

ADVANCED TECHNOLOGY HIGH-TECH QUALITY MANUFACTURING



### Ugreshsky Industrial Valves Plant (UZTPA) —

is the most advanced machine-building production in Russia manufacturing high-quality valves for the industrial, housing and utilities, fuel and energy complexes.

The plant is conveniently located near Moscow with its own service center and finished-products storage facilities for short notice execution of the orders of our clients from warehouses in Dzerzhinsky, Moscow region, and Saint Petersburg.

Production capacity of UZTPA includes two modern mechanical assembly workshops at 10 000 square meters featuring high-precision machines, welding and testing equipment and its own vehicle fleet.

UZTPA has got powerful intellectual potential. The plant employs 150 highly qualified specialists with more than 60 per cent of them possessing university degrees.

All welders have valid qualification certificates of the National Agency for Welding Control. Special attention is paid to industrial training and professional development of technical specialists.

### HIGH-QUALITY PRODUCTS

Over 10 years of continuous production, the company has gained significant professional, scientific and technical potential which guarantees high quality of the UZTPA valves.

Production includes an entire production cycle: from the development of design documentation to product assembly and testing.

The engineers and technologists of the UZTPA design bureau taking into account the requirements of the municipal and gas distribution companies had carefully studied ball valves designs of the leading domestic and foreign manufacturers, as well as their operational and maintenance reviews.

The technical result is a reliable multipurpose ball valve with the robust structural design easy to operate and maintain.



At present the Ugreshsky Industrial valves plant manufactures:

**AQUARIUS** floating and trunnion ball valves **Dn15 to DN1400** for cold and hot water supply systems and operational pressure up to 40 kgf/cm<sup>2</sup> and working medium temperature up to 200 °C.

**NEON** floating and trunnion ball valves for natural gas **DN15 to DN1400** with working pressure up to 40 kgf/cm<sup>2</sup> and working medium temperature up to 100 °C.

**UGRESHA** high-quality pipeline valves, as follows:

**UGRESHA** gate valves with a rubber wedge for cold drinking water supply **DN50 to DN600** for working pressure up to 25 kgf/cm<sup>2</sup> and working medium temperature up to 80 °C.

**UGRESHA** butterfly valves for water, compressed air and oil products from **DN300 to DN1400** for working pressure up to 16 kgf/cm<sup>2</sup> and working medium temperature up to 200 °C.

**UGRESHA** removable plate heat exchangers for working pressure up to 16 kgf/cm<sup>2</sup>

**Non-standard, special design valves** — with the stem (spindle) extendable up to 3 m, with reinforced coating, with the closures made of polyethylene, etc.

High-quality **AQUARIUS** and **NEON** ball valves for municipal utilities (water pipelines, Hydroelectric Power Stations, Combined Heat and Power (CHP) Systems, sewerage) and gas distribution pipelines are the main part of the UZTPA production program.

To date, more than 500 000 **AQUARIUS** and **NEON** ball valves have been supplied to customers, and their production is increasing every year.

UZTPA ball valves are reliable and safe, durable and cost-effective with a number of technical features and advantages.

Main advantages:

- High tightness
- Ball minimal wear
- Simple structural design
- High performance
- Convenient installation and operation
- Low operational and maintenance costs
- Trouble free, long term operation





Technical and operational advantages of **AQUARIUS** and **NEON** ball valves:

- The all-welded valve body, made of carbon steel or stainless steel, has no movable joints that require tightening.
- The polished ball inside the body is made of high-quality stainless steel.
- Sealing carbon-Teflon seats, resistant to wear and contamination, provide close fit to the ball on both sides.
- The springs press the seats against the ball and ensure reliable operation of the valve in low and high temperatures.
- A solid stem with sealing gaskets is placed in the upper part of the valve.
- The design of the stem assembly allows to safely replace stem seal on the active gas pipeline, the stem assembly is repairable, the material of the spindle is steel-20X13
- Models with extended stems allow to make polyurethane foam insulation of the valve and use it in underground pipes.
- The design of the stem assembly includes plain bearings.
- The main parts (body, pipes, neck, plug) in ball valves up to DN 250 are made of seamless steel.

