



CEMENT & BUILDING MATERIALS REVIEW

Published by : Arab Union for Cement and Building Materials No.64 June 2016



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Editor-in-Chief

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CONTRIBUTIONS

- *The Magazine editorial staff welcome the contribution of experts to enrich the contents of the magazine .*
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ARAB COMPANIES RESULTS



Egypt:

Misr Cement Oena : Q1 profits tumble 55%

Misr Cement - Qena announced 54.7% decline in the first quarter of 2016. The company reported a net profit after tax of EGP36.6 million in Q1- 16, compared to EGP81.1 million the year-ago period.

Meanwhile, the cement producer's net profits before tax declined to EGP44.2 million from EGP113.1 million.

In 2015, the company's profits fell 14.7% year-over-year to EGP266.2 million from EGP312.9 million in 2014.

Source: [Mubasher](#)

Sinai Cement incurs standalone losses of LE38 m in Q1/ 2016

Sinai Cement (SCEM) announced financial results for the fiscal period from 01 /01 /2016 till 31/2016/03/.

It revealed the company incurred standalone net loss of LE 38,060,155 versus net losses of LE 10,919,982 in the same period a year ago.

Source: www.arabfinance.com

Suez Cement profits plummet 93% in Q1

Suez Cement's consolidated profits for the first quarter of 2016 plunged 93.1% year-over-year to EGP4.3 million (\$484,000) from EGP62.83 million (\$7.1 million), according to a bourse filing.

Meanwhile, its standalone profits stood at EGP71.9 million during the same period, 76.2% down from EGP302.2 million for the year-ago quarter.

In 2015, the cement producer's consolidated losses deepened to EGP60 million against a net profit of EGP499.7 million a year earlier.

Source: [Mubasher](#)

Tourah Cement losses 2% deeper in Q1

Tourah Portland Cement's losses widened by 1.7% year-over-year in the first quarter of 2016. The company reported a net loss of EGP22.37 million (\$2.5 million) compared to EGP22 million losses (\$2.4 million) for the year-ago quarter.

By the end of 2015, the company's losses reached EGP219 million, compared to a net a loss of EGP14.4 million a year earlier.

Source: [Mubasher](#)

Oman

Oman's Raysut Cement Q1 net profit rises 345

Oman's Raysut Cement reported a 34% increase in first-quarter net profit. The largest cement firm by market value in the sultanate made OMR8.08 million in the three months ending Mar. 31, compared with OMR6.03m in the same period of 2015.

Source: www.gulfbase.com

Qatar

Qatar National Cement's profits down 1.6% in Q1

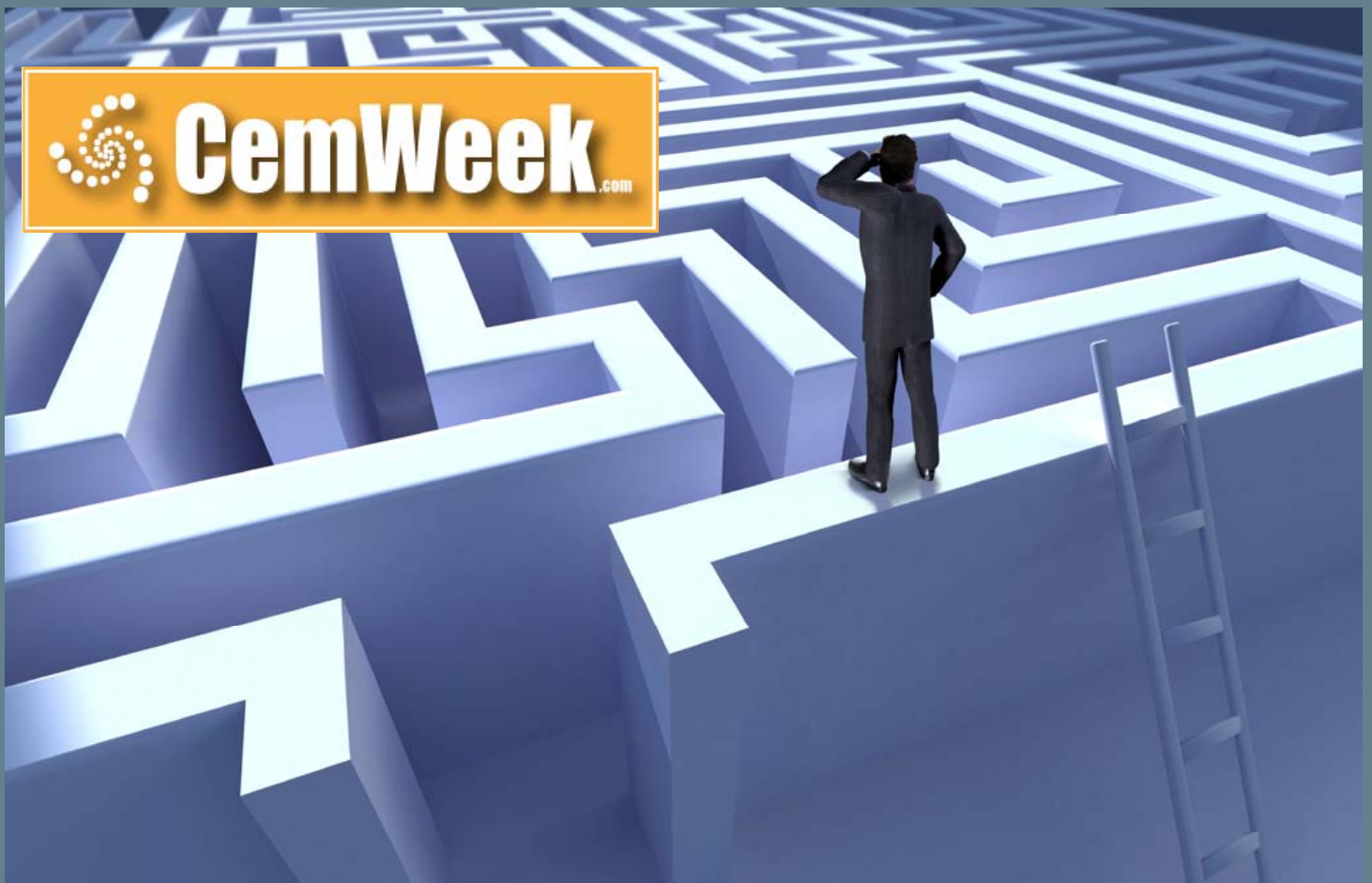
Qatar National Cement Company posted a net profit of QAR 123.8 million (\$34 million) in the first quarter of fiscal 2016, 1.6% down from QAR 125.76 million (\$34.5 million) in Q115-.

The Qatar-listed company earlier reported a net profit of QAR 463.5 million in 2015, rising 10% compared to QAR 420.3 million in 2014.

Source: [Mubasher](#)



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ARAB COMPANIES RESULTS

Saudi Arabia**Arabian Cement's Q1 profit jumps 16%**

Arabian Cement (Saudi Arabia) reported a net profit of SAR 225.6 million for the first quarter of 2016, a 16% jump year-on-year (YoY), thanks to higher net income and a SAR 15 million goodwill write-off for the company's Jordanian associate.

The company's net profit saw an increase of 47% compared to the previous quarter, due to lower cost of goods sold and zakat expenses along with dividends at SAR 7.5 million from investment in securities available for sale.

Source: www.argaam.com

City Cement's Q1 profit edges up 8.3% to SAR 73.2 mln

City Cement Co. reported a net profit of SAR 73.2 million for the first quarter of 2016, marking an 8.3% increase year-on-year (YoY), mainly due to higher sales and lower sales expenses.

Net profit for the period was up by 22% when compared to the previous quarter due to higher sales.

Source: <http://www.argaam.com/>

Eastern Cement's Q1 profit climbs 4% to SAR 88 mln

Eastern Province Cement Co. reported a net profit of SAR 88 million for the first quarter of 2016, a 3.5% rise year-on-year (YoY), due to recording a profit from an associate company, compared to a loss during the same quarter last year.

Net profit for Q1 was down by 4.4% when compared to the previous quarter, driven by higher selling, general and administrative expenses.

Source: www.argaam.com

Al Jouf Cement's Q1 profit drops 4%

Al Jouf Cement Co. said its profit declined 4% year-on-year to SAR 24.7 million in the first quarter of 2015, due to lower sales prices and higher financing costs and zakat expenses.

Compared with the previous quarter, net income surged 381% on an increase in sales prices and volumes, as well as higher maintenance costs seen in Q4- 2015.

Source: www.argaam.com

Saudi Arabia cement producers post financial results for Q1

The Saudi Arabia cement producers combined financial results for Q1 of 2016 amounted to an estimate of SAR 1.62 billion, exceeding the consensus estimates by 12%. Daily Cement

Saudi Cement Q1 net profit falls

Saudi Cement reported a 12.5% drop in first-quarter net profit. Hurt by a decrease in sales and an increase in energy costs, one of the kingdom's largest cement firms by market value made a net profit in the three months to Mar. 31 of 265 million riyals (\$70.7 million), down from 303 million riyals in the corresponding period of 2015, according to Reuters.

Saudi Cement also expects the fuel and electricity price hikes announced in the 2016 government budget to increase its production costs by 68 million riyals this year.

Saudi Arabia has lifted a ban on exporting cement however, a move that would allow companies to export excess supply.

Source: www.thebig5hub.com

Yamama Cement's net profit falls 14% in Q1

Yamama Cement Co., Saudi Arabia's fourth-largest cement producer, reported a net profit of SAR 150.5 million for the first quarter of 2016, a 14% year-on-year (YoY) decline attributed to higher sales costs, an increase in fuel prices, as well as general and administrative expenses.

Profit for Q1 was 16% lower compared to the previous quarter, which stood at SAR 179.5 million.

Source: www.argaam.com

Yanbu Cement's profit drops 11% mln in Q1

Yanbu Cement Co.'s first quarter net profit fell 11% year-on-year to SAR 184 million on a decline in quantity and value of sales, and higher fuel prices.

Compared to the previous quarter, the company's net income declined 12% from SAR 209 million for similar reasons.

Source: www.argaam.com



SIMAN NEWS

Iran Cement News Site

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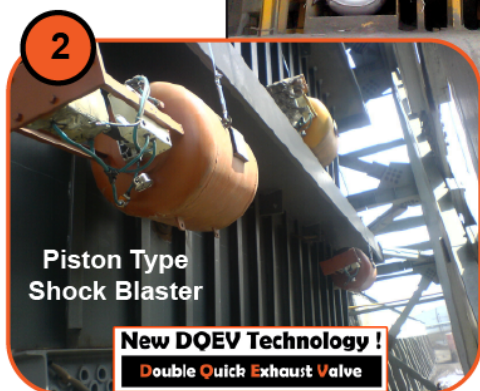
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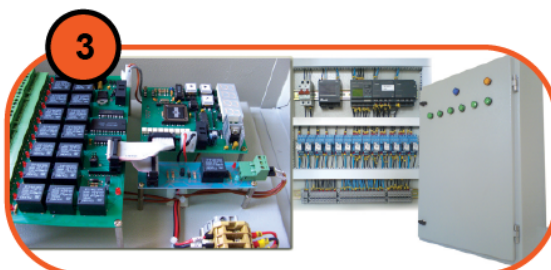
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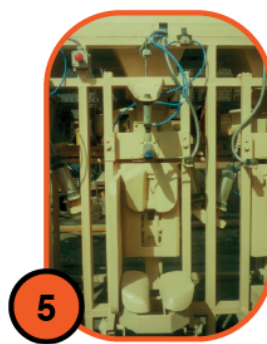
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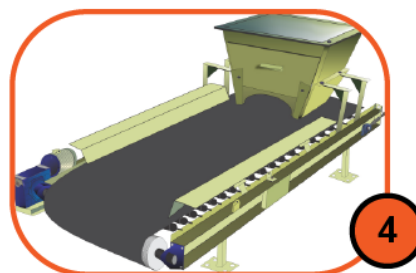
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ARAB CEMENT NEWS

ALGERIA

Minister of Industry promises self-sufficiency by 2017

Minister of Industry and Mines declared they project a production surplus for export from the end of 2017 onwards.

Lafarge Algeria reported that the country is expected to produce a surplus capacity of 2 million tons of cement in 2016, thus switching from cement importer to cement exporter.

Daily Cement

Algeria: GICA contracts Chinese equipment manufacturer CBMI to build cement plants

Public cement manufacturing industrial group GICA (Groupe des Ciments d'Algérie) contracted Chinese equipment manufacturer CBMI Construction Co. Ltd. (subsidiary of Sinoma group) to build a new cement plant in Bechar and extend the plant of Zahana (Mascara).

