

A complex network of black dots connected by thin grey lines, resembling a molecular or structural model, set against a light grey background. A solid red horizontal bar is overlaid across the middle of the image.

METAL STRUCTURES



TULA METAL ROLLING PLANT

ABOUT US



Tula Metal Rolling Plant has been providing a range of services for the design, manufacture and installation of metal structures since 2007. The plant has over a thousand completed projects on its account. The company pays great attention to the development of production technology and care for the environment. The certificate of conformity of the ISO 9001:2015 quality management system reflects the high competence and professionalism of Tula Plant specialists.

OUR ADVANTAGES

- We produce up to 12,000 tons of metal structures per year;
- Our plant consists of over 650 highly qualified specialists;
- Tula Plant is a member of the Steel Construction Development Association;
- We have our own industrial site of 12 hectares, on which:
 - 10,000 sq.m. production workshops;
 - 6,000 sq.m. of storage space, including dry storage.



METAL STRUCTURES DESIGN AND ENGINEERING

When designing, we use a high-precision software product "Tekla Structures".

The design department develops in the shortest possible time:

- Project concept;
- Design and working documentation;
- 3D model;
- Detailed drawings;
- Assembly drawings.



PRODUCTION OF METAL STRUCTURES

Tula Metal Rolling Plant specializes in the manufacture and installation of metal structures of the following types:

- Bridge superstructures and special auxiliary facilities;
- Industrial and warehouse buildings and structures;
- Sports facilities;
- Transport infrastructure facilities;
- Objects of the fuel and energy complex.



INSTALLATION AND DISMANTLING OF BUILDINGS AND CONSTRUCTIONS

Tula Plant provides a full range of services for the installation and dismantling of buildings and structures, including:

- Development of a project for the organization of dismantling;
- Obtaining permits;
- Mechanized and manual dismantling of buildings;
- Recycling and disposal of construction waste.

When carrying out dismantling works, Tula Plant uses all the necessary special equipment, including: excavators with various attachments, destroyers, crushing and screening plants, dump trucks and loaders.



PRODUCTION EQUIPMENT

BRIEF DESCRIPTION OF THE MAIN MECHANICAL EQUIPMENT

CNC assembly line for welded beam Sci 2000/l1

Main features:

- Machine type: portal;
- Max. dimensions of the part, mm: 15000x800x1500 (LxWxH);
- The thickness of the beam shelf: 8-40 mm.



Plasma machine Crystal - GP

Main Features:

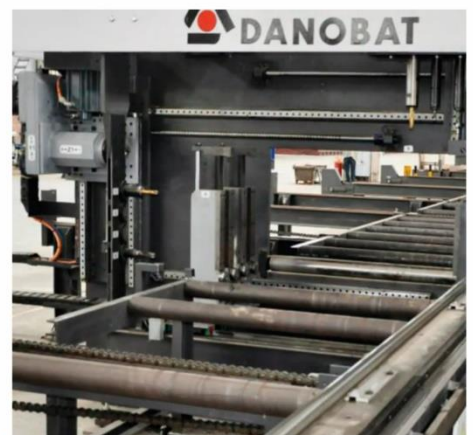
- Machine type: portal;
- Max. dimensions of the part, mm: 10500x2200x16 (LxWxH);
- Cutting method: plasma.



Cutting line Danobat CPI 130.60DI

Main features:

- Cutting angle: +45°/+60°;
- Max. dimensions of the part, mm: 600x1240x12000 (LxWxH);
- Cutting method: band saw.

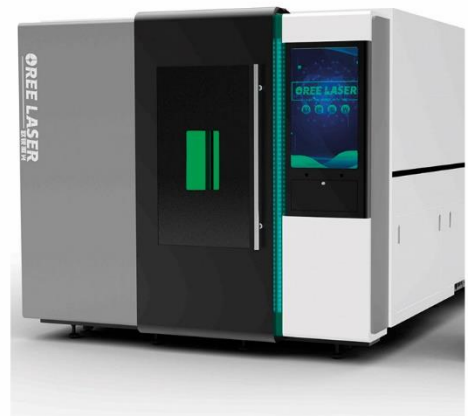


Tula Metal Rolling Plant is equipped with the most advanced equipment, characterized by high precision to the machined parts. The company's specialists have specialized education, proper qualifications and extensive experience working on computer-controlled machines. Thanks to the continuous professional development of operators and timely maintenance of machines, all manufactured metal structures have precise geometric values.

Laser machine OREE LASER OR-PH 3015 6000W

Main features:

- Cutting angle: 90°;
- Max. dimensions of the part, mm: 3000x1500x20 (LxWxT);
- Cutting method: fiber laser.



Combined press shears Geka Hydracrop 165

Main features:

- Cutting angle: 90°;
- Max. dimensions of the part, mm: 205x205x18 (HxWxD);
- Cutting method: chopping / punching.