### HIGH-TECH PRODUCTION

Excellent performance of shut-off valves produced by the plant is a result of experience and professionalism of the UZTPA employees as well as the technical infrastructure of the enterprise.

High quality of valves is guaranteed by using the most modern high-tech equipment, which is developed by leading manufacturers and certified according to international standards.

The use of the latest machines and technical installations ensures uninterrupted, prompt and high-quality production of the necessary parts with the required characteristics.

The plant is equipped with multifunctional processing centers with numerical control, automated welding complexes, gas cutting, surfacing, contour band equipment, shot blasting chamber and paint chambers.

At all stages of the production process, a strict set of control measures is insured by: ultrasonic control, control of penetrating substances, hardness measurement, chemical analysis, strength and tightness tests, etc.





UZTPA has implemented a full cycle of industrial valves production.

The plant independently manufactures parts and controls production standards and quality. Moreover, all purchased components are tested for compliance with international quality standards and design documentation.

The production process includes the following stages:

- Design: design bureau, engineering department
- Preparation: preparation area, area of hydraulic presses, stock of billets and parts
- Machining: welding positions and machining areas
- Assembly: assembly area, warehouse of billets and components
- Testing and quality control: testing area, technical control department, materials laboratory
- Painting: painting and packaging area
- Packaging and storage: areas of packaging, finished product storage
- Shipment of products: modern lifting equipment and a fleet of vehicles

### **PREPARATION AREA**

In preparation area billets for ball valves are cut with automatic band saws UMT (Bulgaria). The area equipment includes lifting mechanisms, band saws and shot blasting chamber for billets.

### **AREA OF HYDRAULIC PRESSES**

Special equipment is used to crimp bodies of ball valves, die-welding structures and pipe billets. Working force developed by the presses: from 100 to 630 tons.

### **MACHINING AREAS**

In machining areas, located in workshops No. 1 and No. 2, billets of balls, pipes, body parts are processed using the high-precision machines of the leading international and Russian manufacturers:

- processing centers with numerical software control
- numerical control lathes, universal lathes and milling machines
- horizontal boring machines
- vertical boring machines





VERTICAL BORING MACHINING CENTERS

### HANKOOK VTC 160E (South Korea)

Equipped with a three-jaw self-centering chuck with a diameter of 1600 mm. Maximum workpiece diameter is 2000 mm, workpiece height is 2000 mm, drilling tool is up to 100 mm, milling tool is up to 250 mm. The storage magazine is equipped with a tool for 24 positions (12 turning and 12 milling ones).

### HANKOOK VTC 2530E (South Korea)

Equipped with a 2500 mm faceplate, workpiece diameter is up to 3200 mm, workpiece height is 2500 mm. The storage magazine is equipped with a tool for 24 positions (12 turning and 12 milling).

# HORIZONTAL BORING CENTER with CNC MAXIMA II (Czech Republic)

The size of the clamping plane of the turntable is 2500x3000 mm, workpiece dimension is 3000x5000 mm, workpiece height is 3500 mm, workpiece weight is up to 30 tons. The storage magazine is equipped with a tool for 40 positions. Index increment is 0.001 mm.

### HIGH SPEED TURNING CENTER DOOSAN PUMA 240 (South Korea)

Machining above the bed is 500 mm, machining above carriage is 400 mm, machining length is 1250 mm, 12 positions for driven tools.

### MULTIFUNCTIONAL TURNING CENTER DOOSAN PUMA 3100 (South Korea)

Processing above the bed is 650 mm, processing above the support is 500 mm, machining length is 1750 mm, 10 positions for driving tools.

# VERTICAL TURNING CENTER DOOSAN PUMA PV-550 (South Korea)

Vertical turning machining center. Processing diameter is 650 mm and processing height is 800 mm, 8 positions for driving tools.

### HORIZONTAL MILLING PROCESSING CENTER DOOSAN HM 6300 (South Korea)

Horizontal milling processing center. Two replacement tables 630x630 mm, the diameter of the workpiece height is1000 mm. The storage magazine is equipped with a tool for 40 positions. Index increment is 0.001 mm.

