



Scientific and Production
association



HISTORY OF THE GROUP OF COMPANIES



Production and engineering - company "**Perol**" was established on the basis of units of Metmash - the All-Union Scientific Research Institute named after Academician A. I. Tselikov, with participation of the leading specialists of "**Stalproekt**", JSC

1992

1995

With participation of "Perol-Expo" engineers 460 furnace rollers for plants Mechel (Chelyabinsk Metallurgical Complex) and Severstal (Cherepovets Metallurgical Complex) were modernized.

1996

Employees of the company in industrial environments of "Azovstal", "Mechel" and VSMPO (Verkhnesaldinskoye Metallurgical Production Association) sheet rolling shops metallurgical industrial complexes obtained experimental information about the operation conditions of rollers of different designs, which provided true-to-fact information about their operation modes and their resources depending on these modes.

2001

The company's engineers carried out the work on modernization of roller hearth through-type furnaces at the following metallurgical productions: "Uralskaya Stal", OJSC (Orsk-Khalilov Metallurgical Complex), "Magnitogorsk Metallurgical Plant", OJSC, and "VSPMO-AVISMA Corporation", OJSC.

2005

"Akhtuba" Scientific and Production Association, CJSC was established on July 1, 2005 - the modern production in manufacturing of spare parts and equipment for machine building, metallurgical and petrochemical productions.

HISTORY OF THE GROUP OF COMPANIES

2006

• In September 2006 the first casting was performed, the technology of smelting of high-temperature steels was mastered; in October 2006, the first centrifugal-cast tubes were produced.

2007

• Production of furnace rollers was set up, the products were supplied to "VSPMO-Avisma Corporation", OJSC. Production of radiant tubes was set up, the products were supplied to "Magnitogorsk Metallurgical Plant", OJSC.

2008

• Production of CCM (continuous casting machines) rollers was set up, the products were supplied to "Chelyabinsk Metallurgical Combine", OJSC of MECHTEL company group.

2010

• Technology of repair of furnace rollers by replacing "barrels" was developed, the products were supplied to "VSPMO-Avisma Corporation" OJSC.

2013

• Production of the reaction tubes for the oil and gas industry was set up, chemical industry, the products were supplied to PERAMET Anlagentechnik GmbH.

2014

• Production of furnace rollers, coated with a "thermal resistant" concrete was set up, the products were supplied to "Vyksunsky metallurgical Plant" (Group OMK-Stal"), OJSC. Products were also supplied "EVRAZ NTMK", OJSC, "NLMK", OJSC.

PERSONNEL



The staff of "Akhtuba" group of companies is presented by the specialists of its structural subdivisions:

"Akhtuba" Scientific and Production Association, CJSC



67
highly skilled
professionals of
working specialties

15
specialists of
administrative and
managerial staff

12
specialists of the
commercial department
and development
department

11
engineers

"Perol" company



> 25 years

work experience of design engineers -
engineering support of projects of the
group of companies, cooperation with
scientific institutions of Russia and CIS.
Doctors of Science, State Prize laureates
work within the company.

ABOUT THE ENTERPRISE



The main directions of activities of "Akhtuba" group of companies:

- design of new and improvement of existing metallurgical, machine-building and petrochemical equipment in order to increase the operating life and improve technical characteristics of vehicles, machinery and components;
- manufacturing of industrial equipment, spare parts on the basis of centrifugal-cast billets of own production.
- architectural supervision of manufacturing, adjustment and operation of the equipment supplied, as well as its warranty and post-warranty support and maintenance.
- manufacturing of centrifugal-cast tubes of corrosion-resistant, heat-stable, difficult-to-form high-alloy steels and alloys.
- quality control of materials, raw materials, equipment, production and technological processes, and finished products.

"Akhtuba" Scientific and Production Association, CJSC manufactures products under the following standards:

| | |
|--|--|
| Centrifugal-cast tubes of corrosion-resistant, for high-temperature tube furnaces heat-resistant, high-alloy steels and alloys | TU 1333-001-76886532-2007 |
| Rollers for thermal and heating furnaces | TU 31-37-001-76886532-2008 Certificate of conformity № ПООСРУ.АГ75.Н00819 |
| Centrifugal-cast tubes of heat-stable and heat-resistant, high-alloy steels and alloys for high-temperature tube furnaces | TU 1333-111-00220302-2006 |
| Reaction tubes of heat-stable and heat-resistant, high-alloy steels and alloys for high-temperature tube furnaces | TU 3689-112-00220302-2006 Permit for use PPC 00-050645 |
| Centrifugal-cast billets of corrosion-resistant steel grades | TU 1333-002-76886532-2014 |
| Centrifugal-cast billets of corrosion-resistant steel grades | TU 1333-003-76886532-2014 |

The company is certified and has a certificate of National Agency for Testing and Welding:

| | |
|---|----------------------|
| Welding equipment attestation certificate | NAKS N АЦСО-72-00664 |
| Welding consumables attestation certificate | NAKS N АЦСМ-42-00745 |
| Welding technology attestation certificate | NAKS N АЦСМ-79-00910 |
| Welding technology attestation certificate | NAKS N АЦСМ-79-00909 |

The company has developed and implemented a quality management system in accordance with the requirements of

| | |
|------------------|---|
| MS ISO 9001:2008 | Certificate № 12.0952.026 AC "Russian Register" |
|------------------|---|

ENGINEERING



Our offers:

- 1 Design of new and optimization of existing equipment on your production site.
- 2 Shortest possible time from the sketch, prototype products to serial production.
- 3 Flexible system of payment for services rendered and equipment.
- 4 Always friendly employees and the staff of our company.

