



# KHARKIVENERGOREMONT-HOLDING



YEAR OF FOUNDATION  
**1946**

# DEAR CUSTOMERS AND PARTNERS

We welcome you all who discover the catalog of KHARKIVENERGOREMONT-HOLDING.

You can find an overview of our services, work and production on the pages of the catalog.

KHARKIVENERGOREMONT-HOLDING is a system-based company that provides comprehensive services for repairing, installing and revamping power generation equipment for power plants, energy sector companies and power facilities of industrial enterprises.

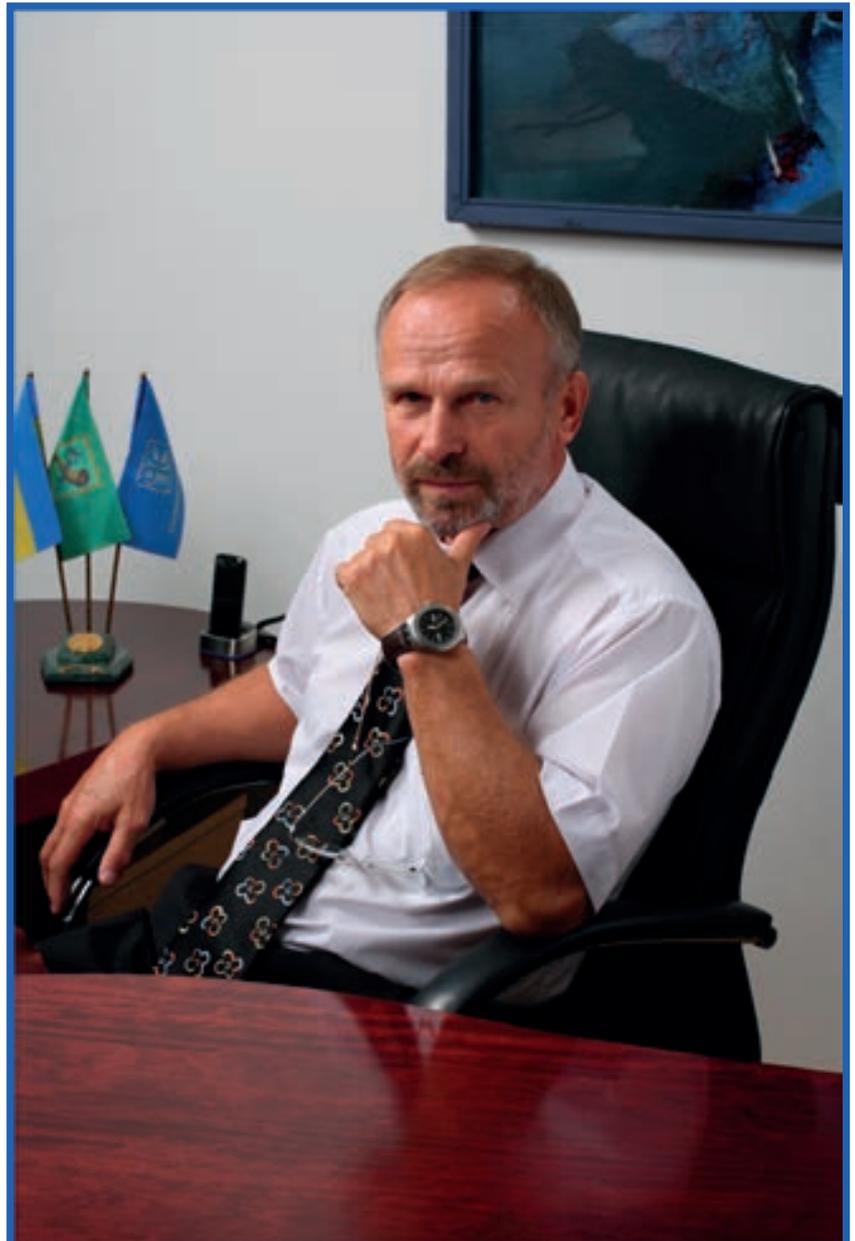
More than 75 years of experience in the energy market in Ukraine, access to foreign markets and many years of experience abroad confirm the high ranking of the company and high qualification of the company's staff, and enable us to keep up with the times by using latest technology and state-of-the-art equipment.

With our material and technical infrastructure, intellectual property in the form of process control and design documents, production methods, and our own production facilities, we are able to provide services on a turnkey basis, and yet we seek to be responsive in addressing technical and economic issues.

**We look forward to seeing you  
as our customers and partners!**

**Kind regards,**

**Oleksandr Bendus -  
Director  
Honored Power Engineer of Ukraine**



With our company's many years of experience, skilled staff, most advanced job practices available and close relationships with power equipment manufacturers, R&D institutes and design bureaus, we have every opportunity to provide comprehensive turnkey services while overhauling and revamping power generation equipment, in particular at power plants in distant foreign countries. We focus on teamwork to involve various businesses from the energy industry and create a seamless interaction for repair and maintenance staff, spare parts and OEM suppliers, engineering groups and operating teams. The prime examples of this work were the major overhaul for Unit 5 with a capacity of 200 MW at Ghorashal TPP in Bangladesh and the installation of a new 260 MW DOOSAN SKODA turbine and pipelines from the boiler to the turbine at Unit 1 at Lidio Ramon Perez TPP in the Republic of Cuba, where various companies from several countries teamed up to successfully rehabilitate and install equipment.

In June 2021, KHARKIVENERGOREMONT(-HOLDING) celebrated its 75th anniversary.

We have ambitious plans and high hopes for the future, and to date we have made great accomplishments which we are willing to translate into our projects.

**Major overhaul for the power equipment at 200 MW Unit 5, including turbine K-210- 130-8, generator ТГБ-200-МТ3, boiler ЕП670-13.8-545Г (ТГМЕ-206), 2 Nos. unit transformers ТДЦ-125000/220 at Ghorashal TPP, Bangladesh**



**Installation of a new 260 MW DOOSAN-SKODA DST-S20-6CD2R turbine at Lidio Ramon Perez TPP, in Felton, the Republic of Cuba**





For more than 75 years, KHARKIVENERGOREMONT-HOLDING has been providing services, performing work and supplying components, spare parts, and its own proprietary repair tools and accessories for both domestic and foreign power generation companies and power facilities of industrial enterprises.

