

PKiMSA Carboautomatyka S.A.

Przedsiębiorstwo Kompletacji i Montażu Systemów Automatyki „Carboautomatyka” S.A. is a company with 45 years of tradition and experience, offering its services both in the mining industry as well as in the widely understood mining-related industry. Years of experience in the market allowed us to transfer our area of interests to other areas of the economy.

The group is present on the following industries: mining, power industry, public buildings, communication tunnel, road infrastructure, water and sewage management.

Operation of the Group in the related industries allows assuring customers a flexibility and functionality of offered solutions and implement them in companies of any size and profile:

- concept study,
- needs analysis,
- proposal of the best solutions for the needs,
- design,
- manufacture,
- assembly,
- completion,
- service, training.



The company employs experienced and highly qualified personnel with the authorization in the scope of:

- design,
- construction,
- industry-specific approvals,
- Electrical, fully licensed,
- Process and machinery,
- Construction and civil etc.

PKiMSA Carboautomatyka devices are manufactured in two plants:

- in Tychy (control and supervision systems for processes, flameproof supply equipment, equipment for measurement of mine's atmosphere, personal metering devices, blasting equipment, dispatcher safety systems, automation of minerals processing plants, balancing of manufacture and supervision of coal sales),
- in Mikołów (surface, mining, bullet belt conveyors, scraper conveyors, vibration screeners, vibrating screens, construction structures, rollers)

INDUSTRIAL AUTOMATION SYSTEMS

- control and visualisation systems of facilities belonging to Coal Preparation Plants (control rooms, server rooms, control systems of devices of the processing plant, switchgear monitoring systems, flocculant preparation stations, devices for automatic sampling),
- control and visualisation systems of demethanisation and fan stations,
- road tunnel control and visualisation systems,
- building management systems (BMS),
- systems for loading onto railway wagons and cars,
- control and visualisation systems - water treatment plant,
- service of control and visualisation systems.

PROGRAMMING AND AUTOMATION DEPARTMENT

At PKiMSA Carboautomatyka, the IT department is made up of a team of high-level, certified automation and IT specialists with extensive experience gained from various industrial projects. We offer commissioning of automation and IT systems according to customer requirements, modernisation of existing systems and servicing.

The scope of activities includes:

- SCADA visualisation systems,
- BMS,
- programming of PLCs,
- commissioning and configuration,
- programming of HMI operator panels,
- programming of industrial robots,
- creation of websites and mobile applications,
- own original designs.

DESIGN OFFICE

comprising a team of top quality specialists with building qualifications and extensive experience gained from the development of many projects and the implementation of various investments. We offer design documentation for complex construction, modernisation and extension as well as technical inspections of buildings. Our Design Office provides design services for technological, machine, construction, electric, automation, installation and IT industries.

We provide our technical support 24 hours a day, 7 days a week, 365 days a year, which is carried out by qualified technical staff with years of experience.

ABOUT COMPANY



We provide comprehensive services according to our own, innovative technical thought, lines and technological devices for the processing of sheets and belts along with modern automation systems and an intelligent control system guaranteeing effective, efficient and high-quality production.

PKiMSA Carboautomatyka S.A. developed and started manufacture of a new range of medium-voltage equipment and components in 2022. The first product of the new product series is the CaRo-12G electrical distribution board with very high technical parameters, dedicated to operation in particularly difficult conditions in, among others, underground mines. In addition to the CaRo distribution board range, Carboautomatyka also offers medium-voltage connection equipment including the Ca-V vacuum interrupter and the Ca-UZ rapid earthing switch. All of the above-mentioned products meet the requirements of current regulations and standards, as confirmed by certificates of conformity issued by notified bodies.



TRAFFIC TUNNELS

- execution of tunnel control centre with server room,
- execution and assembly or gantry structures for variable message signs,
- assembly and control of signal lights,
- assembly and control of sound system,
- execution of CCTV system,
- integration of CCTV with city monitoring system,
- execution and equipment of technical bays,
- execution of road switchboards.



SEWAGE TREATMENT PLANTS

- treatment of municipal and industrial wastewater,
- power supply and control,
- supervision systems,
- CCTV systems.





SMART BUILDINGS

- medium voltage main distribution boards,
- low voltage main switchboard, complete supply of the building,
- access control systems,
- fire protection systems,
- VA systems,
- public address system, CCTV,
- Ethernet,
- visualisation and control of all systems.



