



EXTRA FORGE

HIGH-TECH PRODUCTION OF STEEL
AND ALUMINUM FORGINGS

FORGING FUTURE

SLOVENSKI
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SLOVENIA

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Manufacturing program

Company Extra Forge (LLC) d.o.o. is a service company that offers the service of serial forging of steel and aluminum forgings, as well as the possibility of forging semi-finished products from copper, brass and titanium alloys **weighing between 0.05 kg and 8 kg**. The company is a high-tech production company that strives for a comprehensive offer, quality workmanship, short delivery times and uses the latest machining and forging machines and introduces **advanced technological production processes**. Our great advantage is that we can find a suitable solution with our professional associates and business partners and meet all customer requirements for additional processing, such as KTL painting, development of the process and forging itself, machining, galvanizing, galvanizing, heat treatment and more.





Our production program and expertise cover the following industrial areas:

- Mechanical engineering;
- Electrical industry;
- Medicine;
- Shadow systems;
- Railways;
- Automotive industry;
- Lifting systems and chains;
- Agricultural machinery;

Forging steel

Company Extra Forge d.o.o., is a production and service company that deals with forging of various types of steel (stainless, high and low alloy and carbon).

Our production program specializes in hot forging of steel semi-finished products, **sizes between 0.1 kg and 8 kg**, which give the product higher strength and toughness compared to other processes. Technological process of forging in the company Extra Forge d.o.o, allows products to be forged to **an accuracy of ± 0.2 mm**.





Our product range focuses on the following industries:

- Mechanical engineering;
- Railways;
- Forklift industry;
- Roads and bridges;
- Auto-moto;
- Agricultural machinery;
- Lifting systems and various chains;

For forging steel forgings, we use the latest high-tech CNC forging hammer 50kj, which is computer-controlled and provides us with **higher accuracy, quality and controlled process of making forged products.**



Our 50 kJ CNC forging hammer allows us to process **600 tons of various types of steel annually.**

HIGH TECH
PRODUCTION
OF STEEL
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**EXTRA
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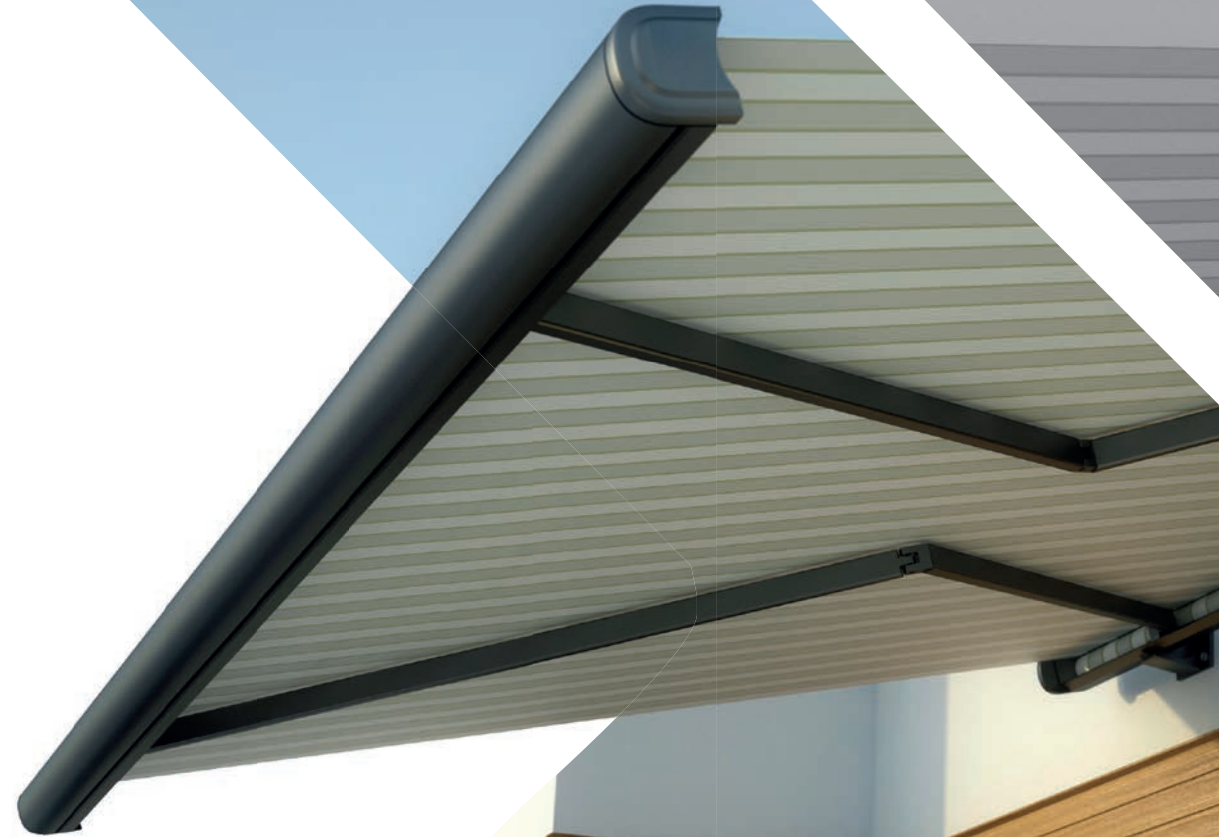
HIGH-TECH PRODUCTION OF STEEL AND ALUMINUM
PRODUCTS OR FORGING FUTURE