The company's specialists have many years of experience in design, research and supply of equipment for metallurgical and machine-building enterprises of Russia and the CIS.

Our competence:

- over 35-year experience in design and project development;
- more than 100 implemented developments and proposals to optimize the design of the equipment;
- our equipment operates in most of the metallurgical enterprises in Russia, Ukraine and Belorussia;
- wide cooperation geography;
- 15 design engineers;
- we are always ready to consider your proposal for cooperation;

RESEARCH WORK

The company's management places a special emphasize on development. We are always in search of:

- **Production development**
- **Partnership development**
- **Cooperation development**

In 2015 we are carrying out the following research works

1

Creation of a full technological production cycle for components, details and spare parts of heat-stable, corrosion-resistant alloys with implementation of innovative technologies of centrifugal casting for petrochemical equipment produced in foreign countries.

2

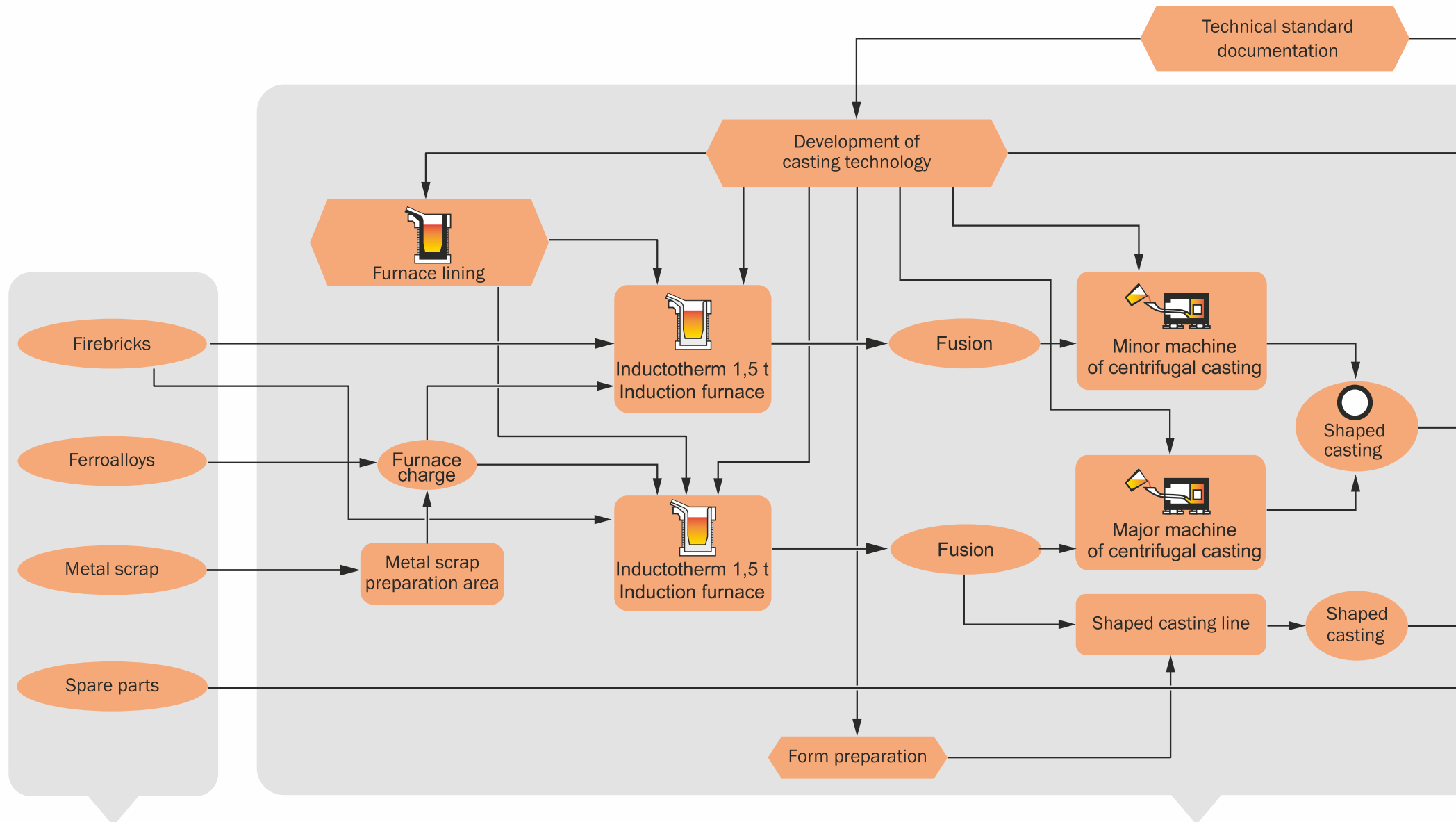
Creation of a full technological production cycle for:

- Hexagonal tubes - Covers 257x6, ready-to-operate boron-containing corrosion resistant steels 1.7225;
- Centrifugally-cast tubes, $\varnothing 426$; 350 mm made of 1.4301 corrosion resistant steels;
- Thin-walled tubes $\varnothing 95 \times 2 \times 3700$ mm made of 1.4878 steel.

