



COMPANY MAIN ACTIVITY IS DESIGN,  
ENGINEERING AND PERFORMANCE OF ALL  
SORTS OF WORKS IN ENERGETICS AND  
PROCESS INDUSTRY AS WELL AS SUPPLY  
AND INSTALLATION OF REQUIRED  
EQUIPMENT.

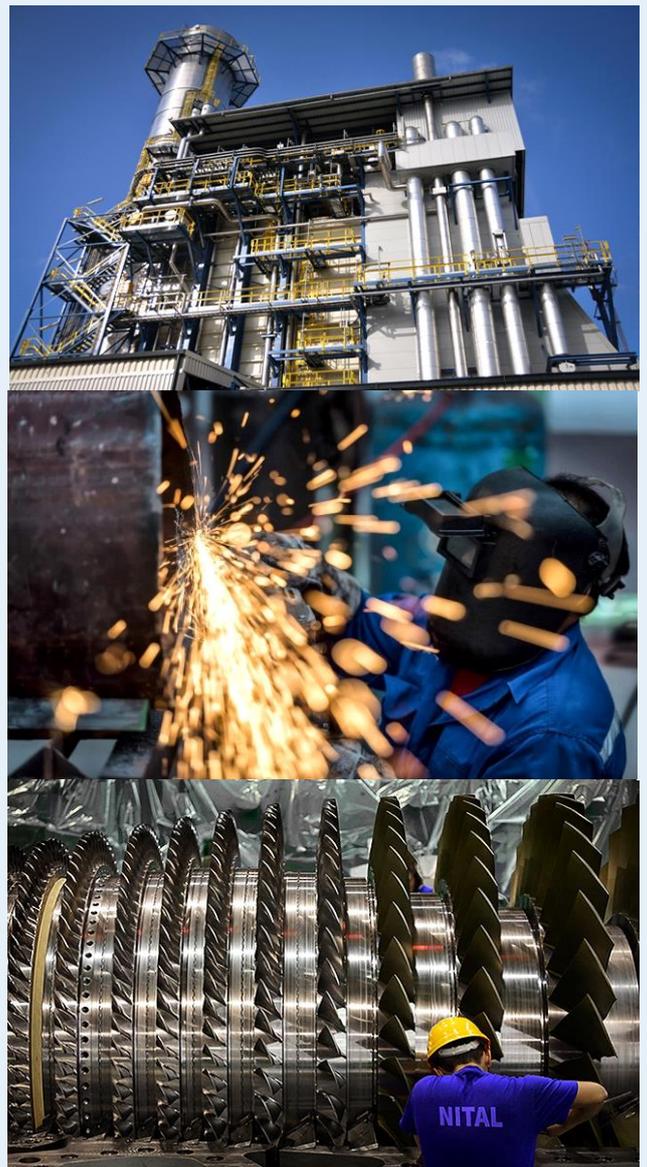
*High requirements for quality and satisfied Customer is our road to success*



## ABOUT US

Company NITAL d.o.o. Zenica was established in 1990. year in Zenica. The headquarter of company is located in the center of Zenica in the street Londža 128 – A, Business building ROMA II. Trough the long year experience in the field of design, engineering, coordination of overhauls/reconstructons and delivery of special equipment and spare parts to thermo plants, cement plants, hydro plants and other industrial companies inside Bosnia and Herzegovina as well as outside, we became a company which is able together with our partners to offer complete technical solutions and projects of part or whole industrial plants as well as realization of those projects with delivery of needed equipment especially in energy industry and engineering.

We are responsible for modernization, revitalization and erection of great number energy systems and producing lines in Bosnia and Herzegovina and outside. We executed a great number of technical projects and delivered a great quantity of different sophisticated equipment to the branches of JP Elektroprivreda (public company for electric energy production), cement plants and coal-mines in Bosnia and Herzegovina. We are pursuing regularly maintenance services of industry plants of mentioned companies as well as servicing and repairing of all kind industrial equipment, producing lines and all kind industrial facilities and plants. Also, we offer a hefty range of different products in electro-machining industry as well as fabrication, machine treatment and delivery of special spare parts and industrial equipment. Our management and expert services are able to organize and monitor the most sophisticated jobs from the branch we are dealing with.



With potential users of our services we can communicate in English and German language and we can perform works according to technical documentation in accordance with all global standards.

In compliance with market demands our employees are enhancing themselves with knowledge constantly. Our expert team consists of well trained engineers from all industry branches, technologists and highly qualified workers from energy sector, design and factory automatization, process control, electro engineering and civil engineering. Besides our own expert team we are able to offer and organize mobile teams of engineers and different profile workers (machinists, assemblers, welders – REL,TIG, MIG/MAG welding type of material group W01,W02,W03 and W11, hydro and thermo fitters, painters and others) with requested mechanization, operating equipment and work tools in Bosnia and Herzegovina and outside. Mobile teams for non – destructive control watching all jobs we perform.



**PROFESSIONAL AND CERTIFIED WORKERS AND MANAGEMENT ARE THE  
GUARANTEE FOR QUALITY REALIZATION OF PROJECTS**

*High quality demands and satisfied Client is our road to success*

Visiting international seminars, long year cooperation with local and foreign partner companies and representation of many well-known world manufacturers in electro-machining industry, resulted with many successfully executed jobs in our reference list. That is what makes us the one of the most successful companies for industrial design, engineering, manufacturing and wholesale in Bosnia and Herzegovina.

