EKON

EKON ENDÜSTRİ İNŞAAT VE TİCARET A.Ş.

EKON INDUSTRY CONSTRUCTION & TRADE INC.

contents

Engineering, Procurement and Construction services since 1974

PROKON EKON GROUP

PROKON EKON GROUP

EKON INDUSTRY CONSTRUCTION AND TRADE INC.

Contracting Company providing integrated services on
- Infrastructure Works,
- Integrated Industrial Facilities,
- Superstructure Construction Works,
- Manufacturing and Installation Works.

PROKON ENGINEERING AND CONSULTANCY INC.

Engineering and Consultancy Company providing
- Integrated Planning and Feasibility Studies,
- Engineering and Architectural Services,
- Construction Management and Supervision Services.

EKON MANUFACTURING AND ENGINEERING INC.

Manufacturing company providing process equipment design and manufacturing services in the field of Industrial Plants.

PROKON MANUFACTURING AND ERECTION CO.

Manufacturing & Erection Services for Industrial Sector

PROEN ENERGY & MINING INDUSTRY & TRADE INC.

Renewable Energy Investment Company

SAVKON DEFENCE ENERGY & MINING INDUSTRY AND TRADE INC.

A Company Having Activities in Defence Industry

PROYA SOFTWARE AND TRADE INC.

Software Development Company specialized in the Construction Industry Related Softwares.

SADAŞ INSURANCE BROKERAGE & CONSULTING SERVICES INC.

Insurance Company providing Solutions for Insurance Services.

INTRODUCTION

EKON is a leading engineering & construction company for establishing infrastructure and integrated industrial projects from the planning and design stages, through engineering and procurement, till commissioning and handover.

With over 35 years of proven experience, Ekon has successfully completed large, complex and challenging projects requiring the highest level of engineering, construction and management expertise to meet guaranteed performance criteria within contracted timelines.

company profile

EKON Industry Construction and Trade Inc. is the turnkey construction arm of the PROKON EKON GROUP of Companies. The Group was founded in 1974 by two civil engineers, Mr. Hasan Özdemir and Mr. İsmail Salıcı, with the formation of specialised engineering and design company called PROKON Engineering and Consultancy Inc., now one of the largest in Turkey.

From the inception of the PROKON EKON GROUP, its founders' emphasis on quality, excellence, continuous improvement, and delivery of services beyond customer expectations; remain the Group's core values. The Group's team of highly experienced professionals and specialised engineers constantly adapt and innovate with the new technological developments for the benefit of its customers. With this philosophy the Group has since grown steadily and established six more companies within its integrated structure, first with the establishment of EKON Industry in 1985, and EKON Manufacturing and Engineering Inc., a world level manufacturing facility capable of manufacturing of process equipment for heavy industries.

Over the years, EKON has collaborated with many specialised technology and process providers across Europe, Japan and the USA for the realization of its domestic and international projects, successfully completing many large, complex and challenging design and construction projects.

Bringing over 46 years of experience of the group, EKON offers Turnkey EPC Services for Integrated Industrial Facilities, Infrastructure and Superstructure Works, and Manufacturing and Installation Works, especially in relation to:

- Energy & Power
- Cement Industry
- Sugar Factories
- Iron & Steel Facilities
- Oil & Gas Plants
- Chemical Plants

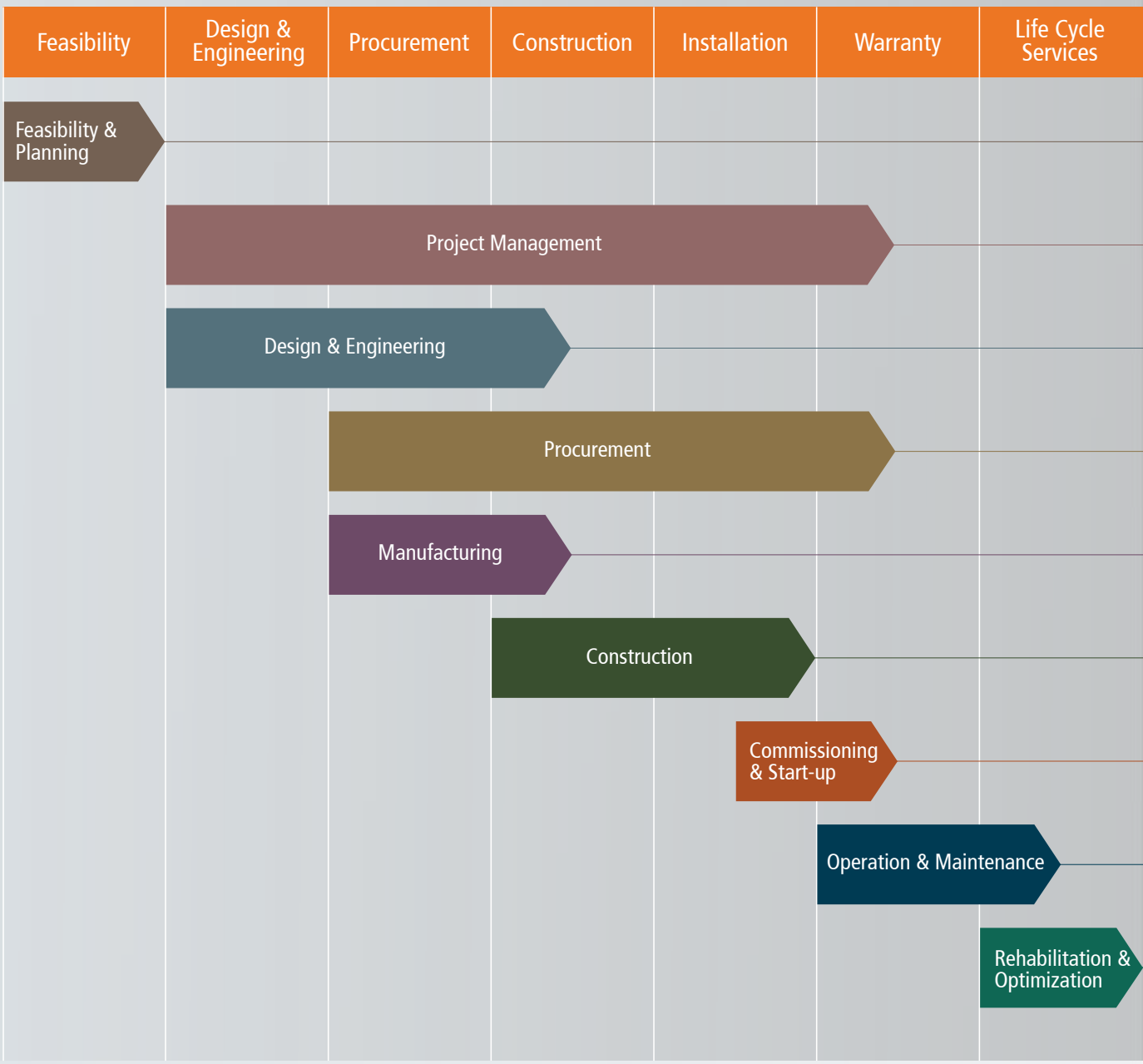
The Group also has wide experience in the construction of Airport & Military Facilities, Industrial Buildings, Hotels and Tourism Complexes, Educational Buildings, Sports Complexes, and Residential Buildings.

EKON brings all capabilities and expertise of its Group Companies seamlessly as well as specialist technology and service providers as needed, to provide its customers high quality, efficient service including guaranteed performance throughout the project cycle, from feasibility to operating safely.

Today, as always, EKON delivers excellence in construction and remains committed to turning the vision of its customers into reality.

We provide turnkey EPC services for guaranteed results in infrastructure and integrated industrial projects. We also offer Operations & Maintenance and Rehabilitation & Optimisation services for such projects. Services are performed primarily by our in-house teams of highly experienced professionals, using proven state-of-the-art, specialised technologies, technical know-how, and a passion for quality. Our integrated approach delivers faster and cost effective solutions that are tailored to the needs of each project.

EPC Project Life Cycle



capabilities

- Investors are only required to provide information about the site of their investment and the key elements that would form the basis of the feasibility studies. The rest will be handled by us Including Conceptual Design, Estimating, Feasibility Studies, Process Simulation, and Technology Evaluation.

- Dedicated professionals with a proven track record give us the ability to deliver the most complex of projects within contracted parameters. Our multi-disciplinary teams can seamlessly coordinate all necessary elements of EPC projects providing assurity and peace of mind to our clients.

- Our partnership with our group company, PROKON Engineering and Consultancy Inc. (a leading engineering and design firm) minimizes the traditional friction between contractor and designer; thus enabling faster resolution of issues and faster implementation of solutions. We cover all necessary engineering disciplines such as process, civil, structural, mechanical and electrical - as well as architecture.

- Our established global network of vendors allows us to quickly meet our clients' equipment and material needs including expediting, logistics and materials management. Our processes are optimized towards reliable and punctual delivery.

- Our international standard manufacturing facility is capable of manufacturing of specialised process equipment for heavy industries. Our factory is certified and accredited by ASME for Manufacturing Boilers and Pressure Vessels with "U" and "S" stamps. Our own facility ensures more reliable delivery schedules and guaranteed quality - also more flexibility to meet changes in the project scope and timelines.

- Our globally experienced construction team offers high quality results that are on time and within budget. We perform all types of civil, structural, mechanical, piping and electrical, automation works as well as handling Subcontractor Management, Manpower Supply, Training of Personnel, Field Mobilization and Demobilization, Quality Control and Health & Safety Programs.

- This is a key element to successful completion of plant and a special attention is paid to it. We possess the expertise, knowledge and effective coordination ability for successful Commissioning which also includes, Engineering Support, Initial Production, Plant Readiness, Pre-commissioning. Systems Check, Turnover and Validation activities.

- Our strong inhouse engineering teams provide all services necessary to successfully operate, maintain and protect our clients' investments including services relating to Facility Management, Operational Readiness, Plant Engineering, Plant Operations & Maintenance, Turnarounds, Outages & Shutdowns. Clients can rest assured that, with minimum input from their side, their facility will be in capable and experienced hands focused on delivering the very best.

