



TECHNOLOGY



ENVIRONMENT



HUMAN



Leading Engineering Company

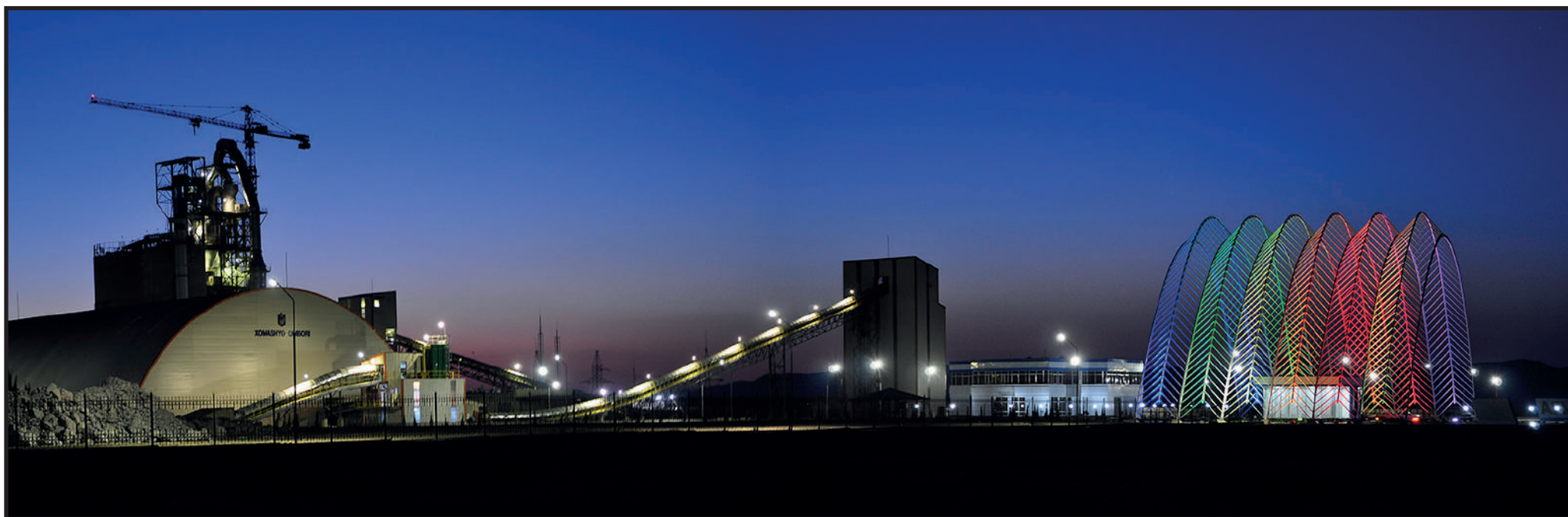
We are capable of; designing, producing, integrating equipments, accomplishing turn-key projects. We develop, engineer and build greenfield projects and revamp, upgrade brownfield facilities

The Most Innovative

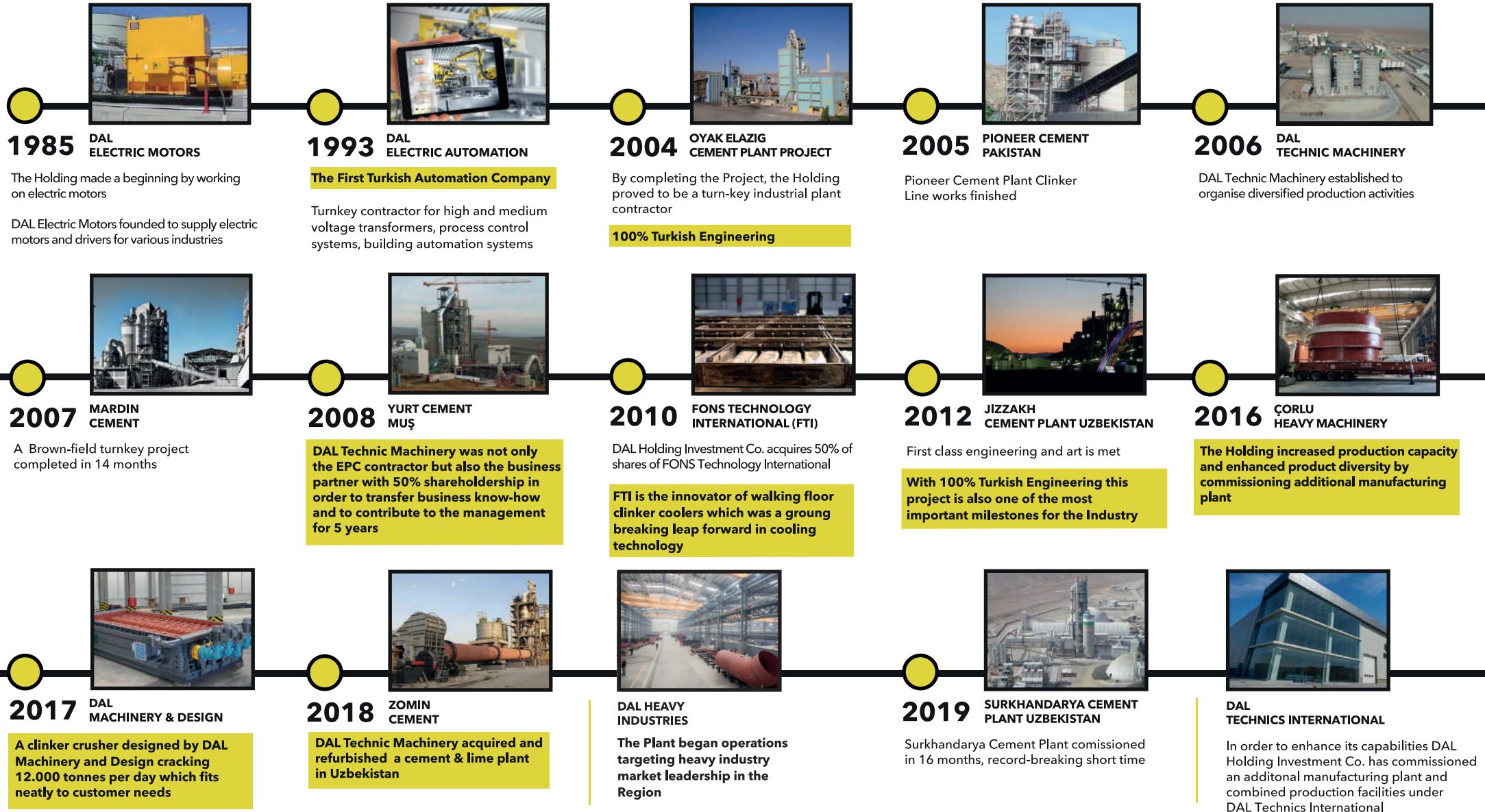
We enhance and sustain value creation by innovation. We have a strong R&D center that always welcomes sharp minds with fresh ideas. We have made remarkable contributions to the technological advancement in areas we are active