Daily Cement

Lafarge Algeria joint venture starts commissioning at Biskra cement plant

CILAS, a joint operation between Lafarge Algeria (49% stake) and Souakri Group (51% stake) located in the northeast of the country, has started commissioned its mill at its Biskra cement plant. Operation of the site's kiln is scheduled to start in July 2016. The plant will have a cement production capacity of 2.7Mt/yr when fully operational.

Global Cement News

EGYPT

Sinoma subsidiary wins Euro1.05bn order from Egyptian government

Chengdu Design & Research Institute of Building Materials Industry, a subsidiary of Sinoma, has been awarded a Euro1.05bn order to build six 6000t/day cement plants. The scope of the turnkey contract includes construction of six new integrated cement

production lines, operation and maintenance of two 5775t/day cement production lines of Phase II of GOE ARISH and the six Beni Suef cement production lines under the contract for three years.

Global Cement

MOROCCO

Ciments du Maroc abandons wind farm plans at Safi plant

Ciments du Maroc, part of construction and building materials group Italcementi, has decided to abandon the wind farm project at its Safi plant in Morocco.

Daily Cement

Moroccan cement market stabilizes in 2016

After a rather hectic 2015 fiscal year, the Moroccan cement market has experienced a stabilization in the first quarter of 2016.

Daily Cement

OMAN

Oman Cement's expansion project to be completed soon

The company plans to develop pollution control equipment

Raysut Cement Company launches large silo at Salalah plant

Raysut Cement Company (RCC) has recently launched a new silo at its cement plant in Salalah. The storage capacity of the new silo is 20,000t. It has a diameter of 30m and a height of 43m. RCC say it is one of the largest silos in the region.

The new silo will feed a proposed packing plant with 150t/hour of cement. This new packing plant is expected to be completed in the fourth quarter of 2016. RCC intends to use its new silo and packing plant to target local and international markets.

Global Cement

SAUDI ARABIA

City Cement Co. begins trial ops at grinding unit

City Cement Co. began trial runs of its cement grinding unit, part of the company's project to boost grinding capacity by 265 tons/hour.

Daily Cement

Eastern Cement starts trial operation of new cement mill

Eastern Province Cement has started the trial operation of its new cement mill, which is expected to continue for three months until mid-June 2016.

Global Cement Magazine

Najran cement wants export license targeting Yemen market

Najran Cement declared that the company has applied for a license to trade on foreign markets, targeting the Yemenite market.

Daily Cement

Northern Region Cement Company 850000 ton project

Northern Region Cement Company (NORTHCEM) announces production of 85,000t of white cement at a cost of 75M riyals.

Saudi Cement sells stake in Kuwait Cement Company

The move may help in improving business activities Cemweek

SYRIA

Syria number one export market for Turkish cement

After losing a large market share in Russia and Iraq, the Turkish cement exports have found a savior in Syria. Last year, Turkey exported 1.5 million tons of cement in Syria, making the latter its number one export market.

Adra Cement has sufficient inventory

The cement plant can supply cement for a year without active production.



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Mondi wins Saint-Gobain supplier award for limiting environmental impact

Mondi Industrial Bags received the ‘Limiting Environmental Impact Award’ at the 2016 Saint-Gobain Construction Products UK Supplier Conference and Awards.

Against some strong competition, Mondi’s proven commitment to sustainability came out on top at this year’s Saint-Gobain Construction Products UK Supplier Conference and Awards. The panel of Saint-Gobain UK board members and senior managers considered all submissions in terms of how businesses are limiting their impact on the environment against the following criteria:

- 1) environmental accidents,
- 2) CO₂ emissions,
- 3) water use,
- 4) raw material use and
- 5) landfill waste.

Commenting on Mondi’s recognition in this regard and in particular its efforts in CO₂ emissions reduction, Christian Ramaseder, Mondi Group environmental manager, said, “We believe our energy-intensive industry has a role to play in reducing its impact on the climate and we fully consider climate change in our business decisions. While we are proud of our achievement thus far, our journey is by no means complete. Our long-term aim is to continue to improve our energy efficiency, further reduce carbon intensity and move further towards renewable energy.”

Mondi Industrial Bags’ latest eco-friendly innovation, the HYBRIDPRO bag, belongs to the next generation of water-repellent bags for the building materials industry and combines the best of both worlds: it offers all the protective advantages of a plastic bag, yet is fillable on conventional paper bag filling systems. Thus HYBRIDPRO is an eco-friendly solution since the total grammage of material used is less than with standard three-ply designs used for the same purpose, and its plastic and paper components are easy to separate for optimum recyclability.



On the picture (left to right): Valentina Dodson, Bogdan Jodda (Mondi Industrial Bags PL, Swiecie), Justyna Szymanska (Mondi Industrial Bags PL, Wierzbica), Boguslaw Tarnopolski (Mondi Industrial Bags PL, Swiecie)

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Helwan Cement Company decided on Gebr. Pfeiffer, the number 1 in coal grinding

Innovative technology and first-class quality make Gebr. Pfeiffer the global market leader in coal grinding. More than 2,000 MPS coal mills are in operation worldwide, including the largest coal mill in the world. The company has its own manufacturing facilities and offers comprehensive service concepts.

These arguments also convinced Helwan Cement Company belonging to the Italcementi Group.

The vertical roller mill chosen by Helwan Cement Company will be installed in a coal grinding plant of a cement works in Egypt. The delivery of the coal mill will start as early as the end of 2016.

The order was placed by the Chinese General Contractor Beijing Triumph International Engineering Co., Ltd., Beijing.

The coal mill of the type MPS 3350 BK with an installed gearbox power of 1050 kW is designed to grind 80 t/h of coal to a product fineness of 12 % residue on 90 microns and 60 t/h of pet coke to a product fineness of 6 % residue on 90 microns.

Gebr. Pfeiffer's skilled personnel will also supervise erection and commissioning.

Al Ezz Ceramics & Porcelain Co. continues its growth thanks to the new G5 from Projecta Engineering

Formigine, April 2016 – A **G5 latest-generation modular digital printer** developed by SITI B&T Group's member company Projecta Engineering was recently installed at the facility of one of Egypt's leading producers of high-quality ceramic and porcelain tiles, Al Ezz Ceramics & Porcelain Co., better known as Gemma.

Specially designed to enhance **all the characteristics of digital technologies produced to date**, the G5 is equipped with **7 colour bars** capable of holding up to 12 fully independent modules **for maximum creative freedom** and has a **print width of 700 mm**.

The G5 joins the other four machines in the previous Evolve series installed by Projecta Engineering, allowing Al Ezz Ceramics & Porcelain Co. to continuously expand its distribution network and become a globally renowned ceramic and porcelain tile brand.

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Patrick Heyd, Executive Director
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Two family-owned businesses are joining forces

Jack Filter Entstaubungstechnik becomes BWF Envirotec, Austria

After nearly 50 years of partnership and close collaboration, the BWF Group is taking over a majority share in the dedusting technology sector of Jack Filter as of 1st May 2016.

Jack Filter Entstaubungstechnik has developed into the recognised leader on the Austrian market for filter bags in Austria since it was founded in 1947. BWF Envirotec with its head office in Offingen (Germany) is the leading international supplier in industrial dedusting, with its own production sites in the USA, China, India, Turkey, Russia and Italy in addition to an industrial network of partners.

BWF Envirotec is expanding its global presence with this merger and creating synergies for both partners in R&D, technology and sales. In taking this step, Jack Filter is emphasising its aspiration to play a leading role in the future too on the (increasingly globalised) Austrian market. Both partners can look back over collaboration characterised by mutual trust and respect that spans generations.



BWF Envirotec, Austria:

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Sales- and manufacturing site in Sattendorf, Austria
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Telephone +43 4248 23200

info@bwf-envirotec.at, www.bwf-envirotec.at

About BWF Envirotec:

BWF Envirotec is the international market leader in the field of filter media for industrial filtration. The product portfolio ranges from needlona® brand filter media, including the PM-Tec® membrane product line to Pyrotex® KE ceramic filter elements. BWF Envirotec filter media find applications in the aluminium, cement and steel industry, in power plants and waste incineration plants, among others, or also in the food industry.

BWF Envirotec was the first manufacturer in the world to introduce needle felts as a filter medium in 1968. With its head office in Offingen/Bavaria and production plants in Germany, China, the USA, Italy, Turkey, Russia, India and Austria, in addition to a sales network in more than 50 other countries, BWF Envirotec guarantees economically viable solution concepts and technical services in line with the market.

BWF Envirotec is part of the BWF Group. With more than 1400 employees throughout the world, the company operates in the field of industrial dedusting, production of technical felt materials, wool felts and in plastics technology.

Packing Technik



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Conveying & Loading Systems: Beumer develops and implements complex system solutions for the bulk materials industry throughout the world

A powerful global partner

The BEUMER Group uses its newly created Conveying & Loading Systems (CL Systems) division to develop and implement complex system solutions throughout the world for different industries, such as mining and the cement industry. The team is made up of experienced staff from the branches distributed around the world who work together on the projects. What they all have in common is that they understand the user, which means that they can develop tailor-made solutions. This is demonstrated by three impressive completed projects.

Dr Andreas Echelmeyer, who has headed the Conveying and Loading Systems division in the BEUMER Group at its headquarters in Beckum since August 2015, stated that “We can use our comprehensive expertise in system solutions to advise our customers and provide them with complete plant systems. Each industry poses its own unique challenges”. The most important point is to listen carefully to the customer and then ask the right questions. This can only be done locally. Employees positioned around the world are therefore in close contact with the customer. They are familiar with the specific customs of the particular country, understand the language and are wise to the particular requirements of the market and the customer. They identify appropriate potential and any possible need for action. The operators for whom BEUMER has successfully commissioned conveying plants includes the TPI Polene Public Company Ltd. The third largest cement producer in Thailand uses this complex system solution to transport crushed limestone from the quarry to the blending bed.



Figure 1: Among other things, BEUMER supplied a troughed belt conveyor with horizontal curves and a length of 3.5 kilometres for the Thai cement producer, the TPI Polene Public Company.

Difficult environment safely overcome

Dr Echelmeyer was aware that “The challenge lay in the nature of the ground between the quarry and the cement plant”. It was exceptionally demanding. We had to make allowances not only for numerous obstacles but also for a steep downhill section of the conveyor”. The team designed a complex, but above all cost-effective, integrated system comprising a total of eight belt conveyors covering a distance of 6,129 metres. BEUMER also supplied a PLC plant control system, transfer stations, filter systems and foreign body collectors.

The system is designed for a conveying capacity of 2,200 t/h. The key items in the limestone transport system are two downhill belt conveyors operating in the generator mode followed by a troughed belt conveyor with horizontal curves. The material passes from the crusher discharge belt the first two troughed



Figure 2: Transfer tower in the feed area

belt conveyors. The material is then transferred to a long overland conveyor with a speed of 4.5 meters per second by an accelerator belt with a speed of 2.6 meters per second. Three more conveyors finally transport the material to the blending bed.

Cost-effective operation guaranteed

One particular feature of the downhill conveyors is their power generation. With a total of 640 kW/h generated energy that is fed into the power grid they make a substantial contribution to the cost-effective operation of the overall system. “We have a great deal of experience with conveying systems that can negotiate horizontal and vertical curves and operate in the generator mode” explained Dr Echelmeyer. During the development it was necessary, for example, to ensure safe and carefully controlled stopping of the large belt system to avoid problems during unavoidable events, such as a power failure.



Figure 3: BEUMER managed to route the conveyor along a very narrow stretch of land in Vietnam for the cement producer Cong Thanh

BEUMER supplied four further belt systems with a total length of 989 metres to deal with the discharge from the blending bed and supply the material to the raw mill feed hopper. The conveyors were all built and installed in only eleven months. The commissioning phase, lasting three months, was followed by performance tests. The team then handed over the entire plant to the customer. Dr Echelmeyer

emphasized that “We supervised and monitored the installation and commissioning to ensure long-lasting, trouble-free, operation. This always forms part of our service”. The standard scope of supply also includes intensive training of the operating and maintenance personnel.

Complex and curved

Cong Thanh, the Vietnamese cement producer, also relies on the system solution expertise of the BEUMER Group for transporting crushed limestone from the quarry to the blending bed. The CL team discussed the various technical options intensively in a joint workshop held with the producer. Various routes were worked out and compared on the basis of the narrow terrain that was available. Dr Echelmeyer explained that “We have appropriate software for this, with which we can match satellite and aerial photographs with topographical data”. One conveyor section that drops steeply in some places with numerous obstacles in the terrain and seven road crossings was particularly challenging.



Figure 4: Transfer situation before the blending bed

A total system consisting of four conveyors with a combined length of 3.5 kilometres is now in use, BEUMER also supplied a PLC plant control system. The main component is an overland conveyor with three horizontal curves and a total drive rating of 600 kW. It is designed for a continuous conveying capacity of 2,200 t/h.