- Asset Performance Improvement is an essential component for enhancing profitability of projects. We carry out studies and tests and can then suggest and implement appropriate cost-effective solutions to maximize plant performance, by saving energy and realmcing costs or increasing output.

quality health
environment
safety

quality, environment, health & safety

Dedication to excellence in all the services provided is one of the core values of EKON. The aim is to ensure the highest standards of professionalism and performance in quality. With its in-house control mechanism, EKON takes the full responsibility of its performance and decisions. EKON works with its clients as a team, fully committed to achieve the targets and aims to find effective solutions to create value for each of its clients.

Being an integral part of its activities, safety has a significant importance in all projects. Health and safety commitment of EKON covers all steps of operations and reaches to clients, subcontractors and subsuppliers. EKON reviews each projects to identify and reduce the risks to the lowest possible levels. Complying with its procedures of Health and Safety Management System, EKON sustains the quality of its work by continuous improvement of the management system.

EKON has a strong sense of social responsibility for the environment that rules on all of its operations and endeavors its best to sustain a healthy and clean environment for the future generations. With this in mind, trains its employees on environmental protection and complies with all applicable legislation, together with relevant international standards and codes of practice.

Dedication to excellence in all the services provided is one of the core values of EKON. The aim is to ensure the highest standards of professionalism and performance in quality.

fields of activity

Iron & Steel Industry

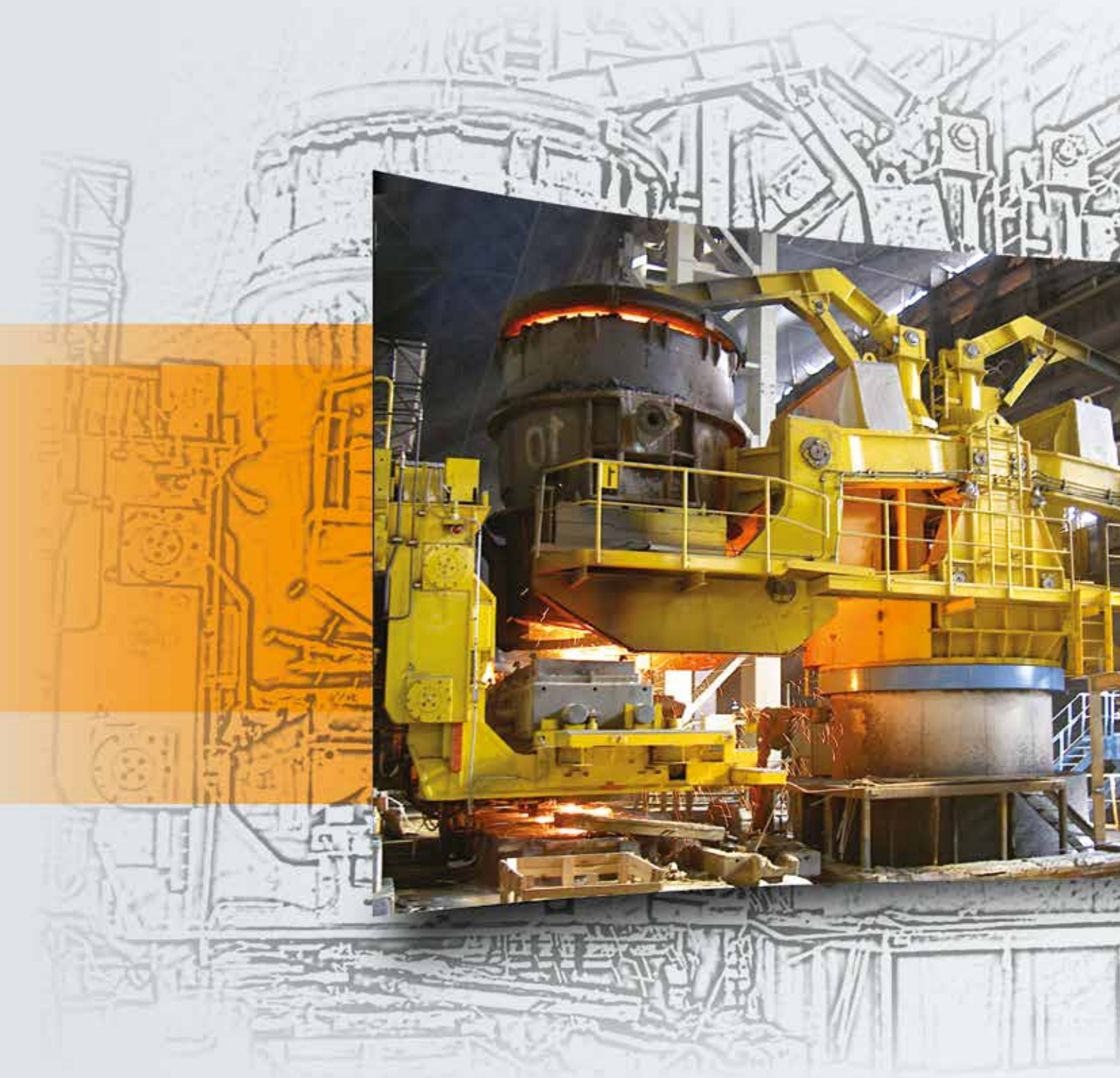
Energy & Power

Cement Industry

Industrial Plants

Building Construction

Manufacturing Works



Iron & Steel Industry

- Gas Holders (Blast Furnace, OG), Mixing Stations
- Steel Making Plants (EAF, BOF)
- Direct Reduction Plants
- Continuous Casting Plants
- Hot & Cold Rolling Mills
- Gas Cooling & Cleaning Plants
- Air Separation Plants
- Dedusting Plants

Blast Furnace Preassembly and Erection View

Blast Furnace Preassembly Area

Hot Blast Stove and Casthouse Steel Structure

Castfloor and Casthouse East View

İSDEMİR

NO.1 BLAST FURNACE PROJECT

İskenderun, TURKEY

Project covers civil works, procurement, steel structure supply and erection, equipment supply and erection, electrical & automation works of New Isdemir No.1 Blast Furnace, Slag Granulation Systems, Hot Blast and Gas Cleaning Systems. Once completed, the New Blast Furnace will be the largest in Turkey with a capacity of 2,8 million ton/year.

İSDEMİR is one of the largest integrated steel producers in Turkey. With this New Blast Furnace investment, both the capacity and the efficiency of the existing plant will increase substantially.

South Slag Granulation Plant and INBA Structure and Casthouse Steel Structure South View

Blast Furnace Preassembly Area

Main Quantities

- Bored Pile: 7.600 m
- Concrete: 25.000 m^3
- Structural Steel Fabrication & Erection: 15.500 ton
- Mechanical Erection: 10.200 ton
- Technological Equipment Manufacturing & Erection: 2.800 ton

Gas Recovery Station

Gas Export Station

İSDEMİR

BLAST FURNACE & OG GAS HOLDERS

İskenderun, TURKEY

EPC TURNKEY

The project has been realized as an EPC Contract in turnkey basis for İSDEMİR İskenderun Iron and Steel Company in Turkey. The project consisted of floating piston type two gas holders and piping system, excess gas flare stack, converter gas recovery station, boosting, wet type ESP and mixing stations. The gas holders were constructed to store blast furnace and converter gases of İSDEMİR Steel Plant. Our main technological sub-contractors were MB Engineering Services Ltd., Clayton Walker Gas Holder Division (England) and SMS Demag AG (Germany).

Blast Furnace Excess Gas Flare Stack

Construction Works at Outer Shell

General View of the Plant

Scope

- Detailed Engineering Works
- Supply, Manufacturing and Erection Works
- Ex-proof Electrical and Automation System Supply and Erection Works
- Commissioning and Start-up

Main Sizes

BFG HOLDER

- Capacity: 50,000 m³
- Diameter: 43 m
- Height: 54 m

OG HOLDER

- Capacity: 60,000 m³
- Diameter: 48.4 m
- Height: 59 m

A View from Gas Duct

General View of the Plant

ERDEMİR

BLAST FURNACE & OG GAS HOLDERS

EPC TURNKEY

Kdz. Ereğli, TURKEY

ERDEMİR Ereğli Iron & Steel Company's Blast Furnace and Converter Gases Storage Plant has been completed on turnkey basis in cooperation with Walker Engineering Ltd. (England) and Davy McKee (England). The plant consists of two floating piston type gas holders each having 40,000 m^3 capacity, piping system, gas recovery, boosting and mixing stations.

Scope

- Detailed Engineering Works
- Supply, Manufacturing and Erection Works
- Ex-proof Electrical and Automation System Supply and Erection Works
- Commissioning and Start-up

Main Sizes

- Capacity: 2 x 40,000 m^3
- Diameter: 43 m
- Height: 52 m
- Outer frame & shell of tank: 2500 tons

Construction Works at Floating Piston

Construction Works at Outer Shell

General View of the Plant

KARDEMİR

CONVERTER WASTE GASES COOLING AND CLEANING PLANT

Karabük, TURKEY

EPC TURNKEY

Scrubbing Tower

2x90 tons LD Converter Waste Gases Cooling and Cleaning Plant project which has been completed for Karabük Iron and Steel Factory Inc. had two stages.

The first stage of the project covering the engineering, procurement and supply of equipment has been performed in cooperation with Marubeni (Japan) and Mannesman Demag (Germany) and the second stage covering civil works, erection works and commissioning of the plant has been completed by ourselves.