Multidisciplinary Approach





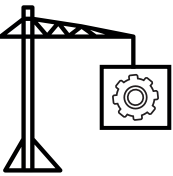

We employ technology for the good of human and nature. This technology comes from a set of diverse areas such as energy efficiency, digitalisation and process optimisation



HOLDING HISTORY [1/2]





- **DAL Electric Motors Co. the pioneer company of the Holding was founded in 1985, 35 years ago**, to provide electric motors and actuators for various industries in Turkey
- Varying from analysis devices to sophisticated mills, the Holding had delivered numerous equipments and has been representing many international brands in Turkish Market and also active in several industries
- The achievements of this Venture were followed by **Turkey's first turn-key basis automation company in 1993, DAL Automation Company**, which successfully satisfied Turkish Heavy Industry's needs
- Sparked with the success in meeting its commitments, the Holding became **the first Turkish Company to get involved in the construction of a cement plant on turn-key basis**. The company erected a Cement Plant for Oyak Cement in a short span of time in the 2004, which was more than satisfactory
- **In 2005, an efficient Clinker Production line with 4.000 tonnes per day capacity was commissioned for Pioneer Cement Plant in Pakistan on EPC Basis**
- **In 2006 DAL Technic Machinery Co was founded** to create synergy and to coordinate diversifying activities of the Companies
- Mardin Cement Plant was completed in 2007, which is followed by the Muş Cement in 2008
- **The Muş Cement plant was a cornerstone in Holding's history since the Holding was also the business partner to the Project Sponsor with 50% shares in the Plant for five years. The Holding proved its capabilities not only for building a Cement Plant, but also running cement business successfully**
- In **2010** DAL Holding acquired 50 % shares of the FONS Technology International (FTI). This alliance today leads the cooling technology in cement industry
- In **2017**, the Holding's engagement in R&D works materialised in a high capacity and efficient equipment which is one **of the biggest clinker crusher with a capacity 12.000 tonnes per day**
- **Several EPC** projects have been accomplished since then, including state-of-art **Jizzakh Plant in Uzbekistan** and many more. Upon success in commitments undertaken, in **2016, the Surkhandarya Cement Plant** works have begun and the 2 million TPY capacity Plant **was commissioned in 2019**

 <p>Up to 2.000 employees</p> <p>One of the leading players in the Industry with skilled and open-minded employees</p>	 <p>Global investments and projects</p> <p>The opportunities in South America, Africa, Far East, Central Asia and Middle East region are on the radar</p>	 <p>In the Top 5</p> <p>Among the leading 5 technology, engineering and critical equipment supplier groups in the Industry</p>
 <p>At your service</p> <p>Active in Cement, Construction, Energy, Chemicals and Mineral Resources Industries</p>	 <p>One of the top 10</p> <p>Among the top 10 in EPC turnkey solutions</p>	 <p>From United States to Japan</p> <p>Providing technologies all over the World</p>

- The Holding grew into one of the **world's leading engineering and contractor companies** in industries including but not limited to cement, mining and energy
- Up to 2.000 professional employees the Holding draws significant attention from several businesses and industries both globally and locally, owing to its achievements stemming from **Turkish engineering**
- The Holding is a **leading EPC Contractor and critical equipment supplier** in Heavy Industries
- Today, **DAL Holding Investment Co. continues to extend its scope all over the world** and **follows investment opportunities and prospective projects in South America, Africa, Far East, Middle East and Central Asia**
- The Holding has **broadened production capabilities** by commissioning several workshops under **DAL Technics International**
- The Holding expanded its activities to metal structures and equipments by incorporating **DAL Heavy Industries** in Uzbekistan. Also the Holding owned a Cement Plant in Zomin Uzbekistan

