

Dal Machinery&Design



A company of Dal Engineering Group



Dal Machinery & Design

Dal Machinery&Design is an innovative leader in cement, zinc recovery and energy industries. We provide machines, equipment and customized systems.

Dal Machinery&Design has unique experience in considered by the customer in order to implementing the most effective and profitable investment.





Dal Machinery & Design

Dal Machinery&Design has been providing machineries for industrial plants for more than 25 years. We mainly focus on cement, lime, coal and energy technologies.

Dal Machinery&Design also supplies integrated services together with Dal Engineering Group (DEG) companies.













Dal Machinery & Design

Engineering R&D is a new product and equipment development corporation committed to provide quality products, engineering and manufacturing services.

We are multi-diciplinary team with diverse skill set in design, engineering automation and fabrication. Assisting in all phases of product development in varying capacities, from concept creation, prototyping, to design in-process equipment, fabrication and test.





Engineering R&D



Disposition drawings and

Design and engineering services,

process flow sheets,

Civil engineering and design,

Building steel structures,

Technological projects,

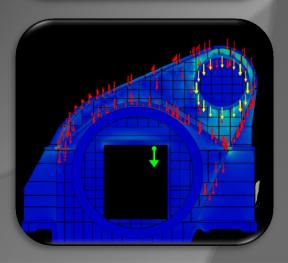
Mechanical engineering and design,

Instrumentation,

Process water design,

Compressed air and unit design







Revamps, modernization, modification

Our company is a provider of tailor-made processing solutions for cement industry. We develop customized upgrade plans based on our customer's corporate objectives and analyzed process&production conditions. Improvements are aimed to;



expand production capacities, ensure better plant availability,

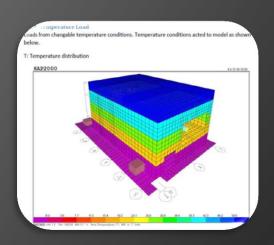
optimise the use of raw materials and

reduce energy consumption.





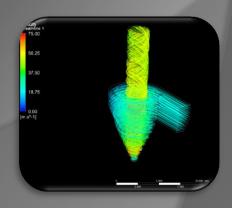
Manufacturing & QC



Dal Machinery&Design has strong capability on engineering and manufacturing custom parts with exact match or exceed OEM specifications.

Dal Machinery&Design has advanced manufacturing facilities throughout Turkey. By engineering and manufacturing of big size equipment and units locally, it can respond more rapidly to the needs of overseas freight shipment. It can also more readily monitor and control the quality of local manufactruing operation



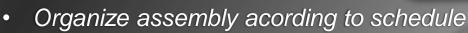




Assembly &Commissioning

The immense experience of our team of experts has been the sole reason behind our providence of client-oriented results. The enormous trust, which clients put upon us for erection and commissioning, has gained us the reputation of one of the potential providers of plant erection services.

- Plant construction work,
- Organize site for safety and efficiency,
- Overseas contractors and subcontractors,
- Supervise delivery and unloading inspection of materials and equipment











Our Solutions - Raw Material Preparation

Crushers (Jaw Crusher, Roller crusher, Impact Crusher, Hammer Crusher)

Screens

Conveyors

Apron feeders

Surface feeders

Hoppers

Circular & Longitudinal

Stockhalls

Stacker & Reclaimer



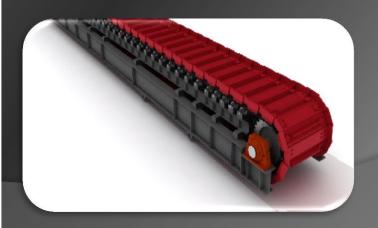
Designing of crushers, screens, conveyors, preblending

Self breaking systems

Erection at workshop/plant

Various capacities, feed sizes

Suitable for minerals such as limestone, coke, basalt, granite







Our Solutions - Rotary Kiln

Rotary Kiln Types

Nominal Capacity Dimension (tpd) (mxm)

