



FONDERIES NICOLAS

THE RIGHT CHOICE, MADE IN FRANCE



NODULAR IRON CASTINGS
LAMELLAR GRAPHITE IRON CASTINGS
SPECIAL IRON CASTINGS

THE PROCESS

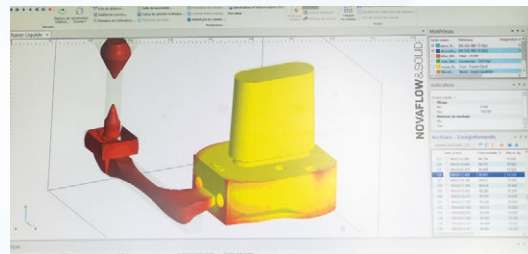


DESIGN AND CO-DESIGN DEPARTMENT

Fonderies Nicolas and its design department help you to carry out your project.

Research and development, simulations: We are there to help you from the genesis to the realization of your project.

Co-conception is our key word for a shared success.



RESEARCH AND DEVELOPMENT

Thanks to our various equipment: CAD, foundry simulation software or plastic 3D printing, we are able to make prototypes.

We also rely on our partners CRITT MDTs and Platinum 3D regarding R&D tools.

Our metallurgical lab implements and ensures the follow-up of new grades. We constantly aim at meeting new standards.



RAPID PROTOTYPING

Fonderies Nicolas is the co-owner of a company from Charleville-Mézières which makes moulds and sand cores with additive manufacturing.

This advanced technology speeds up the industrialization stages while reducing production costs.



PATTERN-MAKING

Fonderies Nicolas make moulds specifically designed to the quantity and the typicity of the parts.

They can be made of aluminum, resin, plastic or wood and we can also adjust to existing moulds.



MOULDING

Fonderies Nicolas has a moulding site with horizontal moulding machines (Green sand process - 100 moulds per hour) completely automated which allow speed and flexibility.

Our sand is constantly recycled for optimal environmental protection.



CORE MAKING

Our core making automated machines driven by experimented teams, cold box and hot box facilities and Croning & Ashland processes allow an outstanding core making while reducing significantly the impact of machining.

Our speciality: pieces with very specific shapes.

Fonderies Nicolas uses clean resins in compliance with environmental standards.





MELTING

We make :

- Ferritic and pearlitic nodular iron
- Grey iron
- Malleable iron
- Allied cast iron
- ADI cast iron
- Low temperature cast iron EN GJS 350.22
- High-Silicon content castings



SHAKEOUT SHOT PEENING SANDING

The shakeout which is the first stage after the pouring one is made automatically.

The robot-assisted shot peening suitable for any size and geometry of parts avoids any distortion.

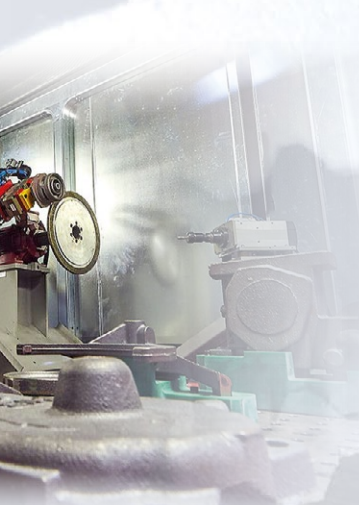
The sanding process aims at enhancing surface finishes, our sand blasting machines are particularly suitable for the cleaning of the hoses of hydraulic parts.



DEBURRING

For larger parts and large series, Fonderies Nicolas use a robot cell. Being much more suitable for heavy parts, this ABB robot proves to be much quicker and more effective while protecting the physical integrity of operators.

For small pieces or small series, Fonderies Nicolas favour manual deburring.



HEAT TREATMENT

Our furnace has a five-ton capacity.

This process which is performed in our workshop is to enhance the mechanical properties of the parts.



MACHINING

As part of their expansion, Fonderies Nicolas has just acquired a machining subsidiary.

The production equipment which includes 4 machining centers, 6 numerically controlled lathes, different models of drills and a 3D machine for tridimensional is run by an experienced team.



SURFACE TREATMENT

For optimum reliability, Fonderies Nicolas control several processes for the highest finish quality and protection:

Zinc plating

Painting (liquid and epoxy)

Electrodeposition

Zinc coating

And any kind of adapted treatment requested by the customer.