- The Holding has the following Companies which are **among pioneers in their fields** and are providing their technology globally:



 JCR Eurasia Rating <small>"Global Knowledge Supported by Local Experience"</small>				
Corporate Credit Rating				
 DEG DAL TEKNİK MAKİNA		35 <small>YEARS</small>		
		Long Term		Short Term
International	Foreign Currency		BBB-	A-3
	Local Currency		BBB-	A-3
	Outlook	FC	Stable	Stable
		LC	Stable	Stable
National	Local Rating		BBB+(Trk)	A-2(Trk)
	Outlook		Positive	Stable
Sponsor Support		3	-	
Stand Alone		BC	-	
Sovereign®	Foreign Currency		BBB-	-
	Local Currency		BBB-	-
	Outlook	FC	Stable	-
		LC	Stable	-

DAL Technic Machinery Co., the flagship of the Holding is confirmed as **investable** in the rating analysis of the JCR Eurasia Rating issued on 14 April 2017

The long term international foreign and local currency ratings are **BBB-** with **stable** outlook, the long term national rating is **BBB+(Trk)** with **positive** outlook

The short term international rating is **A-3**, while the short term national local rating is **A-2(Trk)** and the outlook is **stable**

Other details of the ratings are specified in the table





 **DAL**
Technic Machinery



100% Turkish engineering

**Annual production volume of the commissioned projects:
more than 10 million tons**

One of the leading 10 companies in the global industry

References

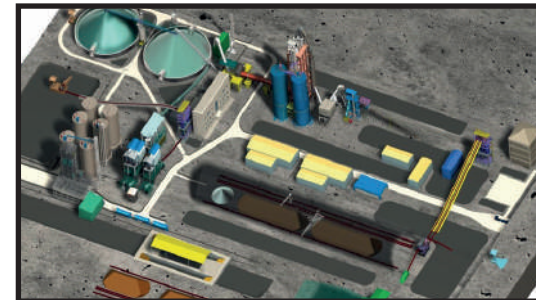
Surkhandarya Cement Plant Uzbekistan	AGMK Uzbekistan
Jizzakh Cement Plant Uzbekistan	Eurocement Russia
Gazakh Cement Plant Azerbaijan	Cementos Nacionales Colombia
Pioneer Cement Pakistan	Medgidia Cement Plant Romania
Yurt Cement Mus	Marzinc Waelz Process Plant
Oyak Cement Mardin	Nuh Cement
Oyak Cement Elazığ	Cimko Adiyaman Cement
Adocim Tokat Plant	

DAL Technic Machinery Co., the flagship of the Holding, was established in 2006 and it has been carrying out domestic and international projects on turnkey basis with **100 % Turkish Engineering since then**

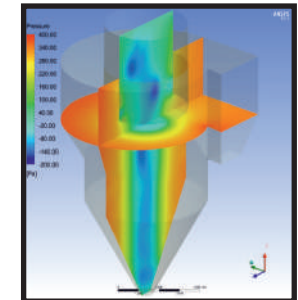
Total volume of annual production capacity of the commissioned projects in the cement industry is **more than 10 million tons**

Being the first and the only company with **100 % Turkish engineering**, **DAL Technic Machinery Co. leads the domestic market**

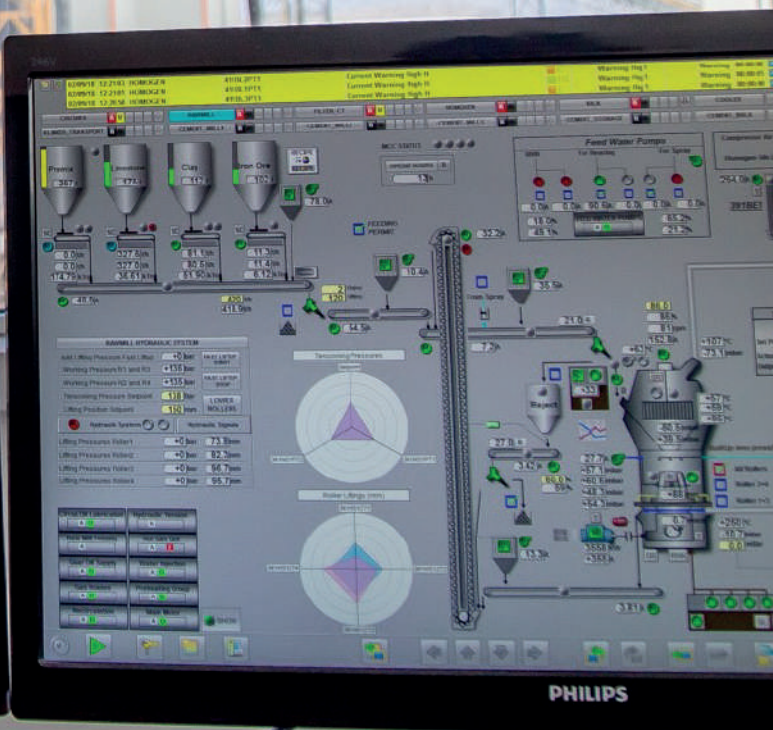
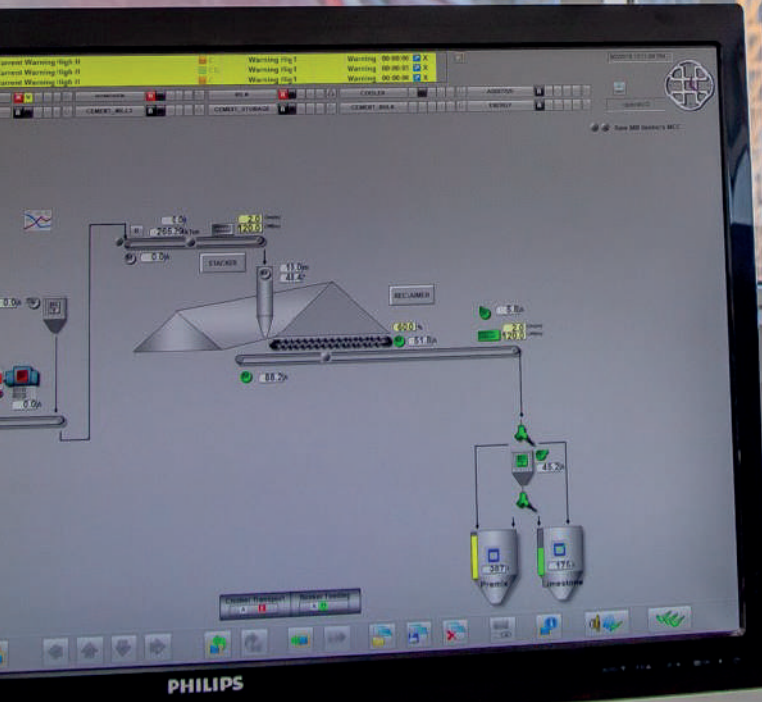
The Company also remains **robust in the international market** while competing with European Technology companies and Chinese EPC contractors, securing its place **in the top 10 league of the Industry**



