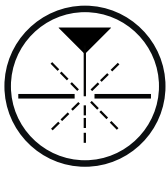


4INDUSTRY HARDWARE MACHINERY POSSIBILITIES



CNC LASER CUTTING & MILLING

WORKING AREA: 3000 X 1500 MM

MATERIAL THICKNESS:

CARBON STEEL 25 MM, STAINLESS STEEL 12 MM



Laser cutting is currently the most precise method used in the industry, allowing to obtain an even cut with the same repeatability. Full automation of the process with simultaneous optimization of individual components of the device makes laser cutting dynamic. Thanks to the high laser power, precise and clean laser cutting can be performed on elements of materials of different thickness and hardness. We can process black metal sheets, stainless steel, aluminum, copper and brass in a comprehensive way. Laser sheet metal cutting is performed taking into account specific customer requirements to obtain elements with specific technical parameters.



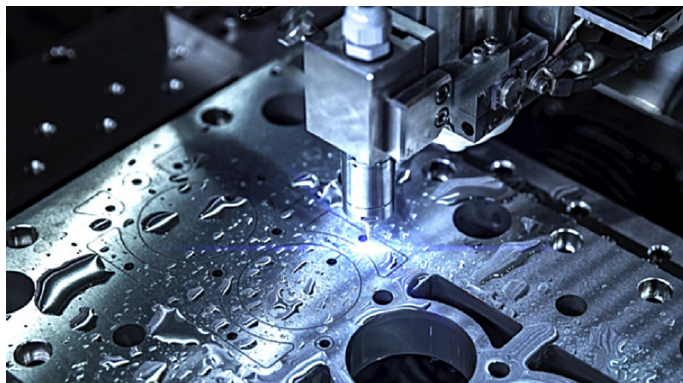
CNC HYDRO CUTTING (WATER JET)

WORKING AREA: 4000 X 2000 MM

MATERIAL THICKNESS: UP TO 460 MM

MATERIAL TYPE: ALL TYPES

Water jet cutting is a method of cutting various materials using an extremely high pressure of water. The muzzle velocity of the water can sometimes reach 760 m/s. Water jet machining allows you to cut even large elements or several at the same time. Depending on the nozzle used and the entire water supply system, this technology allows the processing of elements with a thickness of 150 to even 460 mm. Interestingly, the technology of waterjet is not new, because the first industrial machines using this cutting method appeared in the 1930s.



METAL BENDING & CURVING

MATERIAL WIDTH: UP TO 6000 MM

MATERIAL THICKNESS: UP TO 14 MM (MAXIMUM LENGTH 3000MM),
UP TO 12MM (MAXIMUM LENGTH 6000 MM)

BENDING ANGLE: UP TO 90 +/- 5 DEGREES



Bending is generally the action on the surface of the processed material with a specific mechanical force in such a way as to change its curvature and give it a specific shape. Computer-controlled press brakes allow for the greatest repeatability of the process and guarantee very high precision. The choice of the bending technique depends, of course, on the thickness and plastic properties of the material, as well as on the shape we want to achieve. We are able to obtain many lines on one element, which in turn gives perspective for creating various types of solids, housings and details.

4INDUSTRY HARDWARE MACHINERY POSSIBILITIES

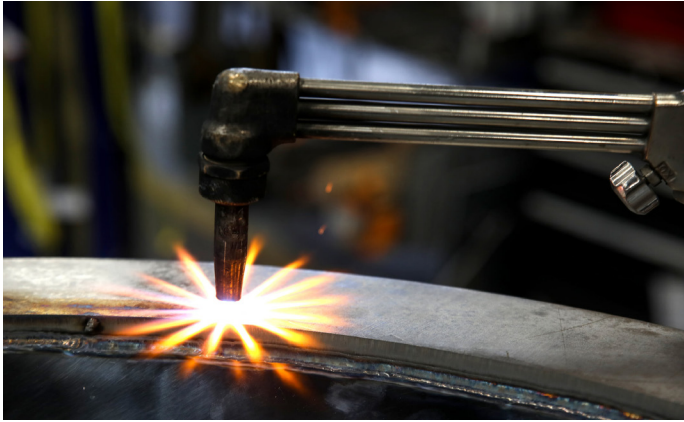


METAL STRAIGHTENING

MATERIAL WIDTH: 3000 MM

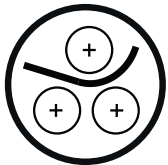
MATERIAL THICKNESS: 12-14 MM

STRAIGHTENING WITH A BURNER: ANY MATERIAL DIMENTION



Straightening of metals is an antagonistic process to bending materials, but the opposite. The desired simple shape of the material is obtained using the same devices, including, among others, presses, rollers etc. It is a process that is used to remove unwanted deformations caused by various mechanical and environmental factors.

Flame straightening, on the other hand, is a way to restore the proper shape of the welded elements without changing the properties of the material. This is because it is a deliberate heating of a metal structure with a flame, during which selected precisely defined areas of the material will be heated to the flame temperature (above 720°C) and then they will be given a specific shape.