The heaped material is transported in trucks from the quarry face to the crusher. The limestone that has been pre-crushed to less than 100 millimetres is then transferred by discharge conveyors to an accelerator belt that feeds the long belt conveyor.

The troughed belt conveyor for downhill transport is one meter wide, with a distance between centres of 3,200 metres, and drops 70 metres. The conveying speed is 4.5 meters per second. The low operating



Figure 5: The route of the overland conveyor for the end customer, Cemindo Gemilang, passes through the middle of the rain forest

Through the middle of the rainforest

The CL Systems division of the BEUMER Group has also been very successful in Indonesia. The plant construction company Sinoma International Engineering Co. Ltd. was awarded the contract by the Indonesian end customer, Cemindo Gemilang, to supply a turn-key cement plant to Java. It should reach a daily clinker production of 10,000 tonnes. Sinoma commissioned BEUMER with the design and supply of an overland conveyor between the quarry and the plant.

The challenges in this project were not only the demanding topographical routing but also the evergreen rainforest. Joint discussions were held between the BEUMER team, Sinoma and the end customer. The team worked various routes out and compared them. “The very narrow corridor of land in addition to the tropical climate required a complex and sophisticated design” explained Dr Echelmeyer. Among other things his team designed a solution with tight horizontal curves that fitted optimally into the landscape.



Figure 6: Achmed Ammoura, chief erector in the BEUMER Group, at the belt conveyor with horizontal curves

The entire system now comprises six conveying plants with a total of length of 7.6 kilometres. BEUMER also supplied acceleration and discharge conveyors and a PLC plant control system.

Controlled loading ensured

The system is designed for a maximum continuous conveying capacity of 3,000 tonnes per hour. The main component is a 7.4 kilometre long overland conveyor. Upstream of this troughed belt conveyor is an intermediate hopper with a capacity of about 120 tonnes. The material passes from this hopper via a variable-speed discharge conveyor to a downstream acceleration belt that feeds the overland conveyor. This controlled loading system ensures cost-effective operation of the plant, especially during the start-up phase. It also has a favourable effect in the dimensioning of drive components and the belt, and reduces the operating costs.

According to Dr Echelmeyer “The acceleration belt with a speed of 4 meters per second protects the belt of the overland conveyor and increases its service life”. For further protection there are also upstream units for collecting any iron and non-ferrous metals. The limestone is then transported to the blending bed on short troughed belt conveyors.

The troughed belt conveyor has a width of 1,200 millimeters and a distance between centres of 7,381 metres. One tail drive and two head drives are installed, each with a rating of 545 kilowatts. The plant conveys the material at a speed of 5 m/s and negotiates a height difference of minus 188 metres.

Protection of people and animals

The conveying system also runs past villages and for long sections passes through rainforest that deserves to be protected. The CL Systems team has taken numerous design measures to reduce the noise impact on people and animals. Dr Echelmeyer explained that “Among other things, we have used low noise idler rollers and appropriately dimensioned protective hoods at the drive station”. This means that the limestone passes through the rainforest in virtually silent mode. The construction time lasted only one year.



Why choose low-speed hydraulic direct drives for apron and belt feeders?

The mining and materials handling industry has a keen focus on reliability, performance and productivity. This focus goes beyond machines to the drive systems that power them, such as the hydraulic drives that are increasingly found on apron and belt feeders.

Feeders control the gravity flow of bulk solids, which makes drive selection extremely important for their function. In key ways, low-speed and high-torque hydraulic direct drives differ from their electromechanical and medium-speed hydraulic counterparts.

A well-supported choice

Hydraulic drives, especially of the lowspeed and high-torque type, are the choice for a growing number of apron and belt feeders. While still less common than electro-mechanical drives, these systems can be found in specific installations around the world – and are frequently championed by their operators. Why the enthusiasm for low-speed hydraulics on apron and belt feeders? The reason is the same as for kilns, conveyors, bucket wheel reclaimers, ship unloaders, car dumper systems, and more. Like all of these, apron and belt feeders operate in harsh environments, where they face both high starting torque and frequent load spikes.

Smarter handling of starting torque

When sizing feeder drives, a major factor is the necessary

starting torque. High shear force increases starting torque compared to running torque, often by more than 100% on apron feeders and by at least 50 - 75% on belt feeders. If coarse ore and larger materials are involved, even more starting torque may be needed. The breakaway torque experienced at start-up can be as much as 200% of the running torque – and sometimes even more. However,



hydraulic drives allow continuous operation and precise limiting of the maximum torque, which protects the feeder belts and chains.

Unlimited starts and stops

In a feeder, of course, speed capabilities are closely intertwined with torque. Hydraulic direct drives are capable of starting up from rest with a full load, and of accelerating it under the most extreme load scenarios. This is ensured by the very high starting torque, which can also be maintained for an unlimited period of time. The other side of the equation is hydraulic direct drives' monitoring and limiting of torque. This function provides built-in overload protection, eliminating the risk of undue stress on mechanical components. The feeder can be started and stopped as often as required, without affecting the service life of the belt or wearing the machinery in general. This is done easily via the control signal to the pump, without having to stop and restart the electric motor.

Dealing with low speed and shocks

A further advantage of hydraulic drives is their handling of changes and differences in running speed. At most times feeders are paced for capacity, with small variations due to changes in material density or operating commands. However, major slowdowns can occur when adapting to changes in material flow, or whenever obstructions appear. Hydraulic drives can run constantly at any speed, from minimum to maximum, without overheating the electric motor. Likewise, they provide built-in protection against shock loads, due to the hydraulic motor's low moment of inertia. Easy access to performance The simplicity of the hydraulic drive chain is also important for maintenance, since feeders are often installed where space is limited. While electro-mechanical drives cover most of one side of the feeder, hydraulic drives leave the drive side

largely open, providing easy access for maintenance work. No foundations or physical alignments are required, and there is also less space needed in the axial direction when direct hydraulic drives are used. Given the compactness of the design, it is even feasible to use two hydraulic motors, one on each side of the belt or chain pulley. This makes the load on the feeder structure more symmetrical, yet it still requires only one electric motor and one pump. In addition, it provides a certain redundancy that safeguards production. All this, combined with overall reliability and a long service life, makes hydraulic drives an excellent choice for apron and belt feeders. With their few components, minimal maintenance requirements and outstanding performance, hydraulic drives offer strong assurance of lasting, productive operation.

Hydraulic direct drives – benefits for feeders

- Starting and stopping of the feeder as frequently as needed
- Availability of full torque throughout the speed range, without the need for electric motor oversizing
- Variable speed from zero to maximum with no limitations
- Longer service life due to efficient built-in overload protection
- The robust hydraulic motor is small and compact which gives minimum mounting space around the feeder because it's direct mounted on the shaft.
- The generous rated service life of our drive systems means that a minimum of maintenance is needed.



OVERCOMING THE CHALLENGES OF BLOCKED CHUTE DETECTION IN THE QUARRYING AND MINING INDUSTRIES

By: Mark Stevenson, Hycontrol Ltd / United Kingdom

Nuclear-based technology has long been thought the only blockage detection technology tough enough to withstand harsh mining and quarry environments, but its radioactive nature means it is far from ideal. Here, level measurement experts **Hycontrol** outline a safer, modern alternative.

BLOCKED CHUTE DETECTION

It is well recognized that transporting irregular-shaped bulk solid materials over long or short distances presents a number of operational challenges. Primary crusher crash boxes, conveyors, transfer lines, inlet/outlet chutes and inlet hoppers can all be prone to blocking, bridging or jamming,

resulting in severe site problems. These include:

- Lost production
- Crippled and damaged plant
- Lost material
- Extended and expensive down times

Therefore reliable, early detection of imminent blockages in chutes before they reach a critical level is of major importance.

NUCLEONICS

Traditional optical methods for detecting blockages, such as proximity through-beam sensors, cannot cope with the hostile environments encountered in these applications, where the extreme dust and high vibration culminate

in repeated failures when sensitive optics are damaged or become coated in dust.

As a result, nucleonic devices have historically been considered the only reliable form of instrumentation capable of providing effective blocked chute detection in such demanding conditions. However, although nucleonics provides a technically competent technology, this measurement technique requires a radiation source from a radioactive isotope such as Caesium Cs137 or Cobalt 60 in order to detect the presence of material in the hopper. The radioactive source must be specially shielded so that radiation is only directed through the hopper wall towards the product. Levels of radiation detected on the opposite side of the hopper are then used to determine whether there is a blockage or not.

These devices are very expensive to install and, although considered relatively safe to operate, there is still concern about safety aspects and the long-term environmental impact. As one would expect, controls on the use of these radioactive devices are extremely strict and extensive training is required to operate them. They need initial licensing and also have to be periodically verified, either by the manufacturer or an authorised external authority.



Hycontrol microwave vs nuclear



Hycontrol's microwave blocked chute switches in a mining application

MICROWAVE – THE SAFE, LOW-POWER ALTERNATIVE

Hycontrol's new generation of microwave switches is proving to be an extremely reliable, robust and cost effective alternative to nucleonics, offering operators a 100% safe solution for blocked chute detection. This range of microwave level switches provides a simple non-contact, non-intrusive option suitable for many solids applications. A typical installation comprises of a transmitter and a receiver mounted facing one another on either side of the chute. During operation the transmitter emits a continuous, low-power microwave beam at 24 GHz to the receiver and an output relay is energised or de-energised when this beam is obstructed by the material being monitored. The switch trigger point is determined by the amount of microwave energy received and can therefore be adjusted to cater for different products and applications. As microwaves easily penetrate any surface contaminants it makes the switches ideal for applications

where there can be high build-up of material on the inner surfaces of the chutes or vessel walls. This also means this switch technology is immune to problems with airborne contaminants such as powders or dust.

Microwave power levels are well below any required industry standards and therefore this device requires no special procedures for its operation and use. A wide range of flanges and connections make this range extremely easy to fit to new or existing installations, utilising original process connections if required.

A key advantage of this latest generation microwave technology is its ability to effectively see through low-dielectric materials such as refractory bricks, ceramics, plastics and polymers. This means that low-cost 'sacrificial' windows can easily be fitted into the sides of a vessel or container, keeping the process closed and causing no disruption to material flow. The probes can then be mounted at some distance from the application, well away from

damaging vibration and abrasion. The switch is adjusted so that the beam passes unaffected through the windows and falling product, only being triggered if the material being detected builds up and permanently breaks the microwave beam. If the windows suffer any physical damage or wear they can be simply replaced, leaving the switch intact!

The potential health dangers, high costs and strict licensing requirements associated with the use of nuclear sources in industrial environments are extremely onerous. The straightforward cost comparisons alone give microwave technology a favourable five- to ten-fold advantage, but additional costs of ownership for the nucleonics system have to factor in the added mandatory site security, strict operator training, provisions for checks from the authorities, plus annual licensing fees. The nuclear source will degrade over time and its disposal must be carefully controlled, all of which adds further to the cost of ownership.

DETECTING BLOCKAGES IN CRUSHERS

Primary crusher crash boxes at quarries are a vital part of the crushing process and it is essential that adequate warning is given of any potential blockages before they result in costly plant down time. However given the ferocity of the environment where huge rocks are being crushed, peripheral equipment is constantly being subjected to extreme vibration, impact damage and abrasion.

To overcome these problems in one such recent application, Hycontrol mounted the microwave switch components up from the floor



Microwave switches monitoring a chute for blockages

beneath the crusher head, 200mm back from the walls to prevent the units being shaken to pieces by the intense vibration. A 60mm window made in each side of the crash box allows the microwave beam to pass from one side of the box to the other. In the unswitched state the narrow beam from the transmitter is detected by the receiver. If the path of the beam is then permanently interrupted by a build-up of material in the crash box, the internal relay is triggered, initiating an alarm.

MAINTAINING CRITICAL MEASUREMENT SYSTEMS IN HARSH ENVIRONMENTS

Given the harsh environments that blocked chute switches and other level measuring equipment is expected to work in, regular structured and preventative maintenance is essential. Unfortunately all too often only cursory visual maintenance is carried out on critical equipment, exposing sites to potential safety hazards as well as premature and costly breakdowns.

All critical level components should be independently tested and calibrated on a regular basis. A well-designed level system should take this testing requirement into consideration so that maintenance work can be carried out effectively and safely. If the tell-tale signs of possible problems are uncovered during servicing the root cause should be investigated and rectified.

Choosing the correct level equipment and ensuring it is professionally installed in the correct location is vital for the long term reliability of quarrying and mining sites. It is now clear that microwave technology offers a reliable and cost-effective alternative to aging nucleonic systems. In parallel a structured maintenance programme is essential to prevent unwanted and costly breakdowns, ensuring that new equipment continues to provide optimum performance.

