



www.brako.com.mk
043212560
office@brako.com.mk



WHO WE ARE

- Leader in the metal processing industry in North Macedonia and Southeast Europe.
- A large portfolio of products and the widest range of programs.
- 500 employees working domestically and in our international subsidiaries in Europe and the USA.
- A total area of 120,000 m².
- Our plants are equipped with state-of-the-art process automation, including welding robots, CNC machines, plasma cutters, and other advanced technologies that enhance the value of the metalworking industry.
- With a team of 50 engineers developing innovative products and technologies, BRAKO is a preferred partner for leading global companies.



1. "GREEN MACHINES" ELECTRIC AND HYDROGEN-POWERED SWEEPERS

BRAKO - FOUR FACTORIES IN ONE

Technologically advanced vehicles, meticulously designed and manufactured entirely by our factory employees, from concept to completion.

Electric machines produced in Veles operate in global capitals such as London, Paris, New York, Washington, and many others across over 60 countries worldwide.

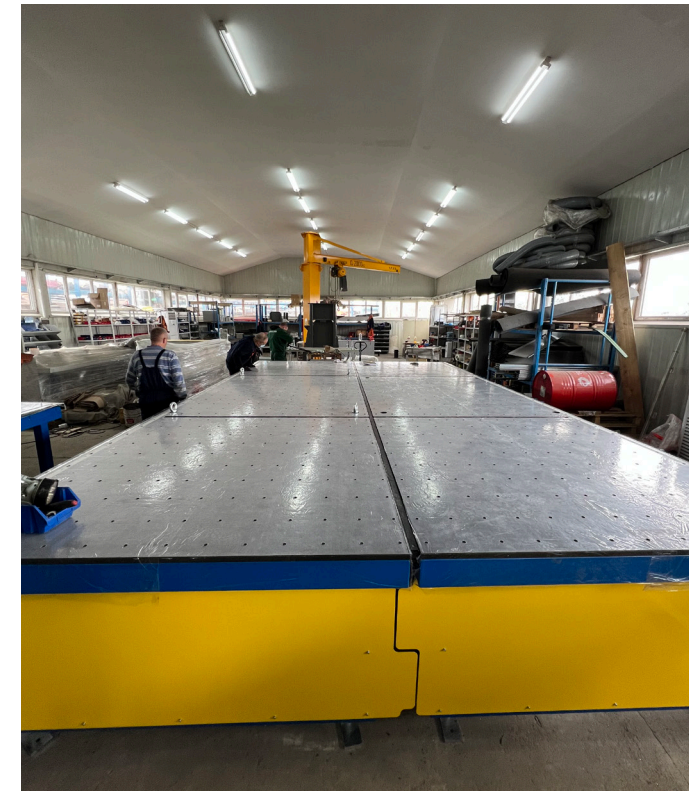


2. HEAVY WELDED METAL STRUCTURES AND MACHINES FOR AUTOMATION

BRAKO - FOUR FACTORIES IN ONE

Thanks to investments in modern machinery and engineering expertise, BRAKO now produces:

- Automated machines for leading companies in Italy, Switzerland, and Germany.
- Agricultural machinery for Austria.
- Turbines for small hydroelectric power plants.
- Forklift equipment.
- Base stations for the telecommunications sector.
- Various other high-quality products.



3. MEDICAL EQUIPMENT AND FURNITURE

BRAKO - FOUR FACTORIES IN ONE

BRAKO operates a dedicated program for manufacturing medical furniture and equipment for globally renowned companies in Sweden, Denmark, the United Kingdom, the Netherlands, and other international partners.

Our products are designed to address the operational needs of medical facilities and cater to the specific requirements of individuals with unique medical or health challenges.