Gas cutting machine Satronik D-5000

Main features:

- Machine type: portal;
- Max. dimensions of the part, mm: 24000x3600x200 (LxWxH);
- Cutting method: gas.





SURFACE CLEANING

ASSEMBLY AND WELDING



PAINING AND MARKING

QUALITY CONTROL



STORAGE OF FINISHED PRODUCTS

Pass-through shot blasting chamber RÖSLER (Germany)

Shot blasting is carried out both of sheet and profile rolled products. Simultaneous operation of six turbines provides a second degree of purification according to GOST 9.302. The shot is fed simultaneously from four nozzles arranged in such a way that the shot fed at different angles cleans all the planes of the metal rolling set into the processing chamber.

The maximum size of the processed materials is 12000 x 2000 x 500 mm.

The assembly and welding section of the workshop executes the general assembly of elements of buildings and structures, such as load-bearing beams, columns, trusses. Assembly is carried out with the help of high-precision tools, and welding work is carried out by qualified personnel with certification of National Agency of Weld Control, using equipment from leading manufacturers such as Lincoln and SINERGIC.

Welding is performed in the environment of shielding gases Ar+CO₂ on the stocks, allowing welding in all spatial positions, which ensures guaranteed welding. In order to ensure the accuracy of installation in production, control assembly of finished metal structures is carried out.

Painting of metal structures is carried out by airless spraying using Graco devices. Metal structures manufactured by the plant are degreased before painting.

The painting area is equipped with microprocessor-based thickness gauges that allow to monitor the thickness of the applied paint materials. After painting, all elements of metal structures are marked in accordance with GOST requirements with marking pistols, which greatly facilitates installation directly on the objects.

Product quality control is carried out by certified personnel using state-of-the-art devices and measuring tools at all key stages of metal structures production:

- Incoming quality control of rolled metal and materials;
- Operational control of the storage conditions of welding and paint materials;
- Visual and measuring control of elements of metal structures, including ultrasonic control of welded seam;
- Instrumental quality control of cleaning the surface of the product;
- Control of the technological process of applying paint and varnish coating and its thickness;
- Control of product packaging according to customer requirements or RTD (regulatory and technical documentation);
- Control of loading and transportation operations until the moment of delivery of products to the facility.

Storage of finished products is carried out in a closed heated warehouse, which allows to ensure the safety of the paintwork, especially in winter.

Certified personnel carry out packaging and shipment of finished products by both road and rail transport.

COMPLETED PROJECTS

INDUSTRIAL AND CIVIL FACILITIES

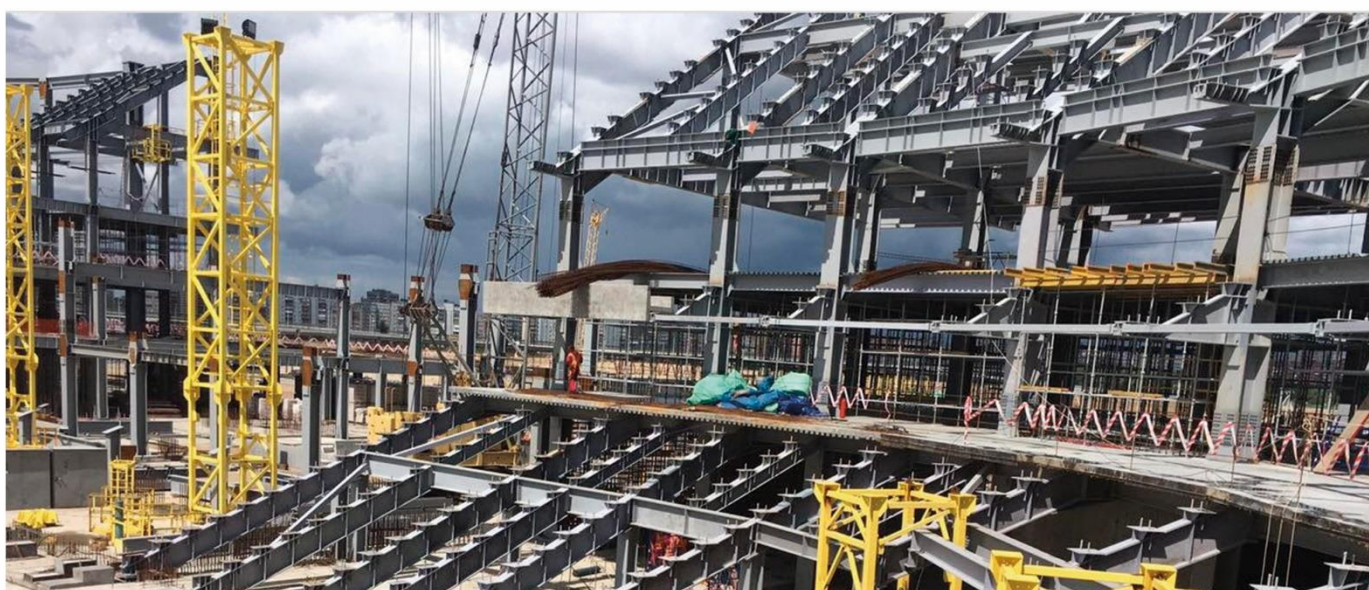
Production building

- Region: Moscow region



Football Stadium for the 2018 FIFA World Cup

- Region: Kaliningrad region



Buildings based on metal structures tolerate temperature changes well, do not shrink and can be built in earthquake-prone areas. The building can be assembled at any time of the year and in any weather conditions.