Solid Alternative Fuels Preparation and Utilization in Cement Plants - Perfect Solution from Vecoplan®

Vecoplan® AG, Bad Marienberg, Germany

Alternative Fuel Preparation

Even in times where primary fuels are less expensive than a while ago their inadequate availability and the long term vision of the rising cost are forcing more and more cement manufacturers to use alternative fuels, leading to a constant increase in the substitution of classic fuels such as oil, gas, coal and pet coke.

While in Europe and especially in Germany a high percentage of regular fuel is substituted by high-quality alternative materials, which are carefully prepared and quality-controlled, the employment of such materials is only developing slowly in other regions of the world.

The motivation to substitute regular fuels with AFR (Alternative Fuels and Raw materials) lies in the cost savings and in the reduction of CO₂ emissions. By cooperating an AFR co-processing system, the cement plant not only slashes its fuel costs, but simultaneously reduces the CO₂ emission load of the clinker production process through the use of biogenic materials (wood, rice husks, sewage sludge etc.).

Moreover, the thermal utilization of refuse-derived materials as fuel and raw material in the cement manufacturing process ensures the residue-free



Vecoplan's® power preshredder: The VVZ 250T



RDF Plant Adana, Turkey



Vecoplan®'s shredder VEZ 2500 TT

disposal of waste material that would otherwise pollute the environment or have to be disposed of in special landfill sites.

Apart from assuring continuously high calorific values, the characteristics and contents of the alternative process materials must not negatively affect the operation of the burning process and above all must not impair the quality of the produced clinker and cement.

Vecoplan® knows the detailed requirement for the preparation of RDF (Refused Derived Fuel) from different sources. The preparation will vary depending on the waste sources used as secondary fuel. The main sources of (solid) RDF are:

- Municipal Solid Waste (MSW)
- Commercial and Industrial Waste (C&I)
- Bulk waste / Construction and Demolition Waste (C&D)

Each of these sources has specific characteristics which will impact on the RDF preparation process. Vecoplan® is able to provide the required technology for various applications to find a customized solution.

One of the latest RDF Project is successfully commissioned in Adana Turkey.

This plant is owned and operated by a local Recycling company and produces 35 tons per hour of high calorific RDF material for the use in the nearby cement kiln. The Input material is coming from a Material recovery Facility and different industrial sources. The landfill rate in this area was decrease significant by the use of the new RDF Production line.

This plant is designed with the latest available high tech in regards to shredding, conveying and separation technology. Further details are summarized in our case

study under the following link
For the material handling, material storage, long distance transportation and material dosing Vecoplan® is able to supply all required equipment's and services.

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The Impact of Cement Additives in reducing CO₂ Emissions

Riccardo Stoppa, Mike Sumner, GCP Applied Technologies

Cement is the world's most prevalent man-made material, exceeding 4 billion tonnes annually. Manufacture on such a large scale risks significant impact to the environment and the industry has an excellent record of continuous improvement, with specific attention and success in areas such as energy efficiency, replacement of fossil fuels and reduction of emissions, such as SO_x, NO_x, dust, etc. Sustainable development is high on the agenda with wide support for the WBCSD Cement Sustainability Initiative (CSI) [1].

Given such high volumes, cement manufacture accounts for a significant part of man-made CO₂ emissions. This principally arises during clinker production, due to calcination of calcium carbonate, fossil fuel burning and electricity consumption (mostly for grinding). Approximately, each tonne of Portland cement clinker requires 1.25 tonne of limestone, which accounts for 0.5 tonne of CO₂ release during calcination. Primary energy, when mostly supplied from fossil fuels releases 0.2 to 0.5 tonnes of CO₂ (depending on fuel and process type and efficiency). Thus each tonne of clinker has an associated 0.7 to 1.0 tonnes of CO₂ (the CSI CO₂ protocol adopts a default value of 0.862 t CO₂ per tonne of purchased clinker). Electricity consumption adds another 0.05 – 0.15 tonnes of CO₂ (depending on total kWh/t and the fuel source for electricity generation).

Manufacturers have made public commitments to significantly reduce net CO₂ emissions, with reduction protocols established and legislation in place worldwide, including CO₂ taxes and emission trading schemes. There are a number of approaches to reduce the carbon footprint for cement and some are already highly implemented, such as improved energy efficiency and the utilisation of alternative fuels. Reducing the clinker factor in cement, by utilising higher amounts of supplementary cementitious materials (SCM's), is an additional approach and this can be facilitated to a significant degree by the appropriate use of cement additives.

CO₂ Emission Reduction

Reducing energy consumption has been a continuous improvement focus for decades [2], with benefits to both costs and environmental impact. Clinker process optimisation has resulted in significantly reduced GJ/t and consequent reduced CO₂ emission. The industry has also embraced the widespread use of alternative/waste fuels that are zero carbon rated. De-carbonated raw materials, mineralization [3] and reduced tri-calcium silicate content also have had a part to play. While many efforts have concerned the kiln and fuels, optimization of the grinding process has also had a role, albeit with lesser impact, in reducing CO₂ [4]. Specific energy consumption can be reduced by using improved mill system design, optimization of existing equipment, selection of cement grade, and improving clinker grindability. There has also been some attention to offsetting CO₂ (e.g. forest plantation/management) and even CO₂ capture and storage (CCS).

However, an important tool for reduction of CO₂ emissions is to lower the clinker factor by using an increased amount of supplementary cementitious material (SCM) in cement.

Lower Cement Clinker Factor

Not surprisingly cement clinker content largely correlates with the CO₂ emitted per tonne. Using a base CO₂ factor of 862kg CO₂/clinker tonne, each 1% drop in clinker factor can reduce emitted CO₂ by 8 - 9 kg/t cement. The utilization of materials such as blast-furnace slag, fly ash, pozzolan and limestone in cement, has been practised for many years on the basis of market needs and economic attractiveness. Interest in SCMs is further increasing as an economic means to reduce CO₂ emissions.

However, increasing SCM level to lower the clinker factor usually results in somewhat poorer cement performance. For example, although slower early strength development is most commonly the limiting factor, each 1% increase in SCM can reduce 28-day mortar strength by some 0.2 – 0.8MPa (depending on many factors, such as SCM type, fineness, mill system, clinker characteristics, etc.).

Increasing the level of clinker replacement and still maintaining market acceptance can be significantly assisted by an increase in cement performance, for example by increased clinker quality, increased cement fineness or by appropriate application of a chemical additive.

Increasing clinker quality requires full consideration of the effects of all production factors, including chemical and physical properties and process operation. Raising LSF (hence C_3S) is often practised, but must be balanced against impacts on burning regime and microstructure. Mineralization has facilitated raised C_3S levels with some success. A strength increase of 1MPa can be expected to allow a 1- 2% reduction in clinker factor for equal performance, and thus provide a reduction of 8 - 17kg CO_2 /cement tonne. A ready alternative to changing base clinker quality is to use a cement performance additive (or Quality Improver) [5].

Utilisation of Cement Additives

These are chemical compounds that, when integrated into the cement manufacturing process, allow the cement producers to increase the output and efficiency of grinding and significantly improve the performance, quality and handling of the finished cement, thereby allowing an increase in cement productivity and profitability. Whilst the principal advantage of such additives is to create economic gain from lower cement compositional costs, increased output and increased cement volume per tonne of clinker, they can also provide lower CO_2 emission per cement tonne.

Used as a “grinding aid” there is an immediate ability to increase output, lower kWh/t, and hence reduce CO_2 emission, but a more significant impact on CO_2 is attained as a result of improved cement hydration and performance via the use of “quality improvers”, which create an opportunity for lower fineness or, more significantly, for increased replacement of clinker with SCM's.

In broad terms a $10m^2/kg$ reduction in Blaine (i.e., Blaine equivalent for CEM I, allowing for the different influences of SCM, gypsum, etc.) can reduce energy consumption by some 1 - 2 kWh/t and hence reduce 0.5 - 1 kg CO_2 /cement tonne. Using a cement additive with a modest strength enhancing effect of 2MPa above target at 28d could allow a $40m^2/kg$ reduction in Blaine and hence a reduction of 4 - 8 kWh/t and 2 - 4kg CO_2 /cement tonne.

More typically, instead of simply reducing fineness, cement additives have been used to reduce the clinker factor. These formulated additives have been used for more than 80 years and have been demonstrated to provide strength gains in the range 2 – 10MPa (both early and at 28-days). Thus it is quite common that cement additives can lower clinker factor (increasing SCM levels) by some 3 - 10%, with an associated reduction of CO_2 /cement tonne.

The selection of the appropriate additive largely depends on how the SCM influences cement performance. For example, slag and fly ash have most influence on early strength and setting time, so that additive formulations are used that can shorten setting time and increase early strength. Limestone cements require an additive that can increase 28d strength, whilst some SCM's may require an additive that reduces water demand.

The economic benefit arising from lower clinker factor is not discussed here, but largely depends on the cost differential between SCM and clinker. Reducing clinker factor does, however, provide a direct reduction in emissions of CO_2 /cement tonne, by some 25 - 90kg.

Thus the quality improving effect of additives and the ability to reduce clinker factor is the more significant lever to reduce emissions of CO_2 /cement tonne.

Cement Additives and CO_2 : Guidelines

The guidelines to assess the beneficial impact of cement additives in the reduction of CO_2 are reported in table 1. Ad-hoc adjustments shall be made to account the conditions and settings of specific systems.

Table 1 – CO₂ reduction by means of Cement Additives, Guidelines

CO ₂ contribution from electrical supply (average mathematical correlation)	1	kWh / cem ton	≅	0,5	kg CO ₂ / cem ton
Specific energy consumption of the grinding system	45	kWh / cem ton			
CO ₂ from electrical supply				22,5	kg CO ₂ / cem ton
Enhancement of the grinding system by means of the grinding aid	-10%	kWh / cem ton			
CO ₂ reduction by the grinding aid				-2,3	kg CO ₂ / cem ton
CO ₂ contribution from clinkerisation (average mathematical correlation)	100%	clinker	≅	862	kg CO ₂ / cem ton
Current clinker factor	75%	clinker			
CO ₂ from clinkerisation				647	kg CO ₂ / cem ton
Strengths enhancement at all ages by means of the quality improver	3,0	MPa			
Clinker replacement allowed by the Q.I. (average mathematical correlation)	0,67	MPa	≅	1,0%	clinker
Clinker replacement by the Q.I. (example)				4,5%	clinker
CO ₂ reduction by the quality improver				-38,8	kg CO ₂ / cem ton
Total CO ₂ emissions without the additive				669	kg CO ₂ / cem ton
Total CO ₂ emissions with the additive				628	kg CO ₂ / cem ton
Reduction of CO ₂ emissions by means of the cement additive				-6%	CO ₂

Case study

A case study with an Italian CEM II / A-LL 42.5 R cement is reported in tables 2 - 5. A field trial was completed over a period of 2 days, to compare an untreated cement (“Reference” from here onwards) with the same cement treated with a GCP Applied Technologies customised quality improver (“Additive”). Thanks to the combined effect of process optimization and strengths enhancement by means of the additive, it was possible to produce a cement with 5% additional clinker replacement with limestone, at constant cement performance (strengths, setting time, rheology). The mill output was also significantly increased by means of the grinding aid contribution of the Additive, allowing a decrease of the specific energy consumption. Field trials results are reported in Table 2.

Table 2 – Field trial results

	UoM	Reference	Additive
Clinker	wt%	82%	77%
Gypsum	wt%	5%	5%
Limestone	wt%	13%	18%
Blaine	cm²/g	3800	3840
Alpine res. @ 45mic	wt%	7,8	7,9
Mill output	t/h	47,1	55,2
Strengths @ 2 days	MPa	22,1	22,7
Strengths @ 28 days	MPa	46,5	47,9

The effect of clinker replacement and of specific energy consumption on CO₂ emissions may be calculated according to the guidelines of Table 1, and is reported in Table 3. The CO₂ emissions by the clinkerisation process may be reduced by roughly 6% (or 43 kg of CO₂ per ton of cement), while those of the grinding system may be reduced by 15% (or 3 kg of CO₂ per ton of cement).

The total CO₂ emissions per cement ton are reduced by some 6% by means of the use of a GCP Applied Technology’s customised quality improver.