Over this time, KHARKIVENERGOREMONT-HOLDING has established close contacts and strong links with a large number of companies all over the world. A wealth of experience and in-depth knowledge of the company's employees accumulated over past periods ensure continuous interaction and coordination of actions with our partners in every country of the world.

## THE COMPANY'S ACTIVITIES INCLUDE THE FOLLOWING AREAS OF WORK:

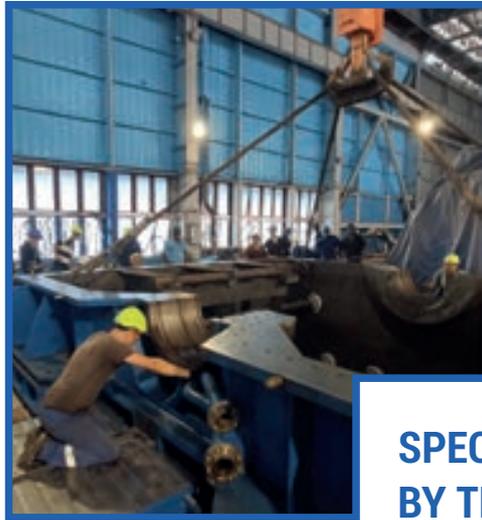
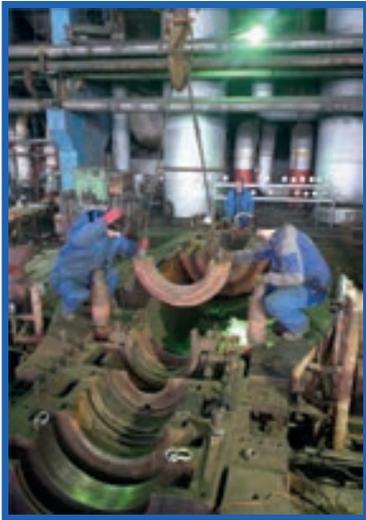
- Market research of services in the energy sector and analysis of the condition of equipment of power generation companies in Ukraine and abroad;
- Comprehensive services for retrofitting, revamping and upgrading, rehabilitating and repairing the equipment of thermal power plants, hydroelectric power plants, combined heat and power plants; repairing the equipment of nuclear power plants, CHP plants of iron and steel works, sugar factories, oil refineries and other enterprises;
- Implementing large-scale projects related to the repair, installation and revamping of machinery and turnkey handover of the project to the customer;
- Inspection for machinery and identification of the maintenance quality level with the provision of advice and solutions to address deficiencies;
- Organization of work on information support and data analysis in studying in Ukraine and abroad the achievements and new trends in repair and rehabilitation of power generating equipment.

## OVER RECENT YEARS, OUR COMPANY HAS SUCCESSFULLY IMPLEMENTED THE PROJECTS LISTED BELOW:

- Major overhaul for the K-200-130 turbine, Unit 5 at Zmiivska TPP and the K-300-240 turbine, Unit 4 at Trypilska TPP owned by Centrenergo, PJSC;
- Emergency repair for the high-pressure rotor of the K-1000/3000 turbine at Khmelnytskyi NPP, Separated Subdivision of the State Enterprise National Nuclear Energy Generating Company Energoatom;
- Major overhaul for the TBB-800-2Y3 generator, stage No.7 and the BT-6000 exciter at Slovianska TPP owned by Donbasenergo, PJSC;
- Repair for the K-200-130 turbine with replacing worn-out parts at Units 7 and 9 at Burshtynska TPP owned by DTEK Zakhidenergo, LLC;
- Major overhaul for three АОДЦТН-210000/400/330 transformers, one РДН-32000/35-72Y1 transformer and inspection for the ТДЦ-250000/330/14,75 transformer at Moldovan SDPP;
- Installation of a new 260 MW DST-S20-6CD2R turbine by DOOSAN-SKODA at Lidio Ramon Perez TPP, the Republic of Cuba;
- Installation and anti-corrosion protection for 5000 mm dia pressure pipelines at Senje HPP, Equatorial Guinea;
- Major overhaul for the power generation equipment for the entire Unit 5 with a capacity of 200 MW on a turnkey basis at Ghorashal TPP, Bangladesh;
- Major overhaul of the ТТНЦ-1250000/330, АОДЦТН-333000/750/330/150, АТДЦТН-250000/330/110-Y1, ТРДЦН-63000/330, and ТДЦ-250000/330 transformers with replacing high-voltage bushings and major overhaul for the РОДЦ-110000/750 shunt reactors at nuclear power plants in Ukraine, ordered by National Nuclear Energy Generating Company Energoatom.

## MAJOR ACTIVITIES PERFORMED BY THE TURBINE DEPARTMENT:

- Installing, repairing, retrofitting, revamping and adjusting turbine units and their auxiliary equipment;
- Standard and specialized repair for all types of steam, hydraulic, driven and gas turbine units with warranty for work performed;
- Major overhaul, testing and adjustment for automatic governing and steam distribution systems for various types of turbines;
- Supplying equipment and spare parts for turbine machinery;
- Major overhaul and adjustment for all types of pumps, manufacturing and repairing heat exchangers and other equipment on-site or at the company's industrial yard.



## SPECIAL ACTIVITIES PERFORMED BY THE TURBINE DEPARTMENT:

- Replacing rotor blades for 6 MW to 1000 MW turbines, followed by machining and balancing the rotors;
- Analyzing and removing increased vibration of turbine units and all rotating machinery, dynamic balancing for rotors in their own bearings, vibration control for turbine generators.



**Repairing turbines** is one of the core activities carried out by KHARKIVENERGOREMONT-HOLDING. Only for the years 2021-2023 the specialists from the Turbine Department performed and continue to perform repair work of varying degrees of complexity for more than 10 turbines of 25 MW to 1000 MW power units at various power plants (Khmelnyskyi NPP, Zmiivska TPP, Trypilska TPP, Burshtynska TPP, Cherkasy CHP, Kherson CHP, Bila Tserkva CHP, CHP of Kamet Steel Works and others).

In the years 2020-2021, a new 260 MW DST-S20-6CD2R turbine manufactured by Doosan Skoda Power was installed at Lidio Ramon Perez TPP, the Republic of Cuba.

