Mostostal

INDUSTRIAL

CHEMICAL INDUSTRY PETROCHEMICAL INDUSTRY CHEMICAL INDUSTRY

MOSTOSTAL PUŁAWY GROUP'S PROPOSAL



Mostostal Puławy S.A. provides the following services:

- fabrication and erection of steel structures, including structures made of alloy steel and stainless steels;
- installation of process systems, machineries and equipment in production plants operating in various industrial sectors;
- fabrication and erection of special-purpose piping system, including systems subjected to approval by the recognized Notified Bodies (e.g. Polish Office of Technical Inspection);
- construction and upgrades of environmental protection systems;
- design engineering of steel structures and process systems;
- construction, repairs and maintenance of bridge structures;
- general contractor services concerning structures for road infrastructure, general construction, construction of sports facilities, constructions in the chemical industry, petrochemical industry, power industry, food industry and environmental protection.

Mostostal Puławy S.A. employs highly qualified staff of fitters and welders holding required by European law training and qualification certificates (UDT, SLV, TÜV and other). Steel structure manufacturing is carried out by two facilities – Steel Structures Manufacturing Plant (WKS) and Pre-fabrication Plant. The annual production capacity at WKS is 5 000 tonnes. Modern paint shop provides possibility of applying wide range of anti-corrosion protection systems.

Mostostal Puławy S.A. is authorised to manufacture, erect, upgrade and repair:

- steam and water boilers;
- steam pipelines;
- transmission pipelines of liquid and gaseous media;
- process pipelines operated with liquid and gaseous media;
- non-pressure tanks and pressure tanks for liquid flammable materials;

- mobile tanks;
- stationary pressure tanks;
- non-pressure tanks and pressure tanks for toxic or corrosive materials and pressure components.

Mezap sp. z o.o.

The main area of the company's operations is manufacturing and repairs of pressure apparatuses and equipment used in the chemical, petrochemical, power, food and paper industry. The main manufacturing profile of the company involves fabrication of heat exchangers, reactors, boilers and pressure tanks made of all steel grades (carbon, alloy, duplex) as well as aluminium, nickel, titanium and their alloys. This equipment is manufactured in accordance with requirements of the Office of Technical Inspection (Notified Body), TÜV, EN-13445, EN-12952 and PED Directive 2014/68/EU. In addition, the company has a specialised overhead crane and weighing team.

Energezap sp. z o.o.

The company provides services that involve installation and repair services in the scope of mechanical works related to chemical and power systems, in particular the equipment of heat and power generating plants, e.g. boilers and steam turbines. The company also offers:

- overhaul of centrifugal single-stage and multi-stage pumps;
- overhaul of pressure vessels, regenerative heaters and tubular / plate heat exchangers;
- overhaul of belt conveyors;
- routine overhaul of bulldozers and wheel loaders;
- spare parts: turning, milling, etc.

Our overhaul and upgrade services are offered for the following specialised fields:

- steam boilers together with welding on the pressure part classified as group I, II, III according to the Polish Standard PN-87/M-69900/01;
- coal mills, mill fans, coal feeders, slag crushers, sealing air blowers, rotary air heaters, slag handling equipment, hydraulic ash conveying systems;
- steam turbines with the output of 30 MW;
- heat exchangers, pumps, tanks, water and steam pipelines;
- belt conveyors, railway wagon tipplers, discharge carts, coal crushers;
- PVC pipe and board systems;
- turning and milling works;
- welding and steel fitting works.

Energezap sp. z o.o. holds certificates for the production, installation, upgrade and repair of pressure equipment and pipelines, granted by the Office of Technical Inspection (Notified Body) in Lublin. The systems implemented by the company comply with Pressure Equipment Directive 2014/68/EU. The company cooperates with the quality control units at Zakłady Azotowe "Puławy" S.A. and Mostostal Puławy S.A. The core personnel include persons with many years of employment and experience in mechanical works carried out in the power sector (metalworkers, welders, turners and fitters). Our welders hold the following qualification certificates: IS, NoBo/UDT, TDT and TÜV for the material groups FM1, FM2, FM3, FM5 and FM6.

Our plant is currently preparing for the implementation of an Integrated Management System based on the standards: Quality – PN--EN ISO 9001:2015, Environment – PN-EN ISO 14001:2015 and OHSAS – 18001:2006.

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Erection of boiler house steel structure at waste incineration plant in Ferrybridge, UK

The scope of work included the erection of approx. 5 000 tonnes of the steel structure of the boiler house with two grate boilers. The first project subject to the National Agreement for the Engineering Construction Industry (NAECI).





Erection of two boilers (26 MW $_{\rm e}$) together with equipment and grates at waste incineration plant (capacity 275 000 t/year) in Beddington (South London), UK

Total mass of installed elements: 2 500 tonnes.



Installation of five ESPs for new bio-product plant owned by Metsä Fibre Oy in Äänekoski, Finland

Mass of installed elements: approx. 2 750 tonnes.