Layout Works



Contour CFD



A Turnkey contractor

Solution partner: Siemens A&D
Business partners: Siemens, ABB, Schneider, Eaton

One of the top 5 companies in its sector

References

Cargill	Marzinc Waelz Process Plant
Titan Cement Tokat	Jizzakh Cement Plant Uzbekistan
Balkupu Sugar Plant	Kayseri Sugar Plant
Yurt Cement	Cimsa Afyon Plant
Isdemir Iron and Steel Plant	Adana Cement
Akcansa Cement Canakkale Plant	Surkhandarya Cement Plant Uzbekistan
Akcansa Cement Buyukcekmece Plant	Oyak Cement Mardin
Akcansa Cement Ladik Plant	Oyak Cement Bolu

DAL Electric Automation Co. is in the business to serve for heavy industry and manufacturing plants since 1993

The Company is a turnkey contractor of high and medium voltage transformer centers and low voltage distribution networks, process control systems, illumination systems, building automation systems, cabling including grounding of electricity and automation systems

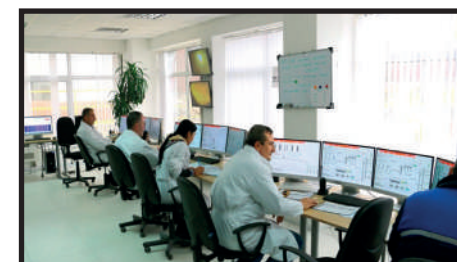
DAL Electric Automation Co. is a **solution partner of Siemens** and **business partners with ABB, Schneider and Eaton**

Apart from the Cement Industry, DAL Electric Automation Co. delivers solutions to Whitegoods, Steel, Automotive, Lime and Coal, Power Generation, Paper, Wood, Oil and Gas, Glass and Building Automation Industries

