



## **Technical Parts**

Piercan: the **Solution** for your **Elastomer Parts** since 1948





## Piercan: the Elastomer Specialist

Founded in 1948, PIERCAN is now a world leader in elastomer solutions. The technical parts manufactured by Piercan are highly diversified in terms of shape, thickness, material and implementation processes. No matter how complicated your specifications are, Piercan will offer you the best elastomer solution to fit your requirements.



## Parts that meet your requirements

Whether you are looking for a particular product or a solution requiring the expertise of an elastomer specialist, Piercan will offer you the most appropriate solution. For specific requests, our engineers help you in the development of your customized product. Furthermore, a vast catalog featuring parts and "standard" moulds is also available for your reference.



#### **CUSTOMIZED** PARTS BY PIERCAN

- Analysis of your specifications by the engineering department
- Choice of the material (single or multilayer, natural rubber, neoprene, etc.)
- Choice of the technique (dipped elastomers, calendering, injection or extrusion)
- Tooling (molds)

One production unit only manufactures technical parts (prototypes and series).

#### AN EXTENSIVE **CATALOGUE** OF PARTS

For your standard requests, the Piercan catalogue offers you a large choice of technical elastomer parts. The parts featured in the catalogue are readily available and come at an attractive price.

Furthermore, Piercan offers you a large choice of moulds where you can choose the shape you require. All you have to do is choose the type of elastomer.



#### PIERCAN'S STRENGTHS



Consulting and support



Piercan design department



Appropriate solution, customized product



Prototypes and production series



Wide choice of materials



Vast catalog of standard parts



#### CONSULTING

Whether it is customized parts or parts from the catalogue, Piercan guides you in finalizing your solution and its implementation in your production units.

Piercan can also assist you during audits or in the setting up of production lines integrating elastomer transformation, or can advise you about the physiochemical properties of the materials.

## From design to Completion

Based on your requirements, whether it is customised parts or parts from the catalogue, Piercan offers you the best solution, via a controlled process - design, manufacturing, inspection - where quality is at the core of all processes.



#### DESIGN

- Engineering department: it analyses your requests and assists you in finding the most appropriate solution.
- Molds and prototypes: specific equipment 3D printers and scanners facilitates the creation of moulds. Production units manufacturing technical parts make it possible to manufacture prototypes in a timely manner and at reasonable costs.
- Economic optimisation: the design of solutions suited to your requirements includes quality factors, deadlines and production costs, hence facilitating the economic optimization of your project.
- R&D laboratory: provides scientific expertise in the development of products by testing material, measurement of the physiochemical properties, development of products and innovative production systems.

#### MANUFACTURING

Piercan is a specialist in a wide range of elastomer transformation techniques to manufacture your technical parts and offers you techniques that are best suited for your project.



#### Calendering

The elastomer is passed between two rollers to achieve the desired thickness, and then vulcanized.

#### Injection

The elastomer is heated and then injected in molds and vulcanized. The part is then removed from the mold.

#### THREE-STAGE **INSPECTION**

We guarantee the quality of our products by supervising every stage of the manufacturing process:

**1 • Incoming inspection** of the raw materials and tools along with a check of the customized dimensions using our production management software.

**2** • Inspection of the physiochemical parameters by the quality control laboratory and the production parameters by the operators **during production**.

• **Dipping | Piercan's traditional core business** 70 years of experience and the world's leading manufacturer of containment gloves stand testimony to the brand's exceptional know-how. In dipping, the mould is immersed in baths to create a part that is then removed from the mould after drying and curing.

Piercan uses 2 types of baths: emulsions (natural rubbers, neoprenes) used primarily for technical parts and single layer or multilayer dissolutions (EPDM, CSM, butyl, polyurethane, etc.).

#### Compression

The preform (sheet, plate, etc.) is placed in a mold then compressed, vulcanized and removed from the mold.

#### Extrusion

The heated elastomer is pushed through a die. A continuous, hollow or solid profile is formed.