Civil Works

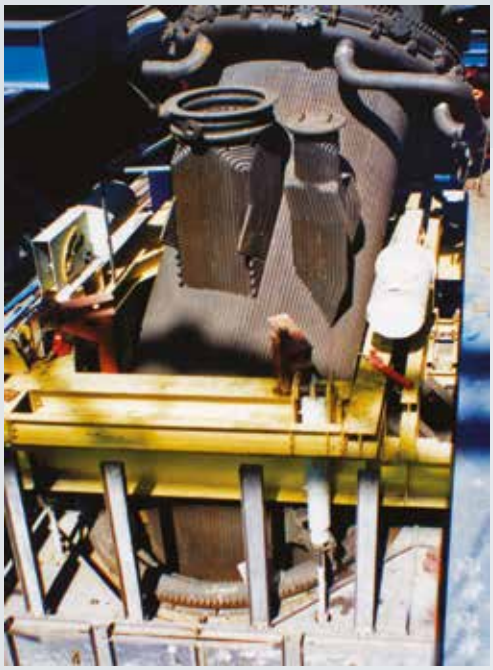
- Excavation: 12,000 m^3
- Concrete: 3900 m^3
- Formwork: 9172 m^2
- Scaffolding: 15,000 m^3
- Reinforcement: 208 tons

Mechanical Works

- Design, Manufacturing, Supply and Erection of Technological Equipment: 600 tons
- Design and Supply of Piping Works: 200 tons

Electrical & Automation Works

- Design and Erection Works of Automation System (PLC, MCC, MMI, SCADA): 450 nos
- Cable Supply & Erection: 77,000 m
- Conduit Supply and Erection: 3500 m
- Lightning Protection System



Movable Hood

Fixed Cooling Stack

Ladle Turret for 200 tons Ladle

General View of Plant

EPC TURNKEY

İSDEMİR

2 x 1,000,000 TONS/YEAR CAPACITY BILLET CASTING PLANT

İskenderun, TURKEY

The project, as being the first investment of İSDEMİR after privatization on 2001, has been completed on a turnkey basis in cooperation with CONCAST AG (Switzerland). It consists of two continuous billet casting machines each having 1,000,000 tons/year capacity with auxiliary plants and utilities. It has been completed in a record time of 12 months for the first machine and 13 months for the second machine.

Valve Control Room

Scope

- Detailed Engineering
- Civil Works
- Structural Steel Manufacturing and Erection
- Supply and Erection of Mechanical Equipment
- Piping Fabrication and Erection (water, hydraulic, gases)
- Water Treatment Plant
- HVAC Systems
- Fire Fighting Systems

Main Quantities

- Excavation: 4800 m^3
- Filling: 14,700 m^3
- Reinforced Concrete: 14,000 m^3
- Steel Structure: 1400 tons
- Mechanical Equipment: 2200 tons
- Hydraulic Piping: 29 tons
- Piping (Carbon Steel): 233 tons
- Piping (Stainless Steel): 15 tons

Walking Beam Bed for Billet Cooling

■ Iron Ore Stacker & Reclaimer

EPC TURNKEY

İSDEMİR

IRON ORE PREPARATION UNIT MODERNIZATION AND CAPACITY INCREASING PROJECT

İskenderun, TURKEY

The project which has been completed for İSDEMİR İskenderun Iron and Steel Company includes modernization, engineering, production, construction and erection of system for iron ore preparation, blending and manipulation of raw material.

Scope

- Design Services for Mechanical and Electrical Works
- Civil Works
- Supply, Manufacturing and Erection Works
- Commissioning and Start-up

Main Quantities

- Total Length of Conveyor Lines: 13,500 m
- Capacity of Conveyors: 300 tons/hr and 3000 tons/hr
- Stacker: 2000 tons/hr
- Reclaimer: 2 x 2000 tons/hr
- Steel Structure Manufacturing & Erection Works: 1800 tons
- Excavation: 200,000 m^3
- Concrete: 18,000 m^3
- Piling: 85,000 m

■ Views from Conveyor Lines

■ Site Manufacturing of Blast Furnace Body

■ View from Tuyer System

MODERNIZATION OF İSDEMİR
BLAST FURNACE NO: 3
İskenderun, TURKEY

Being one of the modernization investments of İSDEMİR, the project included all modification, erection, dismantling and relocation works of existing Blast Furnace No: 3 and auxiliary plants. The modernization increased the blast furnace production capacity from 1,300,000 tons/year to 1,800,000 tons/year.

Scope

- Dismantling Works of Hot Air Line Systems, Bell Type Loading System, Pump Station, Cooling system and Body of the furnace.
- Erection works of Bell-Less Type Loading system. Body of the Furnace, Stave Cooling System, Tuyer and Tuyer
- Platforms, Hot Air Line systems. Skip Load system and other equipments.
- Erection Works of Electrical and Automation System, Steel Fabrication and Erection, Civil Works.

Main Quantities

- Dismantling: 7954 tons
- Steel Fabrication & Erection: 1517 tons
- Mechanical Equipment Erection: 1516 tons
- Piping: 24,118 m
- Excavation: 11,583 m^3
- Concrete: 4823 m^3

■ General View of the Plant

el industry

İSDEMİR

HOT ROLLING MILL PROJECT

STEEL STRUCTURE MANUFACTURING AND ERECTION WORKS

İskenderun, TURKEY

The project has been realized for İSDEMİR İskenderun Iron and Steel Company of Turkey and consisted of the construction works of a new building and strengthening works of the existing building for the new hot rolling mill line. The building consists of 4 separate halls with a total length of 1875 m.

Main Quantities

- Steel Structure Manufacturing Works: 6700 tons
- Steel Structure Erection Works: 6800 tons
- Cladding Works: 70,000 m^2
- Mechanical Equipment Dismantling Works: 175 tons
- Steel Structure Dismantling Works: 2500 tons
- Cladding Dismantling Works: 37,500 m^2
- Track Erection Works: 400 tons

ERDEMİR
AIR SEPARATION PLANT
Kdz. Ereğli, TURKEY





ERDEMİR Ereğli Iron & Steel Company's Air Separation Plant No: 6 project covered engineering, manufacturing, supply and erection works of the plant.

- Detailed design of of Steel Structures (pipe racks, pipe supports, ladders, platforms, etc.), Spray Cooler Vessel (incl. accessories), Evaporative Cooler Vessel (incl. Accessories), Cooling Tower (incl. accessories), Cranes (for machine shop and cold box), Connection Box for Pumps
- Manufacturing works of all the designed equipments and steel structures
- Supply of The Pipes, Fittings and 250 kVA Diesel Generator Erection works of Cold Box


Cold Box


Erection of Cold Box

İSDEMİR
AIR SEPARATION PLANT
İskenderun, TURKEY

İSDEMİR İskenderun Iron & Steel Company's 610 tons/day capacity Air Separation Plant No: 6 project having a capacity of 18,000 Nm^3/h oxygen, 12,000 Nm^3/h nitrogen and 600 Nm^3/h argon has been established to produce oxygen, nitrogen and argon required in BOF Plant, Blast Furnaces and other required points of İSDEMİR. The project has been completed for Air Liquide (France) as a subcontractor. The project had two separate phases.

Scope of First Phase

- Detailed Engineering of Infrastructure and Superstructure
- Construction of Equipment Foundations
- Construction of Process, Electrical and Control Buildings
- Earthing and Underground Piping Networks

Scope of Second Phase

- Erection of the Main Process Equipments (Tank, Compressor, Turbine, Cold Box, Pumps, etc.)
- Erection of Double-Shell Tank for Storage of Liquid Oxygen
- Carbon and Stainless Steel Process Piping Fabrication and Erection
- Electrical and Instrumentation Erection Works
- Dust Perlite Insulation Works

General View of the Plant

Energy & Power

Simple/Combined Cycle Power Plants ■
Thermal Power Plants ■
Hydroelectric Power Plants ■
Solar Power Plants ■
Waste to Energy Plants ■
Flue Gas Desulphurization Plants ■

Gas Ducts

General View of Site

Main Quantities

Excavation	: 58.000 m³	Mechanical Equipments	: 303 ton
Reinforced Concrete	: 10.225 m³	Piping	: 92 ton
Steel Structure	: 1.400 ton	Piping (Rubber Lined)	: 135 ton
Tanks	: 236 ton	Electrical & Instrumentation Cables	: 298.000 m
Gas Ducts	: 603 ton		

FLUE GAS DESULPHURIZATION PLANT

AT 2X160 MWe 18 MART CAN THERMAL POWER PLANT

EPC TURNKEY

Çan, TURKEY

The Project covers Engineering, Procurement and Construction (EPC) contract for Flue Gas Desulphurization (FGD) Plant project for 18 Mart Çan Thermal Power Plant Unit 1 and Unit 2, each with 160 MWe generating capacity located near Çanakkale region of Turkey.

Ekon's scope covers design, manufacturing/supply, construction, installation, testing, training and putting into successful operation, the complete FGD plant on a Turnkey basis as well as supervising commercial operations for 2 (two) years and carrying out maintenance during this period.

All necessary modifications in the existing power plant to integrate with the new FGD plant, and providing all the auxiliary systems including pulverized limestone receiving/storage system, limestone slurry preparation system, gypsum pre-dewatering system and an ash/gypsum slurry mixing system is completed also under the scope of Ekon.

State-of-the-art wet limestone FGD technology of Doosan Lentjes Gmbh -which has 71GW installed wet FGD experience worldwide- is utilized for the project. The plant is one of the most efficient FGD plants in Turkey with 98.5% efficiency using the latest technology to fully comply with Turkish environmental directives.