Erection of pressure parts of two boilers (62.6 MW_{th}) at Severnside waste incineration plant (capacity 388 000 t/year) in Bristol, UK Total mass of installed elements: 2 040 tonnes.



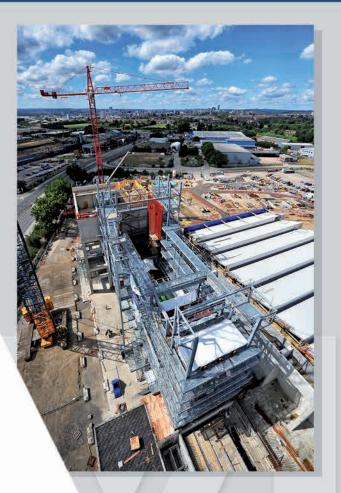


Supply, steel structure erection and thermal insulation of gas cleaning plant for iron-ore pelletisation furnace at LKAB Svappavaara mine, Sweden Total mass of installed elements: 971 tonnes.



Erection of soda recovery boiler (2 300 tds/d) and two ESPs at paper mill owned by Mondi Świecie, Poland Mass of installed elements: boiler – 3 800 tonnes, ESPs – 871 tonnes.

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Erection of boiler at waste incineration plant owned by Veolia Environmental Services in Leeds, UK The incineration plant annually generates 11 MW of electricity by burning 164 000 tonnes of waste. The scope of work included the erection of the boiler together with equipment and MARTIN grate. The total mass of the installed elements was 1 224 tonnes.

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Supply, erection and thermal insulation of flue gas treatment plant in Västerås, Sweden Total mass of installed elements: 805 tonnes.



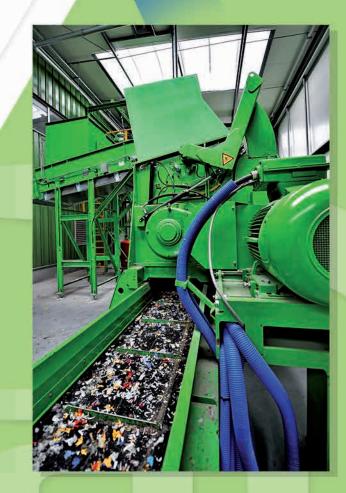




Erection of two boilers together with equipment and MARTIN grates at waste incineration plant owned by Trident Park in Cardiff, UK The incineration plant annually generates 30 MW of electricity by burning 350 000 tonnes of waste. The total mass of the installed elements was 2 990 tonnes.

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Expansion and upgrade of Municipal Waste Disposal Plant in Puławy, Poland – project executed on EPC basis



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Upgrade of the fly and bottom ash hydraulic transport trestle bridge and return water pipelines from storage yard at Kozienice Power Plant, Poland



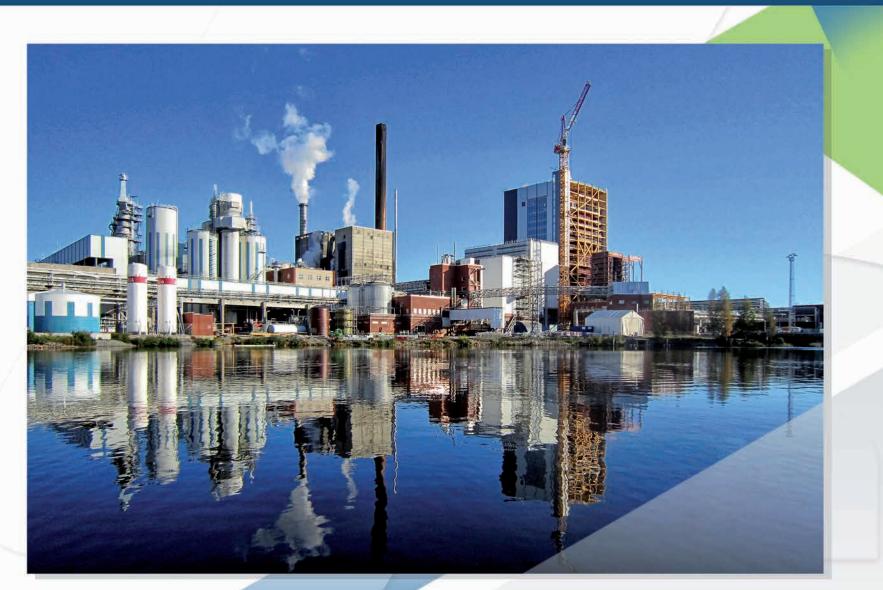
Erection of two boilers together with grates, flue gas ducts and equipment at waste incineration plant in Ardley, Oxfordshire, UK The plant burns 300 000 tonnes of municipal and industrial waste annually. The total mass of the installed elements was 2 585 tonnes.



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Erection of biomass BFB boiler together with equipment and low-pressure pipelines at CHP plant owned by HaVo in Kyröskoski, Finland Steam output: 105 t/h. The total mass of the installed elements was 1 060 tonnes.



