



# CEMENT & BUILDING MATERIALS REVIEW

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## 25<sup>th</sup> Arab International Cement Conference and Exhibition

**(AICCE25)**

Riyadh, Saudi Arabia

01- 03 December 2020

المؤتمر والمعرض العربي الدولي الخامس والعشرون لصناعة الإسمنت

الرياض، المملكة العربية السعودية

Arab Union for Cement & Building Materials  
(AUCBM)  
The Event Secretariat

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## CONTRIBUTIONS

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AUCBM's **Quarterly Cement and Building Materials Review (CBMR)**

**EDITORIAL SCHEDULE FOR 2020**

ISSUE	THEMES	EVENTS
* September 2020	<ul style="list-style-type: none"> <li>- Low carbon cement</li> <li>- Concrete</li> <li>- XRF and XRD analysis</li> <li>- Chemistry of cement</li> <li>- Cement additives</li> <li>- Silo Cleaning &amp; Blockages</li> <li>- Silo design consideration</li> <li>- Drive systems</li> <li>- Weighing technologies</li> <li>- Sampling Techniques &amp; Samplers</li> <li>- Interview</li> </ul>	<p style="text-align: center;"><b>AUCBM's 25<sup>th</sup> Arab International Cement Conference and Exhibition (AICCE25)</b></p> <p style="text-align: center;"><b>Riyadh, Saudi Arabia, 1-3 December 2020</b></p>
December 2020	<ul style="list-style-type: none"> <li>- Lubrication Systems</li> <li>- Maintenance in Cement Plants</li> <li>- Repair and welding techniques</li> <li>- Spare-parts Management</li> <li>- Vertical Mills</li> <li>- Crushers</li> <li>- Coolers</li> <li>- Burner Technology</li> <li>- Refractories &amp; testing of refractories</li> <li>- Interview</li> </ul>	

\* September is a bonus issue that will be distributed to the Conference participants

Deadlines for receiving articles, press releases, or advert materials for 2020 issues are as follows:

September (bonus) issue: **31<sup>st</sup> August 2020**

December issue: **4<sup>th</sup> December 2020**



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## ALGERIA

### Successful test run of new kiln at Entreprise des Ciments et Dérivés d'El Chellif plant

Fives has reported that it has installed and produced a batch of clinker with a new 6000t/day FCB kiln line at Entreprise des Ciments et Dérivés d'El Chellif (ECDE)'s integrated 1.0Mt/yr Chlef cement plant. When commissioned, the line will bring the plant's capacity to 3.2Mt/yr.

## Global Cement

### Aïn Touta Cement awarded ISO certifications

The Aïn Touta Cement (SCIMAT) plant near Batna has been awarded two conformity certificates. The subsidiary of Public Industrial Cement Group of Algeria (GICA) has earned ISO 45001: 2018, relating to the occupational health and safety management system, and ISO 50001: 2018, related to energy management.

## Global Cement

## EGYPT

### Government to stop issuing new cement production licenses

The Industrial Development Authority of Egypt will be no longer issuing new cement production licenses in the coming period.

The authority stated that it supports the cabinet's recent decision amid a large production surplus and tepid demand, which limits the benefits of issuing new offers and spoils investors' appetite.

Despite that, the government said that it is still looking to generate EGP 620 million in revenue from the issuance of new steel and cement production licenses in FY2020/2021.

## CW Group

### Egypt suspends private construction until late

## November 2020

The Ministry of Local Development has announced the start of a six-month period in which it will issue no construction licences for private buildings in Greater Cairo, governorate capitals and major cities from 27 May 2020. The suspension also affects licences for building modifications and extensions.

President Al-Sisi has ordered that mega-infrastructure projects should continue, subject to additional protective measures against the COVID-19 outbreak.

## Global Cement

### Coronavirus widens the cracks in Egypt's cement industry

The coronavirus is putting Egypt's private cement industry under even more pressure.

Already scrambling to respond to competition from a vast new factory owned by the military, the pandemic has stymied a nascent rebound in sales, raising the possibility of plant closures.

Demand for cement in Egypt was on the decline when the military opened a \$1 billion factory in 2018 that added 13mln tonnes of annual capacity, on top of the country's existing 79mln tonnes.

The pandemic, however, has made the economics even worse and could lead to 4 or 5 closures among the country's roughly 2 dozen plants in the coming months.

Foreign cement firms in Egypt include HeidelbergCement, Vicat, LafargeHolcim, Titan Cement and CEMEX.

## Reuters

### EgyptERA approves Solaris request to supply solar energy to Arabian Cement

Egyptian Electric Utility and Consumer Protection Regulatory Agency (EgyptERA) has approved Solaris Renewable Energy's request to supply solar energy to the Arabian Cement Company.



The renewable energy, which will be supplied for a period of 25 years, will be produced at a 7.2 MW solar power plant project that includes a self-consumption system. The approval included the company's full commitment to all regulations, which will be specified in the annually-renewed licence.

In January, Arabian Cement announced that it had signed a partnership with Solaris for the construction of a solar power plant in Suez. Solaris will take over the construction and operation of the plant for 25 years on the BOOT system.

#### Daily News Egypt

##### **Sika Takes over Modern Waterproofing**

Sika AG of Baar, Switzerland will take over Modern Waterproofing Group, Cairo, Egypt and integrates it into its subsidiary Sika Egypt. The roots of Modern Waterproofing are reaching back to 1953. The company has specialized on building protection such as bituminous membranes, filaments, thermal insulation materials and waterstops. Modern Waterproofing operates mainly at a strategically well located plant in Badr City, close to Cairo.

According to Sika, the product portfolio of Modern Waterproofing fits well with their existing activities for Africa and the Middle East and offers the chance for growth especially in Egypt.

[drymix.info](http://drymix.info) Newsletter 238/2020

#### **IRAQ**

##### **Iraq to reopen cement plants**

The government of Iraq has discussed plans to resume production at the country's cement manufacturing plants in order to meet the needs of the local market and to maintain price stability.

The plans were discussed in a videoconference meeting of the Higher Committee for Health and National Safety under the chairmanship of Prime Minister.

#### **CW Group**

#### **OMAN**

##### **Cement sector welcomes anti-dumping measures**

Cement producers have reacted positively to anti-dumping measures implemented by the Ministry of Commerce and Industry. The measures, which consist of quality screening, have, since coming into force on 1 March 2020, been ramped up in construction, with a general restriction of the movement of goods due to the coronavirus. Raysut Cement said, "These measures will enable Raysut Cement and our peers Oman Cement to operate at full capacity. We hope that the authorities will continue to strictly enforce this measure in the interest of fair market competition."

Raysut Cement said that it is 'Aggressively pushing ahead' with its US\$30m Port of Duqm grinding plant project, which is due for commission in March 2021. "It is a good time for countries like Oman to become self-sufficient in the domestic availability of a strategic commodity like cement," it said. On 4 May 2020 Raysut Cement announced plans to lobby the government for a gas or electricity subsidy.

Oman's cement demand is currently 20-25% below pre-lockdown levels.

#### **Global Cement**

##### **Al Sahawa Cement Company to invite bids by mid-July for two key tenders**

Al Sahawa Cement Company (ASCC), a key subsidiary of Oman Cement Company, is set to invite bids by mid-July for two key tenders linked to the construction of a new \$212 million integrated cement plant in the Special Economic Zone of Duqm region, in the Sultanate of Oman.

At the heart of the project is a 5,000tpd clinker production unit – the contract for which is proposed to be awarded on an Engineering, Procurement and Construction (EPC) basis.

Work on the clinker facility is expected to be conducted in parallel with the construction of a cement grinding unit. Commissioning is slated for March 2022.

Oman Cement is the Sultanate's first cement

## Arab News

manufacturer. It has also invited bids for the supply and installation of a captive thermal power plant, featuring a pair of turbines each of 15MW capacity. The plant is expected to utilise waste gases from the cement mill to generate electricity.

This will dramatically reduce the new project's energy costs, as well as mitigating its carbon footprint.

<https://meconstructionnews.com>

### **Raysut Cement subsidiary signs deal for limestone mining in Georgia**

Raysut Cement's wholly-owned subsidiary Pioneer Cement has signed a deal for the development of a limestone mine near Tbilisi, in Georgia.

The deal was signed in partnership with SFL International, which will pay a royalty for mining the limestone deposits under the ten-year deal.

Pioneer Cement is also currently setting up an integrated cement plant in Georgia with a capacity of 1.2 million tons per annum, and represents an investment of around USD 200 million.

Cemweek

### **SAUDI ARABIA**

### **Yanbu Cement orders equipment upgrade from FLSmidth**

After concluding several successful projects in recent years, including an automation upgrade and retrofit of the burner system in 2018 and a service agreement in 2019, Yanbu Cement Company (YCC) signed an agreement in early 2020 for a massive efficiency upgrade, focusing on reducing heat and power consumption, according to FLSmidth.

With increased attention on sustainability in the region, Yanbu, located 400 km north of Jeddah in Saudi Arabia, has chosen FLSmidth to provide the equipment and conduct the installation - projected to bring significant reduction in heat and power consumption. The project includes new top cyclones, cooler modifications and removal of old ESP filters.

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### **SUDAN**

### **Sudanese government addressing issues on competitiveness of domestic industry**

Sudan's ministry of Industry and Trade has reaffirmed it aims to remove all obstacles that the domestic cement industry is facing.

The Minister of Industry and Trade said it wants to improve the sectors' contribution to the self-sufficiency of the commodity. Among the initiatives the ministry has made are the provision of energy and quarries in order to decrease production costs.

He also added that it has been partnering with companies and other concerned parties to achieve better qualifications and to modernize the operating factories, as well as to develop the productive capacity of the industry.

CW Group





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**01- 03 December 2020**

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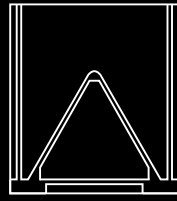
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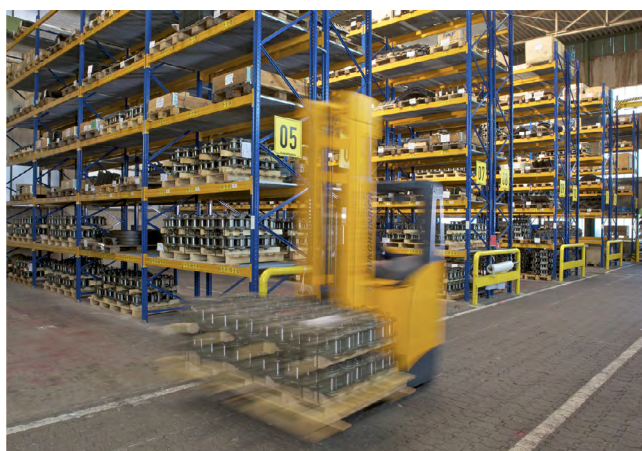
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**AUMUND warehouse in Rheinberg/Germany and dispatch of the AUMUND AU19 chain, strongest Bucket Elevator chain in the TILEMANN product range (photos AU MUND)**

Available rapidly and globally, AUMUND original, high-quality spare parts and a network of After Sales specialists are a few of the outstanding features of AUMUND's international spare parts service.

### **Decentralised Spare Parts Logistics**

To make sure that spare and wear parts are readily available, AUMUND has organised its spare parts logistics over five locations. Customers in more than 120 countries of the world are sure to receive their required spare parts either from Rheinberg in Germany, Atlanta in the USA, São Paulo in Brazil, Riyadh in Saudi Arabia, or from Hong Kong.

### **Experienced Teams**

The central and largest AUMUND distribution hub for spare and wear parts is located at AUMUND Fördertechnik GmbH in Rheinberg, Germany. The Spare Parts Service Department domiciled here is not only responsible for the EMEA region, but also handles orders from the international AUMUND subsidiaries, which have their own experienced local specialists. With these spare parts teams AUMUND is able to sustain a wide spectrum of services for its customers, which ranges from consulting to planning and proposals to dispatch.

### **AUMUND Original Spare Parts for Key Components**

The same AUMUND quality and reliability runs through to After Sales, with exclusive use of AUMUND original spare parts for the key components of AUMUND machines. This is the case for example with belts, as well as pans and rollers for conveyors. Bucket Elevator and Conveyor Chains as well as other specialised components are manufactured by TILEMANN Chains & Components, an AUMUND Group Company with a range of





products comprising around 1,500 items. Spare parts such as rollers and chains, which are of vital importance to customers' production processes, are held in stock in ample quantities and in various models in the AUMUND distribution warehouses. This makes it possible to react in the shortest possible time to unpredicted situations such as emergency plant stoppages. On top of this, AUMUND has fixed supply contracts with manufacturers of third-party components such as motors and gearboxes, to ensure single-source supply of spare parts by AUMUND.

The coronavirus crisis so far only had a negligible influence on chain manufacture, allowing TILEMANN to continue to work in three shifts.

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Another characteristic of AUMUND Spare Parts Service is proactive and personalised customer service. Machine inspections carried out as part of the PREMAS® Preventive Maintenance Service Programme play an important role, because coupled with decades of international experience, it means that AUMUND knows which spare and wear parts are likely to be required at any given time by a particular customer.

AUMUND customers can benefit from this service and know-how even in the current coronavirus situation, because AUMUND knows what the customer needs!

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[www.aumund.com](http://www.aumund.com)

## ***Evonik Launches Largest EU-Funded ‘Macbeth’ Project***

The aim of the ‘Macbeth’ project is to develop a new process for catalytic synthesis with appropriate separation equipment in a single, highly efficient catalytic membrane reactor. The project brings together 24 partners with expertise in the field. The EU has offered around 18 million dollars for this project.



**From left to right: Dr. Frank Stenger, Dr. Marc-Oliver Kristen, and Prof. Dr. Robert Franke.**

Germany – Evonik is continuing to strengthen its position as one of the leading companies in the field of C4 chemistry. Macbeth (Membranes And Catalysts Beyond Economic and Technological Hurdles), the largest EU-funded project coordinated by Evonik to date, was recently launched. The aim is to develop a new process for catalytic synthesis with appropriate separation equipment in a single, highly efficient catalytic membrane reactor (CMR). Macbeth is the follow-up project to the Romeo project (Reactor Optimization by Membrane Enhanced Operation), which was completed in September 2019.

The newly founded project consortium consists of 24 partners from ten different countries. It brings together expertise related to catalysis to membranes, carriers, reactors, engineering, modelling as well as the perspective of the end user.

In individual sub-projects, the concept of the new reactor is now being applied to various chemical reactions

and put into practice. This includes hydroformylation for specialty chemicals, hydrogen production for the transport/electricity generation sector, propane dehydrogenation (PDH) for large-volume chemicals and biocatalytic oil cleavage for biotechnologically manufactured products.

Specialist Book „Heat Transfer Technique“

The comprehensive standard work „**Heat Transfer Technique**“ offers not only a detailed and well-founded presentation of the basics of heat transfer technique, but also shows the latest state of the art and the latest regulations in the use of organic fluids. Thematically, the book is rounded off with an overview of property data of organic heat transfer fluids as well as many use cases from practical experience.

Evonik’s focus of the project is on the hydroformylation reaction. In this catalysis, which is traditionally carried out homogeneously, synthesis gas is used to convert olefins into aldehydes. Sustainability is a key driver here: the planned reduction of greenhouse gas emissions in large-volume industrial processes will be up to 35 % and the increase in resource and energy efficiency up to 70 %.

Furthermore, the new reactor design not only guarantees considerably smaller and even safer production plants. It also helps to strengthen the leading role in the market, because in the future, the investment costs (Capex) and operating costs (Opex) of systems of this type can be reduced by up to 50 % and 80 % respectively.

"Our next milestone is clear: We want to implement and operate a demonstration plant under real, industrial conditions," says Prof. Dr. Robert Franke, Project Coordinator of the overall Macbeth project and Head of Hydroformylation Research at Evonik. "Therefore, we will now, in the first project phase of Macbeth, concentrate on the optimisation of the components used and the final reactor system. For this purpose, we will utilise the promising developments and results from the previous project."

Source: Process Worldwide





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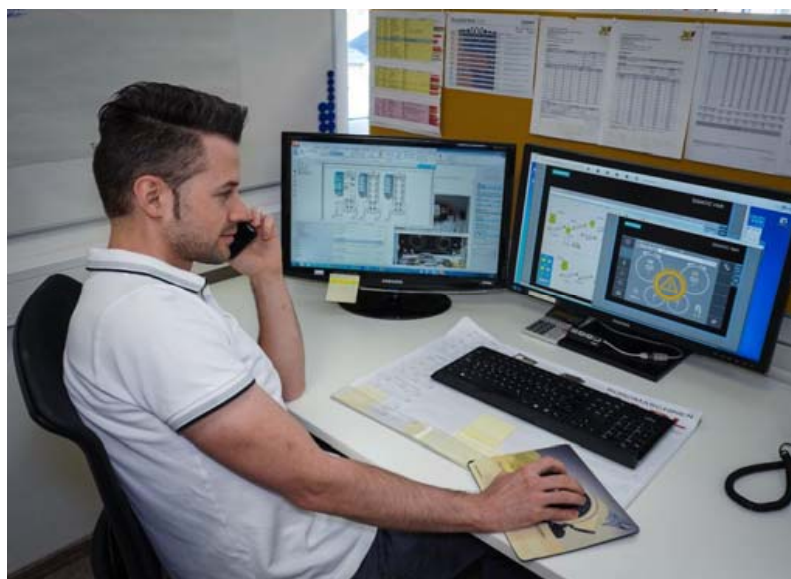
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## *Nothing's Impossible! COVID-19 Can't Stop Lindner Recyclingtech from Commissioning Shredders using Modern Tools*

A new shredder to transform waste into alternative fuels had been ordered and delivered, the facility's retrofitting was in full swing – and then came the coronavirus lockdown. That was the problem facing the German waste management company Hündgen in Swisttal-Ollheim. But thanks to state-of-the-art communication software and remote service tools, the new Lindner Micromat 2500 is running smoothly and as scheduled.

Spittal an der Drau, Austria/ Swisttal-Ollheim, Germany: Every single minute that delays the commissioning of a new facility comes with a price tag. This well-known truism poses a challenge to many a company even under normal circumstances. What it means in light of a global crisis is something that Christian Hündgen, CEO and Plant Manager of Hündgen Entsorgungs GmbH & Co. KG, knows all too well: 'Our new Lindner Micromat 2500 shredder was delivered in March, when the construction of our facility was well under way. When we were told that due to COVID-19 and the associated travel restrictions, no Lindner service technicians could start up the machine on-site, we were already expecting delays. We were faced with an enormous problem, since there's material we need to be processing and we're bound by contract to do so.' To overcome this seemingly impossible situation, Lindner opted for an unorthodox but smart solution. The Lindner Service Centre helped with video analysis and online support to install the machine on-site. Account Manager Manfred Eßmann: 'One of the fundamental values at Lindner is to be a reliable and trustworthy partner. Right now we are doing everything we can to support our customers with all available means and keep to agreements that have been made. Thanks to modern technology, our service team can do a great many things remotely and give instructions via video call for commissioning equipment on-site. It works amazingly well. I am sure that this installation method will be used even after the crisis is over.'



With the assistance of the Lindner Service Centre via video analysis and online support, the shredder Micromat 2500 was installed on-site at Hündgen Entsorgungs GmbH & Co. KG.



## LINDNER

The Micromat shredder has now been up and running for 200 operating hours without any issues. And the facility is in full operation. Christian Hündgen is also relieved: ‘Despite all the adversities, the scheduled construction time was maintained and production is on time. We would like to thank Manfred Eßmann and the Lindner Recyclingtech team for their exemplary commitment to our project.’

Lindner, Spittal an der Drau/Austria ([www.lindner.com](http://www.lindner.com)): The Lindner family business has been offering innovative, tried-and-tested shredding solutions for decades. From planning, development, design and production to service, everything comes from a single source. At its production facilities in Spittal/Drau and Feistritz/Drau in Austria, Lindner manufactures machines and system components that are exported to almost one hundred countries. In addition to stationary and mobile shredders for waste processing, the portfolio also includes complete systems for plastics recycling, SRF and waste wood processing. The shredders can be used among other things for municipal solid waste, commercial and industrial waste, waste wood, plastics, packaging material, paper and light scrap.

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## *Despite coronavirus: Large motors ex stock*

German motor builder Menzel Elektromotoren keeps a large inventory of motors in stock and is able to fulfill orders even in these times of the coronavirus. The family-run company is the go-to-source when motor failures cause plant standstills or if the usual suppliers cannot maintain delivery dates. Quick shipping of replacement motors has oftentimes prevented production downtimes in the past. Brand-new AC and DC motors are available in various sizes and cooling types: low-voltage motors up to 2500 kW, medium and high-voltage motors up to 15000 kW, AC squirrel-cage and slip ring motors, DC motors up to 600 kW. All these motors comply with the current EN60034, IEC60034, VDE, DIN, and ISO standards. Menzel supplies customers worldwide, adapting the motors individually for each respective customer application. Production and inspection are still being kept up, even now, with staff working two separate shifts and additional measures being taken for maximum protection against infection.

More information and 24/7 inquiries: <https://www.menzel-motors.com/article/large-lv-mv-hv-motors/>

### **About Menzel Elektromotoren**

Based in Berlin, Menzel Elektromotoren GmbH has been manufacturing and distributing electric motors for more than 90 years. The medium-sized company specializes in the delivery of large electric motors, including special models, within the shortest possible time. The product range comprises high and low voltage motors, DC motors, transformers, and frequency inverters. Services include motor production and short-term adaptation of stocked motors to application-specific requirements. In order to ensure fast deliveries to the customer at all times, the company maintains a very extensive inventory including more than 20,000 motors with a maximum performance of up to 15,000 kW. Qualified engineering, experienced staff, and state-of-the-art production and testing facilities help Menzel provide excellent reliability. Menzel operates subsidiaries in the UK, France, Italy, Spain, and Sweden, and cooperates with numerous partners worldwide.

### **Contact:**

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## *Almeida launches Gaudi Porcelanato*

The Brazilian ceramic group has invested R\$ 100 million in the new brand, first presented at Expo Revestir 2020

**Grupo Almeida**, one of Brazil's leading ceramic producers, has invested about R \$100 million (over US \$18 million) in the launch of the new Gaudi Porcelanato brand, which was unveiled last March at the Expo Revestir 2020 trade fair in São Paulo.

As Heitor Almeida confirmed, the total investment was divided up between R&D activities, new product design and expansion of the plant.. Gaudi Porcelanato has 5 tile collections (Citta, Bosco, Palazzo, Pietre and Cristalli) produced in over 170 versions in 61x61 cm, 81x81 cm and 61x120 cm sizes.