Steelmaking shop building

- Region: Nizhny Novgorod region



Archive complex of the state institution "State Archive of the Russian Federation"

- Region: Moscow





Modern technologies for the production of high-strength frame elements greatly simplify the installation process of buildings. The key advantage of such lightweight structures is the minimum load on the foundation. This makes it possible to implement projects of buildings with large spans.

Russian Academy of Medical Sciences named after academician Petrovsky B.V.

● Region: Moscow



Perinatal Center named after Academician Kulakov V.I.

● Region: Moscow



The valuable advantage of buildings made of metal structures are steel beams. They make it possible to cover spans up to 18 meters, which in turn allows one to free the interior of the building from columns and ensure complete freedom of room layout.

Distribution center of the Magnit retail chain

- Region: Moscow region



Warehouse complex building

- Region: Tver region





One of the most common types of objects in the construction of which metal structures are used are industrial buildings. They differ in increased functionality, strength, durability, relatively light weight, as well as quick installation time on the construction site.

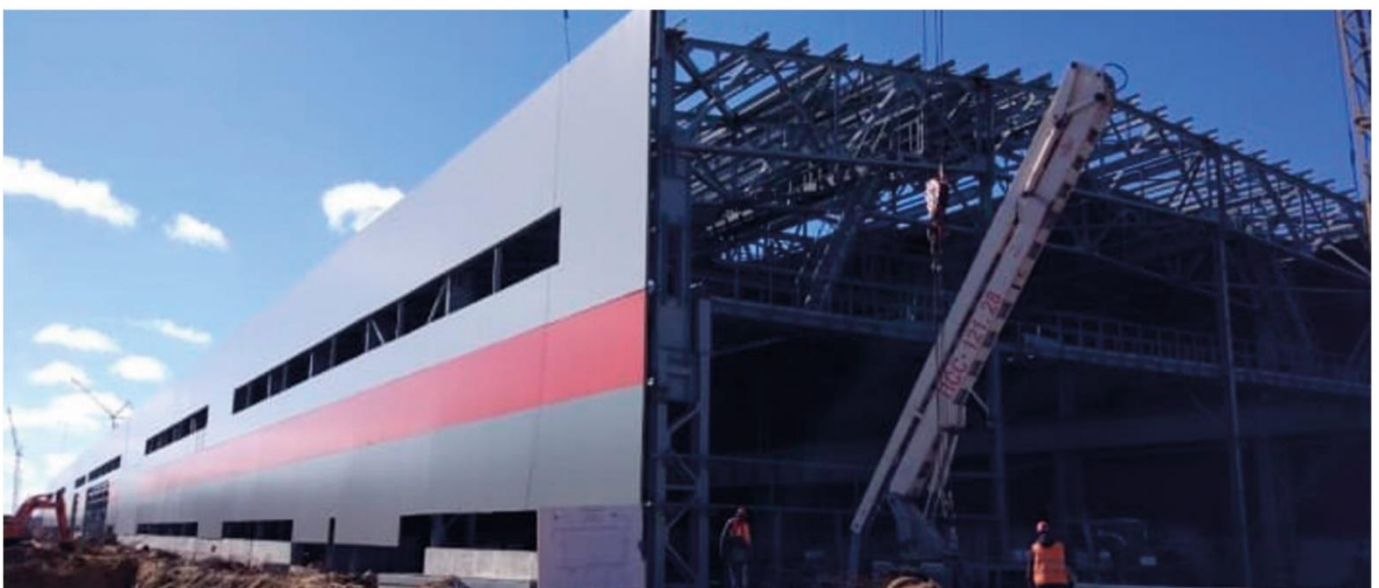
Tulachermet-Steel Metallurgical Plant

● Region: Tula region



Oskol Electrometallurgical Combine named after Ugarov A.A.

● Region: Belgorod region



A special type of metal structures for industrial facilities is manufactured with requirements for high mechanical strength, plasticity and elasticity. The structures have the necessary resistance to both static and dynamic loads.

