

ARaymond

International expert in fastening and assembly solutions





Family run company with 150 years of experience

ARaymond was founded in Grenoble, France in 1865 by Mr. Albert-Pierre Raymond and continued by four generations of entrepreneurs, to build one of the world leaders in the field of fastenings for the automotive market.

Today we design, manufacture and market **fastening and assembly solutions** to respond to our clients' increasing demands.

With a presence in **25 countries** with **25 production sites** and **5,900 employees**, our **global footprint enables us to efficiently serve our customers**, major automotive OEMs and Tier 1 companies **worldwide**, and offer products which are innovative and reduce production costs.

150 years of collaboration with our customers

Small parts with large value

Our products are often not directly visible, a majority are small in size but of great importance.

The ARaymond™ airbag clip was created to enhance passenger safety. It replaces screws and supports high loads in the event of an accident.

These fast airbag systems (inflating curtains) generate high loads on body structures during the deployment. Due to its specific design, the ARaymond™ clip can be used for multiple applications and different panel thicknesses.

An advanced manufacturing process has been developed to ensure high levels of security and traceability.



Clipping, connecting and bonding

Our core business is **fastening by clipping** which enables quick assembly of two parts, without tools, to simplify assembly operations and **reduce production costs**.

Quick Connectors are used to provide a **fast connection** for **all types of automotive fluid systems**: fuel lines, cooling circuits, air conditioning, power steering and brake fluid circuits, etc. ARaymond™ Quick Connectors are appreciated for their **comprehensive range, adaptability and integrated functions**.

Our **bonding expertise** enables quick fastener assembly when welding or drilling holes in the material is impossible, complicated or costly. With our **specific adhesive technology, Techbond®PUR**, we provide **full bonding solutions**: process design, equipment integration, workers training, maintenance, logistic, and production assistance.



Engineering and services

At ARaymond we capitalize on a complete spectrum of capabilities in the product development life cycle to design innovative assembly solutions.

By understanding your needs and taking into account your manufacturing processes and methods, our experts are able to design personalized assembly solutions for your specific needs.

We offer automation and assembly-line analysis, as well as process development as part of our comprehensive strategic approach for improving customer productivity.

In the product development process, digital simulation has been fully integrated for non-linear and dynamic mechanics, rheology, thermal and fluid transfer treatment.

Customized product development for your unique requirements

Industrial expertise and core skills

Metal transformation

Cutting, bending and stamping of metal. We work with spring steel, stainless steel, brass and copper in thicknesses of 0.2 to 6.35 mm, and can provide single or multi-layer surface treatments (Zn, Zn-Ni, Zn-Fe, etc.). At ARaymond, we master the entire process from design to production, surface treatment and quality control and we have the capacity to produce up to 140 million pieces per year for a specific reference.

Plastic injection

Overmolding and bi-injection with over 300 thermoplastic materials available (polyamide, polyethylene, polyvinyl acetates, polypropylenes and more). The ARaymond production facilities are equipped with presses as large as 1,000 tons and 128-cavity molds and can produce up to 100 million pieces per year for a given catalog reference. For applications calling for tracking, RFID (Radio Frequency IDentification) tags can be incorporated directly into the product.

Adhesive production

R&D in adhesive formulation initiated production of TechBond®PUR adhesive technology: unique dry preformed adhesives tablets that allow precise positioning, clean and fast bonding with excellent structural performance.

Assembly

Metal/metal, plastic/plastic, and combinations of the two materials. We handle all modes of assembly: manual, semi-automated and cycle-time optimized automated assembly, as well as continuous motion assembly that can produce up to 24,000 parts per hour.

Our vast portfolio of solutions

● Clipping Fasteners ● Quick Connectors ● Bonding Solutions



CHASSIS

- Exhaust
- Emission reduction systems
- Suspension and braking
- Tire and wheels
- Underbody



