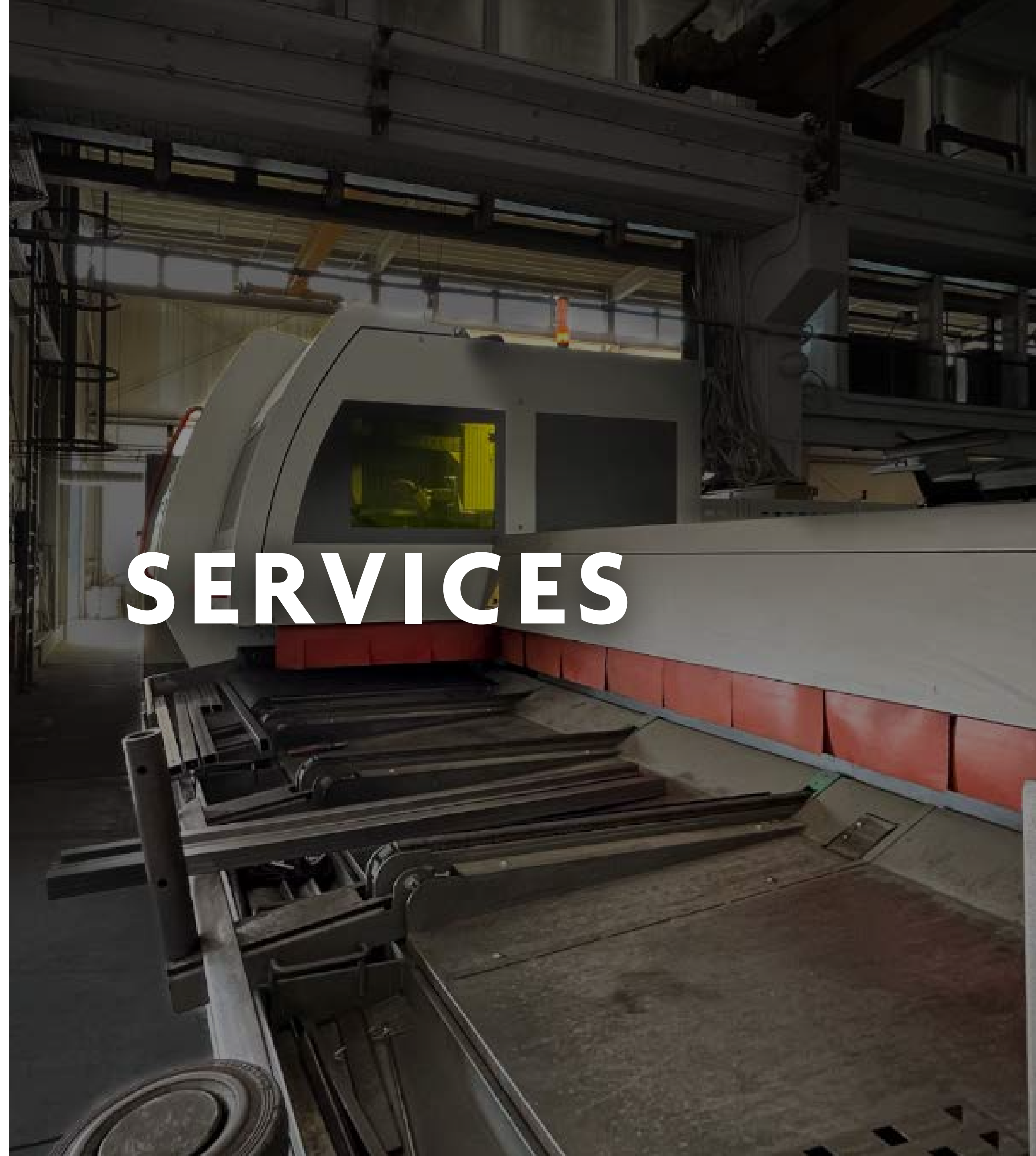




What can we do for you?

# SERVICES





For over 30 years, ENIX has been serving a wide range of customers both on the domestic and international markets, which proves our experience and customers trust. We are known for an excellent quality of our services and specialised machinery that allows us to deal with the most demanding projects.

We offer you services in the fields of welding, soldering, shot blasting and powder coating. Our offer includes the production of both small series and mass production. We carry out the entire process from components to finished products for retail sale. Our dedicated team of specialists is ready to quickly execute smooth orders, ensuring punctuality and thoroughness at every stage of the production.