#### AVAILABLE MATERIALS



Materials used in emulsion NEOPRENE ANTISTATIC NEOPRENE NATURAL RUBBER HIGH TEMPERATURE NATURAL RUBBER

#### Others

OTHER MATERIALS (DISSOLUTION DIPPING) OTHER MATERIALS (OTHER TECHNIQUES)

This list of materials is not complete; do not hesitate to seek our help to choose the material best suited for your requirements.

#### 3 • Inspection of the finished product

Two types of inspections can be carried out depending on the requirements of the client: PIER-CAN standard inspection or customised inspection. The following inspections are performed:



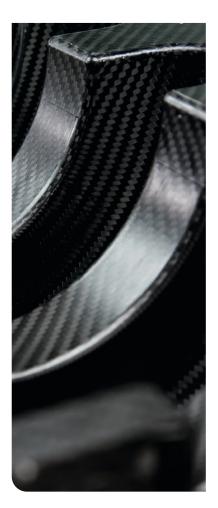
*100% visual inspection* Detection of defects and impermeability check.



*Dimensional inspection* Inspection of the length and thickness of the part.



*Marking* Identification of the inspected part for complete traceability.



#### CUSTOMIZED

## Compression bladders

Piercan specializes in manufacturing high temperature natural rubber latex bladders used for moulding by compressing composite material.



We manufacture bladders in complex shapes, small or large sizes (e.g. a spoiler auto of  $1.5 \times 0.5 \times 0.2$  m), used in the sports industry (competitive and non-competitive), automobile industry (Formula 1 and mainstream), cycling (competitive and non-competitive), aerospace industry, marine industry and in any other field whenever a hollow composite part is designed.

**Precision is a priority:** for high precision products, Piercan uses state-of-the-art technology, such as, manufacturing of 3D printed moulds.

**Price is a priority:** for mass production, Piercan optimizes every stage to offer you competitive rates.



#### Our strengths

- + innovative complex shapes
- + reduced manufacturing cost
- + reusable bladders
- + reduction in the finishing costs
- + perfect thickness control of the composite layer



#### CUSTOMIZED CATALOG

## Compression (Isostatic) of Powders

To compress powders, Piercan manufactures dipped natural rubber parts, whose mechanical properties (resistance to high pressures) are perfectly controlled.



Isostatic compression of powders is used for:

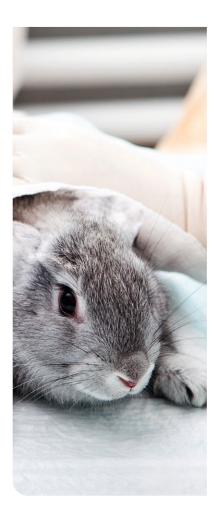
- Metallic or ceramic powders mixture for sintering
- Tungsten carbide compression (pressure 2000 bars)
- Creation of high density counterweights (F1, aircrafts)
- The bladders offered include:
- Large-sized (up to 2 m long)
- Very thick (up to 3 mm)





#### Our strengths

- + controlling the mechanical properties of natural rubber and dipped neoprene parts
- + multiple shapes, multiple moulds



#### CUSTOMIZED CATALOG

## Animal health / Veterinary

Piercan has developed a know-how renowned in the domain of animal health and reproduction.



We manufacture a number of customized objects or items mentioned in the catalogue meant for animal reproduction. These items are meant either for semen collection (condoms for bulls, ponies, etc.), or to stimulate the male breeding animal (artificial rabbit vagina, etc.), via systems, such as, specific textures or integrated liquid containers.

These parts are made with dipped elastomers or by cutting, pasting, etc.





 a product catalogue whose effectiveness has been amply demonstrated



#### (CUSTOMIZED) (CATALOG)

## Bellows (Telemanipulators)

World leader in glovebox gloves, Piercan is in fact a key player in the field of telemanipulator bellows. In this case, it is about protecting a mechanical arm in a glovebox.