Scope

- Basic and Detailed Engineering
- Civil Works
- Structural Steel Manufacturing and Erection
- Scrubber and Wet Stack Manufacturing and Erection
- Gas Duct Manufacturing and Erection
- HVAC Systems
- Piping Works (Slurry,Water, Oxidation, Instrument Air)
- Commissioning and Start-up
- Supervision and Maintanence Activities (After Preliminary Acceptance)

■ Scrubber & Wet Stack

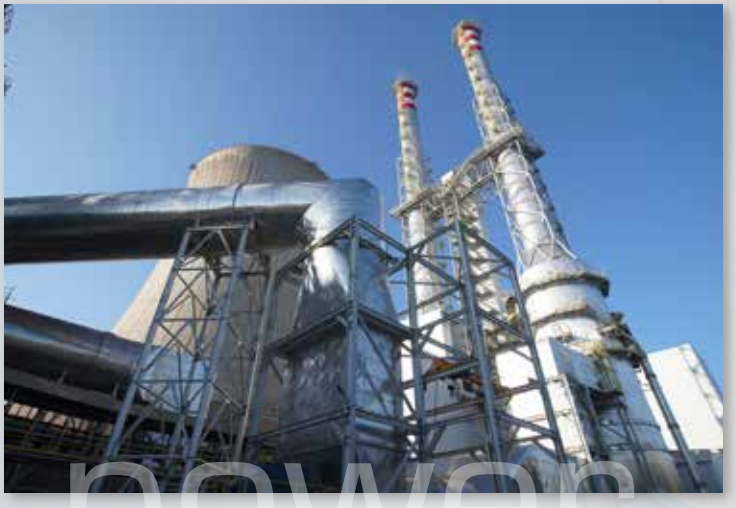
■ Absorber Recirculation Pumps

■ General Site View

■ Wet Stack Steel Structure & +65.00 Level Platform

FLUE GAS DESULPHURIZATION PLANT
AT 2X160 MWe 18 MART CAN THERMAL POWER PLANT
Çan, TURKEY

■ Limestone Storage Silos& Limestone Slurry Building & Emergency Storage Tank



General View During Construction

General View

Gas Turbine Hall

Main Quantities

Concrete	: 38.000 m^3
Steel Structure Works	: 4.900 ton
Piping	: 973 ton
2xHRSG non-pressure part manufacturing	: 3.333 ton
2xHRSG Erection	: 9.600 ton

YENİ ELEKTRİK 850 MW COMBINED CYCLE POWER PLANT

CIVIL AND MECHANICAL ERECTION WORKS AND MECHANICAL SUPPLY OF THE BALANCE OF THE PLANT

Kocaeli, TURKEY

The main contractor of the power plant, the Italian company ANSALDO ENERGIA s.p.a. (AEN), awarded to EKON Industry Construction and Trade Inc. the scope of complete detail engineering, manufacturing, civil and structural steel works, supply and erection works of the plant.

The project covers 2 units of gas turbines (each 294 MW), and generators set, 2 units of heat recovery steam generators with stack, 1 unit of steam turbine with a capacity of 280 MW. The foundations of Gas Turbine and Steam Turbine Structures are in reinforced concrete type where the superstructures are designed in steel structure type. There are also one electrical building for each unit adjacent to the turbine structures and there is an individual electrical building within each heat recovery steam generator structure. Moreover, the project includes one Air-Cooled Condenser for condensing of the steam and one Fin Fan Cooler for closed cooling system.

HRSG Erection

General View of the Plant

View of Switchyard

Steam Turbine Erection

Steam Turbine Erection

Raw Water Tank and Demi Water Tank

YENİ ELEKTRİK 850 MW COMBINED CYCLE POWER PLANT

CIVIL AND MECHANICAL ERECTION WORKS AND MECHANICAL SUPPLY OF THE BALANCE OF THE PLANT

Kocaeli, TURKEY

■ Transformer Area

■ Heat Recovery Steam Generator

3D View of New Ambarlı Plant

General View of the New Ambarlı Power Plant

AMBARLI POWER PLANT
REPOWERING WORKS
İstanbul, TURKEY

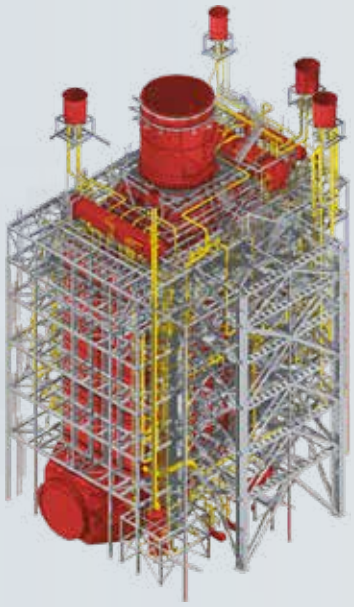
Rehabilitation & Full Repowering of Ambarlı Fuel Oil Power Plant, Units 4 & 5 by Conversion into Duel Fueled Combined Cycle Power Plant EPC Contract which has been awarded by Electricity Generation Company of Turkey on November 2008 was carried by EPP joint venture.

Ambarlı Units 4 & 5 Rehabilitation Project involves the conversion of the existing 300MW Fuel-Oil fired boiler steam plant into 816MW Combined Cycle by addition of 2 new Gas Turbine Generators, 2 new Heat Recovery Steam Generators and rehabilitation & modification of existing Steam Turbines under new steam regime to achieve maximum performance. Thus, thermodynamic efficiency is increased from 36% to 54%, kwhour production costs are decreased, plant reliability is increased and excessive levels of atmospheric emissions are reduced significantly.

Ambarlı Project is a "Full Repowering by CCPP Conversion" Project that is a "first of its kind" Project in Türkiye and is equalled in magnitude and complexity by only a handful of worldwide examples.

The Project covers

- Dismantling of 2 existing fuel-oil firing boilers,
- Rehabilitation and modification of existing steam turbines, generators and auxiliaries,
- 2 new 282 MW Siemens SGT5-4000F gas turbines and generator sets,
- 2 new 357 ton/hour capacity, Vertical Type, three pressure level, reheat, Heat Recovery Steam Generators,
- New HP, IP, LP electric motor driven Boiler Feed Water Pumps,
- New 100% capacity HRSG Steam By-Pass (PRDS) Systems,
- New Condenser Cooling Seawater Circulation Pumps,
- New Seawater Treatment / Intake (TAPIS) Systems,
- Complete Retubing of existing condensers and Rehabilitation of seawater supply system,
- New 2km long NG supply pipe-line and RMS-A Station,
- New 380kV switchyard system, GT Side Transformers, MV & LV Switchgear
- I&C Systems and plant-wide DCS Integration
- Miscallenous Building Utilities.
- All other BOP Balance of Plant required conversion to a combined cycle power plant.



Heat Recovery System Generators

All the process/thermodynamic cycle optimization, conceptual, basic and detailed engineering, process equipment/system procurement, demolition, dismantling, construction, erection, installation, manufacturing, rehabilitation, modification, commissioning & start-up, performance testing and reliability run works, that pose special engineering and project management challenges beyond conventional needs of typical greenfield CCPPs, are being managed and implemented on a turn-key basis by Ekon-Prokon-Prokon JV, each of the party is a member of Ekon Prokon Group of Companies, totally with local Turkish engineering and contracting teams, with no foreign entity consortium or joint venture partnership.

View of the New Ambarlı Power Plant

Steam Turbine Disassembly

Control Room

Gas Turbine Units

AMBARLI POWER PLANT
REPOWERING WORKS
İstanbul, TURKEY

■ Transformer Area

■ Gas Turbine & Generator Building

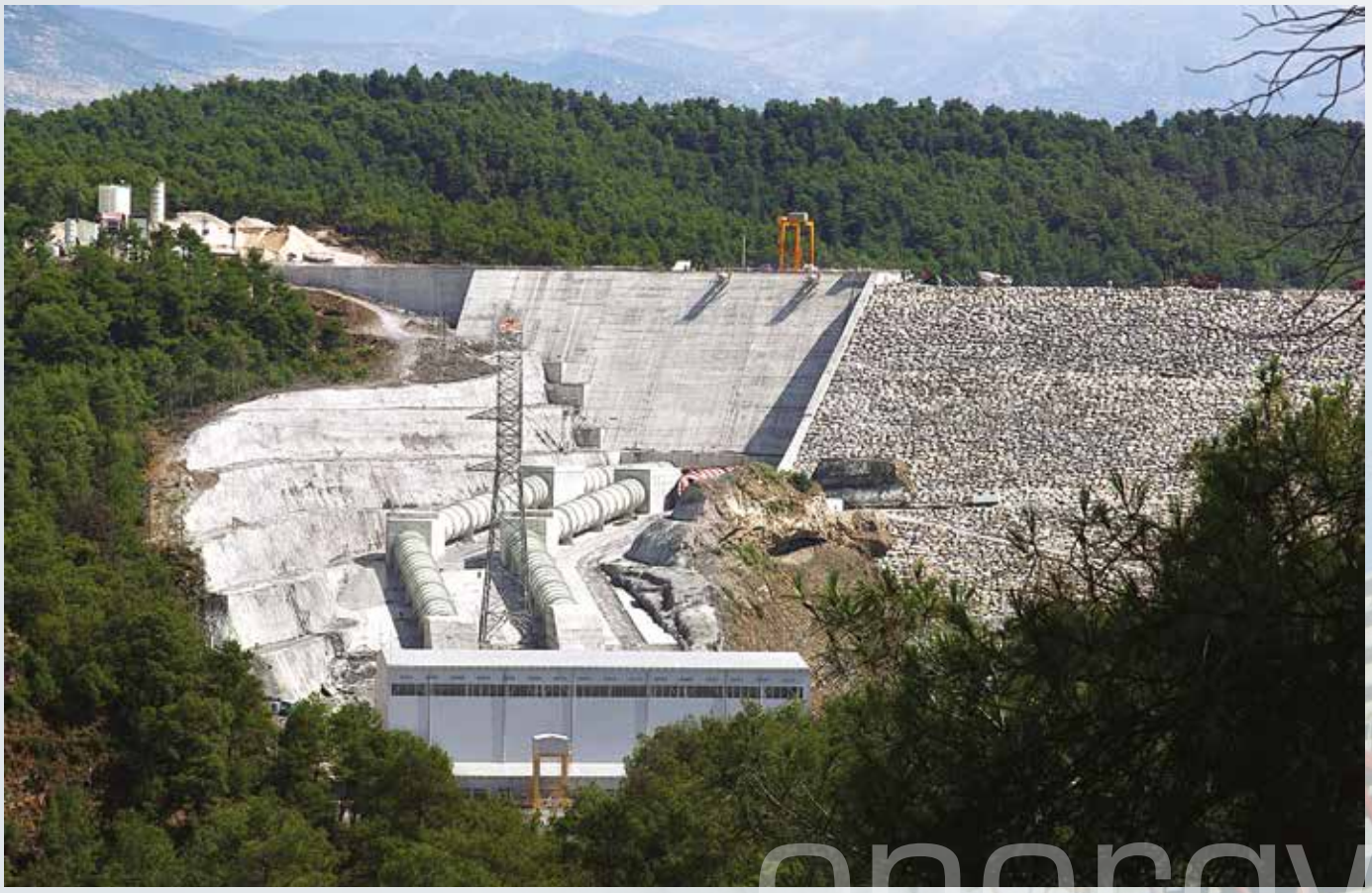
■ Radial Gates Operating Mechanism

■ Main Quantities

Concrete	: 300,000 m^3
Reinforcement	: 5000 tons
Formwork	: 82,000 m^2
Mechanical equipment designed	: 2000 tons
Mechanical equipment manufactured and erected	: 5000 tons

■ Construction Works at Water Intake Structure

■ General View of Water Intake Structure and Penstock Lines



Spillway Intake Structure and Radial Gates

YEDİGÖZE SANİ BEY DAM & HYDROELECTRIC POWER PLANT

Civil Works of Water Intake Structure, Spillway and Penstock Supports Hydromechanical Equipment Manufacturing and Erection Works

Yedigöze Sani Bey Dam is a rock fill dam and the upstream face is covered with reinforced concrete, thalweg elevation is 105 m and the crest elevation is 131 m.

