KRAFTSZER

Engineering Power

With a more than 25-year experience in power plants and industrial energetics, our company still considers it important to search the opportunities of continuous development. The above willingness to renew, the qualified and experienced experts, as well as the wish to meet the demands of market participantsmean the drive for operating our company.

It is always a pleasure for us to also perform complete design and implementation works in the sectors that require special expertise, in addition to the traditional power plant and industrial energetic market. Design and commissioning of biomass-fired power plant blocks differing from traditional power plant management is a really special task, for which our project team has special sectorial experience.

We are honoured to be mentioned in successful projects by not only Hungarian but international companies as well. Our aim is to provide solutions that match market participants' demands and possible unknown needs, with the use of the most advanced technologies, in a quality hallmarked by Kraftszer Kft., for the establishment of long-term partnerships.

FIELDS OF OUR ACTIVITY

- Power plants-heating plants
- Industrial energetic and technological facilities
- Petroleum chemistry and chemical industry
- Design

Our company, as an energetic and technological main contractor of industrial facilities, performs its activities in the relevant sectors of vehicle industry, pharmaceutical industry and food industry, with the specific regulations of the concerned sector observed.

INDUSTRIAL ENERGETIC AND TECHNOLOGICAL FACILITIES

In addition to industrial facilities, our company is also active in the sectors of chemical industry, oil industry, and within this petroleum chemistry. In the above fields, we participate in the implementation of the related energetic and technological facilities from design to turnkey implementation by meeting the strictest professional regulations.

PETROLEUM CHEMISTRY AND CHEMICAL INDUSTRY

We have comprehensive professional experience in planning traditional power plants, and carrying out the related implementation processes; this includes the conversion of main and auxiliary systems; their supplementation and technical-economic optimisation to operational statuses, as well as the design and implementation of new systems.

We are also at our partners' disposal in investments related to environment protection, which means one of the greatest challenges of our time, both in the implementation of the auxiliary systems to power plants using traditional fuels, and in the implementation of complex greenfield power plants using renewable energy.