With our experience and commitment, we will meet the expectations of every client. At ENIX, not only do we provide the quality of services, but also a comprehensive approach to the needs of our clients.



- 01** SHOT BLASTING
- 02** FURNACE SOLDERING
- 03** INDUCTION SOLDERING
- 04** CIRCULAR SAW CUTTING
- 05** LASER CUTTING
- 06** POWDER COATING
- 07** ULTRASONIC CLEANING



## SHOT BLASTING

Shot blasting is a perfect way of preparing the surface before painting. It removes oxides and any remains of the previous coatings, leaving a surface with appropriate roughness to increase paint adhesion.

In this way, we clean steel elements: thick sheets, welded structures but also rims from which the paint had previously been removed.

The abrasive blasting machine works for the set amount of time, during which the processed metals are rotated and moved deeper into the chamber to ensure thorough cleaning of all surfaces of the detail. Three turbines powered by the 7.5kW engines each, give the shot particles enormous energy and, as a result, after the shot hits the cleaned surface, contaminants are utterly removed.

The service is performed using the Schlick steel machine HB 12/20.

The dimensions of the shot blasting machine are:

1200mm (width/depth) x 2000mm (height).

# 01 SHOT BLASTING



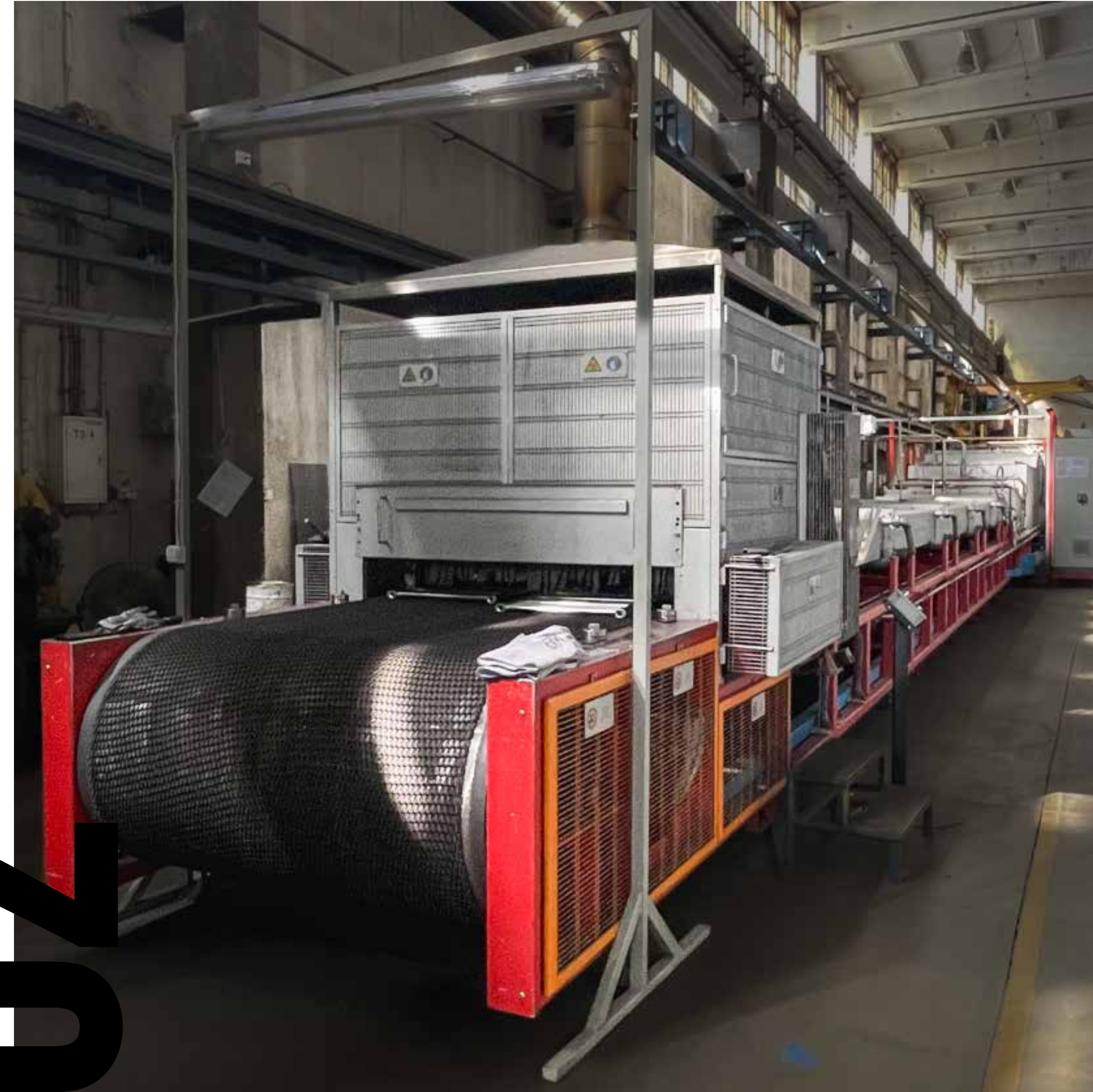
## SOLDERING

Furnace brazing is a perfect way of very efficient joining of elements made of low-carbon steel.

The brazing process uses the phenomenon of capillary pressure thanks to which the molten solder readily penetrates narrow gaps, ensuring enormous strength and tightness of a properly designed connection. Furthermore, a huge advantage of such process is the fact that all surfaces are cleansed of oxides that occurred before the brazing, because inside the furnace, during the soldering process, there is an appropriate mixture of shielding gases preparing surfaces for soldering and decomposing iron oxides for metal in its pure form. This is the so-called endothermic atmosphere.