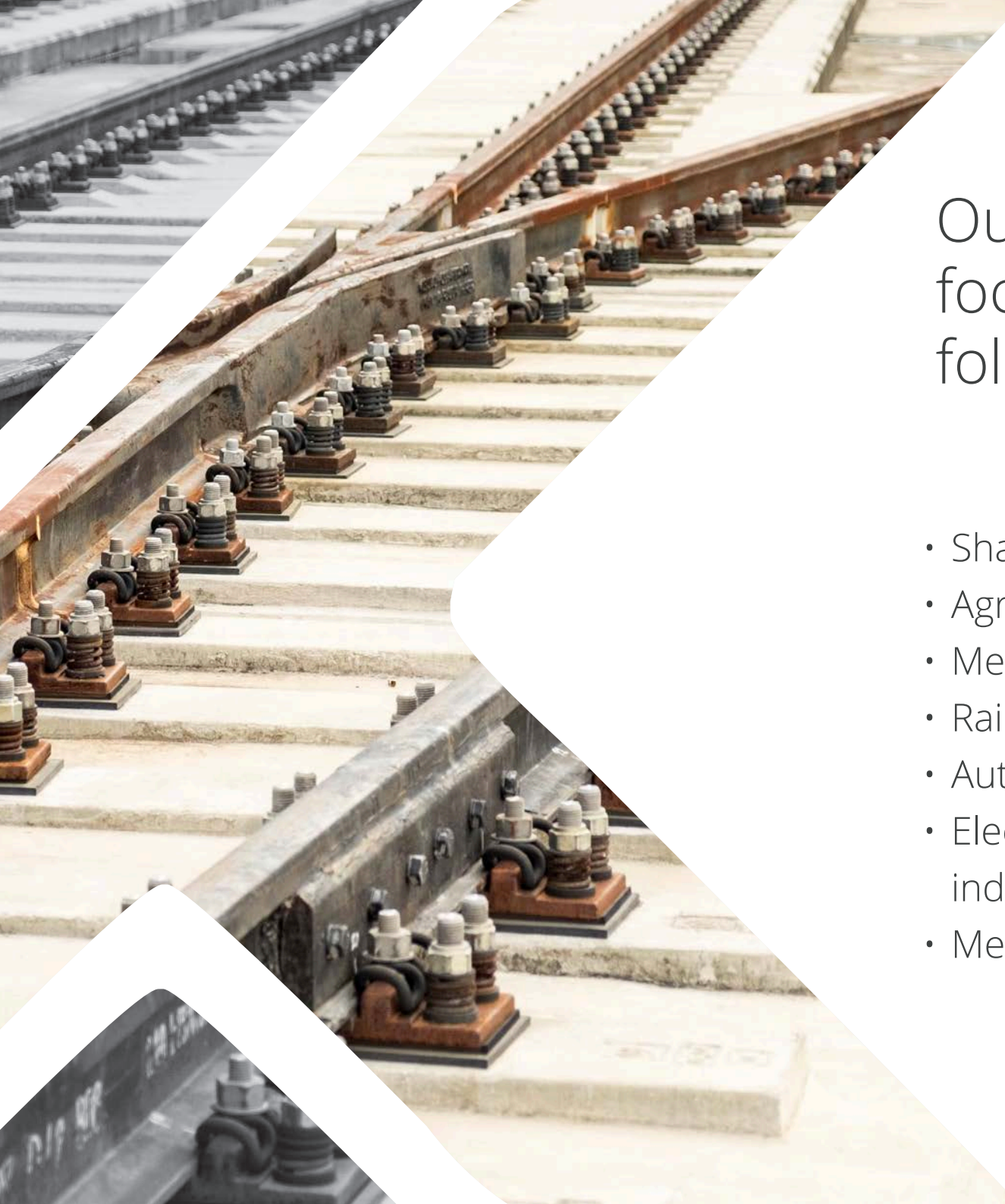
ALUMINUM

Forging of aluminum

At Extra Forge d.o.o. we also offer the service of closed die forging of aluminum. We can forge products of any alloy, **weighing from 0.05 to 6 kg**. The company can boast that our professional associates were among the first in this region to start forging products from aluminum, which is specific and different to the forging of steel forgings.