Erection of soda recovery boiler (2 400 tds/d) at paper mill owned by Iggesund in Hudiksvall, Sweden The scope of work included complete mechanical erection of the boilers with equipment. The total mass of the installed elements was approx. 3 430 tonnes.



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Erection of three boilers at Riverside waste incineration plant in the south-eastern part of London, UK Riverside is one of the largest waste incineration plants in Europe. Its annual capacity is 585 000 tonnes. The plant generates 72 MW of electricity. The total mass of all three erected boilers is approx. 3 500 tonnes.



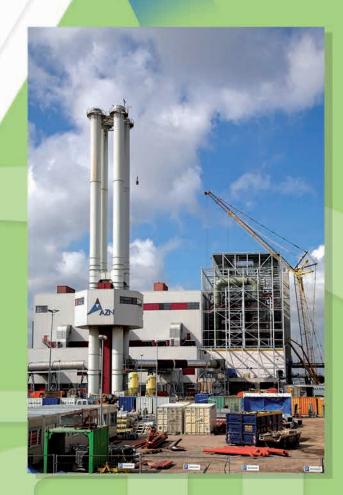
Erection of CFB boiler with the capacity of 440 MW (200 MW_e and 240 MW_{th}) fired with peat and wood chips at CHP plant in Jyväskylä, Finland

The total mass of the installed elements (boiler pressure part, pipelines, air and flue gas ducts, a rotary air heater, pumps and fans) was 4 800 tonnes.



Erection of BFB boiler at CHP plant owned by OVIK Energy AB in Örnsköldsvik, Sweden

Boiler parameters: capacity 130 MW, operating pressure 139 bar, operating temperature 540°C. The scope of work included the erection of the boiler pressure part together with low-pressure pipelines. The total mass of the installed elements was 1 030 tonnes.



Erection of boiler and steel structure as well as flue gas treatment equipment at waste incineration plant in Moerdijk, Netherlands

> Boiler parameters: - capacity: 14 MW, - mass: 1 650 tonnes.



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Erection of biomass BFB boiler at Kappa Kraftliner paper mill in Piteå, Sweden

The scope of work included the erection of the boiler pressure part together with low-pressure pipelines. The total mass of the installed elements was approx. 780 tonnes.

LIST OF PROJECTS



Erection of boiler house steel structure at waste incineration plant in Ferrybridge, UK

The scope of work included the erection of approx. 5 000 tonnes of the steel structure of the boiler house with two grate boilers.

The first project subject to the National Agreement for the Engineering Construction Industry (NAECI).



Erection of two boilers (26 MWe) together with equipment and grates at waste incineration plant (capacity 275 000 t/year) in Beddington (South London), UK

Total mass of installed elements: 2 500 tonnes.

Retrofit of ESPs for units 1-3 at Turów CHP plant, Poland

Supply of ESP steel structures (596 tonnes), disassembly of the existing internals (1 810 tonnes) and installation of three new ESP units (more than 3 000 tonnes).



Installation of five ESPs for new bio-product plant owned by Metsä Fibre Oy in Äänekoski, Finland Mass of installed elements: approx. 2 750 tonnes.



Erection of two boilers with a total capacity of 24 MW_e, including equipment and air cooled condenser, at waste incineration plant (throughput 20 t/h) in Allerton Waste Recovery Park (North Yorkshire), UK



Erection of HRSG boiler for combined-cycle unit (596 MWe) at PKN Orlen refinery in Płock, Poland Total mass of installed elements: approx. 4 500 tonnes.



Erection of biomass boiler together with grate, equipment and low-pressure pipelines at CHP plant owned by MERSEY BIOENERGY LTD in Widnes near Liverpool, UK

Boiler parameters: - capacity: 70 MW_{th}, - steam output: 81.7 t/h, - steam pressure: 80 bar, - steam temperature: 468°C.



Erection of boiler at waste incineration plant (capacity 200 000 t/year) owned by Mercia EnviRecover EfW Herefordshire & Worcestershire in Hartlebury, UK Scope of work:

- erection of boiler (capacity 18 MW_e),

- erection of boiler support structure, building envelope structure and the condenser (ACC).

Total mass of installed elements: approx. 1 900 tonnes.

Supply of steel structure, disassembly and assembly works with thermal insulation works of ESP for unit no. 5 at Jaworzno CHP Plant, Poland Mass of dismantled elements: 574 tonnes. Mass of installed elements: 583 tonnes.

Upgrade of flue gas cleaning system (ESP) for OP-130 boiler at CHP plant of Zakłady Chemiczne PCC Rokita in Brzeg Dolny, Poland The scope of work included disassembly (254 tonnes) and assembly (270 tonnes).





Supply of steel structure of ESP elements, disassembly and assembly works at Łaziska CHP Plant, Poland Mass of dismantled elements: 436 tonnes. Mass of installed elements: 399 tonnes.