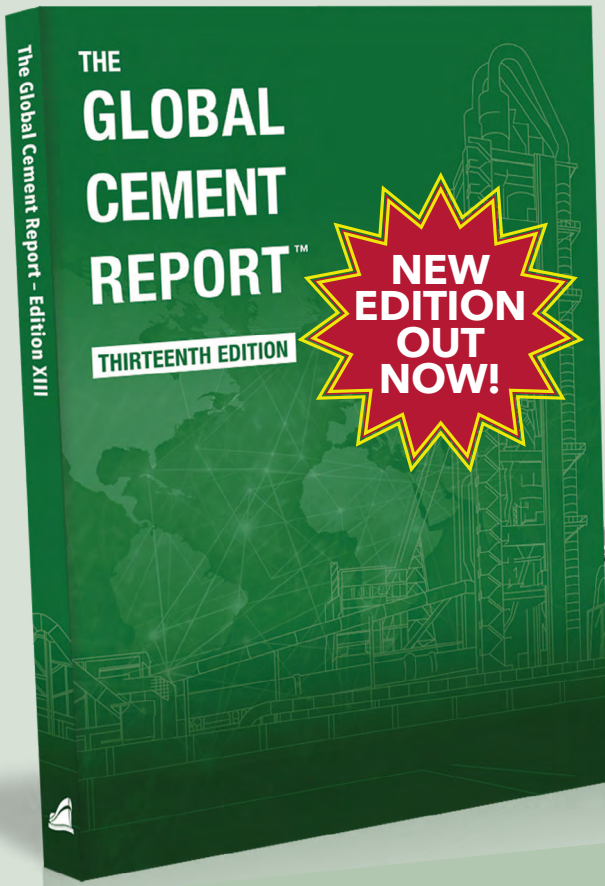
A historical Brazilian group founded in 1923, Almeida has three modern production units located in the ceramic district of Santa Gertrudes, where 2 million square metres of ceramic tiles are produced each month.

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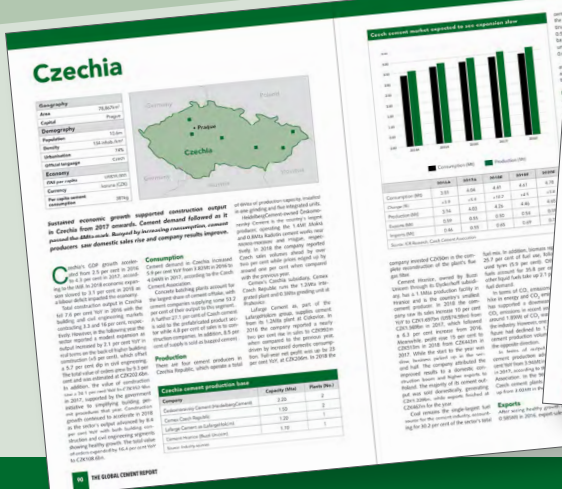
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### **TILES**

#### ***Victoria PLC acquires Ceramiche Ascot***

**The flooring multinational completes its fifth acquisition in the ceramic sector and the second in Italy.**

Victoria PLC, a UK-based multinational operating in the flooring sector and listed on the London Stock Exchange's AIM market, has announced the acquisition of Ceramiche Ascot (Castelvetro, Modena), the second Italian ceramic company to join the group as well as the fifth tile manufacturing company acquired in just over two years. The first two investments made in November 2017, those of Ceramica Serra in Italy and Keraben in Spain, were followed by the acquisition of Saloni in August 2018 and Ibero in September 2019. This latest Italian acquisition brings the consolidated turnover of Victoria PLC's ceramics division to 370 million euros and its total production capacity to around 35 million sq.m/year.

According to a statement issued by the group, Victoria has strong investment potential and intends to follow up the acquisition of Ascot with further operations in Italy.

Ceramiche Ascot plans to consolidate its customer sales activities and to strengthen its marketing department, particularly in view of the forthcoming relaunch and repositioning of its brands. The company has also confirmed that the support of a financially and economically solid industrial group will enable it to improve its financial management, benefiting both business partners (in particular suppliers and customers) and employees, with whom it will re-establish future relations on a new footing. Victoria PLC has industrial and commercial operations ranging from ceramic and porcelain tiles to carpet, LVT and underlay. It has 20 manufacturing sites in the UK, Europe and Australia and employs approximately 2,600 people.

Its rapid expansion in the ceramic sector is part of an organic growth strategy aimed at diversifying and internationalising its operations with a view to becoming a multinational flooring group. In the Italian market in particular, the decision to add a second production site to that of Ceramica Serra responds to the need for greater production capacity and a product range that covers other market segments. Ceramiche Serra, led by Andrea Bordignon and his team, has seen steady growth in recent years thanks to a precise market position and extraordinary production efficiency. Capacity was further increased in 2018 with the installation of a new production line but is still insufficient to meet demand.

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## *BEUMER Group: belt conveyors instead of trucks – an efficient alternative?*

### **Question of costs**

**By: BEUMER Group, Germany**

*Recovered raw materials have to be transported from the quarry to the factory or port, often over uneven ground and across populated areas. Companies often choose trucks for transportation. As an alternative, system suppliers including BEUMER Group offer open troughed belt conveyors or closed Pipe Conveyors. These solutions are more environmentally friendly and can be considerably more economical. Deciding if the investment is worthwhile depends on several factors. A feasibility study and a cost comparison can help with the decision.*

Companies often choose trucks to transport limestone, coal ores and other raw materials as efficiently as possible to the factory and from there to the port, sometimes over distances spanning several kilometres. Most of the time, the vehicles drive on public roads, which are not always well-paved. And as the route can go through hilly areas and nature reserves, across rivers and instable grounds, the trip often includes detours which costs time and money. If it goes through populated areas, it can be particularly taxing for local residents. The more raw materials are transported, the more trips are necessary. These factors motivate companies to take a closer look at the alternatives. BEUMER Group offers open troughed belt conveyors and closed Pipe Conveyors for these scenarios. But will the investment pay off? "That depends on the particular application," says Richard Munson. He has been with BEUMER Group in Kansas City, Missouri, since 2010 where he manages the development and sales of conveying systems for the energy, cement and mining industries and port terminals. "Companies should carry out a profitability evaluation beforehand," he advises.

#### **An economic evaluation pays off**

There are different methods to run an economic evaluation, including the net present value method, which is a type of profitability calculation. "Simply put, it means that all future income is discounted to time zero and compared, including the initial investment," explains Munson. This method uses a calculation interest rate that reflects the best available alternative investment. The user receives a capital value, also called net present value or NPV. If this value is positive, it means that the company will make a profit with the investment.

"Another option is cashflow analysis. It estimates the surplus that remains when deducting expenses from earnings," Munson explains. Based on the annual difference of the total operational costs between conveying and trucking, the user calculates if investing in a conveying system will pay off. Different variables are required to exactly evaluate both transport options, for example the transport costs per ton, the material volume that needs to be moved within a set period of time, and also the specific investment cost and tax depreciation plan. "A comparison of conveying and trucking in a time diagram results in the break-even point," explains the BEUMER expert.

#### **Cost comparison**

Depending on the topography, length and power consumption, costs for conventional conveying systems average between EUR 1,000 and 3,000 per metre. More costs are added for the construction, supply and the mechanical and electrical installation. Complex construction work is also often necessary. This makes the initial investment in a conveying system fairly high. "The operational costs however are considerably lower than with the use of trucks," reports Munson. "The costs for the vehicles also include the labour input, vehicle depreciation, maintenance, repair, fuel and street maintenance for example. And oftentimes there are additional, more difficult to identify charges."

To operate a conventional conveying system, the typical costs for transporting one ton of material amounts to 20 Cents, with trucks the costs are roughly three Euro. "The biggest variable for the vehicles is the number of trips per hour," says Munson. In case of short and direct routes, this ranks better than for long routes, where detours are necessary to get to the destination. "Troughed belt conveyors and closed Pipe Conveyors lead directly to the destination. They can also be adapted to the specific surroundings. An essential feature of the technology is that it enables horizontal and vertical curves. Angles of inclination of up to 15 degrees are possible, depending on the characteristics of the material to be transported and the topography, with lengths greater than twelve kilometres. Due to their ability to navigate curves, considerably fewer and in some cases no transfer towers are required. This results in substantial cost savings for the customer and the system continuously transports the material even

over challenging ascending and descending sections, rivers or street crossings. Using BEUMER calculation programs, the experts precisely calculate the static and dynamic tractive forces of the belt during the system development phase. This is the prerequisite for the safe dimensioning of the curves.

For trucks, more cost factors must be taken into account that are not as easy to estimate as the number of routes: control measures against dust and rain drainage, for example. These variables are eliminated completely in case of closed Pipe Conveyors. "If circa 1,000,000 tons of bulk material are moved per year, then the gross differential value between trucks and a conveyor, using the above mentioned costs of the material that needs to be conveyed, is at 2.8 million euro," calculates Munson. That's quite a number, in his opinion. The conveying system pays for itself after only a few years.

### Ecological and economical

The electric drives and low-energy belts have a positive effect on the operational costs of the belt conveying systems. They are also better for the environment compared to the truck drives. Therefore, especially in these times of climate change and increasing greenhouse gas emissions they are considered a more sustainable option. The motors used for these systems are usually adjustable which permits the loads to be optimally distributed on the drive units under various operating conditions. If the belt conveying system conveys downhill, the system works in regenerative operation. The generated electric energy is fed to the

mains by a regenerative feedback unit. This way the owners can further reduce the operational costs of the entire system.

"Depending on the project, belt conveying systems require up to 90 percent less primary energy than comparable truck transports," says the sales manager, referring to a concrete project implemented for the Chinese cement manufacturer Sichuan Yadong Cement. Trucks operated with diesel fuel required a specific primary energy of 11.4 kwh for each ton of transported material at their site. The belt conveying system which was built later on required on the contrary only 1.44 kwh. If, as in this case, 7.5 million tons of raw material are transported annually, the user can save a total of 74 million kwh per year with the belt conveyor. This corresponds to an energy consumption of more than 20,000 single-family houses. Solely by saving diesel fuel, the operational costs of the company are reduced by more than 5.5 million Euro per year.

So does the investment in a belt conveying system pay off? "More often than people realise," explains Munson. "In the end, the operator needs to consider the total costs per ton over time when evaluating both transport options." The fact is: The operational costs for a belt conveyor are considerably lower than for a truck. The decisive factor is how much material is transported during the project term, then it can pay for itself quickly. Not to mention the BEUMER conveying systems are more environmentally friendly from the beginning.



**Picture 1:** Project Sichuan: BEUMER Group built a 27 kilometre long conveyor system through hilly terrain and unstable ground.





**Picture 2:** Sichuan project: whenever technically possible, the routing of the conveyor has been adapted to the topography.



**Picture 3:** Sichuan project: The troughed belt conveyor runs through rough terrain and over instable ground.



**Picture 4:** View of the enclosed conveyor flight in the area of the bridge



**Picture 5:** The civil engineering work for conveying systems is usually very complex.





**Picture 6:** Direct routes can be realised, among other things up and down steep hills. The systems can overcome large inclines and gradients.

Photo credits: BEUMER Group GmbH & Co. KG

The BEUMER Group is an international leader in the manufacture of intralogistics systems for conveying, loading, palletising, packaging, sortation, and distribution. With 4,500 employees worldwide, the BEUMER Group has annual sales of about EUR 950 million. BEUMER Group and its subsidiaries and sales agencies provide their customers with high-quality system solutions and an extensive customer support network around the globe and across a wide range of industries, including bulk materials and piece goods, food/non-food, construction, mail order, mail and airport baggage handling.

For further information visit [www.beumer.com](http://www.beumer.com).



# ***Bulk handling: Improving efficiency, production and safety***

**By: Standard Industrie International, France**

### STANDARD INDUSTRIE INTERNATIONAL

brings its expertise in the resolution of Cement plants issues about material handling. Rich in this field of expertise, the company has designed and improved different equipment, usually used in all steps of the cement process:

An innovative system that optimizes the sealing of any conveyor belt

the LIFTUBE® is an equipment easy to install, that enables to cover the conveyor belt with hoods. It comes as a replacement to stations equipped with 3 rollers on the conventional conveyors. This seal proof system enables easy tilting of the glide boards and the central roller for easy and minimal maintenance. Thanks to its pinch points protections the LIFTUBE® significantly improves the working conditions of the operators and reduces dust emissions during material conveying. In this way, in a cement plant, the LIFTUBE® reduces product losses and cleaning requirement during the transport of products such as Limestone, marl, clay, iron ore, bauxite, gypsum, slag, pozzolan, ash, silica, sand, aggregates, lime, clinker, cement, flour, coal, etc...

Usually, the LIFTUBE® is installed on product infeed conveyors from the crushers, on conveyors for feeding of flour into the preheating tower, on conveyors belt for transporting alternative fuel, or on conveyors for shipping the product by train and boat.

Let's go through these following examples of application to illustrate this patented system:

1. Pre-homogenization: In the mixer and before being sent to the kiln, raw cement is mixed with additives brought from outside through a conveyor belt located 44 yd high.

During the transport of this product, some of it does fall and causes emanation at the chute level.

Moreover, the fact that the conveyor is outside leads to product flying because of the wind.



**1-Liftube installed on Crusher falls conveyor**

This significant loss of product (especially ash) causes many belt stoppages linked to rollers getting dirty. The belt would shift, and product would accumulate between the belt and the structure.

The customer's requirements were to:

- Optimize productivity by stopping dust emissions
- Avoid degradation of its equipment due to accumulation of product.
- Eliminate the cleaning cost of the belt (1 to 2 times a month).
- Stop the contamination of the environment due to flying product.

The chosen solution was to install 27 yd of LIFTUBE® in 30" width to fit the existing conveyor.

To ensure a complete sealing, lateral curtains and covers were also recommended and installed (95% of emissions are removed; the 5% comes from loading and unloading points).

Please see picture 2

**2. Cement mill:** At the mill area where the products are mixed with additives to produce cement, significant material losses were occurring (more than 110 lb per day) on a conveyor belt.

It was causing loss of product as well as significant cleaning costs.

The customer's requirements were to:

- decrease waste of product and reduce costs related to cleaning operations

- guarantee the sealing of the conveyor and improve its environmental footprint.

The answer was to install 14 yd of LIFTUBE® in 30" width around the chute and the product drop point, places where a lot of material is usually lost.

The aim of the customer is fully achieved. Indeed, from this time, customer has a contained installation and the costs linked to cleaning operations around this area have been reduced by half.

The customer has also planned to assign a second LIFTUBE® project in one other area.

**Air cannons to avoid production stoppages due to accumulations of materials**

the AIRCHOC® air cannon acts directly on the material, thus avoiding any damage to the structure:

A volume of compressed air of between 4 and 400 litres is released instantly through an adapted outlet port (from 25 to 300 mm) to achieve a deflagration.

93% of clogging or build-up in silos and hoppers cause a complete stoppage of production. AIRCHOC® prevents 100% of manual intervention accidents on clogging problems in storage units.

Since the patent for STANDARD INDUSTRIE's air cannon system was filed in 1978, more than 50,000 AIRCHOC® have been sold in 90 countries.

**Safe cleaning**

The development of wireless air cannons and silo cleaning solutions that can be used without manual



**2- Litfube on conveyor**



**2-Liftube hoods**



## **BULK HANDLING**

intervention at the location where issues occur, has improved safety as well as reduced operational costs. Moreover, preventive action with such tools enables efficient material flow throughout the cement plant, thereby reducing or eliminating costly shutdowns of key equipment and improving plant productivity.

The AIRCHOC® air cannon can be installed on crushers, feed hopper chutes, storage silos or hoppers (raw meal, flour), tunnel reclaimer, crushers, dust collector filters, preheating tower (cyclones, flour chute, smoke box, gas duct, kiln inlet, by-pass, tertiary duct), fan blades, kiln burner, cooler (clinker fall)

Example: In the country of the Standard Industrie's customer, the demand of cement requires a bigger production from the cement plant to match the deliveries of concrete. In this context this plant needs a reliable supplier for its Air canons, which will guarantee the smooth operation and running of the process without any stoppage due to builds up. The High temperature AIRCHOC system has been installed on preheater and cooler for the new lines and helps the cement plant to run with full capacity.

Picture 3

### **Study the best installation for the best efficiency**

Each installation of air cannons being different, a complete range of accessories is available such as:

Deflectors: Direct the air flow (straight, inclined or 90°) towards the sensitive clogging points.

Steel or refractory stainless-steel version

Stainless steel bevelling pistons: Increase the service life and resist aggressive atmospheres (chemistry, incineration, cement works)

Blowpipe: Allow air to be channelled during firing, available in steel, stainless steel, refractory stainless steel, ceramic...

Isolator: Secures maintenance operations: high temperature, aggressive product, risk of material return.

This regular compressed air blasting from the AIRCHOC® into the different points of the cement plant allows the material to remain in motion and maintain its flow in the production process. This is a preventive solution. Standard Industrie International also propose a curative solution, which results in cleaning and unclogging of storage units, guaranteeing the safety of the operators.



**3-Airchoc on cooler**



### 4-Silo cleaning

#### Silo and hopper cleaning services

After a complete analysis of the clogged storage area, the breakdown teams place their equipment outside, respecting all safety standards:

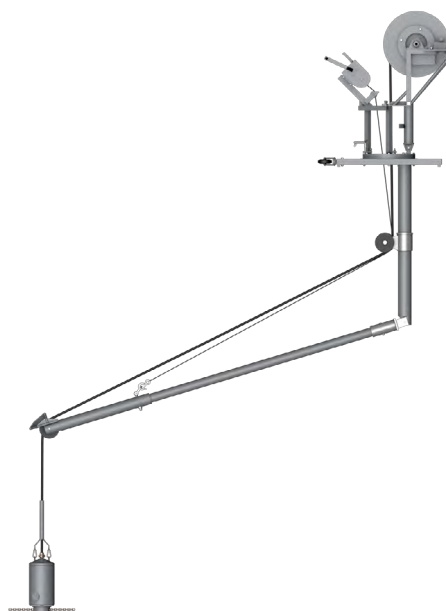


### 5-powernet

This deep drilling equipment is a solution for bridging problems.

- Diameter for piercing storage units from the top or bottom: 65 to 300 mm

- Intervention depth: up to 45 meters
- Controlled from outside
- Cleaning without pollution of the product
- To be used before GIRONET®



### 6-gironet

This 360° rotating hinged arm is an answer for ratholing blockage and dead stocks.

- Intervention depth: up to 45 meters
- Controlled from outside

These two products, available in pneumatic version (friable products) or in hydraulic version (hard products) and in ATEX version for the GIRONET®, are effective on any type of blockage, product or storage unit. They can be used without stopping production.

This mechanical cleaning is safe because it excludes any human interventions inside the silos and hoppers. picture 4

In addition, using compressed air and aluminum housing around the engine, all risk of explosion is avoided. Therefore, the customer can quickly recover its full storage capacity while ensuring optimum safety for its operators.

And for recovering or reclaiming material down from storage units, a vacuum cleaning can be done by the Standard Industrie International's intervention team.



## **Hexavalent Chromium in cement and its effect on labor health**

By: Eng. Faiza Abou Zeid, General Manager  
Aqua Trust for Water Treatment Co.

Effect of wet Portland cement on contacted workers



### **(1) What Problems Does Cement Cause?**

- Four types of skin problems happen most often among cement products workers:
- Dry skin or irritation and itching (mild ICD)
- Irritant Contact Dermatitis (ICD)
- Allergic Contact Dermatitis (ACD)
- Caustic burns (alkaline burns)

### **Chromium VI compounds are classified as extremely toxic material**

- Cr VI compounds are highly soluble in water and this can easily come into contact with the skin during manual handling of mortar and concrete Cr VI compounds are potentially cause sensitization, allergic eczema.
- Because of their high oxidation potential and their ability to penetrate human tissue.
- Cr VI is classified as carcinogenic compounds, in lungs, kidney and liver.

### **Allowable Limits of Cr (VI) in cement**

The EU Directive (2003-53-EC) for chromium reduction becomes effective on January 17, 2005.

- This effect limited the soluble chromium content in cement in most cases to be below 2 ppm chromium VI is the soluble form.
- Reducing agents used to reduce Cr<sup>6</sup> to Cr<sup>3</sup>.

- This means that it is restricted the use of cement and cement- based preparations where they contain, when hydrated, more than 0.0002% (2 ppm) Chromium VI of the dry weight of cement.
- less than 2 grams of Cr<sup>6</sup> in one ton of dry cement.
- Cr<sup>6</sup> will penetrate the natural leather gloves polyethylene gloves are recommended for workers

### (2) **Cement Contact Dermatitis**

#### **Medical Aspects Hexavalent Chromium in cement Allergies:**

- Allergies to wet concrete are normally caused by Hexavalent Chromium.
- Traces of Hexavalent Chromium are found in all cement, because Chromium is non avoidable element in cement raw materials.
- Hexavalent Chromium is a known allergen to most people.
- Sensitization normally requires months to years of repeated exposure to occur.
- Wet cement is extremely corrosive and quickly destroys skin surfaces.

#### **Cement Contact Dermatitis**

- This destruction allows Hexavalent Chromium to easily penetrate skin layers and enter skin cells.
- Once the masons become sensitized they are sensitized for life and even exposure to a small amount of cement can trigger a severe reaction.
- Studies suggest that 5-15% of all concrete and masonry workers will develop a Chromium allergy at some point in their work life.
- Affected workers are strongly urged to find a job where Chromium exposure is eliminated.
- The medical term for cement caused skin problems is “Cement Contact Dermatitis”.



### (3) **Action to be taken:**

- To protect construction workers, which frequently come into contact with cement:

European directive:

#### **I. The EU has enforced a directive ,2003/53/EC**

- which restricts the use of contain of cementations products, in cases when they contain more than 0.0002%(2ppm) Chromium (VI)of the dry weight of the cement.

- This EU legislation was effected at the beginning of 2005 and ever since then it obliges all the cement and cementations materials producers to respect it.

### II. REACH Regulation

- When the REACH Regulation, [Registration, Evaluation, Authorization of Chemicals] came into force on 1 June 2007, clause 47 of its Annex XVII replaced/superseded the cement-related Cr<sup>6</sup> provision in former EU Directive 2003/53/EC.
- The legislative provision, however, remains unchanged and continues to restrict the marketing and use of cement and cement-based preparations, where they contain when hydrated more than 0.0002 % (2 ppm)
- (2gram per ton) /Ton Cr<sup>6</sup> of the dry weight of cement.
- Compliance with REACH is obligatory for all cement manufacturers, and formulators/suppliers of cement-based preparations, who produce, or import such products, into the European Economic Area (EEA).
- In Egypt the Egyptian organization for standardization and quality (EOS) forced the cement producer to implement this directive gradually till year 2015 it became a must and restricts the use of cement and cement materials containing more than 2.0ppm Cr<sup>6</sup>.

#### (4) Reduction of Cr VI to Cr III in cement

##### Chemicals used to convert Cr<sup>6</sup>-Cr<sup>3</sup>

- The reduction of Cr<sup>6</sup>, the soluble, toxic form to the insoluble, precipitated form of Cr<sup>3</sup> must be implemented by the addition of reducing chemicals to the cement.
- The reducing chemicals could be added to the clinker on the conveyer at the entrance of the grinding mills or to the preparation of the mortar before hydration.



##### What is Hexavalent Chromium?

- Chromium with a valence state of +6
- Scientific abbreviation is Cr<sup>6</sup>
- Very toxic, strong oxidizing agent
- Man-made form of chromium metal
  - Anticorrosive
- High temperatures convert chromium to Cr<sup>6</sup>





**(5) Sources of Cr<sup>6</sup> in Portland cement:**

- Chromium is an unavoidable trace element of the raw materials used in the manufacturing of Portland cement.
- In the oxidizing and alkaline burning condition in the kilns, lead to Cr<sup>6</sup> formation by oxidation.
  - Portland cement clinker typically has water soluble chromium (Cr<sup>6</sup>) level up to 10 ppm with the majority between 5 and 10 ppm in Egypt.
  - Most of regulations around the world are against use of cement with concentration higher than 2 ppm (Cr<sup>6</sup>), because of its toxicity, solubility and mobility characteristics.
  - EPA in Egypt considered 2015 is the edge for controlling Cr<sup>6</sup> in ordinary Portland cement OPC to be below 2 grams per ton of dry cement. (less than 2 ppm Cr<sup>6</sup>).