ASSEMBLY, STORAGE AND LOGISTICS

As assembly is carried out in our workshop, our teams can include any other components.

To shorten manufacturing time and minimize costs, Fonderies Nicolas have a high capacity of storage.

In addition to this, we ensure the packaging and manage the logistics to provide our customers a full service.



MEANS OF PRODUCTION

⚙️ CORE MAKING

*3 automatic core making machines
Cold box facilities (H5 – H12 – H16) and hot box facilities
Croning & Ashland processes*

⚙️ AUTOMATIC IMPACT MOULDING

*Small and medium series from 1 to 10 000 pieces
400 x 600 x 150 x 150 frames.*

⚙️ MELTING

2 medium-frequency induction furnaces (1 metric ton each)

⚙️ TESTS AND INSPECTIONS

*Thermal and spectrometric analyses
Mechanical tests, brinell hardness tests, microstructure, magnetic crack detection, ultrasonic tests
Inspection on 3D-machine
Contaminant research*

⚙️ TRIMMING WITH HYDRAULIC WEDGE

⚙️ SHOT PEENING

*Drum blast machines
Sand blast machines*

⚙️ HEAT TREATMENT

*Capacity : 5 tons
Tempering, ferritizing, stabilization, pearlitization
(electric furnace with automatic regulation et controlled atmosphere)*

⚙️ INTEGRATED PATTERN-MAKING

Wood, resin and aluminium pattern-making equipment..

⚙️ INTEGRATED MACHINING



Fonderies Nicolas 's subsidiary

⚙️ 6 NCC LATHES

*Turning capacity from 8 to 420 mm
Capacity between centers 0 to 600 mm*

⚙️ 4 MACHINING CENTERS, ONE OF WHICH WITH A 4TH AXIS

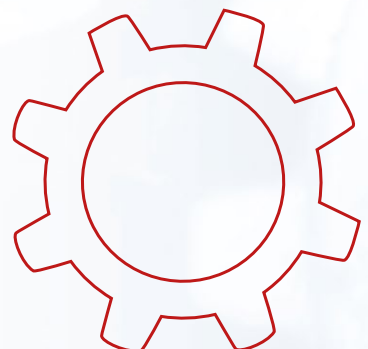
Capacity 800 x 500 x 500 mm

⚙️ TRADITIONAL MACHINE

Drilling, milling and tapping machines ...

⚙️ 3D MACHINES FOR TRIMENSIONAL CONTROL

Capacity between centers 800 x 500 mm



BUSINESS SECTORS



1880

Fonderies Hardy
Capitaine was
established

1980

Hardy Capitaine becomes
Fonderies Nicolas

1990

The corporate group
Devaux Werts takes over
Fonderies Nicolas

2000

The corporate group
Devaux Werts hands over
to groupe Delachaux

2012

MBB Holding
takes possession
of Fonderies Nicolas

WHO ARE WE?

Less than 2 hours from Paris, 1h30 from Brussels, 1h30 from Luxembourg and Germany, in the heart of an employment area of almost 300 million inhabitants within 250 kms, Fonderies Nicolas has an exceptional geographical situation in a department well equipped with road, rail and air infrastructures providing facilitated access.

In the Ardennes, industry holds an important place. Even today, more than 50% of employees in the private sector works in the industry sector. Foundries play there a significant employment role.

Fonderies Nicolas are the perfect illustrations of this. From the research and development, the co-conception to the making of your cast parts not to forget the machining, the surface treatment, the finish, everything is done to get your complete satisfaction. Logistics are also integral parts of our services.

Fonderies Nicolas place the quality of its customer relationships at the core of its concerns. A strong and dynamic team made up of young and experimented staff aims at meeting challenges on a daily basis.

From the very little series to the largest ones, from the most simple to the most complex ones, from the tiniest to the biggest part, in a wide variety of sectors ranging from public works, rail, energy, industrial pumps, hydraulics or agriculture, women and men from Fonderies Nicolas adapt, organize and challenge themselves for a high-level outcome at all times.

KNOW-HOW

For almost 100 years, Fonderies Nicolas has designed, produced, moulded cast-iron pieces.

From 10 g to 25 Kg pieces, from single to serial pieces, from basic pieces to the most complex ones, our team meets your need according to the high standard for which it is known.

Our skills: quality, reactivity, performances.



FONDERIES NICOLAS

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BUREAU VERITAS
Certification