Erection of pressure parts of two boilers (62.6 MWth) at Severnside waste incineration plant (capacity 388 000 t/year) in Bristol, UK Total mass of installed elements: 2 040 tonnes.



Supply, steel structure erection and thermal insulation of gas cleaning plant for iron-ore pelletisation furnace at LKAB Svappavaara mine, Sweden

Total mass of installed elements: 971 tonnes.



Erection of soda recovery boiler (2 300 tds/d) and two ESPs at paper mill owned by Mondi Świecie, Poland Mass of installed elements: boiler – 3 800 tonnes, ESPs – 871 tonnes.



Erection of boiler at waste incineration plant owned by Veolia Environmental Services in Leeds, UK

The incineration plant annually generates 11 MW of electricity by burning 164 000 tonnes of waste. The scope of work included the erection of the boiler together with equipment and MARTIN grate.

The total mass of the installed elements was 1 224 tonnes.

Supply of steel structure of ESP elements, dismantling and assembly works at CHP Plant in Białystok, Poland



Supply, erection and thermal insulation of flue gas treatment plant in Västerås, Sweden Total mass of installed elements: 805 tonnes.



Construction of Regional Waste Management Plant in Dębowiec, Poland Construction of a sorting plant with an administrative part and in-house service of the facility.

Erection of biomass BFB boiler (100 MW) together with equipment and low-pressure pipelines at CHP plant owned by Jönköping Energi Ab, Sweden

Total mass of installed elements: 1 580 tonnes.



Erection of boiler at MVV Ridham Dock waste incineration plant in the UK Capacity of the incineration plant: 23 MWe. The scope of work included the erection of the boiler together with equipment and MARTIN grate. Total mass of installed elements: 1 605 tonnes.

Erection of steel structure of building and BFB boiler together with equipment and low-pressure pipelines in Karlstad, Sweden

Boiler output: 127 t/h. The mass of the erected steel structure and installed boiler elements was respectively approx. 1 000 and 2 627 tonnes.

Erection of two biomass boilers for SODC Orlean and VSG in Vielle Saint Girons near Bordeaux, France





Erection of two boilers together with equipment and MARTIN grates at waste incineration plant owned by Trident Park in Cardiff, UK The incineration plant annually generates 30 MW of electricity by burning 350 000 tonnes of waste.

The total mass of the installed elements was 2 990 tonnes.

Construction and supply of ESP steel structure for SCA Ortviken in Sundsvall, Sweden

Supply of steel structure of ducts and support structure at waste incineration plant owned by MVA Spittelau in Vienna, Austria

Erection of grates, pressure parts, non-pressure parts, piping, fixtures and equipment for two boilers at waste incineration plant owned by Vantaan Energia Oy in Vantaa, Finland

The incineration plant annually generates 107 MW of heat and 78 MW of electricity by burning 352 000 tonnes of waste.



Expansion and upgrade of Municipal Waste Disposal Plant in Puławy, Poland – project executed on EPC basis



Construction of Waste Management Plant and expansion of landfill site in Wincentów, Poland



Upgrade of the fly and bottom ash hydraulic transport trestle bridge and return water pipelines from storage yard at Kozienice Power Plant, Poland



Erection of two boilers together with grates, flue gas ducts and equipment at waste incineration plant in Ardley, Oxfordshire, UK The plant burns 300 000 tonnes of municipal and industrial waste annually. The total mass of the installed elements was 2 585 tonnes.

Erection of soda recovery boiler (1 200 tds/d) at paper mill owned by Mondi Frantschach, Austria The total mass of the installed elements was approx. 1 910 tonnes.

Erection of biomass BFB boiler at CHP plant owned by Fortum Heat and Power Oy in Järvenpää, Finland

The scope of work included the erection of the boiler together with equipment and low-pressure pipelines, installation of the flue-gas heat recovery system and a bag filter.

The total mass of the installed elements was 1 170 tonnes.

Erection of biomass CFB boiler together with equipment, ESP and low-pressure pipelines at CHP plant owned by Eneco B.V. in Delfzijl, Netherlands

Boiler capacity: 49 MWe. The total mass of the installed elements was 2 019 tonnes.

Supply, erection and insulation of flue gas treatment system in Brista, Sweden The total mass of the installed elements was 570 tonnes.





Erection of biomass BFB boiler together with equipment and low-pressure pipelines at CHP plant owned by HaVo in Kyröskoski, Finland Steam output: 105 t/h. The total mass of the installed elements was 1 060 tonnes.



Erection of biomass BFB boiler together with equipment and low-pressure pipelines at CHP plant owned by E.On Värme Sverige in Örebro, Sweden Steam output: 95 t/h. The total mass of the installed elements was 1 060 tonnes.



Erection of soda recovery boiler (2 400 tds/d) at paper mill owned by Iggesund in Hudiksvall, Sweden

The scope of work included complete mechanical erection of the boilers with equipment.

The total mass of the installed elements was approx. 3 430 tonnes.