Cement plant «Tulacement» (Heidelberg Group)

- Region: Tula region



Cherepovets Metallurgical Plant «Severstal»

- Region: Vologda region





The development of the design documentation of the structural engineering drawings section is carried out in the automated design software Tekla Structures. It allows one to work out metal structures in detail in three-dimensional space and speed up the assembly process, both shipping stamps and structures in general.

Plant for the production of sanitary and hygienic paper products «HAYAT»

● Region: Kaluga region



Pavilion No. 57, VDNH

● Region: Moscow



When checking the quality of welded metal structures, the plant's specialists use the latest equipment - X-ray and ultrasound scanning devices that recognize the slightest irregularities in the seams of welded joints. A responsible approach to product quality guarantees the reliability and durability of the structures supplied by the plant.

110 kV Narva substation for ethane-containing gas and LNG complex in Ust-Luga

● Region: Leningrad region



Production and logistics complex «Kurskagroterminal»

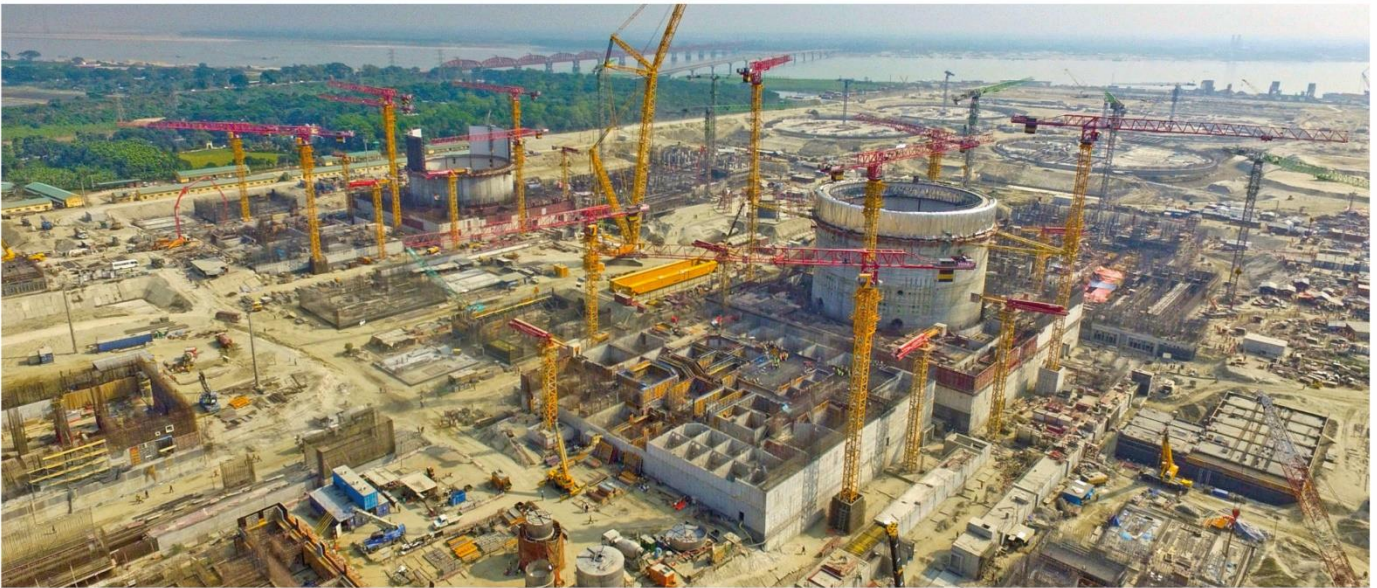
● Region: Kursk region



FUEL AND ENERGY COMPLEX FACILITIES

Rooppur Nuclear Power Plant

- Region: People's Republic of Bangladesh



Bovanenkovskoye oil and gas condensate field

- Region: Yamalo-Nenets Autonomous region



Tula Metal Rolling Plant manufactures modern metal structures for the oil and gas and fuel and energy complex. The structures manufactured by the plant meet all safety requirements, ensure comfortable operation and strictly comply with the project documentation.

Moscow Oil Refinery of Gazpromneft-MNPZ JSC

● Region: Moscow



Salmanovskoye oil and gas condensate field

● Region: Yamalo-Nenets Autonomous region



TRANSPORT INFRASTRUCTURE FACILITIES

ULTRAMAR Multifunctional marine transshipment terminal

● Region: Leningrad region



Electric depot of the Moscow metro «Mitino»

● Region: Moscow



Metal structures are widely used in the construction of transport facilities due to the speed of installation. Some elements are connected directly at the factory at the manufacturing stage.

Multifunctional complex of electric depot «Brateevo»

● Region: Moscow



Sheremetyevo International Airport, building C

● Region: Moscow region





In the production of metal structures for transport infrastructure facilities, there are increased requirements for corrosion protection. Tula Metal Rolling Plant uses only high-quality anticorrosive compounds of proven manufacturers for painting metal structures.