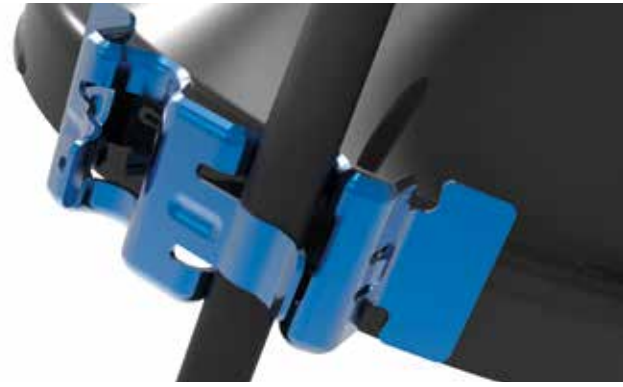
POWERTRAIN

- Air intake (turbo)
- Battery cooling system
- Engine
- Engine cooling system
- Fuel Cell
- Fuel delivery system
- Gearbox and transmission
- High Voltage battery
- Oil cooling system
- Steering

www.araymond-automotive.com

Most vehicles worldwide contain an average of **500 ARaymond™** parts

for Automotive



CAR BODY

- Audio system
- Body in white
- Closures
- Door systems
- Exterior trim
- Front end
- Glass applications
- Instrument panels
- Interior trim



ELECTRIC MECHATRONICS

- Actuators
- Electrical device systems
- Electronic control units
- HVAC
- Infotainment
- Lighting
- Wiping systems



Product functions

Clipping

Self retaining threaded fasteners



On Panel edges



In Panel holes



Pipes and cables fasteners



On/to Cables or tubes



On Panel edges



In Panel holes



On Studs



On Flat surfaces



Panel fasteners



On Panel edges



In Panel holes



On Studs



Protecting and finishing fasteners



In Panel holes



On Studs



Connecting Quick Connectors



On/to Tubes or hoses



Bonding Full bonding solutions



On Flat surfaces

More than 25,000 assembly solutions in production

Automotive lightweight – the challenge of joining

Lightweight materials and design have become an increasingly important topic in the automotive industry, where driving dynamics are a major consideration.

Lightweight fastening and joining

At ARaymond our R&D departments develop fastening solutions to join or assemble lightweight materials such as aluminum, magnesium, composite, and new generations of steel. Our light and functional fasteners contribute to reduce weight. With a technical analysis of your current solution, we can find new fastening solutions corresponding to your specific requirements.

We design products, processes and services for lightweight applications. For instance, our bonding solutions allow easy fastener attachments on lightweight materials (composite, plastics, painted thin metals, etc.) and hybrid assemblies with no weakening of the substrate and watertight assemblies. Fastening of anchor points on composite floors or chassis, metal exterior trim attachments, bumpers, spoilers or composite panels are facilitated thanks to TechBond®PUR adhesive.

Our experts take into account your needs and your manufacturing methods and processes to design customized assembly solutions responding to lightweight challenges.

ARaymond™ lightweight Plastic Bracket for fuel filter support

The original existing solution in the market is a metal fuel filter support, designed by 6 components. Our new and optimized product is both lighter and reduces assembly time.



Reduction of weight:

90g vs 254g

Reduction of parts:

3 components instead of 6

Reduction of the assembly time:

1 assembly process instead of 4

A complete product portfolio to serve a variety of industries and market segments

In addition to being a global automotive supplier, ARaymond operates across a diverse set of industries. Our expertise and experience have enabled us to enter new markets. We use our know-how and innovation potential to deliver best-in-class products for the following markets.



TRUCK

Fastening and connection solutions tailored to the specific needs of commercial vehicles, such as heavy-duty truck and bus, tractor and heavy-duty off-road as well as industrial engine manufacturers.

www.araymond-truck.com



INDUSTRIAL

Fastening and connection solutions facilitating and speeding up assembly line operations for a wide range of industrial equipment such as household appliances, HVAC (Heating, Ventilation and Air Conditioning), lighting and electrical equipment.

www.araymond-industrial.com

ENERGIES

Screwless and tool-free fastening solutions for photovoltaic systems to ensure fast and simple assembly, enabling customers to reduce the overall cost of solar energy.
www.araymond-energies.com



AGRICULTURE

Innovative value-added fastening solutions for greenhouse cultures, able to optimize labor costs, culture yield and profitability.
www.araymond-agriculture.com



LIFE

Standard and custom made solutions suitable for the human and animal health industries; packaging, medical devices and drug delivery systems.
www.araymond-life.com



“
 People engagement
 is of utmost importance.
 During our 150 years
 of experience, this has
 enabled us to succeed
 and never stop innovating.”



Antoine Raymond,
 President ARaymond Network

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