Technological process of die forging of aluminum semi-finished products in the company Extra Forge , d.o.o., allows us to have **an accuracy of ± 0.2 mm** on our forgings.

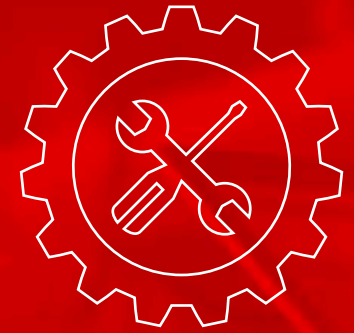




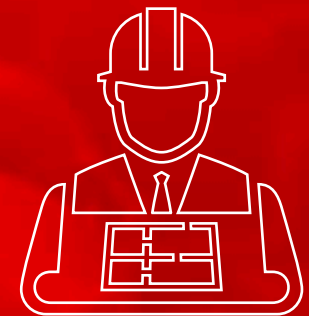
Our product range focuses on the following industries:

- Shadow systems;
- Agro oz. agricultural machinery;
- Mechanical engineering
- Railways and trains;
- Auto-moto;
- Electrical and high voltage power industry;
- Medicine;

We use the latest CNC screw press 1000T for forging aluminum forgings, which ensures even **greater precision, quality and a controlled process of making forged products.**



We can process about **200 tons of aluminum a year.**



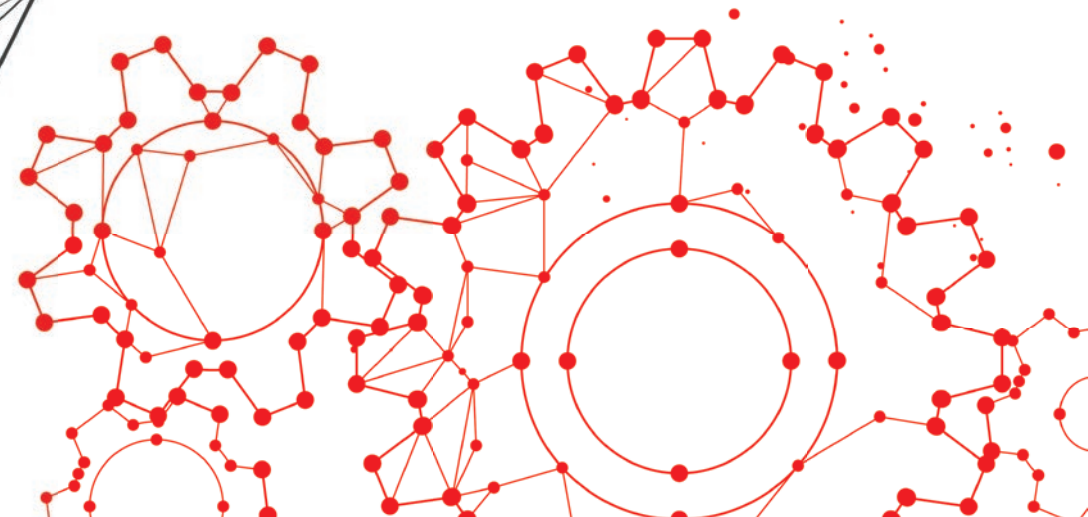
Who are we?

We are a newly established company called Extra Forge d.o.o., forging future, which will start production in the first quarter of 2022 and consists of many experienced experts with many years of experience in the field of forging of steel, aluminum, bronze, copper and brass.

The intertwining of the experience of senior experts with the intertwining of knowledge of our younger employees, who possess a wealth of knowledge about new technologies and production processes, is what we will offer to provide the necessary quality and sophisticated high-tech process and treatment of our customers.



Our great advantage is that we can find any solution with our professional associates and business partners and meet all customer requirements for additional processing, such as KTL painting, process development and forging itself, machining, galvanizing, heat treatment and more.



Presentation

Company Extra Forge d.o.o. is a company founded in 2021 and will start serial production in 2022 and offers the service of serial forging of steel and aluminum forgings, as well as the possibility of forging semi-finished products from copper, brass and titanium alloys.

The company is a high-tech production company that strives for a comprehensive offer, quality workmanship, short delivery times. The company was conceptually formed with many experts who have more than 30 years of experience in the field of forging steel and aluminum forgings in order to provide customers with high quality and affordable semi-finished products or forgings.