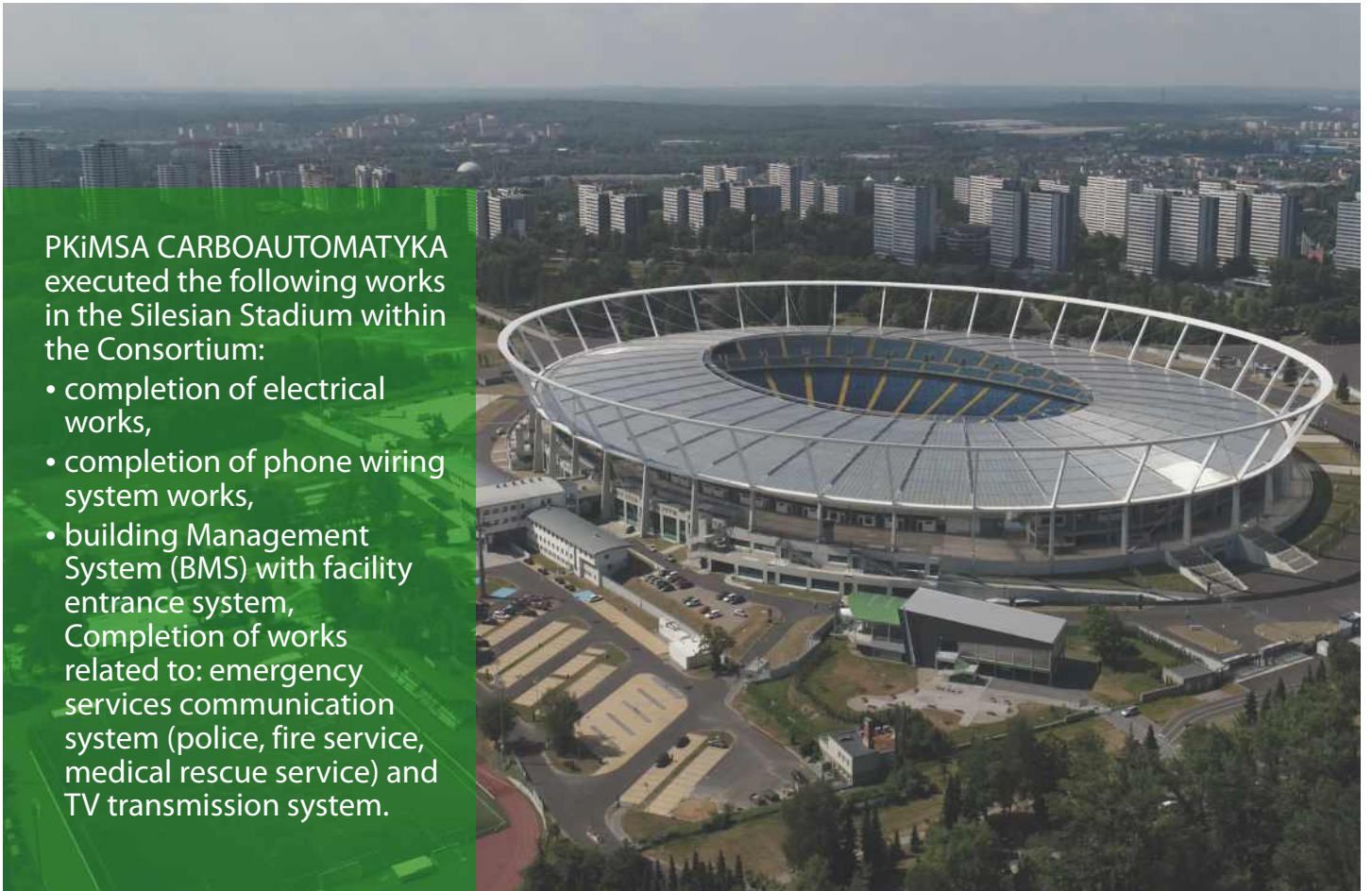
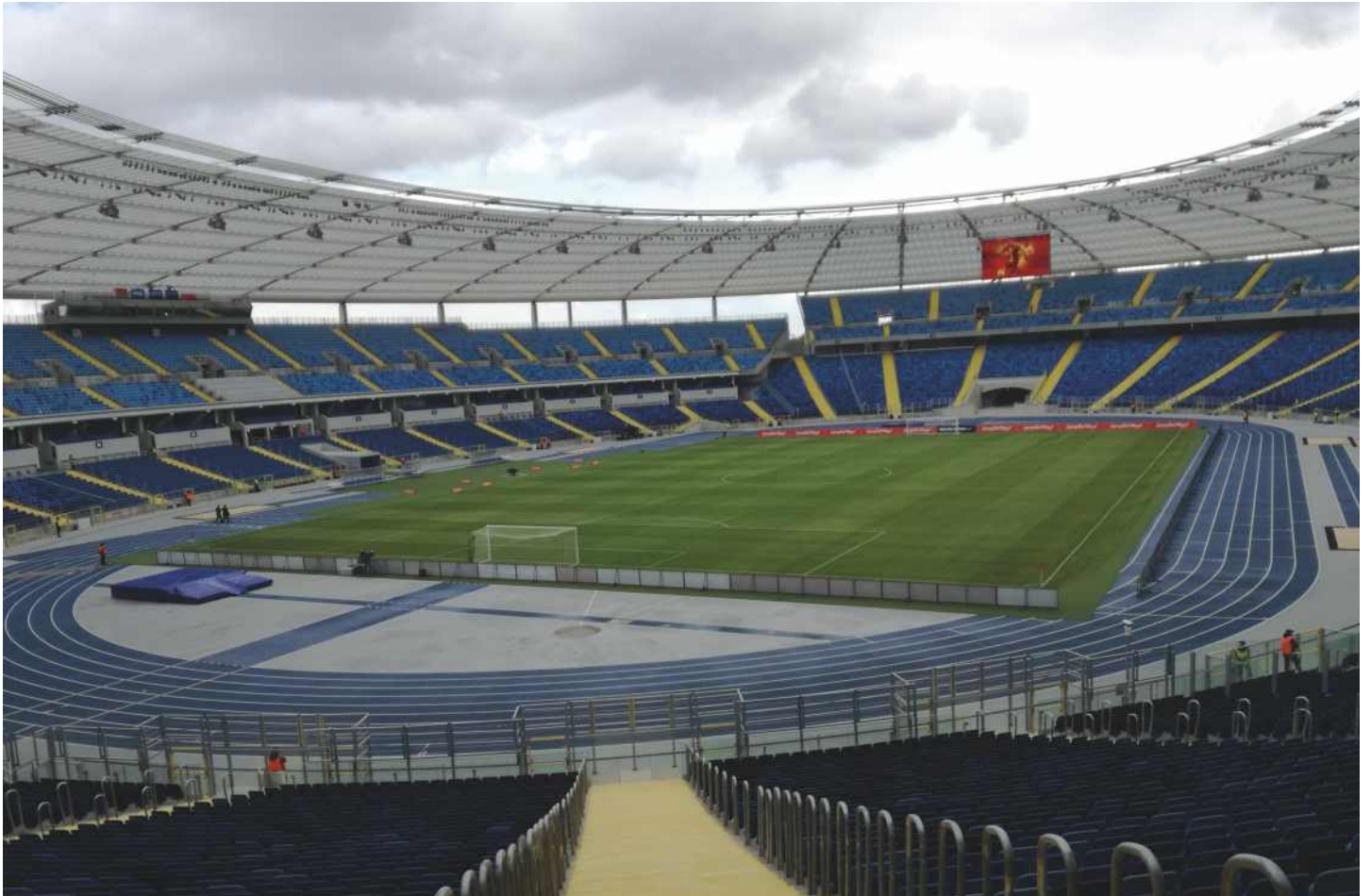
COMPLETE EXECUTION OF THE PROCESSING PLANTS:

- complete equipment resources,
- flocculant dosage stations,
- complete visualisation of processing plants,
- complete automation of process.

Sea Port of Zakłady Chemiczne Police Grupa Azoty Poland

Manufacture, delivery, installation and commissioning of the new ZS-450.27 ship loader with belt conveyors with a capacity of 400T/h.



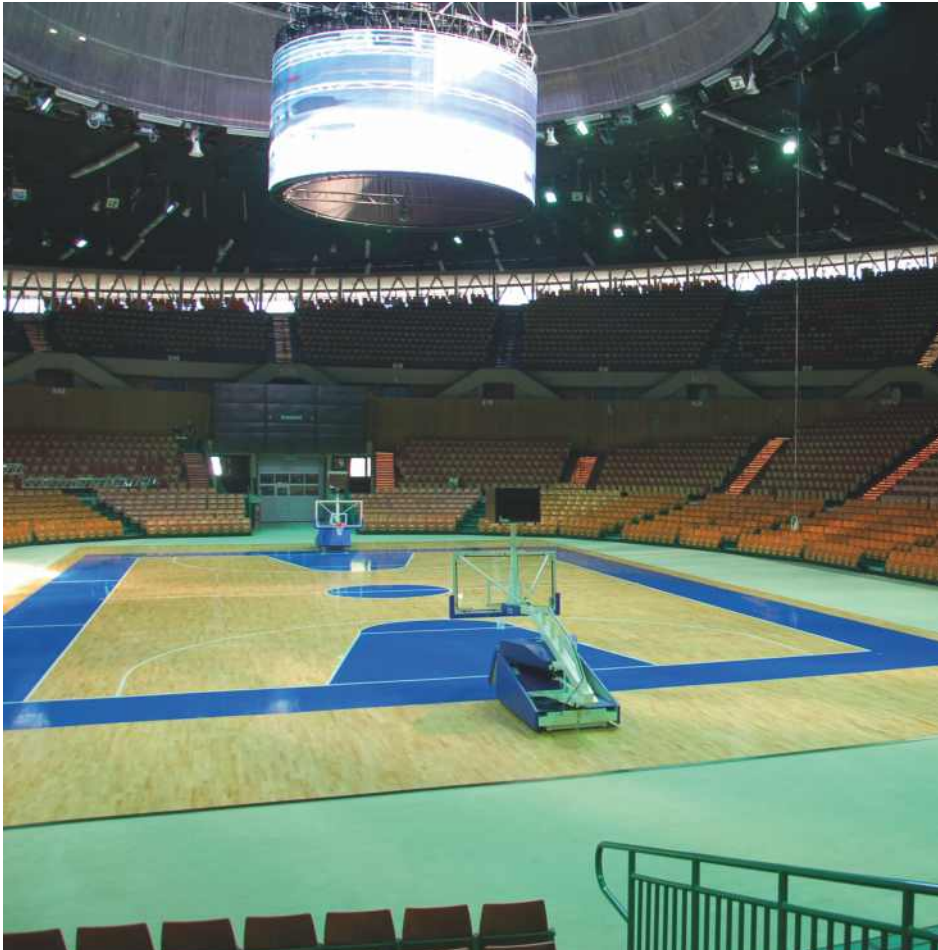


PKiMSA CARBOAUTOMATYKA executed the following works in the Silesian Stadium within the Consortium:

- completion of electrical works,
 - completion of phone wiring system works,
 - building Management System (BMS) with facility entrance system,
- Completion of works related to: emergency services communication system (police, fire service, medical rescue service) and TV transmission system.



Tunnel under roundabout in Katowice and Laliki, equipment of the tunnel and G2 Gliwice section. Execution of works related to control, monitoring and security systems for traffic under the tunnel



Equipment of the SPODEK hall

Within the scope of the contract works we execute:

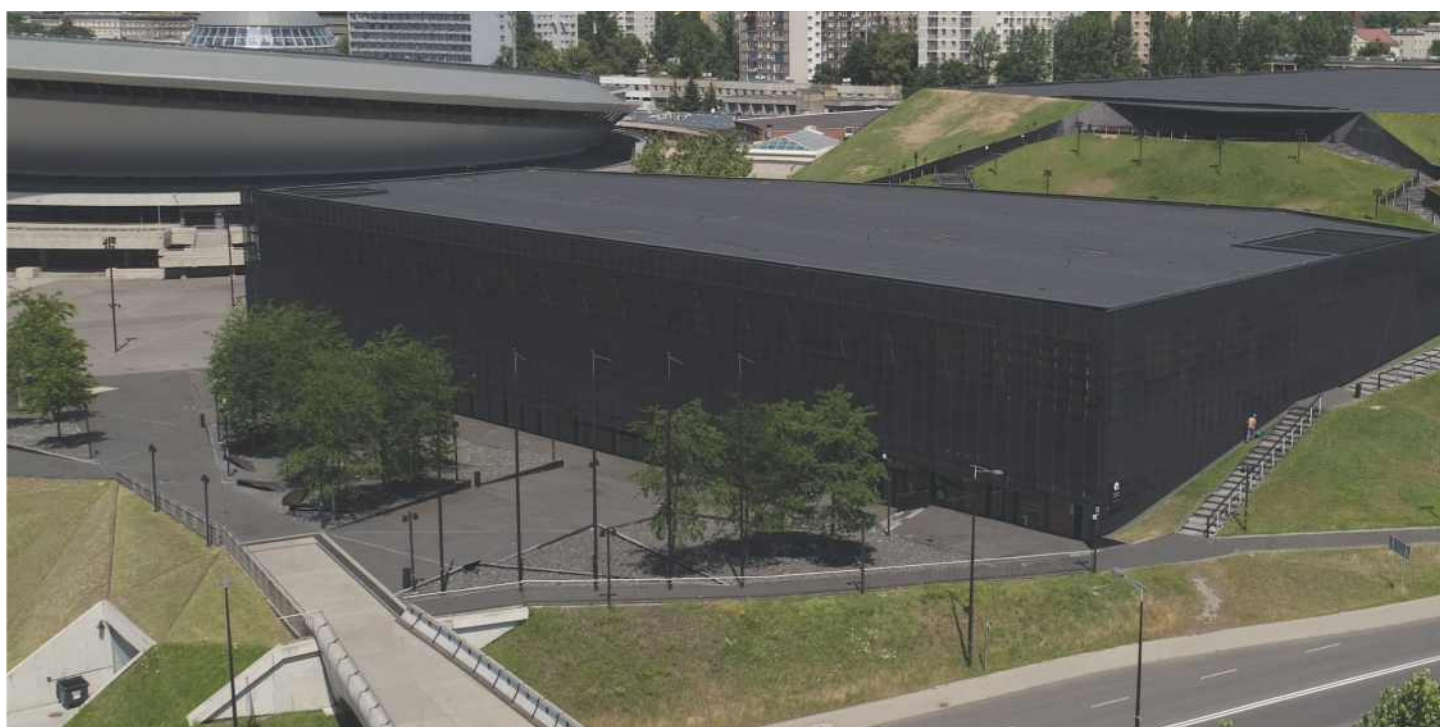
- works for sports and events hall "SPODEK" in Katowice designing and equipping the facility with modern fire signalling system,
- voice alarm system and first CCTV system in the Central-Eastern Europe based on unique solutions available on the market allowing observations of the images from cameras in 3D model in the real-time.



International Conference Center (MCK) in Katowice

PKiMSA "Carboautomatyka" S.A. executed electrical installation works related to supply of the building, power distribution and separation, delivery and assembly of sub main switchboards, lighting systems. Transformer station MV/LV consisting of the following equipment was executed to cover the power demand for the International Conference Center building.

46 sub main switchboards supplying the equipment intended for correct operation of the facility are located in technical rooms of the building. In particular it includes

