Company Introduction

Bursa Cement Factory Co., Inc. (Bursa Çimento Fabrikası A.Ş.) was established with 30,000,000 TL capital as an incorporated company on 14 July 1966 in Keşel/Bursa.

It is still keeping on the characteristic of being %100 open to the public.

The first production line was put into operation on 30.01.1969 with a 230,000 tons/year clinker production capacity and 250,000 tons/year cement grinding capacity. In 1976, by putting into operation the second production line, the clinker production capacity was increased to 480,000 tons/year and cement grinding capacity was 520,000 tons/year.

With the addition of the third cement mill, the cement grinding capacity was reached to 1,000,000 tons/year. In 1989, it was decided to increase of the clinker production by evaluating increasing demand, precalcination of the second production line was made and as a result clinker production capacity was reached 840,000 tons/year.

In 1992 by the modernization which was made in cement mills, cement grinding capacity was increased 1,200,000 tons/year and by the Roller Press Unit which was taken into operation in 1993, total cement grinding capacity of Bursa Cement Factory was increased 1,750,000 tons/year. In 1996, precalcination of the first line was made and clinker production capacity was increased to 1,350,000 tons/year and cement grinding capacity was reached 1,850,000 tons/year. Investments for the fourth cement mill with a capacity 175 t/h and a cement silo with 10,000 tons capacity were completed by 25th May 1999.

Today, 1,400,000 tons clinker production capacity and 2,850,000 tons cement grinding capacity and 31,000 tons cement stock capacity are available.

In order to meet cement demand in Kütahya region locally, “Kütahya Cement Mixing and Packing Plant” was taken into operation in Kütahya with a capacity of 80 tons per hour and with mixing technology in November 2005.

In Kütahya Cement Mixing and Packing Plant, the cement which is produced in Bursa Cement Factory and fly ash that is obtained from thermal power plants (Şeylîmver, Tunçbilek, Orhanlı) are mixed together for producing blended cement.
Our Mission

In Bursa Cement Factory Co., Inc. (Bursa Cimento Fabrikası A.Ş.) that structured according to the necessities of the modern era till its establishment, institution principle which it takes as a base to the Corporate Culture,

Contribution to the country's economy, gaining the perfect profitability which the conditions permits, by following and applying the latest technological developments, strengthening the reliability of its partners and continuity of their ownership emotion,

Our company that is a good model for the philosophy of open to public ownership that is the perfect tool in economic usage of the small savings, accepts the continuity of the multi partnered ownership structure,

Among the period of development and change, using possibilities and advantages that comes with the globalization,

To be in the actions aimed at customer satisfaction by producing quality goods and services in new and different areas,

Respectful to communal and environmental values,

Encouragement of the personnel’s creativity, participation and companion emotions in all phases of the activities,

is accepted as a indispensable MISSION.

Our Vision

Our vision as Bursa Cement Factory Co., Inc. (Bursa Cimento Fabrikası A.Ş.) is to strengthen and continue our image of being a model and a respected company with our reliable institutional culture, identity, production and capital structure in activity areas at national and international arena.
Our System

Our system consists of the below process;

Quarrying: Primary raw materials (limestone and clay) are taken from quarries and secondary raw material (sand) are brought from elsewhere to the factory.

Crushing: Limestone, gypsum, trass are crushed for decreasing of their dimension.

Raw material preparation: The raw materials which are controlled proportions are ground and dried in the raw mills to get raw meal for the dry kiln process. After that, the ground materials (raw meal) are homogenised to achieve the required chemical uniformity.

Fuel preparation: Main fuel is the coal (ignite). Besides, natural gas is used and alternative fuels are used to substitute in part for the main fuels. Drying and grinding together take place for solid fuel (coal) preparation in the coal mill. In addition to fossil fuel (coal), refuse derived fuel (textile, plastic, wood etc.) which is derived from industrial solid wastes which have high caloric value are shredded in RDF Facility and later they are fed into the rotary kiln calciner for getting heat requirement in the kiln. Moreover the liquid wastes (solvent, waste oil etc.) are separated and fed into the rotary kiln main burner.