Our mission is to keep high quality of our services and together with our domestic and foreign partners to comply the most complicated demands of our clients.

Our vision is to, together with our partners, become leading company in the domain of services which we provide not only within Bosnia and Herzegovina but also in the region and to improve quality of our services, all with goal to improve satisfaction of our clients.



## DESIGN AND ENGINEERING

### THERMAL POWER PLANTS

Complete thermal energy plants, components and equipment,

All types of boilers, piping and monitoring equipment

Steam and gas turbines, pipelines and equipment

Condensers and heat exchangers (spiral, U-changer ...)

Cooling towers - engineering and equipment delivery

Reduction, pump and compressor stations

Turbo blowers

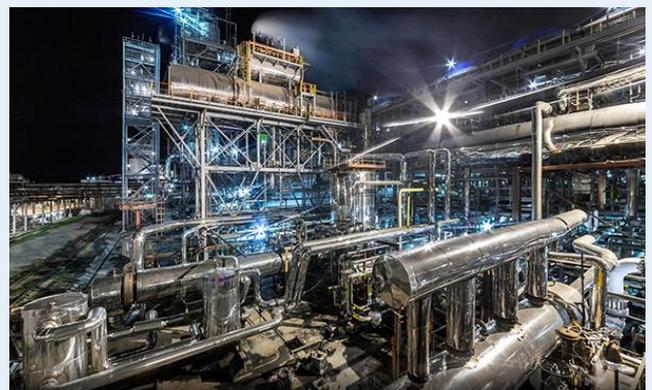
Fans and Coolers

Industrial boilers on solid, liquid and gaseous fuels

Expansion devices for maintaining pressure in the boiler

Boilers (steam, hot water, oil and electric)

Complete pipelines with valves, flanges, compensators etc.





### **HEATING, VENTILATION AND AIR-CONDITIONING SYSTEMS**

Private facilities, hospitals, hotels, industrial complexes sport facilities and other facilities

### **PRODUCTION PLANTS AND STORAGE OF TECHNICAL GASES (O<sub>2</sub>, N<sub>2</sub>, Ar, C<sub>2</sub>H<sub>2</sub>)**

Warehouses, reducing stations, technical gases pipeline and storage, consumers

### **PRESSURE VESSELS, TANKS, LOADING SYSTEMS, EVAPORATORS FOR GAS, APPARATUS FOR MIXING, PIPELINES**

Manufacture, repair, preparation for examination and testing, (Non - Destructive control, pressure test, assessment of lifetime etc.), providing of all necessary documentation

### **AUTOMATIC CONTROL AND REGULATION**

Industrial boilers, compressors and pump stations, heating systems, cooling, ventilation and air conditioning

Boilers for heating of sanitary water (steam, hot water, oil and electric)

Complete pipelines with valves, flanges, compensators etc.

## **PRODUCTION LINES IN CEMENT INDUSTRY**

The supply of raw material

Crushers

Cement mills

Rotary furnace with rolls and fans

Packing lines

Cement shipment lines

Other equipment in cement industry

## ELECTROMECHANICAL SYSTEMS AND STEEL STRUCTURES

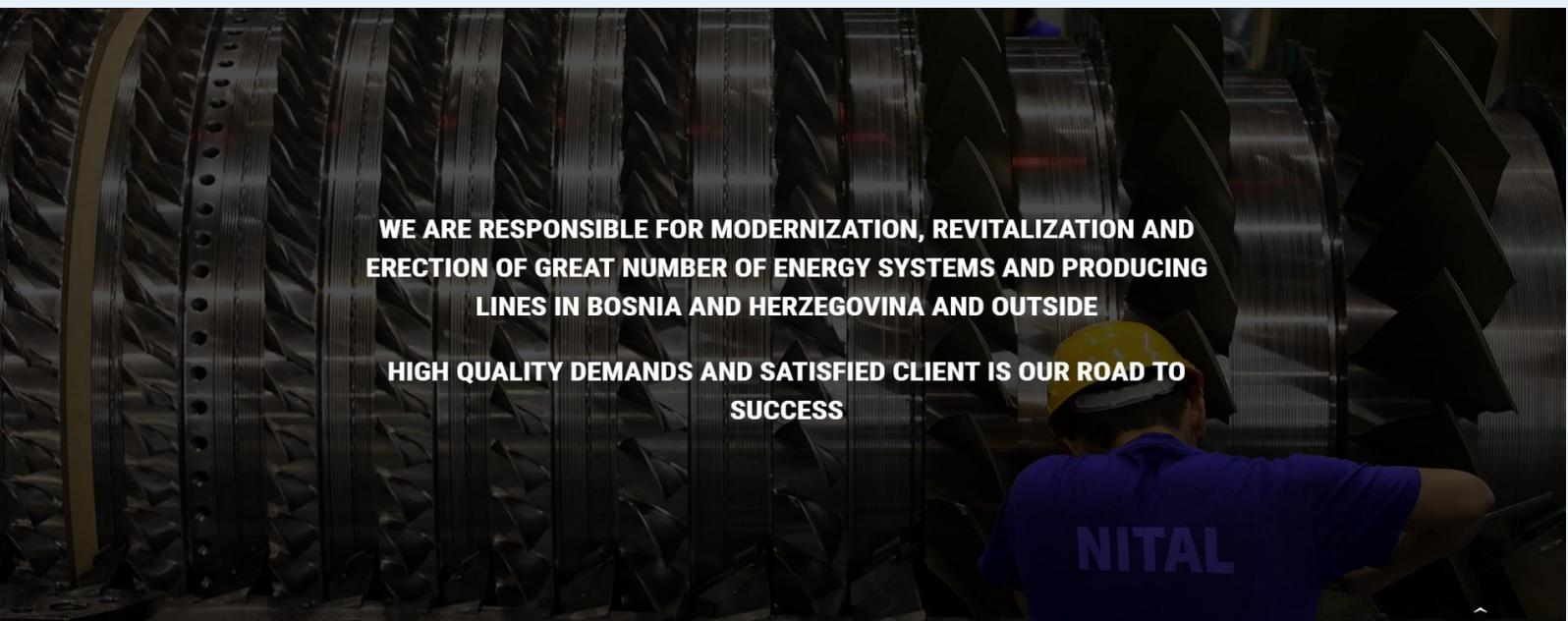
Transportation systems (belt conveyors, cranes, elevators, feeders) and equipment (chains, rubber bands, conveyor rollers and drums, tires, buckets, etc.), installing of new and repairing existing electrical installation, electronics for regulated motor drives, machine tools machines and machining systems

