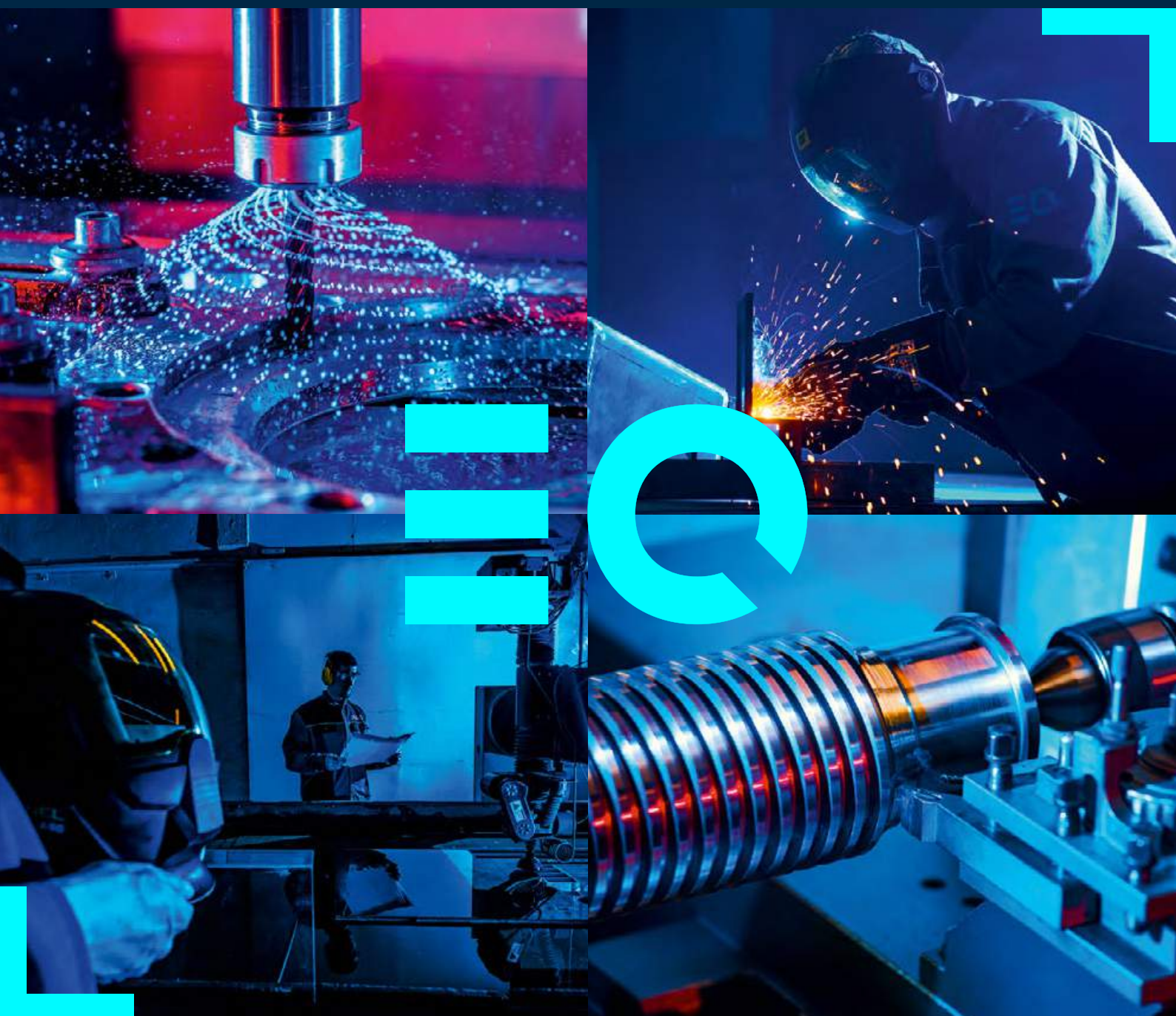




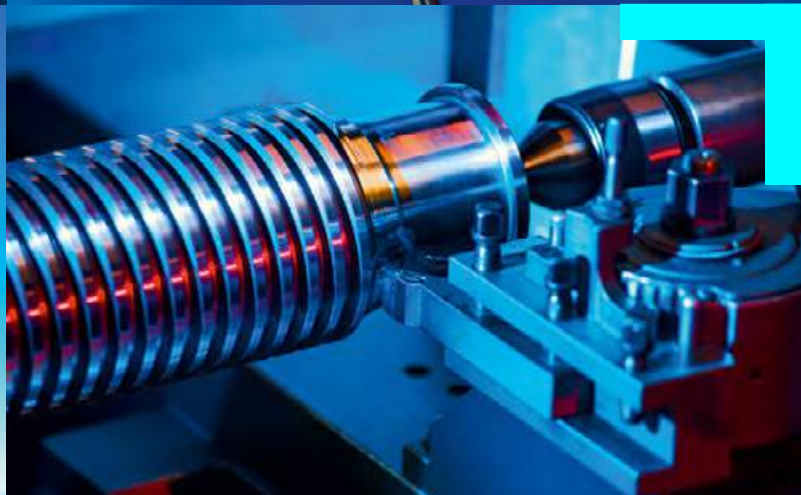
EXTREME QUALITY



**P11-S**  
PROMETSTAL



# EXTREME QUALITY





## PROMET-STAL EXTREME QUALITY

We see extreme quality as a synonym for perfection, and we strive with a driving passion to achieve it every day. Our industry has a lot in common with extreme sports, where professionalism and iron consistency in pursuing a goal are... only half the battle! Equally important are reliable technologies that are proven under extreme conditions. It is thanks to the precision, efficiency and durability of the equipment that we can exceed seemingly unattainable limits.

In competitive sports, success very often comes down to fractions of seconds, millimetres or an ability to overcome the elements and the laws of physics to snatch victory. The measure of our professionalism is a team of top-class experts and profoundly innovative technological facilities. As a result, we have hundreds of trophies in our portfolio, because we have executed every project throughout the 20 years of our activity with the same high degree of professionalism.

Enter the game with our team. Choosing us, you can reach the top more easily, quickly outclass the competition and increase the profits of your company at the finish.



Przemysław Łopiński  
CEO

# EXTREME QUALITY



## ABOUT THE COMPANY

PROMET-STAL has more than 1 000 completed races against time every year, with unpredictable twists and bursts of adrenaline from the most challenging parts of the projects, as well as hurdles overcome along the way. We are talking about projects that we implement annually for over 100 clients. Quality is guaranteed by the fact that we operate in accordance with a strict Management System meeting the ISO 9001, ISO 14001, PN-N 18001 standards, and with an ERP system for company management.