Energy Production: The electrical energy is produced by means of waste heat recovery which is available from the exhaust gases of preheater and clinker cooler vent. This system mainly contains 3 PH boilers (the gas is taken from preheater cyclone), 2 AQC boilers (the gas is taken from clinker cooler), 1 Cooling Tower, 1 Water Treatment system, 1 Turbine – Generator (7.5 MW). The generated superheated steam in the boilers is sent to turbine and later the energy is produced through generator. Bursa Cement supplies 20-25% electrical energy of its required energy by means of Waste Heat Recovery Unit. It has the capacity to generate carbon dioxide emission reductions of roughly 28,000 tons/year.

Clinker burning (Kiln Operation): The raw meal is fed to the kiln system to produce clinker. Our kiln system is a dry process. Our kiln systems have preheater and preheater towers. During the kiln operation, the raw meal is dried-preheated-calcined-sintered successively. The sintered clinker is cooled fast by cooler fans. Then the clinker is stored in the closed concrete clinker silo.

Cement grinding: Portland cement is produced by intergrinding clinker and gypsum. In blended cements (composite cements) there are other constituents such as trass, fly ash. Grinding is realised in the cement mills. Moreover, Roller press unit (high pressure grinding roll) is used to comminate the clinker so this method of high pressure interparticle comminution produces compounded cakes of clinker. Besides, trass dryer unit also is used to dry and crush of trass material. The different cements which are produced in the cement mills are stored in cement silos.

Packing and dispatch: Cement may be shipped as bulk cement or packed into bags for dispatch. Cement which is stored in cement silos are packed via rotary packing. Bulk loading land carriers are pneumatic cement trucks so it is used in bulk loading. Besides, the cement can be shipped in bulk 1.5 m³ of big bags and 50 kg craft paper sacks packed in sling bags.
Bursa Cement Factory has 3 POLAB AOT systems for online analysis of the raw meal downstream of the raw material grinding system. As a result of using this system, stable raw mix with the right concentration of each of the main component is provided for the stability of the kiln operation.

Bursa Cement uses the most modern technologies. Some of these are;

- Bursa Cement Factory has 2 Rotallam Rotary Kiln Burner for firing of liquid, solid, gaseous fuels. This burner makes the use of up to 100% secondary fuel possible.

- All of the equipments are controlled in the Central Control Room via PCS7 CEMAT Automation System.

- Circular Mixing Bed for coal was put into operation in 2008. The Chevron stacking method is used for circular blending bed stockpiles. Problending stores are used for improving the chemical consistency of either a single component or a multiple component. As a result of this system, standard deviations of the chemical parameters in coal are minimized and the stable flame in the kiln burner is observed so, these results have a positive effect on the cost of fuel and energy.

- Big bag packing and storage unit was put into operation in 2008. The cement is filled into big bags of 1,5 tons each.

- RDF (Refuse Derived Fuel) Facility: RDF Facility was put into operation on October, 2011. Industrial wastes which have high caloric value are shredded in RDF Facility for preparing as an alternative fuel and later they are fed into the rotary kiln by means of dosing system. This facility consists of two shredders; Shredder-1 capacity is 25 th and Shredder-2 capacity is 10 th.

- ESP (Electrostatic Precipitator) Conversion To Bag Filter: Bursa Cement signed the contract with Redacem (Italy) on September, 2011. Kiln 1 jet pulse filter was put into operation on June, 2012 and Kiln 2 jet pulse filter was put into operation on October 2012. Bursa Cement had two electrostatic precipitators for the first and second kiln line before the signed contract.
Investments

WHR (WASTE HEAT RECOVERY) FACILITY

Bursa Cement signed the WHR Facility contract with STEC (Shanghai Triumph Energy Conservation Engineering Co., Ltd.) on November, 2011. STEC is a high-tech joint venture enterprise established by CTIEC (China Triumph International Eng. Co., Ltd.) and Mitsubishi Corporation. The WHR Facility was put into operation on August, 2013.

It will annually produce roughly 40 million kWh of energy from waste heat. The system was installed 7.5 MW capacity with five boilers, one turbine-generator and auxiliary facilities which uses the waste gas from the grate cooler and preheater of the rotary kiln.

Bursa Cement supplies 20-25% energy of its required energy by means of WHR Facility. It has the capacity to generate carbon dioxide emission reductions of roughly 28,000 tons/year.