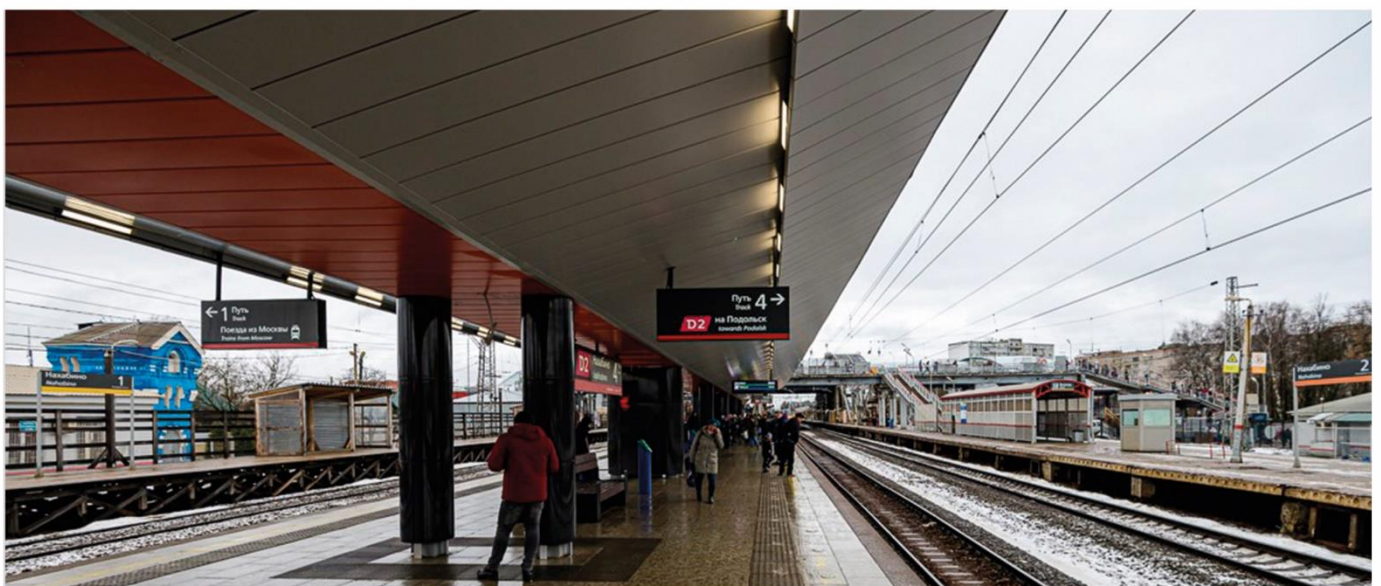
Novodachnaya Railway Station (MCD 1)

● Region: Moscow region



Nakhabino Railway Station (MCD 2)

● Region: Moscow region



All metal structures for transport facilities are manufactured in strict accordance with GOST RF, have increased resistance to climatic and mechanical factors. The lightness and mobility of the structures ensure high speed of installation.

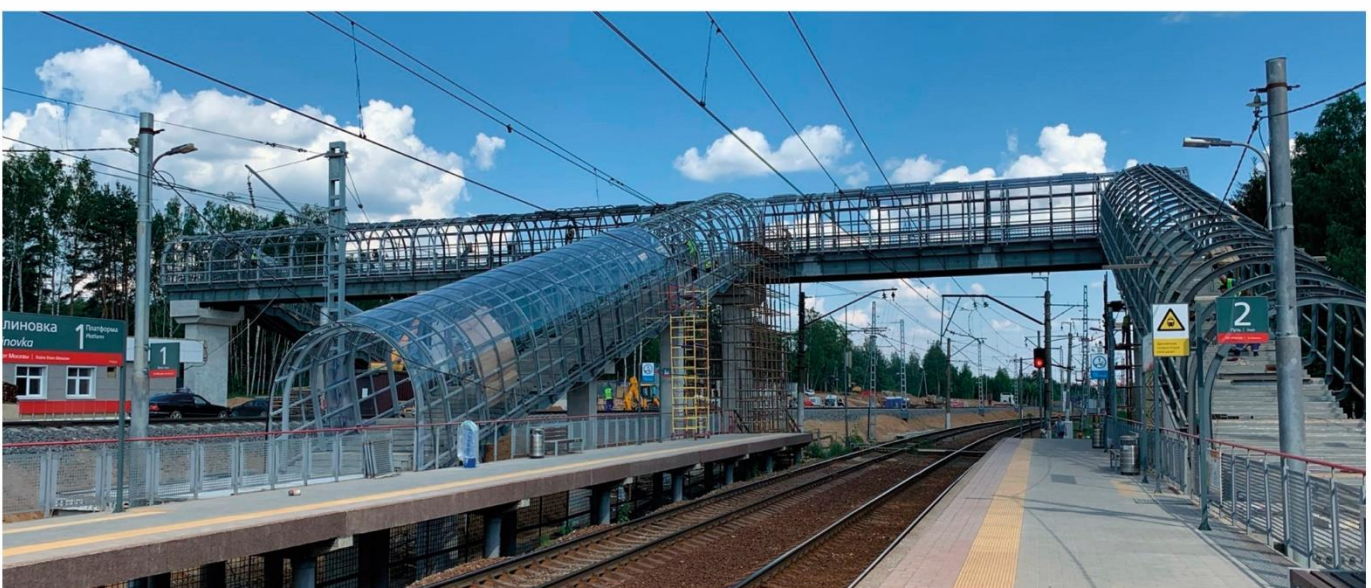
Electric depot «Nizhegorodskoye» of the Moscow metro