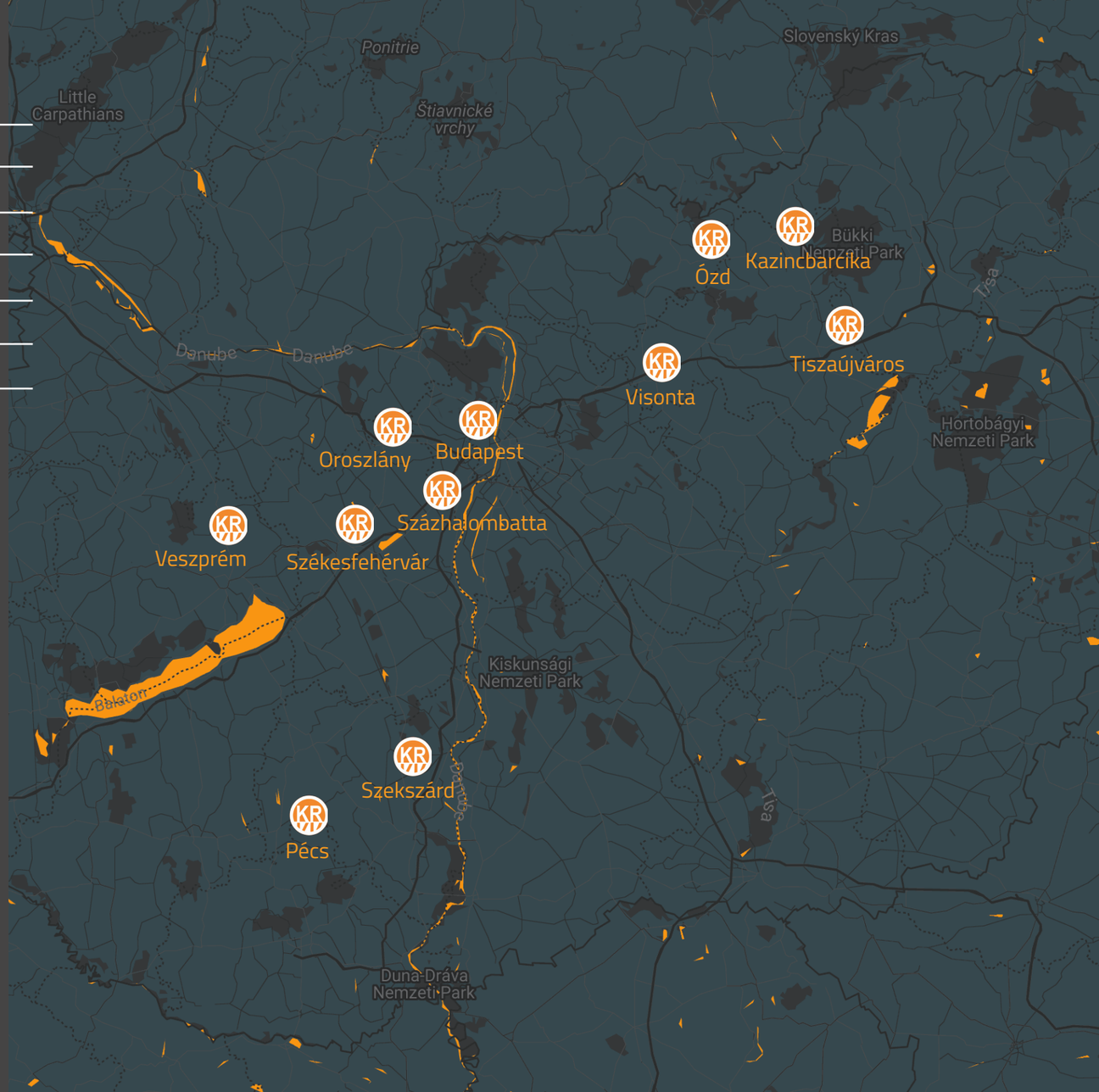
POWER PLANTS-HEATING PLANTS

Our design team has an extensive sub-contractor background to support its work, including basic design works, authorisation and the preparation of implementation plans. The high-end and cost-effective plans are prepared with the use of modern software (Cadmatic, Solid Edge, Microstation, AutoCAD). Our task is to implement a planning process in which we think together with our customers, adapt our expertise to their ideas, and make as many modifications as needed for the most optimal possible solution.

DESIGN

POWER PLANTS - HEATING PLANTS

- Turnkey power plant blocks up to a performance of ‹50 MW
- Power plant systems and sub-systems
- Cogeneration power plants
- Biomass power plants
- Water management systems
- District heating pipeline systems
- Technological pipelines



ALPIQ

Implementation of a biomass feeding system in the power plant of Zlini (Czech Republic)

Task
To plan and implement a 1,000 m³ wood chips storing silo and boiler feeding system in addition to the existing coal-fired boiler.