### VERTICAL BORING MACHINES WITH MANUAL CONTROL AND DIGITAL INDEXING (Bulgaria) with

a faceplate up to 1400 mm, workpiece diameter up to 1600 mm and a workpiece height up to 1650 mm

# Universal lathes and milling machines with digital indexing (Bulgaria).

Horizontal broaching machine, horizontal boring machine with digital indexing device, radial drilling machine, etc.





### ASSEMBLY AREAS

In the assembly areas located in workshops No. 1 and No. 2, pipeline valves are put together and assembled. In modern production, flexibility is important, therefore UZTPA has an extensive warehouse of blanks and components in order to meet requirements of customers. All components are delivered to the assembly areas in accordance with the ISO 9001 quality management system and under the control of the Quality Control Department.

### WELDING STATION

The station is used for welding circular welds of ball valves from DN15 to DN400 mm, as well as welding of flanges and necks according to technology certified by National Agency of welding control at the automated welding complexes Fronius (Austria ) and PEMA (Finland) for welding circular welds of pipeline valves weighing up to 7 tons.

### PLANT MATERIALS LABORATORY

An important link in the quality control system of the UZTPA is the plant materials laboratory. After machining the properties of metals may deteriorate. To guarantee reliability of the UZTPA valves, quality of materials is confirmed in the laboratory conditions, and each ball valve, wedge gate valve or butterfly valve manufactured at the plant is tested. The work of the UZTPA laboratory allows to avoid mistakes, reduce production risks and exclude possible defects. Such kind of testing **guarantees that only high-quality materials** are used in the UZTPA manufacturing process. UZTPA Plant Materials Laboratory carries out the destructive and non-destructive methods of control. They include checking the metal for impact bending, tension, chemical composition, and determining the structure of the metal.

The laboratory is equipped with high-precision equipment for metal analysis:

- Mobile atomic emission spectrometer DFS-100M is used to accurately determine the chemical composition and steel grade.
- Metallographic microscope Biomed MMR-2 allows to study the microstructure of metals.

Equipment for the study of the mechanical properties of metals:

- Impact pendulum KM-300 is used for determining the impact strength of raw materials.
- Universal testing machine P9M-50-A-1-4 determines the characteristics of the material's tensile strength: the limits of proportionality, elasticity, yield stress, elongation and contraction, elastic modulus and fracture strength.
- Testing machine ПМЭ-5 МГ 4 is a press for testing springs, which determines their rigidity.
- Liquid low-temperature cryostat KRIO-T-05-03 is intended for cooling samples that are tested on the impact pendulum.





### TEST AREAS

In test area, welds are tested for strength with water and air. Each ball valve unit is tested, regardless of diameter.

UZTPA test benches allow testing of pipeline valves assembled with stem extension up to 3 meters high, with a standard control body: a handle, a gearbox or an electric drive.

Settings and adjustment of ball valves is carried out using UZTPA technology by qualified specialists of the quality control department of the enterprise.

### Types of tests:

- hydraulic strength and density tests of welds and joints working under pressure, as well as for tightness to the external environment in accordance with GOST 33257-2015 and pressure of 1.5 PN
- pneumatic valve tightness tests with a pressure of 1.1 PN in accordance with GOST 33257-2015
- performance tests at differential pressure in accordance with GOST 33257-2015

### Equipment:

- test benches for testing small and medium-sized valves
- test bench for testing large-diameter pipeline valves VENTIL (Netherlands)

### **PAINTING AREAS**

Products are painted with high-temperature two-component epoxy high-filled primer enamel in TERMOMAX paint chambers.

### PACKAGING AND STORAGE AREAS

Product packaging is to meet customers' requirements. The finished products storage facility occupies 3000 m<sup>2</sup>. The UZTPA plant sticks to to the same day delivery rule.

### SHIPPING

UZTPA has a modern fleet of vehicles and lifting equipment for shipment of products to the consumer's warehouse.

### **UZTPA HIGH-TECH EQUIPMENT PROVIDES**

- high accuracy and performance
- energy saving
- production cleanliness
- human safety
- safety for the environment



### ENVIRONMENT FRIENDLY PRODUCTION

UZTPA Environmental Policy ensures production **without serious risks** of the environmental pollution. We do our best to preserve the environment for future generations.