● Region: Moscow



Railway station «Malinovka» of the Riga direction of the Moscow Railway

● Region: Moscow region



BRIDGE SPANS AND SPECIAL AUXILIARY STRUCTURES

Auxiliary structures for bridge crossing over the Mocha River, Central Ring Road

● Region: Moscow region



Avant-bec and the main structures of the bridge spans of the South-Eastern chord section

● Region: Moscow



All bridge metal structures are manufactured in strict accordance with the requirements for structures of this type. In the manufacture of structures rolled metal of the following grades is used: 10KHSND, 15KHSND, 14G2AF, 09G2S.

Slipway for the superstructure of the bridge over the Oka River, highway M-12

- Region: Nizhny Novgorod region



Transport interchange on the Third transport ring at the ZIL plant

- Region: Moscow





Tula Metal Rolling Plant, thanks to the experience and professionalism of specialists, is capable to manufacture road and railway bridges, pedestrian bridge crossings, overpasses, temporary supports and special auxiliary structures for bridge construction.

Avant-bec and Subdiagonal for a bridge crossing over the Chusovaya River

● Region: Perm Krai



Avant-bec for bridge crossing over the Volga River (highway M-12, Moscow-Kazan)

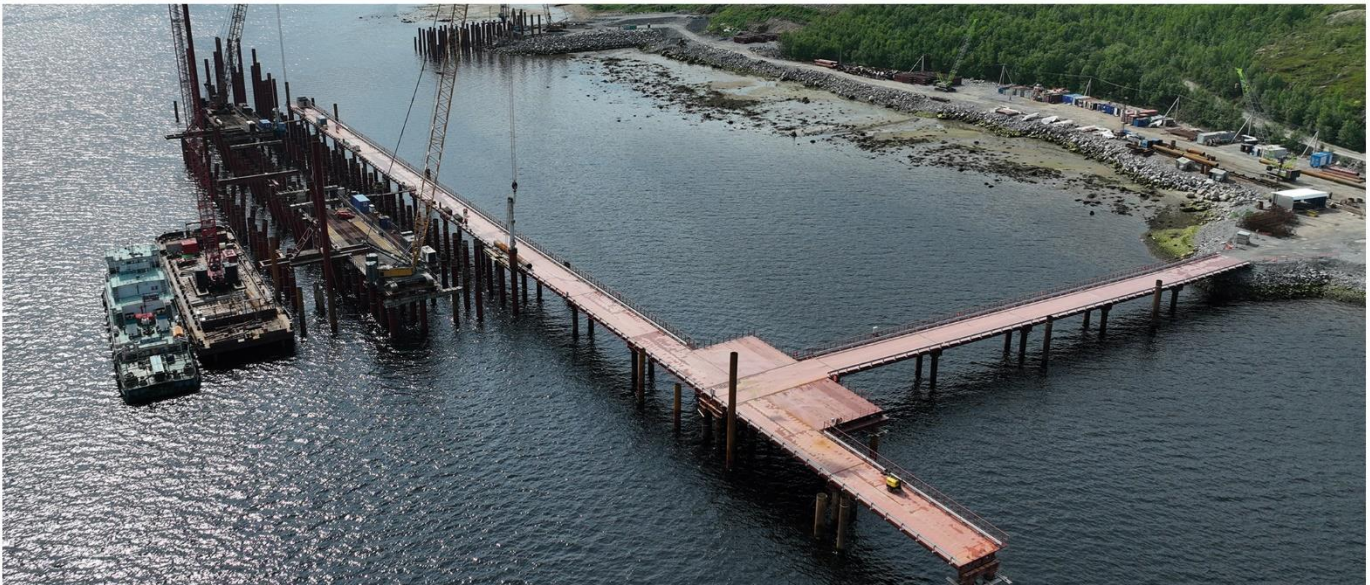
● Region: Republic of Tatarstan



The construction of metal bridges is the locomotive of infrastructure construction. Steel bridges have the advantage of installation speed in any climatic zone and cramped conditions, reduction of construction time and the possibility of constructing long spans.