In 2017, the back-up low-pressure rotor of the K-200-130 LMZ turbine at the Estonian power plant was repaired with the rotor being transported to Ukraine and back to Estonia.

In 2016-2017, our company performed a major overhaul of the K-210-130 LMZ turbine and all auxiliary equipment at Unit 5 of Ghorashal TPP, Bangladesh, which was the first such overhaul after the unit was commissioned in 1989. Once overhauled, the turbine definitely reached its maximum capacity of 210 MW.

Our company also performed various sophisticated projects to repair the K-500-240-2 turbines at Ekibastuz SDPP in Kazakhstan, to repair the K-300-240 turbine at Ramin TPP in Iran, to overhaul the Chinese N 210-130 Harbin turbine at Jamshoro TPP in Pakistan, to revamp and retrofit the turbines at Units 1 and 2 at Obra TPP in India, and to repair the K-300-240 and VK-100 turbines in Vietnam.

Furthermore, our company has a very close relationship with Ukrainian Energy Machines Joint Stock Company Turboatom, Poltava Turbo-Mechanical Plant and other manufacturers and suppliers of turbine spare parts, so we can provide our customers with comprehensive repair services, complete with the supply of the appropriate spare parts.



# ELECTRIC DEPARTMENT

Our specialists from the Electric Department carry out major overhauls, provide revamp and upgrade services and perform installation work for turbine generators of all types, hydrogenerators, high-voltage motors and synchronous compensators.

The scope of work includes disassembling and reassembling generators with removing rotors; checking turbine generators for gas tightness and removing leakages; repairing the active steel; testing for leakage and heating; rewedging the stator slots; re-soldering the stator winding heads with re-insulation; replacing the housing compounded insulation of a bar, a coil; electrical testing, measuring, hydraulic testing.

When repairing rotors and other generator components, we repair slip rings and replace insulation; repair fans and current leads; check for gas tightness and hydraulic tightness; repair retaining rings and slip rings; repair current leads; replace the insulation of the central current lead and busbar; rehabilitate and replace the rotor winding coils; rewedge the rotor slots; replace and repair the insulation under the retaining rings; repairing the brush-contact device; bore and polish slip rings; repair gas coolers; repair and manufacture the stator winding terminal leads; repair the generator gas system.

Our company has an extensive experience in performing extremely complicated repair work for generators with replacing stator windings (the TГB-200M generator at Kurakhivska TPP in 2015, the TГB-200-MT3 generator at Ghorashal TPP in Bangladesh generator in 2017). In the years 2020-2021, we performed a major overhaul and then emergency repair of the TBB-800-2Y3 generator, stage No.7 and the BT-6000 operating exciter at Slovianska TPP, during which we repaired the slot sleeves and replaced the end boxes on the rotor, and we replaced the coil with restoration of the geometry of other coils and restoration of the insulation.

Our company also has a very close relationship with Elektrovazhmash plant, a subdivision of Ukrainian Energy Machines, and other manufacturers and suppliers of spare parts for generators, so we can provide our customers with repair services and supply spare parts.





A separate area of work performed by the Electric Department is to overhaul transformers of voltage classes from 6 kV to 750 kV and with a power rating from 1 MVA to 1250 MVA.

Starting from 2017, when we greatly extended and upgraded our range of equipment for repairing transformers, our company has repaired more than 40 transformer of different types both at power plants and power generation facilities in Ukraine and abroad (5 transformers at Moldovan SDPP in 2021 and 4 transformers at Ghorashal TPP in Bangladesh in 2017).

In the years 2019-2020, our company repaired about 20 transformers at the facilities owned by the State Enterprise National Nuclear Energy Generating Company Energoatom, most of which are located at Pivdenoukrainsk NPP, and at Rivne NPP and Khmelnytskyi NPP, including the most powerful unit transformers in Ukraine, the THЦ-1250000/330 transformers, transformers on the switchgear and the THЦ-1250000/330, АОДЦТН-333000/750/330/150, АТДЦТН-250000/330/110-У1, ТРДЦН-63000/330 and ТДЦ-250000/330 autotransformers, and the РОДЦ-110000/750 shunt reactors.

We also repaired the transformers at DTEK-owned Dobrotvir TPP and Kryvyi Rih TPP and transformers for the Ukrainian South-Western Railway, for Dnipro section of NEC Ukrenergo, Poltavaoblenergo and a number of industrial enterprises.

The scope of work for repairing transformers includes dismantling the transformer units (expansion tank, exhaust pipe, thermal bellows filter); removing the transformer bushings; opening and repairing the active part; repairing the detachable part of the tank; repairing the

switching device; repairing the cooling system; repairing or replacing the transformer bushings; installing the units; assembling the transformer; encapsulating the active part of the transformer; draining, treating and degassing transformer oil; electrical testing and inspecting oil and solid insulation.

We carry out auxiliary work during the major overhaul of transformers: handling work for moving transformers using hydraulic jacks and pushers with a capacity of up to 400 tons; pre-drying and drying the transformer insulation; recovering the transformer oil properties (drying, cleaning, degassing, regenerating).



As with other areas of servicing power generation equipment, along with repair work for transformers, we offer to supply our customers with spare parts and consumables. Thanks to our close ties and partnerships with Zaporizhtransformator and other Ukrainian and foreign manufacturers, we arrange deliveries of high-voltage bushings, gas and jet relays, flexible casings, components for the cooling system, high-quality rubber for replacing seals, disk shutters and other spare parts.