Our offers:

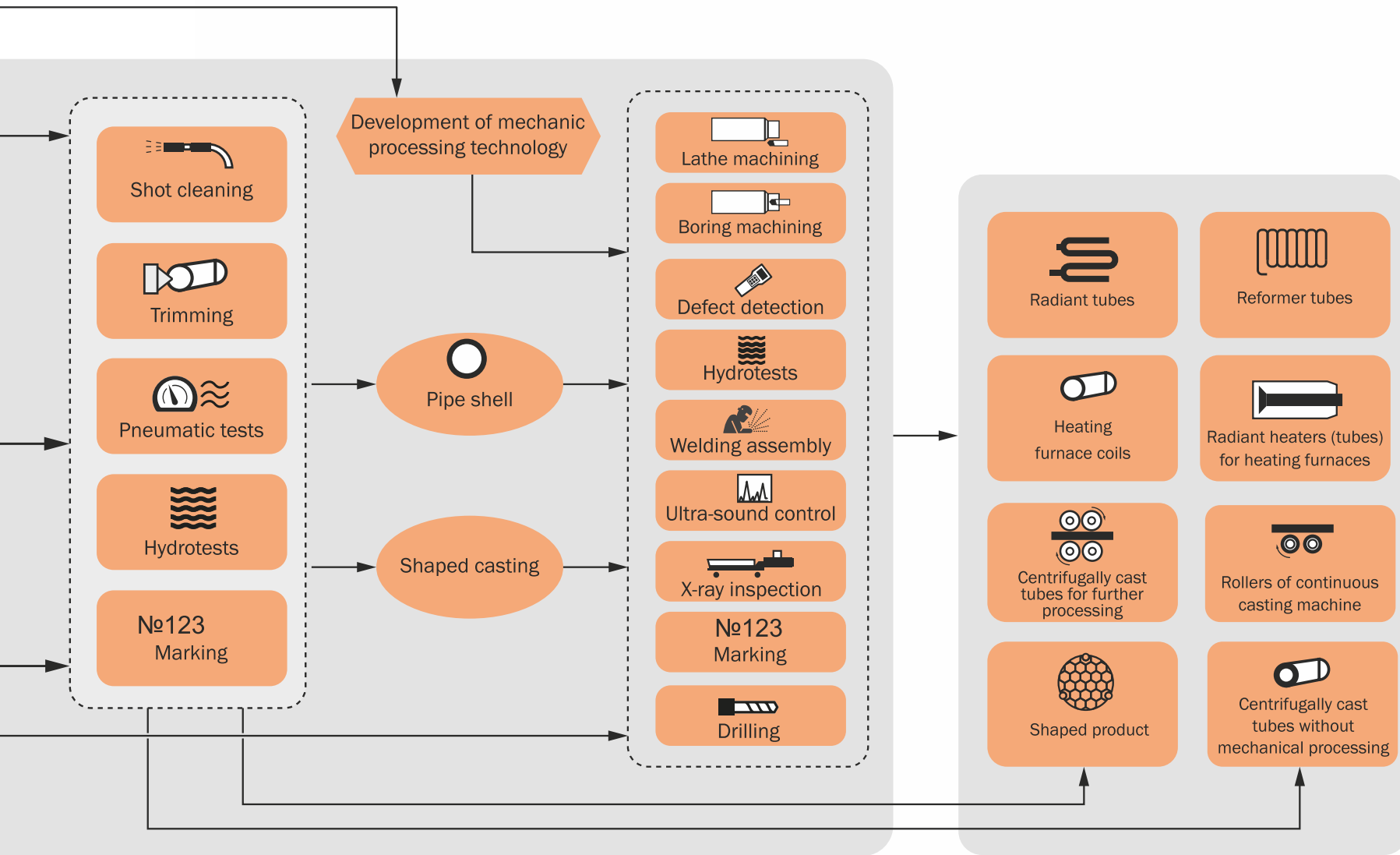
- ✓ joint research work on development of new products based on the core technologies of our (your) production;
- ✓ optimization of your production technological processes;
- ✓ development of equipment and spare parts to meet the needs of your production

TECHNOLOGY



Input quality control

In-process quality control



Output quality control

Technical Capabilities

Geometrical dimensions of the manufactured centrifugal-cast tubes

| Tube wall thickness | Maximum length m, with the tube outer diameter mm; | | | | | | | | | | | | | | | | | |
|---------------------|--|-----|----|-----|------|-----|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 66 | 77 | 85 | 91 | 98 | 102 | 115 | 121 | 127 | 138 | 141 | 153 | 158 | 167 | 180 | 194 | 209 | 212 |
| 7-10 | 3 | 2,8 | 3 | 3,4 | 3,35 | 3 | 4,05 | 3,15 | 3,35 | 3,7 | 3,7 | 3,2 | 3,1 | 2,2 | 4,7 | 2,7 | 3,6 | 2,1 |
| 10-15 | | 2,8 | 3 | 3,4 | 3,35 | 3 | 4,05 | 3,15 | 3,35 | 3,7 | 3,7 | 3,2 | 3,1 | 2,2 | 4,7 | 2,7 | 3,6 | 2,1 |
| 15-17 | | | 3 | 3,4 | 3,35 | 3 | 4,05 | 3,15 | 3,35 | 3,7 | 3,7 | 3,2 | 3,1 | 2,2 | 4,7 | 2,7 | 3,6 | 2,1 |
| 17-21 | | | | 3,4 | 3,35 | 3 | 4,05 | 3,15 | 3,35 | 3,7 | 3,7 | 3,2 | 3,1 | 2,2 | 4,7 | 2,7 | 3,6 | 2,1 |
| 21-24 | | | | | | 3 | 4,05 | 3,15 | 3,35 | 3,7 | 3,7 | 3,2 | 3,1 | 2,2 | 4,7 | 2,7 | 3,6 | 2,1 |
| 24-30 | | | | | | | | | 3,35 | 3,7 | 3,7 | 3,2 | 3,1 | 2,2 | 4,7 | 2,7 | 3,6 | 2,1 |
| 30-40 | | | | | | | | | | 3,7 | 3,7 | 3,2 | 3,1 | 2,2 | 4,7 | 2,7 | 3,6 | 2,1 |
| 40-50 | | | | | | | | | | | | | | | 4,7 | 2,7 | 3,6 | 2,1 |
| 50-60 | | | | | | | | | | | | | | | | 2,7 | 3,6 | 2,1 |
| 60-70 | | | | | | | | | | | | | | | | | | |