Development of technical solutions for the recovery of used mechanical and electrical components and providing new documents to the Customer

Manufacture of steel structures, metalwork and covering of industrial facilities

Services of commissioning of all sorts of facilities.

Vibration, tension testing and process performance, Non-Destructive Control, Quality control, Alignment and balancing of operating systems (turbines, engines, generators, fans, pumps, etc.)



**WE ARE RESPONSIBLE FOR MODERNIZATION, REVITALIZATION AND  
ERECTION OF GREAT NUMBER OF ENERGY SYSTEMS AND PRODUCING  
LINES IN BOSNIA AND HERZEGOVINA AND OUTSIDE  
HIGH QUALITY DEMANDS AND SATISFIED CLIENT IS OUR ROAD TO  
SUCCESS**

Development of welding technology and professional supervision during welding operations

Welding of low alloy, high alloy and stainless steel materials, aluminium and aluminium alloys, copper and copper alloys, titanium and titanium alloys, cast iron and steel and other materials

Examination of welded joints and structures

Heat treatment of welded joints

Corrosion protection and testing of corrosion protection (coating thickness, adhesion, etc.);

Lubrication systems (single line, two-line, progressive, closed - circulating oil, open, lubrication systems - air oil, special requirements)

Systems for chemical preparation and processing of water (jono-exchange water softener systems, filters, devices for demineralisation, decarbonisation, reverse osmosis, nano-filtration and UV based systems)



## MACHINING AND SPARE PARTS

Production of special spare parts and equipment according to requirements, technical specification - documentation and Customer's samples, with guaranteed quality and providing all necessary certificates.

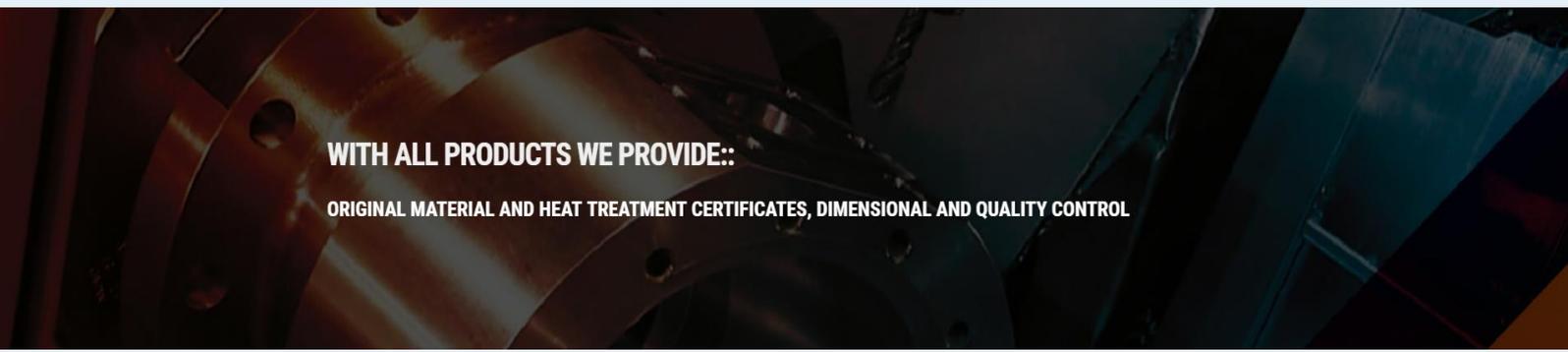
### **OUR PRODUCTS:**

Gears, Sprockets, Shafts, Toothed shafts, Bearings, Gear boxes of all sizes and transmission, Housing, Bases, Fans and fan parts, Coolers, Heat-exchangers, Bolts made of special steel, Special Spare Parts, etc.

Production and machining of all types of castings from gray cast iron, nonferrous metals, common and special steel to customer specification; Conveyor rollers, drums, belts (PVC, polyurethane, rubber and others), chains (link and roller chains) and transport and transmission belts of all shapes, types and uses.

Products of special plastics and rubber

Tools for casting, stamping and machining.



**WITH ALL PRODUCTS WE PROVIDE::**

**ORIGINAL MATERIAL AND HEAT TREATMENT CERTIFICATES, DIMENSIONAL AND QUALITY CONTROL**



## VALVES AND EQUIPMENT

The valve program contains a significant number of high pressure valves for steam and water as well as all supporting equipment for valves from our own production program and programs of other manufacturers that we represent.