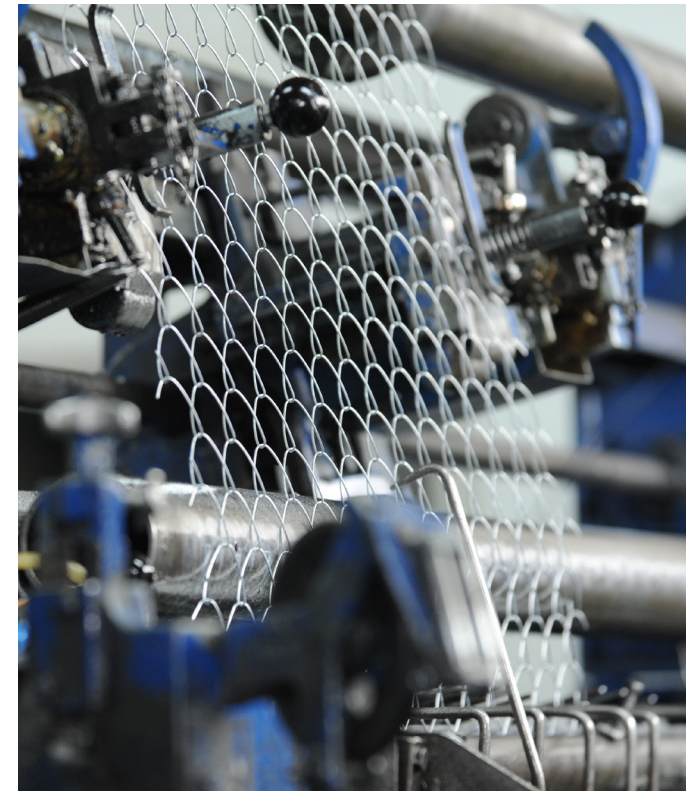


4. WIRE PRODUCTS

BRAKO - FOUR FACTORIES IN ONE

Wire and wire products were the first production program of BRAKO, established in 2003.

BRAKO is the largest wire producer in Southeast Europe, offering a broad and diverse range of high-quality products at competitive prices.





SUPERIOR TECHNICAL EQUIPMENT

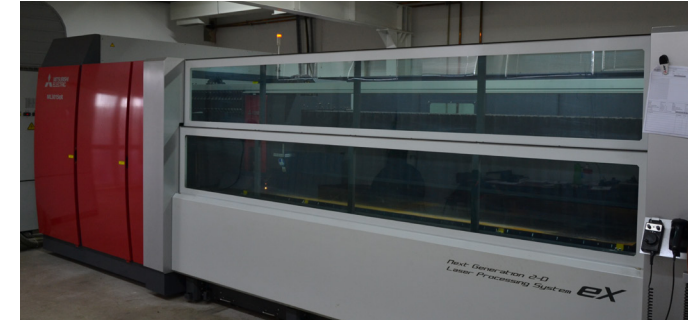
BRAKO uses state-of-the-art technology and eco-friendly machinery to ensure precision and high-quality production across its facilities. Capabilities Include:

- Plasma metal sheet cutting
- Laser metal sheet cutting
- Press brake
- CNC Milling machines
- CNC lathes
- Welding of steel, stainless steel, aluminium (manual and robot).
- Powder painting
- Wet painting
- Automatic and semi-automatic painting workshops
- Zinc plating
- Assembly
- Quality assurance - ISO9001 certificate - ISO14001 certificate

CONFECTIONING OF MATERIALS

CNC Lasers

Two Mitsubishi CNC lasers are used for assembly and precision sheet cutting, ensuring material accuracy of 0.1 mm. These lasers process steel, aluminum, and stainless steel sheets, allowing for immediate use in production without additional finishing.



CNC Plasma Cutting

Two CNC plasma cutters handle sheet metal up to 35 mm thick, with a cutting accuracy of 0.5 mm. One plasma cutter features an additional head for hole creation in larger tubes and can be equipped with gas cutting heads for sheets up to 110 mm thick.



CNC Laser for 3D Cutting

A specialized CNC laser enables three-dimensional pipe cutting with 0.1 mm accuracy. This machine is ideal for tubular structures in medical and vehicle production programs.



Shot blasting automatic line

The shot blasting line prepares sheets, tubes, and welded assemblies for anti-corrosion treatment.