### INDUSTRIAL WASTE MANAGEMENT

UZTPA strives for the rational use of chemicals and all waste throughout the entire production cycle. Production wastes are disposed of in accordance with the requirements of Russian legislation for environmental safety in order to significantly reduce their release into air, water and soil and minimize their negative impact on human health and the environment.

### **CLEAN AIR**

We carry out all technological procedures and sanitary measures in order to reduce emissions and reduce the concentration of dust and gases in the air, taking into account standards of the safe and clean environment.

### WATER RESOURCES PROTECTION

UZTPA rationally utilizes water resources and prevents their pollution.

We take an active part in protection of the environment and a small lake with the sandy beach, which is one of the popular recreation spots located just a few kilometers away from the production facilities of the plant.

### QUALITY THAT PROTECTS OUR CUSTOMERS

From the first day of its foundation, UZTPA follows a constant principle: to produce only high-quality shut-off valves for most different operating conditions.

Systematic approach to quality control is implemented throughout all stages of design and production.

# THE UZTPA QUALITY MANAGEMENT SYSTEM IS ONE OF THE BEST IN THE INDUSTRY

UZTPA guarantees the highest quality of its products. Strict quality control is implemented to ensure high standards at all production stages and areas: from purchasing (input control of materials and components, including ultrasonic testing) to 100% testing of all manufactured valves at 6 test sites.





### All UZTPA products

- are certified in accordance with regulations of the Customs Union
- are certified in accordance with the requirements of TR CU 010 "safety of machinery and equipment" and TR CU 032 "on the safety of equipment operating under excessive pressure»
- have hygienic expert opinions on the safety of use in drinking water supply systems

The quality of UZTPA products used in drinking water systems (ball valves, wedge gate valves, butterfly valves, heat exchangers) is confirmed by the professional expertise according to Sanitation regulations and standards. Special certificates:

- certificate of conformity TR CU 012 on explosion safety
- industrial safety certificate
- certificate of seismic resistance

Voluntary seismic certificate for group 0 our valves remain operational during an earthquake (up to 9 points), MSK-64.

 Certification in the INTERGAZCERT system (Gazprom certificate)

The stage of documentation analysis and production audit of the UZTPA plant has been successfully completed by the INTERGAZCERT experts.

NEON ball valves have been tested in the laboratory accredited by the INTERGAZCERT system. Also UZTPA successfully passed the business reputation assessment in the INTERGAZCERT system of voluntary certification, which allows to certify our valves according to the **highest certification scheme 1a.** 

The quality of UZTPA shut-off valves is also confirmed by tests in a special test area in the city of Saratov as part of ball valves certification GAZCERT system of voluntary certification.

All of that allows UZTPA provide broad and long-term guarantees for manufactured products.





# -Ö- УЗТПА

### THE MAIN PRINCIPLE OF UZTPA IS TO COMPLETELY MEET OUR CUSTOMERS REQUIREMENTS

The main priority and advantage of UZTPA is **the top quality of products and customer support**.

The Ugreshsky Industrial Valve Plant high-tech flexible manufacturing allows to respond to needs of the customers as quickly as possible.

Individual approach and use of advanced technologies allows the enterprise to meet all consumer requirements and produce non-standard equipment.

In order to fully meet the requirements of consumers, the company guarantees service and maintenance of its products. UZTPA ball valves have a warranty period of operation as well as extended 10-year warranty for products and service. The specialists performing these works are highly qualified and have the most modern technical equipment.

For design institutes and designers, the engineering department of UZTPA provides design documentation and finished drawings of all types of shut-off valves produced at the enterprise in the form of .dwg files and dynamic blocks for quick and convenient "assembly" of the project. We ensure responsible and well-coordinated work on order processing and equipment delivery to all our clients.

UZTPA representative offices dealing with sales and customer support are located in Saint Petersburg and PereslavI-Zalessky.