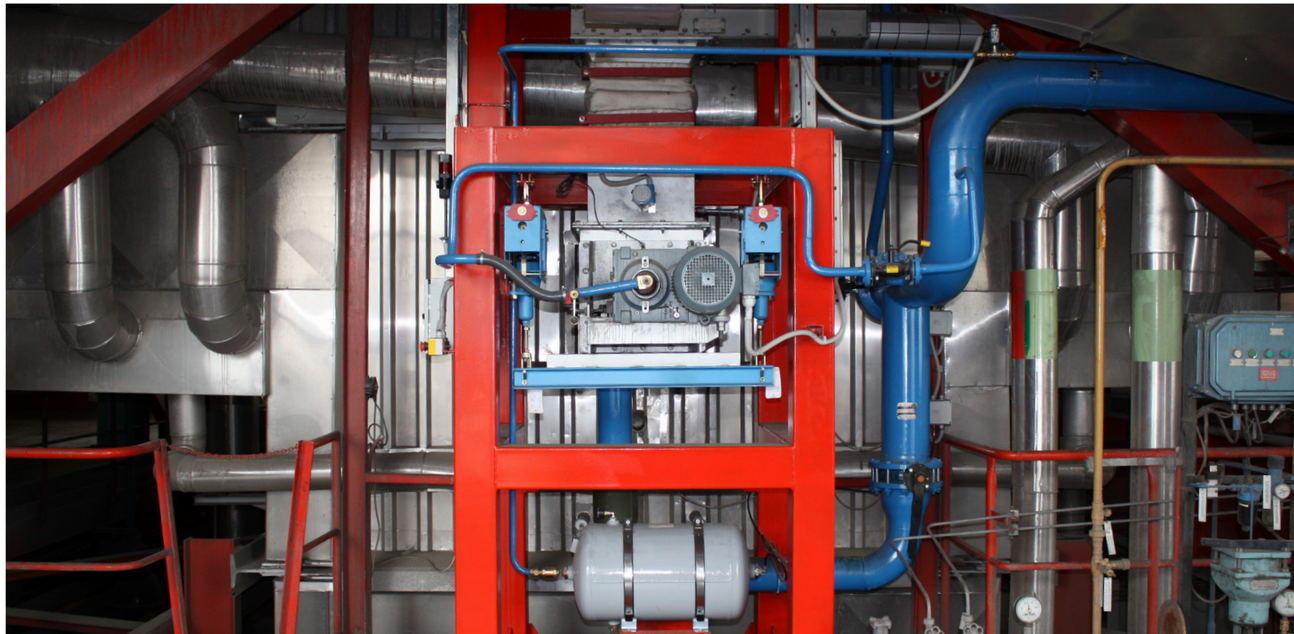
Customer
ALPIQ

Date of investment
2009

Scope of supply
As a general main contractor, full planning, construction, assembly and commissioning of the bio-mass receiving, storing and feeding system, regarding the following:

- technological planning (P&ID)
- engineering, control technique and transmission planning
- manufacturing, delivery and assembly of equipment
- test operation, commissioning
- raining, final documentation.

Description of facility
The wood chips arriving in trucks are sent from the receiving station to the 1,000 m³ storing silo by a conveyor belt system. From the silo, it is forwarded to the fluid bed boiler by another conveyor belt system, where feeding happens by a dosing worm led through the boiler wall. Combustion air reflow is implemented by a rotating cell feeder (Rotary Air Lock). This system is designed for a 5 t/h feeding capacity.



BUDAPESTI TÁVHŐ-SZOLGÁLTATÓ ZRT.

Dagály swimming-pool complex in Népfürdő Street

Task
Connection of Dagály swimming-pool complex in Népfürdő Street to the district heating system.

Customer
Főtáv Zrt.

Date of assignment
2016

Scope of supply
The established, pre-insulated hot water main pipeline directly laid in ground provides supply to the district heating pipelines of the existing Dagály bath and the swimming-pool complex newly built by MNV Zrt. for the FINA World Championship. Our task was to demolish and reset coverings, carry out earthworks, replace public utilities, as well as lay and put into operation district heating pipelines according to the instructions of Főtáv Zrt.

SINERGY KFT.

Implementation of heating plant in Füredi Street

Task
Extension of the FŐTÁV hot water network system in Füredi Street with three new gas engine blocks.

Customer
Sinergy Kft.

Date of investment
2005

Scope of supply
Implementation, commissioning and delivery of three gas motor/generator units and their auxiliary systems within main contractor's work. Design work and implementation.

Description of facility
Main parameters of the heating power plant:

- Electric output: 18.18 MW
- Thermic output: 17.1 MW

Main equipment:

- 3 pcs gas engines
- Supplier: Wärtsilä
- Type: 18 V34SG
- Electric output: 6.06 MW
- Thermic output: 5.7 MW
- Electric efficiency: 43.9 %
- Thermic efficiency: 34.6 %

BUDAPESTI TÁVHŐ-SZOLGÁLTATÓ ZRT.

