



atech.

Designer and manufacturer of urban vegetal furniture

A KNOW-HOW | PEOPLE



Thomas BOURGEOIS-REPUBLIQUE, Director

"Based on our 30th years of experience in the landscape sector, we support your projects whether there are in planted, in pots or in suspension. We will find the most suitable solution: standard or bespoke. We are a single team dedicated to the success of your projects, that is how our services are only one to think, calculate and plan your needs. From our head office in Maine et Loire (49) France, we equip cities in more than 35 countries, but also prestigious places such as hotels, or institutions internationally known. ATECH will satisfy your steel requirements regardless of the alloys requested. Indeed, we work steel, stainless steel, Corten steel or aluminium. We are the ideal partner to create your bespoke landscape containers."

OUR PROCESSES

LASER CUTTING

Laser cutting is a manufacturing method that consists in cutting the material thanks to a large amount of energy generated by a laser and concentrated on a very small surface. This process allows a precise, clear and fast cutting of many materials up to 25 mm. In order to achieve an optimal cutting quality, it is necessary to give a vector file of the laser cut drawing desired. If the file provided is not a vector file, our graphic team will have to work on it, also an extra cost will be invoiced.

FOLDING

Folding a sheet metal is an industrial technique which consists in deforming the material according to a rectilinear fold. Folding is made here with metallic materials. The choice of the conditions – width of the vee, type of knife, power of the press – depends on the thickness of the sheet and the angle of folding. The material is placed on the die, and positioned in place with hold-downs. The upper part of the press, the ram with the appropriately shaped punch descends and forms the v-shaped fold. Folding is done using Press Brakes.

ANTI-CORROSION TREATMENT

In our manufacturing processes, we use cathaphoresis, hot-dip galvanization, sandblasting and PPRZ (Primary Powder Rich in Zinc). These treatments are applied once the welds are done, upstream from the powder coating. Corrosion refers to the alteration of a manufactured object by the environment. Most known examples are chemical alteration of materials with water (with or without oxygen), such as steel or iron rust, or the apparition of Verdigris on copper and its alloys. Whenever a metal is exposed to oxygen, its oxidation begins immediately. The material in which the piece is done is not the only factor of the oxidation speed, because incurred treatments like folding and welding are playing a primordial role. It is for this reason that the treatment takes place once the product has been manufactured.

ROLLING

Sheet rolling (sheet metal roll-bending) is a technique for transforming a flat surface into a closed cylindrical or conical surface (closed rolling : ferrule) or open rolling. The roll-bending is obtained by a bending force caused either by pressure or by impact. The sheet is moved by two mechanically controlled rollers. It is then subject to a continuous bending force applied by one or two bending rolls.

TIG WELDING

TIG welding (Tungsten Inert Gas) is an arc welding process with a non-fusible electrode. In fact, the electric arc replaces the flame of the traditional torch. The electric arc is created between the electrode and the part to be welded which is protected by a gas or a mixture of rare gases such as argon and helium. It relies on the temperature heating of the pieces to assemble until the fusion point thanks to an alternative or continuous electric current. TIG welding is qualitative and requires a particular dexterity from the welder. The visual quality is excellent and the process suits all the materials. Moreover, the compactness of the torch allows to weld in spots hard to access for other processes.

PAINTING

Our products are painted mainly in powder coating but we sometimes use liquid paint. Liquid paint is applied using aerographic guns and a solvent-based paint, then the painted parts are left to dry naturally. Prior to this operation the metallic part goes through a sandblasting process. Powder Coating is a type of coating that is applied as a free-flowing, dry powder. The main difference between a conventional liquid paint and a powder coating is that the powder coating does not require a solvent to keep the binder and filler parts in a liquid suspension form. The coating is typically applied electrostatically and is then cured under heat to allow it to flow and form a "skin".

THE MIX OF MATERIALS TO BETTER GRASP THE SPACE



In order to fit in every spaces, we mix materials. We add, for example, stone or wood to stainless steel. We combine wood with Corten. And we also can join stainless steel with aluminium and with wood.

STAINLESS STEEL, THE MODERN ONE



Stainless steel is an alloy of steel (carbon + iron) to which chromium is added. It is very resistant to rust and corrosion. We offer the finishes: brushed, mirror polished, powder coated and varnished (protective and anti-graffiti).