Table 3 – CO₂ emissions

	UoM	Reference	Additive
CO₂ / Clinker factor	[t:t]	0,862	0,862
CO₂ from clinkerisation	kg/cemton	706,8	663,7
	Δkg/t		-43,1
	Δ%		-6%
CO₂ / Energy factor	[kg:kWh]	0,50	0,50
CO₂ from grinding	kg/cemton	19,6	16,8
	Δkg/t		-2,9
	Δ%		-15%
Total CO₂ emissions	kg/cemton	726,5	680,5
	Δkg/t		-46,0
	Δ%		-6,3%

Table 4 – Production costs

	UoM	Reference	Additive
Specific energy cost	€/cemton	2,75	2,35
Composition cost	€/cemton	25,70	24,45
Additive use cost	€/cemton	0,00	0,65
CO2 virtual ETS sales*	€/cemton	0,00	-0,31
Total costs	€/cemton	28,45	27,14
Mill output	t/h	47,1	55,2
Strengths @ 2 days	MPa	22,1	22,7
Strengths @ 28 days	MPa	46,5	47,9

(*assumes an ETS carbon cost of 6,7€/CO₂t)

A summary of the field trial results is reported in table 5. It shall be noted that a cement of equivalent (or superior) strengths was produced by the use of the additive, while increasing total production capacity (+17%), decreasing manufacturing costs of cement (-5%), and –last but not least– decreasing the CO₂ emissions per cement ton significantly (-6%).

Table 5 – Summary of results

	UoM	Reference	Additive
Strengths @ 2 days	MPa	22,1	22,7
Strengths @ 28 days	MPa	46,5	47,9
Nominal cement volume	t/year	413.000	484.000
Total cost	€/t	28,45	27,14
CO2 emissions	kg/cemton	726,5	680,5

Conclusions

Cement manufacture accounts for 5% of man-made CO₂ emissions and an important tool for reduction of CO₂ emissions is to lower the clinker factor (increase SCM's) in cement. However, increasing SCM level usually results in a somewhat poorer cement performance. Chemical additives, in addition to helping reduce specific energy consumption, are also able to partially offset the undesired effects of lower clinker factor, therefore allowing a decrease of CO₂ emissions per cement tonne.

A set of guidelines is provided (Table 1), showing how, in typical operational conditions, a customised additive reduces CO₂ emissions. The percentage reduction is a function of the specificities of individual cases, related to SCM type and additive capability.

An example is also reported (Tables 2 - 5), showing the practical benefits of the application of a GCP customised additive in a Portland-limestone cement. In addition to significant economic savings (4 - 5% on variable costs), a 6,3% reduction of CO₂ emissions was also achieved, principally from lowering the clinker factor, and to a lesser extent by optimizing the grinding system (-15% on specific energy consumption).

Cement Additives, including GCP Applied Technologies customised solutions, are therefore a viable and ready applied means to help reduce CO₂ emissions in the production of cement.

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Figure 1 – GCP Applied Technologies (formerly Grace) employees – We are at your service!



Figure 2 – GCP Applied Technologies production facility



Figure 3 – GCP Applied Technologies employee during a mill audit



Figure 4 – Experimental reactor in a GCP Applied Technologies laboratory, for the synthesis of innovative chemical solutions

The “Mr. Clean” of conveyor technology

FLEXCO’s H-type pre-cleaner removes sticking material from conveyor belts in coal and iron ore mining

With the proven H-type pre-cleaner, the FLEXCO Europe GmbH range includes a solution which enables users to significantly increase the productivity of their conveyor systems. The innovative solution can be used, for example, in coal and iron ore mining. Fitted with 200-millimetre-long, individually mounted cleaning blades, the H-type always rests against the belt in an optimum manner, thus enabling it to be cleaned extremely thoroughly.

Carryback, that is to say material which remains sticking to the conveyor belt, is a cost factor for the user which is not to be underestimated. The H-type belt pre-cleaner is designed for fitting to the head pulley and removes the majority of carryback from the conveyor. The efficient pre-cleaner has proved its worth particularly in the coal, iron ore,

bauxite and rock mining industry. The special feature of the unit is that the blades are individually mounted on vibration dampers. As a result, the modules are sprung independently of one another and adjust themselves individually as they wear. This ensures optimum contact at all times.

Depending on the application, Flexco supplies the H-type with high-strength carbide blades for vulcanised belts or low-wear polyurethane for belts with mechanical joints. These are supplemented by protected blades for applications with highly abrasive materials. As the blade is installed 15 degrees below the horizontal centre line of the pulley, the blades do not lie in the conveyor discharge path. They are therefore protected against large pieces of rock and other debris.

The blades are designed either in a V-shape for vulcanised belts or

as XF2 blades when used with mechanical connectors, although these are also suitable for use with vulcanised belts.

The proven H-type pre-cleaner is equipped with 200-millimetre-long, individually mounted cleaning blades. It therefore always rests against the belt in an optimum manner, enabling it to be cleaned extremely thoroughly.

About the Company

Flexible Steel Lacing Company (FLEXCO), headquartered in Downers Grove, Illinois in the USA, is the leading international specialist for mechanical conveyor belt fastener systems, belt cleaners, belt positioners, impact beds and pulley lagging for light- and heavy-duty applications. With the company's innovative solutions, endusers can substantially reduce downtime and increase productivity. FLEXCO Europe GmbH is the German subsidiary of FLEXCO, and is headquartered in Rosenfeld, where the company currently has 60 employees. For more information, see:

www.flexco.com.



17 - 19 October 2016

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THE CEMENT INDUSTRY AND THE MARKET

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Staying on track

Prevent wear and material loss in conveyor systems with the PT Pro Belt belt centring system from **FLEXCO**

An important step in preventing material loss from conveyor systems is to correct the guidance of the conveyor belt. Flexco provides various belt centring systems for this purpose – for example the PT Pro Belt Trainer.

This detects when the belt is not running true and corrects it. This is achieved by a special feature – when the belt wanders, the pivot and tilt movement always guides it back into the correct position. With this centring system, users therefore not only have significantly less material loss, they also reduce their maintenance costs.

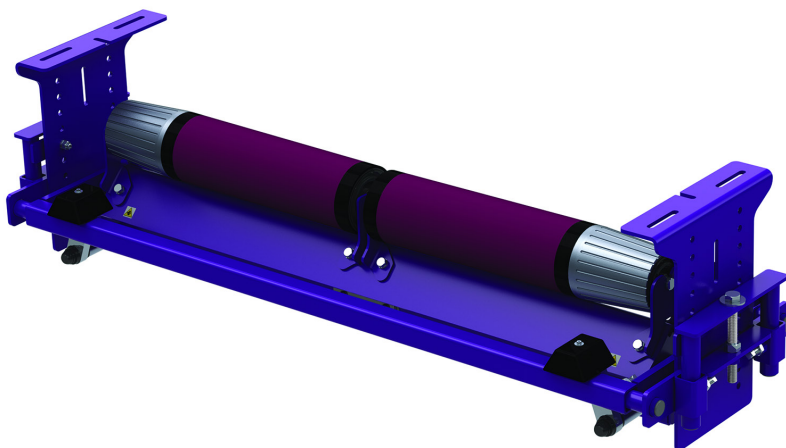
PT Pro corrects belt misalignment on one or both sides. The system can also be used on reversing belts. No sensor rollers are

required as the tapered rollers initiate movement of the belt guiding system. The unit responds immediately to belt misalignment and corrects it. It also ensures that the belt does not touch the structure, thus preventing damage and reducing maintenance costs.

To ensure optimum operation, the user can make fine adjustments to the position of the belt centring system by means of an adjustment screw – no tools are required. The special feature of the Flexco solution is the unique pivot and tilt movement. Pivoting affects the direction while tilting increases the tension on the incorrectly guided side. These two forces therefore move the belt quickly back to the centre. The belt centring system is suitable for maximum belt speeds of up to seven metres per second –

and therefore also for heavy loads. It can be installed in both damp and dry environments. Operators can use the PT Pro for belt widths from 450 to 2,400 mm and at temperatures between -35 and 82°C. It also corrects belts with worn and damaged edges, whether mechanically joined or vulcanised.

The PT Pro Belt Trainer belt centring system detects belt misalignment and, when the belt wanders, always guides it back into the correct position. This is achieved by means of the pivot and tilt movement.



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Saint Petersburg, Russia

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you should not miss!*

Five reasons to participate in the International Business Meeting:

1. Current state overviews and development forecasts of regional and global markets of cement, concrete and drymix building mortars;
2. Informal discussions with colleagues and leading industry experts from all over the world;
3. Unique opportunity to acquire business contacts useful for your company's development;
4. Chance to conduct business negotiations with suppliers and potential customers;
5. Memorable visit to the magnificent Saint Petersburg during the time of the famous White Nights, which you will never forget!



"I was very glad to meet officials from the Russian cement and building materials industries and would look forward to having the opportunity of meeting all of you again in the near future. I reiterate my cordial congratulations for the grand success of the event. Thank you again for your continued support and looking forward for more cooperation with your highly esteemed organization."

Ahmad Al-Rousan, Secretary General, Arab Union for Cement and Building Materials (AUCBM) (Syria)



"I had a very interesting stay in St. Petersburg. Both Meeting and other programs were interesting and well organized. Also the big number of participants and their high positions in the companies or organisations were could be noticed. I got a picture what is happening in the cement market in Russia and also in other countries. The producer-user discussions were also interesting to hear. Thank you for acting as a host during my visit".

Pekka Pajakkala, Professor, Senior Advisor, Chairman and Partner, FORECON Oy (Finland)


white-nights.info

Contact: Anatoly Klyushov, Business Events Manager
events@alitinform.ru, +7 (812) 380-65-72, ext. 218

Universal Cutting Mill PULVERISETTE 19 – now available completely in stainless steel!

Especially for the analytical sector and applications in the food and pharmaceutical industry!



Universal Cutting Mill PULVERISETTE 19 – completely in stainless steel



Universal Cutting Mill PULVERISETTE 19 – completely in stainless steel with new FRITSCH high-performance Cyclone separator

FRITSCH Cutting Mills are ideal for size reduction of soft to medium-hard, tough-elastic and fibrous materials. The samples are comminuted by cutting and shearing forces, and the selected sieve cassette determines the desired final fineness. Various knife geometries and replaceable blades ensure maximum flexibility and durability.

Advantages with the FRITSCH Universal Cutting Mill PULVERISETTE 19 – completely in stainless steel:

- ⊗ Ideal for soft to medium-hard, tough-elastic and fibrous materials
- ⊗ Especially for the analytical sector, the food and pharmaceutical industry
- ⊗ Completely designed in stainless steel 316L – corrosion-resistant
- ⊗ Particularly resistant to alkalis, acids and media containing chloride
- ⊗ Easy operation and cleaning
- ⊗ Materials comply with the FDA and EU directives for the food and pharmaceutical industry

The FRITSCH high-performance Cyclone separator – for optimal sample exhaustion!

The compact FRITSCH high-performance Cyclone separator, which is made completely out of stainless steel 304, is particularly indispensable in the analytical sector and the food and pharmaceutical industries. Due to its high surface quality, it offers enhanced resistance to corrosive media such as alkalis and acids, but particularly to media containing chlorides – and is especially easy to clean with a wide range of possible cleaning agents, without leaving any residues. The Cyclone separator can also be fully dismantled, meaning that it can be completely emptied, flooded and sterilised. Your advantage: reliable protection against cross-contamination.

FRITSCH-Plus: Unmatched ease of cleaning

While you are still tightening the screws on other mills, your FRITSCH Cutting Mill is already clean, because the entire grinding chamber can be opened easily in seconds and both the rotor and the sieve cassette can be removed with simple motions. Only at FRITSCH **Cutting Mills** it is possible to lift open the entire top part of the housing as well as the door – in fact, the door can be completely removed. And that's not all: The rotor of the FRITSCH Cutting Mills can be removed easily without tools and for quick cleaning in between it can be turned by hand, when the mill is open.

The result: a completely opened empty grinding chamber with minimal dead space for easy and quick cleaning offering secure protection against cross contamination!

Convince yourself of the unmatched ease of cleaning:

www.youtube.com/embed/Nlk5B2c-jhM?rel=0

By the way:

FRITSCH offers 6 different models of **Cutting Mills** with comprehensive accessories, a max. feed size from 70 x 70 mm – 120 x 85 mm, a max. throughput from 50 l/h up to 85 l/h, a final fineness from 0.2 – 20 mm and rotational speeds from 300 – 3400 rpm. For each application the perfect Cutting Mill!

The special features of the FRITSCH Cutting Mills and how they work can be seen in the video: www.youtube.com/embed/GtEOcidZS4w?rel=0

Send us your most difficult sample – we will carry out a complimentary **sample grinding** for you. Compare for yourself!

contact: FRITSCH GmbH • Milling and Sizing

Andrea Köhler

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Phone +49 67 84 70 146 • Fax 0 67 84 70 11

E-Mail: koehler@fritsch.de • Internet: www.fritsch.de

Variable Speed Rotor Mill PULVERISETTE 14 *premium line*!