DAL Electric Automation Co. is one of the **top 5 companies in its sector**

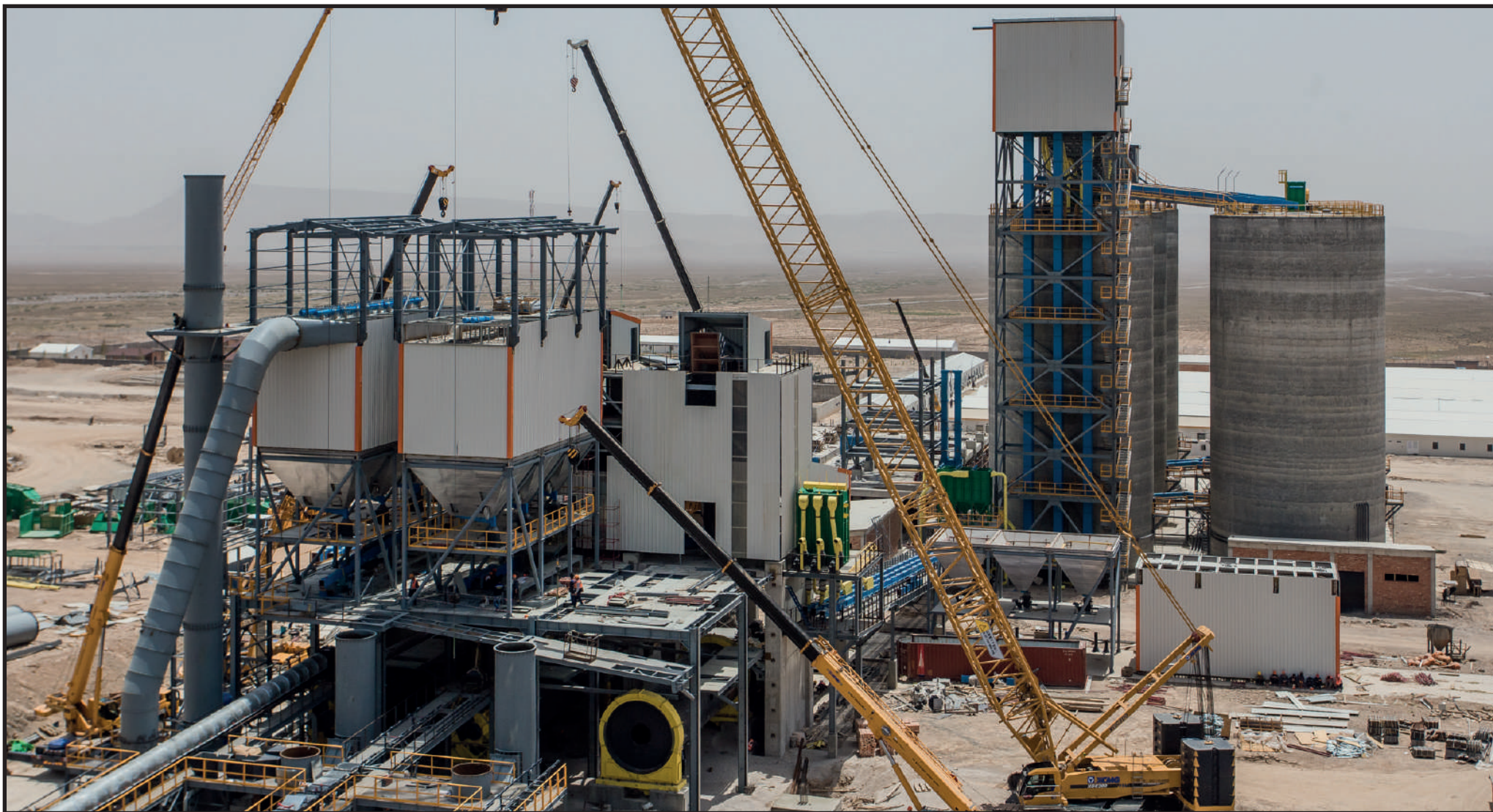


CCR - Central Control Room



CCR - Central Control Room

WORKS DURING THE CONSTRUCTION OF SURKHANDARYA CEMENT PLANT









12.000 tonnes per year metal processing capacity

The Products are fully complied with international standards such as ISO 3834-2

More than 250 employees are working in the Company

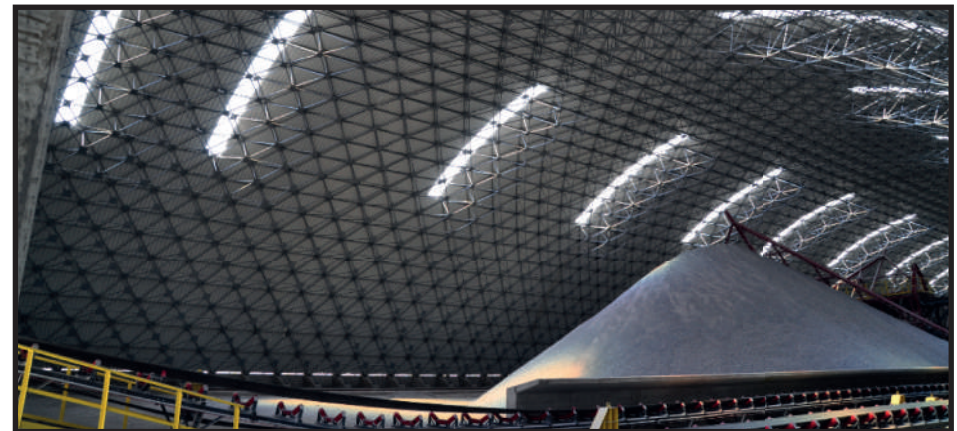
References

Mitsubishi Heavy Industries LLC	AKFA Group
Lukoil Subcontracted To Sofya Story	JSC Uzbekgidroenergoqurilish
YDA Construction - Kazakhstan	UMS (Universal Mobile Systems) LLC
Enter Engineering LLC	Discover Invest LLC
FC "Metal Invent (Orient Group) LLC	Trans Servis Komrleks LLC (Uzgidro)
Green Line Profil (Benkam) LLC	Afrosiyob Parranda LLC