These implementation and organisational successes would not be obtained without qualified and experienced engineering and technical staff. Our team consists of mechanics, fitters, welders, CNC programmers, designers and machining specialists. A modern machine park, including CNC machining centres, electrical discharge machines, waterjet, laser, lathes and milling machines, is another factor contributing to the highest quality of our services.

## OUR MISSION AND QUALITY

Outstanding competitors of extreme disciplines are adored by the crowds because they inspire spectacular emotions. We have built our reputation in the industry by providing high quality products and services that meet the requirements and the most demanding needs of our clients. We carry out our mission with respect for the natural environment, which is equally important. We are constantly striving to maintain safe conditions and a friendly atmosphere in the working environment. The Integrated Management System has been implemented and maintained as a tool to achieve this goal.

## OUR LARGEST CUSTOMERS

**TIMKEN:** parts, machine sub-assemblies and equipment for the world's leading manufacturer of bearings and mechanical power transmission systems.

**L'ORÉAL:** revamping, repairs, service of cosmetics production machines.

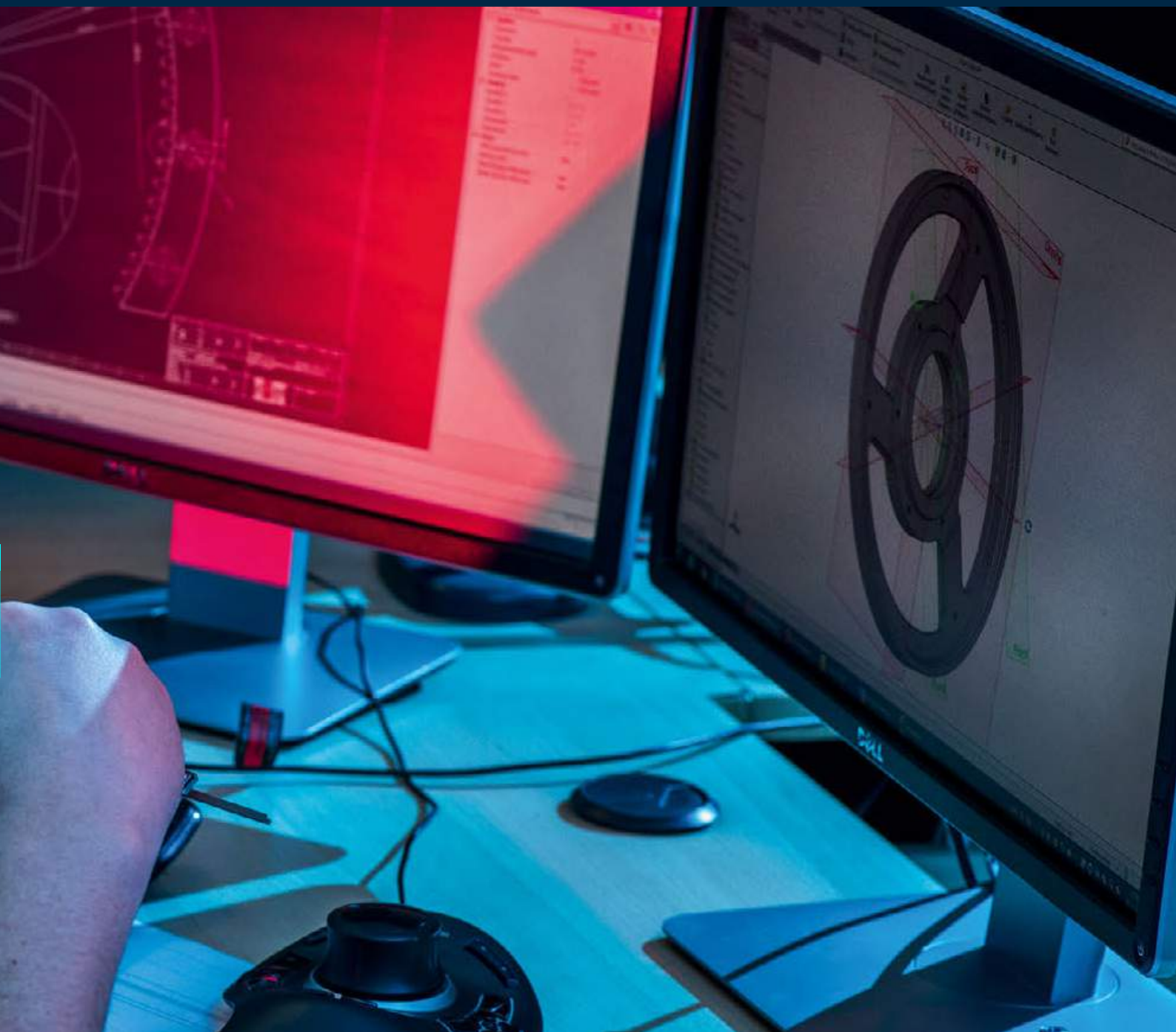
**KROENERT:** parts and components of non-standard coating, printing and laminating lines.