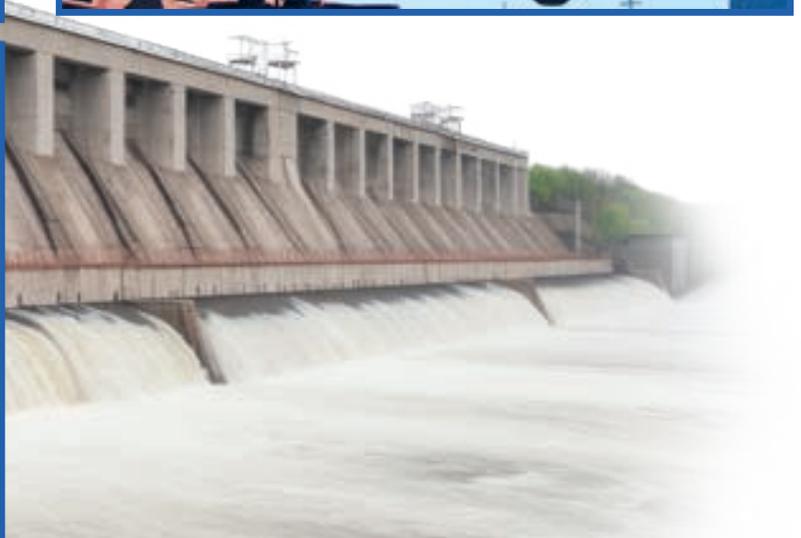
# MAJOR ACTIVITIES IN HYDROPOWER PROJECTS

Our company has a strong background in repairing, upgrading and installing hydropower equipment both in Ukraine and abroad. We still offer services for overhauling and revamping, installing and commissioning hydropower and hydromechanical equipment at hydroelectric power plants and pumping stations. We carry out works for all known design types of hydraulic units.



We also have experience in implementing comprehensive solutions to issues related to retrofitting and revamping small hydropower plants. We offer repair and rehabilitation services for non-standard equipment using new repair techniques.

Our specialists from the Electric Department were involved in revamping all hydroelectric power plants of the Dnipro Cascade related to revamping the hydrogenerators with replacing the stator windings. In 2013, our company completed a major overhaul of hydraulic unit No. 1 at Chervony Oskil HPP. In 2019, we overhauled the T1 ТДЦ-250000/330-type unit transformer at Tashlyk PSPP. In 2020, our company started and is now continuing to install pressure pipelines and other equipment at Senje HPP in Equatorial Guinea. In 2023, we performed emergency repair and major overhaul for the ТДЦ-430000/330-УХЛ1 unit transformers at Units 3 and 4 at Dniester PSPP.



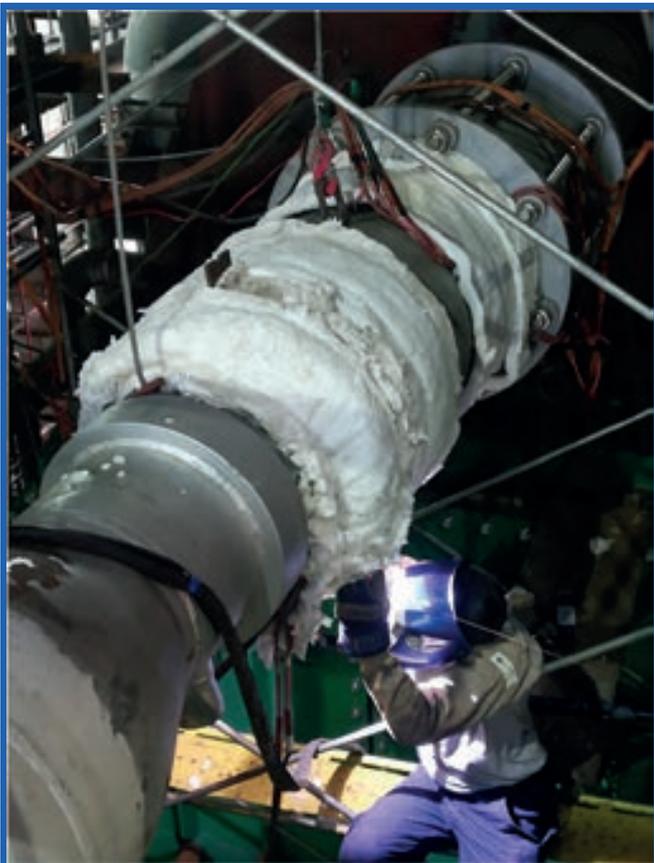
## MAJOR ACTIVITIES PERFORMED BY THE BOILER DEPARTMENT:

- Installing, repairing and revamping low- and high-power boilers;
- Revamping and retrofitting steam boilers to improve the steaming rate and switch to other fuel type;
- Switching steam boilers to the water heating operating mode;
- Revamping and repairing pressure vessels;
- Manufacturing the components for boilers, pipelines, and vessels;
- Special lifting and handling work;
- Repairing and installing boiler equipment, gas flues, and pipelines.



In 2012, the boiler crews of our company dismantled old and installed new boiler equipment along with revamping the furnace systems, and installed two exhaust stacks at CHP of the Barentsburg mine, Svalbard, Norway. The work was carried out in the extremely harsh conditions of the Far North. The boiler department also performed major overhauls for boilers No.7 and No.9 at Shostka CHP along with manufacturing and replacing platen superheaters and economizers for the EK3-160-100GM boilers. Platen superheaters and economizers were manufactured at the company's own industrial yard.

In the years 2020-2021, our company installed 80 tons of pipelines from the boiler to the turbine at 260 MW Unit 1 at Lidio Ramon Perez TPP in the Republic of Cuba. In 2022, we repaired the gas flues of boiler No. 1 at DTEK Kryvyi Rih TPP.



Our specialists from the Special Work Department will perform a range of work on the inspection, repair, revamping, retrofitting and adjustment for the main internal turbine steam pipelines, steam extractions from cylinders, steam suction from seals, feed pipeline, and the elements of support and suspension systems (SSS).

Within our package of services we will calculate the strength and self-compensation of pipelines with the issuance of a statement according to the RD 10-249-98 (ASTRA-STATS-11) guiding documents. A range of work related to support and suspension systems (SSS) of turbine generator steam pipes is mandatory according to the repair procedures for supports of all turbine generator types and guiding documents RD 34.30.506-90 Methodical guidelines for standardizing thermal expansions of steam turbine cylinders at thermal power plants.

## MAIN ACTIVITIES:

- Inspecting steam pipelines and support and suspension systems (SSS) to clarify the route, to check for deflections and jamming, and to ensure compliance with the design;
- Checking the compliance of the installed springs with the project, their location and design, adjusting the springs of spring suspensions to meet the permissible and design loads;
- Determining the load on the support and suspension systems of steam pipelines (pipelines);
- Developing and implementing sets of technical measures to connect pipelines to the HPC and IPC of the turbine, followed by cold tightening and adjustment of suspension loads while replacing or dismantling HPC and IPC during repair work;
- Multi-stage adjustment for the support and suspension systems of the steam pipelines connected to HPC and IPC to normalize and equalize the loads on the HPC and IPC legs;
- Preparing and issuing the spring tightening data sheets for the suspension springs of the LS, HRH, CRH, FW steam pipelines, HPC bypass steam pipelines, extractions and others; drawing up a final report on work performed.