### OUR PRODUCTS:

- Globe valves
- Gate valves and check valves
- Control valves
- Faucets
- Level indicators
- Flanges
- Thermodynamic Steam traps

### VALVE EQUIPMENT:

Electric actuators, Hydraulic and pneumatic actuators. Position locking, position switches, by-pass, elongated stems, leaking detection rings.



## QUALITY CONTROL

At the end of production process for valve final testing is performed. In this testing functionality in manipulating and in sealing are tested. This testing is performed according with standards for testing EN 12266. All testing are recorded according with established and certified procedures of Quality management system according to ISO 9001: 2000



## PUMPS AND EQUIPMENT

### CENTRIFUGAL PUMPS

**Technical parameters:** Capacity up to: 4.650 m<sup>3</sup>/h; Height up to: 170 m (560 feet); Speed up to: up to 1800 rpm; Temperature: max. 215°; Pressure up to: 30 bars; For higher pressures, we offer special execution.

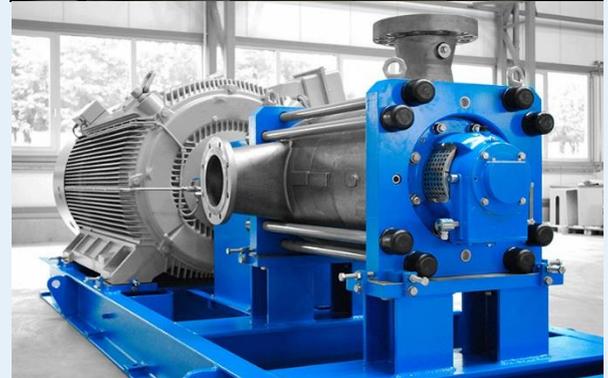
**Sizes:** DN 125 to DN 600 (5" to 24")

**Handled liquids:**

Clean or contaminated liquids (with or without bigger solids), Cold and hot water, Condensate and de-ionized liquids, Oil, brine and acid suspensions, Paper stock suspensions.

**Application:** General industry, District heating, Chemical industry, Steel mills and mining, Sugar refineries, Pulp and paper mills.

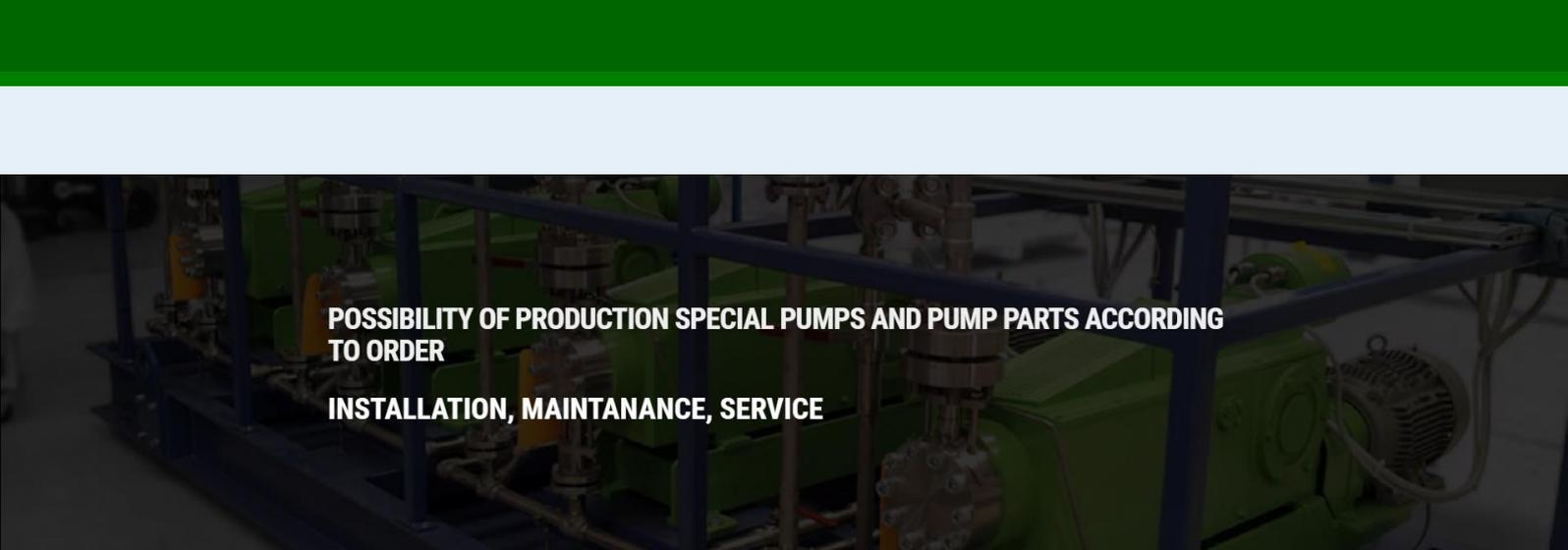
**Main parts:** Impeller, Shaft, Casing and casing cover, Wear ring, Bearing, Shaft sleeve



**Types:** Standard centrifugal pumps, Standard centrifugal single-stage pumps, Block centrifugal pumps, Multistage centrifugal pumps, Multistage circulating pumps, Self-priming pumps, on-clogging pumps, Chemical vertical pumps, Chemical pumps rubber-coated, Hermetic chemical pumps with magnetic coupling, Chemical standardized pumps, Process centrifugal pumps, Vertical pumps, Submersible pumps, Horizontal propeller pumps, etc.