The hydroelectric plant is composed of two units, which has 369.84 m^3/s maximum project inflow, 95.50 m gross head and 317 MW installed capacity.

All civil works except excavation works for water intake structure, spillway structure and penstock supports are within the scope of project. The diameter of the penstock which has been manufactured and erected on site is 6300 mm.

Mechanical works cover design, engineering, manufacturing, erection, testing and commissioning of all hydromechanical equipment and also supply of the spare parts. Water intake structure stop logs, emergency gates, draft tube stop logs, spillway stop logs and radial gates and additionally manufacturing and erection of penstock lines are within the scope of the project.

General View of Spillway and Radial Gates from Outlet

■ Downstream of Power House

■ Penstock inlet

■ Radial Gates of Spillway
Downstream Face

■ Radial Gates of Spillway and Fish Passage Gates, Upstream Face

TEPEKIŞLA DAM & HYDROELECTRIC POWER PLANT PROJECT

HYDROMECHANICAL EQUIPMENT MANUFACTURING AND ERECTION WORKS

Erbaa - Tokat, TURKEY

The Afşin Elbistan B Power Plant is owned by Electricty Authority of Turkey (EÜAŞ) and has a capacity of 4x360 MWe. Within the EPC contract scope, EKON performed detailed engineering, steel structure manufacturing, dismantling, civil and erection works.

The project covers the dismantling, replacing and erection of parts which were damaged as result of fire occurred in the boiler building. The boiler supporting structure, boiler building steel structure, electrical cables and trays, instrumentation, cabinets, electro-mechanical control valve and actuators, electric control room, panel and transformer room, elevator and pit, pipes, gas ducts, suspension systems, vapor filters, carrier stands, vapor fans and motors, screw extractors, and spillway equipment (all profiles, platforms, handrails and cladding works) are renovated and all the tests and commissiong works are performed under the scope of EKON.

Main Quantities

Mechanical equipment designed	: 782 tons
Mechanical equipment to be manufactured and erected	: 1.873 tons

Sluiceway Inlet Gate

North Facade Dismantling Works

North West Facade Dismantling Works

West Facade of the Damaged 2nd Unit

West Facade Dismantling Works

Civil Dismantling Works

AFSIN ELBISTAN B THERMAL POWER PLANT

Dismantling, Manufacturing, Installation, Tests and Commissioning Works of the Parts Damaged due to the Fire in II. Unit Boiler Building Project

Kahramanmaraş, TURKEY

The operation of the power plant is within the scope of Turkish Electricity Generation Company and EKON is the main contractor with the scope of detailed engineering, steel manufacturing, erection works and civil works, mechanical, electrical and automation works.

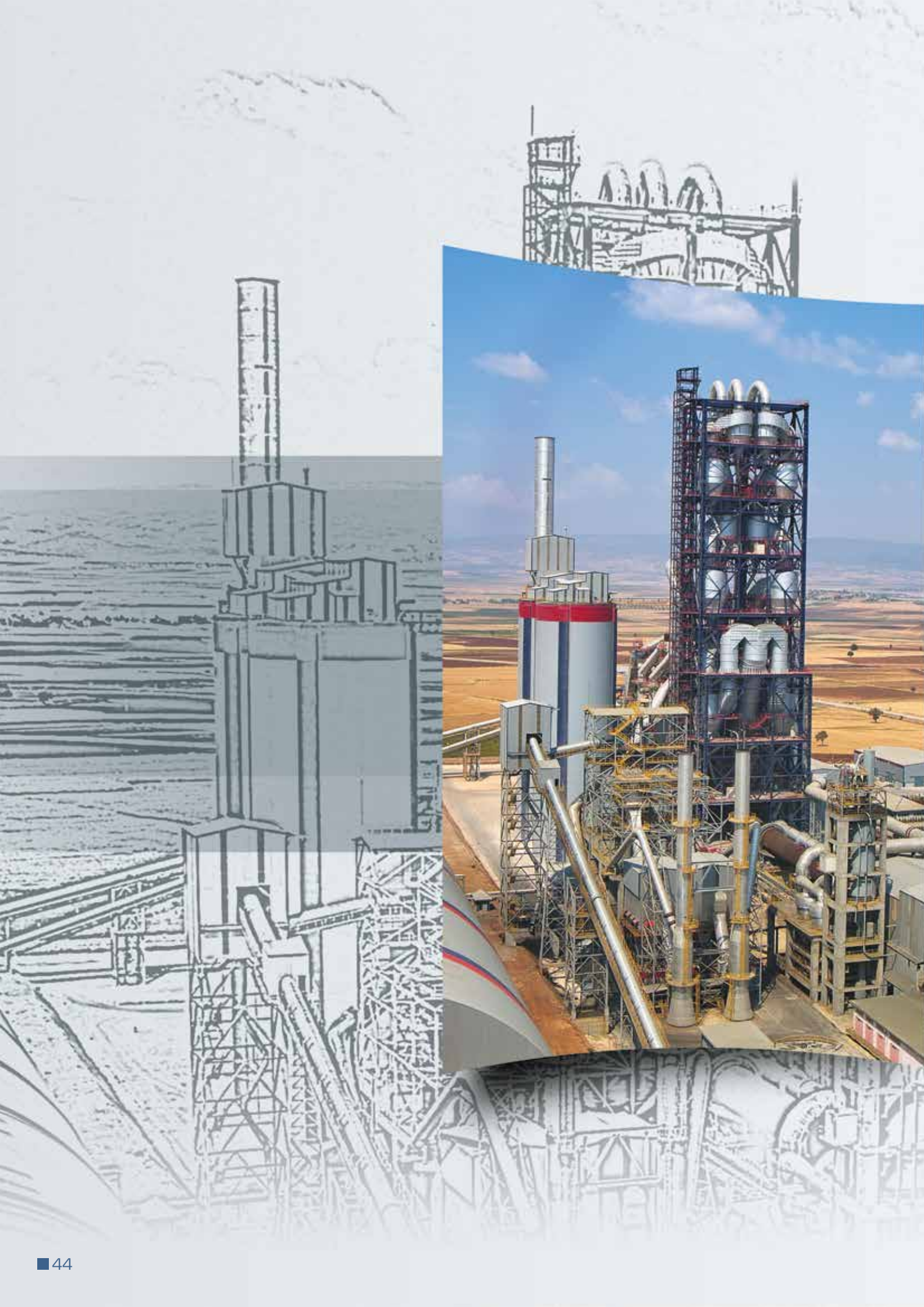
The project covers the dismantling-erection of structures which were damaged as a result of fire which had occurred in the boiler building, such as boiler carrier construction system and boiler building steel structure, electricity, cables and carriers, instrumentation, cabinet and equipment, electromechanical control valve and actuators, electronic control room, panel and transformer room, elevator and pit, pipes, gas ducts, suspension systems, vapor filters, carrier stands, vapor fans and motors, screw extractors, and spillway equipment (all profiles, platforms, handrails and cladding works) and commissioning of renovated systems.

The Project covers

- Construction works (Steel structure, cladding and isolation works)
- Mechanical Works (Electro filter and auxiliary equipment, pipelines, insulation and instruments etc)
- Electrical and Automation works

Cladding Dismantling Works

West Facade of the Damaged 2nd Unit



Cement Industry

- Turnkey Cement Plants
- Crushing & Grinding Plants
- Material Handling & Storage Solutions
- Grinding Facilities

Raw Mill Feed

CCR Building

General View

Coal Storage

cement

■ Clinker Silo

DJEBEL RESSAS CEMENT PLANT

5800 tons/day Clinker Capacity

Tunis, TUNISIA

The Djebel Ressas Cement Project was realized by the EKON–PROKON–FLSmidth Consortium.

EKON performed the engineering and execution of civil works, structural steel, mechanical, electrical erection, automation and commissioning works of the plant, PROKON provided some mechanical equipment and carried out the engineering and supply of steel structure of the plant and FLS carried out the equipment and engineering supply of the plant.

The plant is located approx. 25 km south of Capital of Tunisia (Tunis) near an existing quarry and has a total clinker production capacity of 5.800 tons/day.