RDF (REFUSE DERIVED FUEL) FACILITY

Bursa Cement signed the RDF Facility contract with Vecoplan AG (Germany) on January, 2011 and it was put into operation on October, 2011. This system includes shredding, conveying, separating, storing and dosing units for alternative fuels. It consists of two shredders; preshredder capacity is 25t/h and re-shredder capacity is 10t/h.

Bursa Cement offers to save fossil fuels like coal and helps to protect environment by using different wastes as an alternative fuels. It also creates advantage for reducing CO₂ emissions.

There is no increase in the emission levels of air pollutants (dioxins, furans, etc.) by reason of sufficient retention time and high temperature in the rotary kiln. Refuse derived fuel is a kind of alternative solid fuel which is derived from industrial solid wastes which have high calorific value.

The using wastes are; textile, plastic, wood, old tyre, paper, rubber residues, bleaching earth, sewage sludge, paint sludge, contaminated wastes.

As well as reduces fuel costs, Bursa Cement also reduces landfill disposal of wastes. Besides using the solid wastes, Bursa Cement also uses the liquid wastes like solvents, waste oils, and oily bilge water in the rotary kiln as an alternative fuels.

ESP (ELECTROSTATIC PRECIPITATOR) CONVERSION TO BAG FILTER

Bursa Cement signed the contract with Redecam (Italy) on September, 2011. Klin 1 jet pulse filter was put into operation on June, 2012 and Klin 2 jet pulse filter was put into operation on October 2012.

Bursa Cement had two electrostatic precipitators for first and second kiln line before the signed contract. Fabric filters generally operate with higher dust collection efficiency than ESP’s.

Outlet dust emission in the filter is less than 10 mg/Nm² for this project so it’s decided that to conversion ESP to bag filters. In this project, filtering bags are made of fiberglass and PTFE membrane and mechanical design temperature of bags is 260 °C.

It has the online cleaning system which also maintains a constant pressure drop across the filter. It has also less compressed air consumption. According to "Regulation on the Control of Industry-Induced Air Pollution, The Ministry of Environment and Urbanism" the emission limit will be 30 mg/Nm² at the end of 2012.

For the protection of the environment, bag filter investment decision has been taken on 2011 and this investment was completed on October 2012.
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RDF (REFUSE DERIVED FUEL) FACILITY

Bursa Cement signed the RDF Facility contract with Vencoplan AG (Germany) on January, 2011 and it was put into operation on October, 2011. This system includes shredding, conveying, separating, storing and closing units for alternative fuels. It consists of two shredders; pre-shredder capacity is 250t/h and re-shredder capacity is 100t/h.

Bursa Cement offers to save coal and helps to protect environment by using different wastes as an alternative fuels. It also creates advantage for reducing CO₂ emissions.

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Outlet dust emission in the filter is less than 10 mg/Nm² for this project so it’s decided that to conversion ESP to bag filters. In this project, filtering bags are made of fiberglass and PTFE membrane and mechanical design temperature of bags is 280 ºC.

It has the online cleaning system which also maintains a constant pressure drop across the filter. It has also less compressed air consumption. According to "Regulation on the Control of Industry-Induced Air Pollution, The Ministry of Environment and Urbanism" the emission limit will be 30 mg/Nm² at the end of 2012.

For the protection of the environment, bag filter investment decision has been taken on 2011 and this investment was completed on October 2012.
Export

Bursa Cement Factory Co., Inc. (Bursa Çimento Fabrikası A.Ş.) exports cement and clinker to Russia, West Europe, North and West African countries using its loading port facilities at Marmara Bay-Gemlik/Bursa.

The loading port named "Rodeport" is located 45 km far away from the plant in Bursa.

Our export destinations are intensely RUSSIA, AZERBAIJAN, ITALY, FRANCE, SPAIN, BELGIUM, ALBANIA, NETHERLANDS, ENGLAND, PORTUGAL, ROMANIA, GREECE, LIBIA, EGYPT, ALGERIA, SUDAN, SYRIA, NIGERIA, GAMBIA, CAPE VERDE, GHANA, CYPRUS...

Above types of cement can be exported in bulk, 1,5 mt of big bags and 50 kg, 40 kg and 25 kg craft paper sacks packed in sling bags.

When a special request comes, the above listed cement types can be exported as reduced in chrome by obeying to the Regulation (EU) No 305/2011 CE European Commission.