**Documentation:** Catalogues, Material certificates, Dimensional control, Testing certificates, Installation and manual instructions, Spare parts list

**Guarantee:** Up to 2 years or longer according to requirements.

A photograph of a complex industrial pump assembly, likely a vacuum pump, with various pipes, valves, and a motor. The image is dark and serves as a background for the text.

**POSSIBILITY OF PRODUCTION SPECIAL PUMPS AND PUMP PARTS ACCORDING TO ORDER**

**INSTALLATION, MAINTANANCE, SERVICE**

## **VOLUME PUMPS**

**The program of displacement pumps includes:**

- Gear pumps
- Volume pumps for dense liquids
- Pump with volute spindle: PZV
- Single-stage and double-stage vacuum pumps
- Compressors
- Vane vacuum pumps
- Vertical tandem pumps
- Piston three-cylinder plunger pumps
- Steam piston pumps
- Single-cylinder piston pumps
- Rotary piston pumps
- Dosing pumps
- High pressure pumps
- Piston pumps
- Membrane pumps
- Hand piston pumps

## **PUMP SPARE PARTS, INSTALLATION, MEINTENANCE AND SERVICE**

We pay attention on overhauls also, and regarding to that our engineers are specialized for all overhauls and reparations of our pumps and pumps from third party manufacturers. In any time, we can give prompt technical, mechanical and consulting solution in any type of your inquiry.

We are specialized in manufacturing of original spare parts and components from all of our production program. Also, we are capable to supply spare parts from renown global manufacturers.

We own the equipment and we can offer:

- Testing of hydraulic performance and mechanical properties of pump generating sets.
- On site installation of pump generating sets and complete pump installation equipment.
- Installation and supervision of pump installations and engineering services for pump installation.
- Overhauling, maintenance and servicing of pumps and pump installations.
- Dynamic balancing services for rotating parts.



## PROJECT HIGHLIGHTS

**We have successfully implemented many projects and supplied large amounts of sophisticated equipment to Investors in Bosnia and Herzegovina and abroad.**

**Tube panel for super heater 5A of Unit 5 with sprayed protective coating (metallization) according to drawing No. KK-072 304-NL7 for TPP Kakanj**

Manufacture of 10 super heater panels for working parameters of boiler unit:

Exhaust gas temperature: 900 OC – 1150 OC.

Medium temperature (steam) in tubes: 379 OC-490 OC.

Medium pressure (steam) in tubes: 135 – 137 bar.

Super heater characteristics:

Tube material: 13CrMo44

Outer side of the super heater exposed to erosion.

Manufacture of parts of tube panel by the method of hot metallization with infusing of the powder based on NiCrBSi in the tubes and parts of the panel with base material 13CrMo44. Completing (welding) of the panels and delivery to TPP Kakanj.

**Supply and delivery of coal-dust burners on Unit 5 in TPP Kakanj**

Coal-dust burner nozzle NSW 1000/1850 – right-hand version

Coal-dust burner nozzle NSW 1000/1850 – left-hand version

Coal-dust burner nozzle NSW 930/1750 – right-hand version

Coal-dust burner nozzle NSW 930/1750 – left-hand version

Coal-dust burner nozzle NSW 930/3000 – right-hand version

Coal-dust burner nozzle NSW 930/3000 – left-hand version

Manufacture and delivery of 12 coal-dust burner nozzles and swirl burner's housing repair by the method of spraying liquid metal. Nozzles made from bent 16Mo3 metal plates into tubes and welding of flanges, then covered with ceramic layer on inner side (work side), delivered and installed on Unit 5 in TPP Kakanj.

**Supply and replacement of worn out components of Unit No. 5 in TPP Kakanj – Supply of equipment with sprayed protective layer for TPP Kakanj.**

Superheater 5B of boiler Unit No. 5 with sprayed protective layer according to drawing No. KK-072 304-NL4 (delivery of tubes).

Lower part of superheater 5 of boiler Unit 5 with sprayed protective coating according to drawing No. KK-072 304-NL1 (supply of completed panel)

Forged Y-pieces fi38/fi32/fi32 with sprayed protective coating

Electrode 3922CP 3,2 mm; 5 kg

Bent tubes for the superheater 5 of boiler Unit 5 with sprayed protective layer according to drawing No. KK-072 304-NL2