Újpest-Újpalota district heating pipeline

Task
Implementation of the pre-insulated 2xDN600/Ø800 PN25 nominal pressure district heating pipeline connecting the Újpest-Újpalota heating districts, as well as the related demolition and shaft construction tasks with the replacement of fittings.

Customer
Budapesti Távhőszolgáltató Zrt.

Date of investment
2014-2015

Scope of supply
Engineering works, civil engineering tasks, construction of related objects.

Typical data
- Transit pipeline dimension: DN600/Ø800
- Transported medium: hot water
- Max. temperature: 130 °C
- Pressure stage: 25 bar
- Heat convection: 80 MW

VEOLIA ENERGIA MAGYARORSZÁG ZRT.

Full implementation of straw-fired biomass block

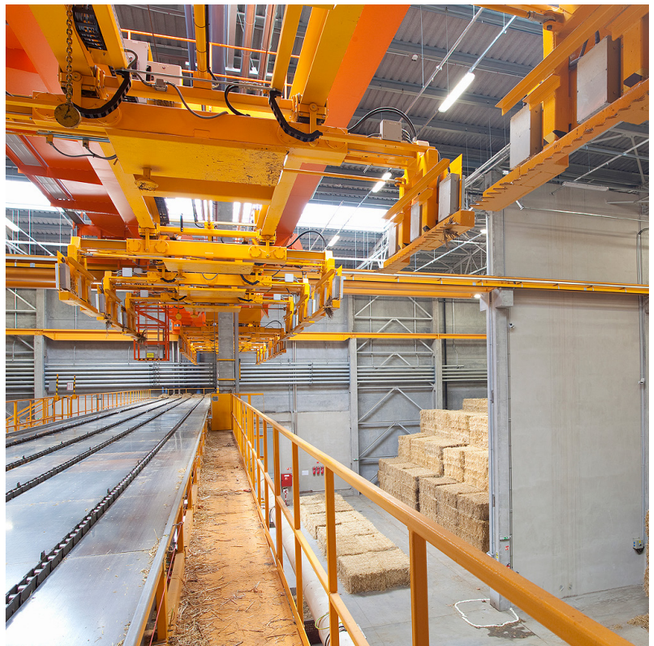
Task
Basic authorisation and implementation plans for the whole straw-fired block, its implementation and commissioning within a main contractor's agreement.

Customer
Veolia Energia Magyarország Zrt.

Date of investment
2010-2013

Scope of supply
(Without boiler)
Architectural works, Bale transportation system, Main steam system 100 bar, supply water system, BoP, medium and low voltage, Control technique.

Typical data
Performance: 35 MWe
Boiler (shaken grilled, straw-fired)
Steam performance: 137.2 t/h
Typical steam data: 100 bar, 540 °C



DUNAMENTI ERŐMŰ ZRT.

Design work and implementation of gas receiving station

Task
To provide fuel supply for the new G3 combined cycle gas turbine of Dunamenti Erőmű and the already existing 4 pcs gas-fired boilers in Block F.

Customer
Dunamenti Erőmű Zrt.

Date of investment
2009-2011

Scope of supply
As a general main contractor, preparation of the implementation plans of the Gas receiving station, implementation of the Gas receiving station, supply, assembly and commissioning of equipment.

Typical data
The gas receiving station supplies fuel to its two operational units:
A newly established 400MW combined cycle gas turbine

- Maximum gas consumption: 80,550 Nm^3/h
- Operating gas pressure: 28 bar
- Operating gas temperature: 25 °C

The facility receives natural gas from the high pressure network of FGSz (from 22 to 63 bar), and it goes through 3 pcs of gas filter and an ultrasound meter with statement of accounts certified by the Hungarian Trade Licensing Office (MKHE) to the heat exchangers. The gas is heated by 3 pcs of gas boiler with an output of 3,200 kW, at unit G3 through 2 pcs, whereas at unit F through 3 pcs of heat exchangers. The system is split at this point, and one branch goes toward the existing gas-fired boilers with a gas pressure regulator, consisting of 3 branches (with an output of 110,000 Nm^3/h) by branches), with a 6 bar operational pressure of boilers.