The bellows have the same application as the glovebox gloves: pharmaceutical laboratories, nuclear, semi-conductors, research, hospitals, etc.

The bellows can be manufactured by dipping, by injection or by moulding.





Our strengths

+ wide choice of moulds and shapes

 appropriate regulation of the physiochemical properties of single layer or multilayer elastomers.



#### CUSTOMIZED CATALOG

### Tubes

A multitude of thicknesses, diameters, and materials, our extensive range of tubes allows you to choose the tube best suited to your use. We can also manufacture tubes based on measurements taken by you.



Catalog of tubes manufactured by dipping:

- Open or closed, round, flat, conical tubes, etc.
- 5000 molds in stock
- Diameters ranging from 2 mm to over 650 mm
- Thicknesses from 2/10 to 30/10 mm
- The crossing of these parameters results in a wide range
- Varied shapes: straight tubes, U shaped, S shaped, curved, etc.

#### Other possibilities:

If you require custom made tubes, other dimensions, other materials, other techniques (extrusion, etc.), we will support throughout the entire manufacturing process.







Our strengths

- + wide choice of materials
- + large number of existing moulds+ tubes for holding samples
- in measuring devices/ open tubes (sprue)
- + experience, key manufacturer



#### CUSTOMIZED CATALOG

## Miscellaneous

The examples cited below shall give you a better idea about our ability to adapt to the requirements of elastomer technical parts of all kinds and for all types of activities.



All elastomers, all shapes, all techniques.

- Examples:
- Fighter pilot's face mask
- Safety hoods
- Embolectomy bulbs
- Membranes for Carmat<sup>®</sup> artificial hearts
- Hoisting rings for parachutes (220,000/year)
- Elastomer plates
- Protective caps for switch

#### Materials

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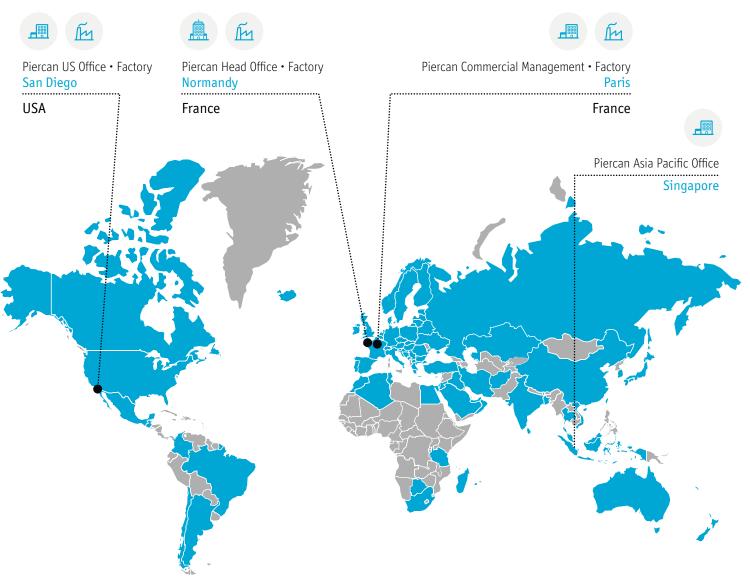
Our strengths

- + ability to adapt
- + as someone who offers solutions, we always have an answer for your questions
- + manufacturing PVC parts via our subsidiary Plastunion

# Piercan 2021 - Graphic Design: artkas.fr - © David Meignan

## Piercan around the world

PIERCAN is a French company and world's leading manufacturer of containment gloves. It has 3 manufacturing facilities across France and the United States and a product distribution network in 81 countries. PIERCAN is capable of fulfilling your requirements of technical parts, regardless of where you are located.



Piercan products are sold in 81 countries.



#### A QUESTION OR IN NEED OF INFORMATION?

Please do not hesitate to contact our sales team by phone or email. Piercan's services and products are only one call away:

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