The warehouse area of finished products, materials and components is more than 3000 m<sup>2</sup>. It allows to store forged, stamped and cast blanks of the running and nomenclature range of UZTPA ball valves with a half-year stock, promptly respond to urgent orders from UZTPA customers and fulfill them in the shortest possible time. The maximum production and delivery time for large diameter ball valves is 45 days.

For regular customers it is possible to provide deferred payment.

Leading specialists of the company are ready to come to the customer's office within two days and demonstrate the advantages of steel ball valves and other products of UZTPA, provide additional technical and commercial information.

Our engineers are also ready to provide customer's technical services with samples for testing and trial operation.



Thanks to high quality standards, material control, testing of finished products and considerable level of customer support, UZTPA has won the trust of the largest operational companies and achieved a leading position in the Russian market in terms of product quality and service.

It is confirmed by many years of operation and feedback from our customers.



### Уважаемый Дмитрий Вячеславович! ООО «Петербургтеплоэнерго» выражает благодарность коллективу ООО «Угрешский завод трубопроводной арматуры», за плодотворное сотрудничество

и высокое качество производимой продукции. Запорная арматура производства ООО «Угрешский завод трубопроводной арматуры» изготовлена из высококкачественных материалов и отвечает высоким эксплуатационным требованиям.

По результатам эксплуатации шаровых кранов AQUARIUS и NEON арматура показала надежную работу. Технических проблем выявлено не было.

С удовлетворением отмечаем, что шаровые краны производства ООО «Угрешский завод трубопроводной арматуры» полностью соответствуют требованиям, предъявляемым к арматуре, как по надежности и удобству в эксплуатации, так и по соотношению цены и качества.

Выражаем надежду на продолжение успешного сотрудничества на благо наших предприятий, а также на дальнейшее увеличение достигнутых показателей совместной работы.



HANABARK KOMM

Gazprom Teploenergo. Limited Liability Company "Petersburg Teploenergo»

To D.V. Zhiravov General Director of LLC "UZTPA"

Dear Dmitry Vyacheslavovich!

"Petersburg Teploenergo" expresses our gratitude to LLC Ugreshsky Industrial Valves Plant for productive cooperation and high product quality.

Shut-off valves manufactured by the Ugreshsky Industrial Valves Plant are made of high-quality materials and meet high operational requirements.

According to operating results of the AQUARIUS and NEON ball valves, the valves have shown reliable operation. No technical problems were detected.

We are pleased to note that the ball valves manufactured by the Ugreshsky Industrial Valves Plant fully meet the requirements for valves, both in terms of reliability and ease of operation, and in terms of price-quality ratio.

We hope to continue successful cooperation for the benefit of our companies, as well as to further increase the achieved business indicators.

Best Regards,

D.V. Matin

### Mosvodokanal

To D.V. Zhiravov General Director of LLC "UZTPA»

### Dear Dmitry Vyacheslavovich!

JSC "Mosvodokanal" has been successfully cooperating with the company LLC Ugreshsky Industrial Valves Plant for a long time. During this period, the UZTPA has confirmed its high professional status, competence and ability to effectively meet the challenges.

We use shut-off valves manufactured by UZTPA at our facilities, namely: wedge valves with rubber wedge of AQUMARINE series for drinking water supply, ball valves of AQUARIUS series, air relief valves, as well as other equipment in non-standard design.

UZTPA uses the most advanced metalworking, welding and testing equipment for shut-off valves production. Introduction of innovative technologies and managerial solutions allows UZTPA to meet international quality standards of manufactured products.

Positive experience in the operation of ball valves and wedge valves allowed us to evaluate the advantages that distinguish LLC UZTPA from other Russian manufacturers. We express our gratitude to UZTPA for its care and diligence, advertence to the customer requests and wishes. We are ready to recommend UZTPA as a reliable and responsible business partner who values our time, quickly and efficiently fulfilling their obligations.