We perform brazing in an industrial furnace 130-17-600-GI-DR. The soldering temperature is approximately 1085 degrees Celsius. The chamber inlet dimensions are 170mm (height), 1300mm (width). The process capacity is a maximum of 800kg/h.

# 02 SOLDERING



## INDUCTION SOLDERING

Soldering using induction heating is a process of joining elements made of low-carbon steel, carried out for fewer amount of details, which cannot be soldered in an industrial furnace, or for which lower soldering temperature is particularly important, and the gaps between the joined elements aren't as perfectly matched as in the furnace soldering.

In this process we use soldering materials such as: flux (for preparing soldered surfaces) and solder in the form of rods or rings. Heating the soldered details is done by placing the elements inside the inductor and tripping in the converter flow of medium or high frequency current.

# 03 INDUCTION SOLDERING



## CIRCULAR SAW CUTTING

Cutting with an efficient circular saw is a necessary process in most manufacturing industries, e.g. the construction industry, automotive industry or the furniture industry.

We offer precise straight cutting of steel elements (pipes and profiles) **WITHOUT THE USE OF EMULSION**, which always remains on the material, pollutes the workplace and storage area of the cut elements and requires subsequent removal. Our technology uses microlubrication, which: cools the tool during cutting and almost completely evaporates from the material.

We perform efficient cutting with an automatic BLM Twincut circular saw.

The minimum length of the cut section is 65mm.

Diameter of cut pipes in the range of  $\phi 12-80$ mm.

Cross-section of profiles from 15x10 to 70x80mm.

Bar length before cutting: max 6500mm.