**YETICO SA:** complete process lines for the production of expanded polystyrene.

Check out our offer and trust the experience of our experts.







### 3D MODELLING PERFECT FIT FOR NEEDS

One of the many activities we offer is 3D modelling, and demand for 3D modelling on the modern services market is continuously growing. It involves creating and designing machines, devices as well as parts and subassemblies. We also deal with

reverse engineering, enabling us to create digital patterns that accurately reflect real objects. Reverse engineering enables the creation of virtual models, as well as the reconstruction and modernization of machines, devices and parts.



# EXTREME QUALITY





## MACHINERY

### CONSTRUCTION / OVERHAULING OF MACHINES AND EQUIPMENT EXTREME FOCUS ON THE PROJECT CHALLENGE

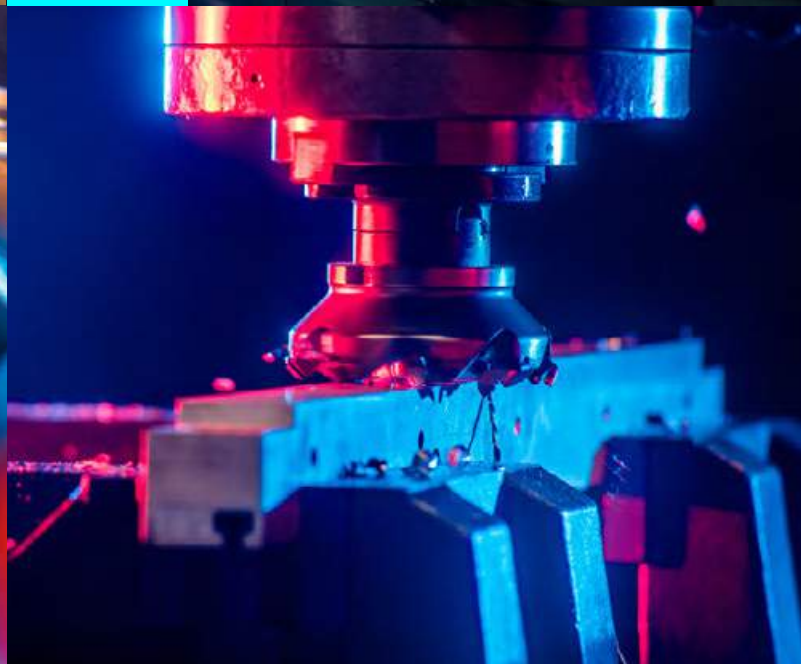
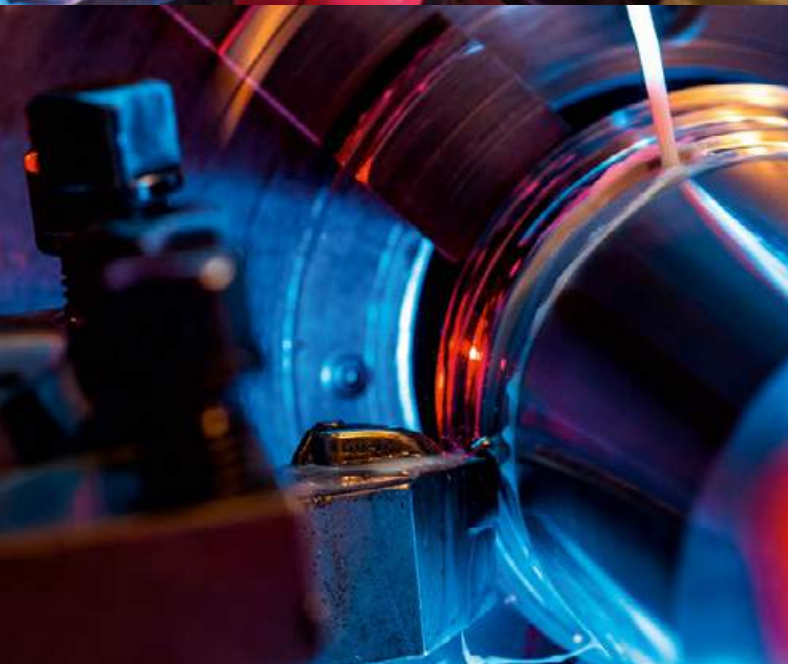
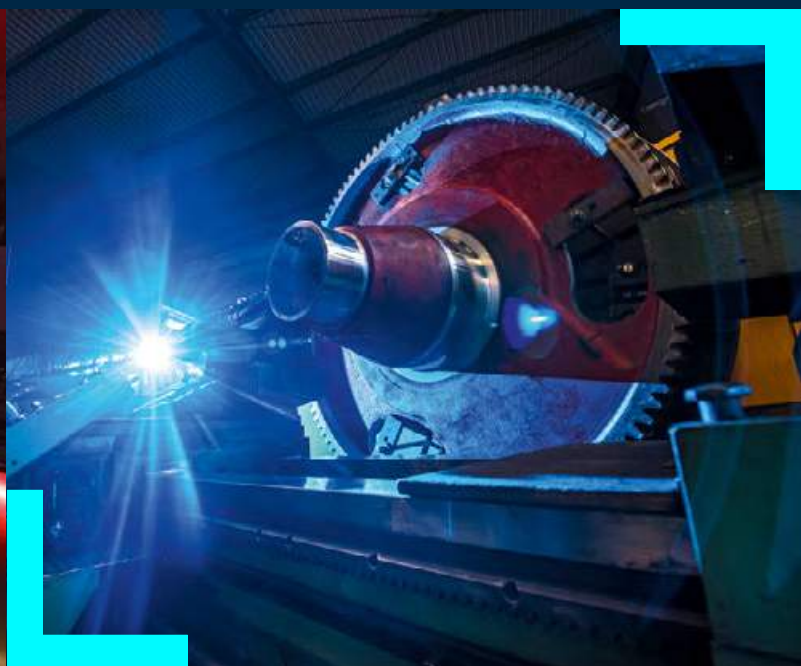
An important area of our activity is the construction and overhaul of machinery, equipment and process lines according to the guidelines and documentation provided by the customer. Among other things, we produce process lines, Styrofoam machines and machines for the pharmaceutical and cosmetic industries. The machines produced in our company are covered by a long-term guarantee, and in addition to the reliable execution of orders, we provide professional advice. Our offer also includes the overhauling of machines and devices. We use state-of-the-art overhauling processes for parts and components, and we provide warranties for repairs and overhauls executed.