The NEW high-tech standard!



Variable Speed Rotor Mill
PULVERISETTE 14 *premium line*

The FRITSCH **Variable Speed Rotor Mill PULVERISETTE 14 *premium line*** offers impact, shearing and cutting comminution in one instrument – with a higher performance, better cooling and significantly quieter than comparable instruments. Its powerful motor is ideal for the particularly fast comminution of soft to medium-hard, brittle as well as fibrous materials and temperature-sensitive samples with an extremely fast sample throughput of up to 15 litres and more per hour, depending on the material and parameter settings.

Overview of the *premium* features:

- ⊕ Powerful grinding with 22,000 rpm for particularly fast sample throughput
- ⊕ Max. feed size < 15 mm, sample throughput of up to 15 l/h and more
- ⊕ AutoLOCK grinding chamber for particularly safe work
- ⊕ Final fineness down to $d_{50} < 40 \mu\text{m}$, sieve rings 0.08 – 6 mm
- ⊕ Particularly good cooling of the grinding material
- ⊕ Pleasantly quiet operation
- ⊕ Very easy to clean due to Clean Design

FRITSCH *premium* advantage: Especially powerful

A high-speed motor with ceramic bearings ensures a particularly high impact and rotor speed with an extra powerful 22,000 rpm.

Your advantage: finer results in shorter times.

FRITSCH *premium* advantage: Significantly better cooling

The new PULVERISETTE 14 *premium line* cools your sample during grinding significantly better than comparable instruments.

Your advantage: melting or sticking of the grinding material is greatly reduced, even with temperature-sensitive samples.



Well-conceived Clean Design for especially easy cleaning

FRITSCH *premium* advantage: Incredibly safe operation

The new AutoLOCK grinding chamber facilitates automatic opening and closing with clamping and crushing protection. The additional Intelligence-Safety-Control-System only allows the instrument to start if the grinding set is fully and correctly inserted.

FRITSCH *premium* advantage: Fast, residue-free cleaning

The well-conceived Clean Design covers all the areas, which make the cleaning of your mill as easy as possible: All the surfaces are designed to be extremely dirt-resistant and easy to clean. And all the parts that need regular cleaning can be removed with a single motion without tools. Even the lid of the instrument can be easily removed for cleaning.

FRITSCH *premium* advantage: 2 instruments in one

Turn your Variable Speed Rotor Mill PULVERISSETTE 14 *premium line* into a Cutting Mill with just a few simple motions for fast, efficient pre-grinding of fibrous materials and plastics – in an optimised mode with up to 10,000 rpm. Absolutely multifunctional with the choice of grinding with an impact or cutting rotor!

You can view a video on the Variable Speed Rotor Mill PULVERISSETTE 14 *premium line* at:

www.youtube.com/embed/E0zkb60dES8?rel=0

Test the FRITSCH Variable Speed Rotor Mill PULVERISSETTE 14 *premium line*!

Send us your most difficult sample – we will carry out a complimentary **sample grinding** for you. Compare for yourself!

Siemens - New generation of controllers for rail applications

- **New Siplus extreme rail automation controller for a wide range of applications**
- **For controlling anything from HVC, signaling or sanding systems, to door drive and lighting systems**
- **Comprehensive certifications and all necessary rail approvals for use on board or at trackside**
- **Based on latest generation of Simatic S7 controllers with efficient engineering via the TIA Portal**

New Siemens automation controllers for rail applications are being launched on the market. The new rail-tested and approved Siplus extreme rail devices are based on the latest generation of Simatic S7 controllers and are specially designed for the extreme conditions encountered in rail applications. The new range includes the Siplus extreme Rail S7-1500 and S7-1200 Advanced, Basic and Distributed controllers with ET 200SP, as well as the Siplus HMI KP300 Basic rail panel for operator control and monitoring. The devices have comprehensive certifications and all the necessary rail approvals (EN 15121, 45545, 50124, 50125 and 50155) and can be used on board the train or on the track for a wide range of automation tasks covering all rail applications. Typical applications are heating, ventilation and climate control (HVC) systems in the train and signal systems, door drive systems on platform screen doors, or sanding and lighting systems in the depot. The network Siplus extreme rail devices supersede the existing Siplus S7-200 and -300 technology.

For configuration and commissioning of the new Siplus

extreme rail devices, the user can use the TIA Portal (Totally Integrated Automation) engineering framework, as in the case of the standard Simatic controllers. The data storage facilities of the portal, the practical library concepts and standardized operating philosophy support the user with global functions. Using this coordinated system, comprising new Siplus extreme rail equipment, Profinet-based communication and

fire with regard to the materials used and the special conformance coating of the electronics in accordance with EN 50155. The temperature classes specified in the standard differ according to the product: for TX, minus 40 to plus 85; and for T1, minus 25 to plus 70 degrees Celsius. Prior to shipment, each Siplus extreme rail product is subjected to an insulation test required by the standard in order to ensure dielectric strength.



engineering in the TIA Portal, the user can create efficient automation solutions for rail applications quickly and easily.

The new Siplus extreme rail devices are designed and tested from the outset for extreme environmental conditions such as humidity, corrosive gases, salt spray, dust and electromagnetic interference. In addition, they are designed to meet the more exacting demands of rail applications, such as "mobile" use in trains. Measures include testing of the behavior and side effects of

New Siemens automation controllers for rail applications are being launched on the market. The new rail-tested and approved Siplus extreme rail devices are based on the latest generation of Simatic S7 controllers and are specially designed for the extreme conditions encountered in rail applications. The new range includes the Siplus extreme Rail S7-1500 and S7-1200 Advanced, Basic and Distributed controllers with ET 200SP, as well as the Siplus HMI KP300 Basic rail panel for operator control and monitoring.

Siemens - Secured and flexible remote access to machines and plants

- **Version 1.2 of the Sinema Remote Connect management platform**
- **Additional security functions through IPsec encryption**
- **Parallel connection possible via different security protocols**
- **Virtualization functions enhance flexibility and availability**

Siemens has extended its Sinema Remote Connect software for the efficient maintenance of distributed plants and machines to include a number of new security and virtualization functions. Alongside OpenVPN, Version 1.2 of the management platform now also features IPsec encryption, allowing a wide range of various machines with different security protocols to be flexibly connected. The new version is also capable of running in a virtualized environment. This not only increases the flexibility and availability of the platform but also the efficiency of maintenance and support services. The management platform is particularly suited for series and special-purpose machine building.

The Sinema Remote Connect management platform is a server application, allowing users to conveniently and securely maintain widely distributed plants or machines by means of remote access. Depending on the supported security protocols, machines can now be flexibly connected, either by OpenVPN or IPsec. This facility means that Sinema Remote Connect can communicate securely over routers with the majority of connected machines. Siemens also offers a complete solution for virtualization (Simatic Virtualization as a Service): The solution encompasses set-up of the Sinema Remote Connect Server, the configuration of virtual machines and their network structure, the installation and configuration of the operating system and ready-to-use installation of the Simatic software. To support the virtualized systems over their entire life cycle, Siemens offers a number of inter-coordinated services, including Simatic Remote Services for

remote access by means of a cRSP (common Remote Service Platform), and Managed Support Services, which encompass all support activities surrounding the virtualized host system.



Siemens has extended its Sinema Remote Connect software for the efficient maintenance of distributed plants and machines to include a number of new security and virtualization functions. Alongside OpenVPN, Version 1.2 of the management platform now also features IPsec encryption, allowing a wide range of various machines with different security protocols to be flexibly connected

For more information, go to www.siemens.com/sinema-remote-connect

For more information on support services, go to www.siemens.com/sivaas, www.siemens.com/siremote and www.siemens.com/mss.

Siemens -Simulation software Simit 9 minimizes risks prior to actual commissioning

- **Totally virtual – testing and optimization of automation projects**
- **Realistic – virtual training environment before and after commissioning**
- **Intuitive – simple simulation set-up**

Siemens is launching Version 9 of Simit, marking a new generation of its acclaimed virtual commissioning and plant operator training simulation software. The new software generation is based on a standardized simulation platform. Using Simit 9, automation functions can be comprehensively tested for development or functional faults and optimized prior to actual plant commissioning using real time simulation and emulation. By adopting existing planning, engineering and automation data as well as libraries containing functionally capable components over interfaces to Comos and Simatic PCS 7, the new Simit generation helps real commissioning processes to be carried out more quickly, more economically and with fewer risks.

Simit 9 allows testing and optimization of the automation solution within the simulation and emulation environment on a completely virtual basis using a totally integrated virtual controller. The virtual plant test can be

performed directly at the workplace without available plant equipment and without the need for in-depth simulation expertise.

The new Simit generation also offers scope for safe, efficient training of plant operating personnel. Different plant operating scenarios can be simulated using realistic training environments. Operators can be familiarized with the plant using original operator panel screens and automation programs in advance of actual commissioning. Using Simit as a training system not only reduces the use of actual resources, it also allows possible hazards for operating staff in running operation to be minimized or even avoided altogether.

To ensure that the Simit simulation solution can stay abreast of the

latest technological developments, Siemens offers what it calls the Software Update Service (SUS). Version 9 of Simit also supports new operating systems such as Microsoft Windows 10 and Server 2012 R2.

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Heavy Industrial Plants Services

Brief

International Company for Construction and Special Maintenance (INTERMAINT) was established in 2003 by the best referenced expertise of 18 years

Working with Japanese ideology which proved a great success in the Egyptian market.

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Total Refractory Solution's

in the total refractory systems all over the world to our different services inside Egypt.



01



02

03



04

05



06



Fabrication :

- Our Fabrication Experience Covers All The needs of Your Plant's Production Equipment.
- All Of Our Process Quality Controlled and quality assured
- We ensure the best quality in the shortest duration possible.
- Our Yearly Capacity Is About 7000 Tons Mixed, As Technological Steel Structure Plate Works And Built Up Sections , Spare Parts Etc.

Erection :

Our way to success is short time and high quality performance.

for new or existing project we can do :-

- Installation of Electromechanical Equipments and Piping as a total services.
- Installation of insulation works.
- Refractory services.

Maintenance :

- Quick intervention
- Planning of shutdowns
- Good preparation
- Very short time execution period



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THINKING FOR TOMORROW

Siemens - Engineering tool brings energy transparency into production

- **Simatic Energy Suite engineering tool for energy management in automation systems**
- **Simple and intuitive configuration instead of programming**
- **Record, display and evaluate energy consumption at production level**
- **Integrates into the TIA Portal V14 engineering framework**

Siemens has announced the market launch of the Simatic Energy Suite engineering tool for energy management in automation systems. Integrated as an option package within the TIA Portal V14 (Totally Integrated Automation) engineering framework, the Simatic Energy Suite efficiently links energy management with automation and brings energy transparency into production. Companies can record production-level energy consumption data, display it "live", evaluate it and correlate it with production data. With a seamless interface to higher-level software such as the Simatic Energy Manager PRO or the cloud-based Energy Analytics Services, the Simatic Energy Suite can be expanded into an energy management system across all company sites that is certified to ISO 50001 – covering every stage from purchasing and planning through to financial controlling of energy.

The new Simatic Energy Suite engineering tool enables companies to correlate energy consumption values in production plants with their automation processes. The energy consumption of production components, such as drives or controls, or even complete machines, is recorded, checked and displayed "live", for example, on a Simatic HMI panel (Human Machine Interface) or the Simatic WinCC SCADA system (Supervisory



Control and Data Acquisition). The recorded energy data can then be linked to production data.

Simatic Energy Suite is suitable for energy-measuring components from the Simocode and Sirius series (low-voltage controls), Sentron (low-voltage energy distribution), as well as Simatic and Sinamics (automation and drives) from Siemens, for example the Simatic Energy Meters. Third-party measuring instruments are incorporated by means of open interfaces and, for example, input modules of the Simatic S7 -1500 controller. Integrated into the TIA Portal V14 engineering framework, energy data recording with Simatic Energy Suite is easy to configure and quick to engineer. Users require very little time or prior expertise in order to familiarize themselves with the system.

MVW Lechtenberg is pleased to invite professionals from the cement, lime, steel and waste industries to the

3rd Alternative Fuels Symposium

12-13 October 2016

Duisburg, Germany

Register now for the 3rd Alternative Fuels Symposium, taking place at a former steel mill in the "Landschaftspark Nord" in Duisburg, Germany.

This popular and highly regarded event has an informative and varied programme featuring senior industry decision makers and technical experts covering the key aspects of alternative fuels technologies used in cement, lime and steel industries.

Supported by AUCBM.