**Chromium in cement – FACTS (cont.)**

- Based on Egyptian organization for standardization and quality (EOS) values and commitments for responsible behavior towards people, society and nature, EOS has decided voluntarily to follow the EU directive and to produce healthier and safer cement for its customers.

**The Nature of Cement**

- Cement is alkaline, or caustic.

The pH of wet cement ranges from 12 to 13

- Cement is hygroscopic, pulling moisture from the skin.
- Cement is abrasive.
- Cement may contain sensitizing chemicals and metals, such as Hexavalent chromium (Cr<sup>6</sup>).
- Cement has many properties which are damaging to skin.



(6) **Chemicals used for Cr VI reduction:**

❑ **Many different reducing inorganic chemicals could be used:**

- 1) **Ferrous Sulfate ( $\text{FeSO}_4$ ):** Is reducing chemicals which contain iron. It will cause brown stains of concrete and corrosion of reinforced concrete iron rebar.
- 2) **Antimony trioxide ( $\text{Sb}_2\text{O}_3$ ):** Is reducing chemical which is very dangerous for cement plant workers' health it causes vomiting, diarrhea and cancer when its dust is inhaled.
- 3) **Stannous compounds (sulfate or chloride):** very expensive and dangerous to human health.

❑ **Many organic compounds reduce and complex  $\text{Cr}^6$  and prevent its solubility in water:** those are another safe effective reducing chemical blend.

**Statistics, what Causes this problem**

- Unfamiliar with work environment.
- Inexperienced in field.
- Inadequate training.
- Uninformed.
- Not using safety clothes.

(7) **Water-Soluble  $\text{Cr}^6$  Reduction in Cement:**

- In order to comply with the requirements of the directive in 2014, Aqua Trust has applied the method of Water-Soluble  $\text{Cr}^6$  reduction in cement, which means using additive for reducing the water-soluble hexavalent chromium content in cement.
- The reducing agent is incorporated in cement for the purpose of reducing the water-soluble  $\text{Cr}^6$  during hydration, thus rendering chromium insoluble, which converts soluble hexavalent chromium into insoluble trivalent chromium during hydration.
- The aim is to minimize the occurrence of chromate-related allergic contact dermatitis arising from the use of cement

**Water-Soluble Chromium (VI) Reduction in Cement (cont.):**

- The chromate reducing agent (Aqua Trust Chromium Redion) is a liquid additive which is added to the cement mill during the cement grinding process.
- It ensures the production of cements without  $\text{Cr}^6$  according to European obligation 2003/53/EC. Generally, the additive spraying dosage is between 300 and 350 ml/ton for each ppm of  $\text{Cr}^6$  existing in cement.
- Aqua Trust Chromium Redion is applied in National Cement Company, Arish Cement Company, Watania Cement Company and many others.

### **Water-Soluble Chromium (VI) Reduction in Cement (cont.):**

- Our laboratory determines the Cr<sup>6+</sup> content in cement according EN-196-10, using a plainest photometer.
- The method measures chromium reduction capacity. Limits of Cr<sup>6+</sup> in the cement are  $\leq 0.0002\%$ .

### **(8) Advantages and Conclusions:**

- The use of organic compounds based on Hydroxyl Amines and Ascorbate for the reduction of hexavalent chromium in cement and cement based materials presents interesting advantages in relation to the application of Ferrous Sulfate salts:
- Ferrous sulphate presents serious problems related to the durability of the reducing properties:
- it is very sensitive to moisture and temperature.
- Ferrous Sulfate tends to loose effectiveness after grinding and during cement storage.
- This requires the use of very high dosages of ferrous sulphate, with costs higher than expected and undesired effects may occur.
- Due to the high stability of these organic reducing agents which are insensitive to temperature and humidity.
- The Hydroxyl Amines compounds are not affected by the presence of high levels of free lime.
- This allows superior performances to be obtained in comparison to the usual reducing agents based on ferrous salts.
- Ferrous Sulfate cause the corrosion of reinforcing steel of concrete.
- Ferrous Sulfate cause brownish stains on the concrete.



# EXIT STRATEGY FROM CO-VID 19

**By: Mark Mutter and Volker Konradi, JAMCEM  
CONSULTING, UK**

## INTRODUCTION

*The COVID-19 pandemic has presented a number of challenges to the cement industry that could and will go beyond the initial effects of lower customer demand and plants being stopped for relatively short periods of time during the various lockdown periods that have been in place in various countries. Obviously, short-term revenues will be affected but there are other factors that will now come in to play over the longer term such as:*

- Lack of global demand for vehicle and aviation fuel and the subsequent low prices for oil which will have a knock-on effect on the economies of oil-producing countries.
- As much of the construction in many of these countries is from the public sector as opposed to private, demand will drop, potentially leading to price wars and some companies going out of business.
- Government stimulus packages may be focused on sectors away from construction and therefore may add to the decrease in demand in many countries.
- Export prices for clinker and cement will most likely drop due to an even greater over-supply in many home markets meaning an even greater global surplus targeting limited import markets.

These, and many other factors, will lead cement manufacturers to consider how they deal with their operations over both the short term and longer term and within this article we will try and consider some actions that manufacturers may consider in planning their strategy for the coming months and years.

## EXTERNAL ACTIONS

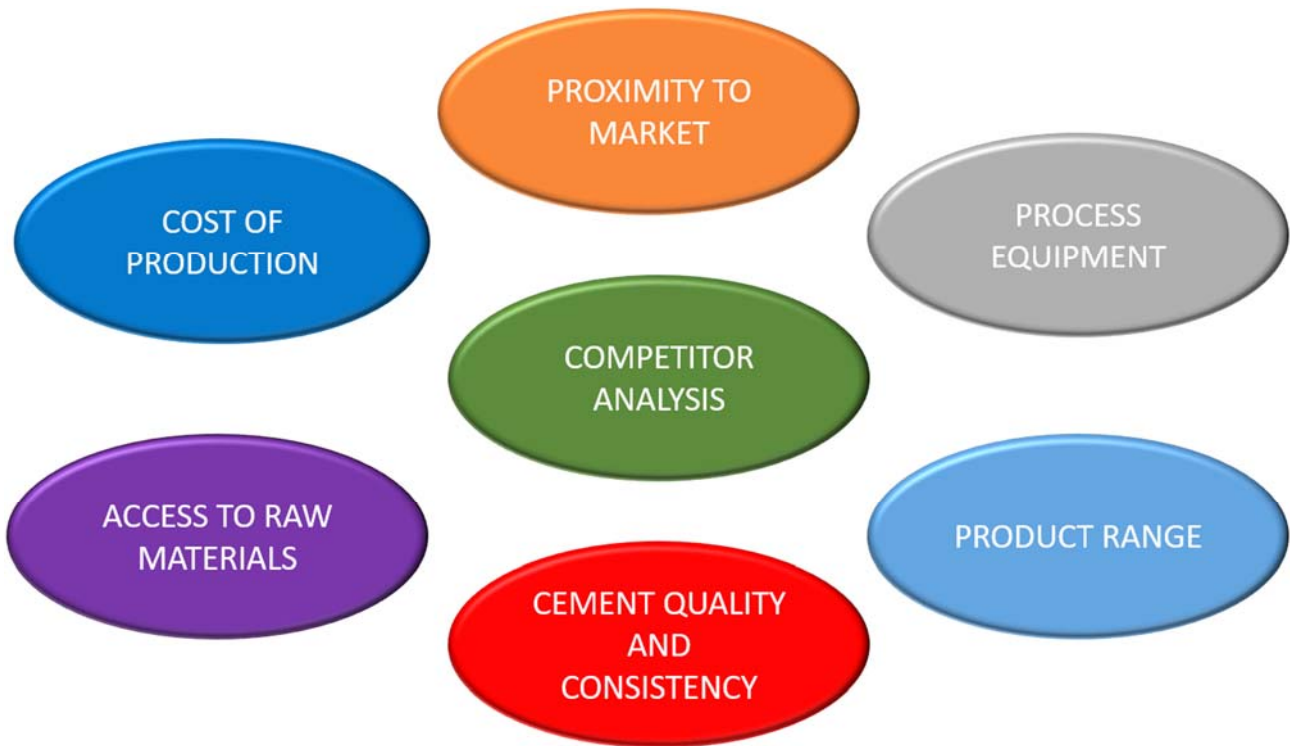
It is important to acknowledge that the impacts will

vary greatly from country to country – whilst many of the European countries have been badly affected both through high infection rates and extended lockdowns, many Asian countries appear to be relatively untouched meaning that less short term damage has been done to their economies. However, economic damage could still be on the horizon in sectors like tourism, with a reduction in the availability of flights and people not taking overseas holidays in 2020.

Therefore, the first step in the process is to understand what the market looks like for the coming year to two years and how the previous forecast has changed. This would normally be done by the internal marketing department of the company, considering the national forecast for changes in economics growth in the country, expectations for major construction projects in the country, the areas of focus for stimulus packages launched by the Government in that country, the effect of changes in taxes in that country etc. It should always be remembered that a reduction in cement demand often lags behind the initial downturn in the economy, with many projects having to be completed despite the initial downturn and then a slump in new projects starting.

The next step – if not already completed – is a detailed competitor study. If the market is forecast to drop resulting in an even more competitive market than prior to the crisis, it is essential to understand the competitors. Examples of the key areas to be assessed in the competitor analysis are shown on the following page.

For each of these factors, the producer can compare its own performance with the competitors to identify where its performance is better or worse than the competition and then where performance improvements can be made and which factors cannot be changed – for



**Key factors for competition analysis process**

example the location of the plant. Armed with the information relating to the market and the competition, the plant can then look internally at its own operations to consider how it can adapt its own operational strategy to the new circumstances.

**INTERNAL ACTIONS**

The natural reaction to a downturn in the market and the subsequent oversupply in the market is for the company to review its cost structure. And the easiest targets in this time is to cut headcount and to cancel projects – both resulting in an almost immediate saving in terms of cash out of the business. Such actions have already been seen in some of the multi-national cement manufacturers and are full consistent with the short-term view of maintaining short term profitability without considering the long-term impact on the business – leaving such considerations for another time.

However, we believe that before taking reducing headcount and cancelling projects, the impact of these actions on both the short term and longer-term efficiency of the business need to be considered. This is where the company needs to review its internal strategy. This involves taking the results of the competitor analysis and identifying the strengths and weaknesses of the organisation and then identifying how the people within the organisation can be used to

improve the business and become more competitive - instead of simply cutting costs arbitrarily without improving the overall performance of the business. The key focus of the Plant Management team should be to how to convert the efforts of the employees from daily operations to small improvement projects. Obviously the focus of the projects has to be relevant to the operating costs of the plant – so for example in areas such as equipment availability, maintenance cost, specific fuel consumption and cost, raw material cost, power consumption and cost – but should all be projects that can be completed by the internal workforce. The concept is along the lines of “doing all the things that we wanted to do but never have time to do them”.

Some examples of ideas where operations can be reviewed, and improvements made are as follows:

**Mining:**

- Quarry mining strategy.
- Quarry design (overburden, access to the right material at the right time, quarry roads, water management).
- Mining methods.
- Mobile equipment maintenance (condition of workshop, availability of appropriate tools, management of lubricants, lubricant storage,

tracking of equipment maintenance history).

### Quality control:

- Proper sampling and sample preparation to achieve representative samples.
- Lab organization, instructions & procedures to improve the analytical quality and lab capacity.
- Assessment of the cement quality and identification of the parameters that could be improved to improve strengths, setting time, consistency, clinker factor and finally the cost of cement.

### Instrumentation:

- Ensuring the correct place for the instrumentation has been chosen (as opposed to installing the instrument where it is convenient) and the instrumentation is working properly.
- Maintenance and calibration.
- Extension of the DCS and additional instruments connected.
- Improvement of the PCS, Software, Trending so that operators and process engineers have all the information that they require to effectively run the kilns and mills.

### Materials transport:

- Insufficient capacity of transports.
- Identifying the root cause of transport equipment breakdowns and implement solutions.
- Identifying spillage areas which must be routinely cleaned and eliminate causes.

### Wear management:

- Correctly identify and implement solutions to equipment problem areas which suffer from high wear rates, but the plant never has time to implement the solution.

### Maintenance organization:

- Adjustment of the maintenance instructions and documentation to changes in the field
- Review of the spare part inventory in order to reduce risk of downtime
- Check the equipment database versus existing situation in the field.
- Group and code the equipment.
- Allocate the technical documentation of the equipment and note the location in the equipment list
- Define the maintenance activities for the listed equipment (what, how, when, materials and tools required).

- Establish from above a spare part list.
- Elaborate a spare part inventory and compare. Decide on the target inventory (risk, cost, frequency).

### Energy:

- Assess the actual fuel and power use compared to the expected quantities for the equipment that is installed.
- Challenge the reasons for high energy consumption – for example, the use of a high by-pass use or high-power consumption on the cement mill motor.
- Involve all departments in the energy reduction process not just the production department – the energy consumption starts with the raw materials and also involves the production, maintenance, quality and even the sales and marketing department in their demands for specific properties in the product.

### Knowledge transfer:

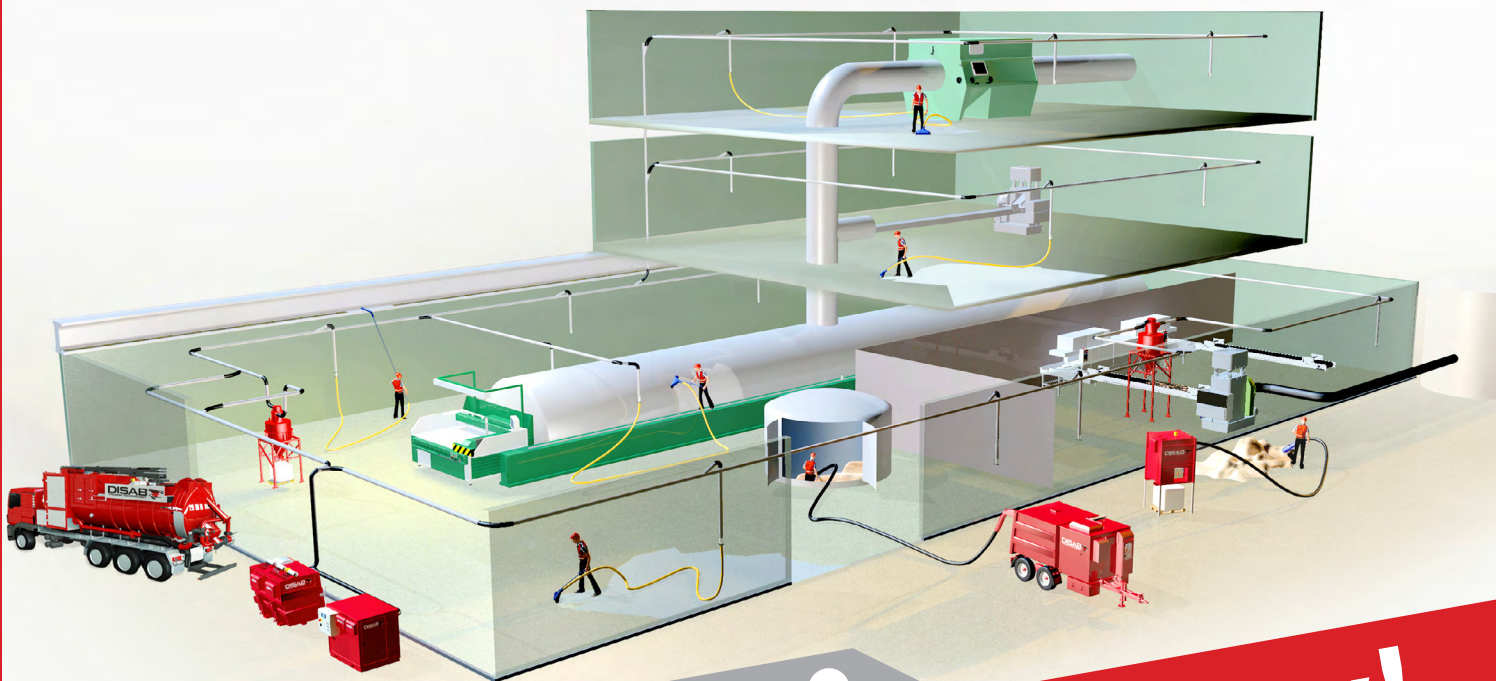
- Using the more experienced personnel – especially those that are close to retirement and where the experience is going to leave the organisation – to train the younger and less experienced personnel in the organisation.

## CONCLUSION

Clearly the requirements of the business, the length of the expected downturn, the cost of manning to the business compared to other costs such as fuel and power and the saving by reducing headcount are all factors that must be considered as part of the business review". However, simply removing people from the organisation could create huge problems once the cement plant needs to go back to normal production. The key question is "How to avoid the crisis after the crisis". Especially in times of a crisis, people have an important role in improving the business and becoming more competitive. Less people do not necessarily mean higher efficiency. Often, it is the other way around, leading to a disrupted organization and deteriorating equipment, while people with specific know-how have left.

JAMCEM can support cement producers in all the above initiatives – whether it is the internal or external actions that are suggested and can facilitate the improvement actions that will be led by the internal team at the plant. Practical people invest now into the future.





# STOP wasting money!



On average 10% of the production output of a cement company can be found as spillages around or in a cement plant. Having valuable material laying around on the floor is basically the same as throwing money on the ground! Use a DISAB vacuum system to recover the spillages and put it back into production, hence saving more than USD 50,000 every year.

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## Really sharp, but yet gentle: These Cutting Mills adapt to your samples!

Ideal for size-reduction of different materials due to variable adjustment of the rotational speed of the rotor to the sample materials



Universal Cutting Mill  
PULVERISETTE 19 with  
variable rotational speed  
adjustment

Both models of the **NEW Universal Cutting Mills** from FRITSCH are ideal for size-reduction for a wide range of diverse materials due to variable adjustment of the rotational speed of the rotor, different rotors with various knife geometries, replaceable blades, practical sieve cassettes and that with an unmatched ease of cleaning.

**NEW:** Wear-free labyrinth seals made of stainless steel on both sides of the rotor – on the shaft and in the lid – offer effective contamination protection and no additional heat effect for your samples. They can be removed for fast, residue-free cleaning.

### **Variable 300-3000 rpm for fine comminution**

The **high-speed Universal Cutting Mill** PULVERISETTE 19 comminutes up to 60 l/h of soft to medium-hard sample materials and fibrous materials at a torque of up to 30 Nm with reliable reproducible results. The great advantage: The variable rotational speed adjustment in increments of hundred between 300 and 3000 rpm enables fine tuning of the comminution process for each sample within a very wide range of applications.

### **Variable 50-700 rpm for powerful comminution**

The **low-speed Universal Cutting Mill** PULVERISETTE 19 with variable rotational speed adjustment between 50-700 rpm in increments of ten and a torque of up to 67 Nm enables due to the combination of low cutting rate and extreme cutting forces a very powerful comminution of hard, tough-elastic samples and small sample quantities. At the same time, it is the ideal solution for all cases



where e.g. thermal damage, the loss of highly volatile substances, or an excessively high fine share need to be avoided.

**Especially for analytical sector, food and pharmaceutical industry**

The Universal Cutting Mill PULVERISETTE 19 is also available in both variable rotational speed versions in a corrosion-resistant stainless steel 316L version. All materials have an increased resistance to alkalis and acids and are conform to the guidelines of the food and pharmaceutical industry.

**Optimal sample exhaustion: FRITSCH Cyclone separators**

Clean, convenient, cool: Combine your FRITSCH Universal Cutting Mills PULVERISETTE 19 with a FRITSCH Cyclone separator for sample exhaustion and an exhaust system which can be ordered along. The strong airflow ensures simple feeding, increases throughput, reduces the thermal load of the samples and enables the use of finer sieve cassettes to achieve a higher final fineness – even for materials, which are otherwise difficult to comminute finely. The result: an especially fast and efficient comminution.

**Choose according to your needs:**

**FRITSCH high-performance Cyclone separator**

The FRITSCH high-performance Cyclone separator completely made of stainless steel 304 is particularly indispensable in the analytical sector and in the food and pharmaceutical industries, and for the processing of heterogeneous mixtures of material, e.g. in the cement industry. Due to its high surface quality, it offers enhanced resistance to corrosive media such as alkalis and acids and is especially easy to clean with a wide range of possible cleaning agents, without leaving any residues. In addition, it can be completely dismantled, fully emptied, flooded and sterilised, and thus offers reliable protection against cross-contamination.



Universal Cutting Mill  
PULVERISETTE 19 with new  
FRITSCH high-performance  
Cyclone separator





The FRITSCH high-performance Cyclone separator is available with both: flexible or solid piping made of stainless steel 304 and special seals.

#### **FRITSCH small volume Cyclone separator**

Especially for exhaustion of small sample quantities, we designed the compact FRITSCH small volume Cyclone separator. It is made of plastic, can be dismantled completely and cleaned in a dishwasher for reliably preventing contaminations. The comminuted sample is collected in a screwed-on sample glass of 250 or 500 ml volume.

#### **Clean Design for unmatched ease of cleaning**

Available only from FRITSCH: For residue-free cleaning all grinding parts of our Cutting Mills can be removed within seconds without tools – unbeatable fast, simple and efficient.

**The result:** a completely open, empty grinding chamber with minimised dead space and smooth interior walls for quick and easy cleaning and reliable protection against cross-contamination.