### ELECTRICAL ENGINEERING / INDUSTRIAL AUTOMATION EXTREMELY INNOVATIVE

In the face of constantly progressing technical development and automation of technological processes, increasingly advanced control systems are needed. Our company offers a wide range of services in the field of industrial automation. Given the importance of production automation, we offer the production and installation of process line control systems based on state-of-the-art technical solutions, as well as on the knowledge and experience of our employees.

- electrical measurements
- control cabinets
- automation, control of process lines
- machinery and equipment installations

# EXTREME QUALITY





## MACHINING

### TURNING

#### EXTREME PRECISION

Turning is one of the most important services we have been providing to our clients for many years. This is the most common method of machining – with a rotating workpiece and the turning tool making linear movements. We provide both conventional turning on traditional lathes as well as turning on modern CNC lathes. In both cases, we guarantee a high level professionalism and expertise, as well as the timely and reliable execution of entrusted tasks. All the above features of our company, as well as modern, precise machines and tools, allow us to execute all possible orders and to make high-quality parts that will work effectively in a whole range of machines and devices.

**max. length of the workpiece:** 5 000 mm

**max. diameter of the workpiece – in the gap bridge:** 3 500 mm

**max. diameter of the workpiece – above the bed:** 1 350 mm

**max. diameter of the workpiece – above the slide:** 1 050 mm

### MILLING

#### EXTREME RELIABILITY OF EXECUTION

Milling is one of the most common and most widely used types of machining. Various types of surfaces and components of machines, devices, furniture and other utility objects made of metal and plastic raw materials can be milled. We offer professional milling of various types of surfaces, objects and components on high-quality milling machines. All the work is carried out in accordance with the customer's expectations.