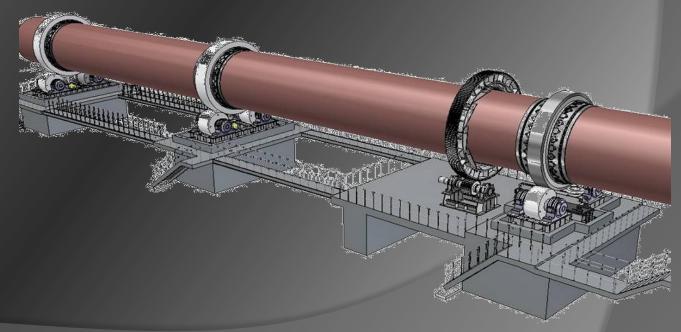
2.500 Ø 4,0 x 59

2.800 Ø 4,2 x 60

3.500 Ø 4,4 x 64

4.000 Ø 4,6 x 64

5.000 Ø 4,8 x 72



* Special rotary kiln design and intermediate rotary kiln diameter are designed by DAL Engineering Group for special purpose of use.



Our Solutions - Rotary Kiln



Rotary Kiln Main burner
Kiln camera systems
Kiln erection or dismounting
Kiln maintenance service
Drive systems

Rotary Kiln Design
Kiln Shell & under tyre systems
Kiln inlet and outlet sealings
Kiln Tyres & Rollers
Rotary Kiln Ovality Measurements _
Hydraulic thrust roller









Rotary Kiln - Reference Highlights





Rotary Kiln / Hydraulic Thrust Roller

The automatic hydraulic thrust roller controls the kiln's axial motion. The hydraulic thrust device is designed to take up the full axial load of the kiln, so skewing of the support rollers is not needed. The result is smooth operation with improved lifetime for rolling components.



- Improves lifetime for rolling components,
- Minimises the risk of breakdowns,
- Reduces maintenance costs,
- Functional and proven design





Rotary Kiln / Inlet Sealing

The inlet and outlet zones with seals are very critical parts of a kiln. If false air enters the kiln system, fuel consumption increases, production output decreases and operating expenses go up.

Graphite seals require no greasing and are practically maintenance-free under normal operating conditions.

Main advantages;

Provide effective leak tightness around the kiln discharge hood to prevent cold air ingress or release of hot gases and particles,

Improve pressure stability in the kiln,

Allow installation on existing kilns without modifying the kiln shell or kiln inlet.

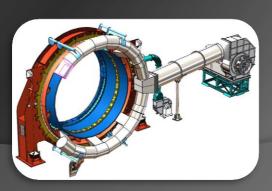




Rotary Kiln / Outlet Sealing

Our graphite seals reduce false air intake and allow enough flexibility to follow the kiln's movements. Rows of graphite blocks held in place by a wire rope system. This ensures an efficient seal against the outer air casing.

- * Leak tightness efficiency and prevention of false air leakage,
- * Adaptation on existing kilns and easy installation,
- * Rotational, radial and axial movement absorption Absorption of kiln rotating defect,
- * Absorption of kiln expansion and slide range,
- * No maintenance









Rotary Kiln / Kiln Shell Analyze

Maintenance of rotary kilns at cement plants with patented technology of static and dynamic measurements. Technical audit of kilns without shutdown as "hot kiln alignment" reveals the problem parts.

Installation of rotary kilns in the design position,

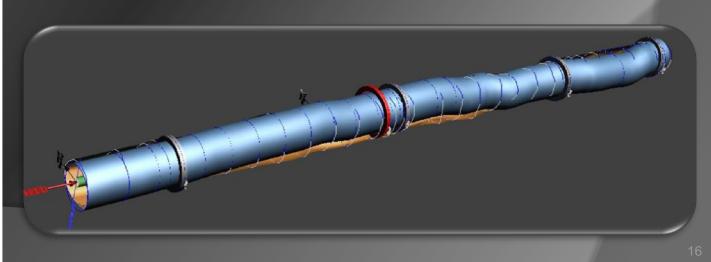
Identification of wear type and mechanisms deformation,

Determination of axes straightness,

High accuracy of kinematic parameters determination,

All work is carried out without interruption of the process.