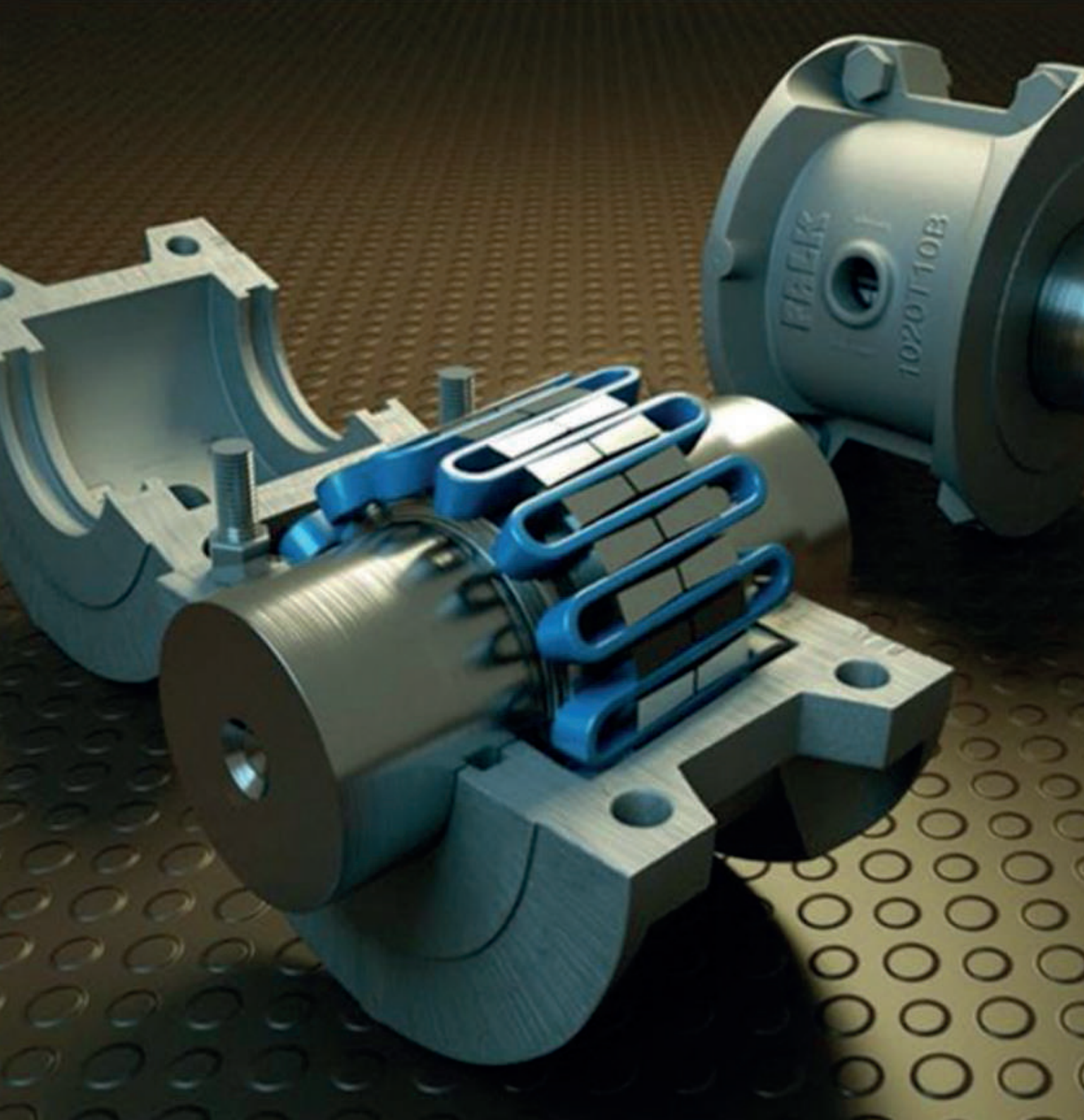
Located at 100 km south of Tashkent, Uzbekistan, the Plant is constructed over 13 hectares area in Angren Freezone, and has been commissioned in Summer 2018

The current capacity is 12.000 tonnes per year and gradually will increase to 24.000 tpy in the second phase and to 30.000 tpy in the third phase

DAL Heavy Industries is a **key metal construction company** in the Region since it's products fully complies with international standards such as **ISO 3834-2**. Several construction projects are being implemented in the region by institutions such as **IFC, EBRD** and multinational corporations which requires the construction to comply with international standards. **Higher quality of the products compared to local producers; lower transport costs and minimized operational risks compared to global producers will lead DAL Heavy Industries to become regional market leader**



Dome Construction





Provides tailor-made solutions in various industries

Representative of WEG, Falk Rexnord, ISGEV

One of the leading 5 companies in the world

References

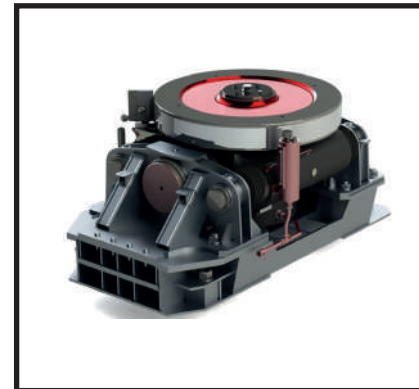
Pioneer Cement - Pakistan	Eti Silver
TUPRAS Kirikkale Refinery	Kroman Steel
Dalgakiran Compressor	ICDAS Iron and Steel
OYAK Mardin Cement	Marzinc Waelz Process Plant
AS Cement	MES Machine
Elazig Altinova Cement	MAS Pumps
Batisoke Cement	Turbosan
Yurt Cement	Standart Pumps
ADOCIM Artova Cement	CIMENTAS
ADOCIM Sultankoy Cement	State Hydraulic Works Directorate (DSI)
TUPRAS Metallurgy	CVS Machinery Construction

DAL Electric Motors Co. was established in 1985 in order to provide electric motors and equipments in a wide range of size and scope