| Tube wall thickness | Maximum length m, with the tube outer diameter mm; | | | | | | | | | | | | | | | | | |
|---------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 224 | 239 | 247 | 273 | 284 | 309 | 310 | 312 | 323 | 359 | 387 | 407 | 427 | 438 | 455 | 477 | 508 | 616 |
| 7-10 | 4,6 | 2,6 | 2,1 | 3,4 | 3,1 | 2,3 | 3,4 | | | | | | | | | | | |
| 10-15 | 4,6 | 2,6 | 2,1 | 3,4 | 3,1 | 2,3 | 3,4 | 4,4 | 4,1 | 2,8 | 3,3 | 2,4 | | | | | | |
| 15-17 | 4,6 | 2,6 | 2,1 | 3,4 | 3,1 | 2,3 | 3,4 | 4,4 | 4,1 | 2,8 | 3,3 | 2,4 | 4,1 | 2,1 | 2,2 | | | |
| 17-21 | 4,6 | 2,6 | 2,1 | 3,4 | 3,1 | 2,3 | 3,4 | 4,4 | 4,1 | 2,8 | 3,3 | 2,4 | 4,1 | 2,1 | 2,2 | 2,4 | | |
| 21-24 | 4,6 | 2,6 | 2,1 | 3,4 | 3,1 | 2,3 | 3,4 | 4,4 | 4,1 | 2,8 | 3,3 | 2,4 | 4,1 | 2,1 | 2,2 | 2,4 | 3,7 | |
| 24-30 | 4,6 | 2,6 | 2,1 | 3,4 | 3,1 | 2,3 | 3,4 | 4,4 | 4,1 | 2,8 | 3,3 | 2,4 | 4,1 | 2,1 | 2,2 | 2,4 | 3,7 | 2 |
| 30-40 | 4,6 | 2,6 | 2,1 | 3,4 | 3,1 | 2,3 | 3,4 | 4,4 | 4,1 | 2,8 | 3,3 | 2,4 | 4,1 | 2,1 | 2,2 | 2,4 | 3,7 | 2 |
| 40-50 | 4,6 | 2,6 | 2,1 | 3,4 | 3,1 | 2,3 | 3,4 | 4,4 | 4,1 | 2,8 | 3,3 | 2,4 | 4,1 | 2,1 | 2,2 | 2,4 | 3,7 | 2 |
| 50-60 | 4,6 | 2,6 | 2,1 | 3,4 | 3,1 | 2,3 | 3,4 | 4,4 | 4,1 | 2,8 | 3,3 | 2,4 | | 2,1 | 2,2 | 2,4 | | 2 |
| 60-70 | 4,6 | 2,6 | 2,1 | 3,4 | 3,1 | 2,3 | 3,4 | 4,4 | 4,1 | 2,8 | 3,3 | 2,4 | | 2,1 | 2,2 | 2,4 | | 2 |
| 70-80 | | | | | | 2,3 | 3,4 | 4,4 | 4,1 | 2,8 | 3,3 | 2,4 | | 2,1 | 2,2 | 2,4 | | |
| 80-90 | | | | | | | | | | 2,8 | | 2,4 | | 2,1 | 2,2 | | | |
| 90-100 | | | | | | | | | | | | | | 2,1 | 2,2 | | | |



Through-type furnace rollers

The company manufactures furnace rollers for heat-treatment furnaces and heating furnaces. Rollers are the main part of the furnace rolling table of the continuous heating and heat-treatment furnaces with roller hearth operating in the steel and glass industries.

Rollers are made of the following steels:

- 1.7225 • etc.
- 1.4301
- 1.4878
- 1.4823
- 1.4841

Rollers for continuous casting machines

The roller is made from centrifugal-cast tube (billet) made of the following steels:

Rollers are made of the following steels:

- 1.4852 • etc.
- 1.4848

The features of centrifugal-casting technology allow using the manufactured barrel without built-up welding of the surface layer.

> 20 years

The company's experience in production of furnace rollers.

> 5000

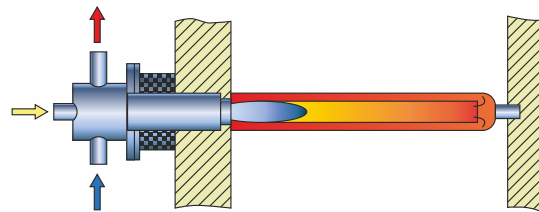
rollers have been made and repaired for metallurgical enterprises of Russia and Belarussia.