# 04 CIRCULAR SAW CUTTING

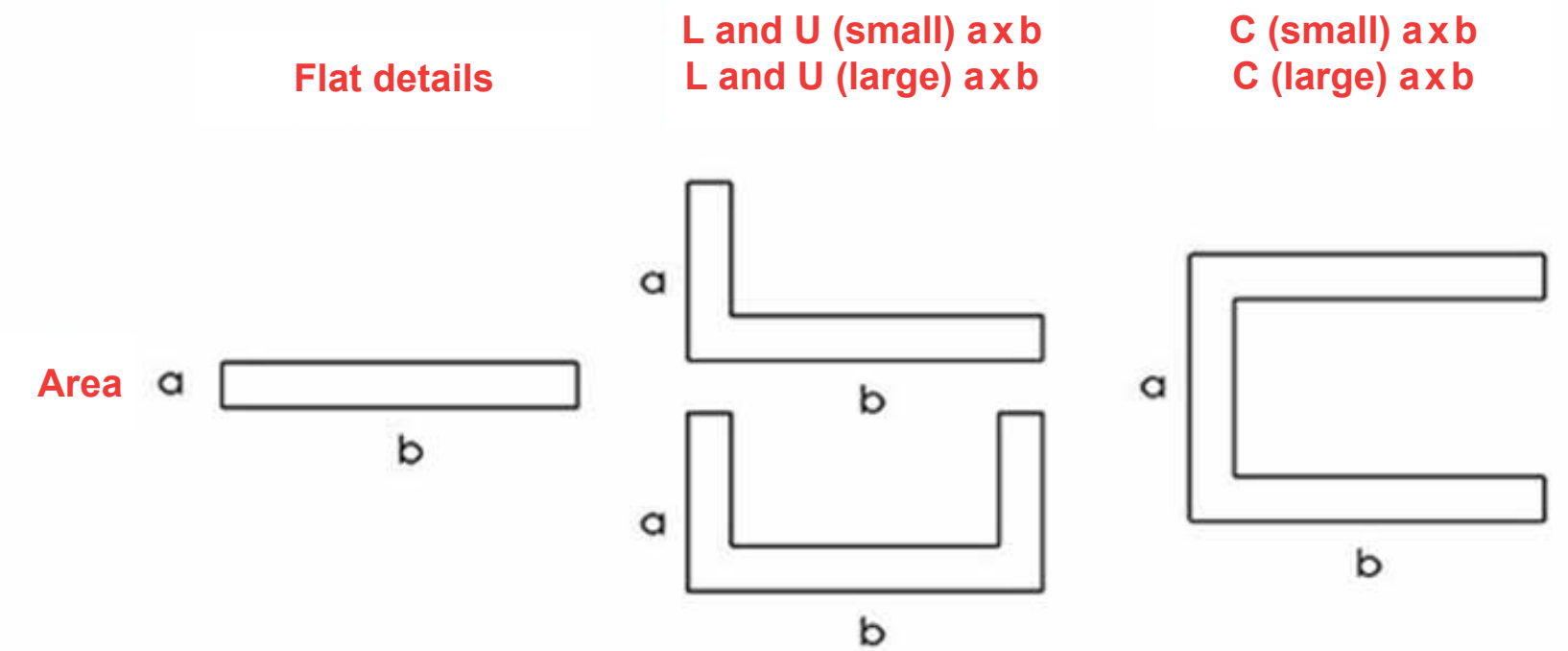


# LASER CUTTING OF PIPES AND PROFILES

We provide laser cutting services of pipes and profiles using the LT Fiber machine from BLM Group. Laser cutting provides very high precision and repeatability, thanks to the implementation of the Active Scan laser profile measurement system. This technology allows to eliminate profile twisting and bending errors. We perform service valuations based on a drawing or 3D model.

- machining of closed profiles in the range of 12–120mm,
- pipe processing in the range of  $\phi 12 - \phi 140$ mm,
- maximum material thickness 10mm,
- loading length 6.5m,
- unloading length 4.5m,
- pipe/profile weight up to 15kg/m, total 100kg,
- processed materials: structural steel, stainless steel, copper, brass,
- processing of flat bars and open sections according to the table.

# 05 LASER CUTTING OF PIPES AND PROFILES



a minimum x b minimum	5 x 40	15 x 30	30 x 55	20 x 30	30 x 55
a minimum x b maximum	5 x 120	15 x 70	30 x 120	20 x 70	55 x 120
a maximum x b minimum	10 x 40	30 x 30	55 x 55	30 x 30	55 x 55
a maximum x b maximum	10 x 120	70 x 70	120 x 120	70 x 70	120 x 120
Area	5 x 40 10 x 120	15 x 30 70 x 70	30 x 55 120 x 120	20 x 30 70 x 70	30 x 55 120 x 120



## POWDER COATING

Powder coating is an alternative method of applying coatings to wet painting. As a result this process produces a good quality surface, without streaks and unevenness, and the thickness of the obtained layer is in the range of 100-200 micrometres, which perfectly protects details against corrosion. Applied paint powder adheres to the metal using electrostatic forces, and then the paint polymerization process takes place in the furnace at a temperature of about 180°C.

We use a wide range of colors according to RAL and we use interesting structural powder paints as well.

Maximum dimensions of elements painted in our paint chamber are:  
400mm x 1500mm x 2200mm.

# 06 POWDER COATING



## ULTRASONIC CLEANING

In our Ultron UNP-500 3D PRINTER ultrasonic cleaner we clean the details to remove filings, impurities, grease, etc. In the cleaning process, we use appropriately selected cleaning agents. The whole process takes place in several steps:

- immersion cleaning
- immersion cleaning with ultrasound
- spray cleaning
- immersion rinsing
- spray rinsing
- drying

During cleaning, the details are in the basket that is making twisting or swinging movements to release as much filings and impurities as possible.

# 07 ULTRASONIC CLEANING



**LOOKING FORWARD  
TO OUR CO-OPERATION**



**ENIX**

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