Erection of flue gas treatment system in Filborna, Sweden Total mass of installed elements: 396 tonnes.

Erection of boiler at RHKW municipal waste incineration plant in Linz, Austria The boiler is mainly fired with sludge from the water treatment plant and other waste from the waste sorting plant, with the capacity of 103 t/h and the operating pressure of 58 bar.

The scope of work included the erection of pipelines and equipment in the incineration plant (pumps, fans, tanks etc.) as well as cyclones and ducts. The total mass of the installed elements was 1 432 tonnes.



Erection of biomass BFB boiler (capacity 183 MWth) together with equipment and low-pressure pipelines at PGE Power Plant in Szczecin, Poland The scope of work included the erection of the boiler pressure part, an air heater and some external pipelines.

The total mass of the installed elements was 1 359 tonnes.



Erection of boiler pressure parts at waste incineration plant owned by EGE Oslo, Norway

The waste incineration plant burns 160 000 tonnes of municipal waste a year and generates 10 MW of electricity and 50 MW of thermal energy for the local network. The scope of work included the erection of the boiler pressure part, the mass of which was approx. 1 050 tonnes.



Erection of pressure part of biomass BFB boiler at Smurfit paper mill in Biganos near Bordeaux, France

The scope of work included the erection of the pressure parts together with low--pressure pipelines.

The total mass of the installed elements was 662 tonnes.



Erection of two boilers at municipal waste incineration plant in Roosendaal, Netherlands

The scope of work included the erection of boilers and associated pipelines, the erection of silos and conveyors under the boiler, an ESP and a bag filter.



Erection of three boilers at Riverside waste incineration plant in the south--eastern part of London, UK

Riverside is one of the largest waste incineration plants in Europe. Its annual capacity is 585 000 tonnes. The plant generates 72 MW of electricity. The total mass of all three erected boilers is approx. 3 500 tonnes.





Erection of RDF fired CFB boiler (capacity 85 MWth) in Norrköping, Sweden

The scope of work included comprehensive erection of the boiler together with air and flue gas ducts as well as equipment. The total mass of the installed elements was 1 823 tonnes.



Erection of boiler at SIDOR waste incineration plant in Luxembourg The scope of work included the erection of the boiler pressure part a mass of which was 654 tonnes.



Erection of boiler at BIR waste incineration plant in Bergen, Norway The scope of work included comprehensive erection of a grate boiler with the mass of 726 tonnes.



Erection of pressure part of BFB boiler with the capacity of 90 MWth at CHP plant in Kalmar, Sweden

The scope of work included the erection of the boiler pressure parts with the mass of 788 tonnes.



Erection of boiler at waste incineration plant in Mannheim, Germany



Construction, supply and erection of steel structure, bag filter and flue gas ducts for flue gas treatment system in Kristiansand, Norway Total mass of installed elements: approx. 768 tonnes.

Replacement of OP-215 boiler ESP at CHP plant at Zakłady Azotowe "Puławy" S.A., Poland



Erection of CFB boiler at CHP plant in Jyväskylä, Finland

CFB boiler with a capacity of 440 MW (200 MW electrical and 240 MW thermal) is fired with peat and wood chips from the paper mill. The scope of work included the erection of the boiler pressure part, pipelines, air and flue gas ducts, a rotary air heater, pumps, fans and other equipment. The total mass of the installed elements was approx. 4 800 tonnes.

Erection of boiler at waste incineration plant in Zistersdorf, Austria Boiler capacity: 57.8 MW.

The scope of work included the erection of the boiler and its pressure elements. The total mass of the installed elements was 750 tonnes.



Erection of 56 MW boiler at waste incineration plant in Premnitz, Germany The scope of work included the erection of the boiler pressure part, the grate and ducts. The total mass of the installed elements was 1 050 tonnes.



Erection of boiler pressure part at waste incineration plant in Billingham, Cleveland, UK

- Boiler parameters:
- capacity 45.83 MW,
- mass 633 tonnes,
- steam output 54.5 t/h,
- operating pressure 43 bar,
- waste incineration throughput 19 t/h,
- operating temperature 400°C,
- max temperature 909°C.

The scope of work included the erection of the boiler and pressure elements as well as a dust extraction and gas treatment system.







Erection of BFB boiler at CHP plant owned by OVIK Energy AB in Örnsköldsvik, Sweden

Boiler parameters: - capacity 130 MW,

- operating pressure 139 bar,
- operating temperature 540°C.

The scope of work included the erection of the boiler pressure parts together with low-pressure pipelines.

The total mass of the installed elements was 1 030 tonnes.



Erection of boiler and steel structure as well as flue gas treatment equipment at waste incineration plant in Moerdijk, Netherlands Boiler parameters:

- capacity 14 MW, - mass 1 650 tonnes.



Erection of two boilers at waste incineration plant in Stassfurt, Germany



Erection of biomass CFB boiler at CHP plant owned by Tornion Voima Oy in Tornio, Finland Boiler parameters: - capacity 131.4 MWth, - steam pressure 160 bar. Total mass of installed elements: 1 316 tonnes.