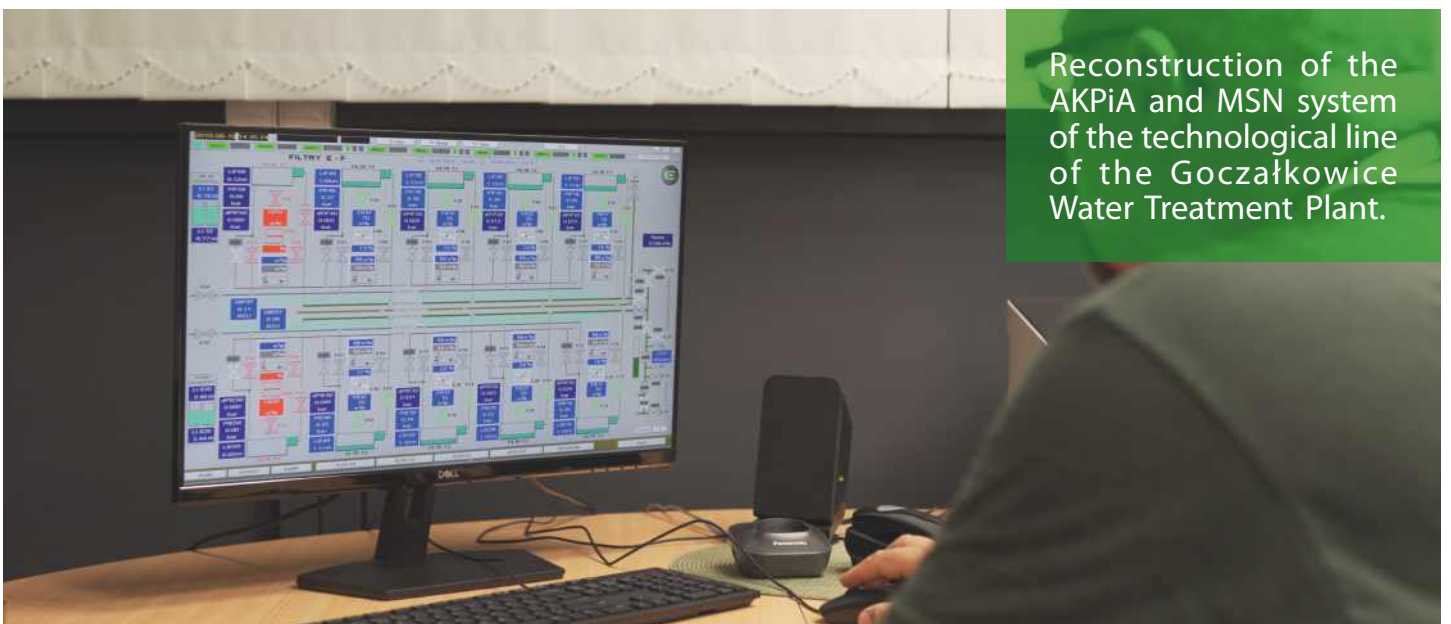




Upgrading works of municipal waste water treatment plant in Tarnowskie Góry

The upgrade allows achieving the effects in accordance with the requirements specified in the Regulation of the Minister of Environmental Protection of 18 November 2014, reaching the capacity of $Q_{d\acute{s}r} = 1.147 \text{ m}^3/\text{d}$.

The scope of the upgrade included construction of facilities with process equipment: supply, control and visualisation



Reconstruction of the AKPiA and MSN system of the technological line of the Goczałkowiec Water Treatment Plant.



Design and construction of a lump coal loading facility for the PGG S.A. Piast-Ziemowit Ruch Piast Coal Mine branch

The investment enables the loading of lump coal, i.e. coal cubes with a grain of 200÷80 mm and chestnut coal with a grain of 80÷50 mm.

The investment project included the reconstruction of the existing facilities and the construction of new ones, i.e. two conveyor bridges in the open structure, transfer and truck loading stations.

New machinery and equipment were installed in the facilities: stationary and mobile trough belt conveyors, transfer chutes, electric wire rope hoists, manual chain hoists and electronic belt and truck scales. Installation works in the following areas were performed: electrical, CMI&A, sanitary, telephone, etc.



Modernisation of the Mechanical Coal Processing Plant to increase the production of coking coal in the JSW S.A. "Knurów-Szczygłowice" Ruch Knurów Coal Mine complex facility:

- disassembly of machinery and equipment,
- performance of works related to the construction and electrical area,
- delivery and installation of new machinery and equipment.

A new flotation and filter press facility:

- performance of works related to the construction area (comprehensively)
- delivery of new machinery and equipment and performance of all installation works
- performance of works related to the electrical and CMI&A areas combined with a control and visualisation system.