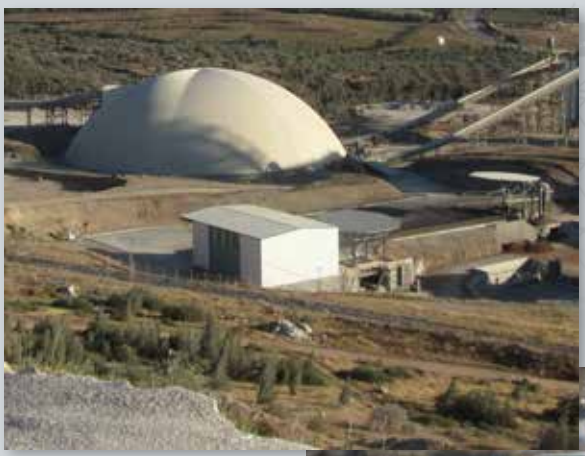
The plant has the following units

- Raw material crushing, conveying and storage
- Coal intake, storage, transport
- Additive crushing, intake, storage, transport
- Raw mill
- Homogenization Silo
- Preheater, Kiln, Clinker Cooler
- By-pass system
- Coal Mill
- Clinker transport and storage
- Cement Mill (1 and 2)
- Cement Silos (1, 2 and 3)
- Packing Plant (4 units)
- Bulk dispatch to trucks
- Bag dispatch to trucks (4 units)
- Palletizing plant
- Alternative liquid fuel storage
- Natural gas distribution
- Compressor rooms
- Water treatment and distribution
- Potable water unit
- Weighbridges
- Electrical substations
- Central control room and laboratory
- Service Buildings (Workshop, Changing room, open/closed storage, canteen, administration building, guard house)

■ Cement Mills and Cement Mill Feeds

■ Limestone Crusher

■ Packing Plant and Palletizing Plant



■ Additive Crusher and Additive Intake

■ Water Treatment

DJEBEL RESSAS CEMENT PLANT

5800 tons/day Clinker Capacity

Tunis, TUNISIA

■ Preheater Tower

■ General View

■ Main Quantities

Concrete	:110.000 m^3
Steel Structure Works	: 8.000 ton
Mechanical Equipment Manufacturing	: 5.600 ton
Mechanical Erection Works	: 12.500 ton

■ Raw Mill - Exhaust Gas Conditioning

industry

■ Preheater Tower

■ Circular Limestone and Longitudinal Shale Blending Bed

■ General View of 7500 tons/day Clinker Capacity ÇİMKO Cement Plant

"the biggest cement production line of Turkey with its single kiln, stock hall and total silo capacities"

cement

ÇİMKO CEMENT FACTORY

7500 tons/day

Kahramanmaraş, TURKEY

EPC TURNKEY

The project has been realized as an EPC Contract including the entire design works starting from the lay-out to detail shop drawings, complete local fabrication, civil works and mechanical erection works of ÇİMKO Cement Factory for SANKO Holding Company.

The plant has been completed and put into operation in a very short period like 18 months as the imported part of mechanical equipments were made ready by the client before the award of the contract.

The plant has the following units

- Coal Crushing Plant
- Circular Coal Mixing Bed
- Shale Crushing Building
- Limestone Crushing Building
- Longitudinal Shale Blending Bed
- Limestone and Shale Storage Building
- Circular Limestone Blending Bed
- Raw Material Storage Bins
- Raw Mills and Bag Filters (3 nos. 280 tons/hr each)
- Hot Gas Ducts and Cooling Towers (3 nos.)
- Raw Mill Silos (2 nos. 20.000 tons each)
- Coal Mills and Bag Filters (2 Nos. 35 tons/hr each)
- Preheater Tower (130 m height)
- Rotary Kiln and Tertiary Air Duct
- Clinker Cooler and ESP
- Clinker Silo (250.000 tons)
- Additive Storage Bins
- Cement Mills (3 nos. 180 tons/hr each)
- Cement Silos (4 nos. 20.000 tons each)
- Packing and Truck Heading (4 Lines)
- Fuel-Oil Storage and Treatment Plant
- Water Storage & Treatment Plant
- Main Substation, Unit Substations and Electrical Rooms
- Central Control and Management Building
- Workshops and Stores
- Raw Material and Product Truck Weighing Bridges

Cement Silos

■ Rotary Kiln

"10,000 tons/day cement production capacity with one burning line"

■ Raw Mill Gas Ducts

Circular Coal Mixing Bed and Cement Silos ■

■ Erection Works at Circular Storage Area

cement

ÇİMKO CEMENT FACTORY

7500 tons/day

Kahramanmaraş, TURKEY

■ Additive Storage Building

■ General View

■ Clinker Silo

■ Main Quantities

Concrete	: 200,000 m³
Steel Structure Manufacturing & Erection Works	: 14,000 tons
Mechanical Manufacturing Works	: 11,000 tons
Mechanical Erection Works	: 21,000 tons

■ Clinker Silo

■ Raw Mill

■ General View

■ Main Quantities

Concrete	: 70,000 m^3
Steel Structure Manufacturing & Erection Works	: 4700 tons
Mechanical Manufacturing & Erection Works	: 5100 tons

■ Coal and Additives Storage Buildings and Clinker Silo

EPC TURNKEY

CIMPOR HASANOĞLAN NEW CLINKER LINE

2500 tons/day

Ankara, TURKEY

Hasanoğlan New Clinker Line EPC Contract which has been awarded by CIMPOR YİBİTAŞ, has been completed and the daily clinker production capacity of 2500 tons has been achieved in accordance with the requirements of the Client.

The plant located in Hasanoğlan-Ankara covered the engineering, procurement, construction (civil, mechanical, electrical and automation works), commissioning and start up of the new greenfield clinker line.

■ Rotary Kiln

The plant has the following units

- Raw Material Transport to Storage
- Clay Crusher
- Clay Transport to Storage
- Clay Storage (5.000 tons)
- Raw Material Storage (10.500 tons)
- Raw Material Reclaiming
- Raw Mill Hoppers and Raw Mill (185tons/hr)
- Homogenization Silo Feeding
- Clay Reclaiming
- Homogenization Silo (4.000 tons)
- Preheater Feeding
- Preheater
- Raw Mill Dedusting
- Rotary Kiln
- Cooler
- Cooler Dedusting
- Cooler Discharge
- Secondary Crusher
- Cement Additivies Storage (15.400 tons)
- Clinker Silo (70.000 tons)
- Clinker Silo Discharge
- Cement Additives Reclaiming
- Cement Mill Hoppers
- Coal Storage (8.000 tons)
- Coal Reclaiming
- Coal Mill (12 tons/hr)

■ General View of Aşkale Plant

EPC TURNKEY

AŞKALE NEW CLINKER LINE

3500 tons/day

Erzurum, TURKEY

■ General View

■ Main Quantities

Concrete	: 12.500 m^3
Steel Structure Manufacturing & Erection Works	: 950 tons
Mechanical Manufacturing Works	: 2100 tons
Mechanical Erection Works	: 2800 tons

The plant has the following units

The plant consists of the turnkey (on EPC basis) construction of:

- Farine Homogination
- Precalcination
- Rotary Kiln
- Clinker Cooler
- ESP
- Coal Mill (25 tons/hr capacity)
- Material Transportation Units

During the performance tests carried out at the commissioning period, the plant has reached to a production capacity of 3800 tons/day.

■ A View from Inaugural Ceremony

■ Erection of Ball Mill

TRABZON CEMENT FACTORY

85 tons/hr Cement Grinding Plant

Trabzon, TURKEY

EPC TURNKEY

Engineering, procurement, construction (civil, mechanical, electrical and automation works), commissioning and start up services have been given for the cement grinding plant having a capacity of 85 tons/hr at Trabzon at the northern part of Turkey for Aşkale Cement Factory.

The cement grinding plant consists of 3 nos of additive bunkers, conveying systems, mill building, cement conveying lines, process filters, air slides and elevators.

■ Cement Silos and Cement Grinding Plant

Industrial Plants

Sugar Production Plants & Refineries ■
Food & Beverage Facilities ■
Waste Treatment Plants ■
Sulphuric Acid Plants ■
Chemical Plants ■

■ Raw Water, Demineralized Water Tanks

■ Main Quantities

Excavation & Backfilling	: 287.800 m^3
Reinforced Concrete	: 25.000 m^3
Steel Structure	: 1.600 ton
Mechanical Equipment & Piping	: 3.200 ton
Refractory & Acid Brick Lining	: 547 ton
Insulation	: 13.800 m^2
Electrical & Instrumentation Cables	: 267.000 m

■ Acid Storage Tanks

ETI MADEN
350.000TPY SULPHURIC ACID PRODUCTION PLANT
Emet, TURKEY

EPC TURNKEY

The Project scope covers design, manufacturing/supply, construction, installation, testing, commissioning, training and putting into successful operation of the complete sulphuric acid plant on a Turnkey basis. The greenfield Project is realized near Etimaden's existing boric acid plant at Emet and all necessary modifications to existing boric acid plant to integrate with the new plant is under the scope of Ekon. The plant is built using sulphur burning technology and will have necessary auxiliary facilities such as demineralized water treatment plant, waste treatment, natural gas system, fire fighting system etc. Steam produced by the acid process will be used to generate electricity up to 15 MW by a steam turbine/generator which will be supplied within the scope of project.