Installation of gas treatment system at LKAB iron-ore mine in Malberget near Gällivare, Sweden The scope of work included complete installation of a system consisting of three ESPs, a bag filter, ducts and equipment.

Total mass of installed elements: 1 608 tonnes.



Construction, supply and erection of boiler support structure and boiler erection at waste incineration plant in Heimdal near Trondheim, Norway



Erection at waste incineration plant owned by RABA Erfurt, Germany

The scope of work included installation of the pressure part of a grate boiler with a horizontal convective pass and installation of hydraulic and air pipelines.

Replacement of four ESPs for OP-215 boilers no. 1, 3, 4 and 5 at CHP plant at Zakłady Azotowe "Puławy" S.A., Poland



Erection of biomass BFB boiler at Kappa Kraftliner paper mill in Piteå, Sweden

The scope of work included the erection of the boiler pressure parts together with low-pressure pipelines.

The total mass of the installed elements was approx. 780 tonnes.



Construction and erection of support structure for boilers and erection of their pressure parts in Lausanne, Switzerland





The scope of work included the supply and installation of the flue gas dust collection system of two electric arc furnaces. Total mass of installed elements: 936 tonnes.



Water preheater - Power Plant at Zakłady Azotowe "Puławy" S.A., Poland

Flue gas and air ducts – Power Plant at Zakłady Azotowe "Puławy" S.A., Poland

Flue gas and air ducts – Power Plant at Zakłady Azotowe "Puławy" S.A., Poland

Burner in Boiler no. 5 – Power Plant at Zakłady Azotowe "Puławy" S.A., Poland

Feedwater pump – Power Plant at Zakłady Azotowe "Puławy" S.A., Poland

Replacement of the ash removal system in the 2nd pass of Boiler K1 – Power Plant ENEA Kozienice, Poland

High-pressure preheater PWP-I-TG3 Material grade 16Mo3. Mass 14 tonnes.

HRSG recovery boiler module HRSG, type SG-8



HRSG recovery boiler module HRSG, type SG-8

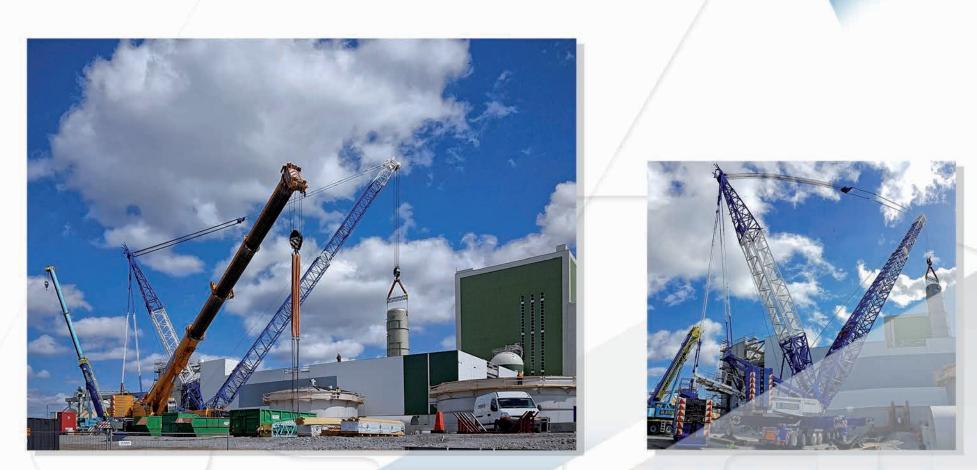


High-pressure preheater PWP-I-TG3 Material grade 16Mo3. Mass 14 tonnes.

CHEMICAL AND PETROCHEMICAL INDUSTRY

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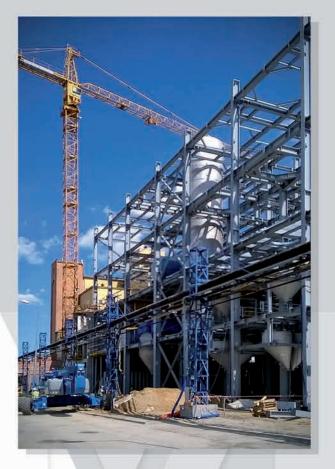
CHEMICAL AND PETROCHEMICAL INDUSTRY



Erection of evaporation plant at paper mill owned by Södra Cell Mörrum, Sweden

The scope of work included: installation of evaporators, interconnecting ducts, process pipelines within the system and the steel structure of the internal pipeline trestle bridge, connection of the new system to the existing soda recovery boiler with the so-called black liquor ring and some process steam pipelines during paper mill shutdown.