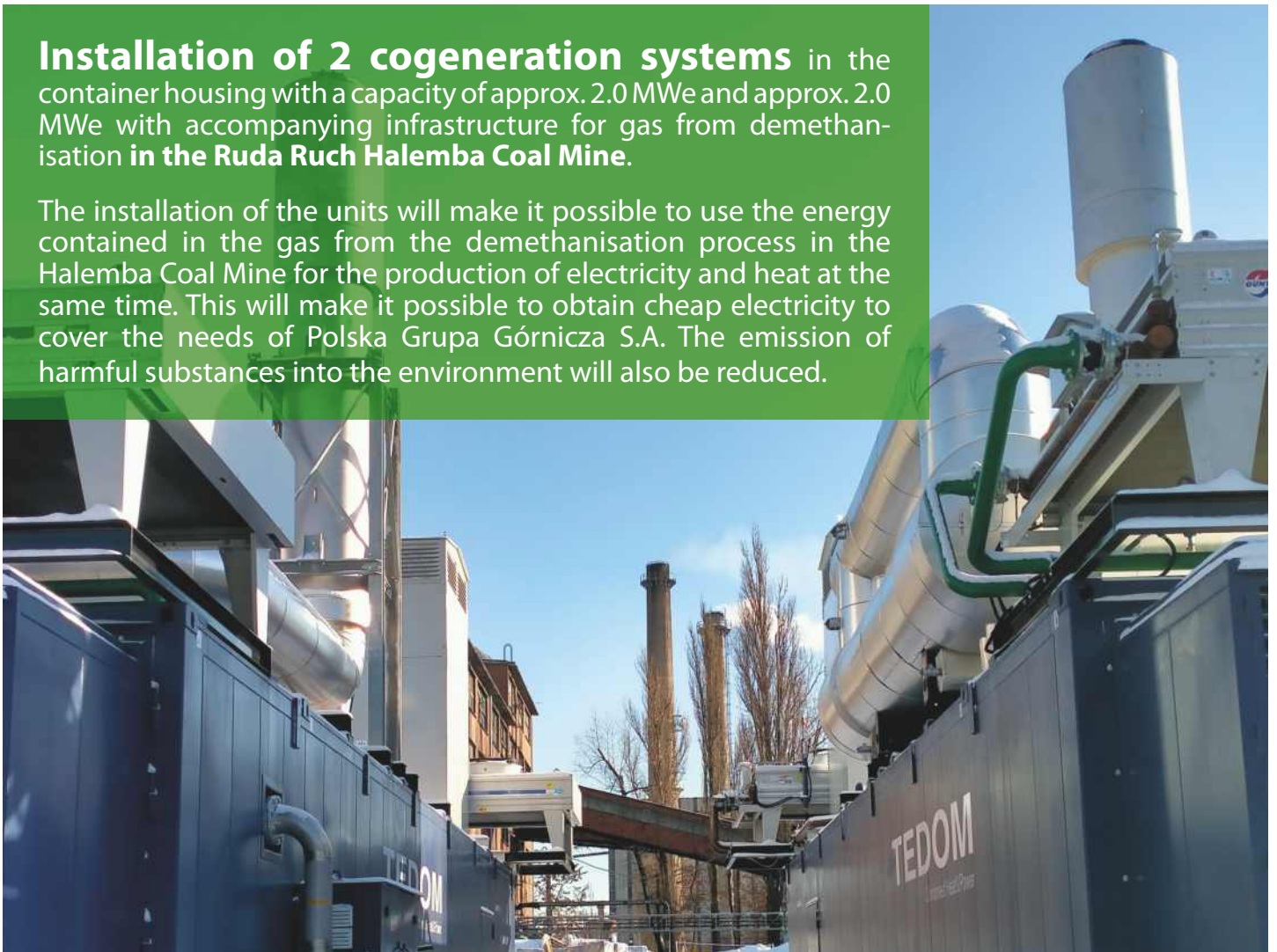




Construction of cogeneration fluidised bed units CFB EC ZOFIÓWKA

Installation of 2 cogeneration systems in the container housing with a capacity of approx. 2.0 MWe and approx. 2.0 MWe with accompanying infrastructure for gas from demethanisation in the Ruda Ruch Halemba Coal Mine.

The installation of the units will make it possible to use the energy contained in the gas from the demethanisation process in the Halemba Coal Mine for the production of electricity and heat at the same time. This will make it possible to obtain cheap electricity to cover the needs of Polska Grupa Górnicza S.A. The emission of harmful substances into the environment will also be reduced.