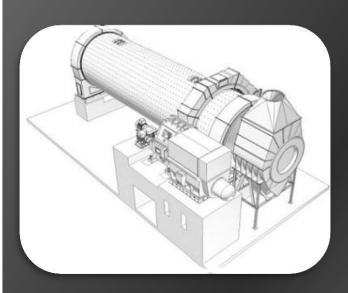
Our Solutions – Cement Mills

| Mill Types | Diameter x Length (m x m) |
|------------|---------------------------|
| UDCM 30110 | Ø 3,0 x 11,0 |
| UDCM 30110 | Ø 3,2 x 13,0 |
| UDCM 34130 | Ø 3,4 x 13,0 |
| UDCM 36130 | Ø 3,6 x 13,0 |
| UDCM 38130 | Ø 3,8 x 13,0 |
| UDCM 42130 | Ø 4,2 x 13,0 |
| UDCM 42145 | Ø 4,2 x 14,5 |
| UDCM 46145 | Ø 4,6 x 14,5 |
| UDCM 50150 | Ø 5,0 x 15,0 |
| | |





Our Solutions – Cement Mills

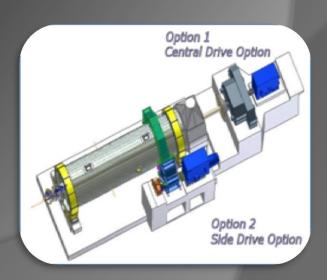


Universal Drive Cement Mill (UDCM) enables alternative drive systems by

- -double pinion direct gearbox with girthgear
- -central drive reducer with shaft coupling
- -direct drive torque arm reducer without coupling.

UDCM provide;

- Maximum grinding efficiency,
- Low energy consumption,
- Compact plant layout and mill drive design,
- Approved lining types,





Cement Mill – Workshop





Cement Mill – Reference Highlights





Our Solution – Dynamic Separator

DAL MACHINERY&DESIGN, serves dynamic separator for grinding and separation processes.

Dynamic Separator has unique advantages and prevealing with other types of separators as follows;

- * Reliable mechanical properties
- * Distrubition plates ensure the uniform material distrubition and increase separation efficiency
- * Optimized and Compact Design
- * High Efficiency Separation, low energy consumption
- * Easy to maintain construction, modular system
- * Special designed rotor blades, low wear and tear
- * Speed control enables to select product range
- * Easy operation with fully automatic control system





Dynamic Separator – Reference Highlights





Our Solution-Clinker Cooler Roller Crusher



Compact and flexible design can be applied for new and existing plant. Our roller crusher designed based on customer needs with tailor made solution.

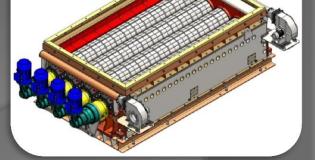
High availability and reliability of our crusher resulted with minimized operational costs.

Long wear life,

Easy maintenance and operation,

Adaptable roller cooling system,

Low power consumption

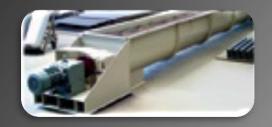




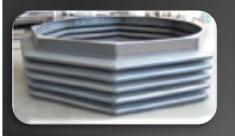
Our Solution – Equipment

- * Drives and Gears,
- * Vertical Mill Parts,
- * Steel Conveyors,
- * Expansion Joints,
- * Screw Conveyors,
- * Rotary Feeders,
- * Hydraulic Stations,
- * Slide Gates,
- * Surface Feeders

















Some of Our Customers































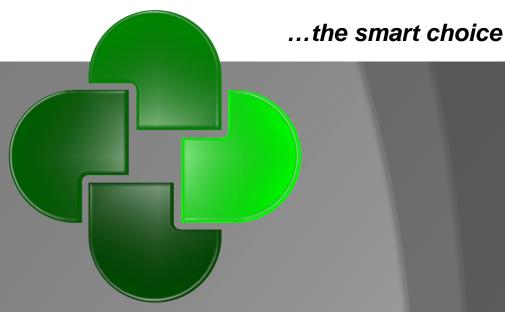












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