DUNAMENTI ERŐMŰ ZRT.

Installation of a boiler to produce 22 t/h saturated steam, and implementation of a new boiler plant for town heating

Task

By implementing a boiler plant suitable for producing overheated stem, the Customer aims to safely and continuously provide the following heat demands during the total downtime of Customer's existing energetic blocks: providing the steam required for starting block G2, and providing the heat demand for heating the buildings in the territory of the power plant. By implementing the new boiler plant, the Customer aims to provide heat supply to Százhalombatta independent of the operation of the power plant as well.

Customer

Dunamenti Erőmű Zrt.

Date of investment

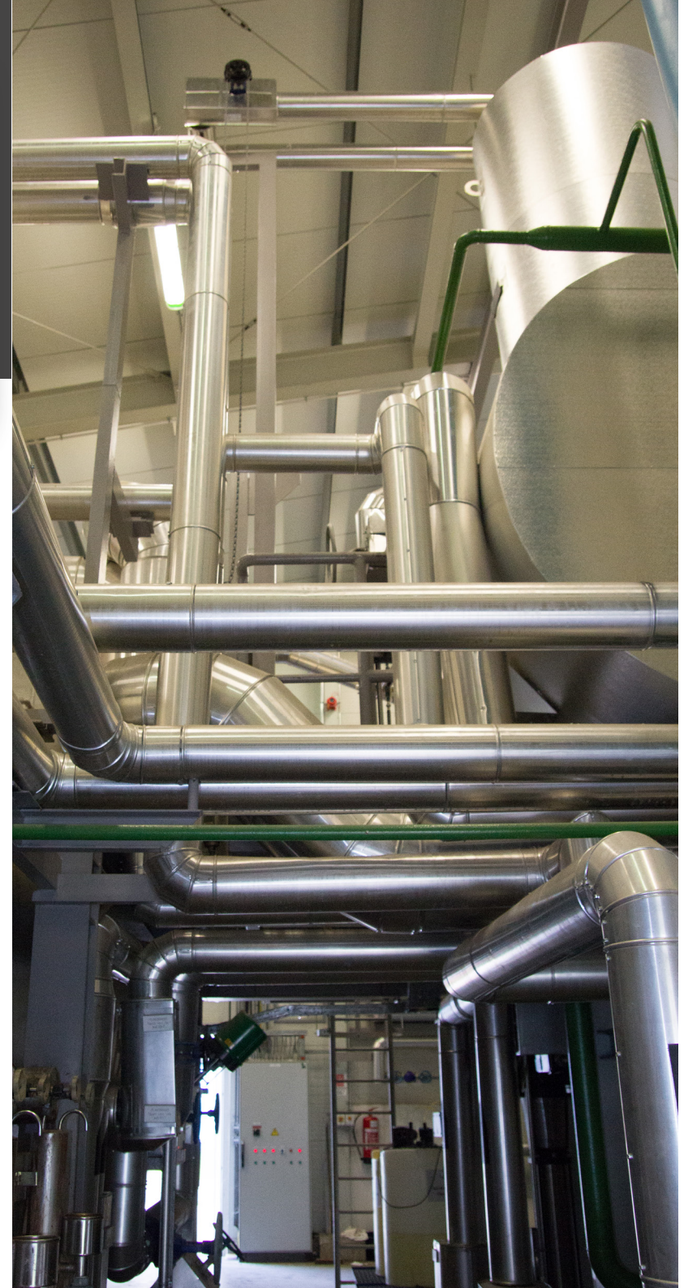
2013

Scope of supply

Our Main contractor's contract includes the full design and implementation tasks of two hot water boilers and their auxiliary plants, i.e. the complete architectural, engineering, electric transmission and control works, together with commissioning.