CNC MACHINING

- CNC milling machines with 3 synchronized axes for part production and machining.
- CNC lathes with 4 synchronized axes for parts up to 6000 mm x 4000 mm x 2500 mm and weights of up to 20 tons.
- Six CNC lathes with automatic material feeds for rotary machine parts.
- CNC gantry milling machine with dimensions of 6000 mm x 3500 mm x 1500 mm and a precision of 0.005 mm



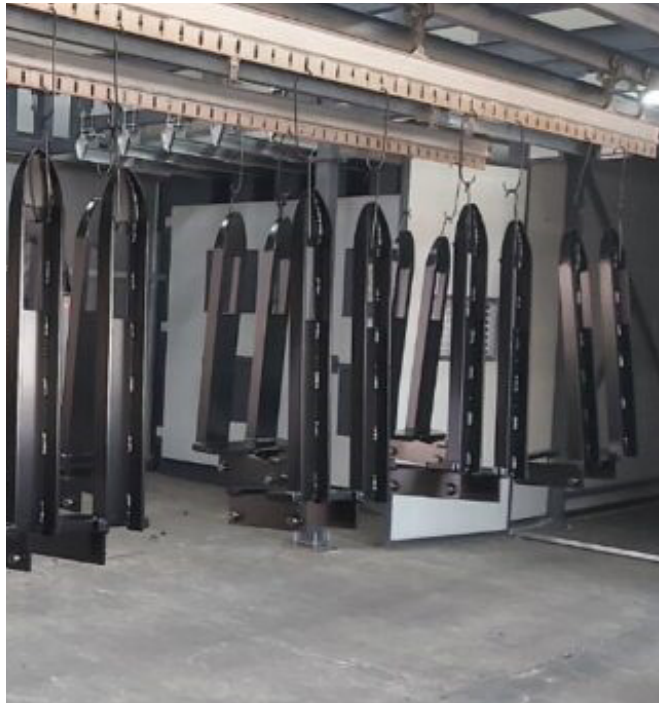
SURFACE PROTECTION OF METALS

Automatic Electrostatic Powder Coating Line

This line features material chemical preparation, robotic paint application, and a tunnel oven with PLC management, ensuring premium surface protection standards for the medical and automotive industries.

Semi-Automatic Paint Shop

Designed for larger parts (up to 6000 mm x 2500 mm x 2000 mm and weights of up to 3000 kg), this shop includes chemical preparation, painting chambers, and ovens for high-quality surface protection.



PLASTIC DEFORMATION OF MATERIALS

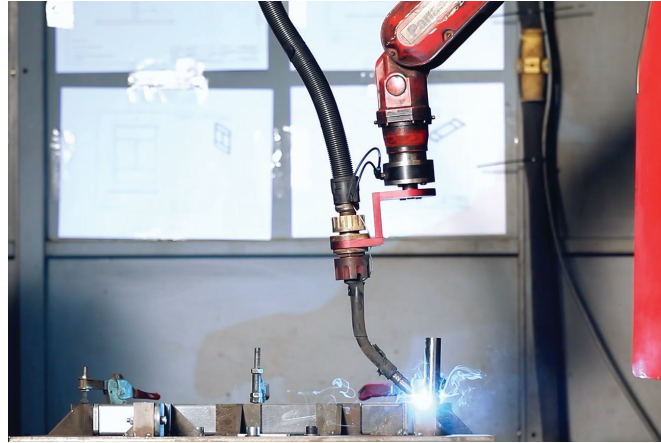
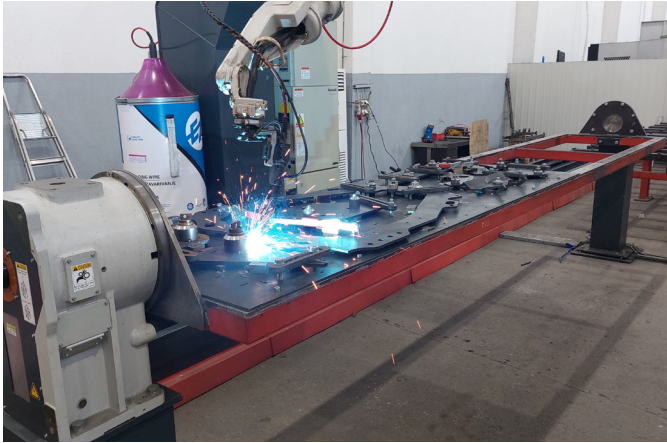
- Multiple CNC sheet bending machines for all thicknesses.
- CNC circular bending machines with 4 cylinders for precise bending radii.
- Mechanical shears for sheet cutting.
- CNC machines for two-dimensional and three-dimensional bending of pipes.
- Robotic arms integrated for greater productivity on select machines.