We prefer to work on FOB basis as per our valued client’s requests.
Products

The different types of cement are produced in accordance with the European Norm requirement in Bursa Cement Factory so all requirements of EN 197-1:2011 are fully implemented by Bursa Cement employee.

The cement production is realized with full automation considering the customer cement requirement.

The quality controls of producing cement are made at every stage of process. Quality assurance is indispensable for Bursa Cement Factory.

NOTE: “V.P.L” represent fly ash, trass and limestone, respectively.

32.5 – 42.5: It stands for minimum compressive strength (N/mm²) at 28 days

A – B: It stands for the amount of additive which is used in cement (additive class)

A: It stands for low additive content

B: It stands for high additive content

CEM I-II-III-IV-V: European Cement Standard Classes

R: Rapid hardening

N: Normal hardening

M: Mixture

CEM I 42.5 R

Standard Definition: It is a hydraulic binder. Portland cement is produced by grinding clinker and a certain amount of gypsum (CaSO₄·2H₂O) together.

The gypsum is used in cement for regulation of the setting time.

Content: [%95 Portland Cement Clinker + % 5 Minor Additive ] + % 5 Gypsum
CEM II/A-M (P-L) 42,5 R

Standard Definition: It is a hydraulic binder. Portland composite cement is produced by grinding clinker and a certain amount of gypsum (CaSO4.2H2O) and a mixture of additive (%8-20) together.

The gypsum is used in cement for regulation of the setting time.

The additive which is used in cement can be selected according to the situation among the puzolana, flyash, blast furnace slag, silica fume, lime stone, calcined shale.

Average Content For Our Factory: [%80 Portland Cement Clinker + %14 Puzolana (Trass) + %6 Limestone] + %5 Gypsum

CEM IV/B (P-V) 32,5 N

Standard Definition: It is a hydraulic binder. Portland composite cement is produced by grinding clinker and a certain amount of gypsum (CaSO4.2H2O) and a mixture of additive (%36-55) together.

The gypsum is used in cement for regulation of the setting time.

The additive which is used in cement can be selected according to the situation among the puzolana, fly ash, silica fume.

Average Content For Our Factory: [%55 Portland Cement Clinker + %25 Fly Ash + %15 Trass + %5 Minor Add.] + %5 Gypsum
Environment

In every phase of our activities such as obtaining raw materials, production and services, Bursa Cement Factory follows the principle of sustainable development through environmental measures involving the most efficient use natural resources supported by technological innovations.

In the production lines, all the operations are executed in a closed system. Clinker is stored in a closed concrete silo and the material which is collected from the filtering systems is transferred back to the system again for preventing the dust emission in the dust sources 2 electrostatic precipitators (trss dryer, cooler for kiln 1) and 85 bag filters are installed in Bursa Cement Factory.

The waste licence certificate was received for firing waste oils as an alternative fuels in 2006. Later, contaminated waste, paint sludge, plastic wastes etc. were added to the scope of the licence.

Bursa Cement saves fossil fuels like coal and helps to protect environment by using different wastes as an alternative fuels. It also creates advantage for reducing CO₂ emissions.

Bursa Cement Factory contributes to the environment for protection of natural resources and elimination of wastes without harming by means of firing of solid and liquid wastes.

The different wastes which are called waste oil, contaminated waste, paint sludge etc. have been fired in Bursa Cement Factory Rotary Kiln to comply with legal requirements since 2006.

The additives which are used in cement like trass, fly ash etc. contributes to the environment via substitution of clinker by additives. After the ESP (Electrostatic Precipitator) Conversion to Bag Filter Investment was realized, the dust emission at Kiln stack is less than 10mg/Nm³.

Energy

Bursa Cement Factory has been continuously striving to reduce energy consumption in cement manufacture at each step.

The increased consciousness for energy conservation and the steps taken towards effective monitoring, better operational control & process optimization, retrofitting of energy efficient equipment etc. have contributed greatly in energy conservation efforts.

The energy saving studies is carried out by Energy Management Unit in Bursa Cement Factory.
Management Systems

**TS EN ISO 9001:2008 QUALITY MANAGEMENT SYSTEM**

Quality Management System Certificate was certificated from the Turkish Standards Institute (TSE) in 1995.

The requirements of the system are fulfilled at each step in Bursa Cement Factory.

This system is very dynamic model for continual development through customer focus, process approach, continual improvement, data analysis.