Typical data

- Maximum steam output 22,000 kg/h
- Design pressure 20 bar (t)
- Operating pressure 15.0 bar (t)
- Overheated steam temperature 300 °C
- Allowed steam pressure fluctuation + - 0.5 bar
- 2 pcs Bosch Unimat hot water boiler with Saacke burner
- maximum output: 2x12.6 MW
- firing: alternative (natural gas and oil)
- pressure stage: PN25



VESZPRÉMI KÖZÜZEMI SZOLGÁLTATÓ ZRT.

Reconstruction of heating plant in Haszkovó Road

Task

We reconstructed the heating plant of VKSZ in Haszkovó Road. Within the project we installed 2 pcs of BOSCH manufacture hot water boiler to replace two existing nearly 40-year old gas boilers, and also replaced the circulating pumps of the district heating system, as well as we established a new ventilation, electricity and control system. During the energetic reconstruction of the building, we rebuilt and modernized the façade of the old building.

Customer

Veszprémi Közüzemi Szoltáltató Zrt.

Implementation

2015

Scope of supply

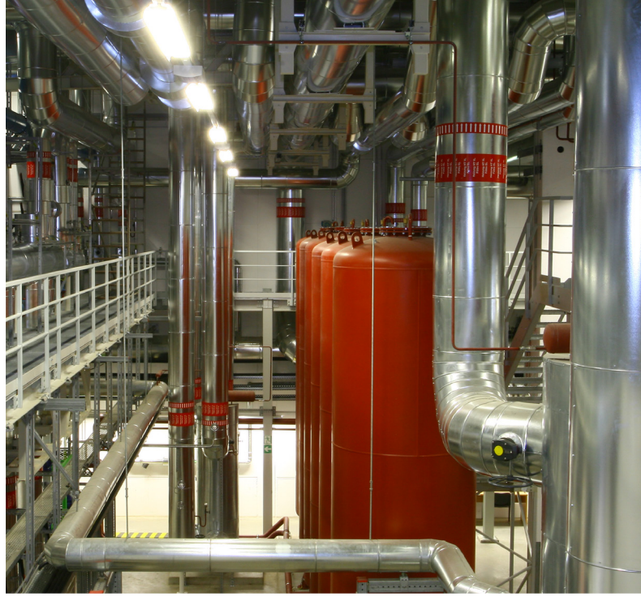
- within the frame of reconstruction, modernization of the heating plant building in Haszkovó Road, existing 2 pcs gas boilers
- replaced by BOSCH manufacture, 8 MW capacity condensation gas boiler;
- modernisation and replacement of the circulating system, ventilation and control to the existing heating plant;
- implementation of a new gas system

INDUSTRIAL ENERGETIC AND TECHNOLOGICAL FACILITIES

- Implementation of industrial energy centres
- Thermal energy supply systems
- Cooling energy supply systems
- Ventilation systems
- Press air systems
- Technological pipeline systems

MERCEDES BENZ MANUFACTURING HUNGARY KFT.

Implementation of Trigeneration energy centre in the plant of Kecskemét



Task
Turnkey implementation of the energy centre of Kecskemét plant (K1) with implementation design and commissioning within the frame of a main contractor's contract.

Customer
Mercedes Benz Manufacturing Hungary Kft.

Date of investment
2010-2011

Scope of supply
Building construction works, Trigeneration, Heating-cooling energy and compressed air system, Electric and control technique.

Typical data
- Developed area of building: 5,500 m^2
- Electric output: 5 MWe
- Heating output: 60 MW
- Cooling capacity: 6 MW
- Compressed air: 215 Nm^3/min

MERCEDES BENZ MANUFACTURING HUNGARY KFT.