Temporary bridge structures and turning platforms for the Lavna port

- Region: Murmansk region



Bridge superstructures for the construction of the Priobskoye oil field

- Region: Khanty-Mansi Autonomous region





Prefabricated bridges are being implemented within the framework of the national project "Safe and high-quality highways" and have a high social significance, combine the convenience of assembly and installation, as well as technology and innovation. They are made of weather-resistant steel 14KHGND.

Pedestrian bridge crossing over the Zyganka river

● Region: Moscow



Prefabricated bridge crossing over the Puksa River

● Region: Arkhangelsk region



The cost of manufacturing bridges made of this steel without painting is 10-15% lower compared to traditional steel grades. Bridges made of 14KHGNDC steel have low operating costs, and cost savings in the life cycle of structures are up to 30%.

Prefabricated bridge crossing over the Khima River

- Region: Arkhangelsk region



Prefabricated bridge crossing over the Kyanda River

- Region: Arkhangelsk region



BRIDGE STRUCTURES FOR THE REGIONS OF THE FAR NORTH

Bridge crossing over the Levy Yarakvaam River

- Region: Chukotka Autonomous region



Bridge crossing over the Pravy Yarakvaam River

- Region: Chukotka Autonomous region



For the manufacture of bridge structures operated in the regions of the Far North, the Tula Metal Rolling Plant uses special grades of steel with high impact strength and resistant to low temperatures.

Bridge crossing over the Leluvey River

- Region: Chukotka Autonomous region



Bridge crossing over the Maly Anyui River for 502 km

- Region: Chukotka Autonomous region





The delivery of bridge spans to the Far North region requires careful production planning and strict compliance with the shipment schedule. The delivery of bridge structures to the construction site is a complex logistical operation, including transportation along the Northern Sea Route in a limited period of time.

Bridge crossing over the Puchevey River

- Region: Chukotka Autonomous region



Bridge crossing over the Milguvei River

- Region: Chukotka Autonomous region



Specialists of the Tula Metal Rolling Plant, when carrying out works on the installation of bridge metal structures in the northern regions, always take into account extreme weather conditions, limited transport accessibility and lack of energy infrastructure.

Bridge crossing over the Ugatkyn River

- Region: Chukotka Autonomous region



Bridge crossing over the Ilirneiveem River

- Region: Chukotka Autonomous region



METAL-ROLLING PRODUCTION



The equipment of rolling production of Tula Plant is a semi-continuous small-section mill 300, which allows to produce a wide range of products.

ROLLED METAL PRODUCTS

By products:

- Reinforcing bars - 8...32 mm;
- Round bars - 8...40 mm;
- Screw thread bars - 14...40 mm;
- Square bars - 12...30 mm;
- Strip - 20...50 mm wide, thickness 4...5 mm;
- Shaped steel – Angle bar - 25...35 mm.

By steel grades:

- Carbon steel of regular quality - St3sp - St5sp;
- Low-alloy structural steels - 25G2S, 35G2S;
- Structural steels alloyed – 40KH, 30KHGSA, 30KHM;
- Steel 76 - rail.

BRIEF DESCRIPTION OF THE MAIN MECHANICAL EQUIPMENT

1. Heating furnace

To heat the billets, a methodical furnace with a walking hearth is installed in the mill. Loading and unloading of blanks is carried out by furnace roller shutters.

2. Crimping line mill 530 TRIO

It consists of a TRIO mill, an incoming roller, a lifting and swinging table, a diverting roller and flying scissors. Metal rolling is reversible. The control is automatic and manual from the control panel.

3. Intermediate group of mills 400

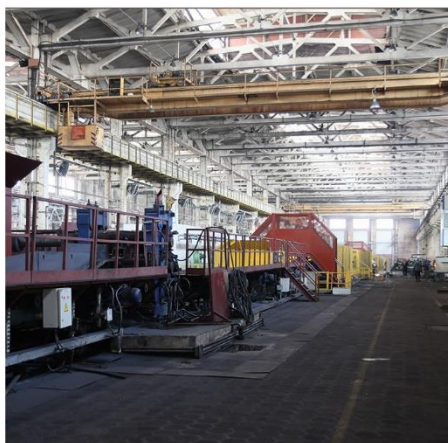
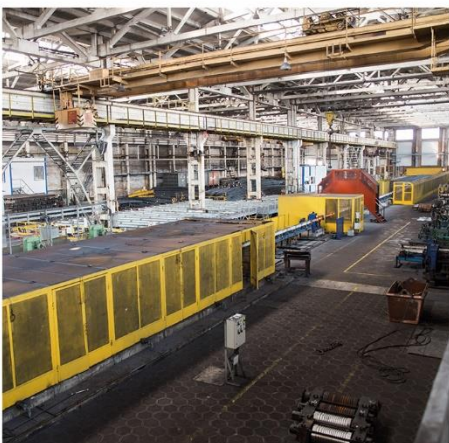
It consists of six lines of working stands with a diameter of 400 rolls and flying scissors. The arrangement of the cranes is horizontal. Rolling is carried out with the rolling edge at 90° and with minimal tension in the intercellular spaces. Speed control is automatic from the control panel. The mill 400 is designed for compression of the roll with horizontal rolls.