The factory has been independently audited and certified to be in conformance with ISO 9001.

**TS 18001 OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM**

TS 18001 Certificate was certificated in 2005. The purpose of TS 18001 is to help organizations to manage and control their risks and to improve their performance.

Occupational health and safety factors affect employees (permanent and temporary), contractors, visitors, and anyone else who is in the workplace.

**TS EN ISO 14001:2004 ENVIRONMENTAL MANAGEMENT SYSTEM**

This Certificate was certificated from the Turkish Standards Institute (TSE) in 2005. ISO 14001:2004 specifies requirements for an environmental management system to enable an organization to develop and implement a policy and objectives which take into account legal requirements and other requirements to which the organization subscribes, and information about significant environmental aspects.

**TS EN ISO/IEC 17025 LABORATORY ACCREDITATION SYSTEM**

This Certificate was certificated from the Turkish Standards Institute (TSE) in 2004.

ISO/IEC 17025 specifies the general requirements for the competence to carry out tests and/or calibrations, including sampling.

It covers testing and calibration performed using standard methods, non-standard methods, and laboratory-developed methods.

**TS EN ISO 50001 ENERGY MANAGEMENT SYSTEM**

Energy Management System Certificate was certificated from the Turkish Standards Institute (TSE) in 2012.

Our company sustains all activities by taking into consideration energy awareness since established.

This certificate enables mainly; reduce cost of energy consumption and greenhouse effect, supplying of effective source usage.
**BURSA ÇİMENTO**  
**FABRİKASI A.Ş.**  
**BURSA CEMENT FACTORY CO., INC.**  

**SUBSIDIARIES**

**Bursa Beton San. ve Tic. A.Ş.**  
(Bursa Concrete Industry and Trade Co., Inc.)

The ready mix concrete facilities were established with the purpose of supplying concrete to Bursa and it has 16 ready mix concrete facilities in this region. It provides quality service since 1966.

It has an annual capacity of 3,000,000 m³ concrete.


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**RODA Liman Depolama ve Lojistik İşletmeleri A.Ş.**  
(RODA Port Storage and Logistic Operation Co., Inc.)

RODA Port was established in GEMSAS Region of Gemlik Bay has been designed as a general service port by considering the requirements of industrial and commercial organizations.

RODA Port provides waste reception facilities and fresh water supply that ships need. Especially the organization of Roda Port has been constituted for loading, unloading and storing operations of utilised cargos for instance any bulk cargo, forest products, wheeled vehicles, and special cargos such as project equipments.

RODA Port has been providing services to container vessels since July 2008.

[www.rodaport.com](http://www.rodaport.com)
CEMTAS Celik Makina San. ve Tic. A.S.
(Cemtas Steel Machinery Industry and Trade Co., Inc.)

Cemtas was established in 1970 as a steel plant for producing qualified steel for meeting the requirements of the machine producing sectors, especially the automotive, machinery and agricultural machinery tool sectors.

Cemtas is located in Organized Industrial District of Bursa. Cemtas is an establishment which produces both steels and also high quality rolled products for variety of uses.

www.cemtas.com.tr

ARES Cimento İnşaat San. ve Tic. A.Ş.
(ARES Cement Construction Industry and Trade Co., Inc.)

ARES consists of two different plants which located in the Seyitbener Thermal Power Plant (Kütahya) and Orhaneli Thermal Power Plant (Bursa).

Both of them have fly ash separation unit. ARES was established with the aim of supplying fly ash which is used as an additive in the cement and concrete from the electrostatic precipitator. After getting raw fly ash from the electrostatic precipitator, this is separated by the separator to get fine particles.

Later, coarse and fine particles of fly ash are dispatched to the customers.

www.arescimento.com.tr

Tunçkul Cimento Mineral Katkılı İnşaat San. ve Tic. A.S.
(Tunçkul Cement Mineral Admixture Construction Industry and Trade Co., Inc.)

Tunçkul was established in Tunchilok Thermal Power Plant (Kütahya) with the aim of supplying fly ash which is used as an additive in the cement and concrete from the electrostatic precipitator.

After getting raw fly ash from the electrostatic precipitator, this is separated by the separator to get fine particles.

Later, coarse and fine particles of fly ash are dispatched to the customers.

www.tunckulsimento.com.tr