Convince yourself of the unmatched ease of cleaning:

[www.youtube.com/embed/NIk5B2c-jhM?rel=0](http://www.youtube.com/embed/NIk5B2c-jhM?rel=0)

#### **Test the FRITSCH CUTTING MILLS!**

Send us your most difficult sample – we will carry out an individual

[\*\*sample grinding\*\*](#) for you. Compare for yourself!

contact: FRITSCH GmbH • Milling and Sizing  
Selina Stemmler  
Industriestrasse 8 • 55743 Idar-Oberstein • Germany  
Phone +49 67 84 70 155  
E-Mail: [sdstemmler@fritsch.de](mailto:sdstemmler@fritsch.de) • Internet: [www.fritsch.de](http://www.fritsch.de)

# NAVIGATE TOWARDS SUCCESS

## The cement industry knowledge your competitive advantage needs:

- **News:** daily newsletter delivered to 23,000 recipients, including CEOs, equipment manufacturers, consultants, and engineers in 160+ countries
- **Proprietary intelligence:** interviews with cement industry thought leaders and experts, including CEOs, executives, analysts and consultants
- **Market research:** high-quality research reports, including detailed market studies, competitive assessments, cement trade flows, and export opportunity assessments. Custom research available upon request
- **Data services:** statistical and data research tools offering industry practitioners a wealth of cement supply and demand data

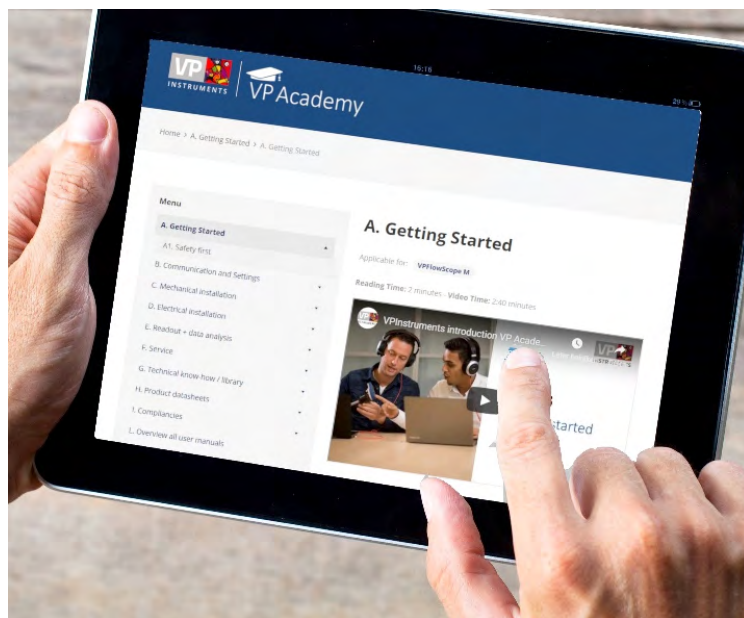




## *VP Academy now features all VPFlowScope flow meters & VPVision*

VPInstruments, manufacturer of leading flow metering equipment for easy insight into energy flows, provided a major update for the VP Academy, VPInstruments online e-learning platform. The update features the addition of the VPFlowScope DP, VPFlowScope Probe and the VPFlowScope In-line product range.

The VP Academy enables you to learn at your own time and pace. Both fundamental steps and in-depth knowledge of the VPInstruments' products are provided on the platform. This online learning environment is especially designed to make instructions and information as easy and as effortless as possible. Therefore, information and instructions are provided in text, visuals and videos.



With this extension, the VP Academy features now all VPFlowScope flow meters and our VPVision energy monitoring solution.

### **VPFlowScope® flow meter family**

Our VPFlowScope® product family measures compressed air or other industrial gases, like nitrogen, oxygen, helium and more. The VPFlowScope flow meters provide insight from supply to demand side, in saturated and dry air, and can be used for mobile or permanent measurements. The VPFlowScopes all incorporate the 4-in-1 measurement principle: (bi-directional) flow, pressure, temperature, and total flow.





### **VPFlowScope DP**

The patented VPFlowScope® DP enables you to take measurements in the discharge pipe of a compressor under 100% saturated conditions. Combine the VPFlowScope DP with a power meter and measure compressor efficiency.

### **VPFlowScope In-line**

The VPFlowScope® In-line is the ideal flowmeter for point of use consumption measurement. It is perfect for smaller diameters where it produces all the data you need to optimize your compressed air consumption.

### **VPFlowScope Probe**

The VPFlowScope® Probe is the measurement tool for dry compressed air and other technical gases like nitrogen, carbon dioxide and argon. The VPFlowScope Probe measures thermal mass flow, pressure, temperature, and total flow simultaneously.

### **VPFlowScope M**

The VPFlowScope® M is the next step in gas measurement. Unlike traditional flow meters, the VPFlowScope M consists of a Transmitter and the patented VPSensorCartridge® which reduces recalibration to a simple exchange.

### **About VPIstruments**

VPIstruments offers industrial customers easy insight into energy flows. We believe that industrial energy monitoring should be easy and effortless, to enable insight, savings and optimization. VPIstruments' flow meters are calibrated on state-of-the-art calibration facility. Our calibration equipment is maintained under our ISO 9001 Quality Management System and is traceable to National Standards.

VPIstruments' products are recommended by leading energy professionals worldwide and offer the most complete measurement solution for compressed air flow, gas flow and electric energy consumption. Our monitoring software, VPVision, can be used for all utilities, and enables you to see where, when and how much you can save. Our products can be found all over the world. We serve all industrial markets, for example; automotive, glass manufacturing, metal processing, food and beverage, and consumer goods. We can also help your industry. Let us open your eyes and start saving energy.

For more information, contact:

VPIstruments

Joyce van Eijk - [joyce.van.eijk@vpinstruments.com](mailto:joyce.van.eijk@vpinstruments.com)

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## ***Siemens and Exyte join forces to deliver integrated solutions for fast-track construction of smart biotech facilities***

- **Covid-19 poses major challenges for developing and mass-producing vaccines and medicines in existing production facilities**
- **Siemens and Exyte combine their strengths to offer intelligent, modular, and scalable biotech facilities**
- **Siemens provides solutions for process automation and digitalization**
- **Exyte offers ExyCell® modular technology for rapid construction**

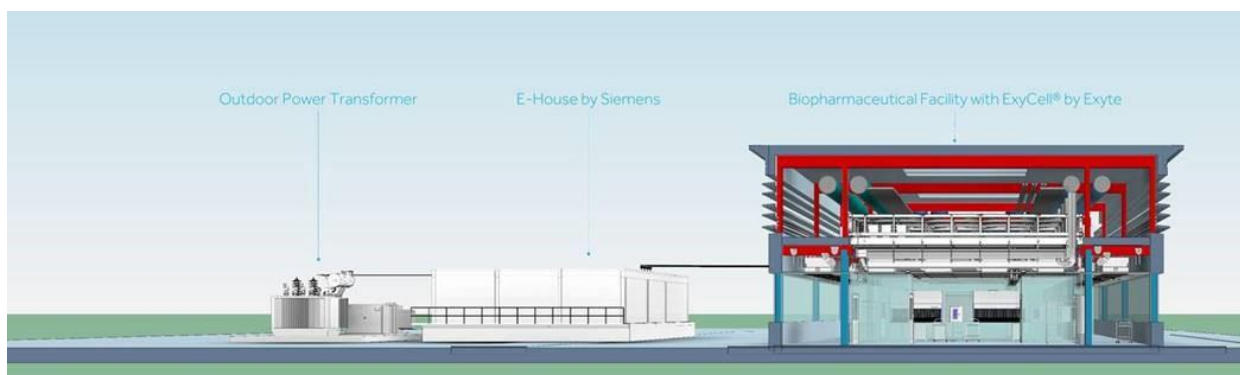
Siemens, a global leader in process automation, and Exyte, a global leader in the design and delivery of biopharmaceutical manufacturing facilities, join forces to offer end-to-end solutions for the biopharmaceutical industry by combining the digitalization expertise of Siemens with the innovation boost from Exyte.

Against the background of the current challenges associated with the Covid-19 pandemic, pharmaceutical companies are facing challenges in developing and mass-producing new vaccines and medicines in existing production facilities. Siemens and Exyte are committed to tackle those challenges. Together, they offer standardized, turnkey solutions compliant with cGMP (current Good Manufacturing Practice) and GAMP (Good Automated Manufacturing Practice) to biotechnology manufacturers as well as cell and gene therapy manufacturers.

Currently, the first buildings with Siemens' technology and ExyCell modules are being designed for cell and gene therapy manufacturing and biologicals production in China and Europe.

“We are excited to collaborate with Exyte to provide pre-fabricated, modular biotechnology solutions with our technology already embedded. As a market leader for the pharmaceutical industry, we offer know-how for process automation with our Simatic PCS 7 and WinCC automation platforms, as well as power supply and fire protection for modular cleanrooms,” said Eckard Eberle, CEO Siemens Process Automation.

Luca Mussati, Vice President Pharmaceuticals & Biotechnology at Exyte states: “Our partnership with Siemens enables us to pre-integrate Siemens' technology into ExyCell modules, thus offering clients end-to-end solutions for their facilities. Our collaboration allows our clients to reap the benefits of industry 4.0 without the necessity of engineering them from scratch each time, thus saving them time and money. ExyCell modules are suitable for new buildings as well as for the retrofit of existing buildings, and can be provided either in standard, off-the-shelf plant configurations, or modules that can be combined to meet specific customer requirements.”



Model of a biopharmaceutical facility consisting of pre-configured ExyCell® modules and an integrated power supply by Siemens.

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Siemens Digital Industries (DI) is a leading innovator in automation and digitalization. In close cooperation with its partners and customers, DI is the driving force for the digital transformation in the process and manufacturing industries. With its Digital Enterprise portfolio, Siemens provides companies of all sizes with all the necessary products, along with consistent solutions and services for the integration and digitalization of the entire value added chain. Optimized for the specific requirements of individual industries, this unique portfolio enables customers to enhance their productivity and flexibility. DI continuously extends its portfolio to include innovations and enable the integration of future-oriented technologies. Siemens Digital Industries, with its headquarters in Nuremberg, has a workforce of around 76,000 employees worldwide.

Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 170 years. The company is active around the globe, focusing on the areas of intelligent infrastructure for buildings and distributed energy systems, and automation and digitalization in the process and manufacturing industries. Through the separately managed companies Siemens Energy, the global energy business of Siemens, and Siemens Mobility, a leading supplier of smart mobility solutions for rail and road transport, Siemens is shaping the energy systems of today and tomorrow as well as the world market for passenger and freight services. Due to its majority stakes in the publicly listed companies Siemens Healthineers AG and Siemens Gamesa Renewable Energy (as part of Siemens Energy), Siemens is also a worldleading supplier of medical technology and digital healthcare services as well as environmentally friendly

solutions for onshore and offshore wind power generation. In fiscal 2019, which ended on September 30, 2019, Siemens generated revenue of €86.8 billion and net income of €5.6 billion. At the end of September 2019, the company had around 385,000 employees worldwide. Further information is available on the Internet [www.siemens.com](http://www.siemens.com).

**About Exyte:**

Exyte is a global leader in the design, engineering, and delivery of facilities for high-tech industries. With a history of more than 100 years, the company has developed a unique expertise in controlled and regulated environments. Exyte has a truly global footprint, serving the most technically demanding clients in markets such as semiconductors, batteries, pharmaceuticals, biotechnology, and data centers. The company offers a full range of services from consulting to the managing of turnkey solutions – delivered to the highest quality and safety standards. Solving the most complex challenges, Exyte forges trusted, long-lasting relationships with its clients. In 2018, Exyte generated sales of EUR 3.5 billion with over 5,600 highly experienced and motivated employees. The company is ideally positioned to further strengthen its market leadership with its broad industry insight and its exceptional talents. Further information is available on the Internet [www.exyte.net](http://www.exyte.net)



## ***New Plant Intelligence options for more transparency and planning in the production process***

- **New Plant Intelligence options, fully integrated in WinCC Unified, available on tablet or PC**
- **“Performance Insight” option for simple display and calculation of key performance indicators (KPIs)**
- **Create and visualize structured planning of production processes with the “Calendar” option**

Siemens launches two new Plant Intelligence options for the WinCC Unified system:

The “Performance Insight” and “Calendar” options extend the WinCC Unified visualization system with functionality for more transparency and structured planning in the production processes. The additional options can be individually combined according to application requirements and are fully integrated in the system, so that

all functions are available to the user on various devices such as tablet or PC. By using the information thus obtained and planning ahead, costs can be reduced, and rejects avoided. In addition, production facilities can be better utilized, which increases effectiveness and efficiency.

The new Performance Insight option provides the user with a formula editor for the calculation of key performance indicators (KPI's) according to ISO standard 22400 as well as a comprehensive choice of WinCC Controls for their display and for analysis purposes. The performance, quality and availability of the production plant can be visualized using a wide range of different formats such as bar charts, Gantt diagrams and multiline displays, allowing overall equipment effectiveness (OEE) to be calculated. Plant operators can record the entire production process status, from factory level down to individual machines, allowing systematic detection of optimization potential.



The “Calendar” option for the visualization of structured planning of production processes is now also available in WinCC. This function is used to define the running times of machines and plants and to create standard templates for regular production days and shifts. Furthermore, the calendar function can be used to plan the process execution relative to a timeline and in this way, for example, the start-up time of a machine before the begin of a work shift can be considered. Due to the consideration of operating times, the new “Calendar” option enables a more flexible planning of production processes and events.

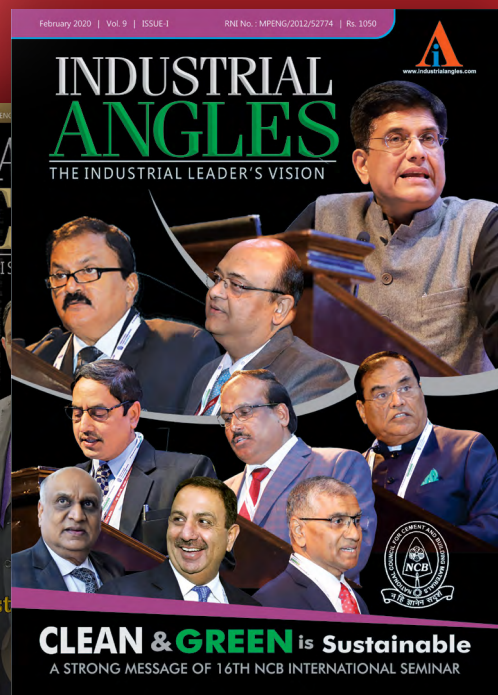
Siemens launches two new Plant Intelligence options for the WinCC Unified system: The Performance Insight and Calendar options extend the WinCC Unified visualization system with functionality for more transparency and structured planning in the production processes.

# Global Magazine ..... CEMENT INDUSTRY...

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## ***SUPERA® HP: advanced technology at the service of beauty***

*Extreme size flexibility, small and large thicknesses, zero defects and waste, and optimised productivity.*

SUPERA® is evolving. The unique strengths of Siti B&T's integrated belt pressing line for large slabs have been further improved with the development of the new SUPERA® HP version. Key features include greater size flexibility; small or large thicknesses; zero defects and waste thanks to patented innovations and use of the tensionless device; and optimised productivity due to the use of the same bodies as traditional glazed porcelain. SUPERA® HP is a complete line that covers all stages in the production process from preparation to the end of the line. It is a revolutionary system that produces traditional sizes without the need for a mould, while maintaining high production volumes and maximum flexibility. Four models have been developed for the production of porcelain tiles in sizes ranging from 1200x2400 mm to 1600x3200 mm. The new technology also offers unique aesthetic potential in thicknesses ranging from 3 to 30 mm and allows for extremely rapid thickness and size changes.

### **Pre-drying cutting**

But the truly revolutionary aspect of this technology is the fully automated cutting process performed on the line prior to drying, which allows for greater flexibility and the ability to satisfy any request. Pre-drying cutting is performed longitudinally and continuously using Diatex discs and allows a wide variety of sizes to be produced from a single large tile or slab, while the automated netting change system guarantees high productivity. Along with size flexibility, this upgrade also reduces inventory, eliminates the use of moulds and produces smaller quantities of waste.

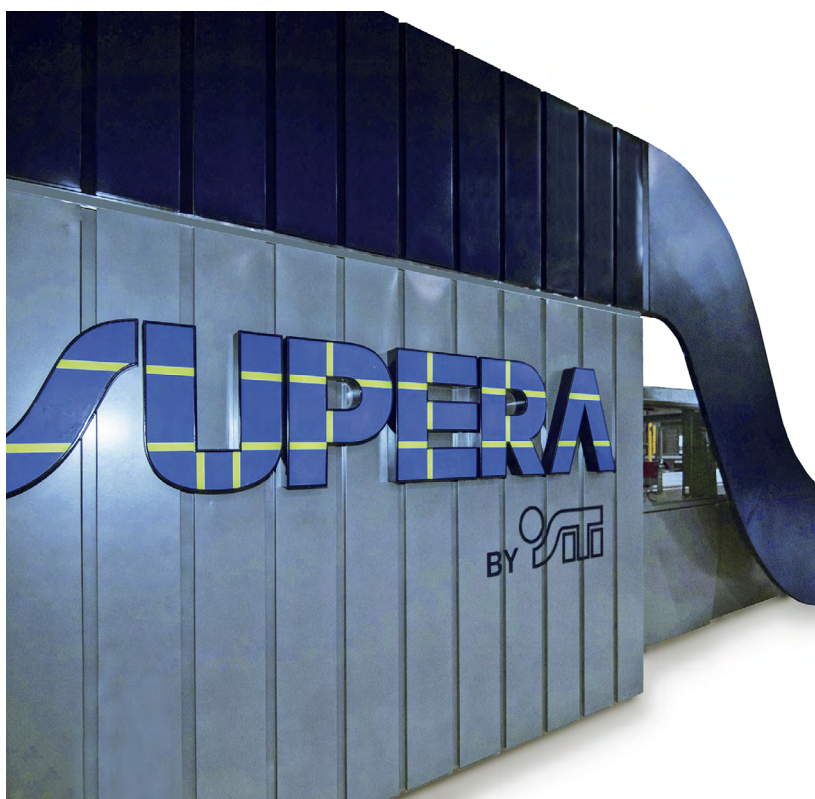
### **The Smart Factory of interconnected systems**

SUPERA® HP also adopts a smart factory approach aimed at combining production efficiency with energy saving through the use of fully interconnected systems. It is equipped with the bt-TUTOR plant supervisor, the Siti B&T solution that allows for monitoring, data collection and plant control and interacts with production planning and preventive and predictive maintenance. It is also cloud compatible and equipped with mobile device support and a user-friendly operator interface.

### **Patented solutions**

Thanks to Siti B&T's continuous R&D investments, SUPERA® HP features a number of outstanding patented technologies:

- STS® Structure & Thickness for Slabs: this solution allows for maximum control of surface uniformity while reducing the risk of stresses inside the ceramic slab and ensuring thickness uniformity over the entire surface and evenly distributed pressing; the original pressing system with synchronised cylinders also ensures perfect flatness and high product quality.
- Energy on demand Start&Stop®: the hydraulic power unit eliminates machine downtime, ensures maximum efficiency and low energy consumption per square metre and minimises the use of oil





cooling systems.

- Mobile plates: a patented shaping system for containing raw materials and minimising waste; the high flexibility in terms of ceramic bodies allows for the use of locally-sourced raw materials.

#### **Full thickness decoration**

The new SUPERA® HP has also expanded the potential for full body decoration and 3D surface textures. Ongoing research efforts have led to patented solutions for full-thickness decorations designed to create original surfaces with a distinctive identity. The material has effectively been reinvented through the use of three-dimensional and through-body effects. And following years of research into the finished product, the new technology is capable of further improving its beauty and aesthetic quality.

SUPERA® HP is capable of creating high-reliefs with unparalleled definition to a maximum depth of 4 mm on large thickness slabs. Fresh decorative potential is combined with full-body effects and high-definition printing.

#### **The know-how of a technology partner**

Thanks to its specialist knowledge and expertise, Siti B&T is the ideal technology partner for all steps in the production process from the preliminary stages onwards. The services it offers include in-depth study of raw materials, body formulation, optimisation of the glaze mixture and industrial testing with the production of finished product samples.

Siti B&T Group has all the skills and knowledge necessary for complete integration of the various phases of the ceramic production process. It offers complete and integrated solutions covering the entire value chain as well as proprietary technology for guaranteed competitive advantages. The group is made up of specialist companies capable of offering cutting-edge solutions for every stage of the production process: SITI (complete lines for tiles), Projecta Engineering (full digital decoration), Digital Design (creativity and design), Ancora (complete finishing plants) and Diatex (diamond tools). The group also stands out for its unflagging commitment to R&D, investing approximately 3.5% of its annual revenues to deliver customised products and maintain high standards of innovation.



## ***Virtual #FAT and #SAT, ensuring continuity for SACMI customers worldwide***

Remote factory acceptance tests and the ability to provide a true remote start-up service (SAT - site acceptance test), ensuring customers maximise the opportunities provided by 4.0 technology and our expertise, wherever they are. SACMI, then, is leading the re-opening of international markets by providing customers with close support worldwide.

Sensors, cameras and virtual reality have taken remote plant acceptance tests (FAT, factory acceptance test) out of the realms of science fiction... and into the real world! With several contracts already signed across a range of businesses and industries, this is a field in which SACMI leads the way as it seeks to eliminate the distance separating customer and supplier.

During acceptance tests, the customer experience is 'total': audio-visual links and real-time data extraction from machines allow for streamlined interaction with guaranteed results and optimal customer satisfaction. SACMI, after standing shoulder to shoulder with customers all over the world since the earliest stages of the emergency, has now proven it's ready for the post-COVID phase, when virtual assistance will be an increasingly essential element during the design, start-up and after-sale assistance phases.

This epochal challenge - the remote start-up of a complete, automated line - extends beyond the SACMI factory acceptance test to include



the subsequent SAT (site acceptance test), a delicate, complex phase that includes assembly of the machines at the customer's facility, followed by their start-up and testing. Thanks to the widespread diffusion of new 4.0 technologies, training local technicians step-by-step to assemble individual components and guiding personnel - who may not necessarily be trained to manage a certain type of machine - as they start up new lines is taking assistance to a whole new level.

Following several successful test completions with leading international customers in recent weeks, the remote start-up of complete, highly automated lines has taken on the form of a structured package of solutions and procedures. SACMI provides such packages for both customers who take delivery of plants in situ (SACMI machines and plants requiring assembly and start-up) and, more generally, customers who, in this new scenario, make new investments where they can rely on a sole provider capable of 'virtualising' every single stage of

supply (shipping, assembly, start-up and testing) with guaranteed results.

This strategy is underpinned by the partnership principle, which lets SACMI work with customers to meet shared challenges. It has ensured that customer investments in new machines and plants (equipped with cutting-edge sensors capable of inter-communicating and interacting with the remote assistance platform) have, in recent years, yielded outstanding returns. Moreover, customers can also count on advanced virtual reality assistance packages, provided by the SACMI Customer Service Division; these are constantly being upgraded to ensure the highest levels of innovation.

SACMI's successful completion of the first fully remote SATs in the field has sent the market a clear message: the way forward is to work together on the best practices needed to accelerate the re-opening of industry and bring our expertise directly to the customer's premises.



The ZKG logo consists of the letters 'ZKG' in a bold, white, sans-serif font, with a stylized circular element to the right of the 'G'.

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## ***SACMI DDG, the new frontier of ceramic decoration***

SACMI boosts the potential of its new digital modules, which apply texturing effects with both dry and wet materials. The outcome is a complete platform that frees surface decoration and 3D effects from the constraints of mechanical processes.

With its latest innovation in the field of glazing and decoration of ceramic surfaces, Sacmi responds to a dual market need that can be summed up in two words: product and process.

Driven by the need to differentiate their offerings from those of competitors, manufacturers are increasingly focusing on aesthetic research with the aim of creating products with the highest possible levels of sophistication. A process of continuous innovation of this kind can no longer rely solely on inks but needs to extend the concept of ceramic decoration to include glazes, powders and material texture effects.

At the same time the production process itself also needs to evolve, rethinking the digital device not just as an element that complements the traditional pressing and mechanical powder compaction phases but actually integrates with them, thereby contributing to totally smart order and production management.

With the aim of covering everything from product to process and developing ceramic production and decoration lines of unrivalled versatility, Sacmi's research team has launched a new application of

the new DDG Digital Decoration & Glazing series for the production of digitally textured, glazed and decorated products.

### **Operation**

The main innovation is the possibility of using the new DDG technology not just for the selective application of grits, glues and other dry and wet effects but also for creating textural surface effects.

In the new line layout the machine is duplicated, with one DDG module installed upstream and the other downstream of the digital inkjet decorating machine.