■ General View of Site

Electrical Building,
Turbine-Generator Building

Demineralized Water Treatment Building

Project Covers

- Basic and Detail Engineering
- Civil Works
- Structural Steel Manufacturing & Erection
- Technological Equipment Supply and Erection
- HVAC Systems
- Piping Fabrication and Erection
- Electrical – I&C Supply & Installation
- Commissioning and Start-up
- Training

Workshop Building

ETI MADEN

350.000TPY SULPHURIC ACID PRODUCTION PLANT

Emet, TURKEY

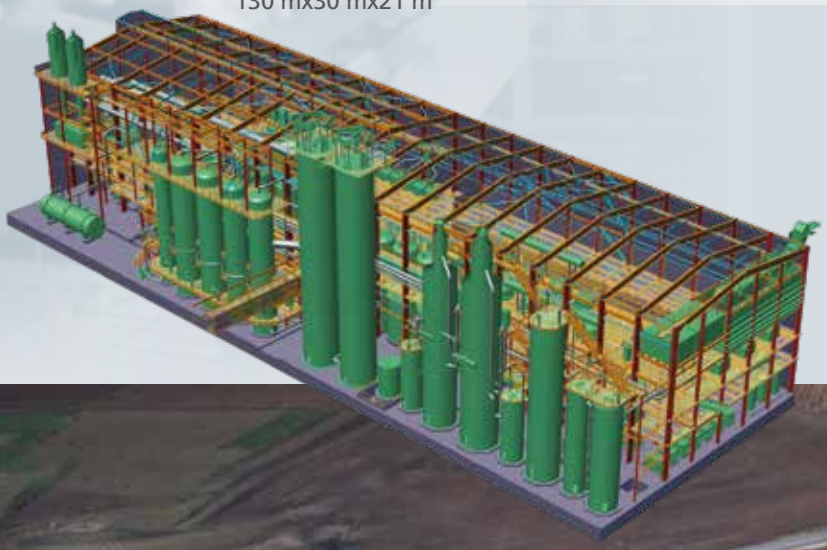
Sulphur Storage Building

Sulphur Handling Conveyor

Main Quantities

Excavation Works	: 350,000 m^3
Concrete	: 55,000 m^3
Steel Structure Manufacturing & Erection Works	: 5250 tons
Mechanical Manufacturing & Erection Works	: 3750 tons
Piping Supply & Erection Works	: 1250 tons
Insulation Material Supply & Erection Works	: 60,000 m^2
Electrical Cable and Auxi. Supply & Erection Works	: 505,000 m

Main Process Building
130 mx30 mx21 m



General View of 10,000 tons/day Sugar Beet Slicing Capacity Boğazlıyan Sugar Factory

BOĞAZLIYAN SUGAR FACTORY

10,000 tons/day

Yozgat, TURKEY

EPC TURNKEY

As being the biggest investment project of Kayseri Sugar Factories Co., largest and most modern sugar factory of Turkey, 10,000 tons/day Sugar Beet Slicing Capacity Boğazlıyan Sugar Factory has been realized as an engineering, procurement and construction contract on turnkey basis covering all civil, mechanical, electrical and automation works, commissioning and start up of the sugar factory.

The project has been completed by a consortium formed by OYAK- EKON - PROKON Companies of Turkey and the technological partners FIVES CAIL and MAGUIN of France in a very short period like 17 months.

Within the content of the factory which has been put into operation in 15 months, FIVES CAIL and MAGUIN have supplied some of the technological equipments.

■ Diffusion Tower

■ **Lime Kiln:** 500 m^3

al plants

■ **Evaporation** - 5 sets of falling film evaporators

■ Raw Sherbet Tanks

■ **Beet Yard**
Total Area : 98,500 m²
Open Stock Area : 250,000 tons sugar beet
Weighing Bridge : 4 nos (60 weightings/h each)
Sampling Station : 2 Sampling Lines (Fully Automated, 60 samples/h each)
Beet Laboratory : 2 Lines (Fully Automated, 60 samples/h each)
Stationary Back Tipping Platforms for Beet Trucks (3 nos)
Mobile Unloading Back Tippers for Beet Tractors (2 nos)

■ **Beet Conveyor** : 500 t/h - 650 m

■ **Slicing**
Beet hopper (420 t)
Drum beet slicers (3 nos, 6000 t/day each)

■ **Sugar Dryer**
Nominal Capacity: 80 t/h
White sugar is dried and cooled in rotary drum dryer.

■ **Sugar Conveying**
Sugar Conveyor 503 m (6m - 144m, 80-200t/h)

■ **Plant Roads**: 97,000 m²

■ Back Tipping

■ **Beet Washing Plant:** Drum beet washer (500 t/h)

BOĞAZLIYAN SUGAR FACTORY

10,000 tons/day

Yozgat, TURKEY

Crystallisation - Batch Centrifugals

Crystallisation - Continuous Centrifugals

■ Crystallisation - Batch Plan

■ **Pulp Pressing**
Press feeding screw
Pulp presses

■ **Purification Plant**
Vertical continuous prelimer "Naveau" type
Liming tank
Maturation tank
First carbonation vessel
Trouble tank and juice tank
First carbonation filtration
4 mud press filters
Second carbonation vessel
Filters for second carbonation juice
Decalcification station

■ **Energy Plant**
Steam Turbines : 2 x 8200 kW

■ **Storage Tanks**

Molasses tanks	: 2 nos of 11,000 tons
Fuel Oil Tank	: 5000 tons
Acid tank	: 60 m^3
Caustic Soda Tank	: 30 m^3
Disenfectant Tank	: 50 m^3

- **Crystallisation**
  Continuous Vacuum Pan (3 nos)
  Continuous Centrifugals (10 nos)
  Batch Centrifugals (5 nos)
  Magma Batch Pan (3 nos)

BOĞAZLIYAN SUGAR FACTORY

10,000 tons/day
Yozgat, TURKEY

- **Boiler Building**
  Steam Boiler: 2 x 75 tons/h
  Steam Boiler: 20 tons/h
  Steam Boiler: 10 tons/h

Waste Water Treatment Plant
A complete system including physical, anaerobic and aerobic treatments has been applied for the overflow water coming from the Clarifier and from the process. Total capacity: 335 m^3/h

12x11,000 tons Molasses Tanks
5000 tons Fuel-Oil Tank

BOĞAZLIYAN SUGAR FACTORY

10,000 tons/day

Yozgat, TURKEY

- **Bagged Sugar Storage Building:** 20,000 tons
  Dedusting equipment for silo: 16,000 m/h
  Big bag unit
  Truck loader (2 nos each 2800 bags/h)
  Bagging equipment

- **Sugar Silo** (60,000 tons, 116.5 x 57.8 x 50 m)

al plants

Building Construction

- Hotel & Residential Buildings
- Industrial Buildings
- Educational Buildings
- Sports Complexes
- Airports
- Military Facilities


PROKON
EKON
70


building co

PROKON - EKON GROUP HEADQUARTERS

Ankara, TURKEY

Prokon - Ekon Group has decided to gather all the companies within the group under one roof. It is decided to design and build a new "green" building on the existing factory campus area of 165.000 m^2 .

Headquarter is designed with a modern architectural concept featuring transparency. The steel elements are left open in order to be identified at interior and the facade of the building is selected as glass facade system in order for steel elements to be spotted from outside.

The structural design of the building pushes the boundaries with console block having 22 m width and reaching a length of 16 m, the composite floors having just 10 cm thickness, and stairs having 6 m console length and produced with only plates.

The details of the headquarter building are as follows:

- 16.750 m^2 construction area
- 8.000 m^2 closed area (excluding the car parks)
- Conference hall with 120 person capacity
- Working area for 270 person
- Car park for 140 vehicles
- Cafeteria
- 90 m^2 fitness area
- 700 ton of steel structure is used

The following design approaches were applied for LEED Platinum Certificate:

- Building shell is specially designed to reduce energy consumption
- Following systems are used: Trigeneration, Solar Collectors, Solar Wall, Thermal Storage, Building Automation System, Air Quality System, Gray Water System, Sun Light Control, Illumination Automation.

Project Covers

- Basic and Detail Engineering
- Civil Works
- Structural Steel Manufacturing & Erection
- HVAC Systems
- Fire Detection & Fighting Systems
- Electrical – I&C Supply & Installation

Prokon-Ekon Headquarters is LEED PLATINUM CERTIFIED (2nd highest score in Turkey and ranked 31st in the top 100 LEED certified buildings in the World.)

Project Covers

- Basic and Detail Engineering
- Civil Works
- Structural Steel Manufacturing & Erection
- HVAC Systems
- Fire Detection & Fighting Systems
- Electrical – I&C Supply & Installation

Swimming Pool

10ÇORLU RESIDENTIAL COMPLEX

Tekirdağ, TURKEY

Being Ekon's own investment, the project is realized on an area of 30.254 m² which is situated on West side of Çorlu, near the Main Tekirdağ road.

Project has a total of 574 seperate units covering 550 houses (1+1, 2+1, 3+1, 4+1 and dublex) and 24 commercial units in different sizes.

Current Construction Site

Main Quantities

Total construction area: 97.916 m²
Commercial areas: 4.082 m²
Closed parking area: 16.944 m²
Swimming Pool: 400 m²

nstruction

ÇORLU PARK COMPLEX

Tekirdağ, TURKEY

Çorlu Park Complex as being an investment project of PROKON-EKON Group of Companies in Çorlu, consists of 9 nos of blocks with 14 nos storeys, having 560 nos dwelling units.

In the construction of the buildings mat foundation system and tunnel formwork technology have been applied in accordance with statical system designs. Primary importance to quality has been given from the type of materials used and to the workmanship carried out.

Main Quantities

Dwelling Units

Total Area of Land: 34,319 m^2
No of Blocks: 9
No of Floors: Basement + Ground Floor + 13 Floors
No of Dwelling Units: 560 (with 147 m^2, 132 m^2, 100 m^2, 90 m^2, 75 m^2)
Total Closed Area: 82,486 m^2
Closed Area for Social Facilities: 1,054 m^2
Landscaping Area: 17,000 m^2
Area of Parking Lot and Roads: 12,000 m^2

BİLKENT HOUSES

Ankara, TURKEY

The project which has been located in Bilkent region of Ankara, constituted the construction of 3 nos of apartments and has a total closed covered area of 6,676 m^2.