A selection of presentations:

- Keynote presentation by the environmental minister: **Climate Action Plan**
 - **Development of Alternative Fuels**, Dr eng. Bożena Środa, Polish Cement Association, Poland
 - **The project planning and introduction of a "Fluff-drying system" at Dyckerhoff's Nowiny plant**,
Mr. Wojciech Rabajczyk, Dyckerhoff Cement Polska, Poland
 - **Mechanical & biological treatment and production of RDF**, Mr. Stefan Minius, Sutco, Germany
 - **Granulated blast furnace slag as raw material for cement production**,
Dr. Volkert Feldrappe, FEhS (Building Materials Institute), Germany
- Excellent opportunities for networking with international alternative fuels experts and decision makers. **Meet experts from Lindner Recyclingtech, Untha shredding systems, Vecoplan, Metso, FLS Pfister, Di Matteo, Sutco and many others...**
- **Presentations on latest developments** in alternative fuels, carbon capture and carbon storage, influence of alternative fuels on clinker and cement production, funding of waste processing projects for the production of alternative fuels
 - **Case studies and first-hand experience** in using alternative fuels shared by management members of several cement, lime and steel plants
 - **Field trip on 11 October**, to visit an RDF production facility of EMREC
 - Social programme, including a dinner and sightseeing tours

Full details, latest news and the booking form are available on the website: www.lechtenberg-partner.de/news



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DIARY DATES

CEMENT

INTERCEM Asia 2016

Date : 19 - 21 September 2016

Venue: Hanoi, Vietnam

For more information please visit:

www.intercem.com

VDZ Cement Manufacturing Course

Date : 19 September - 14 October 2016

Venue: Training Center near Düsseldorf, Germany

For more information please contact:

Mr Aftab Sadique, Executive Secretary

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Post Box: 3099, Al-Khobar 31952

Kingdom of Saudi Arabia

Tel: +966 13 8873030 | Ext. 225

Fax: +966 13 8876627

Mobile: +966 566463180

Email: training@cemserv.com.sa

Web: www.cemserv.com.sa

VDZ- Annual Meeting

Date : 27 - 28 September 2016

Venue: Dusseldorf, Germany

For more information please visit:

www.vdz-online.de

3rd Alternative Fuel Symposium

Date : 12 - 13 October 2016

Venue: Landschaftspark Nord, Germany

For more information please contact:

Mr Dirk Lechtenberg

Marketing@lechtenberg-partner.de / sales@lechtenberg-partner.de

lechtenberg-partner.de

Http:\\ <http://www.lechtenberg-partner.de>

ICCCC 2016: 18th International Conference on Cement and Concrete Chemistry:

Date : 19 - 20 October 2016

Venue: Istanbul, Turkey

For more information please visit:

www.waset.org

Cement Business & Industry India 2016

Date : 19 - 20 October 2016

Venue: Mumbai, India

For more information please contact:

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www.gmiforum.com

16th Global Gypsum Conference, Exhibition and Awards

Date : 25 - 26 October 2016

Venue: Bangkok, Thailand

For more information please visit:

www.globalgypsum.com

23rd international conference CONCRETE DAYS 2016

Date : 30 November - 01 December 2016

Venue: Litomyšl, Czech Republic

Email: cbsbeton@cbsbeton.eu

For more information please visit:

www.cbsbeton.eu

International Exhibition “Concrete plants. Equipment. Formwork – ConTech”

Date : 30 November - 02 December 2016

Venue: Moscow, Russia

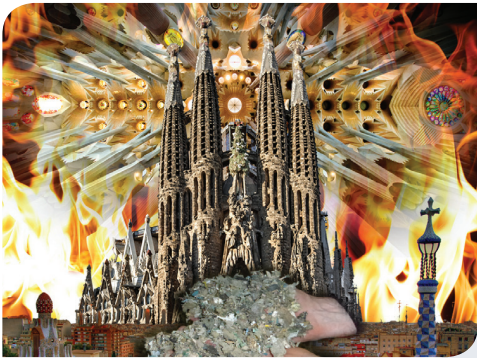
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Email: info-pr@alitinform.ru

visit: <http://infocem.info/eng/>

11th **global** **cemfuels** CONFERENCE & EXHIBITION 2017

CemFuels.com



BARCELONA, SPAIN • **2-3 FEBRUARY 2017**

The *Global CemFuels Conference* has established itself as the largest specialised annual alternative fuels conference in the world. The 11th *Global CemFuels* event in Barcelona will showcase the best alternative fuels projects and equipment from the cement industry in Europe and from around the world. 200-plus delegates from over 40 countries are expected to attend, including a strong South American contingent.

1st **global** **cemprocess** CONFERENCE & EXHIBITION 2017

Global-CemProcess.com

LONDON, UK • **24-25 APRIL 2017**

Global CemProcess is the new cement industry conference that looks at process optimisation, de-bottlenecking, maximising production and troubleshooting. The event will take place in London, the easy-to-access world city with direct transport links to over 300 global cities, and will include a field trip to Hanson Cement's Ketton plant in Rutland.



12th **global** **slag** CONFERENCE & EXHIBITION 2017

globalslag.com



DÜSSELDORF, GERMANY • **18-19 MAY 2017**

The 12th *Global Slag Conference* will take place in Düsseldorf, Germany in May 2017. The conference will allow all attendees to maximise their profits from slag, both ferrous and non-ferrous, will keep them up-to-date with state-of-the-art processes and will provide extensive networking and business opportunities.

DIARY DATES

CEMENT

CEMENT EXPO - 9th International Exhibition and Seminar

Date : 08 - 09 December 2016

Venue: Mumbai, India

For more information please contact:

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Email: vrushali.p@ASAPPinfoGLOBAL.com

www.ASAPPinfoGLOBAL.com

11th Global CemFuels Conference & Exhibition

Fuels for Cement and Lime

Date : 02 - 03 February 2017

Venue: Barcelona, Spain

For more information please contact:

Pro Global Media Ltd

Tel: +44 1372 743837

Fax: +44 1372 743838

Email: info@propubs.com

For more information please visit:

www.cemfuels.com

2nd Global SynGyp Conference & Exhibition on wet scrubbers and synthetic gypsum

Date : 30 - 31 March 2017

Venue: Lindner Congress Hotel, Düsseldorf, Germany

For more information please visit: [http://](http://www.globalgypsum.com/conferences/global-syngyp/introduction)

www.globalgypsum.com/conferences/

global-syngyp/introduction

1st Global CemProcess Conference and Exhibition

Process optimisation, de-bottlenecking, production maximisation and troubleshooting

Date : 24 - 25 April 2017

Venue: London, UK

For more information please contact:

Pro Global Media Ltd

Tel: +44 1372 743837

Fax: +44 1372 743838

For more information please visit:

www.Global-CemProcess.com

12th Global Slag Conference, Exhibition & Awards

Date : 18 - 19 May 2017

Venue: Düsseldorf, Germany

For more information please contact:

Pro Global Media Ltd

Tel: +44 1372 743837

Fax: +44 1372 743838

For more information please visit:

www.globalslag.com

IV International Business Meeting

White Nights: Cement. Concrete. Dry Mixtures

Date : 29 - 31 May 2017

Venue: Grand Hotel Europe, St. Petersburg, Russia

For more information please visit:

www.white-nights.info

14th TCMB International Technical Seminar & Exhibition

Main theme: "Sustainable Environment & Energy"

Date : 10 - 13 October 2017

Venue: Kaya Palazzo Golf Resort, Belek, Antalya, Turkey

For more information please click:

<http://www.tcma.org.tr/ENG>

15th International Congress on the Chemistry of Cement (ICCC 2019)

Date : 16 - 20 September 2019

Venue: Prague, Czech Republic

For more information please click:

<http://www.iccc2019.org>

MADRID

18-21 SEPTEMBER 2016
25th ANNIVERSARY CONFERENCE

INTERNATIONAL CEMENT CONFERENCE

Cemtech

PRODUCTION EXPERTISE - MANAGEMENT SKILLS

Cemtech
25th
Anniversary

**18-21 September 2016,
The Westin Palace, Madrid**



Cemtech will celebrate 25 years as the leading international cement conference series in Madrid on 18-21 September 2016.

Over the years thousands of delegates have participated in our meetings, which have earned a reputation for being the premier event for cement professionals worldwide, with annual conferences held in Europe, Middle East & Africa, Asia and the Americas.

Every event offers authoritative presentations by senior industry figures alongside an international exhibition with world-class suppliers showcasing state-of-the-art equipment, innovations and technical solutions.

Cemtech's 25th anniversary conference & exhibition offers a chance to meet international colleagues, engage in the important issues of the day and explore opportunities for the future.

Join us in Madrid in September as we look forward to the next 25 years!

For more details, programme updates and registration, please visit:

www.Cemtech.com/25

International conference and exhibition organised by:

International
Cementreview

DIARY DATES

CERAMIC

Glass Expo Africa 2016
Date: 17 - 20 August 2016
Venue: Johannesburg, South Africa
Tel: +27 11 835 1565
Fax: +27 11 496 1161
For more information, please visit:
<http://glassexpo.interbuild.co.za/>

6th International Congress on Ceramics
Date: 21 - 25 August 2016
Venue: Dresden, Germany
For more information, please visit:
<http://www.icc-6.com/>

China Glasstec Expo - CGE 2016
Date: 24 - 26 August 2016
Venue: Guangzhou, China
Tel: +86 189 2240 2195
For more information, please visit:
http://demo5.yiersan.cn/wgctq_1715/en/

CERANOR 2016
Date: 08 - 11 September 2016
Venue: Porto, Portugal
Tel: +351 22 998 14 00
Fax: +351 22 9957499
For more information, please visit:
<http://www.ceranor.exponor.pt/>

Sri Lanka Glass 2016
Date: 09 - 11 September 2016
Venue: Colombo, Sri Lanka
For more information, please visit:
<http://lankaglass.net/>

GLASSTEC 2016
Date: 20 - 23 September 2016
Venue: Dusseldorf, Germany
Tel: +49 211 4560 900
Fax: +49 211 4560 668
<http://www.glasstec.de/>

Tecnargilla 2016
Date: 26 - 30 September 2016
Venue: Rimini, Italy
Tel. +39 541 744111 / 744206
Fax +39 541 744200 / 744850
Email: infovisitatori@riminifera.it
For more information please visit:
www.tecnargilla.it

Cersaie
International Exhibition of Ceramic Tile and
Bathroom Furnishings
Date: 26 - 30 September 2016
Venue: Bologna, Italy
For more information please visit:
<http://www.cersaie.it/en/index.php>

GLASSTECH Asia 2016
Date: 01 - 30 November 2016
Venue: Kuala Lumpur, Malaysia
For more information, please contact:
CEMS (Conference & Exhibitions Management
Services Pte Ltd)
Singapore
Tel: +65 6278 8666
Fax: +65 6278 4077
For more information please visit:
<http://www.glasstechasia.com.sg/>

Cuba Glass 2016
Date: 06 - 07 December 2016
Venue: Havana, Cuba
For more information please visit:
<http://glassonline.com/site/cubaglass>

Glass Technology India 2016
Date: 09 - 11 December 2016
Venue: Mumbai, India
Tel: +91 44 4295 9595
Fax: +91 44 2820 2728
For more information please visit:
<http://www.zakglasstech.com/>

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The Russian-language periodical professional publication devoted to the production of cement and other binders, concretes, dry mixes and their applications, as well as to research and design.

A conspicuous place in the journal materials is given to the problems of plant development, capital movement, economic problems facing the cement industries of Russia and other countries.

The journal comes out once in two months and includes news, analytical materials and detailed abstracts of all the articles in English.