Construction and installation of pipelines (247 tonnes) and installation of apparatuses (263 pcs) at Polyamides II Plant of Grupa Azoty S.A. in Tarnów, Poland

CHEMICAL AND PETROCHEMICAL INDUSTRY



Upgrade of sulphuric acid terminal in Szczecin, Poland



Steel structure delivery and erection as well as installation of equipment and technological piping for the project: Ammonium nitrate based granular fertiliser production plant at Zakłady Azotowe "Puławy" S.A., Poland





Construction of SSBR Synthetic Rubber System for Synthos Dwory in Oświęcim, Poland

The scope of work included the supply and installation of process pipelines made of carbon steel and alloy steel, supports and support structures and installation of 347 apparatuses, pumps and agitators.

Mass of installed elements: approx. 2 243 tonnes.

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CHEMICAL AND PETROCHEMICAL INDUSTRY



Steel structure delivery and erection as well as installation of equipment and technological piping for the project: Urea and ammonium sulphate based solid fertiliser production at Zakłady Azotowe "Puławy" S.A., Poland



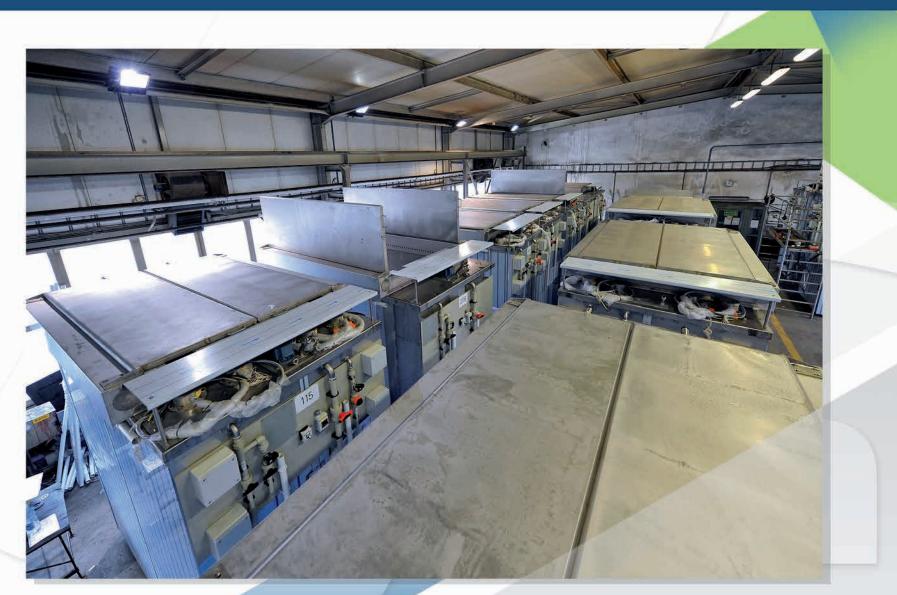


Spherical storage tanks at Chemical Plant for Synthos Dwory in Oświęcim, Poland

The scope of work included steel structure delivery and the construction of three spherical tanks with volume of 1 000 m³ each, used to store the products from the SSBR Synthetic Rubber System.

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CHEMICAL AND PETROCHEMICAL INDUSTRY



Manufacture of galvanising tanks for General Electric in the United Arab Emirates

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Construction of flue gas desulphurisation plant at Zakłady Azotowe "Puławy" S.A., Poland



Construction of Melamine Manufacturing Plant III at Zakłady Azotowe "Puławy" S.A., Poland – project executed as General Contractor



Construction of Melamine Manufacturing Plant II at Zakłady Azotowe "Puławy" S.A., Poland – project executed as General Contractor





Waste heat boiler Material grades P265GH, 1.4306, 2.4816. Mass 39 tonnes.



Absorber 153K2 Material grade P355GH. Mass 111 tonnes.



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Tower DK-102 Material grade 1.4539. Mass 43.5 tonnes.

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Towers for SSBR project Material grades 1.4462/1.4404.



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Heat exchanger, type AES – execution acc. to ASME with U-stamp



Tower ASPHALT FLASH 1100-C4 Material grade SA-516 Gr. 70 + SA-240 Gr. 317L (plater).

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LIST OF PROJECTS

Supply and erection of spherical tanks together with infrastructure

- Scope of work:
- spherical tanks $V = 1\ 000\ m^3 4\ pcs$,
- pipelines 98 tonnes,
- pumps 5 pcs,
- steel structure of the pipe bridge and platforms 157 tonnes.



Erection of evaporation plant at paper mill owned by Södra Cell Mörrum, Sweden

The scope of work included: installation of evaporators, interconnecting ducts, process pipelines within the system and the steel structure of the internal pipeline trestle bridge, connection of the new system to the existing soda recovery boiler with the so-called black liquor ring and some process steam pipelines during paper mill shutdown.



Construction and installation of pipelines (247 tonnes) and installation of apparatuses (263 pcs) at Polyamides II Plant of Grupa Azoty S.A. in Tarnów, Poland



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Upgrade of sulphuric acid terminal in Szczecin, Poland

The upgrade of the air-drying system will be used to provide protection of internal surfaces in storage tanks from humidity during cycles in which the level of acid in the tanks is decreased (acid loading into ships) and protection of the atmosphere from emission of sulphuric acid emission during cycles in which the level of acid in the tanks is increased (unloading of rail tankers).