Reduction heat treatment (RHT) is a set of production processes and operations enabling the extension of the fleet life of power generation equipment, which has exhausted its design service life. The purpose of the reduction heat treatment is to restore the structure and properties of the long-term operated metal in the process of full phase recrystallization to a level that corresponds to the initial condition of the metal.

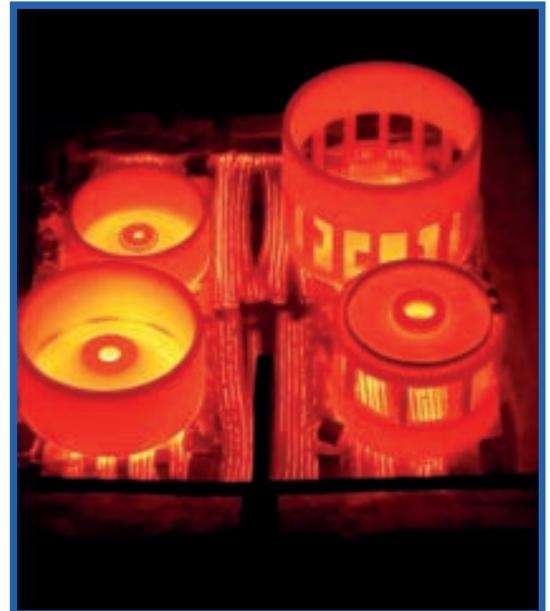
The range of restored equipment includes turbine high- and intermediate-pressure cylinder housings, steam chambers of steam distribution units, stop and control valve bodies, diaphragm carriers, elements and bends of live steam pipelines.

Technology and appropriate equipment for the reduction heat treatment procedure have been successfully piloted for stop valve boxes of the 200 MW K-200-130 turbine at Unit 1 of Zmiivska TPP. We performed a package of work for inspecting, repairing, renovating, machining and checking the metal of steam chambers after RHT, which enabled us to extend the life of already decommissioned equipment by 80 thousand hours.



## THE LIST OF THE MAJOR TYPES OF WORK WHEN PERFORMING RHT INCLUDES:

- Conducting studies, cutting test specimens for nondestructive testing, measuring the geometry, and evaluating the integrity;
- Gouging out all cracks on the inner and outer surfaces;
- Welding up the cracks and leaving a surplus for machining purposes;
- Regenerating the structure of the metal by two-step heat treatment in the furnace; the heat treatment mode is developed for each specific case;
- Machining to a nominal size;
- Checking after repair; issuing a conclusion.



As a repair operation, reduction heat treatment is a full-fledged alternative to a fairly costly replacement of equipment with new equipment, which, with a comprehensive professional approach, allows restoring the properties of the components of power generation equipment close enough to the quality level of new equipment. Furthermore, carrying out the RHT procedure takes a much shorter time than manufacturing new equipment (3 to 4 months) and is much cheaper (up to 40% of the cost of new equipment).

Heat treatment services are provided by HEAT-KHAER, LLC, a separate subdivision of KHARKIVENERGOREMONT-HOLDING.

## PRODUCTION TOOLING AND SPECIAL-PURPOSE TOOLS

KHARKIVENERGOREMONT is one of the leading companies in Ukraine in the field of development and manufacture of production tooling, unique machines and tools for repairing power generation equipment, including boiler, turbine, electrical equipment at power plants.

Our production started as a need to provide our own staff with the necessary equipment in due time to carry out work and deliver repair services at a high technology level. During work, the required single-piece machines were quickly developed and subsequently manufactured in small batches in response to the interest of similar repair companies and repair departments at power plants.

To date, we have established a list of the main machines and tools that have been upgraded and improved and are most often needed when carrying out repair work.



**OD CLAMPING PIPE  
BEVELING MACHINES K1755**  
For 28 to 60 mm diameter pipes



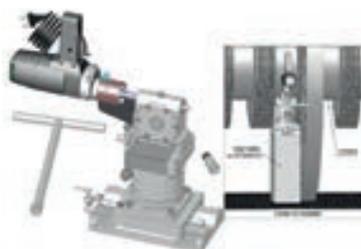
**ID CLAMPING PIPE  
BEVELING MACHINES K1738**  
For 26 to 60 mm diameter pipes



**SEAL STRIP DRAWING OFF  
MACHINE T01.114**



**ANGLE DRILLING HEAD  
B-35**



**ANGLE DRILLING MACHINE  
УСП-35**



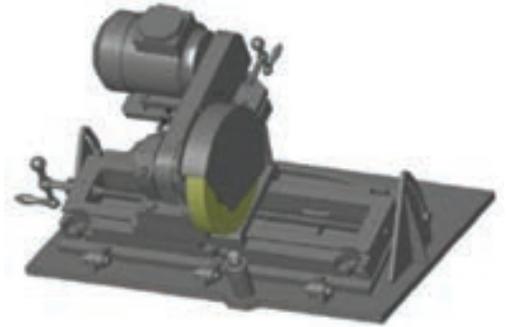
**ANGLE DRILLING AND MILLING  
MACHINE УСФП-2А**



**MULTIPURPOSE DRILLING AND MILLING HEAD (MDMH) T-814** for milling (drilling out) sealing ring seats



**TURBINE COUPLING HOLE REAMING MACHINE GM.437**



**ROTOR JOURNAL GRINDING MACHINE T01.86**



**COLLAR MILLING MACHINE T01.32**



**GATE VALVE REPAIR KIT K-8085M** for grinding DN 100 - 400 gate valve seats



**ADJUSTABLE DIES T24.09** from M 56...64x4 to M 140...165x4



**ADJUSTABLE TAPS T24.10** from M56...64x4 to M 140...165x4

**CARRIAGE T-1PT-80** for installing various fixtures and machining parts of steam turbines and turbine generators



**KEROSENE FLAME GUN T25.133** for heating parts, assembly units and separate components of the power generation equipment by open flame, and for heating and annealing welded joints



**WEDGE-SHAPED FEELER GAUGES T23.02** from 8.0 to 20.0 and T01.06 from 0.2 to 9.0

for measuring the air gap width in the turbine flow path while repairing power generation equipment



**STRIP BENDING MACHINE AC2.09**



**EJECTOR-TYPE HEATER 149.251** air heating turbine studs



**ROTOR AXIAL PASSAGE PROCESSING MACHINE 4KP3** for processing turbine rotor axial channels with a diameter of 95 to 150 mm



**MANUAL ECCENTRIC PUNCH PRESS T01.81** for punching shrouding bands

Repair tools and tooling are manufactured by KHAER TOOLS, LLC, a separate subdivision of KHARKIVENERGOREMONT-HOLDING.