In practice, in the initial stages the machine can deposit grits and glues to create wood, natural stone and other effects and if necessary can combine them with full-tile glaze application. Following compaction and digital decoration thanks to integration with the SACMI DHD inkjet modules, the slab can be passed through a second DDG module for application of further surface texturing and glazing

effects (e.g. the classic transparent top coat).

The result is a 3D surface decoration process free from mechanical constraints, giving manufacturers the utmost versatility in handling complex production mixes with high aesthetic value. In this innovative configuration, DDG and SACMI Deep Digital Line integrate and further extend the digital decoration and glazing concept to three-dimensional slab decoration, allowing for more efficient management of small batches, just-in-time production and frequent changes of size and texture.

Thanks to integration with the other digital devices present on the line (DHD ink printers and additional pre-forming powder filling devices such as the DGD for traditional PH presses and the DDD for Continua+ lines), Sacmi delivers a complete decoration ecosystem that meets all slab/tile decoration needs with the maximum versatility on a single platform.



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## ***SACMI Continua+: increasingly versatile and sustainable***

Improved flexibility in terms of size and thickness, less scrap, lower electricity consumption, digitally synchronised surfaces, through-body decorations using SACMI Deep Digital solutions and the added benefit of being able to use standard porcelain tile bodies are the factors behind the global success of Continua+.

More than 50 Sacmi Continua+ lines have been installed worldwide to date, a level of success that testifies to the unique characteristics of this technology: versatility, digital process control and efficiency; thicknesses ranging from 3 to 30 mm; reduction of scrap in the pressing stage to consistently below 3% regardless of the slab size; and last but not least the possibility of working with traditional porcelain tile bodies, as certified by companies that are already using the technology.

The line stands out in particular for its high productivity and its ability to handle the diversified products and small batches that are increasingly in demand in today's ceramic tile market. The possibility of minimising production waste regardless of the size (powders can always be recycled directly into the mix) and reducing belt replacement times to 30 minutes (less than 60 minutes for size changeover) are further benefits of this solution. For example, it can handle highly complex production mixes combining traditional fired product cutting solutions with on-the-fly unfired product cutting (SACMI TPV) and achieve maximum efficiency in the production of smaller than nominal sizes.



Figures for worldwide installations demonstrate that Continua+ is the only technology capable of handling technical products by means of through-body processes that perfectly synchronise dry decoration with surface decoration. The modern, high-end kitchen countertops with through-body veins produced with Continua+ and launched onto the market in 2018 are a clear example. The potential to create products other than traditional slabs extends across a range of thicknesses from 3 mm to 30 mm, allowing for the production of furnishing accessories while guaranteeing optimal density distribution and thickness uniformity.

Integration with dry and wet digital decoration solutions (SACMI DDD and DHD) also allows manufacturers to create new products with unique texture and depth. As certified by a leading ceramic company, another major benefit of Continua+ technology is certified sustainability:

installed electrical power requirements can be cut by a factor of six (the PCR2000 runs on just 50 kW) and CO<sub>2</sub> emissions and related costs are reduced dramatically. Hydraulic oil consumption is virtually eliminated, reducing maintenance and waste costs and bringing further environmental benefits.

<https://www.ceramicworldweb.it>





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UAE CEMENT PORTAL WEB SITE

**www.UAECEMENT.com**

**info@uaecement.com**

## ***Socer adopts the new EFI Cretaprint 5th generation ceramic printer***

*Tunisia-based ceramic company Socer expands its capacity installing the fourth EFI printer at its Chebedda Naassen factory*



Tunisian ceramics manufacturer Société de Ceramique de Chebedda (Socer) has added an EFI™ Cretaprint® 5<sup>th</sup> generation ceramic printer to further expand the production capacity of its tile plant based in Chebedda Naassen industrial zone.

This will be the fourth EFI ceramic printing machine that Socer has installed, expanding the complete EFI ecosystem of ceramic products that the company has adopted in the last years: EFI Cretaprint machines, EFI Cretacolor ceramic inks and the EFI Fiery® proServer, allowing users to achieve accurate colour matching while saving ink costs.

"We have been a loyal EFI Cretaprint customer for 14 years with our first purchase being Cretaprint rotary printers. A few years back, we adopted our first EFI Cretaprint digital ceramic printer and, now, we have decided to invest in EFI's most advanced printer for ceramic and tile decoration. Going digital enables us to meet customer demand as we can produce more work and do it faster. We thank the whole EFI Cretaprint team for the quality of technical material provided in installation and training, their good collaboration, and service team which has been continually available to quickly respond to our needs," said Fares Ben Ayed, CEO of Socer The flexibility and technological robustness of the EFI Ceramic ecosystem puts tile producers like Socer on a path to a future in fully digital ceramic decoration.

With an end-to-end solution, Socer is able to undertake more projects as well as improve its products and processes. According to EFI, this successful 5th generation technology installation at Socer reflects the increased sales and demand the company is witnessing in North Africa, a region which is becoming an important and growing market for ceramic products.



# Global cement demand expected to contract over the next five years due to coronavirus impact

The confluence of not one but two black swan events including the COVID-19 pandemic and the crude oil price have created a global economic scenario that has now been compared to the Great-Depression of the 1930's. The damage cost to the financial and job market globally already exceeds the financial crisis of 2009. It is within this context that CW Research's 1H2020 update of the Global Cement Volume Forecast Report was undertaken.

Global demand is forecasted to decline at a CAGR of 2.3 percent from 2019 to 2024, but given the unprecedented events over the past few months, it was incumbent upon the CW's Research team to provide additional scenarios, which take into account either a quick V shaped recovery or a long U shaped recovery, resulting in an optimistic and conservative outlook over the next five years.

"In the 1H2020 update, we have estimated the responses by governments and central banks to mitigate the possible after effects of the COVID-19 pandemic and the consequent impact of the respective construction industry outlooks. It remains our endeavor to provide our clients with the most updated forecast in these volatile times for proper scenario planning at a strategic and operational level," comments Carolina Pereira, Manager, Advisory & Research at CW Group. "We have taken the step to provide additional scenarios to account for the rapidly evolving economic outlook."

## A negative economic backdrop

The IMF forecasts global economic output to contract by three percent in 2020 in its April World Economic Outlook. This marks the major downgrade from just three months ago when it had forecasted a global growth of 3.3 percent in its January 2020 update. At present the United States projected to decline 5.9 percent, and the Euro Area around 7.5 percent during this year. In addition to the erosion of wealth, this financial crisis has also resulted in large scale unemployment. The combination of these two factors will certainly impact cement consumption in the short term to 2021, with a slow demand recovery. CW Research forecasts US cement demand to decline at a CAGR of 2.6 percent up to 2024.

A similar scenario exists for Western Europe, where cement consumption estimates have been revised significantly downwards due to the impact of the coronavirus pandemic on key economies including as Spain, Italy, France, Germany and the UK. Italy and Spain, which are bearing the brunt of the coronavirus pandemic are expected to see cement demand CAGR declines of 5.3 and 4.2 percent until 2024.

In China, cement demand for 2020 is expected to decline by nearly 11 percent as the country experiences the most testing economic crisis in decades. Chinese first quarter GDP declined by 6.8 percent for the first time since 1976. Nevertheless, the IMF expects China's GDP to grow 1.2 percent in 2020, although the construction industry is expected to be significantly impacted due to reduced demand. As the economy tries to recover over this remaining three quarters of the year in an extremely challenging global economic scenario.

CW Group's Global Cement Volume Forecast Report (GCVFR) is a twice-yearly update on projections for cement volumes on a national, regional and global level. The forecast provides global and regional outlooks, as well as detailed perspectives on 57 of the world's most important countries' cement consumption, production, net trade and cement production capacity. The five-year outlook presented in this benchmark study enables industry professionals to shape their perspective on markets and business priorities.



## **Global cementitious seaborne trade is expected to grow over the medium term**

Between 2020 and 2025, the total volume of sea-based traded cementitious materials is forecast to grow at an estimated CAGR of two percent, according to CW Research's 2020 update of the World Cement, Clinker & Slag Sea-Based Trade Report.

Clinker seaborne trade is expected to witness a higher increase than all other cementitious products, due to not only increased demand from China but also other regions, including Western Europe, where stricter emission regulations encourage clinker imports as oppose to clinker production.

“While prospects over the short term have been negatively revised due to the impact of the COVID-19 pandemic, our expectations for trade of cementitious materials over the next five years is positive, as we estimate a rebound in global trade from the sharp recession expected in 2020,” notes Carolina Pereira, Manager, Advisory & Research at CW Group.

Gray cement continues to account for the highest percentage of seaborne trade

Compared to 2018, the global trade of cementitious materials rose nearly 5 percent in 2019. Gray cement once again accounted for the majority of traded cementitious materials. For 2020, CW Research estimates a decline of nine percent in seaborne trade of cementitious materials, due to the fallout from the pandemic.

Clinker, together with gray cement, accounted for 84 percent of seaborne trade in 2019. Clinker was followed by ground blast furnace slag, white cement and fly ash, accounting for the remaining 16 percent.

The largest volume of cementitious materials is traded in South-East Asia and in Asia Pacific, where the total cargo moved in 2019 accounted for more than 40 percent of the total volume. Cementitious trade in Asia is driven by the presence of large-scale manufactures of cement and clinker, such as Vietnam, and the presence of big importers within the region, including Bangladesh and China.

Furthermore, regional supply and demand scene for slag is similar to that, for cement and clinker, with the presence of major exporters, including Japan, and major importers, such as Bangladesh and Taiwan.

Demand for cement carriers expected to grow in regional trade routes

There are currently an estimated 400 or so cement carriers used for seaborne distribution of cementitious materials. New vessels and conversions had been increasing, due to the growth of seaborne trade of cementitious materials in the past few years. Sustained demand for cementitious in Asia had contributed to the requirement for new ships, however, that is likely to be re-evaluated given the current circumstances as the world deals with the fallout of the coronavirus pandemic.

Cement producers currently, own just under a third of cement carriers' fleet, while additional 25 percent is held by independent owners.

Clinker and slag are expected to be the commodities showing the highest growth over the forecasted period. Asia Pacific and the Middle East are expected to be the most active regions in the trade of cementitious materials. Clinker is expected to supplant gray cement, which is currently the most traded seaborne commodity, by 2025.

CW Group's World Cement, Clinker & Slag Sea-based Trade Report provides an in-depth and data-oriented analysis of trade-related development, historical trade flows and prices, and changes in exports and imports during the past years from a regional perspective, with a focus on key markets. The report also projects key cement and clinker supply-demand gaps that will sustain world cement trading for the next few years. Key exporters, their facilities, and traders are profiled, as well as key ocean-going cement carrier operations and their vessels. Examined trade flows include gray cement, clinker, white cement, and slag, as well as a discussion of fly ash trade, in bag, big-bag, or bulk form. The report projects main flows through 2024 expected to be shipped by ocean going vessels and includes prevailing cement trade prices and bulk/dry cargo shipping rates.

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## DIARY DATES

### **CEMENT**

#### **INTERCEM New Delhi**

Date : 07 - 09 September 2020  
Venue: JW Marriott Aerocity, New Delhi, India  
Tel: +44 2086695222  
Email: [info@intercem.com](mailto:info@intercem.com)  
[Http://www.intercem.com](http://www.intercem.com)

#### **Totally Concrete Expo and African Construction Expo**

Date : 16 - 18 September 2020  
Venue: Ticketpro Dome, Johannesburg, South Africa  
*For more information, please visit:*  
<https://www.africanconstructionexpo.com>

#### **fib ICCS20 - International Conference on Concrete Sustainability, Concrete**

Date : 16 - 18 September 2020  
Venue: Prague, Czech Republic  
*For more information, please visit:*  
[www.fibiccs.org](http://www.fibiccs.org)

#### **CEMENTTECH 2020**

Date : 16 - 18 September 2020  
Venue: Anhui International Conference & Exhibition Center, China  
*For more information, please contact:*  
Ms. Joanna Long  
CCPIT Building Materials Sub Council (CCPITBM)  
Tel: +8610 88083329  
Fax: +8610 88083329  
Mobile: +8613436446121 (same as wechat)  
Email: [joannalong@ccpitbm.org](mailto:joannalong@ccpitbm.org)  
Web: [www.cementtech.org](http://www.cementtech.org)

#### **Virtual Global CemFuels Alternative fuels seminar for cement and lime**

Date : 22<sup>nd</sup> September 2020  
Venue: Your device  
Free Registration  
*For more information, please contact:*  
Dr. Robert McCaffrey, Global Boards Conference convenor  
Tel: +44 (0) 1372 743837  
Fax: +44 (0) 1372 743838  
Email: [info@propubs.com](mailto:info@propubs.com)  
[www.cemfuels.com](http://www.cemfuels.com)

#### **Argus Petcoke Live - Virtual Conference**

Date : 22 - 24 September 2020  
Venue: Your device  
*For more information, please visit:*  
[www.argusmedia.com](http://www.argusmedia.com)

#### **Slag and AshTrade Europe**

Date : 01 - 02 October 2020  
Venue: Dorint Hotel An der Messe Köln, Cologne, Germany  
*For more information, please contact:*  
Mr. Ali Assad, Business Development Executive  
Email: [aga@gmiforum.com](mailto:aga@gmiforum.com)  
Mobile: +40-754-023-330  
<https://www.gmiforum.com>

#### **Virtual Global CementQC Maintaining quality control from the quarry to the factory gate**

Date : 6<sup>th</sup> October 2020  
Venue: Your device  
Free Registration  
*For more information, please contact:*  
Dr. Robert McCaffrey, Global Boards Conference convenor  
Tel: +44 (0) 1372 743837  
Fax: +44 (0) 1372 743838  
Email: [info@propubs.com](mailto:info@propubs.com)  
[www.cementQC.com](http://www.cementQC.com)

#### **Oleofuels 2020**

Date : 06 - 07 October 2020  
Venue: Marseille, France  
*For more information, please contact*  
Mr. Marcin Janecki  
Tel: +48616467047  
Email: [mjanecki@acieu.net](mailto:mjanecki@acieu.net)

#### **11<sup>th</sup> International PetroCem Conference**

Date : 18 - 20 October 2020  
Venue: Astoria Hotel, St. Petersburg, Russia  
Tel: +7(812) 2421124 / 7645612  
Fax: +7(812) 712-3683  
Email: [info@jcement.ru](mailto:info@jcement.ru)  
<http://www.petrocem.ru> / [www.icement.ru](http://www.icement.ru)

#### **CBI – Cement Business & Industry Brazil and Latin America 2020**

Date : 20 - 21 October 2020  
Venue: São Paulo, Brazil  
*For more information, please contact:*

Email: [sales@gmiforum.com](mailto:sales@gmiforum.com)  
<https://www.gmiforum.com>

**INTERCEM Americas**

Date : 26 - 28 October 2020  
Venue: Hilton Miami Downtown, Miami (FL), USA  
Tel: +44 2086695222  
Email: [info@intercem.com](mailto:info@intercem.com)  
[Http://www.intercem.com](http://www.intercem.com)

**18<sup>th</sup> International Central Asia Conference and Exhibition BusinessCem Almaty 2020**

Date : 26 - 28 October 2020  
Venue: InterContinental Hotel, Almaty, Kazakhstan  
*For more information, please visit:*  
[www.BusinessCem.ru](http://www.BusinessCem.ru)

**The European E-Fuels 2020**

Date : 04 - 05 November 2020  
Venue: Hamburg, Germany  
*For more information, please contact:*  
Email: [mjanecki@acieu.net](mailto:mjanecki@acieu.net)

**Alternative Fuels & Raw Materials Asia 2020**

**Sustainable and optimal use of biomass for energy beyond 2030**  
Date : 05 - 06 November 2020  
Venue: Bangkok, Thailand  
*For more information, please contact*  
Ms. Magda Kwapisiewicz  
Conference Producer  
Email: [mk@gmiforum.com](mailto:mk@gmiforum.com)  
mobile +351 939 114-543

**XXII INTERNATIONAL CONSTRUCTION FORUM**

**Cement. Concrete. Dry mixtures**  
Date : 10 - 12 November 2020  
Venue: Expocentre, Moscow, Russia  
Email: [info@alitinform.ru](mailto:info@alitinform.ru)  
Tel.: +7 812 335 09 92  
*For more information, please visit:*  
[www.infocem.info](http://www.infocem.info)

**15<sup>th</sup> Global Slag**

Date : 11 - 12 November 2020  
Venue: Vienna, Austria  
*For more information, please contact:*

Dr. Robert McCaffrey, Global Boards  
Conference convenor

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Fax: +44 (0) 1372 743838  
Email: [info@propubs.com](mailto:info@propubs.com)  
[www.globalslag.com](http://www.globalslag.com)

**15<sup>th</sup> Annual SEADMA Coe**

Date : 19 November 200  
Venue: Hotel Aryaduta, Jakarta, Indonesia  
Email: [info@drymix.info](mailto:info@drymix.info)  
*For more information, please visit:*  
[www.drymix.info](http://www.drymix.info)

**MEDMA Drymix Mortar Showcase on Sustainable Technology**

Date : 22 November 2020  
Venue: Sharjah, UAE  
Email: [info@drymix.info](mailto:info@drymix.info)  
*For more information, please visit:*  
[www.drymix.info](http://www.drymix.info)

**Virtual Global CemEnergy**

**Conventional fuels for cement production & Electrical energy production and efficiency**

Date : 24<sup>th</sup> November 2020  
Venue: Your device  
Free Registration  
*For more information, please contact:*  
Dr. Robert McCaffrey, Global Boards  
Conference convenor  
Tel: +44 (0) 1372 743837  
Fax: +44 (0) 1372 743838  
Email: [info@propubs.com](mailto:info@propubs.com)  
[www.cementenergy.com](http://www.cementenergy.com)

**The 2020 European Base Oils & Lubricants Summit**

**Market Activity, The Future of Mobility, Better Fuel Economy, Sustainability & Pioneering Tribology**

Date : 25 - 26 November 2020  
Venue: Rotterdam, The Netherlands  
*For more information, please contact:*  
Mr. Chris Taylor  
Tel : +4402031410602  
Email: [ctaylor@acieu.net](mailto:ctaylor@acieu.net)

**CBI – Cement Business & Industry Africa 2020**

Date : 26 - 27 November 2020  
Venue: Johannesburg, South Africa



# Global Cement Events 2020

For details, please visit each event's web site.

Virtual **global** **cemproducer2** Free Registration

Cement plant maintenance during and after the coronavirus pandemic

7 July  
Online

[cemproducer.com](http://cemproducer.com)



Virtual **global** **cemfuels** Free Registration

Alternative fuels seminar for cement and lime

22 September  
Online

[cemfuels.com](http://cemfuels.com)



Virtual **global** **cementQC** Free Registration

Maintaining quality control from the quarry to the factory gate

6 October  
Online

[cementQC.com](http://cementQC.com)



15th **global** **slag** Register Online

Slag production and optimisation for beneficial use and profit

11-12 November  
Vienna, Austria

[globalslag.com](http://globalslag.com)



Virtual **global** **cemenergy** Free Registration

Conventional fuels for cement production & Electrical energy production and efficiency

24 November  
Online

[cementenergy.com](http://cementenergy.com)



Virtual **global** **ash** Free Registration

Ash beneficiation and use in the cement and concrete industries

8 December 2020  
Online

[globalash.com](http://globalash.com)



For more information, please contact:  
Mr. Ali Assad, Business Development  
Executive  
Email: [aga@gmiforum.com](mailto:aga@gmiforum.com)  
Tel.: +40-754-023-330

**27<sup>th</sup> Concrete Days 2020**

Date : 26 - 27 November 2020  
Venue: KC ALDIS, Hradec Králové, Czech  
Republic  
For more information, please contact:  
Mgr. Jiří Vích  
Email: [johova@cbsbeton.eu](mailto:johova@cbsbeton.eu)  
<http://www.cbsbeton.eu>

**Virtual Global Ash**

**Ash beneficiation and use in the cement  
and concrete industries**

Date : 08<sup>th</sup> December 2020  
Venue: Your device  
Free Registration  
For more information, please contact:

Dr. Robert McCaffrey, Global Boards  
Conference convenor  
Tel: +44 (0) 1372 743837  
Fax: +44 (0) 1372 743838  
Email: [info@propubs.com](mailto:info@propubs.com)  
[www.globalash.com](http://www.globalash.com)

**CW Summit Europe, Middle East and  
North Africa (EMENA) 2020**

Cement Strategy, Finance & Trade  
Date : 03 - 04 December 2020  
Venue: Madrid, Spain  
For more information, please visit:  
<https://www.gmiforum.com/>

**Lignofuels 2021**

Date : 10 - 11 February 2021  
Venue: Helsinki, Finland  
For more information, please contact:  
Mr. Dimitri Pavlyk  
Tel: +44 2031410610  
Email: [dpavlyk@acievents.eu](mailto:dpavlyk@acievents.eu)

**Alternative Fuels & Raw Materials  
(AFARM) Americas 2021**

Date : 18 - 19 February 2021  
Venue: Cancun, Mexico  
For more information and group rates,  
please contact:

Mr. Ali Assad, Business Development  
Executive  
Email: [aga@gmiforum.com](mailto:aga@gmiforum.com)  
Mobile: +40-754-023-330  
[www.gmiforum.com](http://www.gmiforum.com)

**8<sup>th</sup> international Drymix Mortar  
Conference idmmc8**

Date : 22 March 2021  
Venue: Nürnberg, Germany  
Email: [info@drymix.info](mailto:info@drymix.info)  
For more information, please visit:  
[www.drymix.info](http://www.drymix.info)

**Argus Solid Fuels Asia Conference**

Date : 31<sup>st</sup> March 2021  
Venue: Mumbai, India  
Tel: +65 6496 9899  
Email: [asiaconferences@argusmedia.com](mailto:asiaconferences@argusmedia.com)  
For more information, please visit:  
[www.argusmedia.com](http://www.argusmedia.com)

**7<sup>th</sup> Alternative Fuels Symposium**

Date : Autumn 2021  
Venue: Germany  
Tel: +49 0 203 34 65 16 0  
Fax: +49 0 203 34 65 16 50  
Email: [workshop@lechtenberg-partner.de](mailto:workshop@lechtenberg-partner.de)  
[www.lechtenberg-partner.de](http://www.lechtenberg-partner.de)

**CERAMIC**

**Vietnam Ceramics**

Date : 26 - 27 August 2020  
Venue: International Center for Exhibitions,  
Hanoi, Vietnam  
For more information, please visit:  
<http://vietnamceramicsexpo.com>

**Ceramics Expo**

Date : 22 - 23 September 2020  
Venue: Cleveland, Ohio, USA  
For more information, please contact:  
Danny Scott, Event Director  
[danny.scott@smartershows.com](mailto:danny.scott@smartershows.com)  
+44 1273 916 295

Raymond Pietersen, Exhibition Manager  
[raymond.pietersen@smartershows.com](mailto:raymond.pietersen@smartershows.com)  
+44 1273 916 290

NEW DATE



# CEMENTTECH 2020

21<sup>st</sup> China International Cement Industry Exhibition

SEPTEMBER 16-18, 2020

ANHUI, CHINA



## Partial List of Previous Exhibition delegations:



### Organizer

- China Building Materials Federation
- China Cement Association
- CCPIT Building Materials Sub Council