Radiant heaters (tubes) for heating furnaces

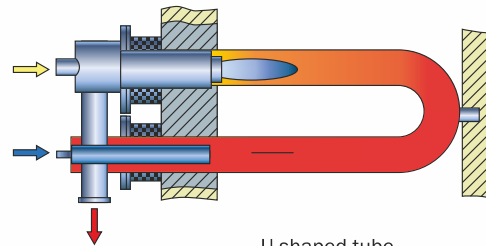
Radiant heaters (tubes) are the heating elements which are used in chamber, pusher and other furnaces designed for technological processes in shielding atmosphere at metallurgical plants at heat treatment. The heating of the products is obtained by radiated emission without contact of heated body with combustion products. The walls heating (radiating surface) is due to fuel combustion in the tubes and combustion products going through them.

Radiant tubes are made of the following steel types:

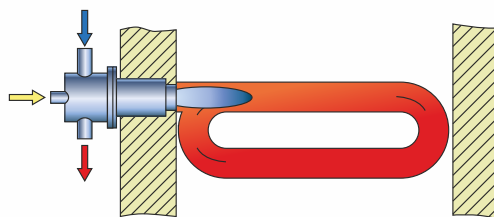
- 1.4878
- 1.4823
- 1.4841
- and others



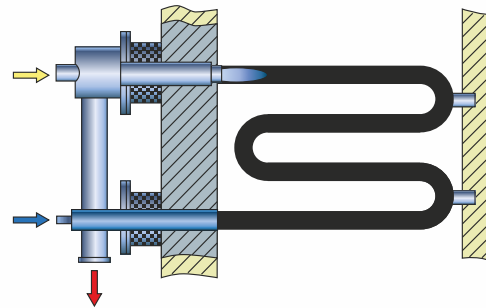
Dead-end tube



U-shaped tube



P-shaped tube



W-shaped tube

> 500

radiant tubes have been manufactured for Russian industrial companies



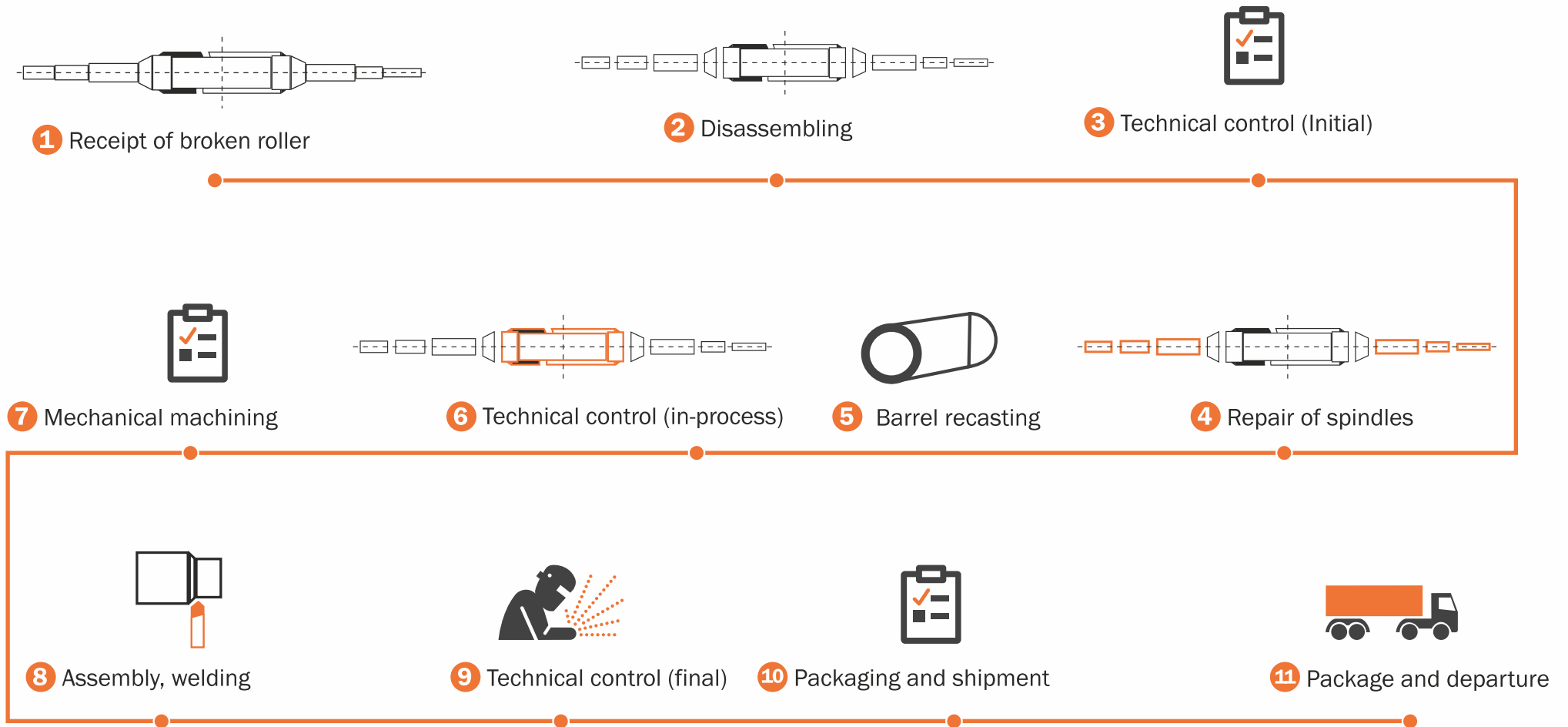
Our company can produce radiant tubes according to the customer technical specifications and drawings.