**fixing surface:** 400/1 600 mm

**longitudinal travel:** 1 120 mm

**transversal travel:** 345 mm

**vertical travel:** 400 mm

**max. weight of the workpiece:** 1 500 kg

# EXTREME QUALITY



## CHISELLING EXTREME ACCURACY

Chiselling is one of the methods of machining we offer in our portfolio. Chiselling involves cutting material with a cutter attached to a slider performing a vertical or horizontal reciprocating motion. Chiselling is used to machine various types of shapes that cannot be done on a lathe, such as cams, slots, keys or gear wheel teeth. We have a modern machine park, including a slotting machine that can be used to machine the outer surface of elements up to 650 mm high and internal surface of elements up to 325 mm high. Other parameters of the slotting machine are: pinion cutter travel 120/550 mm, outreach 700 mm, pinion cutter working zone 700 mm, longitudinal table travel 88 mm, transverse table travel 650 mm.

## BORING EXTREME STANDARDS OF EXECUTION

Openings are a necessary feature of every construction, machine or device. They perform strictly defined functions enabling the proper functioning of the assembly. Boring is a method of enlarging or finishing openings made previously by rough machining, casting or cutting. Rough boring is mainly about enlarging the hole, whereas the final machining aims to increase surface quality. We can machine components with a maximum weight 2 000 kg. The boring machine is equipped with a rotary table 1 000 x 1 000 mm and a movable headstock (800 mm of vertical travel and 500 mm of longitudinal travel).





## MACHINE GRINDING EXTREME PRECISION

Another speciality of our company is machine grinding. Grinding is a form of finishing, with various types of abrasive tools that ensure expected shape, size and roughness. The machine park at our disposal enables surfaces, shafts and openings to be ground to almost perfect accuracy while maintaining a very smooth surface. The high quality grinding wheels we use allow us to effectively grind even the hardest materials, such as hardened steel for example.

### SURFACE GRINDING

**Table dimensions:** 400 mm x 1 500 mm x 400 mm

**max. width of the workpiece:** 400 mm

**max. length of the workpiece:** 1 500 mm

**max. height of the workpiece:** 450 mm

**max. weight of the workpiece:** 500 kg

### GRINDING SHAFTS

**max. length of the workpiece:** 1 000 mm

**max. shaft diameter:** 200 mm

### GRINDING HOLES

**max. length of the workpiece:** 200 mm

**max. hole diameter:** 200 mm

**the largest diameter of the workpiece under the shield:** 450 mm

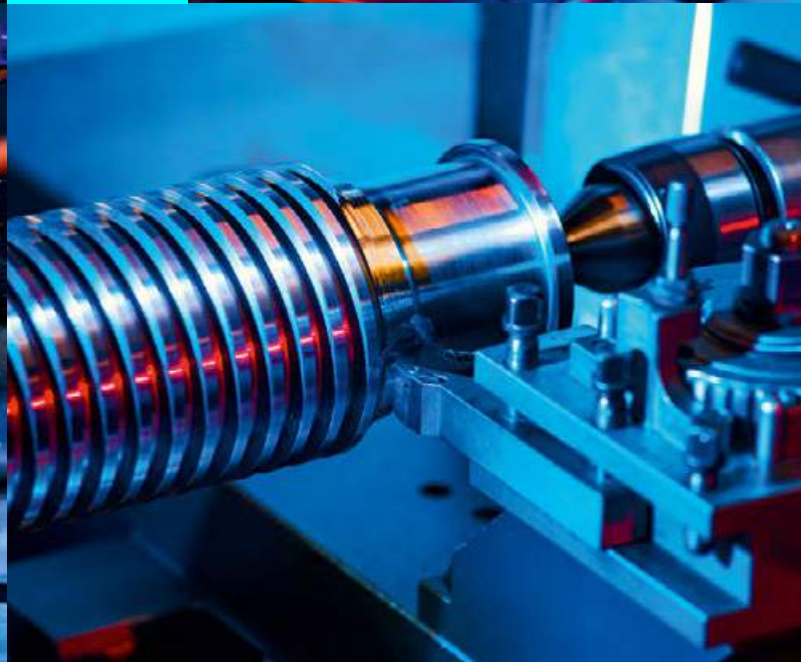
**working travel of the table:** 5-200 mm

**total manual travel of the table:** 540 mm

**total clearance of the grinding wheel from the surface of the table:** 160 mm



# EXTREME QUALITY





## CNC

### CNC MILLING

#### EXTREMELY MODERN MACHINE PARK

Milling of slabs, threads and various shapes used in almost every industry is a type of machining requiring extra precision. To make a product that is fully compliant with the project in terms of dimensions, shape and quality, it is necessary to use the right types of milling machines and cutters. CNC milling is a type of modern machining that our customers are very interested in. CNC milling is supported by IT achievements to provide the most precise results. We have high-quality, numerically controlled milling machines based on the latest technologies, operated by qualified employees.