### Contact details:

Joanna Long  
 Tel: 8610-88083329  
 Fax: 8610-88084171  
 Joannalong@ccpitbm.org



Callum Gibson, Conference  
Producer  
[callum.gibson@smartershows.com](mailto:callum.gibson@smartershows.com)  
+44 1273 916 302

**Coverings 2021 - The global tile & stone experience**

Date : 13 - 16 April 2021  
Venue: Orlando, Florida, USA  
For more information, please visit:  
<https://www.coverings.com>

**CERSAIE 2021**

**The healthiness of ceramics for rethinking home design and architecture**  
Date : 27 September - 01 October 2021  
Venue: Bologna Exhibition Centre, Italy  
For more information, please visit:  
<https://www.cersaie.it/en/>

**Tecnargilla 2021**

Date : Autumn 2021  
Venue: Fiera di Rimini, Rimini, Italy  
Tel: +39 0541 744111  
Fax: +39 0541 744200  
Email: [segreteria@tecnargilla.it](mailto:segreteria@tecnargilla.it)

**GENERAL**

**De-Risking Construction Projects in Turbulent Times (Managing Risks during COVID-19 Pandemic)**

Date : 13 August 2020  
Venue: Live Webinar  
Mobile: +91 9930459497  
Email: [sgm@eventerservice.com](mailto:sgm@eventerservice.com)  
Website: [www.eventerservice.com](http://www.eventerservice.com)

**Chief Data Scientist**

Date : 24 - 25 August 2020  
Venue: Bangkok, Thailand  
Tel: +603 2775 0067  
Email:  
[marcus@strategicinformationresourceskl.com](mailto:marcus@strategicinformationresourceskl.com)

**3<sup>rd</sup> Annual Digital Marketing and Customer Experience**

Date : 24 - 25 August 2020  
Venue: Bangkok, Thailand  
Tel: +603 2775 0067  
Email:  
[sama@internationalbusinesscongress.com](mailto:sama@internationalbusinesscongress.com)

**3<sup>rd</sup> Annual HR Digitisation**

Date : 24 - 25 August 2020  
Venue: The Berkeley Hotel Pratunam, Bangkok, Thailand  
For more information, please contact:  
Mr. John Karras  
Tel: +603 2775 0067  
Email: [johnk@trueventus.com](mailto:johnk@trueventus.com)

**IFAT World's Leading Trade Fair for Water, Sewage, Waste and Raw Materials Management**

Date : 07 - 11 September 2020  
Venue: Messe München, Germany  
Tel: +49 89 949 20285 / +49 89 949 11358  
Email: [exhibiting@ifat.de](mailto:exhibiting@ifat.de) / [info@ifat.de](mailto:info@ifat.de)

**2<sup>nd</sup> European PVC Industry Summit**

Date : 09 - 10 September 2020  
Venue: London, UK  
For more information, please contact:  
Neha Desadla  
Tel.: +91 (20) 48523148  
Email: [ndesadla@acieu.net](mailto:ndesadla@acieu.net)

**AC's 5<sup>th</sup> Biomass Trade Summit Europe 2020**

Date : 09 - 10 September 2020  
Venue: Amsterdam, The Netherlands  
Tel: +48 616 467 022  
Email: [rbaryah@acieu.net](mailto:rbaryah@acieu.net)

**STONE-JO Show 2020**

**8<sup>th</sup> Jordanian International Exhibition for Stones Marbles, Granite Technology & Trade**

Date : 14 - 17 September 2020  
Venue: Halls of Zara Expo, Amman, Jordan  
For more information, please visit:  
<http://jordanfairs.com>

**Biogas PowerON 2020**

Date : 22 - 23 September 2020  
Venue: Copenhagen, Denmark  
For more information, please visit:  
<https://fortesmedia.com/biogas-poweron-2020>

**5<sup>th</sup> Future of Surfactants Summit North America**

Date : 23 - 24 September 2020  
 Venue: Boston, MA-US  
 For more information, please contact:  
 Adamantia (Mado) Lampropoulou  
 Tel: +44 (0) 203141 0607  
 Email: [MLampropoulou@acieu.net](mailto:MLampropoulou@acieu.net)

**Gasification 2020 - 9<sup>th</sup> Annual Gasification Summit**

Date : 23 - 24 September 2020  
 Venue: Lyon, France  
 Tel: +44 0203 141 0606  
 Email: [mahsan@acieu.net](mailto:mahsan@acieu.net)

**Powtech 2020**

Date : 29 September - 01 October 2020  
 Venue: Nurnberg, Germany  
 For more information, please visit:  
[www.powtech.de](http://www.powtech.de)

**8<sup>th</sup> European Bulk Liquid Storage Summit**

Date : 30 September - 01 October 2020  
 Venue: Cartagena, Spain  
 For more information, please contact:

Cheryl Williams  
 Tel: +440 203 141 0623  
 Email: [cwilliams@acieu.net](mailto:cwilliams@acieu.net)

**US Biostimulants Summit 2020**

Date : 01 - 02 October 2020  
 Venue: Raleigh, North Carolina, USA  
 For more information, please contact:  
 Email: [rafael@acievents.us](mailto:rafael@acievents.us)

**Virtual BUILDDEXPO Asia 2020**

Date : 01 - 03 October 2020  
 Venue: online  
 For more information, please contact:  
 Email: [carol@tradeafrica.co](mailto:carol@tradeafrica.co)

**Gulf Construction**

Date : 05 - 07 October 2020  
 Venue: Bahrain Intl. Exhibitions Centre, Manama, Bahrain  
 Tel: +966 13 867 2738  
 Mobile: + 966(0)505851383  
 Email: [s.alkhaldi@trade Arabia.net](mailto:s.alkhaldi@trade Arabia.net)  
[www.alhilalgroup.com](http://www.alhilalgroup.com)

**International Powder & Bulk Solids**

Date : 06 - 08 October 2020  
 Venue: Chicago, USA  
 For more information, please visit:  
<https://powderandbulkshow.com/>

**Decarbonisation in Shipping: Europe 2020**

Date : 07 - 08 October 2020  
 Venue: Hamburg, Germany  
 For more information, please contact:  
 ACI (Europe) - Active Communications International Ltd  
 Tel: +44 203 1410627  
 Email: [skanwar@acievents.eu](mailto:skanwar@acievents.eu)

**7<sup>th</sup> World Elastomer Summit 2020**

Date : 19 - 20 October 2020  
 Venue: Lyon, France  
 For more information, please contact:  
 Mr. Rafael Krupa  
 Tel: +48616467040  
 Email: [rafael@acieu.net](mailto:rafael@acieu.net)

**10<sup>th</sup> Annual European Algae Industry Summit**

Date : 20 - 21 October 2020  
 Venue: Reykjavík, Iceland  
 For more information, please contact:  
 Adamantia (Mado) Lampropoulou  
 ACI (Europe)  
 Tel.: +44 0203 141 0607  
 Fax: +44 (0)207 593 0071  
 Email: [MLampropoulou@acieu.net](mailto:MLampropoulou@acieu.net)

**17<sup>th</sup> Carbon Dioxide Utilisation Summit**

Date : 21 - 22 October 2020  
 Venue: Brussels, Belgium  
 For more information, please contact:  
 Mr. Rohan Baryah  
 Tel: +48616467022  
 Email: [rbaryah@acieu.net](mailto:rbaryah@acieu.net)

**23<sup>rd</sup> Arab-German Business Forum**

Date : 27 - 29 October 2020  
 Venue: Hotel Ritz-Carlton, Berlin, Germany  
 Tel.: +49 30 27 89 07 0  
 Fax: +49 30 27 89 07 49  
 For more information, please visit: [www.ghorfa.de](http://www.ghorfa.de)

**Premier European Carbon Black Summit**

Date : 28 - 29 October 2020

## DIARY DATES

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Venue: Frankfurt, Germany  
For more information, please contact:  
Mr. Rohan Baryah  
Tel: +48616467022  
Email: [rbaryah@acieu.net](mailto:rbaryah@acieu.net)

**1<sup>st</sup> Construction Technology Forum**  
Date : 03 - 04 November 2020  
Venue: Intercontinental Riyadh, KSA  
For more information, please visit: [www.ctf-ksa.com](http://www.ctf-ksa.com)

**Digital Refining & Petrochemicals Summit 2020**  
Date : 04 - 05 November 2020  
Venue: London, UK  
For more information, please contact:  
Mr. Rafael Krupa  
Tel: 0048616467040  
Email: [rafael@acieu.net](mailto:rafael@acieu.net)

**2<sup>nd</sup> session of Digital Refining & Petrochemicals Summit 2020**  
**Focusing on Asset Performance Management against a Backdrop of Digital Transformation**  
Date : 04 - 05 November 2020  
Venue: London, UK  
For more information, please contact:  
Mr. Rafael Krupa  
Tel: 0048616467040  
Email: [rafael@acieu.net](mailto:rafael@acieu.net)

**European Biomass to Power 2020**  
Date : 04 - 05 November 2020  
Venue: Manchester, UK  
For more information, please contact:  
Mr. Mateo Wiegold  
Tel: +440 203 141 0649  
Email: [mwiegold@acieu.net](mailto:mwiegold@acieu.net)

**3<sup>rd</sup> Annual Digital Transformation**  
Date : 18 - 19 November 2020  
Venue: Hotel Equarius, Penang, Malaysia  
For more information, please contact:  
Tel.: +603 - 2775 0067  
Email:  
[tedl@internationalresourceevents.com](mailto:tedl@internationalresourceevents.com)

**3<sup>rd</sup> Annual Industry 4.0**  
Date : 18 - 19 November 2020

Venue: Hotel Equarius, Penang, Malaysia  
For more information, please contact:  
Tel.: +603 - 2775 0067  
Email:  
[tedl@internationalresourceevents.com](mailto:tedl@internationalresourceevents.com)

**4<sup>th</sup> Biostimulants Europe Conference**  
Date : 18 - 19 November 2020  
Venue: Granada, Spain  
Tel: +48 616 467 022  
Email: [rbaryah@acieu.net](mailto:rbaryah@acieu.net)

**KITS 2020 - KENYA INTERNATIONAL TRADE EXHIBITION**  
Date : 18 - 20 November 2020  
Venue: Sarit Expo Center, Nairobi, Kenya  
Tel: +971 50 535 2675  
Email: [event@intlexpos.com](mailto:event@intlexpos.com)  
For more information, please visit:  
[www.kenyatradeshows.com](http://www.kenyatradeshows.com)

**Recy & DepoTech 2020**  
Date : 18 - 20 November 2020  
Venue: Leoben, Austria  
For more information, please visit:  
[www.recydepotech.at](http://www.recydepotech.at)

**Innovation and Valorisation in Civil Engineering and Construction Materials INVACO'2020**  
Date : 19 - 21 November 2020  
Venue: Tunisia  
Tel: (+216) 74 431 425 / 493  
Fax: (+216) 74 431 386  
For more information, please visit:  
<http://www.ait.org.tn/evenements/detail/3-INVACO'2020>

**Batimatec Expo**  
Date : 22 - 26 November 2020  
Venue: Algiers, Algeria  
For more information, please visit:  
[www.batimatecexpo.com](http://www.batimatecexpo.com)

**10<sup>th</sup> International Drilling and Blasting Symposium & Exhibition**  
Date : 24 - 25 November 2020  
Venue: Antalya, Turkey  
Tel: (+216) 74 431 425 / 493  
Fax: (+216) 74 431 386  
For more information, please contact;  
E-mail: [bilgi@delmepatlatma.org.tr](mailto:bilgi@delmepatlatma.org.tr) / [madenmuhodasi@maden.org.tr](mailto:madenmuhodasi@maden.org.tr)



# PetroCem

ELEVENTH INTERNATIONAL CEMENT CONFERENCE

NEW  
DATES



**18-20**  
**OCTOBER** 2020  
St. Petersburg  
Astoria Hotel

PetroCem 2000 – over 170 participants from 21 countries • 2002 • 2004 • 2006 • 2008 • 2010 • 2012 • 2014 • 2016 • 2018 – about 530 participants from 36 countries

**Bringing together. Cement industry professionals, managers and leading technical specialists, leading technical experts of largest Russian and international holdings, manufacturers and suppliers of materials and services, designers, analysts, bankers, researchers and consultants.**

■ **Programme, exhibition, networking.** Topical subjects under discussion: ecology, waste utilization in cement production, energy saving, product quality, etc. State of the art developments and achievements. Establishing new contacts, negotiations, promotion of business interests.

■ **Speaking the same language.** Simultaneous (Russian-English and English-Russian) translation for delegates from Russia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Ukraine, Uzbekistan and about 30 more countries.

■ **Getting to know St. Petersburg.** Memorable sightseeing tours for delegates and their companions, grand and spectacular evening receptions.

■ **On record.** The previous PetroCem-2018 Conference was attended by more than 530 participants from 36 countries representing 320 companies and organisations including 85 cement manufacturers.

See you at PetroCem-2020!

Organiser:

journal  
**ЦЕМЕНТ**  
и его применение

+7 812 242 1124  
+7 812 764 5612  
info@jcement.ru  
www.jcement.ru

www.petrocem.ru

Web: [www.delmeplatlatma.org.tr](http://www.delmeplatlatma.org.tr)

### ACI's 2<sup>nd</sup> US Microalgae Industry Summit

Date : 27 - 28 November 2020

Venue: Orlando, Florida, USA

*For more information, please contact:*

Adamantia (Mado) Lampropoulou

ACI (Europe)

Tel.: +44 0203 141 0607

Fax: +44 (0)207 593 0071

Email: [MLampropoulou@acieu.net](mailto:MLampropoulou@acieu.net)

### ACI's 7<sup>th</sup> Global Geothermal Energy Summit

Date : 27 - 28 November 2020

Venue: Florence, Italy

*For more information, please contact:*

Mr. Rohan Baryah

Tel: +48616467022

Email: [rbaryah@acieu.net](mailto:rbaryah@acieu.net)

### 5<sup>th</sup> Digital Utilities Europe

Date : 02 - 03 December 2020

Venue: Amsterdam, The Netherlands

*For more information, please contact:*

Mr. Dimitri Pavlyk

Tel.: +44 203 141 0610

Email: [dpavlyk@acieu.co.uk](mailto:dpavlyk@acieu.co.uk)

<http://acieu.co.uk>

### 9<sup>th</sup> Edition of the Future of Polyolefins Summit

Date : 20 - 21 January 2021

Venue: Düsseldorf, Germany

*For more information please Contact:*

Mr. Mohammad Ahsan:

Tel: +4402031410606

Email: [mahsan@acieu.co.uk](mailto:mahsan@acieu.co.uk)

[http:// https://www.wplgroup.com/aci/cfpe8-agenda\\_mkt/](http://https://www.wplgroup.com/aci/cfpe8-agenda_mkt/)

### Project Cost Engineering Summit

Date : 27 - 28 January 2021

Venue: Kuala Lumpur, Malaysia

*For more information please Contact:*

Mr. John Karras

Tel: +603 2775 0067

Email: [johnk@trueventus.com](mailto:johnk@trueventus.com)

### interpack Düsseldorf

Date : 25 February - 3 March 2021

Venue: Düsseldorf, Germany

*For more information, please visit:*

[www.interpack.com](http://www.interpack.com)

### 4<sup>th</sup> Weimar Gypsum Conference

Date : 09 - 10 March 2021

Venue: Weimar, Germany

*For more information, please visit:* [www.uni-weimar.de](http://www.uni-weimar.de)

### SOLIDS Dortmund 2020

Date : 17 - 18 March 2021

Venue: Dortmund, Germany

*For more information, please visit:*

[www.easyfairs.com](http://www.easyfairs.com)

### Digital Shutdown & Turnaround Conference

Date : 24 - 25 March 2021

Venue: Kuala Lumpur, Malaysia

*For more information, please contact:*

Mr. John Karras

Tel: +603 2775 0067

Email: [johnk@trueventus.com](mailto:johnk@trueventus.com)

### MosBuild 2021

Date : 30 March - 2 April 2021

Venue: Crocus Expo, Moscow, Russia

*For more information, please visit:*

[www.mosbuild.com](http://www.mosbuild.com)

### Hannover Fair

Date : 12 - 16 April 2021

Venue: Hannover, Germany

*For more information, please visit:*

<https://www.hannovermesse.de/en/>

### Hillhead 2021

Date : 22 - 24 June 2021

Venue: Hillhead Quarry, Buxton, Derbyshire, UK

*For more information, please visit:*

[www.hillhead.com](http://www.hillhead.com)

### Data Analytics in Construction Summit

Date : 07- 08 July 2021

Venue: Equarius Hotel, Resort World, Sentosa, Singapore

*For more information, please contact:*

John Karras

Tel: +603 2775 0067

Email: [johnk@trueventus.com](mailto:johnk@trueventus.com)



XXII INTERNATIONAL CONSTRUCTION FORUM

# CEMENT • CONCRETE DRY MIXTURES

NOVEMBER 10-12, 2020. EXPOCENTRE, MOSCOW.



XXII INTERNATIONAL CONSTRUCTION EXHIBITION  
«Cement. Concrete. Dry mixtures»

More than **6000**  
exhibition visitors

**BlockRead 2020** International Conference  
«Precast Housing: Production, Design,  
Construction»

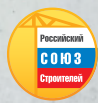
**450** members  
of the business  
program

**MixBuild** International Scientific and Technical  
Conference «Modern Technologies of Dry  
Mixtures in Construction»

**150** exhibits

**80** reports

**18** countries



organizers

venue



info@alitinform.ru // www.infocem.info // +7 812 335 09 92







# عالم الإسمنت ومواد البناء

تصدر عن : الاتحاد العربي للإسمنت ومواد البناء العدد 80 يونيو / حزيران 2020

- أخبار عربية
- أخبار عالمية
- مقالات تقنية
- منتجات جديدة
- مؤتمرات ومعارض



# عالم الإسمنت ومواد البناء

مؤتمرات ومعارض

منتجات جديدة

موضوعات تقنية

أخبار عالمية

الملف العربي

رئيس التحرير الأمين العام / المهندس أحمد محمود الروسان  
مدير التحرير سها منير كنعان

## المساهمات

- ترحب هيئة تحرير المجلة بمساهمة السادة المهتمين والمتخصصين بهدف إثراء المادة التحريرية .
- لا تلتزم المجلة برد الموضوعات إلى أصحابها .
- الآراء الموجودة بالمجلة لا تعبر بالضرورة عن رأي الاتحاد أو المجلة وإنما عن الرأي الخاص بكتابها ولا يتحمل الاتحاد أية مسؤولية قانونية تجاه ذلك .

توجه كافة طلبات الإعلان باسم رئيس التحرير

الإعلان

## الاشتراكات السنوية

150 دولار أمريكي

65 دولار أمريكي

الشركات والمؤسسات

الجامعات ومراكز البحوث

Email: [aucbm@scs-net.org](mailto:aucbm@scs-net.org) / [aucbm1977@gmail.com](mailto:aucbm1977@gmail.com)

Website : [www.aucbm.net](http://www.aucbm.net)



# المكتويات

أخبار عربية  
أخبار عالمية  
منتجات جديدة

الموضوعات:

- السياسات والاعتبارات العامة لتخطيط وتفعيل العودة للعمل في ظل وباء كورونا  
إعداد: الاتحاد العربي للأسمنت ومواد البناء
- استراتيجية الخروج الآمن من وباء كورونا  
إعداد: Mark Mutter / JAMCEM Consulting - المملكة المتحدة
- السيور الناقله بدلاً من الشاحنات - بديل فعال؟  
إعداد: BEUMER Group – ألمانيا
- المناولة السانبة: تحسين الكفاءة والإنتاج والسلامة  
إعداد: Standard Industrie International – فرنسا
- الكروم سداسي التكافؤ في الاسمنت وتأثيره على صحة العمل  
إعداد: م. فايزة أبو زيد / شركة أكواتراست لمعالجة المياه – جمهورية مصر العربية

مؤتمرات ومعارض

## المراسلات

توجه كافة المراسلات باسم رئيس التحرير / الاتحاد العربي للأسمنت ومواد البناء  
الجمهورية العربية السورية - دمشق - ص . ب 9015  
هاتف : 611 85 98 - 611 54 12 (11 963 +)  
فاكس : 612 17 31 (11 963 +)

Email: [aucbm@scs-net.org](mailto:aucbm@scs-net.org) / [aucbm1977@gmail.com](mailto:aucbm1977@gmail.com)

Website : [www.aucbm.net](http://www.aucbm.net)



## مجلة عالم الإسمنت ومواد البناء

### جدول موضوعات المجلة لعام 2020

المناسبات	الموضوعات	العدد
المؤتمر والمعرض العربي الدولي الخامس والعشرون لصناعة الإسمنت: الرياض / المملكة العربية السعودية 1-3 ديسمبر / كانون الأول 2020	* الإسمنت ذو النسبة المنخفضة من الكربون * الخرسانة * التحليل بتألق الأشعة السينية (XRF) وبحيود الأشعة السينية (XRD) * كيمياء الإسمنت * مضافات الإسمنت * انسداد الصوامع وتنظيفها * النقاط التي تؤخذ بعين الاعتبار عند تصميم الصوامع * منظومات التحريك * تكنولوجيا الوزن * تقنيات وأنظمة الاعتيان (أخذ العينات) * مقابلة صحفية	* سبتمبر/أيلول 2020
	* أنظمة التشغيل * الصيانة في مصانع الإسمنت * تقنيات الإصلاح واللحام * إدارة قطع الغيار * الطواحين العمودية * الكسارات * المبردات * تكنولوجيا الحراقات * الحراقات وفحص الحراقات * مقابلة صحفية	ديسمبر/كانون الأول 2020

● سيتم توزيع عدد سبتمبر / أيلول إلى المشاركين في المؤتمر

آخر موعد لاستلام المقالات أو النصوص الصحفية أو الإعلانات لأعداد عام 2020 هو على النحو التالي :

1. عدد سبتمبر / أيلول (عدد خاص) : 31 أغسطس / آب 2020
2. عدد ديسمبر / كانون الأول : 4 ديسمبر / كانون أول 2020

## الإعلانات

(بالدولار الأمريكي)

الإعلان في عدد واحد	الإعلان في عدددين	الإعلان في ثلاثة أعداد	الإعلان في أربعة أعداد	
1,250	*	*	*	غلاف خارجي ملون (يمين أو يسار) A4
950	*	*	*	غلاف داخلي ملون (يمين أو يسار) A4
750	950	1,250	1,350	صفحة داخلية ملونة A4
450	550	650	750	نصف صفحة داخلية ملونة A4
300	350	400	450	ربع صفحة داخلية ملونة A4
300	350	400	450	صفحة أسود وأبيض

أبعاد الإعلان : A4 مع مسافة على الأطراف الأربعة  
أبعاد الإعلان على الغلاف الخارجي : ارتفاع 20 سم وعرض 14 سم  
الدقة : 300dpi  
نوع الملف : PDF أو EPS أو PSD

### [WWW.AUCBM.NET](http://WWW.AUCBM.NET) إعلان على موقع الاتحاد

- عرض 200 بيكسل وارتفاع 75 بيكسل ، بقيمة 150 دولاراً أمريكياً في الشهر الواحد
- يرجى إرسال الصور مع اللينك المطلوب ربطه بها بدقة 300 dpi (dot per inch)



## أخبار صناعة الاسمنت العربية



### الجزائر

وتحصل فرع جيكا بعين التوتة على هذا الاعتراف الدولي الأهم من نوعه من طرف الجمعية الفرنسية للتقييس "أفنور" ، التي تعتبر من الهيئات المرجعية الفاعلة على المستوى الدولي ، في إنتاج ووضع مختلف المواصفات والمعايير والمقاييس.