## Ukraine

- Khmelnytskyi NPP, Separated Subdivision of the State Enterprise National Nuclear Energy Generating Company Energoatom
- Rivne NPP, Separated Subdivision of the State Enterprise National Nuclear Energy Generating Company Energoatom
- Pivdenoukrainsk NPP, Separated Subdivision of the State Enterprise National Nuclear Energy Generating Company Energoatom
- Cherkasy CHP, Cherkaske Khimvolokno, PrJSC
- Kherson CHP
- Odesa CHP
- Sievierodonetsk CHP
- Kurakhivska TPP owned by DTEK Skhidenergo, LLC
- Luganska TPP owned by DTEK Skhidenergo, LLC
- Slovianska TPP owned by Donbasenergo, PJSC
- Trypilska TPP owned by Centrenergo, PJSC
- Zmiivska TPP owned by Centrenergo, PJSC
- Burshtynska TPP owned by DTEK Zakhidenergo, LLC
- Dobrotvir TPP owned by DTEK Zakhidenergo, LLC
- Ladyzhyn TPP owned by DTEK Zakhidenergo, LLC
- Zaporizka TPP owned by DTEK Dniproenergo, PJSC
- Kryvyi Rih TPP owned by DTEK Dniproenergo, PJSC
- Darnytska CHP owned by Yevro-Rekonstruktsiya, LLC
- Chernihivska CHP owned by Firma TekhNova, LLC
- Kremenchuk CHP
- Sumy CHP
- Kramatorsk CHP owned by Kramatorskteploenergo, LLC
- Bila Tserkva CHP, PrJSC
- Vinnytsia CHP-1, Public Utility Company of the Vinnytsia City Council Vinnytsiamiskteploenergo
- Oleksandriia CHP
- Shostka CHP
- Kharkiv CHP-3
- Kharkiv CHP-5
- CHP of Mykolaiv Alumina Plant, LLC
- SE CHP-2 Eskhar
- CHP of SE Production Association Pivdennyi Machine-Building Plant named after O.M. Makarov
- Kakhovka HPP owned by Ukrhydroenergo, PJSC
- Serednyodniprovska (former Dniprodzerzhynska) HPP owned by Ukrhydroenergo, PJSC
- Dniester HPP owned by Ukrhydroenergo, PJSC
- Oskil (former Chervony Oskil) HPP
- Tashlyk PSPP, Separated Subdivision of the State Enterprise National Nuclear Energy Generating Company Energoatom
- Dniester PSPP owned by Ukrhydroenergo, PJSC
- Zavod Severny owned by farming enterprise Organic Systems
- Trakonta, LLC of Dzhankoy main power transmission lines SE NEC Ukrenergo
- Impulse Shostka State Plant, State Enterprise
- SE Plant Elektrovazhmash
- NTU KhPI
- Burynsky Sugar Factory, LLC
- Poltava Turbo-Mechanical Plant, LLC
- Crimean EPS, Dzhankoy Substation
- SE NEC Ukrenergo
- Ukrainian South-Western Railway
- 330 kV Simferopol Substation
- Kryzhopol Sugar Factory, JSC
- Karlivka Sugar Factory, LLC
- TM Zmiiv vegetable factory, PrJSC
- Mega-Azov, JSC
- Kamet Steel, PrJSC, Metinvest Holding
- Azovstal, JSC
- Kryvorizhstal Kryvyi Rih Mining and Metallurgical Complex, JSC
- Mittal Steel Kryviy Rih, JSC
- Bahlykoks, JSC

## Belarus

- ◆ Mogilev tool plant, CJSC
- ◆ Belenergoremnaladka, OJSC
- ◆ Research and Production Enterprise Energoneftekhim, LLC
- ◆ Tekhsnabkomplekt, LLC
- ◆ Grateks Pro, LLC
- ◆ Tsentrenergomontazh, OJSC

## Russia

- ◆ OJSC Power Machines - ZTL, LMZ, Electrosila
- ◆ Kursk CHP-1
- ◆ Eksperimentalna CHP, OJSC, Krasny Sulin
- ◆ PA Gubkin CHP, Gubkin
- ◆ Kamyshin CHP, Volgograd
- ◆ Novocherkassk SDPP
- ◆ Stavrolen. LLC, Budenovsk
- ◆ Rostov CHP-2 owned by Rostovenergo, OJSC
- ◆ Combine JSC Salavatneftegazsintez", Salavat
- ◆ Integrated plant JSC Salavatneftegazsintez, Salavat
- ◆ Volgodonsk CHP-2, Volgodonsk
- ◆ Astrakhan CHP-2
- ◆ Bratsk CHP-2, Bratsk

## Georgia

- ◆ Saknahshiri (GIG Group), Tkibuli
- ◆ Sakenergoremont, JSC
- ◆ Tbilisi SDPP, JSC
- ◆ Energy Invest, JSC, Rustavi
- ◆ Mtkvari Energy, JSC, Gardabani
- ◆ Khrami HPP-1 owned by AES Khrami, JSC
- ◆ Tkibuli TPP
- ◆ Gardabani TPP

## Moldova

- ◆ Moldovan SDPP, JSC
- ◆ Chisinau CHP-2

## Kazakhstan

- ◆ Ekibastuz SDPP-1, SDPP-2
- ◆ AES Shulbinskaya HPP, LLP
- ◆ Tsentrkazehergomontazh, JSC
- ◆ DMCh Abadan, LLP
- ◆ Almatyremenergomontazh, LLP
- ◆ PromInvestAlmaty, OJSC