### 5-AXIS MACHINING CENTRES

**rotary table diameter (A-axis) Ø:** 400 mm

**travel x/y/z:** 1 300/700/670 mm

**max. working /rotary table load:** 1 000 / 400 kg

**max. working table dimensions X/Y:** 1 500 x 710 mm

### CNC TURNING

#### EXTREMELY MODERN SOLUTIONS

Turning is one of the main types of machining, used to make objects and components in the form of revolving blocks (and sometimes also other shapes). CNC turning is a modern alternative to traditional turning methods. Machining a workpiece made of steel or other material on a CNC machine is a way to obtain parts that are perfectly machined to the last detail. We offer professional CNC turning of parts with various dimensions, made of steel and other raw materials. We guarantee the efficient handling of orders and provide products exactly to the customer's requirements, ensuring the highest accuracy and quality.

**centre distance:** 1 500 mm

**height of centres:** 276 mm

**max. turning diameter over the bedways:** 560 mm

**max. turning diameter over the cross slide:** 300 mm

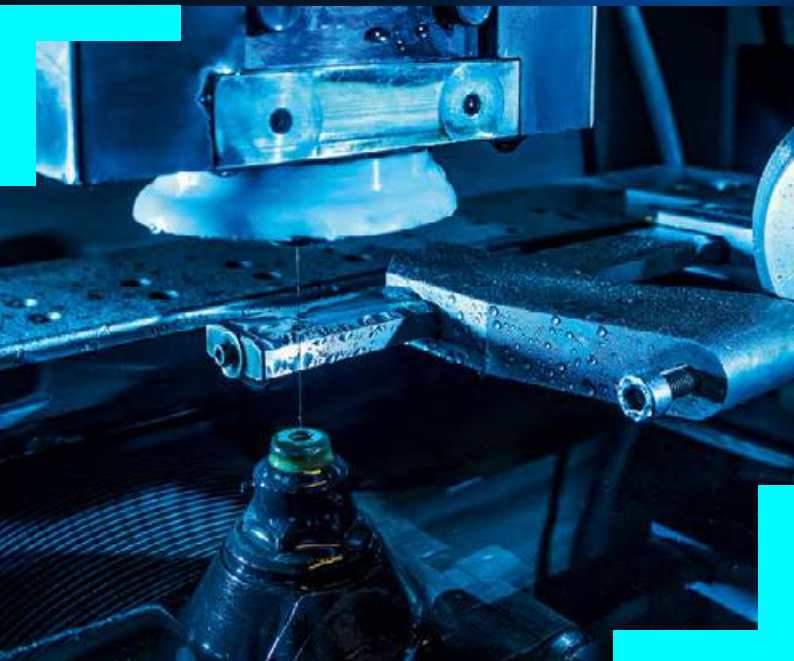
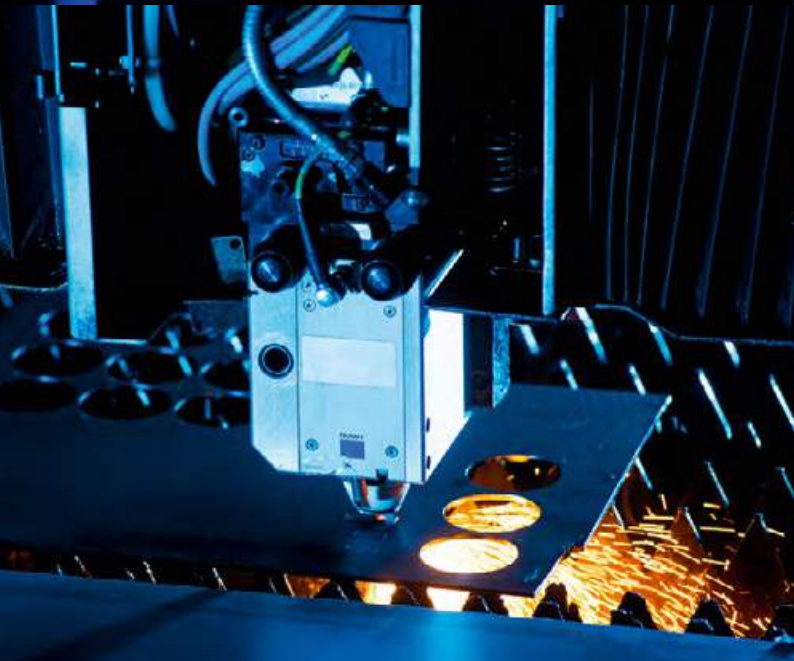
**cross slide travel:** 270 mm

**carriage travel:** 1 500 mm

**turning length between centres:** 1 425 mm

**spindle passage diameter:** 105 mm

# EXTREME QUALITY





## **WIRE ELECTRICAL DISCHARGE MACHINING**

### **EXTREME RESISTANCE**

Wire electrical discharge machining is a modern method of precision cutting materials with very high hardness, such as hardened steel, into a pre-programmed shape. Wire EDM guarantees a high precision of the individual elements, while maintaining a high smoothness of their surface, regardless of the complexity of the part.