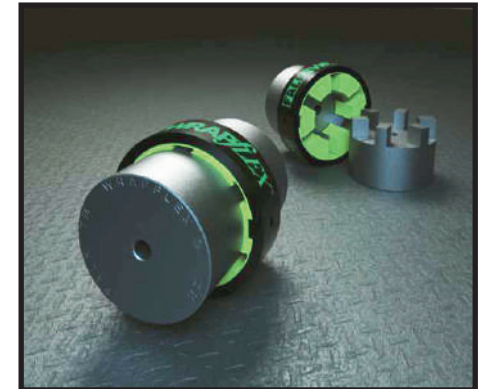
The Company focuses on tailor-made solutions for the **cement, lime, mining, mineral resources, electricity and automation industries** and provides technical service support

DAL Electric Motors Co. is among the **leading 5 companies in the industry world-wide**, procuring motors meeting the NEMA (The National Electrical Manufacturers Association of U.S.) standards

The Company is **distributor for well-known brands such as WEG, Falk Rexnord and ISGEV**



Hydraulic Thrust Roller



Wraplex



 **DAL**
Machinery&Design

Technology supplier

Customized training provider

One of the top 5 companies globally in equipments and machinery for mining and cement industry

DAL Machinery Design Co., as a **technology providing company**, provides tailor made and straight to the point solutions. The Company embraces creativity, which comes up with the most economic and environment friendly outcome

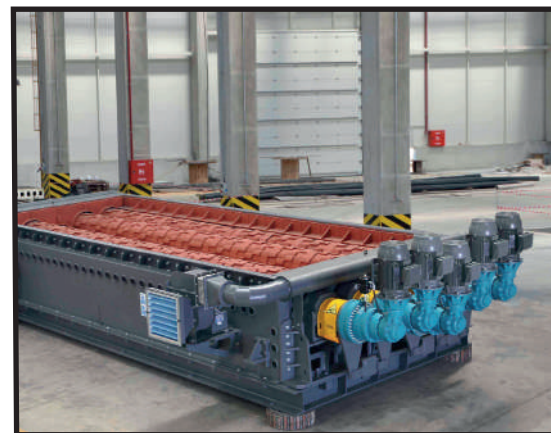
The Company also **provides Cement and Mineral Technologies / Industrial Services / Research & Development and Cement Factory Inspection Services**

The Company designs iron oxide, magnesite salt and cement plant equipments with focus on energy efficiency and return on investment

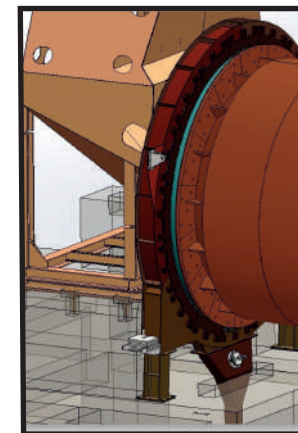
DAL Machinery Design Co. is among the **top 5 in the sector, at global scale**

References

Maihar Cement Plant India	Baikunth - Tilda India
Les Ciments De Jbel Oust Tunisia	Bestway Cement Hattar Pakistan
Linli Cement plant China	Lugait Plant Philippines
Tochigi Cement Plant Japan	Narlı Cement
Condorcocha plant Peru	Adana Cement Plant
Nuh Cement Plant Line 2	Sange Cement Plant China
Ako Cement Plant Japan	Lucky Cement Pezu plant Line A Pakistan
Popovac Cement Plant Serbia	Baticim Cement Plant
Lumbres Cement Plant France	Mersin Cement Plant
Surkhandarya Cement Plant Uzbekistan	Jizzakh Cement Plant Uzbekistan
Nuh Cement Plant Line 1	



Roll Clinker Crusher - 12000 tpd



Kiln Inlet Sealing



 **DAL Technics
International**

**Two manufacturing plants connected to
Regional Industrial Ecosystem**

Demand driven and flexible manufacturing capability

Excellent link to logistics facilities



● EFZ ○ Turkgücü ● The Holding Headquarters

DAL Holding Investment Co. collaborates with several business partners in the value creation process in order to provide goods and services accurately. Besides, the Holding has commissioned two manufacturing plants under DAL Technics International to extend its production capabilities

The Manufacturing Plants are interconnected to the huge supply chain ecosystem in the Region with many other global brands. The Holding aims to develop a demand driven value stream and enhance its lean synchronisation through this Ecosystem. This Regional Ecosystem became a key component of production competency of Turkey

Locations : European Free Zone Çorlu and Turkgücü Industrial Area

One of our manufacturing plant is located at European Free Zone which is founded on a land of 2 million square meters in Çorlu/Turkey

The second plant is at Turkgücü Industrial Area located 30 km South to the European Free Zone. Both locations are close to major transportation networks

Two main marine ports are within the close perimeter, no more than 80 km distance



Well designed modular manufacturing plants equipped with an easy access to loading docks for trucks, raised flow levers and clear open space

Each unit has its own dedicated loading yard with ram access for forklifts and has an ample on site parking

All units are built with the following specifications:

SPECIFICATIONS	EUROPEAN FREE ZONE ÇORLU	TURKGUCU INDUSTRIAL AREA
Indoor area	10.000 m ² (each building 5.000 m ²)	6.000 m ²
Surrounding area	25.000 m ²	9.000 m ²
Height under the crane	10,5 m	10 m
Management building	3 floor 500 m ²	400 m ²







