meet very specific and personalised needs.

Our creations are therefore intended for many different areas such as the automotive sector, the medical field, the sports world and transportation.

All of it receives the highest level of compliance for the industry's strict quality protocols and latest certification standards.

ISO 9001 certification

In this respect, confidentiality and privacy are our buzz words.

We do everything in our power to guarantee the intellectual property of your projects on our French site and at the facilities of our international subsidiaries.

With this in mind, we anonymise your products as much as possible for their and your protection while ensuring our facilities are extremely secure and binding all of our employees to professional secrecy through a confidentiality clause.





# **OUR EXPERTISE**

To successfully execute your projects, ARRK works with cutting-edge systems and technologies.

#### 3D PRINTING TECHNOLOGIES

- Stereolithography (SLA) is used to obtain high precision with fine details. This 3D printing method is ideal for fabricating highly stylised parts and offers many different finishing options. The different available materials for these prints offer many different properties and characteristics.
- Selective Laser Sintering (SLS) is used to create functional parts that are both mechanically and thermally resistant. This technology can create both rigid or flexible objects.
- Digital Light Processing (DLP) to build up very fine details on both rigid and flexible prototypes.
- Liquid Crystal Display (LCD) is state-of-the-art technology that can produce prototypes as well as low volume series within 2-3 days.
- PolyJet printing allows us to create parts that combine several types of solid or flexible materials in different colours. It is a high-precision type of technology used to obtain quality finishing.
- Metal sintering (SLM) for creating metallic parts in different alloys. This technique offers a much wider range of freedom than traditional machining when creating shapes.

#### **VACUUM-CASTING**

Vacuum-casting is used to create parts in small quantities from polyurethane resin, with properties similar to plastic. Less expensive and quicker than a classic plastic injection mould, it offers numerous finishings and the option of creating mass-coloured or transparent parts. The expertise of our vacuum-casting team for mould design and part creation ensures the impeccable quality of your parts.

#### **MOCK-UPS**

#### Mock-ups is also one of our specialities.

Together, we develop your products' and work on their shape and aesthetics. We then create functional or display models from your design. We also offer a vast range of finishing choices, numerous paint options and the combination of different types of machined, foam, composite, silicon or model board pieces for creating realistic models.

#### **CNC MACHINING**

**Machining is ideal** for producing high-quality parts, as a single unit or in small batches, particularly involving large-format parts.

ARRK offers plastic and metal machining, and various finishing options. The expertise of our subsidiaries in Asia allows us to offer high-quality machined products and meet the needs of the complex projects.

#### TOOLING AND INJECTION

Tools and injection are core components of our profession. At ARRK, we have more than 1,000 employees who work together on this activity, which gives us wide-ranging expertise. Our factories can produce wide ranges of moulds, which are then used to create your parts, using our 120 injection presses.

Located in Europe and Asia, we offer an optimal response to your needs for competitive prices while remaining an easily accessible player within your region.

#### **STAMPING-PRESSINGS**

We offer many types of metal choices in different thicknesses as well as finishing services such as stamping and overmoulding. Our production capabilities and our expertise guarantee that we can produce for you single-unit or small-batch parts quickly while also delivering exceptional quality.

#### FINISHING AND PAINT

We set up our spray rooms for putting the final touches on your products in many different colours.

Together we search for the best colours for you in a brushed, metallic, galvanised, glossy, satin or varnished finish.

Our painting creativity knows no bounds!

# TECHNOLOGY AND EQUIPMENT

#### MODELLING

1 Charly Robot CNC milling machine dedicated to modelling - 1020 x 1700 x 350 mm at the ARRK LCO site.

#### **STEREOLITHOGRAPHY**

16 machines located throughout Europe, including 2 ProX800, 1 IPro8000 and 2 3500 machines at the ARRK LCO site.

#### SLS

10 machines located throughout Europe, including a sPro 140 -  $550 \times 550 \times 460$  mm and 2 machines at the ARRK LCO site.



#### **DLP**

2 Figure 4 – 125 x 70 x 196 mm, including 1 at the ARRK LCO site.

#### **LCD**

1 Liquid Crystal Magna  $510 \times 280 \times 340$  mm at the ARRK LCO site.

#### **POLYJET**

1 Connex 3 and 1 EDEN 500V at the ARRK LCO site.



 $1 \operatorname{ProX} 300 - 240 \times 240 \times 200 \text{ mm}$  at the ARRK LCO site.

#### VACUUM-CASTING

14 machines (Europe), including 5 machines at the ARRK LCO site and a wide range of machines in our factories in Asia.

#### **CNC MACHINING**

11 machines in Europe and more than 100 machining centres 3 and 5 axes located on 3 continents.

#### INJECTION PRESS

2 presses ranging from 35 to 100 tons at the ARRK LCO site and more than 100 injection presses ranging from 80 to 3,200 tons located on 3 continents.







# The strength of an international group

Created in Osaka, Japan in 1948, ARRK has continued to develop through its different acquisitions and mergers.

This strategy has enabled us to broaden our technical skills and expertise with the aim of producing extremely diverse ranges of parts and objects.

Because innovation is at the core of our culture, our know-how is today based on the skills of more than 3,000 people and the expertise of 16 different companies.

The ARRK group offers you the close contact of a local player, combined with the strength of a global group. By combining our capabilities from engineering, prototyping, tooling and low volume production, we can offer you a comprehensive service.

We keep all the traceability and the overall vision of your projects in our factories. This coordinated operational method enables solid monitoring throughout the project and guarantees confidentiality while ensuring the synergy of skills.

ARRK offers you the benefits of its 70 years of experience and development, combined with the multi-disciplinary knowledge spread over several sites. Our company's spirit of conquest has allowed us to attain a major position in the world of product development while giving us a desire to expand every day for the purpose of offering complete satisfaction.

#### **ARRK LCO PROTOMOULE**

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