من جهة أخرى ، تمكنت ذات المؤسسة من تجديد شهادتين أخريين تخصان كلا من معيار إيزو 9001 المرتبط بنظام إدارة الجودة وكذا معيار إيزو 14001 لنظام الإدارة البيئية . وتجدر الإشارة إلى أن كل هذه الشهادات تشمل جميع أنشطة المؤسسة المرتبطة بإنتاج وتعبئة وتسويق الإسمنت والحصى .

المصدر: [www.almasdar-dz.com](http://www.almasdar-dz.com)

### العربية السعودية

#### شركة إسمنت ينبع تطلب تحديث معدات من FLSmidth

بعد الانتهاء من العديد من المشاريع الناجحة في السنوات الأخيرة ، بما في ذلك تطوير نظام الأتمتة وتعديل نظام الحراق في 2018 واتفاقية خدمة في 2019 ، وقعت شركة إسمنت ينبع اتفاقية في بداية عام 2020 لتطوير الكفاءة مع التركيز على تخفيض استهلاك الحرارة والطاقة الكهربائية . ويتضمن المشروع سيكلونات علوية ، وتعديلات على المبرّد وإزالة المرشحات الكهروستاتيكية القديمة .

المصدر: **CW Group**

#### نجاح التشغيل التجريبي للفرن الجديد في مصنع الإسمنت ومشتقاته بالشلف

ذكرت FCB Fives أنها قامت بإنتاج دفعة من الكلنكر من خلال خط الفرن الجديد بطاقة 6,000 طن في اليوم لدى مصنع الإسمنت التابع لمؤسسة الإسمنت ومشتقاته بالشلف والبالغة طاقته الإنتاجية مليون طن سنوياً . وستبلغ طاقة خط الإنتاج عند تشغيله 3.2 مليون طن سنوياً .

المصدر: **Global Cement**

#### شركة الإسمنت بعين التوتة تتحصل على شهادتين دوليتين للمطابقة وفق معايير "إيزو"

حصلت شركة الإسمنت لعين التوتة بولاية باتنة ، التابعة للمجمع الصناعي لإسمنت الجزائر "جيكا" ، على شهادتين دوليتين جديدتين للمطابقة وفق معايير إيزو.

وحسب بيان لوزارة الصناعة ، تتعلق الشهادة الأولى بمعيار 45001 نسخة 2018 المتعلق بنظام إدارة الصحة والسلامة المهنية ، مما سيساعد المؤسسة على توفير بيئة عمل آمنة وصحية للمستخدمين ، كما سيقلل من حوادث الإصابات المتعلقة بالعمل وحوادث الوفاة .

أما المعيار الثاني ، إيزو 50001 نسخة 2018 الخاصة بنظام إدارة الطاقة والذي يوضح أفضل الممارسات المتبعة في مجال إدارة الطاقة عالمياً ، حيث تم تطويره من قبل خبراء إدارة الطاقة في أكثر من 60 دولة حول العالم لمساعدة الشركات على ترشيد استهلاك الطاقة وتقليل التكاليف بالإضافة إلى الالتزام بالمتطلبات البيئية.



وقررت اللجنة العليا النظر بإعادة تشغيل مصانع الإسمنت وتوفيره للاستهلاك المحلي ، واتخاذ الإجراءات التي تحول دون ارتفاع أسعاره .

## السودان

### الصناعة تتعهد بحل كافة العقبات التي تواجه صناعة الإسمنت

كشفت وزير الصناعة والتجارة مدني عباس مدني عن جهود تقوم بها وزارته مع الجهات ذات الصلة لجعل الإسمنت سلعة تنافس بها الدولة عبر السلع الصادرات السودانية وذلك بتأهيل وتحديث وتشغيل المصانع العاملة وتطوير الكفاءة الإنتاجية ، وتوجيه القطاع بما يقوي القدرات التنافسية لمنتجات صناعة الإسمنت بجانب العمل على معالجة مشاكل الرسوم المتعددة المفروضة على القطاع وتوفير الطاقة والمحاجر، مؤكداً دعم وزارته لكافة الجهود الرامية لتقليل تكلفة إنتاج الطن . وقال إن أسعار الإسمنت المحلي عالية جداً ، ووجه بضرورة العمل المشترك مع الجهات ذات الصلة وصولاً للتكلفة الحقيقية بما يمكن من جعلها سلعة متاحة بأسعار مناسبة، ودمغ على ضرورة العمل على تفعيل قانون حماية المستهلك والعمل به ، مشيراً لقيام مجلس إدارة الجهاز القومي لحماية المستهلك .

المصدر: [www.mubasher.info](http://www.mubasher.info)

## عُمان

### قطاع الإسمنت يرحب بتدابير مكافحة الإغراق

استجاب منتج الإسمنت بشكل إيجابي لتدابير مكافحة الإغراق التي نفذتها وزارة التجارة والصناعة والتي تتعلق بفحص الجودة ، والتي تعززت منذ دخولها حيز التنفيذ في 1 مارس / آذار 2020 في قطاع البناء مع تقييد عام لحركة البضائع بسبب فيروس كورونا .

وقالت شركة ريسوت للإسمنت: "ستمكن هذه الإجراءات شركة ريسوت للإسمنت وكذلك شركة إسمنت عُمان من العمل بكامل طاقتها . نأمل أن تواصل السلطات تطبيق هذا الإجراء بشكل صارم لصالح المنافسة العادلة في السوق" .

كما ذكرت شركة ريسوت للإسمنت أنها "تمضي قدماً بقوة" في مشروع مصنع الطحن بميناء الدقم والمقرر أن يبدأ تشغيله في مارس / آذار 2021 .

"إنه الوقت المناسب لأن يصبح بلد مثل عُمان مكتفياً ذاتياً من حيث توفر سلعة استراتيجية مثل الإسمنت". وكانت شركة ريسوت للإسمنت قد أعلنت في مايو / أيار 2020 عن خطط للطلب من الحكومة الحصول على دعم للغاز أو الكهرباء .

وقد تراجع الطلب على الإسمنت في عُمان بنسبة 20-25% عن مستويات ما قبل الإغلاق بسبب وباء كورونا .

المصدر: [Global Cement](http://Global Cement)

### مناقصة لإنشاء مصنع جديد في الدقم

أعلنت شركة إسمنت عُمان بأنها طرحت مناقصة لإنشاء مصنع

وتعهد بتذليل كافة العقبات والمشاكل التي تواجه صناعة الإسمنت في السودان باعتبارها واحدة من الصناعات المهمة التي يعول عليها في تنمية وتطوير القطاع الصناعي بما يمكن من زيادة مساهمة القطاع والاكتفاء الذاتي من السلعة .

يشار إلى أن الاجتماع حضره ممثلو مصنع النيل للإسمنت بريك ، إسمنت الشمال ، بربز ، عطيره ، السلام، التكامل .

يذكر أن الطاقة التصميمية لصناعة الإسمنت بالسودان تبلغ (7) مليون طن في العام .

المصدر: [www.alrakoba.net](http://www.alrakoba.net)

## العراق

### النظر بإعادة تشغيل مصانع الإسمنت

عقدت اللجنة العليا للصحة والسلامة الوطنية بالعراق اجتماعاً في بغداد عبر الدائرة التلفزيونية المغلقة برئاسة رئيس مجلس الوزراء لمناقشة آخر التطورات فيما يتعلق بوباء كورونا "كوفيد-19".



## أخبار صناعة الإسمنت العربية

وقد طلبت شركة إسمنت عُمان أيضاً تقديم عروض لتوريد وتركيب محطة طاقة حرارية مقيدة ، تضم توربينين اثنين بطاقة 15 ميغاوات لكل منها ، ومن المتوقع أن يستخدم هذا المصنع الغازات العادمة من معمل الإسمنت لتوليد الطاقة الكهربائية ، وسيؤدي ذلك إلى تقليل تكاليف الطاقة الكهربائية في المشروع الجديد بشكل كبير ، بالإضافة إلى التخفيف من انبعاثات الكربون .

المصدر: <https://meconstructionnews.com>

### "بايونير" ريسوت للإسمنت تسند عقد تعدين لـ SFL العالمية

أسندت شركة بايونير لصناعة الإسمنت جورجيا المحدودة - المملوكة لشركة ريسوت للإسمنت - عقداً لتعدين الحجر الجيري في جورجيا لشركة إس إف إل العالمية SFL International .

وقالت شركة ريسوت للإسمنت ش.م.ع إن الاتفاقية التي تم توقيعها تمتد لعشر سنوات ابتداءً من يناير / كانون الثاني 2020 ، تمنح شركة إس إف إل حق "تعدين الحجر الجيري ودفع رسوم الربح إلى مالك بايونير" ، حيث تمتلك شركة بايونير - ومقرها إمارة رأس الخيمة بدولة الإمارات العربية المتحدة - مناجم الحجر الجيري في جورجيا .

المصدر: [www.wafoman.com](http://www.wafoman.com)

### مصر

### رئيس الوزراء المصري يوجه بإيقاف تراخيص المباني والتعليلات بالقاهرة والإسكندرية

أصدر رئيس مجلس الوزراء مجموعة من التوجيهات لتنظيم القرارات الصادرة فيما يخص إيقاف التراخيص للمباني الجديدة أو التعليلات للمباني السكنية بالمحافظات لمدة 6 أشهر ، ووجه رئيس مجلس الوزراء وجه بأن تكون القرارات على (المباني السكنية التابعة للمواطنين فقط) دون المنشآت الصناعية والسياحية والحكومية والقومية .

وستطبق تلك القرارات على المناطق بمحافظة القاهرة الكبرى (القاهرة والجيزة والقليوبية) بالإضافة لمحافظة الإسكندرية

إسمنت متكامل بولاية الدقم تحت اسم شركة الصحوة بطاقة إنتاجية تبلغ 5,000 طن كلنكر في اليوم .

وأوضحت الشركة بأنه سيتم طرح المناقصة وفق نظام EPC-Turn Key ، وحسب المخطط سيتم تنفيذ المشروع بحيث يتم البدء مباشرة في إنشاء وحدة الطحن والتي من المؤمل الانتهاء منها في شهر سبتمبر / أيلول 2021 والبدء في تسويق الإسمنت باستخدام الكلنكر المنتج من شركة إسمنت عمان .

وأضافت الشركة بأنه سيتم التزام العمل على وحدة إنتاج الكلنكر والتي من المؤمل الانتهاء منها في شهر مارس / آذار 2022 ، مشيرةً إلى أنه سيتم الإفصاح عن تفاصيل المشروع في وقت لاحق .

يُذكر أن شركة إسمنت عُمان تأسست عام 1978م، وفي عام 1983م بدأ المصنع بطاقة إنتاجية قدرها 600,000 ألف طن متري سنوياً من الكلنكر ، ونظراً إلى زيادة الطلب على الإسمنت ، في عام 1998 تم توسيع الطاقة الإنتاجية للمصنع لتصل إلى 1.2 مليون طن متري سنوياً من الكلنكر مما يمكن الشركة من إنتاج 1.26 مليون طن متري من الإسمنت .

المصدر: [www.atheer.om](http://www.atheer.om)

### شركة إسمنت الصحوة تدعو لتقديم عروض لمناقستين رئيسيتين

من المقرر أن تدعو شركة إسمنت الصحوة ، وهي شركة فرعية رئيسية تابعة لشركة إسمنت عُمان ، إلى تقديم عطاءات بحلول منتصف يوليو / تموز لمناقستين رئيسيتين مرتبطين ببناء مصنع إسمنت متكامل جديد بقيمة 212 مليون دولار في المنطقة الاقتصادية الخاصة بمنطقة الدقم في سلطنة عُمان .

ويتضمن المشروع وحدة لإنتاج الكلنكر بطاقة 5,000 طن في اليوم حيث سيتم العقد على أساس الهندسة والشراء والبناء (EPC).

ومن المتوقع أن يتم العمل في منشأة الكلنكر بالتوازي مع بناء وحدة طحن الإسمنت . ومن المقرر بدء التشغيل في مارس / آذار 2022 .





وتضمنت الموافقة ضرورة التزام الشركة باتخاذ كافة الإجراءات التي تكفل ضخ الطاقة إلى شركة النقل تحت أي ظرف من الظروف ، وكذلك التزامها الكامل بكافة القواعد التنظيمية التي تصدر عن الجهاز بما فيها ما يحدده الجهاز كمقابل لدمج الطاقات المتجددة في شبكة النقل وأية قواعد تنظيمية تصدر عن الجهاز، ويحدد ذلك في الترخيص ويجدد سنوياً وفقاً للإجراءات المعتمدة من الجهاز.

مع إيقاف إستكمال أعمال البناء للمباني الجاري تنفيذها لحين التأكد من توافر الإشتراطات البنائية ، وكذا الأحياء السكنية ذات الكثافة السكانية العالية فقط بباقي المحافظات وطبقاً لرؤية المحافظ في هذا الشأن .

المصدر: [www.mebusiness.ae](http://www.mebusiness.ae)

### كورونا يعمق أزمة صناعة الإسمنت في مصر

أعلنت الشركة العربية للإسمنت في شهر يناير / كانون الثاني من العام الماضي توقيع اتفاقية شراكة مع سولاريز لإقامة محطة لتوليد الطاقة الشمسية في المصنع الخاص بالأولى بمحافظة السويس .

تتعرض مصانع الإسمنت الخاصة في مصر لمزيد من الضغوط بسبب فيروس كورونا . ويقول المحللون ومسؤولون تنفيذيون في القطاع إن الجائحة عطلت انتعاشاً وليداً للمبيعات وسط صعوبات بالفعل في ظل منافسة مصنع ضخم يملكه الجيش ، مما يثير احتمال إغلاق مصانع .

وسوف تتولى سولاريز أعمال الإنشاءات وتشغيل المحطة لمدة 25 عاماً بنظام BOOT - البناء والتملك والتشغيل ونقل الملكية .

كان الطلب على الإسمنت في مصر يشهد تراجعاً حين دشّن الجيش مصنعاً تكلف مليار دولار في 2018 أضاف طاقة سنوية قدرها 13 مليون طن إلى الطاقة القائمة حينذاك وكانت تبلغ 79 مليون طن .

المصدر: [www.alborsaanews.com](http://www.alborsaanews.com)

### سيكا مصر تنجح في إتمام صفقة الاستحواذ على شركة بيتومود "الحدیثة لمواد العزل"

بإتمام هذه الصفقة أصبحت سيكا مصر وبيتومود اللاعب الأكبر في سوق مواد العزل بالسوق المصري والأفريقي ومنطقة الشرق الأوسط وذلك من خلال توافر الخبرات والتكنولوجيا و تنوع المنتجات . كما تم ضم العاملين والعملاء لشركة بيتومود إلى شركة سيكا .

وتفاهم بسبب المصنع ، الذي شُيد في بني سويف على بعد 200 كيلومتر جنوبي القاهرة ، الوضع الصعب في السوق لشركات أجنبية أنفقت مئات الملايين من الدولارات لشراء مصانع الإسمنت خلال موجة خصخصة في أواخر التسعينيات من القرن الماضي وبداية القرن الحالي .

وقد أدت الجائحة لتدهور الجدوى الاقتصادية للمصانع وقد تقود لإغلاق أربعة أو خمسة من حوالي 24 مصنعاً في مصر خلال الأشهر المقبلة .

المصدر: [www.thenewkhalij.news](http://www.thenewkhalij.news)

### الكهرباء توافق على طلب "سولاريز" لإمداد "العربية للإسمنت" بالطاقة الشمسية

وافق جهاز تنظيم مرفق الكهرباء وحماية المستهلك على طلب شركة سولاريز كوك للطاقة المتجددة بضم نطاق مشروع محطة إنتاج كهرباء من الطاقة الشمسية بقدرة 7.2 ميغاوات لمدة 25 عاماً لتوريد الطاقة المنتجة من محطة شمسية بنظام الاستهلاك الذاتي لمصنع العربية للإسمنت دون غيرها .




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## دليل إرشادي للعمل في شركات ومصانع الإسمنت

### السياسات والاعتبارات العامة لتخطيط وتفعيل العودة للعمل

#### أولاً: المرتكزات العامة:

- العودة تبدأ بأضييق الحدود ومن ثم تتوسع بشكل تدريجي .
- التركيز على إعادة العمل بالمهام والأنشطة اللازمة لتقديم الخدمات المرتبطة بالنشاطات الاقتصادية .
- حماية الموظف وملتقى الخدمة وأصحاب العلاقة تفوق كل الاعتبارات .
- إجراءات إدارية استثنائية تتوافق مع الطرف الاستثنائي .

#### ثانياً: الاعتبارات العامة التي يجب أن تراعى عند تفعيل الدوام في موقع العمل:

1. يكون الالتحاق بالدوام مرحلياً للموظفين بالدوام الفعلي على أرض الواقع وبالاعتماد على الوضع الصحي والوبائي في البلد ، ويمكن أن يكون على خمسة مراحل :

**المرحلة التحضيرية :** الإدارة العليا والوظائف الأساسية والدرجة فقط بالإضافة إلى فريق العمليات ومشرف السلامة العامة. وتكون مدة الدوام يوماً أو يومين للتأكد من كافة تجهيزات بيئة العمل وفق بند (تهيئة بيئة العمل) . شريطة أن يكونوا جميعهم ممن اجتازوا مرحلة اختيار الموظفين .

**المرحلة الأولى :** الموظفون الذين تم تحديدهم في مرحلة اختيار الموظفين والذين يقومون بالمهام / الخدمات التي تعتبر أولوية أولى وما يساندهم من الوظائف المساندة .

**المرحلة الثانية :** مجموعة الموظفين الذين تم تحديدهم في مرحلة اختيار الموظفين والذين يقومون بالمهام / الخدمات التي تعتبر أولوية ثانية وما يساندهم من الوظائف المساندة .

**المرحلة الثالثة :** مجموعة الموظفين الذين تم تحديدهم في مرحلة اختيار الموظفين والذين يقومون بالمهام / الخدمات تعتبر أولوية ثالثة وما يساندهم من الوظائف المساندة .

**المرحلة الرابعة :** جميع موظفي الشركة ويكون ذلك بعد الإعلان الرسمي عن انحسار الوباء وانتهاء خطره.



2. التقيد التام بالإرشادات الصادرة عن وزارة الصحة والجهات المختصة بما فيها عدم المصافحة والتقيد بتعليمات التباعد الاجتماعي وارتداء الكمامات والقفازات .
3. مراقبة أعمال التعقيم اليومية قبل بدء الدوام اليومي بساعة ونصف .
4. الحد من عقد الاجتماعات واللقاءات التي تتطلب التقارب والاستعاضة عنها بوسائل التواصل الإلكترونية والرقمية. وفي حال استدعى الأمر عقد اجتماع فيتم تقنين أعداد المشاركين في الاجتماع وتباعد المقاعد فيما بينهم .
5. الاحتفاظ بسجل الحاضرين إلى موقع العمل بشكل يومي .
6. الحد من تداول الأوراق بشكل يدوي والاستعاضة عنها بالوسائل الإلكترونية.
7. التأكد من تفعيل أنظمة المراقبة (مثل الكاميرات) والتأكد من عملها بالشكل الصحيح والاحتفاظ بالتسجيلات للرجوع إليها عند الحاجة.
8. عدم تفعيل الكافتيريات والبوفيهات الموجودة في الشركة .
9. عدم التشارك بالأطعمة والمشروبات والأدوات ، ويفضل أن يقوم كل موظف بإحضار حاجياته من المنزل.
10. عدم استخدام وسائل النقل المشتركة وعدم الحضور بمركبات مشتركة بين أكثر من موظف ما أمكن .
11. تحديد مركبة لكل سائق وفي حال نقل استخدامها لسائق آخر يراعى تعقيمها بشكل كامل .
12. عدم الجلوس أو استخدام مكاتب الغير .
13. عدم الاحتكاك بالمراجعين إلا إذا دعت الحاجة ووفق الضوابط والإرشادات الصادرة عن وزارة الصحة .
14. تحديد موقع محدد لاستقبال المراجعين ومنع دخولهم إلى المرافق أو المكاتب الداخلية للمبنى .
15. تحديد ساعات محددة لاستقبال المراجعين .

16. تقديم رسائل توعوية للموظفين والمراجعين لإعلامهم بالتدابير الوقائية والسلامة العامة المتخذة من قبل الشركة وحثهم على ضرورة الالتزام بها .

17. ضبط مداخل المبنى ووضع بروتوكولات الدخول (فحص الحرارة إن أمكن ، لبس الكمامات والقفازات) .

### إرشادات عامة لإعداد وتنفيذ خطة العودة للعمل

هناك أربع خطوات لبناء خطة العودة للعمل ومتابعة تنفيذها موضحة كما يلي :

<ol style="list-style-type: none"> <li>1. حصر وتقييم المهام والخدمات وتحديد أولويات التنفيع</li> <li>2. تطوير خطة تفيع الخدمات والعمليات</li> <li>3. تحديد آلية العمل لكل وظيفة (عن بعد أو دوام في موقع العمل)</li> <li>4. اختيار الموظفين المرشحين للدوام في موقع العمل</li> </ol>	<p><b>الخطوة الأولى:</b> تطوير خطة العمل للعمل</p>
<ul style="list-style-type: none"> <li>• تحديد الخدمات والعمليات وفقاً لأولويات البدء بتفيعها في المراحل الزمنية المختلفة .</li> <li>• رسم خارطة طريق لتفيع الخدمات وفق إطار زمني يتضمن مراحل مختلفة للتفيع ومتطلباته</li> </ul>	<p>الهدف</p>
<p><u>فريق إدارة خطة العودة للعمل في الشركة بالتشارك مع:</u></p> <ul style="list-style-type: none"> <li>- مسؤولي الوحدات التنظيمية المعنية بالخدمات الأساسية ذات الأولوية</li> <li>- مسؤول وحدة تطوير الأداء المؤسسي</li> <li>- مسؤول وحدة إدارة الموارد البشرية</li> </ul>	<p>المسؤوليات</p>

<ol style="list-style-type: none"> <li>1. متلقو الخدمة وأصحاب العلاقة</li> <li>2. الموارد البشرية العاملة</li> <li>3. المباني والأثاث والمرافق</li> </ol>	<p><b>الخطوة الثانية:</b> تجهيز وتهيئة موقع العمل قبل بدء الدوام فيه (التدابير الوقائية)</p>
<p>تهيئة الموقع بكافة وسائل ومعايير السلامة والوقاية قبل البدء بالرجوع التدريجي للعمل</p>	<p>الهدف</p>
<ul style="list-style-type: none"> <li>- فريق العمليات المعني بتنفيذ الخطة</li> <li>- مشرف السلامة العامة</li> </ul>	<p>المسؤوليات</p>

<p>1. الاتصال والتواصل مع متلقي الخدمات والفئات المستهدفة 2. الاتصال والتواصل مع الموظفين</p>	<p><b>الخطوة الثالثة:</b> إعداد وتنفيذ خطة الاتصال والتواصل</p>
<p>إعلام متلقي الخدمة والموظفين بتفاصيل العودة للعمل .</p>	<p>الهدف</p>
<p>- مسؤول وحدة الاتصال والتواصل بالتنسيق مع: - مديري الوحدات التنظيمية - مسؤول وحدة الموارد البشرية</p>	<p>المسؤوليات</p>

<p>1. اعتماد الخطة ومتابعة تنفيذها 2. المتابعة والمراجعة والتقييم والدروس المستفادة</p>	<p><b>الخطوة الرابعة:</b> تنفيذ خطة العمل ومتابعتها</p>
<p>• اعتماد الخطة من قبل لجنة التخطيط والتنسيق لضمان الالتزام بها وتعميمها . • ومتابعة سير العمل في الخطة وتحسينها كلما لزم الأمر .</p>	<p>الهدف</p>
<p>- لجنة التخطيط والتنسيق والمتابعة في الشركة - فريق إدارة خطة العودة للعمل في الشركة - فريق العمليات لتنفيذ الخطة .</p>	<p>المسؤوليات</p>

### تطوير خطة العمل:

تتم هذه المرحلة بالكامل قبل العودة لموقع العمل ويتولاها فريق إدارة خطة العودة للعمل .