Other equipment:

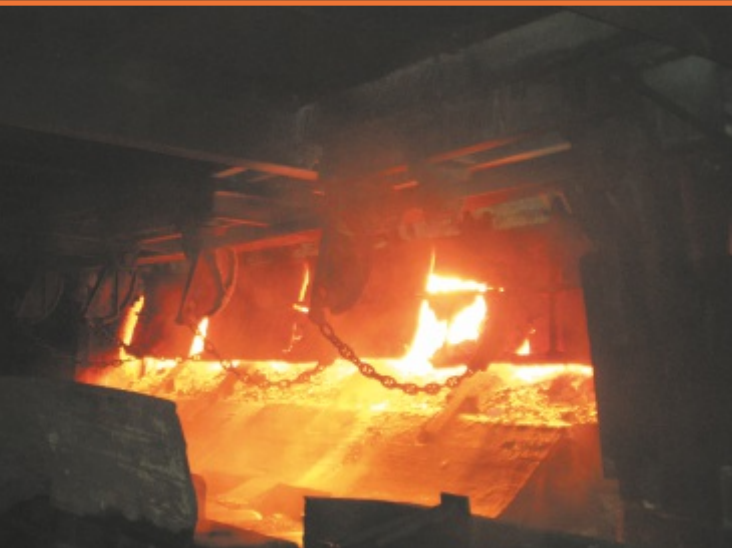
Our engineers are always ready to consider the possibility of producing specific equipment for your company, as well as to prepare the offer on modernization of your production equipment based on the information received.

PRODUCTS * METALLURGY

Rollers repair by barrel repair method



PRODUCTS * METALLURGY



Our offers:

- Examination of your production for the purpose of application of our technology,
- Drawing up the offers to improve the characteristics of rollers depending on the repair plan in your company,
- Commercial loans for repairs.

Your profits:

- Time savings – Roller repair is 20-25% faster than production of new items.
- Money saving - Service life of repaired rollers is comparable to that of new ones, at a lower cost.
- Ecology - from 80 to 100% of faulty roller materials are used to manufacture a new one - no scrap metal in your enterprise.

Our references:

- VSPMO-Avisma - more than 2000 rollers have been repaired
- Mechel - more than 500 rollers have been repaired
- OMK-Stal - more than 150 rollers have been repaired
- Uralskaya stal - more than 50 rollers have been repaired

PRODUCTS * PETROCHEMISTRY

Reaction tubes, stalks, coils for tube furnaces, shaped casting



Reaction tubes

We produce reaction tubes, their components, as well as reaction coils for tube furnaces for devices of petrochemical, chemical and oil-refining industries for production of ammonia, hydrogen, ethylene, operating at temperatures 760-1150 °C and pressures 3.94 MPa. The following materials are used for manufacturing reaction tubes:

- 1.7225
- 1.4301
- 1.4878
- 1.4823
- 1.4841
- 1.7733
- 1.4541
- and others

The following modifications of tubes can be supplied:

- tube centrifugally-cast billet without mechanical processing up to 4500 mm.
- with mechanical treatment with welding bevels processing;
- the length of tubes welded in the stalks is up to 12 000 mm;
- reaction tubes length is 15 000 mm assembled with flanges;
- tubes welded in the form of coils and combs.



Our company manufactures reaction tubes, stalks, and coils according to the customer specifications and drawings.

> 500

sections of reaction tubes were produced

PRODUCTS * PETROCHEMISTRY

Reaction tubes, stalks, coils for tube furnaces, shaped casting



Shaped casting

Shaped castings (fittings) from heat-stable and corrosion-resistant steels and alloys:

- 1.7225
- 1.4301
- 1.4878
- 1.4823
- 1.4841
- 1.7733
- 1.4541
- and others

These are used in the structures of tube furnaces coils for production of carbon disulfide, ammonia, ethylene, hydrogen, with a diameter up to 210 mm.



Our engineers are always ready to consider the possibility of manufacturing specific equipment for your enterprise, as well as to prepare proposals for modernization of equipment in your plant on the basis of the information received.