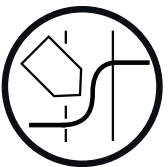


METAL ROLLING

MATERIAL WIDTH: 3000 MM

MATERIAL THICKNESS: 12-16 MM

Sheet metal forming is one of the most popular processes carried out for industrial purposes. Sheet metal rolling consists in preparing its shape so that it meets strictly defined criteria. Hence the special importance of precision. Our advantage is experience and advanced technologies. Sheet metal rolling is carried out using modern CNC and conventional rolling mills. With machines with a working length of 3000 mm and a maximum rolling thickness of up to 16 mm, we guarantee a special range of services that allow you to give the sheets the desired curvature.



METAL SPINNING

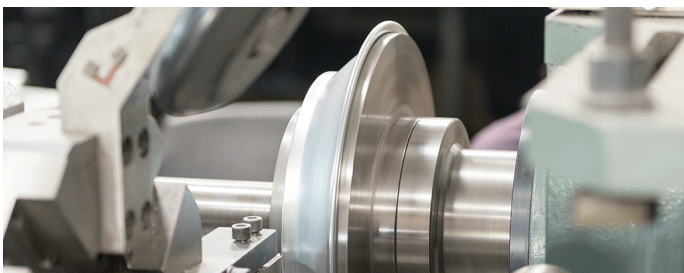
MATERIAL DIMENTION: MAXIMUM DIAMETER 1000 MM

MATERIAL THICKNESS: 0,5 - 5,0 MM DEPENDS OF MATERIAL:

ALUMINIUM 0,5 - 5,0 MM

CARBON STEEL 0,5 - 4,0 MM

STAINLESS STEEL 0,5 - 3,0 MM



Metal spinning is a type of plastic processing of sheet metal. Formerly called "drücking". This method of plastic working uses the susceptibility of materials to deformation (after exceeding the yield point), without breaking the continuity of the shaped sheet. As a result, we obtain from the starting material (e.g. a sheet metal disc) a thin-walled solid of revolution, often of a very complicated shape.

4INDUSTRY HARDWARE MACHINERY POSSIBILITIES



METAL DRILLING & MILLING

TABLE DIMENTION / WORK AREA: 2134 X 711 MM

AXIS "X" MOVEMENT: 813 MM

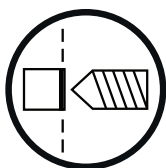
AXIS "Y" MOVEMENT: 762 MM

AXIS "Z" MOVEMENT: 127-889 MM



Milling and drilling are types of machining. With the help of a multi-edge tool called a milling cutter or a drill, introduced in rotation, objects made of metal, wood, plastic or other materials can be shaped. The cutter also moves relative to the workpiece in one or more axes. There are several milling techniques. They can be divided according to the arrangement and the way the blades move.

Drilling is also a type of machining, where a tool called a drill allows you to get a hole/holes in the solid material.



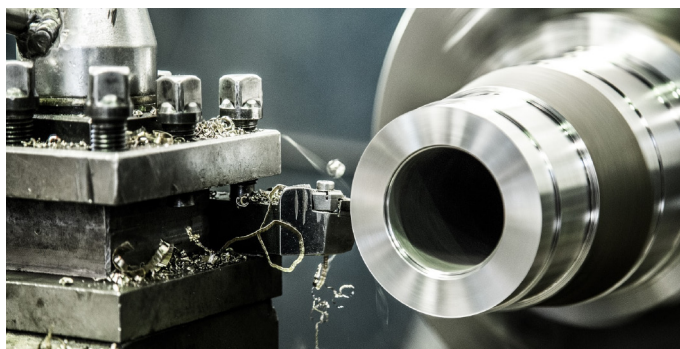
METAL LATHE PROCESSING

MAXIMUM LENGHT OF ELEMENT: UP TO 12 000 MM

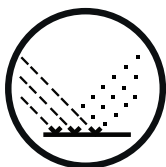
MATERIAL DIAMETER: UP TO 655 MM

ACCURACY: UP TO 0.003 MM DEPENDING ON THE ELEMENT LENGTH

Turning is a type of machining most often used for machining external or internal surfaces of objects in the form of solids of revolution or axisymmetric contours. Turning consists in separating a layer of material from an object with a turning knife in order to obtain the desired shape and dimensions.



4INDUSTRY



SHOT & GLASS BEAD BLASTING

PASS-THROUGH MACHINE - WIDTH: 1500 MM X ANY LENGHT

HAND PROCESSING: UP TO 10 000 MM X 4000 MM

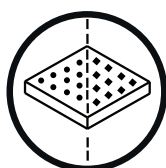


Shot blasting is one of many methods of blasting and abrasive treatment of metal elements. This process is widely used and affects not only the external appearance of the metal, but also strengthens its structure and refines its surface. Shot blasting is a process of cleaning steel elements using materials with high abrasive properties.

WORKING AREA: WIDTH: 1500 MM X LENGHT: 3500 MM

MATERIAL THICKNESS: DO 150 MM

MATERIAL TYPES : METAL, WOOD, STONE



METAL DEBURRING & SATIN FINISHING

Deburring is an abrasive treatment process involving the removal of burrs and irregularities in the form of sharp material residues on the edges of the detail, remaining after various types of machining. Satin finishing, i.e. mechanical abrasive treatment consisting in giving the surface a specific cut and thus a visual effect. Thanks to this treatment, it is easier to bring out the surface structure, but this happens without losing the thickness of the element.