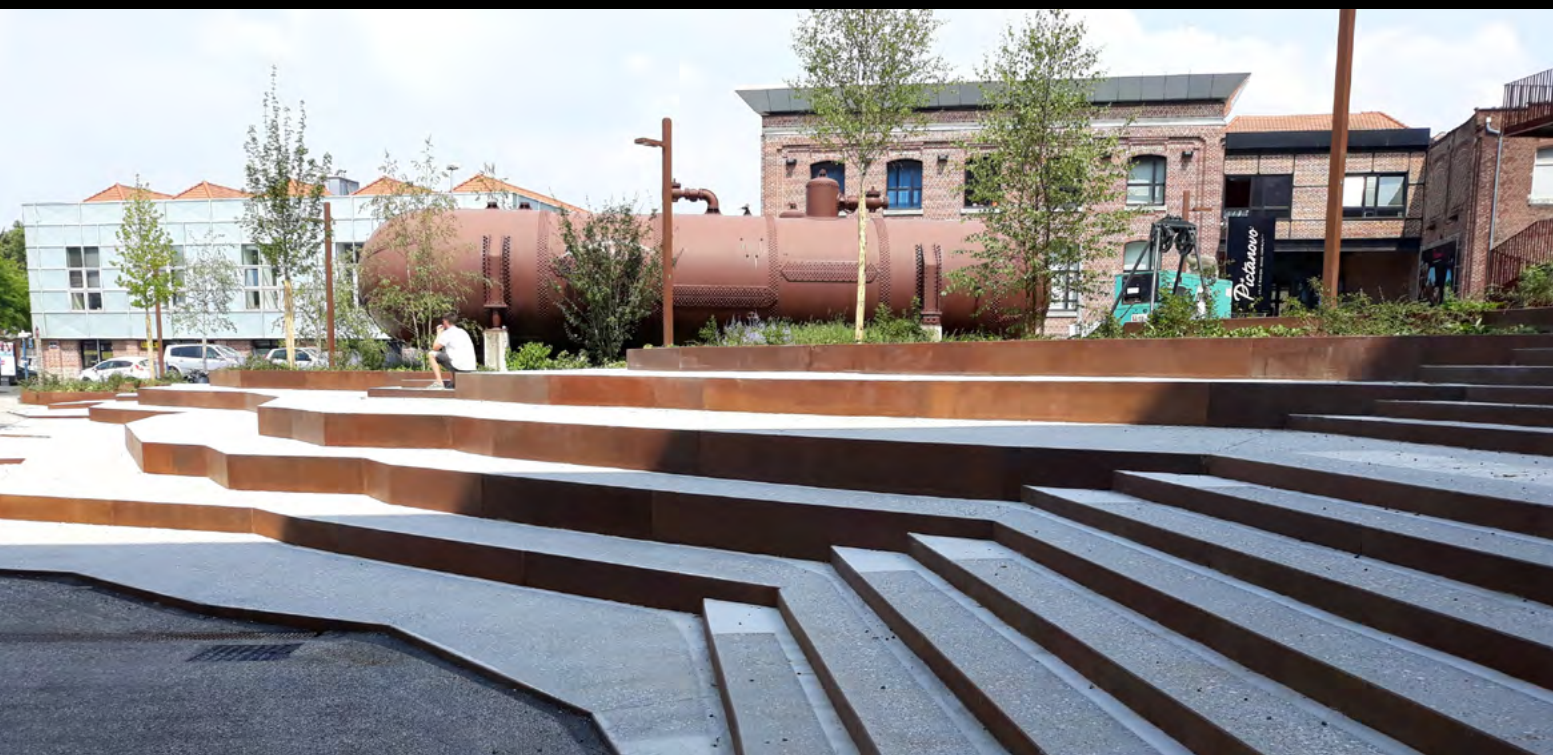


ALUMINIUM, THE MALLEABLE ONE



Aluminium is an alloy that stands out for its lightness and high resistance to corrosion (especially seawater). It is a malleable material with folding, bending, machining and welding capabilities. We offer finishes: brushed, powder coated and varnished (protective and anti-graffiti).

CORTEN, THE LIVING ONE



Corten steel is a steel to which a number of alloys such as P, Cu, Cr, Ni Mo have been added to increase its resistance to atmospheric corrosion. The anticorrosive properties of weather-resistant steel are based on the protective oxide layer, called patina which forms on the surface of the steel. At first, the patina is a reddish brown colour, but with time takes on a darker hue. Thus, changes of colours appear according to the light and the temperature. More the environment is hot and bright, more the rust aspect will be light and conversely. The patina will form after 2 to 3 weeks and is stable only after 18 to 36 months. ATECH offers corten says: "A", that is to say, it is less porous over time and therefore more qualitative. Then, according to your desires, different finishes are available: sandblasted, activated, stabilized or varnished (protective and anti-graffiti).

STEEL, THE INESCAPABLE ONE



Steel is an alloy (carbon + iron). In order to protect it from corrosion, we hot-dip galvanized it. It consists of covering a steel surface with a layer of zinc. We offer the finishing: powder coated and varnished (protective and anti-graffiti).

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