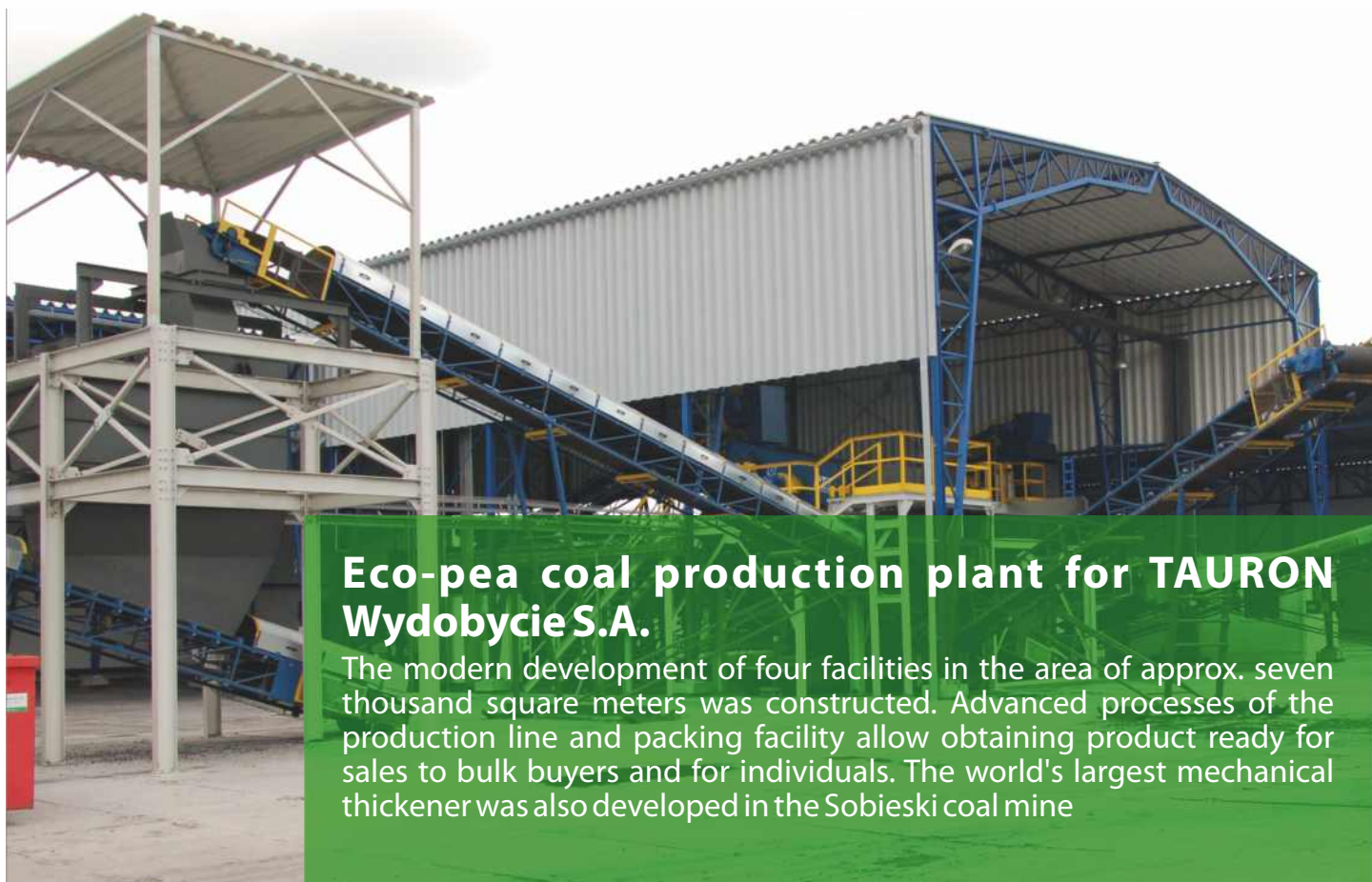
The stationary process line, consisting of crushing, sorting and transport machines constructed by PKiMSA "CARBOAUTOMATYKA" S.A. in the "Chruszczobród" Dolomite Mine

Is designed for the year-round production of dolomite aggregates with a nominal capacity of max. 400 Mg/h.

The line consists of: a hopper, drawer feeder; double-deck screen for the separation of fine fractions, first and second stage jaw crusher, double-deck secondary classification screen, conveyor belt system, chute and transfer systems with a system of feed diverting flaps to obtain the required product mixes, safety and process automation systems, process visualisation and monitoring systems.



The project concerning Development of the Coal Processing Plant LW Bogdanka to the capacity of 2400 tonnes per hour is one of the biggest projects in Poland and even globally.



Eco-pea coal production plant for TAURON Wydobyćie S.A.

The modern development of four facilities in the area of approx. seven thousand square meters was constructed. Advanced processes of the production line and packing facility allow obtaining product ready for sales to bulk buyers and for individuals. The world's largest mechanical thickener was also developed in the Sobieski coal mine



Reconstruction of fine coal washer within the scope of enrichment of fine coals in ZPMW KWK Jankowice

The image shows an industrial facility with a large, complex conveyor system. The conveyor is supported by a metal frame and has several rollers. A yellow safety rail is visible along the side of the conveyor. The background shows a large industrial building with a corrugated metal roof and some structural elements.



Construction of Composite Fuels Plant Polski Koks

The image shows an industrial facility with several large, cylindrical tanks and a complex network of pipes and structural steel. The facility is enclosed by a fence. The sky is clear and blue.

Implemented project expected execution of construction works in "design-build on turn-key basis contract". Solid fuel intended for municipal management and individual heating is a final product. Planned production volume for new fuel is 60 thousand of tonnes per year. Fuel produced in new plant will substitute flotation concentration used, which was combusted in a conventional way and was a source of emission of many very hazardous pollutants.

Construction of surface demethanisation station along with infrastructure in the KW S.A. o/KWK Brzeszcze and JSW S.A. "Knurów-Szczygłowie" Ruch Szczygłowie Coal Mine

The construction of surface demethanisation station no. 2 and the construction of 0.4 kV power supply lines and telecommunication lines supplied from the 6kV RGEN switchyard, reconstruction of the sewage system; electrical and iCMI&A equipment, supply and installation of machinery and equipment.





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