Steel structure delivery and erection as well as installation of equipment and technological piping for the project: Ammonium nitrate based granular fertiliser production plant at Zakłady Azotowe "Puławy" S.A., Poland The scope of work included:

- construction and erection of building steel structure approx. 1 775 tonnes,
- installation of twenty apparatuses approx. 325 tonnes,
 - erection of two tanks approx. 20 tonnes,
 - prefabrication, erection and insulation of process pipelines approx. 130 tonnes,

- erection of pipe bridge steel structure - approx. 210 tonnes.



Construction of SSBR Synthetic Rubber System for Synthos Dwory in Oświęcim, Poland

The scope of work included the supply and installation of process pipelines made of carbon steel and alloy steel, supports and support structures, and installation of 347 apparatuses, pumps and agitators. Mass of installed elements: approx. 2 243 tonnes.

Steel structure delivery and erection as well as installation of equipment and technological piping for the project: Urea and ammonium sulphate based solid fertiliser production at Zakłady Azotowe "Puławy" S.A., Poland Scope of work:

- steel structure erection (main structure 702 tonnes, secondary structure 238 tonnes, platform grating 80 tonnes),
- installation of apparatuses and equipment (47 tonnes),
- prefabrication and erection of pipelines (3 151 linear metres).



Spherical storage tanks at Chemical Plant for Synthos Dwory in Oświęcim, Poland

The scope of work included the construction of three spherical tanks with a capacity of 1 000 m³ each, used to store the products from the SSBR Synthetic Rubber System.



Manufacture of galvanising tanks for General Electric in the United Arab Emirates

Expansion of post-calcination gas desulphurisation system at Zakłady Chemiczne "Police" S.A. (turnkey project), Poland



Construction of flue gas desulphurisation plant at Zakłady Azotowe "Puławy" S.A., Poland

The scope of completed works included:

- supply and erection of support structure,
- supply and installation of flue gas ducts, including installation of insulation,
- supply and erection of steel structure,
- installation of tanks, pumps and equipment,
- civil works,

 - supply and installation of apparatuses, equipment, pipelines on pipe bridges interconnecting areas of the plant.
Total mass of installed elements: 2 828 tonnes.

Retrofit of system used for CO_2 removal from gas for ammonia synthesis (replacement of absorbers) – process line I, II and III at Zakłady Azotowe "Puławy" S.A., Poland

The scope included trade works associated with civil engineering, system installation, process and assembly, including the supply of fixtures, equipment and assembly materials.

Construction of evaporation plant and soda recovery boiler at paper mill owned by Stora Enso Skoghall, Sweden



Construction of Melamine Manufacturing Plant III at Zakłady Azotowe "Puławy" S.A., Poland – project executed as General Contractor The scope of completed work included:

- construction and erection of steel structure (1 930 tonnes),
- installation of process apparatuses (132 pcs, 1 009 tonnes),
- construction and installation of process pipelines (25 000 linear metres) and heating pipelines (17 000 linear metres),
- installation of pumps and equipment (107 pcs),
- construction and erection of storage tanks made of acid-proof steel (6 tanks with a capacity of 60, 69, 3 \times 270 and 320 m³),
- upgrade of the pipe bridge connecting the new plant with existing systems,
- civil works, including construction of buildings and a melamine transport, cooling and storage system.



Construction of Melamine Manufacturing Plant II at Zakłady Azotowe "Puławy" S.A., Poland – project executed as General Contractor

The scope of completed work included:

- construction and erection of steel structure (1 510 tonnes),
- installation of process apparatuses (116 pcs, 1 013 tonnes),
- construction and installation of process pipelines (25 000 linear metres) and heating pipelines (15 000 linear metres),
- construction and erection of storage tanks made of acid-proof steel (6 tanks with a capacity of 300 m³ each),
- upgrade of the pipe bridge connecting the new plant with existing systems,
- installation of insulation along pipelines at the Melamine Manufacturing Plant II,
- construction of a C&I building, including building fit-out and systems.





Waste heat boiler Material grades P265GH, 1.4306, 2.4816. Mass 39 tonnes.



Absorber 153K2 Material grade P355GH. Mass 111 tonnes.



Tower DK-102 Material grade 1.4539. Mass 43.5 tonnes.



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Towers for SSBR project Material grades 1.4462/1.4404.



Heat exchanger, type AES Execution acc. to ASME with U-stamp.



Technical-grade soot dryer drum Material grade 1.4571. Mass 20.5 tonnes.



Regenerator D-401B Material grade P265GH. Mass 36 tonnes.



Tower ASPHALT FLASH 1100-C4 Material grade SA-516 Gr. 70 + SA-240 Gr. 317L (plater).



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