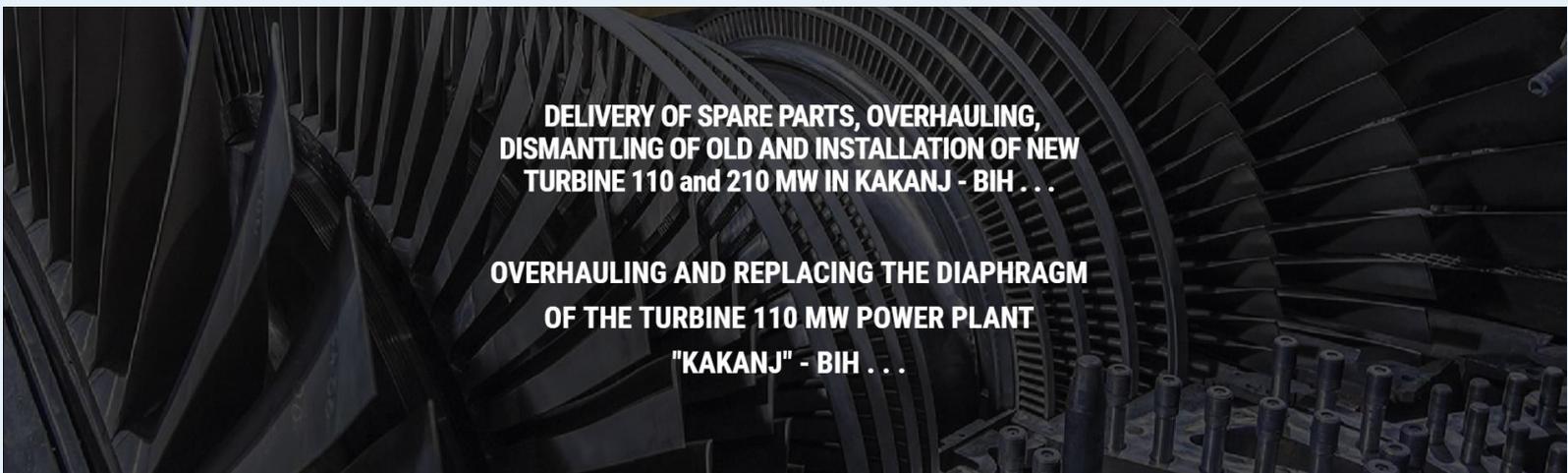
### **Supply of valves for Unit 7 for TPP Kakanj**

Reducer control valve for steam DN200/300 PN100/100VI with electric actuator and butt welded ends.  
Reducer control valve for steam DN300/400 PN100/40VI with electric actuator and butt welded ends.  
Gate valve with flanges DN300 PN16/I with electric actuator  
Gate valve with flanges DN100 PN40/I with electric actuator  
Gate valve with flanges DN150 PN40/I with electric actuator  
Gate valve with flanges DN80 PN16/III with electric actuator  
Gate valve with flanges DN300 PN16/III with electric actuator  
Gate valve with flanges DN200 PN100/VII with electric actuator

### **Manufacture and delivery of new drain pump type 4.8 BO 23-20/3 for Hydro Power Plant on river Neretva, Jablanica**

Manufacture and delivery of drain well pump with installation and commissioning.

Type 4,8 BO 23-20/3; Pump length: L = 24,275 m; Flow: Q = 75 l/s; Height: H = 30 m; Yield:  $\eta = 66,4 \%$ ; NPSH = 4,5 m; Rotor diameter D2 = 230 mm; Number of revolutions: N = 1450 RPM; Shaft power: P<sub>g</sub> = 32,8 kW; Electric motor power: = 37 kW; Voltage, frequency: 400 V, 50 Hz