The very concept of lean manufacturing and industry 4.0 or Factory 4.0 is all through in sight in designing both the business strategy, business processes and production processes of the company. The company is striving to build a recognizable brand Extra Forge, which will be based primarily on quality, short delivery times, production flexibility and ensuring continuous improvement in processes that will have a beneficial impact on both the company's operations and the production of products for our customers.



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Commitment to quality

Establishing production and business that will completely coincide and take over the properties according to the quality certificate is key to providing exceptional services to our customers.

Obtaining the ISO9001 quality certificate is the next step in confirming the quality of our products and processes. The concept of leading people in the company is definitely the integration, not only of lean and high-tech production, but above all of the set guidelines according to ISO9001. Given that the leaders in the company are already familiar with the guidelines and requirements of the certificate and that they also recognize the effectiveness of the latter, we believe that obtaining a certificate with the start of production will be just a formality.



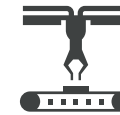
Emphasis on environmental protection and the company's carbon footprint

The company is aware of the need to do as much as possible to preserve nature and a clean environment. Despite the demanding production and heavy industry of forging products, we are aware that our nature is fleeting and that our children and future generations will live on this planet for a long time to come. Since its establishment, we have been striving for the most environmentally friendly operating machines that use less energy and are more efficient; we are looking for regional suppliers and subcontractors, we strictly recycle waste and use renewable electricity efficiently.

In the coming years, we are also striving to obtain most of our energy from renewable sources. In 2022, in the second quarter, the company will also perform an assessment for the ISO14001 environmental management certificate as part of the month of raising awareness of employees and business partners on the impact on the environment.

The core values of the company and our strengths

- **Professionalism:** innovative solutions in the technical field and modern business a model that is achieved through the intertwining of experienced professionals and the introduction of the latest technological processes
- **Quality:** impeccable quality is of primary importance to the company, as we strictly adhere to the prescribed guidelines of the ISO 9001 quality certificate.
- **Flexibility of production:** the production and business model of the company enable rapid changes in the wishes of customers, such as the urgent delivery time and various changes in the products themselves
- **Protecting the environment and a friendly work environment:** The company places great emphasis and effort on protecting the environment and providing a better tomorrow for our descendants, as well as placing great emphasis on both the physical and mental health of employees, which are the foundation of any successful society.



Vision

The vision of the company Extra Forge d.o.o. (LLC.), Forging Future, is to establish and firmly anchor the position and brand of Extra Forge on the market of Central, Western and Northern Europe and become a leading entity in the field of forging small to medium series in Slovenia and Europe and at the same time create a name that will be synonymous with quality and professional services of forging. The company is a high-tech production entity that strives for continuous improvement, process upgrades and the introduction of new knowledge. With a mixture of experience and modern knowledge, we will achieve many solutions in the field of forging steel and aluminum products.



Mission

The mission of Extra Forge d.o.o., is a high-tech metal processing or hot forging of semi-finished products made of steel, aluminum, bronze, brass and titanium. Our biggest mission is to meet the customer's needs for quality, delivery time and price.



Company goals

Strategic goals of the company Extra Forge for the period 2022-2026:

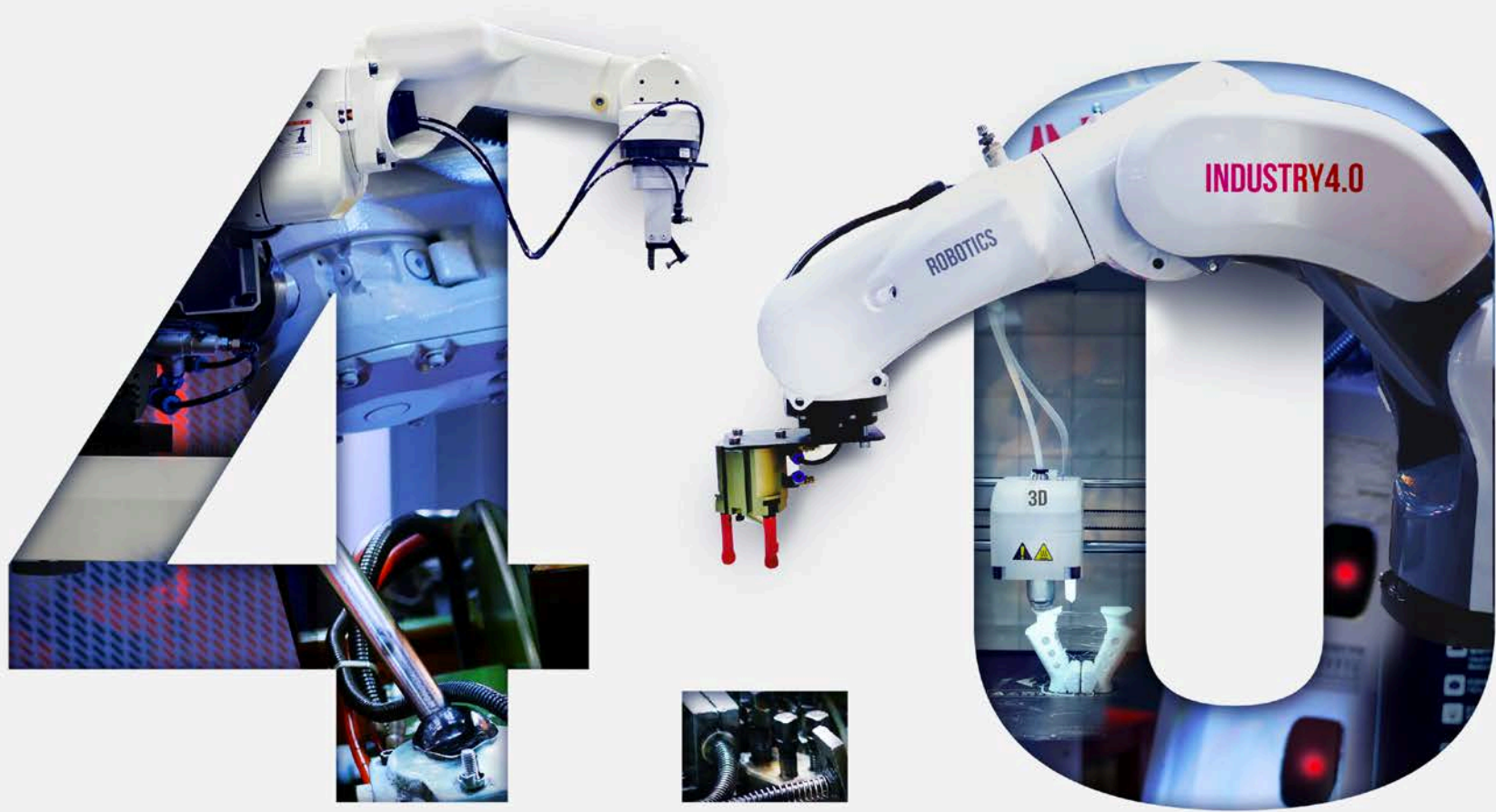
- provide our customers with quality services and comprehensive solutions in the field of forging steel and aluminum and other metals,
- establishment of quality service and products,
- successful entry of the company into the market of forging services,
- to consolidate and further increase the company's visibility in the immediate and wider environment , both in Slovenia and in Europe,
- increase sales revenue by introducing:
 - new customers,
 - business models,
 - production processes
 - products and
 - new technologies,
- establish contacts with new business partners
- to present itself successfully at key international fairs
- set up a network of potential buyers in different European countries (“sales agent” - sales agents)
- creating strategic business connections
- to establish a sustainable organizational or employment structure,
- establishing a healthy and friendly working environment
- start of planned production and processes,
- introduction of new high-tech processes in business as well as in production and upgrading of these,
- establishing environmentally friendly operations
- reduce the carbon footprint

Motivation

Our biggest motivation is the production of technically perfect semi-finished products according to the wishes of our customers, the acquisition of new technologies and knowledge and the achievement of the set goals of the company.

Our motivation is also the smiling and happy faces of not only our customers but also our employees. Employees are the pillar of any well-established production and those who can make a key contribution to achieving the company's set goals.





INDUSTRY 4.0

ANALYTICS

AUTOMATION

CLOUD COMPUTING

SMART FACTORY

SYSTEM INTEGRATION

BIG DATA

+47%

Season +3.16%

1 2 3 4 5

INDUSTRIAL REVOLUTION

CYBER SECURITY

AUTONOMOUS ROBOTS

Views -4.1%

9000
8000
7000
6000
5000
4000
3000
2000
1000
0

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

SMART TECHNOLOGY

NEW BUSINESS MODEL

IOT



Industry 4.0

Industry 4.0, also called the Fourth Industrial Revolution, refers to the current trend of automation and data transfer in manufacturing technologies. It includes the cyber- real system, the Internet of Things, cloud computing, and cognitive computing.