4. Finishing group of mills 350

It consists of six lines of working stands with a diameter of 350 rolls and flying scissors. The arrangement of the cranes is horizontal. Rolling is carried out with the rolling edge at 90° without tension in the intercellular spaces. Speed control is automatic from the control panel. Crate 350 is designed to compress the roll with horizontal rolls.

5. Notch bar cooling bed

Designed for piece-by-piece reception of hot rolled products coming from the flying shears of the finishing group of cranes, leveling the rear ends of the rolled products on the leveling roller, transporting and naturally cooling the rods on rack sections, placing the rods in a flat package on the diverting roller and transporting the package to the cold cutting scissors with a force of 250 tons.



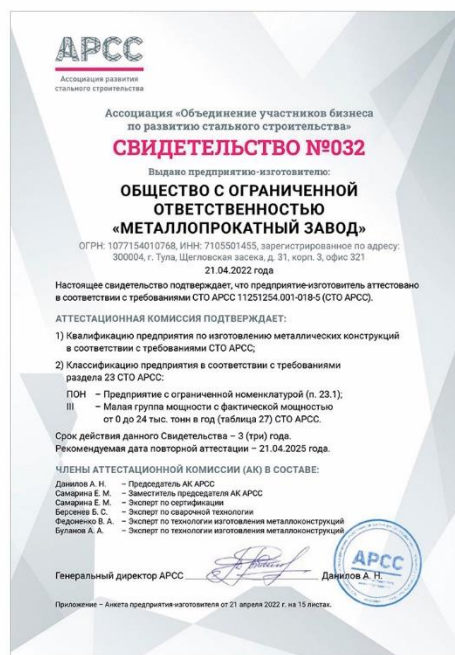
CERTIFICATES AND PARTNERS

CERTIFICATES AND LICENCES

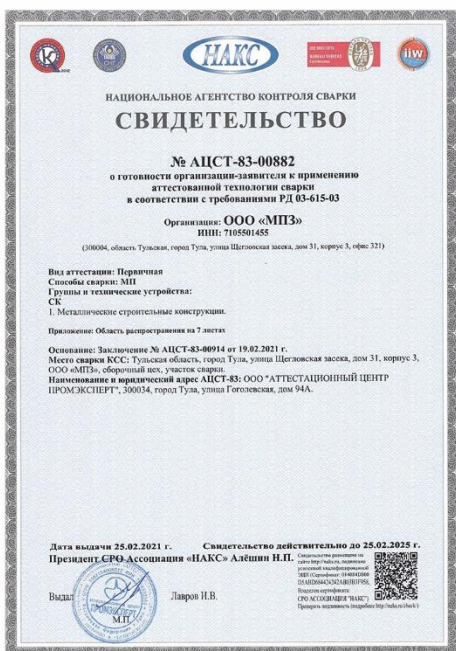
Certificate of conformity of quality management system ISO 9001:2015



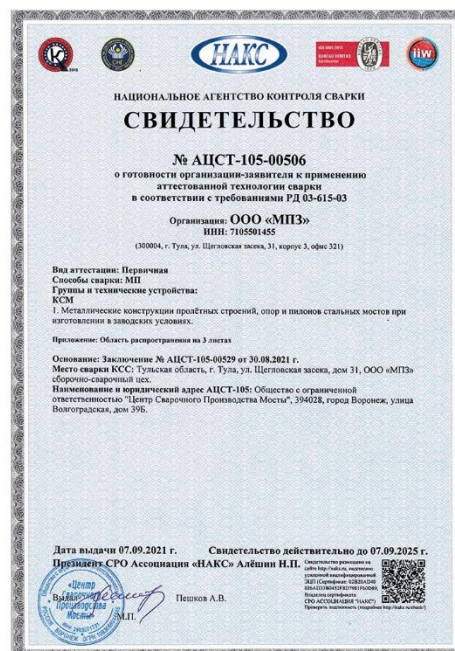
Certificate of Attestation of STO Steel Construction Development Association



National Agency of Weld Control certificate for welding building structures

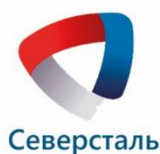


National Agency of Weld Control certificate for welding bridge structures



PARTNERS OF THE TULA METAL ROLLING PLANT

For many years of active work, the Tula Metal Rolling Plant has established itself as a reliable supplier of metal structures for absolutely any industries. This experience is confirmed by long-term cooperation with the largest companies of the Russian Federation.





METAL STRUCTURES

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