Cement and its Applications, Journal
Zvenigorodskaya Str., 22A, office 438
St.Petersburg, 191119, Russia

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E-mail: info@jcement.ru

Web: www.jcement.ru
www.petrocem.ru



DIARY DATES

GENERAL

3rd Annual Underground Space Engineering Conference

Date : 20 - 21 July 2016

Venue: Singapore

For more information please contact:

Mr John Karras

Tel: +603 2775 0001

Fax: +603 2775 0005

Email: johnk@trueventus.com

Venue: Kampala, Uganda

For more information please contact:

Mr. Moiz S. J., Event Manager

Bright Exhibitions

Tel: +971 6 5996338

Fax: +971 6 5996401

Mob: +971 50 8721510

Email: moiz@bright-fairs.com

www.bright-fairs.com

Anti-Counterfeiting and Brand Protection

Date : 27 - 28 July 2016

Venue: Kuala Lumpur, Malaysia For more information please contact:

Mr John Karras

Tel: +603 2775 0001

Fax: +603 2775 0005

Email: johnk@trueventus.com

Cameroon BUILDEXPO

Date : 10 - 13 August 2016

Venue: Yaounde, Cameroon

Tel: +90 212 272 18 50

Fax: +90 212 272 18 53

Email: info@icffair.com

www.icffair.com

Rostering and Shiftwork for Plants

Date : 27 - 28 July 2016

Venue: Kuala Lumpur, Malaysia

For more information please contact:

Mr John Karras

Tel: +603 2775 0001

Fax: +603 2775 0005

Email: johnk@trueventus.com

Construction Contract Management

Date : 17 - 18 August 2016

Venue: Kuala Lumpur, Malaysia

For more information please contact:

Trueventus

Casey Lee

Tel: +603 2775 0067

Fax: +603 2775 0055

Email: caseyl@trueventus.com

Advanced Financial Modelling for Multi-let

Commercial Property Investment

Date : 27 - 28 July 2016

Venue: Kuala Lumpur, Malaysia

For more information please contact:

Trueventus

Casey Lee

Tel: +603 2775 0067

Fax: +603 2775 0055

Email: caseyl@trueventus.com

Stay at Home Workforce

Date : 17 - 18 August 2016

Venue: Kuala Lumpur, Malaysia

For more information please contact:

Trueventus

Casey Lee

Tel: +603 2775 0067

Fax: +603 2775 0055

Email: caseyl@trueventus.com

Digital Integration & Business Transformation Asia

Date : 03 - 04 August 2016

Venue: Kuala Lumpur, Malaysia

For more information please contact:

Trueventus

Casey Lee

Tel: +603 2775 0067

Fax: +603 2775 0055

Email: caseyl@trueventus.com

2nd Annual Affordable Housing

Date : 24 - 25 August 2016

Venue: Goodwood Park Hotel, Singapore

For more information please contact:

Mr. Kenneth Tan

Tel: +603 2775 0000 ext. 569

Fax: +603 2775 0055

Email: kenneth@trueventus.com

Uganda Trade Expo 2016

Date : 03 - 05 August 2016

Counter Terrorist Strategies for Properties

Date : 24 - 25 August 2016

Venue: Kuala Lumpur, Malaysia

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 For more information please visit:
www.truesummits.com

Mechanical Seals and Shaft Alignment
 Date : 24 - 25 August 2016
 Venue: Kuala Lumpur, Malaysia
 For more information please contact:
 Trueventus
 Mr John Karras
Tel: +603 2775 0001
Fax: +603 2775 0005
Email: johnk@trueventus.com

Pedestrian Walks Master Planning
 Date : 26 - 27 August 2016
 Venue: Goodwood Park Hotel, Singapore
 For more information please contact:
 Trueventus
 Casey Lee
Tel: +603 2775 0067
Fax: +603 2775 0055
Email: caseyl@trueventus.com

Finance for Non-Financial Professionals
 Date : 04 - 05 September 2016
 Venue: Dubai, UAE
Tel: +60 3 2295 5466
Email: ashley.w@mktconsultkl.info

Alternative Raw Materials for the Cement Industry
 Date : 07 - 08 September 2016
 Venue: Duisburg, Germany
 For more information please contact:
 Mr. Dirk Lechtenberg
Tel: +49 0 203 34 65 16 0
Fax: +49 0 203 34 65 16 50
Email: dirk.lechtenberg@lechtenberg-partner.de
www.lechtenberg-partner.de

Transformer Life Cycle Management
 Date : 07 - 08 September 2016
 Venue: Manila, Philippines
 For more information please contact:
 Trueventus
 Casey Lee
Tel: +603 2775 0067
Fax: +603 2775 0055
Email: caseyl@trueventus.com

Building Services
 Date : 18 - 19 September 2016
 Venue: Dubai, UAE
 For more information please contact:
 Mr John Karras
Tel: +603 2775 0001
Fax: +603 2775 0005
Email: johnk@trueventus.com

cedmmc five
 Date : 20 September 2016
 Venue: Istanbul, Turkey
 For more information please visit:
www.drymix.info

Quality Management of Alternative Fuels
 Date : 20 - 21 September 2016
 Venue: Duisburg, Germany
 For more information please contact:
 Mr. Dirk Lechtenberg
Tel: +49 0 203 34 65 16 0
Fax: +49 0 203 34 65 16 50
Email: dirk.lechtenberg@lechtenberg-partner.de
www.lechtenberg-partner.de

TECNO FACHADAS 2016
 Date : 21 - 24 September 2016
 Venue: São Paulo, Brazil
 For more information please visit:
www.fesqua.com.br

Mediterranean Coal Markets 2016
 Date : 22 - 23 September 2016
 Venue: Istanbul, Turkey
 For more information, please contact:
 Ms Anna Sydorenko, Conference Director – Coal,
 Power, Freight
 Business-Forum
Tel/fax: +380 562 313 919
Email: A.Sidorenko@b-forum.ru
www.b-forum.com

10th Erbil International Building-Construction,
 Municipality Equipment, Machinery & Natural Stone
 Exhibition
 Date : 22 - 25 September 2016
 Venue: Erbil, Iraq
 For more information please contact:
 Mr. Tarek ALAMER / Int'l Marketing Executive
Tel: +90 216 575 28 28 ext. 223
Email: tarek.alamer@pyramidsfair.com

11th Global Insulation Conference, Exhibition and
 Awards 2016
 Date : 26 - 27 September 2016
 Venue: Hamburg, Germany
 For more information please visit:
www.globalinsulation.com

MSE 2016 – Materials Science and Engineering
 Date : 27 - 29 September 2016
 Venue: Darmstadt, Germany
 For more information please visit:
www.mse-congress.de

Construction Logistics Managing Suppliers and
 Materials
 Date : 28 - 29 September 2016
 Venue: Kuala Lumpur, Malaysia
 For more information please contact:
 Trueventus
 Casey Lee

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IFAT India
 Date : 28 - 30 September 2016
 Venue: Hall 5, Bombay Exhibition Center, Mumbai, India
 For more information please visit: www.ifat-india.com

Gamification of HR Training Course
 Date : 05 - 07 October 2016
 Venue: Goodwood Park Hotel, Singapore
 For more information please contact:
 Mr John Karras
Tel: +603 2775 0001
Fax: +603 2775 0005
Email: johnk@trueventus.com

Property Joint Venture Asia
 Date : 05 - 07 October 2016
 Venue: Singapore
 Tel: +603 2775 0067
 Email: mikej@eventnewsupdatesinasia.com
 For more information please visit:
www.trueconferenceassets.com

Buildexpo Cairo
 Date : 11 - 13 October 2016
 Venue: Cairo, Egypt
 Email: sales@pyramidsfair.com

Facilities Management Summit ASIA
 Date : 12 - 13 October 2016
 Venue: Bangkok, Thailand
Email : mikej@eventnewsupdatesinasia.com
For more information please visit the link below:
http://trueconferenceassets.com/ftp/MKTCL/IF18_FM.pdf

Ghana Trade Show 2016
 Date : 12 - 14 October 2016
 Venue: Accra, Ghana
 Email: tradealert.co@mlsend.com

ILA General Assembly: international lime association
 Date : 12 - 14 October 2016
 Venue: Washington, USA
Email: ILA2016@icsevents.com
 For more information please visit: www.icsevents.com

Build Expo Cairo
 Date : 13 - 15 October 2016
 Venue: Cairo, Egypt
 Tel: +90 216 575 28 28
 Email: info@pyramidsfair.com

ADDIS BUILD EXPO 2016
 7th International Trade Exhibition on Building - Construction, Safety - Security and Infrastructure
 Date : 14 - 17 October 2016
 Venue: Addis Ababa, Ethiopia
 For more information please contact:

Ms. Sophia David, Marketing coordinator,
 ITP, India
Mobile: + 91 8551918436
Email: intltradepromoters@gmail.com

INTERCONMACH 2016
 Date : 18 - 20 October 2016
 Venue: Nairobi – Kenya
 For more information please visit the link: <http://www.mfairsexpo.info/interconmach/interconmach.php>

Sourcing Property Development Sites
 Date : 19 - 20 October 2016
 Venue: Kuala Lumpur, Malaysia
 For more information please contact:
 Trueventus
 Casey Lee
Tel: +603 2775 0067
Fax: +603 2775 0055
Email: caseyl@trueventus.com

Iran Drymix Mortar Meeting
 Date : 25 October 2016
 Venue: Teheran, Iran
 For more information please visit:
www.drymix.info

Erbil International Real Estate & Investment Exhibition
 Date : 26 - 29 October 2016
 Venue: Erbil, Iraq
 For more information please contact:
 Mr. Tarek ALAMER, Int'l Marketing Executive
Tel: +90 216 575 28 28 ext. 223
Email: tarek.alamer@pyramidsfair.com

Gulf Safety Forum 2016
 Date : 30 - 31 October 2016
 Venue: Doha, Qatar
 For more information please contact:
 Euro Petroleum Consultants DMCC
 Office 21K, Gold Tower
 Jumeirah Lakes Towers,
 PO Box 625766, Dubai
 United Arab Emirates
Tel: +971 0 4 421 4642
Email: office@europetro-me.com
www.gulfsafetyforum.com

Avoidance and Management of Claims and Disputes under FIDIC Contracts (Construction, Plant & Design- Build, EPC and MDB)
 Date : 02 - 03 November 2016
 Venue: Dubai, UAE
 For more information, please contact:
 Mr. Jamie Lee:
Tel: +60322955465
General Line: +60322955401
Fax: +60320201925
Email: jamie.L@greenforestkl.com

4th Latin American Drymix Mortar Conference

Date : 6 November 2016
 Venue: Sao Paulo, Brazil
 For more information, please contact:
 Mr. Ferdinand Leopolder
Email: drymix-news@drymix.info

Bauma 2016

Date : 11 - 17 November 2016
 Venue: Shanghai, China
 For more information, please visit:
www.bauma-china.com

Global Clean Energy and Sustainability Summit & Exhibition

Date : 14 - 15 November 2016
 Venue: Doha, Qatar
Email: shafai@goic.org.qa

Retail Loss Prevention

Date : 20 - 21 November 2016
 Venue: Dubai, UAE
 For more information please contact:
 Mr John Karras
Tel: +603 2775 0001
Fax: +603 2775 0005
Email: johnk@trueventus.com

Alternative Raw Materials for the Cement Industry

Date : 22 - 23 November 2016
 Venue: Duisburg, Germany
 For more information please contact:
 Mr. Dirk Lechtenberg
Tel: +49 0 203 34 65 16 0
Fax: +49 0 203 34 65 16 50
Email: dirk.lechtenberg@lechtenberg-partner.de
www.lechtenberg-partner.de

IE expo Guangzhou

Date : 24 - 26 November 2016
 Venue: China Import and Export Fair Complex (Canton Fair Complex)
 For more information please visit:
www.guangzhou.ie-expo.com

The 7th International Conference

Sciences of Electronics, Technologies of Information and Telecommunications (SETIT 2016)
 Date : 18 - 20 December 2016
 Venue: Hammamet – Tunisia
 For more information, please visit:
<http://www.setit.rnu.tn>

SteelFab 2017

The Middle East trade show for the metal working, metal manufacturing and steel fabrication industry
 Date : 16 - 19 January 2017
 Venue: Expo Center Sharjah, UAE
 For more information please visit:
www.steelfabme.com
Email: info@expo-centre.ae

IFAT Eurasia, Trade Fair for Environmental Technologies

Date : 16 - 18 February 2017
 Venue: Istanbul Expo Center (İFM), Hall 9 -10 -11, Turkey
 For more information please visit:
www.ifat-eurasia.com

7th Annual Shopping Malls

Date : 29 - 30 April 2016
 Venue: Bangkok
 For more information please contact:
 Trueventus
 Mr. John Karras
Tel: +603 2775 0001
Fax: +603 2775 0005
Email: johnk@trueventus.com

6th International Drymix Mortar Conference IDMMC Six

Date : 03 - 04 April 2017
 Venue: Nuremberg, Germany
 For more information, please visit:
www.drymix.info

25th International Mining Congress and Exhibition of Turkey

Date : 11 - 14 April 2017
 Venue: Antalya, Turkey
Email: imcet.maden@maden.org.tr
 For more information, please visit:
www.imcet.org.tr

Irexpo

Date : May 2017
 Venue: Tabriz, Iran
Tel: +90 212 273 18 18
Email: info@irexpo.net
www.irexpo.net

IE expo 2017

Date : 04 - 06 May 2017
 Venue: Shanghai New International Expo Centre, China
 For more information please visit:
www.ie-expo.com

IFAT Africa 2017 Trade Fair for Water, Sewage, Refuse and Recycling

Date : September 2017
 Venue: Johannesburg, South Africa
 For more information please visit:
www.ifat-africa.com

Bauma 2019

Date : 08 - 14 April 2019
 Venue: Munich, Germany
 For more information, please visit:
www.bauma.de