Industry 4.0 represents what we call “smart factories”. With modularly structured smart factories, cyber- real systems control processes and create a virtual copy of the world, and make decentralized decisions based on this. Through the Internet of Things, cyber- real systems communicate and collaborate with each other, and they can also interact with people live, both internally and through the entire organizational structure offered and used by all participants in the value chain.



Industry Benefits 4.0

Industry 4.0 is changing the basis of competition in manufacturing. To a futuristic vision, this may sound like an exaggeration, but it is not. Industry 4.0 has emerged not only as an approach to the use of new technologies, but as a significant change in production.

Industry 4.0 will allow for much greater agility without sacrificing quality, cost or speed.



Advantages of Industry 4.0:

- Improved productivity
- Improved efficiency
- Greater knowledge sharing and cooperation
- Flexibility and agility
- Easier to ensure compliance
- Better customer experience
- Cost reduction
- Creating opportunities for innovation
- Higher revenues
- Increased profitability
- Gaining return on investment

Extra Forge d.o.o. Factory 4.0

In accordance with the company's slogan - forging future - in the company Extra Forge d.o.o., we place great emphasis on new technologies and the latest process trends. In line with this philosophy is definitely the Industry 4.0 concept.

From the very beginning of the construction of the new production, we will follow this concept of a smart factory. With a properly set plan and integration of all key machines with a computer network, we will achieve greater efficiency and better quality. We will also be able to tell you at any time exactly at what stage the customer's order is.

With the introduction of sensors in production, we can gain a lot on process control and at the right time we can detect potential defects in products and defects on machines and eliminate them.



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Quality policy

The vision of the company Extra Forge d.o.o., Forging the Future, is to establish and firmly anchor the position and brand of Extra Forge on the market of Central, Western and Northern Europe and become a leading entity in the field of forging small to medium series in Slovenia and Europe and at the same time create a name that will be synonymous with quality and professional services of forging.

In our work and in formulating the company's strategy and policy, we are guided by our core values, namely:

- Integrity and business ethics.
- Meeting the expectations of our customers.
- Social and environmental responsibility.
- Efficient processes and continuous improvements in all areas of our operations.

At Extra Forge d.o.o., we have defined and adopted a company policy that combines quality policy, environmental policy and occupational safety and health policy, as an integral part of the company's management policy in accordance with:

- with the mission to meet the needs of our customers and maintain their trust through the constant development of new technologies and improvements in processes, production program, business processes, user experience and business cooperation,
- with the vision of a high-tech company and continuous improvement, which means putting innovation and new technological processes into practice, thereby increasing the quality of products and services and increasing the company's productivity and profitability,
- with a strategy of continuous development, we want to improve products and maintain the quality of the integrity of the offered solutions,

- with the basic principle that environmental management and the safety and health of employees are among the highest advantages in the company, as both employees and our environment are our greatest asset,
- in order for the company to achieve the best results in the manufacture of products and services with optimal use of basic raw materials and auxiliary materials with a minimum possible burden on the environment and prevent possible risks of injury or health problems of employees.

In accordance with the company's commitment to quality management, environmental protection and the management of risks to the safety and health of employees in the performance of work processes, we carry out the following important activities for the continuous improvement of the management system:

- we meet legal and other requirements in the field of quality, environmental management and safety and health at work for blacksmith (industrial) activities and services,

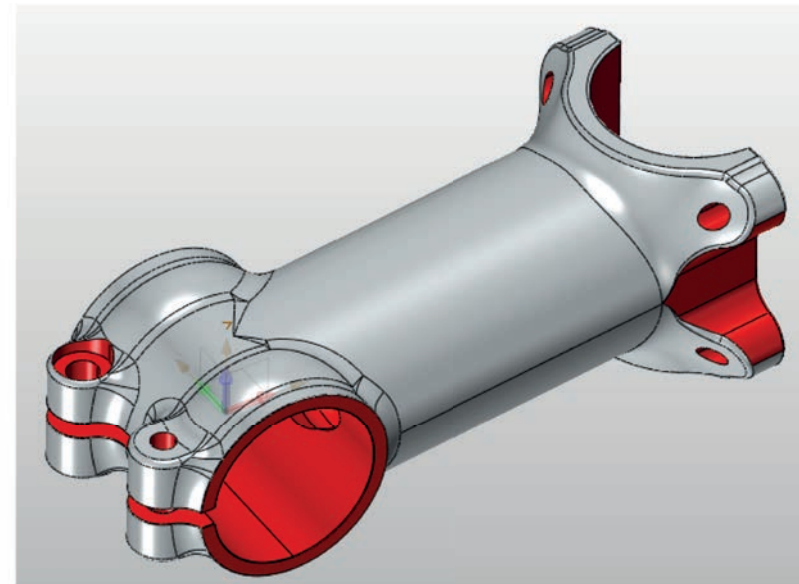
- we set realistic quality goals, environmental goals and OSH goals, which are based on a detailed analysis of business and production processes and for which we strive to achieve them,
- we evaluate the success of the set company policy and goals and are constantly analytically looking for opportunities for improvements in quality management, environmental management and OSH management,
- a process of assessment and review of the management system has been established in order to identify opportunities for improving the system and consequently greater efficiency in the field of quality, environmental management and safety and health at work,
- we inform and cooperate with stakeholders (customers, suppliers, neighbors, employees, state and administrative bodies) In the field of quality management, environmental management and occupational safety and health.