 **DAL ENERGY**
Hydroelectric Plants Co.

A part of Holding's expansion and diversification policy

A good example of hydro electric plants with smallest foot print

17,06 MW capacity

The Holding recognizes the positive aspects of Hydroelectric Power. Hydroelectric power is a **green source of energy** as hydroelectric power plants **does not cause any pollution**. Besides **Hydroelectric power is a renewable energy source**, contrary to fossil fuels

DAL Energy Hydroelectric Plants Co. has acquired shares in a hydro electric power plant project and commissioned the power plant which is now operative

The Holding intends to repeat the success of the group companies and deepen their expansion in energy industry





FONS TECHNOLOGY
INTERNATIONAL

An Innovator and Technology Developer

One of the leading companies in clinker cooling technology

Offices in several countries including Denmark, Turkey, India, Czech Republic

References

Taiheiyo Cement Co. Ltd. Japan	Sumitomo Osaka Cement Co. Ltd. Japan
Mitsubishi Materials Corp. Japan	Kedah Cement Sdn. Bhd. Malaysia
UltraTech Cement Limited India	CBMI Construction Co. Ltd. Philippines
Taiheiyo Cement Philippines, INC Philippines	Votarantim Cimentos Tunisia
BBMG&JIDD Cement Building Material Co. Ltd. China	UNACEM S.A.A. Peru
East Hope Group Company Limited China	AGMK Uzbekistan
CRH Eqiom Lumbres France	Cimko Group Turkey
CRH Serbia Serbia	Asamer Group, Austria Bosnia
China United Cement Corporation (CUCC) China	Lucky Cement Ltd Pakistan
CRH Slovakia Slovakia	Sange Cement China

FONS Technology International produces clinker coolers with **high productivity to the world cement market**

FONS Technology International developed technologies to overcome challenging issues which decreases efficiency by causing stoppages, wear and tear part costs and energy losses

For driving the Fons Delta Cooler's shuttle floor, a patented system was developed, which works by rotation of only in four joint mechanisms. The Fons Delta Cooler's ingenious floor ensures transport efficiency of 90 % at least

The company is the **1st patent applicant of this improved technological system**



FONS Delta Cooler





DAL RENEWABLE
ENERGY INV. TECH. CO.

Turnkey solutions all over the world

An R&D intensive company

Aimed to meet energy needs to promote sustainability



Today renewable energy projects are not only being implemented in developed cities and regions, but also in the rural regions with the most adverse conditions because the rural communities require more to sustain their economy

DAL Renewable Energy Investment and Technologies Co. takes part in such initiatives. To give an example, DAL Renewable constructed and commissioned a Solar Plant for an agricultural cooperative in Central Anatolia. **The Solar Plant helps to sustain the economy of more than 1.000 families in a greener way**

The Company aims a **leap forward in energy efficiency by using hybrid-inverter systems and synchronously working solar and grid systems**

The Company also works on **R&D** which will **increase the efficiency of bioenergy plants** as well. The underlying idea is that a significant drop in the cost and size of the bioenergy plants will enable installation of such technologies all over the world





A stepwise modernisation plan is being applied

High quality products

Good potential for capacity increase



DAL Holding Investment Co., seeing the urge to develop Cement Industry in Uzbekistan, invested in an outdated Cement Plant and put forward a multi-stage modernisation and upgrade plan in 2017

Zomin Cement is located in Zomin, Jizzakh Region. It is equipped with modern technological equipments and is being run by DAL Holding's know-how

1st Phase of the investment plan was to increase capacity to 350 ton per day clinker and increase efficiency. This Phase has been accomplished successfully

2nd Phase investment will increase the capacity to 800 tons per day with further efficiency gains

Many years of experience in cement and lime production, investments in production development and new technologies, modern equipment, highly qualified personnel and high-quality raw materials of cement and limestone deposits allow us to manufacture products that meet the requirements of the most demanding consumer and comply with the requirements of regulations. The products have certificates of compliance, safety data sheets, a protocol for compliance with the standards of radiological safety

Each batch of products is accompanied by a quality certificate, confirming compliance with contractual requirements. The enterprise delivers the products, satisfying the most diverse needs of production workers and individual consumers

INVESTMENTS

UZBEKISTAN

DAL Heavy Industries
Angren Free Zone

Cement Factory
Zomin

Lime Factory
Zomin

Gas Concrete Plant
Zomin

Ready Mixed Concrete Plant
Zomin

Building Materials and Chemical Plant
Zomin

Zomin Paving Stone and
Concrete Elements Plant

MONTENEGRO

Lime
Factory

Gas Concrete
Plant

Paving Stone and Concrete
Materials Plant

Building Materials and
Chemicals Plant

Building and Metal
Structure Plant

Ready Mixed
Concrete Plant

TURKEY

Capacity increase and
production enhancement
investment in Corlu Region

17,06 MW
Hydroelectric Plant

GERMANY

An R&D center and
innovation hub

KAZAKHSTAN

A partnership agreement

signed with Kazakh Invest National Co. to
attract foreign direct investment

DAL Agropark Company

founded to develop greenhouse complexes

SURKHANDARYA CEMENT PLANT UZBEKISTAN





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