WELDING EQUIPMENT

Welding robots

BRAKO's welding robots include models capable of automatically welding structures up to 12 meters long.



MIG and TIG welding machines

BRAKO employs over 60 certified welders, proficient in various techniques, using fully equipped welding booths that meet all safety and ventilation standards.



EQUIPMENT FOR WIRE PRODUCTION

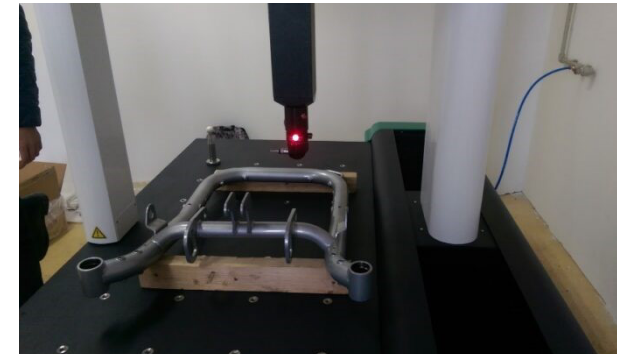
Hot-dip galvanizing line for wire

- Hot-dip galvanizing line with a monthly capacity of 800 tons, operating without acids and harmful waste, powered entirely by renewable electricity.
- Nine wire extracting machines with a total capacity of 3000 tons per month.
- Three wire annealing furnaces with a monthly capacity of 450 tons.
- Barbed wire production machines with a capacity of 80 tons per month.