Implementation of infrastructure pipelines

Task
Complete implementation of infrastructure pipelines in the yard area (up to the building border) of the Mercedes car manufacturing plant in Kecskemét (K1). Assembly and commissioning of all pipeline systems.

Customer
Mercedes Benz Manufacturing Hungary Kft.

Date of investment
2011

Scope of supply
Complete pipelines for the following systems were implemented:

- Domestic hot water
- District heating water supply Drinking water
- Sprinkler system
- Cold air
- Service water
- Gas
- Compressed air
- Implementation of outdoor illumination system

APOLLO TYRES HUNGARY KFT.

Implementation of a complete energetic centre

Task

The rubber plant was constructed as a greenfield investment. In the Apollo project, our company performed design-implementation works of the Hot Water system, assembly of the gas system and technological pipelines, and the installation works of equipment (cooling tower, cooler, chimney, boilers, pumps).

Customer

Apollo Tyres Hungary Kft.

Date of investment

2016-2017

Typical data

- Heating performance: 3 x 8 MW (3 x 12 t/h)
- Cooling capacity: 8 x 2 MW

TISZA-TK PROJEKT KFT.

Design and implementation of the engineering works for the gas boiler room and pipe bridge

Task

Design and implementation of the gas boiler house to the boiler plant in the territory of the corn processing plant built as a greenfield investment in the periphery of Tiszapüspöki. For the supply of the corn processing plant, implementation of a new 18 em^3/h capacity filtering – measuring station. This technology is of flat design and outdoor location.

Customer

Tisza-TK Projekt Kft.

Implementation

2016 – 2017

Scope of supply

Designs required for the project (architecture, engineering, electricity and control technique), performing complete implementation and commissioning works. Designs required for the project (engineering), performing complete implementation works.

Performance data

- 2pcs Bosch UL-SX 25t/h-s steam boiler
- 900m route length
- 10 km pipeline
- DN25-DN600 dimension range
- PN16-PN25 pressure stage

TISZA-TK PROJEKT KFT.

Implantation of alcohol and in-process tank park and fermenting plant

Task
Complete implementation of alcohol tank park, denaturizing station, road filling and fermenting plant in the territory of the corn processing plant established in the periphery of Tiszapüspöki.

Customer
Tisza-TK Projekt Kft.

Date of investment
2016 – 2017

Scope of supply
Design of alcohol tanks of various sizes and material grades.
Performing design work required for the project (architecture, engineering, electricity and control, fire protection and complete implementation works, local manufacturing and commissioning of tanks.

Performance data
- 2 pcs 2,500 m^3 tank (395 t P265GH plate)
- road filling
- various types of denaturizing substances, control according to mass flow
- 6 pcs of in-process tanks of various volumes
- Ferment
- Preparation of fermentation basic material
- Yeast propagation
- CIP system

FÖLDGÁZSZÁLLÍTÓ ZRT.

Design and implementation of sectionalizing measurement station

Task
In order to supply the corn processing plant built in Tiszapüspöki, a new filter with a capacity of 8 em³/h is needed by the extension of the existing station in Törökszentmiklós. Technology is flat type, in outdoor location.

Customer
FGSZ Zrt.

Date of investment
2015

Scope of supply
- Design
- Installation-construction
- Engineering
- Authorisation plan for gas filter installation
- Instrument and control technique

Technological parameters
- Minimum capacity demand: 1,500 nm³/h
- Maximum capacity demand: Stage I: 6,000 nm³/h
- Stage II: 18,000 nm³/h

KRAFT GROUP

KRAFTSZER
ENGINEERING POWER

BIS
HUNGARY KFT.

KRAFT FM
Szakértelem az Épületében

KRAFT- TECH

KRAFT
BBH KFT.

Additional reference

Kraftszer Kft.

H-1139 Budapest, Pap Károly street 4-6.

Phone: +36-1/456-7031

www.kraftszer.hu