We can machine items with maximum dimensions of 1 300 mm x 1 000 mm x 510 mm, weight up to 3 000 kg, x/y/z travel: 800/550/510 mm, with a maximum angle of 45 degrees at a height of 510 mm.

## **WATERJET CUTTING**

### **EXTREME EFFICIENCY**

Waterjet cutting is an innovative technology allowing tasks to be performed that do not fall within the scope of traditional machining, or even plasma or laser cutting. A high-pressure jet of water with added abrasives is used in this method. Waterjet cutting is characterised above all by high precision, smoothness and uniformity of cut surfaces. Cutting using the water jet does not cause any mechanical or thermal deformation, and generally eliminates the need for further finishing operations. The cutting plane remains perfectly smooth, without burrs or any unevenness.

Waterjet cutting has a very wide range of applications. We use this method to cut structural steel, carbon steel, stainless and other types of steel, as well as non-ferrous metals, natural stone, ceramics, glass, and plastic. We cut materials up to 160 mm thick and cut out items with maximum diameters of 3 000 mm x 1 500 mm.

## **LASER CUT**

### **EXTREME PERFECTION**

Laser cutting is becoming more and more widely used in modern industry. This method is characterised by high quality and precision of cutting, meaning that tasks can be performed rapidly and efficiently. In addition, laser cutting gives the opportunity to perform the most complex shapes in a wide range of materials, and with easy repeatability of identical items. However, obtaining high-quality precision cutting requires modern devices and competent employees. Our company offers both, so the final effect is guaranteed.

Upon request, we laser cut carbon steel elements up to 20 mm thick, austenitic steel up to 10 mm thick and aluminium up to 8 mm thick. The maximum dimensions of the cut item are 3 000 mm x 1 500 mm. We encourage you to use our services in this area and guarantee a reliable and prompt execution of the order.



## **WELDING** **EXTREMELY EXPERIENCED** **PROFESSIONALS**

Our company also offers a wide range of welding services. We perform universal welding using the TIG method, based on joining parts with a tungsten electrode protected by inert shielding gases. The TIG welding method can be used to join even thin sheets while also guaranteeing cleanliness and a

high quality weld. We also use MIG / MAG methods, based on joining parts with an electric arc produced between the welded element and the consumable wire serving as electrode. We weld carbon and austenitic steel and aluminium, and we are able to join all kinds of steel structures, such as racks, roller conveyors, belt conveyors, chain conveyors, machine components and others.

We have developed and implemented the Quality Assurance System according to ISO 3834-2. We





weld our structures according to the guidelines of PN-EN 1090 and PN-EN ISO 15085 CL2 standards.

In order to ensure professional performance and durability of the final result, we execute quality control of the welds by visual examination VT. We employ experienced and competent specialists, so our services are becoming increasingly popular among customers.

- welding of carbon steel, stainless steel and aluminium
- welding methods: MIG/MAG/TIG
- manual welding with coated electrodes
- all kinds of steel structures, racks
- high storage racks, belt, roller and chain conveyors
- machine parts



# EXTREME QUALITY





## BENDING METAL SHEETS EXTREME ATTENTION TO DETAIL

Our company has been specialising in metal processing for a long time, including bending of individual components. We use the latest technical solutions to enable the precise bending of metal sheets and to obtain the desired shapes. The experience of our employees, modern machines and software allow us to accurately achieve the expected result and to promptly execute customer orders. The bending machines guarantee accuracy and efficiency through the automatic control of the sheet bending angle. Innovative and precise machines are able to perform the most intricate bends without affecting the physical properties of the processed materials.

We provide full repeatability of production. By choosing our company, the customer gains the confidence that comes from high quality equipment supported by qualified staff, and hence, a guarantee of reliable and consistent service.

**max. bending length:** 3 000 mm

**max. gauge of the bent element:** 10 mm

**max. pressure:** 270 tonnes

## ROLLING OF RODS, PROFILES, PIPES EXTREME PERFORMANCE

Rolling is metalworking involving the shaping of material between rotating rollers, discs or flat moving tools. This type of process allows for a permanent change in the shape and dimensions of a given element so that it performs certain functions. Rolling is one of the services our company specialises in. To execute customers' orders in this area, we use modern rolling mills enabling efficient and precise rolling of bars, pipes and profiles.

	60x10 Ø800		Ø48,3x2,9 Ø1000		50x50x6 Ø600
	80x15 Ø800		50x40x3		50x50x6 Ø900
	35x35 Ø900		50x50x3		50x50x6 Ø700
	Ø35 Ø800		50x50x3 Ø800		UPN60 Ø550
	Ø60x2 Ø900		50x50x5 Ø950		UPN60 Ø700



## WASHING WITH DRY ICE EXTREME OPTIMISATION

The speed and efficiency of the machine- and equipment-cleaning process has a significant impact on production costs, as it reduces downtime and breaks in the production cycle. Our company always meets customer expectations, choosing the optimal cleaning method depending on requirements. We offer, among other things, cleaning with dry ice, i.e. carbon dioxide in solid form, which is a quick, effective, precise and non-invasive method, with no need to dismantle production lines or complex devices.