## Far-Abroad Countries

- ◆ Lidio Ramon Perez TPP, Felton, Cuba
- ◆ Senje HPP, Equatorial Guinea
- ◆ Pha Lai TPP, Vietnam
- ◆ Uong Bi, TPP, Vietnam
- ◆ Muzaffargarh TPP, Pakistan
- ◆ Pakistan Steel Mills, Pakistan Steel Mills Corporation, Karachi, Pakistan
- ◆ Jamshoro TPP, Pakistan, GRID TRADING Malta Ltd
- ◆ CHP, Barentsburg Mine, Svalbard, Norway
- ◆ Orhaneli TPP, Turkey
- ◆ Ghorashal TPP, Bangladesh
- ◆ Shahzi Bazar TPP, Bangladesh, Nirman Power Generation Ltd
- ◆ Obra TPP, India
- ◆ Barh TPP, India
- ◆ Ugljevik TPP, Bosnia and Herzegovina
- ◆ Sisak TPP, Croatia
- ◆ Al-Hiswa TPP, Yemen
- ◆ Kavosh Puya Jonoob Ltd (KPJ), Iran
- ◆ Ramin TPP, Iran Powerplant Repairs Company, Karaj, Iran

# GEOGRAPHY OF PROJECTS



1. VIETNAM
2. BANGLADESH
3. PAKISTAN
4. AFGHANISTAN
5. GEORGIA
6. MOLDOVA
7. ESTONIA
8. CROATIA
9. BOSNIA AND HERZEGOVINA
10. BULGARIA
11. YEMEN
12. CUBA
13. NORWAY
14. KAZAKHSTAN
15. INDIA

# FEEDBACK FROM OUR CUSTOMERS

**XTEK**

... «... el personal técnico de XTEK...»

**XTEK**

... «... el personal técnico de XTEK...»

La fecha: (Día 28.07.2021)

**A QUIEN PUEDE INTERESAR:**  
XTEK S.A. (RUSSIA)

«Comentarios sobre el trabajo ejecutado de montaje de turbina de 260 MW y sus tuberías»

«Como resultado de los trabajos de montaje de turbina de 260 MW y tuberías realizadas»

Con esta carta de recomendación confirmamos que los especialistas de Energoenergmont-holding, SRL, Georgia, junto con CF+Energoprux S.A., Rusa, en 2020-2021 realizaron una serie de trabajos de montaje de una turbina de 260 MW tipo DST-520-MS029 fabricada por DOOSAN-SHODA POWER) en la Unidad 2 de la ETE «Luis Ramón Pérez» en la República de Cuba.

Ante el montaje de la turbina, se realizó un ensamble y montaje de todas las tuberías de la turbina y equipos auxiliares con un monto total de más de 80 toneladas. Además, se suministró un kit completo de herramientas, equipos, consumibles, repuestos y equipos especiales necesarios para la obra (incluyendo equipos para tratamiento térmico y un sistema para elevación de la turbina).

Montaje de la turbina y sus tuberías se realizó a cargo de manera eficiente y profesional. Los especialistas de «Energoenergmont-holding», SRL, mostraron altas habilidades profesionales y un alto nivel de formación técnica. Después de los trabajos de ajuste y puesta en servicio de la turbina, todos los parámetros operativos e indicadores de rendimiento del equipo son normales y la unidad lleva una carga nominal de 260 MW.

El personal técnico de XTEK demostró un alto nivel de profesionalismo y eficiencia en el trabajo. El personal técnico de XTEK demostró un alto nivel de profesionalismo y eficiencia en el trabajo.

El personal técnico de XTEK demostró un alto nivel de profesionalismo y eficiencia en el trabajo.

Director General  
ETE "LUIS RAMON PEREZ" (Cuba)

Especialista "A"  
mantenimiento Industrial

Ing. Carlos Comas

# FEEDBACK FROM OUR CUSTOMERS



**ДП НАЦІОНАЛЬНА ЕНЕРГЕТИЧНА КОМПАНІЯ**  
**ЕНЕРГОАТОМ**  
Укр. Енергетика ПЛ та Енергетика Інвестментс ОШС  
вул. Солов'янка 21, м. Київ, Україна 01033  
Телефон: +38 (0)44 502-0000, Факс: +38 (0)44 502-0000  
Електронна пошта: [energoatom@energoatom.com.ua](mailto:energoatom@energoatom.com.ua)

**Національний проєктувальний центр «Хмельницька АЕС»**  
**«Хмельницька АЕС»**  
28 Солов'янка Ст., Київська, Українська Респ.  
Київ, 01033  
Офіс: +38 (0)44 502-0000, Факс: +38 (0)44 502-0000  
Електронна пошта: [napec@napec.com.ua](mailto:napec@napec.com.ua)

Директору  
ТОВ «ХАРКІВЕНЕРГО»  
Олександр МЕНДУСЬ  
м. Харків  
[napec@napec.com.ua](mailto:napec@napec.com.ua)  
[napec.com.ua](http://napec.com.ua)

Щодо виконання та обсягів робіт  
Щодо виконання робіт «Оптимізація операційного режиму»

Вітання «Хмельницька АЕС» виконало замовлення ТОВ «ХАРКІВЕНЕРГО» (замовлення №1) на виконання та оптимізацію режиму роботи агрегату з двигуном за типом «Капітальний ремонт ротора високого тиску турбіни К-100-60/3000 енергоблоку №2» в період 01.07.2012.

Загальною метою і основною роботою була максимізація в установлені терміни виконання ремонтних операцій на здійсненні відвідинки до чергової енергоблоку №2, що критично впливало на територію складних умов в країні та нерівності.

Висловлюємо вдячність за зворотній зв'язок, наданий під час і виконання робіт, а також за оперативну роботу з усіма питаннями.

Дякуємо Вам і Вашій команді за увагу, участь і професіоналізм!  
Розуміємо наперед!