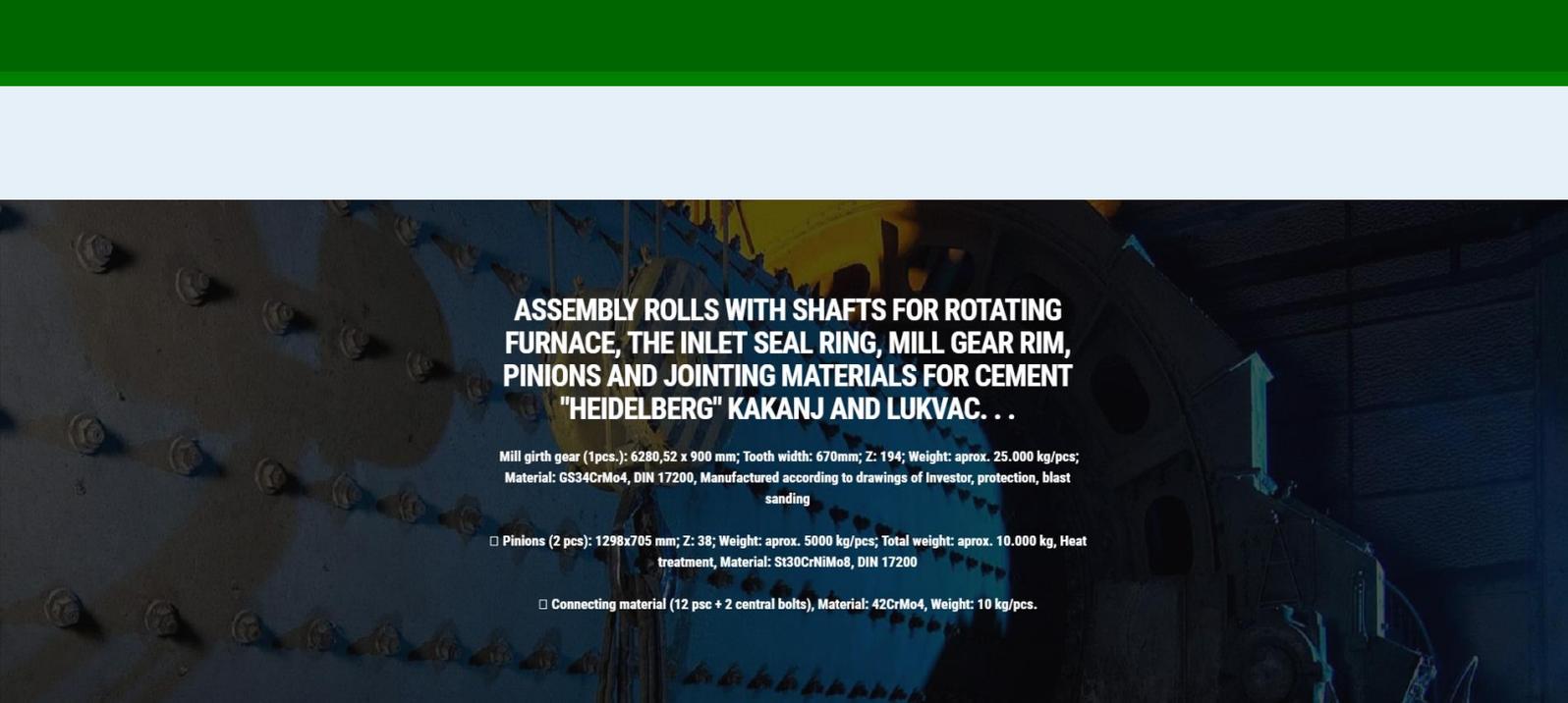


**DELIVERY OF SPARE PARTS, OVERHAULING,  
DISMANTLING OF OLD AND INSTALLATION OF NEW  
TURBINE 110 and 210 MW IN KAKANJ - BIH . . .**

**OVERHAULING AND REPLACING THE DIAPHRAGM  
OF THE TURBINE 110 MW POWER PLANT  
"KAKANJ" - BIH . . .**

### **New main and executive design for reconstruction of thermo-energy and electro-energy facility (Public Hospital "KANTONALNA BOLNICA ZENICA" in Zenica) of heat power of 14 MW**

- a) main design for boiler facility
- b) executive design for natural gas supplying
- c) liquid fuel storehouse executive design
- d) heating stations and primary pipelines executive design
- e) radiator heating executive design
- f) heat water consumers executive design
- g) executive design for manufacture of heat steam and connecting to technological consumers
- h) Central controlling system and automation



**ASSEMBLY ROLLS WITH SHAFTS FOR ROTATING FURNACE, THE INLET SEAL RING, MILL GEAR RIM, PINIONS AND JOINTING MATERIALS FOR CEMENT "HEIDELBERG" KAKANJ AND LUKVAC. . .**

Mill girth gear (1pcs.): 6280,52 x 900 mm; Tooth width: 670mm; Z: 194; Weight: aprox. 25.000 kg/pcs; Material: GS34CrMo4, DIN 17200, Manufactured according to drawings of Investor, protection, blast sanding

□ Pinions (2 pcs): 1298x705 mm; Z: 38; Weight: aprox. 5000 kg/pcs; Total weight: aprox. 10.000 kg, Heat treatment, Material: St30CrNiMo8, DIN 17200

□ Connecting material (12 psc + 2 central bolts), Material: 42CrMo4, Weight: 10 kg/pcs.

**Executive design for repairing and performing of repairing works of propane – butane gas tank of volume V=100 m3, pressure 25 bar with valves and equipment delivery:**

- a) tank steel construction calculation, volume V=100 m3, pressure 25 bar, wall thickness 15 mm
- b) technology design for reservoir steel construction reparation
- c) elaborate making for radiography control
- d) reservoir repairing (preparation for welding, preheating, welding and grinding, control)
- e) welded joints control (radiography and penetrate control)
- f) hydrostatic control
- g) anti-corrosive protection of outer surfaces and preparation (sand blasting according to DIN 55 928, epoxy base primer, final paint of reservoir outer surfaces)
- h) valves and auxiliary equipment supply and assembly

**Supply of material and spare parts for burner system of Unit 6 in PP "Kakanj" Kakanj:**

- Soot blower head according to drawing No. 3 4471 MS 117-LN
- Spring mechanical angle valve for steam soot blowers according to drawing No.3 4472 MS 121
- Forged fitting -Y piece  $\Phi 38/\Phi 32/\Phi 32$ ;  $\Phi 32/\Phi 32/\Phi 32$  according to drawing No. 3 KK 064206
- Transportation chain lever according to drawing No.3.4152 MS 138
- Feeder bed cover according to drawing No. 3.4122 MS 699
- Feeder bed cover on drive station according to drawing No. 3.4122 MS 700
- Feeder bed lug according to drawing No. 4.4122 MS 701
- Sliding plates guiding spindle according to drawing No. 4.4112 MS 233
- Sliding plates guiding spindle sleeve according to drawing No. 4.4112 MS 234
- Mill spring according to drawing No. 4.4132 MS 568
- Armored panel according to drawing No. 4.4132 MS 592
- Processed rolls according to drawing No. 4.4153 MS 135
- Gearbox 2KPVL-2 according to factory drawing No. 17330
- Transport apparatus tube according to drawing No. 4 3131 MS 415
- Transport apparatus tube segment according to drawing No. 4 3131 MS 470
- Threaded spindle according to drawing No. 4 3131 MS 401
- Spindle nut according to drawing No. 4 3131 MS 402
- Nozzle girder according to drawing No. 4 3131 MS 413
- Fuller pump sleeve according to drawing No. 4 3131 MS 420
- Bearing 22322 SKF
- Rubber tube clamps according to DIN 3017



## OUR CLIENTS AND PARTNERS

### OUR CLIENTS

#### JP ELEKTROPRIVREDA OF BOSNIA AND HERZEGOVINA:

Thermal Power Plant "KAKANJ" in Kakanj  
Thermal Power Plant "TUZLA" in Tuzla  
Hydro Power Plants on river Neretva (HPP Salakovac, HPP Jablanica, HPP Grabovica)  
Thermal Power Plant "UGLJEVIK"  
Thermal Power Plant "GACKO"  
Hydro Power Plant on river Trebišnjica  
JP Elektroprivreda hrvatske zajednice HERCEG - BOSNE d.d.