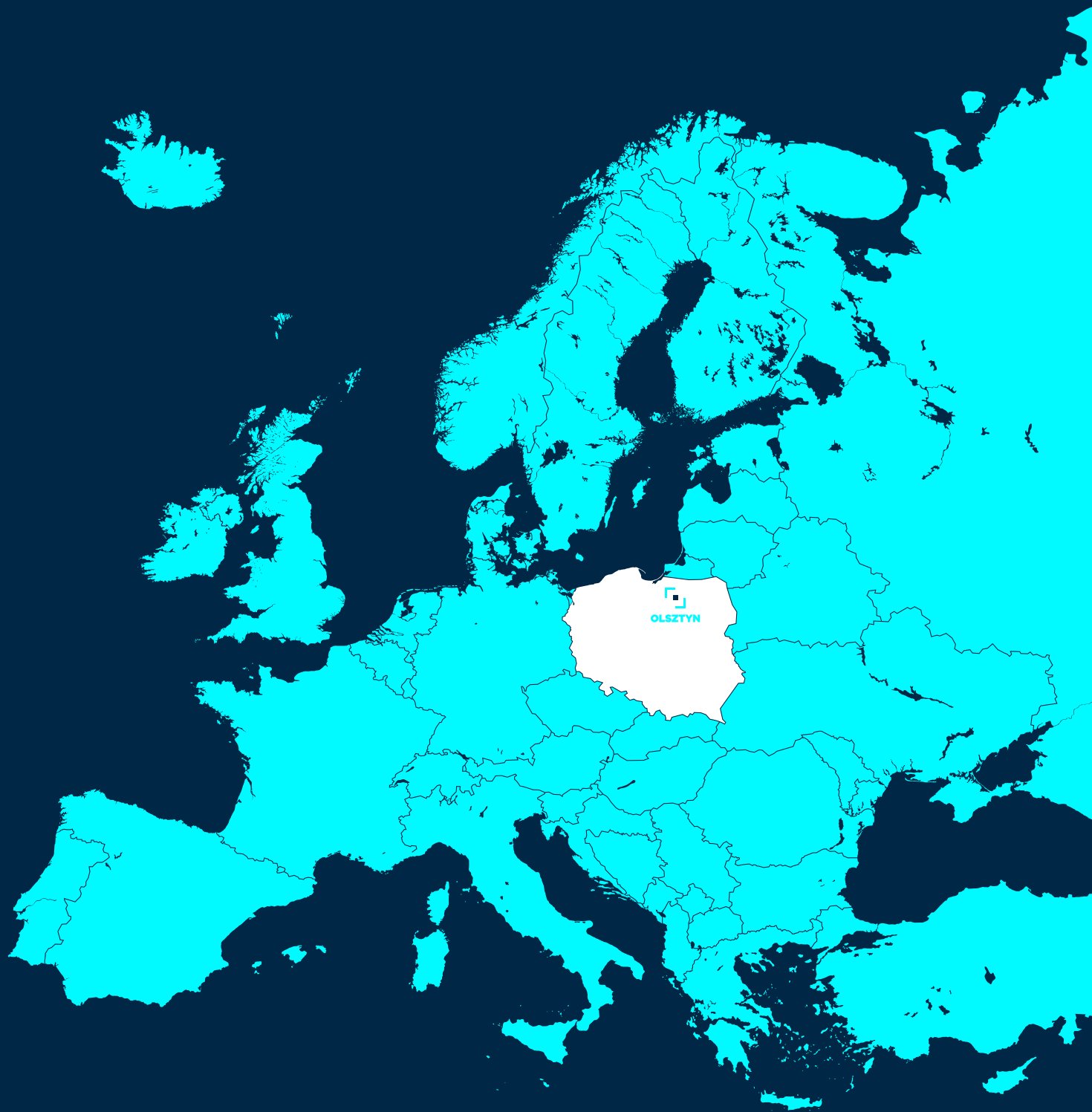
- a combination of sandblasting and steam-cleaning
- cleaning components and machines without dismantling
- a waste-free process that does not leave any substances that could get inside the device or its components

## SANDBLASTING EXTREME LEVEL OF TECHNOLOGY

Sandblasting is one of the most frequently used methods of cleaning and treating metal surfaces. Its effectiveness, however, depends to a large extent on the type and quality of the equipment used. The most effective and accurate are the modern cabin sandblasters. An abrasive jet, created by compressed air mixed with the abrasive, is directed to the sandblasted part. The sealed chamber and filter system effectively prevents the entry of sediment and impurities from the environment. We offer our customers sandblasting services using the latest generation of cabin sandblaster, carried out by experienced and competent professionals.

We offer sandblasting of all metal elements, regardless of the type of material they are made of. The service is only limited by dimensions – we sandblast elements up to 1 000 mm x 1 000 mm.







**Przedsiębiorstwo Produkcyjno-Montażowe  
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