З повагою  
Генеральний директор Андрій КОЗЮБА

ВЕРСІЯ 1.00, Мискометро 0.10.06

Договір СТД АС/01/011/1/01, укладений 03.11.2011  
Підписано: Генеральний директор Андрій Козюба  
Сторони: «ХАРКІВЕНЕРГО» та «ХМЕЛЬНИЦЬКА АЕС»  
Національний проєктувальний центр «Хмельницька АЕС»

30.10.2012 09:34:47 за 26.07.2012



**BANGLADESH POWER DEV. BOARD**  
Bangladesh Power Development Board  
House No. 075, 7/1, Uddan, Tejgaon-1000, Dhaka-1000, Bangladesh  
Telephone: +880 (0)2 95610000, Fax: +880 (0)2 95610000  
E-mail: [info@bpd.gov.bd](mailto:info@bpd.gov.bd)

Office of Manager  
Maintenance T-4 Unit  
Chattogram Power Station  
6200, P.O. Box, Chattogram

September 02, 2017

TO WHOM IT MAY CONCERN:

Subject: Letter of feedback on the work, as per Contract No. P-11/2012 (Rev. 1) and M-05/2014 for overhauling of T-04 Unit of Chattogram Power Station, BPD, P.O. Box, Chattogram.

Dear Sir,

This is to confirm that the company «Kharkovenergo»-Holdings LLC, Ukraine performed overhauling works on Turbine K-210-130L (M3) and auxiliary equipment of Turbine Island of Unit#04, TPS «Chattogram», PR Bangladesh from October, 2014 to March, 2017. Turbogenerator has been operated since Autumn, 1994. These were the first overhauling works, which have been performed since the operation began, including replacement of all Turbine and Generator bearings, and complete replacement of shaft-end seals of steam flow path of HP, IP and LP cylinders.

The overhauling works on Turbine were performed with good quality and on time, specialists of «Kharkovenergo»-Holdings LLC showed highly professional skills and level of technical competence. After overhauling works the Turbine is operates steady, all operational parameters and values are satisfactory, and the Unit has base load of 210 MW.

Your prompt action in this regard is highly appreciated.

Respectfully,  
  
Manager T-4 Unit, TPS  
6200, P.O. Box, Chattogram  
Date: 02/09/2017

The letter was prepared  
Igor M. Kozuba  
Maintenance T-4 Unit, TPS  
6200, P.O. Box, Chattogram  
Date: 02/09/2017

Chief Representative of LLC «KHARKOVENERGO»  
Igor M. Kozuba



**УКРЕНЕРГО**  
Національна енергетична компанія України  
**ДНПРОЄНЕРГО**  
**ЕЛЕКТРОЕНЕРГЕТИЧНА СИСТЕМА**  
вул. Солов'янка 21, м. Київ, Україна 01033  
Телефон: +38 (0)44 502-0000, Факс: +38 (0)44 502-0000  
Електронна пошта: [energo@energo.com.ua](mailto:energo@energo.com.ua)

Директору  
ТОВ «ХАРКІВЕНЕРГО»  
Мендусь О.В.  
[napec@napec.com.ua](mailto:napec@napec.com.ua)  
[napec.com.ua](http://napec.com.ua)  
Тел: +38 (0)44 502-43-51

Щодо виконання робіт з ремонту роз'єднувачів

Вітання «ХАРКІВЕНЕРГО» виконало замовлення ТОВ «ХАРКІВЕНЕРГО» (замовлення №1) на виконання та оптимізацію режиму роботи агрегату за типом «Капітальний ремонт ротора високого тиску турбіни К-100-60/3000 енергоблоку №2» в період 01.07.2012.

Загальною метою і основною роботою була максимізація в установлені терміни виконання ремонтних операцій на здійсненні відвідинки до чергової енергоблоку №2, що критично впливало на територію складних умов в країні та нерівності.

Висловлюємо вдячність за зворотній зв'язок, наданий під час і виконання робіт, а також за оперативну роботу з усіма питаннями.

Дякуємо Вам і Вашій команді за увагу, участь і професіоналізм!  
Розуміємо наперед!

З повагою  
Генеральний директор  
ТОВ «ХАРКІВЕНЕРГО»  
ХОЛДІНГ»  
Олександр МЕНДУСЬ  
[napec@napec.com.ua](mailto:napec@napec.com.ua)

Щодо виконання робіт з ремонту трансформатора Т-3  
Дистриктионал ГАЕС

Щодо виконання робіт «Оптимізація операційного режиму»

Ця робота виконана під час роботи з електричною системою ТОВ «ХАРКІВЕНЕРГО» (замовлення №1) на виконання та оптимізацію режиму роботи агрегату за типом «Капітальний ремонт ротора високого тиску турбіни К-100-60/3000 енергоблоку №2» в період 01.07.2012.

Результатом виконання та оптимізації режиму роботи агрегату було досягнення оптимального режиму роботи агрегату, що дозволило збільшити виробництво електроенергії та знизити витрати на експлуатацію агрегату.

Висловлюємо вдячність за зворотній зв'язок, наданий під час і виконання робіт, а також за оперативну роботу з усіма питаннями.

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Олександр МЕНДУСЬ  
[napec@napec.com.ua](mailto:napec@napec.com.ua)



**УКРГІДРОЕНЕРГО**  
Національна енергетична компанія України  
**УКРГІДРОЕНЕРГО**  
вул. Солов'янка 21, м. Київ, Україна 01033  
Телефон: +38 (0)44 502-0000, Факс: +38 (0)44 502-0000  
Електронна пошта: [energo@energo.com.ua](mailto:energo@energo.com.ua)

Директору  
ТОВ «ХАРКІВЕНЕРГО»  
Мендусь О.В.  
[napec@napec.com.ua](mailto:napec@napec.com.ua)  
[napec.com.ua](http://napec.com.ua)  
Тел: +38 (0)44 502-43-51

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ТОВ «ХАРКІВЕНЕРГО»  
ХОЛДІНГ»  
Олександр МЕНДУСЬ  
[napec@napec.com.ua](mailto:napec@napec.com.ua)





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## **CONTACTS:**

1, Sirykivska Street, Kharkiv, 61017, Ukraine  
khaer@khaer.com.ua  
khaerholding.tender@gmail.com  
www.khaer.com.ua

### *Director*

*Oleksandr Bendus*  
+380 66 792 3676  
alexhemg@gmail.com

*First Deputy Director*  
*Dmytro Chereshnev*  
+380 50 400 8530  
chedi.khaer@gmail.com

*Marketing and Sales Department*  
*Maria Makarenko*  
+380 50 301 1106  
mm0503011106@gmail.com