Development of innovative forging technology

Extra Forge from Maribor is a production company that offers the service of serial closed die forging of steel and aluminum as well as copper and titanium forgings weighing from 0.1 to 8.5 kilograms. In closed die forging, the material is formed between two halves of the forming tool, the die. They are developing the technology of innovative hollow drowning forging, where the goal is to create a hollow body instead of the existing solid body of a component.

According to their calculations, such forging technology creates 30 percent less waste materials and saves up to 20 percent of energy and production time. With their innovation, they are primarily solving the problem of clients who primarily need hollow forged components for their products, explains director and founder Branko Lukić. "These are more affordable for them than classical drop-forged forgings, and more profitable for us, as we

use much less energy, and production time and create less waste material." Higher product prices, minimum order quantities, unresponsiveness to changes, and unclear deadlines discourage buyers from China. "We enable production with an innovative approach in Europe. The industry is developing rapidly in Europe and, according to reports, it is severely undernourished."



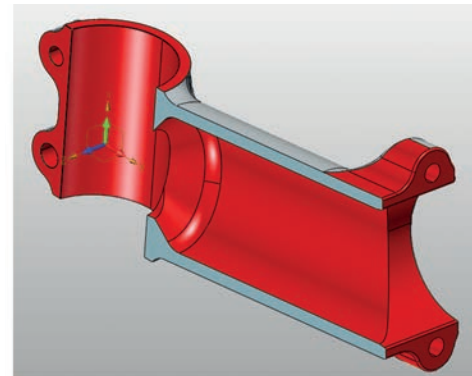
The finished product of hollow forging, in this case it is a bicycle handlebar mount.