#### 1. حصر وتقييم المهام والخدمات وتحديد أولويات التفعيل:

- يقوم فريق إدارة خطة العودة للعمل في الشركة بدراسة العمليات الرئيسية وحصر المهام والخدمات الأساسية التي تقدمها الشركة ، والعمل على تصنيفها وتقييمها وفقاً لمستوى تأثير انقطاع / استمرار انقطاع تلك العمليات.

نموذج رقم (1): آلية الدوام للوظائف المطلوبة للمهمة / الخدمة

الدوام عن بعد	الدوام في موقع العمل	الوظيفة	الخدمة / العملية	المجموعة
		1	A	(أ)
		2		
		3		
		1	B	(ب)
		2		
			C	(ب)



## استراتيجية الخروج الآمن من وباء كورونا

إعداد: Mark Mutter and Volker Konradi / JAMCEM CONSULTING – المملكة المتحدة

### مقدمة

أدى وباء COVID-19 إلى نشوء عدد من التحديات أمام صناعة الإسمنت والتي يمكن أن ، بل وسوف ، تتجاوز الآثار الأولية لانخفاض الطلب من قبل العملاء وتوقف المصانع لفترات زمنية قصيرة نسبياً خلال فترات الإغلاق المختلفة التي حدثت في مختلف البلدان . ومن الواضح أن الإيرادات قصيرة الأجل سوف تتأثر ، ولكن هناك عوامل إضافية سيكون لها دور على المدى البعيد مثل :

### الإجراءات الخارجية

يجب الانتباه إلى أن التأثيرات ستختلف اختلافاً كبيراً من بلد إلى آخر – ففي حين أن العديد من الدول الأوروبية قد تأثرت بشدة بسبب معدلات الإصابة المرتفعة وعمليات الإغلاق لفترة طويلة ، نجد أن العديد من الدول الآسيوية تبدو أنها لم تمس نسبياً ، مما يعني أن اقتصاداتها قد عانت من ضرر أقل قصير المدى . ومع ذلك ، يمكن أن يلوح الضرر الاقتصادي في الأفق في قطاعات مثل السياحة مع انخفاض في توافر الرحلات الجوية والأشخاص الذين لن يقضوا العطلات في الخارج في عام 2020 .

• تراجع الطلب العالمي على وقود السيارات والطائرات وما يترتب على ذلك من انخفاض أسعار النفط ، مما سيكون له تأثير سلبي على اقتصادات الدول المنتجة للنفط .

لذلك ، فإن الخطوة الأولى في تلك العملية هي فهم ما هو وضع السوق خلال العام إلى العامين القادمين وكيف تغيرت التوقعات السابقة. ويتم تنفيذ ذلك عادة من قبل قسم التسويق الداخلي للشركة ، مع الأخذ في الاعتبار التوقعات الوطنية للتغيرات في نمو الاقتصاد في البلد المعني ، وكذلك التوقعات لمشاريع البناء الكبرى في هذا البلد ، ومجالات التركيز على مخصصات التحفيز التي أطلقتها الحكومة في البلد ، وتأثير التغييرات في الضرائب في البلد المعني ، وما إلى ذلك .

• بما أن معظم أعمال البناء في العديد من هذه البلدان تتبع للقطاع العام بخلاف القطاع الخاص فسوف ينخفض الطلب ، مما قد يؤدي إلى حروب أسعار وتوقف بعض الشركات عن العمل .

ويجب الانتباه دائماً إلى أن انخفاض الطلب على الإسمنت غالباً ما يأتي بعد الركود الأولي في الاقتصاد ، حيث يتعين استكمال العديد من المشاريع بالرغم من الانكماش الأولي ثم يتبعه ركود في البدء في المشاريع الجديدة .

• قد تتركز مخصصات التحفيز الحكومية على القطاعات غير الإنشائية مما قد يزيد من انخفاض الطلب في العديد من البلدان .

الخطوة التالية – إذا لم تكن قد اكتملت بالفعل – هي دراسة تفصيلية للمنافسين . فإذا كان من المتوقع للسوق أن تنخفض مما يؤدي إلى سوق أكثر تنافسية مما كانت عليه قبل الأزمة ، فمن الضروري فهم المنافسين . فيما يلي أمثلة على المجالات الرئيسية التي يتعين تقييمها في عملية تحليل المنافسين .

• سوف تنخفض أسعار تصدير الكنكر والإسمنت على الأغلب بسبب زيادة الفائض بشكل كبير في العديد من الأسواق المحلية، مما يعني فائضاً عالمياً أكبر سيستهدف أسواق الاستيراد المحدودة .

يمكن للمنتج مقارنة أدائه مع المنافسين ، لكل عامل من تلك العوامل ، لتحديد أين يكون أدائه أفضل أو أسوأ من تلك المنافسة ثم أين يمكن إجراء تحسينات في الأداء وأي من العوامل لا يمكن تغييرها – كموقع المصنع على سبيل المثال .

هذه العوامل ، بالإضافة إلى العديد من العوامل الأخرى ، ستدفع مصنعي الإسمنت إلى النظر في كيفية تعاملهم مع إنتاجهم على المدى القصير والطويل ، وسنحاول في هذه المقالة النظر في بعض الإجراءات التي يمكن أن يأخذها المصنعون بعين الاعتبار عند التخطيط لاستراتيجيتهم للأشهر والسنوات القادمة .



العوامل الرئيسية لعملية تحليل المنافسين

المصنع هو على كيفية تحويل جهود الموظفين من عمليات التشغيل اليومية إلى مشاريع التحسين الصغيرة .

ويمكن للمصنع بعد ذلك ، مدعوماً بالمعلومات المتعلقة بالسوق والمنافسة ، أن يدرس داخلياً عملياته الخاصة للنظر في كيفية تكيف استراتيجيته التشغيلية مع الظروف الجديدة .

من الواضح أن نقطة اهتمام المشاريع يجب أن تكون ذا صلة بتكاليف تشغيل المصنع - على سبيل المثال في مجالات مثل توفر المعدات ، وتكلفة الصيانة ، والاستهلاك النوعي للوقود وتكلفته ، وتكلفة المواد الخام ، واستهلاك الطاقة الكهربائية - ولكن يجب أن تكون جميعها مشاريع يمكن إنجازها من قبل القوى العاملة الداخلية للشركة . وهذا المفهوم على غرار "القيام بكل الأشياء التي أردنا القيام بها ولكن لم يكن لدينا الوقت للقيام بها" .

فيما يلي بعض الأمثلة على الأفكار التي يمكن مراجعة العمليات فيها والتحسينات التي يتم إجراؤها :

### الإجراءات الداخلية

إن رد الفعل الطبيعي للانكماش في السوق وما يعقبه من الفائض في السوق هو قيام الشركة بمراجعة هيكل التكاليف . وأسهل الأهداف عندها يكون تقليص عدد الموظفين وإلغاء المشاريع - وكلاهما يؤدي إلى توفير فوري تقريباً للنقد الناتج عن الأعمال . وقد شوهدت مثل هذه الإجراءات بالفعل في بعض شركات تصنيع الإسمنت متعددة الجنسيات وهي متوافقة تماماً مع الرؤية قصيرة المدى للحفاظ على الربحية على المدى القصير دون النظر في التأثير طويل المدى على الأعمال - تاركين هذه الاعتبارات لفترة أخرى .

### الاستخراج من المقالع (المحاجر) :

- استراتيجية الاستخراج من المقالع (المحاجر) .
- تصميم المقلع (تحميل فوق الطاقة ، الوصول إلى المواد المناسبة في الوقت المناسب ، الطرق المؤدية إلى المقالع ، إدارة المياه) .
- طرق الاستخراج من المقالع .
- صيانة المعدات المتنقلة (حالة ورشة العمل ، توافر الأدوات المناسبة ، إدارة مواد التشحيم ، تخزين مواد التشحيم ، تتبع تاريخ صيانة المعدات) .

ومع ذلك ، يُنصح قبل اتخاذ قرار تقليل عدد الموظفين وإلغاء المشاريع ، بمراجعة تأثير هذه الإجراءات على الكفاءة قصيرة المدى وطويلة المدى للأعمال ، وهنا تحتاج الشركة إلى مراجعة استراتيجيتها الداخلية .

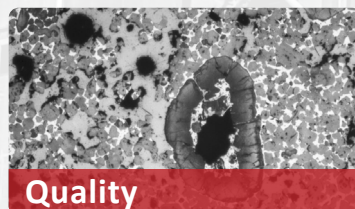
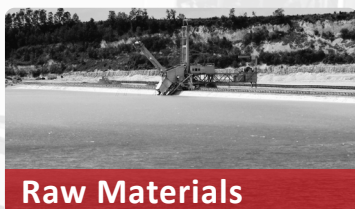
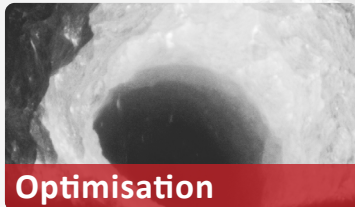
ويتضمن ذلك أخذ نتائج تحليل المنافسين وتحديد نقاط القوة والضعف في الشركة ثم تحديد كيف يمكن استخدام موظفي الشركة لتحسين الأعمال وزيادة قدرتها على المنافسة - بدلاً من مجرد خفض التكاليف بشكل تعسفي دون تحسين الأداء العام للأعمال . يجب أن يكون التركيز الرئيسي لفريق إدارة



# JAMCEM CONSULTING

**JAMCEM Consulting** offers you independent consulting advice based on years of cement plant operational and technical expertise.

JAMCEM Consulting offers services in every single area of operations and business performance that could be required to compete in the current competitive global cement market



All **JAMCEM** experts have technical and operational experience with an average across the group of **30 years**. Our aim is to deliver operational and profitability improvement at minimal cost to the business thereby **maximising returns**.

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### رقابة الجودة والنوعية :

المستهدف (المخاطر ، التكلفة ، التكرار).

- أخذ العينات وإعداد العينات بشكل صحيح للوصول إلى عينات تمثل الوضع الحالي .
- تنظيم المخابر وتقديم التعليمات والإجراءات لتحسين نوعية التحليل وطاقة استيعاب المخابر .
- تقييم جودة الإسمنت وتحديد المعايير التي يمكن تحسينها لتطوير المقاومة بأنواعها وزمن الشك والتماسك وعامل الكانكر وأخيراً تكلفة الإسمنت .

### الطاقة :

- تقييم الاستهلاك الفعلي للوقود والطاقة الكهربائية مقارنة بالكميات المتوقعة للمعدات القائمة .
- تحديد أسباب ارتفاع استهلاك الطاقة - على سبيل المثال ، زيادة استخدام الممر الجانبي أو استهلاك طاقة عالية في محرك مطحنة الإسمنت .
- إشراك جميع الإدارات في عملية تخفيض استهلاك الطاقة وليس فقط في قسم الإنتاج - حيث يبدأ استهلاك الطاقة بالمواد الخام ويشمل أيضاً الإنتاج والصيانة والنوعية وحتى قسم المبيعات والتسويق عند مطالبتهم بخواص معينة للمنتج .

### الأجهزة الدقيقة :

- ضمان اختيار المكان الصحيح للجهاز (مقارنة مع تركيب الجهاز في أي مكان ملائم) وعمل الجهاز بشكل صحيح .
- الصيانة والمعايرة .
- تمديد التيار المباشر والأدوات الإضافية المتصلة به .
- تحسين أجهزة الحاسب الشخصية والبرمجيات نحو الأحدث بحيث يحصل المشغلون ومهندسو العمليات على جميع المعلومات التي يحتاجونها لتشغيل الأفران والمطاحن بشكل فعال .

### نقل الخبرة :

- استخدام الموظفين الأكثر خبرة - وخاصة أولئك الذين هم على وشك التقاعد وعندما تقترب تلك الخبرة من مغادرة الشركة - لتدريب الموظفين الأصغر سناً والأقل خبرة في الشركة .

### نقل المواد :

- طاقة النقل غير كافية .
- تحديد السبب الجذري لأعطال معدات النقل وتنفيذ الحلول .
- تحديد مناطق الانسكاب التي يجب تنظيفها بشكل روتيني والقضاء على الأسباب .

### خاتمة

من الواضح أنه يجب مراعاة جميع العوامل التي يجب اعتبارها جزءاً من مراجعة الأعمال ، ألا وهي : متطلبات العمل ، وطول فترة الانكماش المتوقع ، وتكلفة موظفي الشركة ، مقارنة بالتكاليف الأخرى مثل الوقود والطاقة والتوفير عن طريق تقليل عدد الموظفين . ومع ذلك ، فإن مجرد إزالة الأشخاص من الشركة يمكن أن يخلق مشاكل كبيرة بمجرد أن يحتاج مصنع الإسمنت إلى العودة إلى الإنتاج الطبيعي .

### إدارة البلى والتآكل :

- تحديد وتنفيذ الحلول بشكل صحيح في مناطق المشاكل في المعدات التي تعاني من معدلات تآكل عالية ، ولكن لم يكن لدى المصنع وقت لتنفيذ الحلول .

### تنظيم الصيانة :

- تعديل تعليمات الصيانة والوثائق مع التغييرات في المصنع
- مراجعة مخزون قطع الغيار لتقليل مخاطر التوقف
- التحقق من قاعدة بيانات المعدات مع الوضع الحالي في المصنع .
- تجميع وترميز المعدات .
- تخصيص الوثائق التقنية للمعدات والإشارة إلى الموقع في قائمة المعدات .
- تحديد أنشطة الصيانة للمعدات المدرجة (ماذا وكيف ومتى ، والمواد والأدوات المطلوبة).
- إنشاء قائمة قطع غيار من ما ذكر أعلاه .
- وضع قائمة جرد قطع الغيار والمقارنة . تحديد المخزون

السؤال الرئيسي هو "كيفية تجنب الأزمة ما بعد الأزمة". ففي أوقات الأزمات بشكل خاص ، يلعب الناس دوراً هاماً في تحسين الأعمال وزيادة قدرتها على المنافسة . والعدد الأقل من الأشخاص لا يعني بالضرورة كفاءة أعلى . ففي كثير من الأحيان ، يكون العكس هو الصحيح ، مما يؤدي إلى تعطل الشركة وتدهور المعدات عندما يكون الأشخاص ذوو المعرفة المطلوبة قد غادروا الشركة.

يسر شركة JAMCEM أن تدعم منتجي الإسمنت في جميع المبادرات المذكورة أعلاه - سواء كانت الإجراءات الداخلية أو الخارجية هي المقترحة ، ويمكنها تسهيل إجراءات التحسين التي سيقودها من الواضح أنه يجب مراعاة جميع العوامل التي يجب اعتبارها جزءاً من مراجعة الأعمال ، ألا وهي في المصنع . فالأشخاص العمليون يستثمرون الآن في المستقبل .

## نشاطات عربية

موقع الكتروني: [www.aidmo.org/roc](http://www.aidmo.org/roc)

(رسم الاشتراك 100 دولار أمريكي للمشاركة من الدول العربية)

ورشة العمل العربية حول (إرشادات أنشطة المراجعات على نظم الإدارة المختلفة بالمؤسسات والشركات الصناعية طبقاً لإرشادات المواصفة القياسية الدولية  
**(ISO 19011: 2018)**

المكان: عن طريق الإنترنت (Online) عبر تطبيق

Microsoft Team

التاريخ: 11 - 12 أكتوبر / تشرين أول 2020

الجهة المنظمة: المنظمة العربية للتنمية الصناعية

والتعدين - المكتب الإقليمي

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ورشة العمل العربية حول (نظام إدارة استمرارية

الأعمال في الشركات والمؤسسات الصناعية طبقاً

لمتطلبات المواصفة القياسية الدولية: **ISO 22301:**

**(2019)**

المكان: عن طريق الإنترنت (Online) عبر تطبيق

Microsoft Team

التاريخ: 16 - 17 نوفمبر / تشرين الثاني 2020

الجهة المنظمة: المنظمة العربية للتنمية الصناعية

والتعدين - المكتب الإقليمي

للحصول على كافة التفاصيل يرجى التواصل عبر:

ورشة العمل العربية حول (تطبيق نظم إدارة أمن وسرية المعلومات وفقاً لمتطلبات المواصفة القياسية الدولية  
**(ISO 27001: 2013)**

المكان: عن طريق الإنترنت (Online) عبر تطبيق

Microsoft Team

التاريخ: 25 - 26 أغسطس / آب 2020

الجهة المنظمة: المنظمة العربية للتنمية الصناعية

والتعدين - المكتب الإقليمي

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ورشة العمل العربية حول (تعريف المخاطر وتقييم مخاطر الأعمال والاستعداد لحالة الطوارئ وإدارة الأزمات في المنشآت والمؤسسات الصناعية)

المكان: عن طريق الإنترنت (Online) عبر تطبيق

Microsoft Team

التاريخ: 15 - 16 سبتمبر / أيلول 2020

الجهة المنظمة: المنظمة العربية للتنمية الصناعية

والتعدين - المكتب الإقليمي

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العربية)

## دورات تدريبية عربية

**أساليب اكتشاف المخالفات الإدارية والقانونية**  
المكان: شرم الشيخ، جمهورية مصر العربية  
التاريخ: 06 - 10 سبتمبر / أيلول 2020  
الجهة المنظمة: المؤسسة العامة للتدريب المهني  
للحصول على كافة التفاصيل يرجى التواصل مع إدارة  
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بريد الكتروني: [radam@gffvt.com](mailto:radam@gffvt.com)

**إدارة المفاوضات في الأزمات والطوارئ**  
المكان: القاهرة، جمهورية مصر العربية  
التاريخ: 06 - 10 سبتمبر / أيلول 2020  
الجهة المنظمة: المؤسسة العامة للتدريب المهني  
للحصول على كافة التفاصيل يرجى التواصل مع إدارة  
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**التخطيط الاستراتيجي وإعداد الخطط التشغيلية**  
المكان: القاهرة، جمهورية مصر العربية  
التاريخ: 06 - 10 سبتمبر / أيلول 2020  
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(رسم الاشتراك 100 دولار أمريكي للمشاركة من الدول  
العربية)

## **المؤتمر العربي الدولي السادس عشر للثروة المعدنية والمعرض المصاحب له**

المكان: إمارة الفجيرة، الإمارات العربية المتحدة  
التاريخ: 16 - 18 نوفمبر / تشرين الثاني 2020  
الجهة المنظمة: المنظمة العربية للتنمية الصناعية  
والتعدين

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موقع الكتروني: [www.aidmo.org](http://www.aidmo.org)

## **ورشة العمل العربية حول (إدارة المخاطر وفقاً لمتطلبات اعتماد المختبرات وللإصدار الجديد**

**(ISO/IEC17025: 2017**

المكان: عن طريق الإنترنت (Online) عبر تطبيق

Microsoft Team

التاريخ: 01 - 02 ديسمبر / كانون أول 2020

الجهة المنظمة: المنظمة العربية للتنمية الصناعية  
والتعدين - المكتب الإقليمي

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**تخطيط ومتابعة المشروعات**

المكان: شرم الشيخ، جمهورية مصر العربية  
التاريخ: 06 - 10 سبتمبر / أيلول 2020  
الجهة المنظمة: المؤسسة العامة للتدريب المهني  
للحصول على كافة التفاصيل يرجى التواصل مع إدارة  
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**أمين سر مجلس الإدارة**

المكان: دبي، الإمارات العربية المتحدة  
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**إعداد الإقرار الضريبي وأثره في المؤسسات والأعمال**

المكان: دبي، الإمارات العربية المتحدة  
التاريخ: 06 - 10 سبتمبر / أيلول 2020  
الجهة المنظمة: المؤسسة العامة للتدريب المهني  
للحصول على كافة التفاصيل يرجى التواصل مع إدارة  
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**إدارة المستودعات اللوجستية وسلسلة التوريد والتوزيع**

المكان: القاهرة، جمهورية مصر العربية  
التاريخ: 06 - 10 سبتمبر / أيلول 2020  
الجهة المنظمة: المؤسسة العامة للتدريب المهني  
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**إدارة وتنظيم التدريب**

المكان: شرم الشيخ، جمهورية مصر العربية  
التاريخ: 06 - 10 سبتمبر / أيلول 2020  
الجهة المنظمة: المؤسسة العامة للتدريب المهني  
للحصول على كافة التفاصيل يرجى التواصل مع إدارة  
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**إدارة المخاطر التعاقدية وإعداد الهياكل القانونية لحل المنازعات**

المكان: اسطنبول، تركيا  
التاريخ: 06 - 10 سبتمبر / أيلول 2020  
الجهة المنظمة: المؤسسة العامة للتدريب المهني  
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**إعداد وتأهيل القادة في المؤسسات الحكومية**

المكان: اسطنبول، تركيا  
التاريخ: 06 - 15 سبتمبر / أيلول 2020  
الجهة المنظمة: المؤسسة العامة للتدريب المهني  
للحصول على كافة التفاصيل يرجى التواصل مع إدارة التدريب:  
هاتف: 0020235878943  
موبايل واتس اب: 00201007570041  
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بريد إلكتروني: [radam@gffvt.com](mailto:radam@gffvt.com)

**إدارة الجودة والتميز الإداري**

المكان: شرم الشيخ، جمهورية مصر العربية  
التاريخ: 06 - 10 سبتمبر / أيلول 2020  
الجهة المنظمة: معهد التنمية الإدارية  
للحصول على كافة التفاصيل يرجى التواصل مع إدارة التدريب:  
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**التميز في أعمال السكرتارية الحديثة وإدارة المكاتب المتطورة**

المكان: شرم الشيخ، جمهورية مصر العربية  
التاريخ: 13 - 17 سبتمبر / أيلول 2020  
الجهة المنظمة: معهد التنمية الإدارية  
للحصول على كافة التفاصيل يرجى التواصل مع إدارة التدريب:  
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**استراتيجيات التسويق وإعداد الخطط التسويقية**

المكان: شرم الشيخ، جمهورية مصر العربية  
التاريخ: 06 - 10 سبتمبر / أيلول 2020  
الجهة المنظمة: معهد التنمية الإدارية  
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**تنمية وتطوير المهارات الإدارية**

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التاريخ: 13 - 17 سبتمبر / أيلول 2020  
الجهة المنظمة: الدار العربية للتنمية الإدارية  
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