EXAMINATION OF PRODUCTION QUALITY

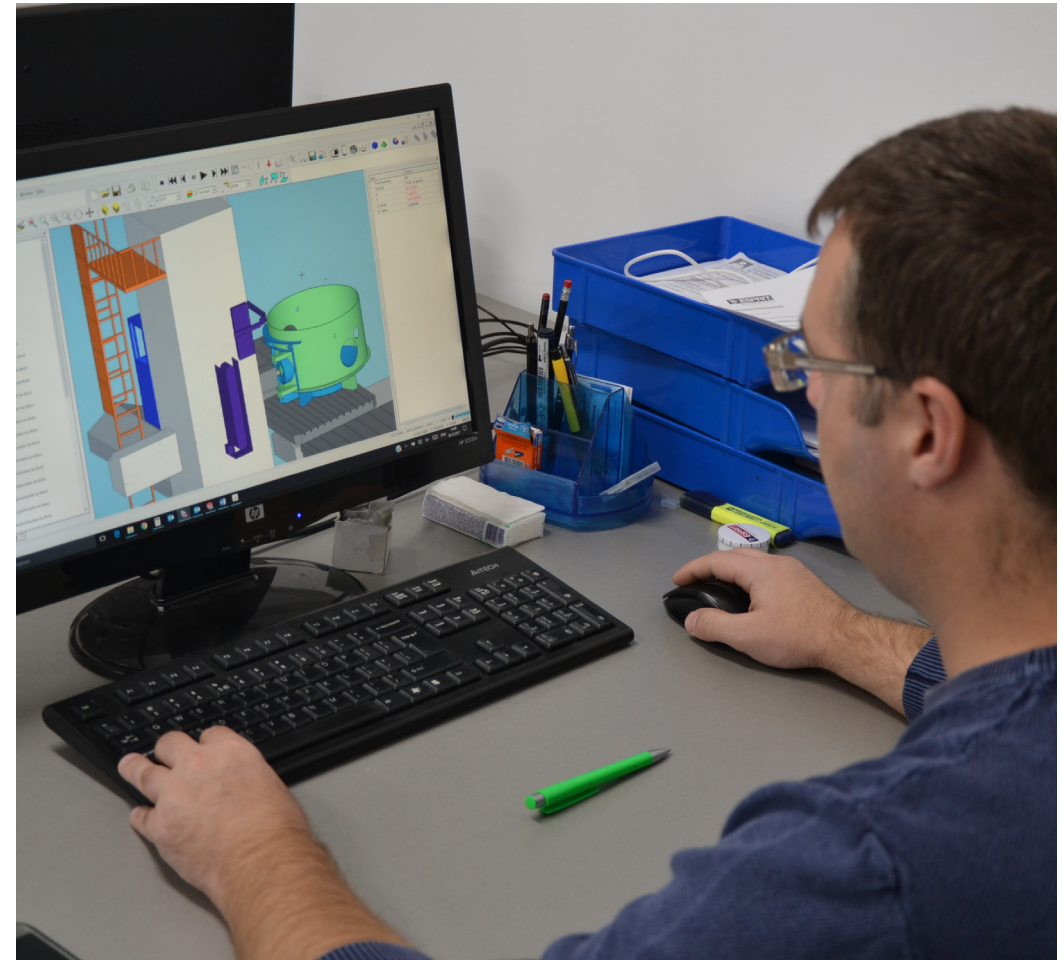
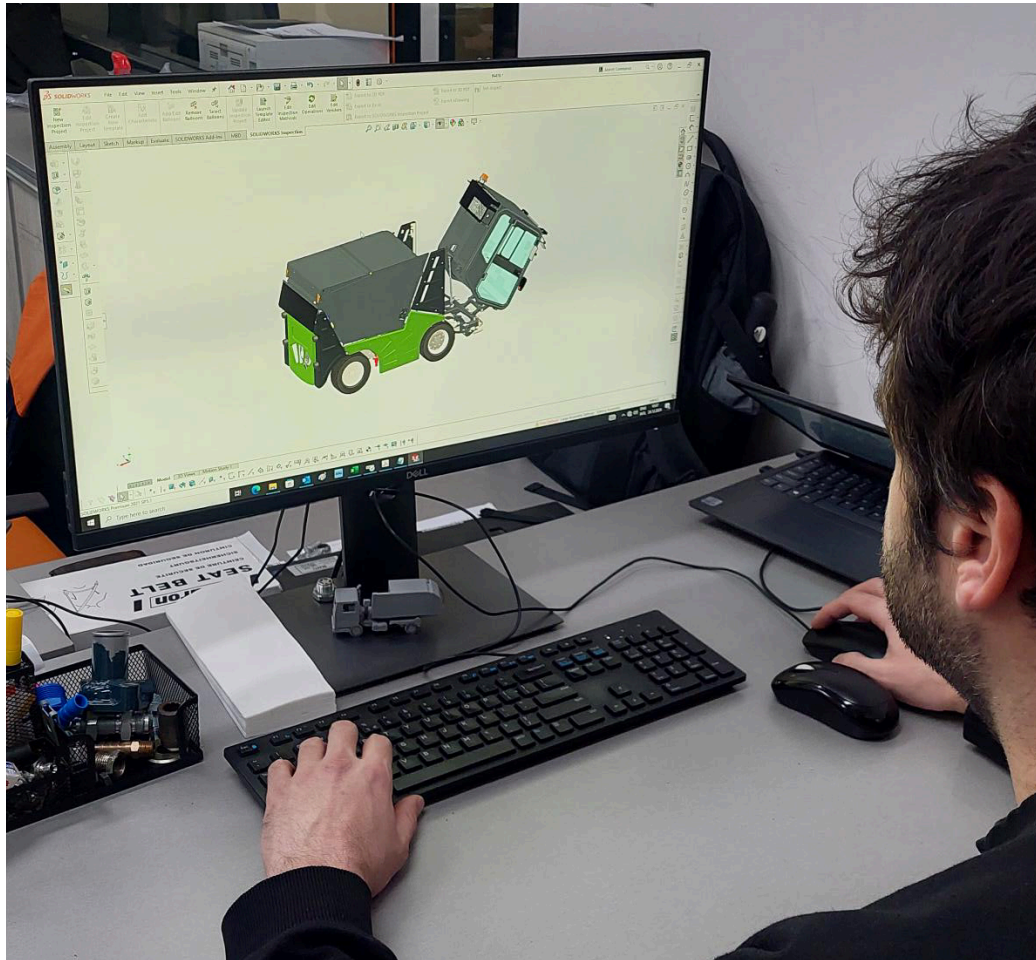
- Penetrant testing to identify microcracks in materials and joints.
- Coordinate measuring machines for three-dimensional accuracy verification.
- Paint thickness measurement devices for surface-protected products.