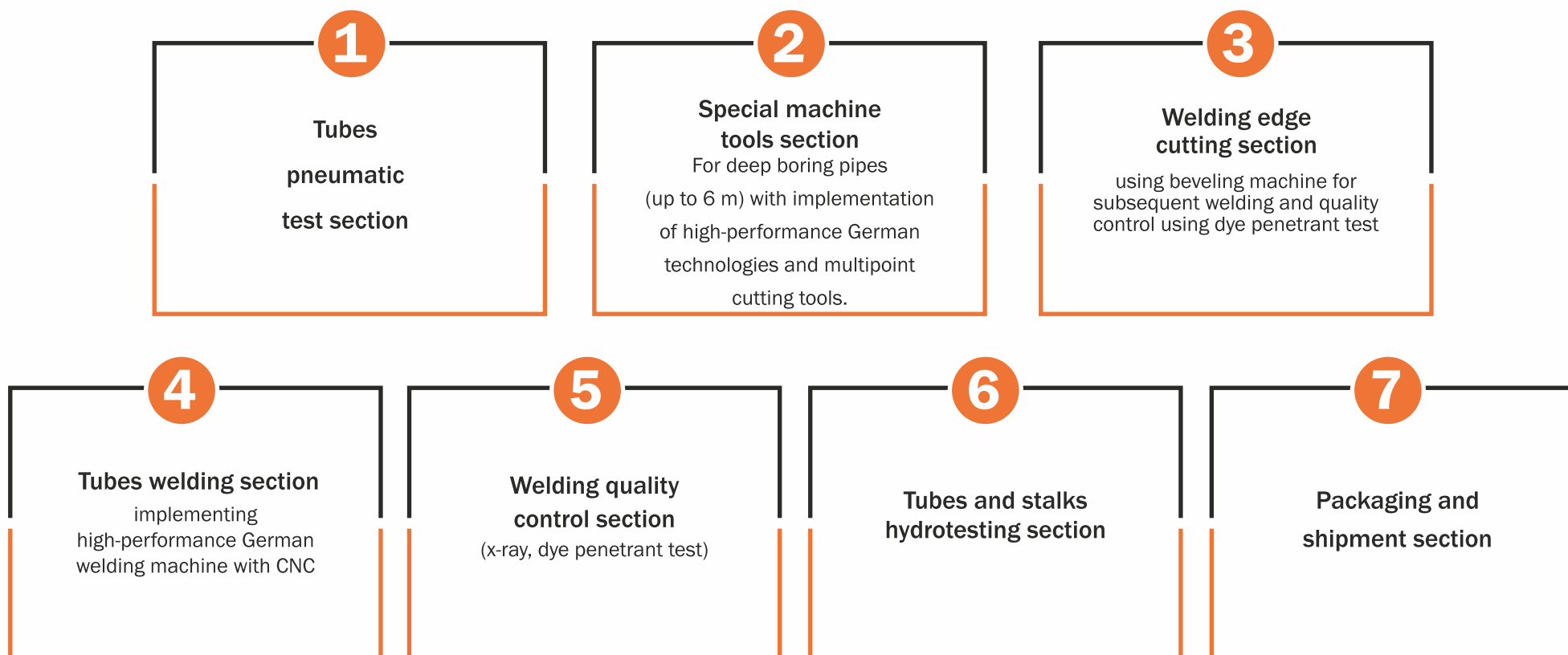


Together with "VNIINEFTEMASH", OJSC we carry out production of pipes of heat-stable steels according to TU-1333-111-00220303-2006

PRODUCTS * PETROCHEMISTRY

Tubes and equipment for organic synthesis enterprises.

A specialized line for production of petrochemical equipment has been created as part of the machine assembly shop at the company, which includes the following sections:



PRODUCTS * PETROCHEMISTRY

The equipment for the enterprises of petroleum organic synthesis is made in accordance with the existing enterprise licensing documentation stipulating special requirements to:

Tubes material

(attestation for long-term strength, non-metallic inclusions and others.)

**Outer surface
quality after casting**

**Inner surface quality after
mechanical treatment**

**Tubes
welding quality**

**Warranties after
hydraulic tests**



All the necessary equipment for products quality control and assurance is available in the plant

PRODUCTS * MACHINE-BUILDING

Radiant tubes, tube centrifugal-cast billets



Electric and gas radiant heaters (protective radiant tubes)

Electric and gas radiant heaters:

- dead-end
- U-type
- W-type

— for aggregates of thermal and chemical-thermal treatment of strategic petrol reserve, “Degussa”, “Pekat”.

Materials:

- 1.7225
- 1.4878
- 1.4841

Heat-resistant equipment, consumables for the thermal aggregates

We manufacture production tools and consumables for thermal aggregates of metallurgical, metalworking, machine-building industry operating at temperatures up to 1500 °C.

PRODUCTS * MACHINE-BUILDING

Radiant tubes, tube centrifugal-cast billets



Centrifugal-cast tubes, billets and products based thereon

The company has successfully mastered the production of centrifugally cast tubes for machine building enterprises of steels and alloys of general purpose conforming to the requirements of TU 1333-003-76886532-2014. Production capacity allows producing tubes made of carbon, alloy, stainless, heat-resistant, heat-stable steels and alloys with an outer diameter of 66 to 616 mm, length of 4700 mm, wall thickness from 7 to 100 mm and weighing up to 2.1 tons. Centrifugally-cast tubes find their application as an analogue of seamless-hot finished tubes.

Billet for hydraulic cylinders

Using of centrifugally-cast tubes in production of hydraulic cylinders allows obtaining the products with desired mechanical properties for any order volume.

> 1000

Centrifugally-cast tubes of general purpose have been manufactured by our company during its work

QUALITY CONTROL

(input materials, output products)

Product quality control at the enterprise is provided by the Technical Control Department (TCD).

Product quality control is divided into three types:



QUALITY CONTROL

Central plant laboratory



Central plant laboratory (CPL) is equipped for determining the chemical composition, macro- and microstructure, mechanical properties of metal of tubes manufactured. It includes:

Destructive testing laboratory

Which carries out examination of mechanical properties, macrostructure, propensity to intergranular corrosion of materials, hardness, heat treatment of the samples. Modern pull test machine allows determining mechanical properties of the material.

Micro-examination laboratory

carries out control of the microstructure, grain size and non-metallic inclusions. The laboratory carries out dye penetrant test of welded joints and tube surface.

Spectral analysis laboratory

Using emission spectrometer chemical composition of the raw materials and finished products is determined, as well as chemical composition of the metal during smelting is controlled.



The inspection camera allow controlling the inner surface of products and welded joints in hard to reach places.



In the ray inspection laboratory the quality of the welds is determined.