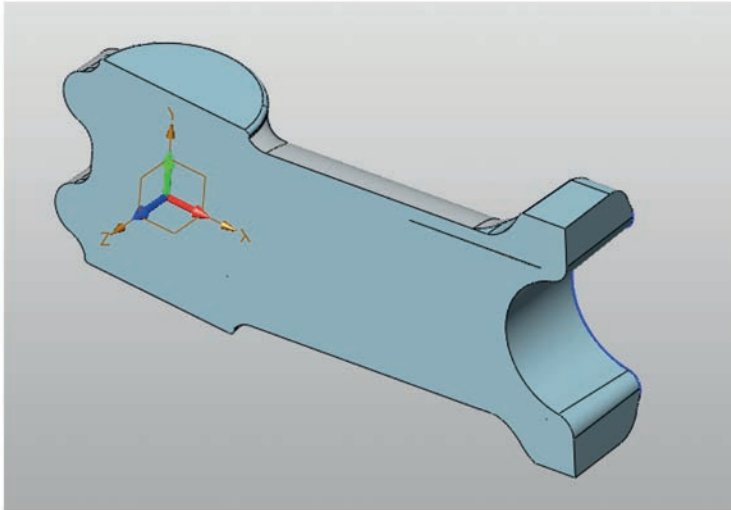
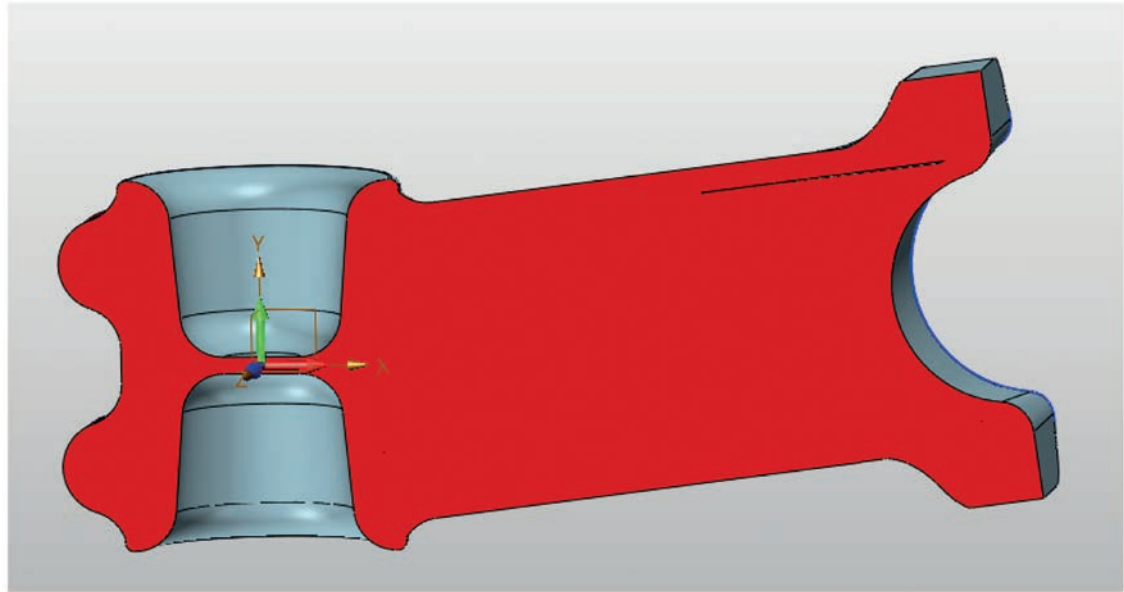
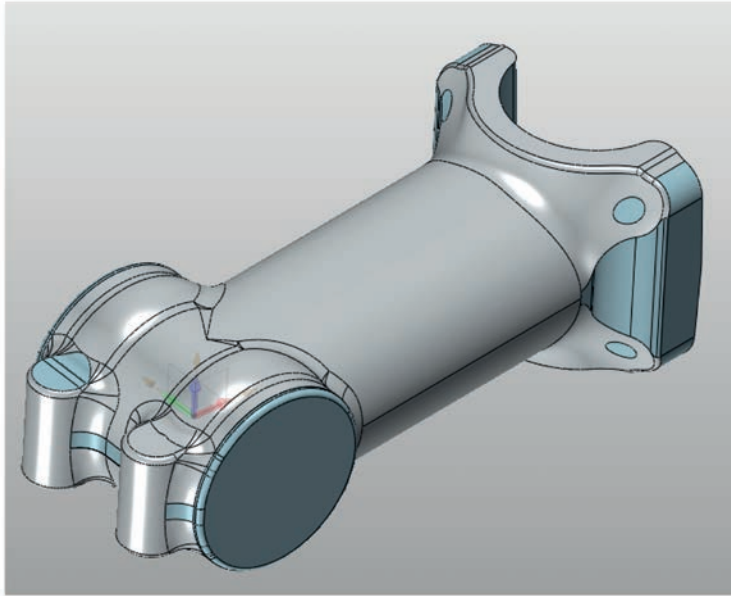
The target industries are mechanical engineering, electrical industry, medicine, railways, bicycle and motor industry, and agricultural machinery. Extra Forge enters the market of closed die forging and the hollow forging of small to medium series steel and aluminum products. They tend towards a comprehensive offer from forging to mechanical processing, explains Lukić. "Conceptually, the company was designed in cooperation with a number of experts who have more than 30 years of forging experience. The desire is to provide customers with high quality, affordable semi-finished products, flexible production, and short delivery times."

The project is divided into three main phases. "The first phase of partial hollow forging has already been achieved in simulations, we are preparing for testing in production. The second and third phases of the

project are in the design phase, and the results are encouraging." They plan to test the second and third phases of the hollow forging project in production next spring.

Currently, their target market is Europe. With the hollow forging process, they recognized a huge opportunity in the bicycle and motorcycle parts market. "We want to develop the process to such a level that we can use hollow forging for all other industries as well. After the successful implementation of hollow forging ideas, we will focus on the market outside of Europe, with an emphasis on North America. We believe that we are on the right track to achieve rapid and uninterrupted growth in the coming years and to become a medium-sized company."





As part of the P2 tender, the company received funds for the implementation of the project of developing an innovative service - small to medium series hybrid closed die-hollow forging of steel and aluminum castings and thus for the launch of the new innovative company Extra forge d.o.o.



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We are committed to meeting product quality requirements, preventing negative consequences for the environment, constantly reducing negative impacts and reducing the carbon footprint, with an emphasis on prudent energy use and waste management. **We are committed to the continuous improvement of the working environment and the prevention of risks to the safety and health of employees, with an emphasis on preventive action and improvement, as well as consultation with employees.**



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The slogan of the company Extra Forge coincides with the company's strategy and reads:

**HIGH-TECH PRODUCTION OF STEEL
AND ALUMINUM PRODUCTS**



**EXTRA
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FORGING FUTURE

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