ÇEVREGÖL VILLAS

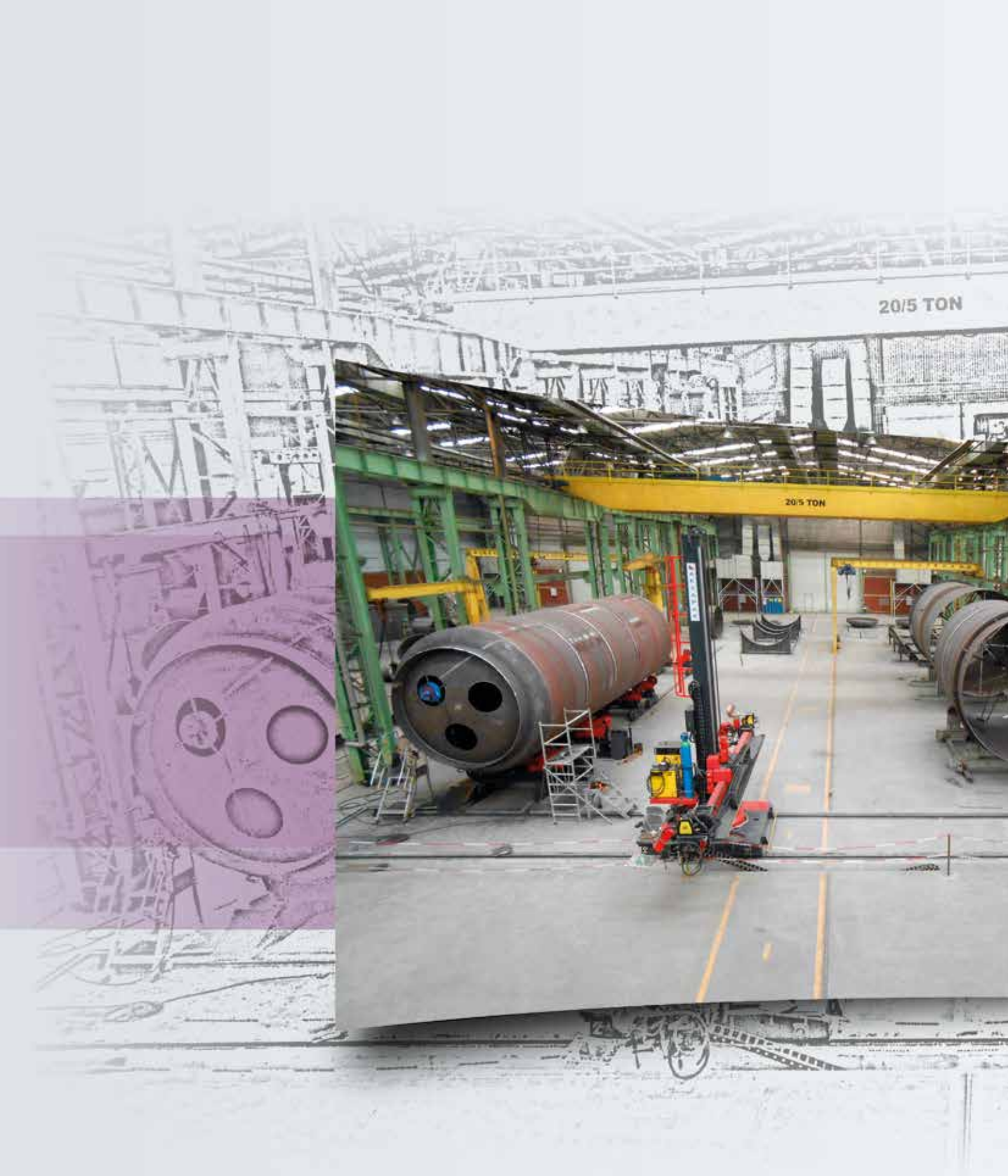
Ankara, TURKEY

The project which has been located in İncek region of Ankara, constituted the construction of 194 nos villas each having a covered area of 257 m^2 with a total closed area of 55,255 m^2.

The project covered the construction of

- No of Villas: 194
- Area: 275 m^2
- Total Closed Area: 55,255 m^2
- Sewerage and Rainwater Collection Network (~Ø500 R.C pipes, length 17,915 m)
- Potable Water Network (~Ø500 polyethylene pipes, 6780 m)
- Road Construction Works (stone pavement - 66,550 m^2)
- Electrical Network (43,000 m)
- Telecommunication Network (15,500 m)
- Underground Water Storage Tanks (500 tons and 250 tons)
- Landscaping Works (191,350 m^2)
- Lightening Works (191,350 m^2)

nstruction


20/5 TON
20/5 TON

Manufacturing Works

Process equipment for:

- Oil&Gas Plants
- Petrochemical & Refining
- Chemical Plants
- Energy & Power Industry
- Cement Industry
- Iron&Steel Industry

■ Manufacturing of Sulphuric Acid Plant Equipment

■ Manufacturing of Mill Parts

■ General View From the Factory

MANUFACTURING FACTORY

Ankara, TURKEY

The Manufacturing Factory of PROKON-EKON GROUP is located on Ankara-İstanbul Highway and has logistics and transportation capabilities to any where in the world through Turkey's international harbours by land transportation.

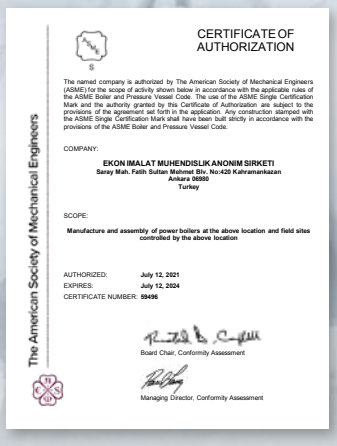
The Manufacturing Factory has been built on an area of 165,000 m^2, having **17,000 m^2 closed** and 20,000 m^2 open manufacturing and product storage areas, social, administrative and auxiliary services with capability of manufacturing pressurized vessels and process equipment for heavy industry.

The Factory complies with the quality standards and has obtained **ISO 9001:2015, ISO 14001:2015, ISO 45001, EN 1090-2 and EN 3834-2** certificates and has been certified and accredited by **ASME (American Society of Mechanical Engineers)** for **Manufacturing of Boilers and Pressure Vessels with "U", "U2" and "S" Stamps.**

Services have been provided to the clients and main contractors from **USA, England, Italy, Germany, India, Russia, Brazil and Mexico** and it has been planned to broaden the activities on worldwide basis.

General View From the Factory

MANUFACTURING CERTIFICATES



CERTIFICATE OF AUTHORIZATION

S

The named company is authorized by The American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the ASME Single Certification Mark and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with the ASME Single Certification Mark shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:

EKON IMALAT MUHENDISLIK ANONIM SIRKETI
Saray Mah. Fatih Sultan Mehmet Blv. No:420 Kahramankazan
Ankara 06980
Turkey

SCOPE:

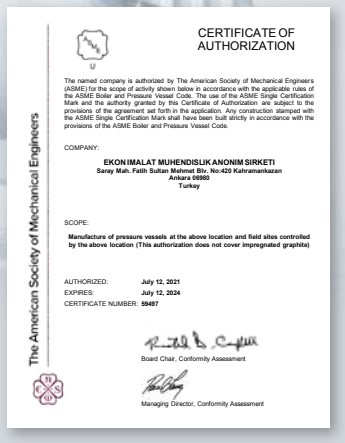
Manufacture and assembly of power boilers at the above location and field sites controlled by the above location

AUTHORIZED: **July 12, 2021**
EXPIRES: **July 12, 2024**
CERTIFICATE NUMBER: **59496**

Board Chair, Conformity Assessment

Managing Director, Conformity Assessment

The American Society of Mechanical Engineers



CERTIFICATE OF AUTHORIZATION

U

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COMPANY:

EKON IMALAT MUHENDISLIK ANONIM SIRKETI
Saray Mah. Fatih Sultan Mehmet Blv. No:420 Kahramankazan
Ankara 06980
Turkey

SCOPE:

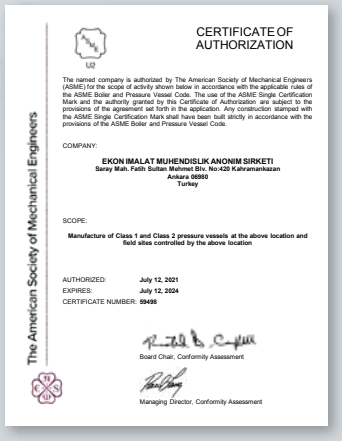
Manufacture of pressure vessels at the above location and field sites controlled by the above location (This authorization does not cover impregnated graphite)

AUTHORIZED: **July 12, 2021**
EXPIRES: **July 12, 2024**
CERTIFICATE NUMBER: **59497**

Board Chair, Conformity Assessment

Managing Director, Conformity Assessment

The American Society of Mechanical Engineers



CERTIFICATE OF AUTHORIZATION

U2

The named company is authorized by The American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the ASME Single Certification Mark and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with the ASME Single Certification Mark shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:

EKON IMALAT MUHENDISLIK ANONIM SIRKETI
Saray Mah. Fatih Sultan Mehmet Blv. No:420 Kahramankazan
Ankara 06980
Turkey

SCOPE:

Manufacture of Class 1 and Class 2 pressure vessels at the above location and field sites controlled by the above location

AUTHORIZED: **July 12, 2021**
EXPIRES: **July 12, 2024**
CERTIFICATE NUMBER: **59498**

Board Chair, Conformity Assessment

Managing Director, Conformity Assessment

The American Society of Mechanical Engineers

TÜV NORD

CERTIFICATE

TÜV Teknik Kontrol ve Belgelendirme A.Ş.

Conformity of the Factory Production Control

TÜV NORD

CERTIFICATE

TÜV Teknik Kontrol ve Belgelendirme A.Ş.

Quality requirements for fusion welding of metallic materials

EN ISO 3834-2

TÜV NORD

Annex 1

TÜV Teknik Kontrol ve Belgelendirme A.Ş.

EN ISO 3834-2

TÜV NORD

CERTIFICATE

TÜV NORD

CERTIFICATE

TÜV NORD

CERTIFICATE

THE NATIONAL BOARD OF BOILER & PRESSURE VESSEL INSPECTORS

Certificate of Authorization

This is to certify that

EKON IMALAT MUHENDISLIK ANONIM SIRKETI
Saray Mah. Fatih Sultan Mehmet Blv. No: 420
Kahramankazan Ankara 06980
Turkey
Acceptable Abbreviation: EKON

is authorized to use the R Symbol in accordance with the provisions of the National Board Inspection Code and NB-415, Accreditation of "R" Repair Organizations.

All activities within the scope of this Authorization shall be controlled by the above location.
The scope of this Authorization is limited to:

Metallic
Repairs and Alterations
At
Shop and Field Locations

Certification Number: 11721

Issue Date: July 7, 2021
Expiration Date: July 6, 2024
Executive Director

Notes

Notes

"Since 1974, we provide
Engineering, Procurement and Construction Services"

PROKON EKON GROUP

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