R&D

In addition to customer-specific manufacturing, BRAKO's R&D department employs engineers specializing in mechanical, electronic, electrical engineering, informatics, and mechatronics.

Our engineers utilize advanced software tools to develop innovative products based on client project specifications.



OUR CAPABILITIES



The complete manufacturing of a housing for a Pelton turbine with two rotors is a rare and highly specific design.

It is produced entirely at Brako by cutting materials using CNC plasma and welding with the most advanced welding technologies.

The process then continues with machining on a large-scale CNC boring machine, followed by high-quality surface protection.

OUR CAPABILITIES



The manufacturing of housings for vertical Pelton turbines, each with a capacity of 5 MW.

Two housings were intended for Georgia, where Feroinvest carried out the entire turnkey project.

Brako manufactured the housings and the entire set of machinery using the same processes described in the previous slide.

OUR CAPABILITIES



Machining of a housing for a Francis turbine on a CNC boring machine.

The entire production, including the conducting apparatus, blade mechanism, and all other turbine components, was carried out at Brako.

OUR CAPABILITIES



A view from the engineering offices of Brako's production plant for heavy and precision metal structures.

The hall is equipped with state-of-the-art installations for cutting, plastic deformation of steel plates, welding, and CNC machining.

Parts weighing up to 20 tons can be produced.

OUR CAPABILITIES



Part of an automated line for laser cutting of sheets.

The image feeder is completely manufactured at Brako.

It consists of complex pneumatic, hydraulic, and electronic components.

The production of this machine demonstrates Brako's readiness to manufacture complete, complex machines from sheet metal and components up to commissioning.

OUR CAPABILITIES



Another example of Brako's ability to fully manufacture highly automated machines.

Everything seen on this slide is manufactured in our factory.

A complex, computer-controlled machine designed for automating a sheet metal processing line.

OUR CAPABILITIES



Metal construction of a pipe processing machine.

The structure is completely manufactured at Brako.

CNC machining tolerances are within 0.1 millimeters.

The machine is equipped with all electronic, pneumatic, and hydraulic components at the factory and leaves Brako as a finished product for the end customer.

OUR CAPABILITIES



The GM 955 is the perfect street cleaning vehicle. It operates using both mechanical and vacuum cleaning.

The overall design and production of all metal components—approximately 4000 in total—are carried out at Brako.

The assembly of the entire vehicle as a finished product is also completed in our factory.

The GM 955 is part of the range of our GM brand.



OUR CAPABILITIES



Brako is capable of producing various container concepts for accommodation and housing facilities.

To date, we have completed over 30 fully functional facilities comprising more than 100 container units.

OUR CAPABILITIES



Manufacturing of chassis and parts for construction machines for world-famous brands.

The metal is laser-cut and welded using the most modern robotic welding stations.

Finally, CNC machining on the latest generation of gantry CNC machining centers ensures the necessary precision and required tolerances.

OUR CAPABILITIES



REFERENCE LIST OF CLIENTS WE PRODUCE FOR





office@brako.com.mk

Rashtanski pat bb
1400 Veles, Macedonia

+389 43 212 560

www.brako.com.mk