Best Regards,

General Director A. M. Ponomarenko

# Киционерное общество «Мосводоканал» Лисционерное общество «Мосводоканал» Плетешковския пер., д.2, Москва, 105005 Тел. (499) 763-34-34 факс (499) 265-22-01 E-mail:post@mosvodokanal.ru 13. P8. 2016(Ne(N)) 01.09u - 16250/ref На Ne \_\_\_\_\_\_ от \_\_\_\_\_\_ Генеральному директору ООО «Угрешский завод

трубопроводной арматуры» Д.В.ЖИРАВОВУ

### Уважаемый Дмитрий Вячеславович!

АО «Мосводоканал» продолжительное время успешно сотрудничает с предприятием ООО «Угрешский завод трубопроводной арматуры». За этот период компания ООО «УЗППА» подтвердила свой высокий профессиональный статус, компетентность и способность эффективно решать поставленные задачи.

Мы используем на своих объектах запорную арматуру производства ООО «УЗТПА», а именно: клиповые задвижки с обрезиненным клином серии AQUMARINE для питьевого водоснабжения, шаровые краны серии AQUARIUS, устройства для сброса воздуха, а также другое оборудование в нестандартном исполнении.

Для производства запорной арматуры ООО «УЗТПА» использует самое современное металлообрабатывающее, сварочное и испытательное оборудование. Внедрение в производство инновационных технологий и управленческих решений позволяет ООО «УЗТПА» соответствовать мировым стандартам качества производимой продукции.

Положительный опыт эксплуатации шаровых кранов и клиновых задвижек позволил нам оценить преимущества, выгодно отличающие ООО «УЗТПА» от других российский производителей.

Мы выражаем благодарность ООО «УЗТПА» за добросовестный подход к работе, за внимательное отношение к запросам и пожеланиям своих заказчиков. Готовы рекомендовать ООО «УЗТПА» как надежного и ответственного делового партнера, который ценит наше время, быстро и качественно выполняя свои обязательства.

Генеральный директор

А.М.Пономаренко

Бондарев А.А. 8 499 263-03-39



### АКЦИОНЕРНОЕ ОБЩЕСТВО «ТЕПЛОСЕТЬ САНКТ-ПЕТЕРБУРГА»

(АО «ТЕПЛОСЕТЬ САНКТ-ПЕТЕРБУРГА»)

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### Уважаемый Дмитрий Вячеславович!

АО «Теплосеть Санкт-Петербурга» на протяжении нескольких лет использует на своих объектах запорную арматуру производства ООО «Угрешский завод трубопроводной арматуры».

Шаровые краны марки AQUARIUS установлены на магистральных и квартальных трубопроводах г. Санкт-Петербурга. Считаем применение шаровых кранов ООО «УЗТПА» целесообразным на объектах системы теплоснабжения.

Для производства запорной арматуры ООО «УЗТПА» использует самое современное металлообрабатывающее, сварочное и испытательное оборудование. Хочется отметить высокий потенциал компании ООО «УЗТПА», наращивание производственных мощностей, максимальную гибкость производства и быструю доставку продукции.

Положительный опыт эксплуатации шаровых кранов позволяет нам рекомендовать ООО «УЗППА» как надежного и ответственного делового партнера, который качественно и в срок выполняет свои обязательства.

Главный инженер



Генерального директору

ООО «Угрешский завол

трубопроводной арматуры» Жиравову Д.В.

Панфилович А. В. Тел.

Проект№ 9881/65

### Joint Stock Company "Teploset of St. Petersburg»

To D.V. Zhiravov General Director of LLC "UZTPA»

### Dear Dmitry Vyacheslavovich!

JSC "Teploset of St. Petersburg" has been using stop valves manufactured by UZTPA at its facilities for several years.

Ball valves of the AQUARIUS series are installed on the main and district pipelines in St. Petersburg. We consider it expedient to use ball valves of UZTPA at heat supply system facilities.

LLC UZTPA uses the most modern metalworking, welding and testing equipment for shut-off valves production. We wish to note the high potential of UZTPA company, the increase in production capacity, the maximum flexibility of production and the fast delivery of products.

Positive experience in the operation of ball valves allows us to recommend UZTPA as a reliable and responsible business partner who fulfills its obligations on time with high quality.

Best Regards,

Chief Engineer A. V. Sviridov

### WE INVITE YOU TO VISIT THE MOST MODERN PRODUCTION OF INDUSTRIAL VALVES IN RUSSIA

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