REFERENCES

Our partners



Novolipetsky
metallurgical complex



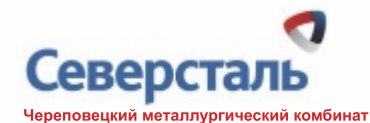
Vyksunsky
metallurgical plant



VSMPO-AVISMA
corporation



Magnitogorsky
metallurgical complex



Cherepovetsky
metallurgical complex



Synarsky pipe plant



Urals steel



Belorussian
metallurgical plant



Nizhnetagilsky metallurgical
plant



Chelabinsky
metallurgical complex



Cherepovetsky
tube rolling plant



Pervouralsky
novotrubny plant



Alchevsky
metallurgical complex



Ashinsky
metallurgical plant



Ural automobile plant

COOPERATION HISTORY

LIST OF FURNACE EQUIPMENT SUPPLIED IN 1992-2013

| Client name | Region/city | Industry branch | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | ВСЕГО | |
|--------------------------------|----------------------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|
| 1 MECHEL(ChMK) | Chelyabinsk | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | 917 | |
| 2 Severstal | Cherepovets | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 1933 |
| 3 Ashinsky MC | Asha | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 13 |
| 4 MMC | Magnitogorsk | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 721 |
| 5 Ural steel (OHMK) | Novotroitsk | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 512 |
| 6 VSPMO-Avisma | VerkhnyayaSalda | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 959 |
| 7 Azovstal | Mariupol | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 110 |
| 8 MMK-Metiz | Magnitogorsk | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 20 |
| 9 EVRAZ NTMK | Nizhny Tagil | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 241 |
| 10 Volzhsky Pipe Plant TMK | Volzhsky | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 62 |
| 11 Serp y Molot MZ | Moscow | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 115 |
| 12 NLMK | Lipetsk | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 1219 |
| 13 AMO ZiL | Moscow | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 280 |
| 14 KamAZ | Kazan | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 80 |
| 15 BelAZ | Zhodino | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 120 |
| 16 MTZ | Minsk | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 200 |
| 17 Alchevsky MK | Alchevsk | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 614 |
| 18 VMK Red October | Volgograd | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 122 |
| 19 ChTPZ | Chelyabinsk | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 59 |
| 20 BATE | Belorussia | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 32 |
| 21 Electromont | Magnitogorsk | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 30 |
| 22 OJSC "MZKT" | Minsk | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 89 |
| 23 KAMAZ-Diesel | NaberezhniyeChelny | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 145 |
| 24 Rudprom | Lipetsk | Engineering | | | | | | | | | | | | | | | | | | | | | | | | | 444 |
| 25 BMZ | Zhlobin | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 123 |
| 26 Autohydrosilitel | Borisov (Belorussia) | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 217 |
| 27 Atlant (Belorussia) | Baranovich | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 28 |
| 28 NSMMZ | NizhniyeSergi | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 215 |
| 29 Eltra | Rzhev | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 24 |
| 30 Ur.Kuznitsa | Chebarkul | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 760 |
| 31 Autonormal | Belebey | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| 32 Stroy Arsenal | Izhevsk | Supply | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| 33 Mashzavod (Kazakhstan) | Ust-Kamenogorsk | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 34 Termostal | Izhevsk | Supply | | | | | | | | | | | | | | | | | | | | | | | | | 57 |
| 35 Autozavod Ural | Miass | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 609 |
| 36 Talasprom | Cherepovets | Supply | | | | | | | | | | | | | | | | | | | | | | | | | 69 |
| 37 Promengineering | Izhevsk | Supply | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 38 TD Specstal | Chelyabinsk | Supply | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 39 Extromet | Izhevsk | Supply | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| 40 Sinarsky Pipe Plant TMK | Kamensk-Uralsky | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 56 |
| 41 JSC "OMK-Stal" Vyksunsky MZ | Vyksa | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 114 |
| 42 "RUS-Engineering" LLC | Moscow | Engineering | | | | | | | | | | | | | | | | | | | | | | | | | 162 |
| 43 "TECHNOVEK" SU plant | Votkinsk | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 921 |
| 44 PNTZ | Pervouralsk | Metal industry | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| 45 ChTZ-Uraltrak | Chelyabinsk | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 20 |
| 46 Spectrub | Moscow | Engineering | | | | | | | | | | | | | | | | | | | | | | | | | 14 |
| 47 URALTECHNOMET | Perm | Supply | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 48 RusKhimMetall | Moscow | Supply | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| 49 DNPP | Dolgoprudny | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| 50 INFRA Technologies | Moscow | Engineering | | | | | | | | | | | | | | | | | | | | | | | | | 182 |
| 51 Votkinsky Repair Plant | Votkinsk | Machine building | | | | | | | | | | | | | | | | | | | | | | | | | 14 |
| | | | 10 | 110 | 160 | 180 | 50 | 274 | 373 | 495 | 563 | 780 | 1070 | 762 | 1176 | 828 | 734 | 2290 | 230 | 6 | 155 | 41 | 382 | 56 | 1983 | 12708 | |

CONTACTS



Company's name:

“AKHTUBA” Scientific and Production Association, CJSC

Legal (postal) address:

26 Kuznetskaya str.
Sr.Akhtuba
Volgograd region
Russia 404143

Director general:

Khomutov Ruslan Vladimirovich

Telephone/fax:

+7 (8447) 95-41-60

e-mail:

info@npo-ahtuba.ru

Web-site:

www.npo-ahtuba.ru

Position:

Latitude:48o42'43.28”N (48.712022)

Longitude: 44o52'25.71”E (44.873807)