#### CEMENT PLANT "KAKANJ" IN KAKANJ (HEIDELBERG CEMENT)

CEMENT PLANT "LUKAVAC" U LUKAVAC  
COAL MINE "ZENICA" IN ZENICA  
COAL MINE "KAKANJ" IN KAKANJ  
COAL MINE "BANOVIĆI" IN BANOVIĆI  
COAL MINE "KREKA"  
BH TELEKOM



### OUR PARTNERS

**TERMONIT D.O.O. ZENICA** (Company for construction, performance of electro – mechanical works, overhauls, erection and maintenance of industrial facilities) - [www.termonit.com.ba](http://www.termonit.com.ba)

**TERMoeLEKTRO BRČKO** (Company for engineering and performance of works on industrial facilities)

**ŠKODA ENERGO – DOOSAN** (Manufacturer of equipment for energy sector and company for performance of all works in energy sector)

**ESOTEHNA CROATIA** (Cooling towers and industrial water treatment)

**ESOT SLOVENIA** (Water treatment chemicals)

**TERMOVENT SERBIA** (Valves and equipment for valves)

**VIA INTERNATIONAL** (Industrial brakes, breaking devices and hydrodynamic couplings)

**TERMOVENT CASTING**

**FEROMONT INŽENJERING** (Company for engineering)

**CHESTERTON** (High pressure sealing material) and others



## CONTACT US

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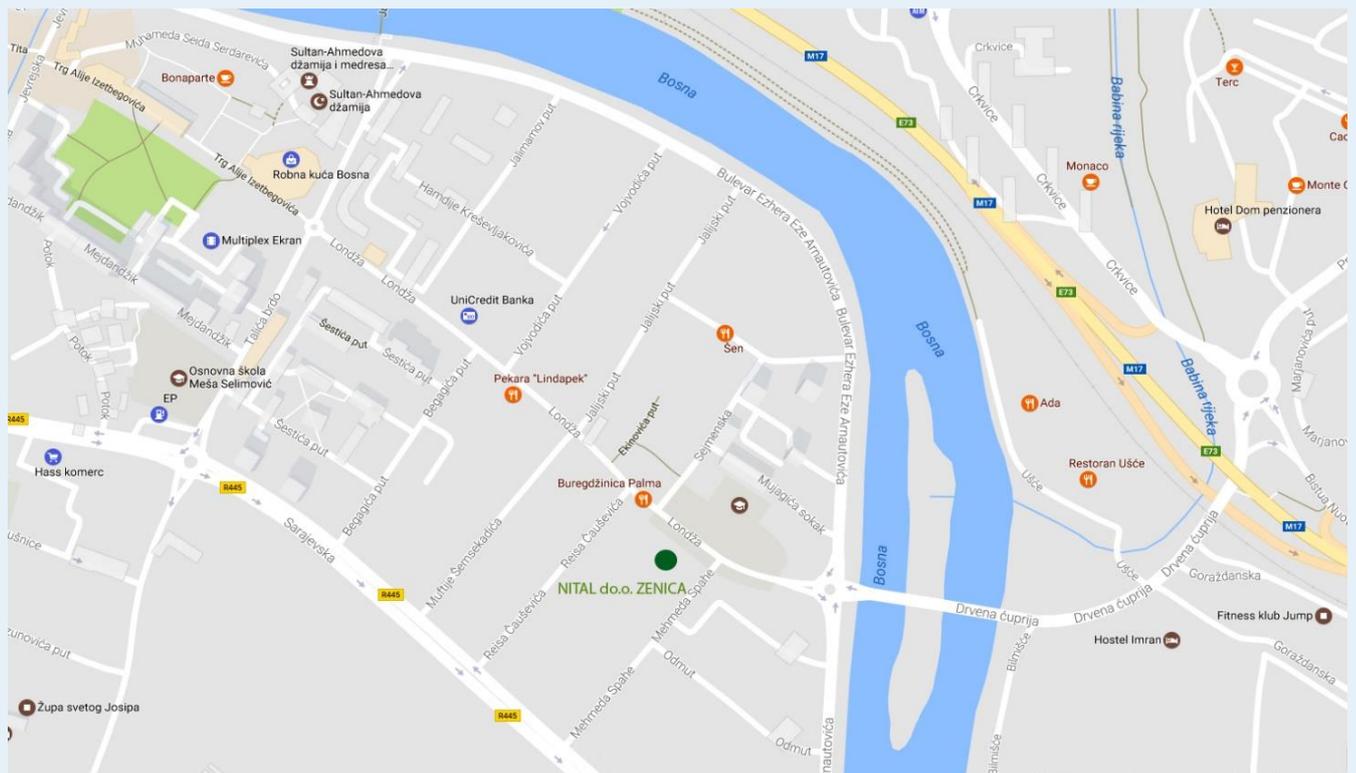
**DIRECTOR:** Nikontović Salko dipl. ing.

**SALES MANAGER:** Nikontović Nirhan dipl. Ing.

**PROJECT COORDINATOR:** Talić Mirnes dipl ing

**COMERCIAL DEPT.:** Nikontovic Nasir dipl ecc.

**PR ASSISTENT:** Erduana Nurković





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