



CEMENT & BUILDING MATERIALS REVIEW

Published by : Arab Union for Cement and Building Materials No.82 December 2020

- *Arab News*
- *International News*
- *Articles*
- *New Products*
- *Diary Dates*



CEMENT & BUILDING MATERIALS REVIEW

- *Arab News*
 - *International News*
 - *Technical Articles*
 - *New Products*
 - *Diary Dates*
- أخبار عربية
 - أخبار عالمية
 - مقالات تقنية
 - منتجات جديدة
 - مؤتمرات ومعارض

A quarterly bilingual publication that is widely spread in the Arab region.

For more information, please contact

Eng. Ahmad Al-Rousan, AUCBM Secretary General at: aucbm@scs-net.org

Arab Union for Cement and Building Materials (AUCBM)

Email: aucbm@scs-net.org / aucbm1977@gmail.com

Please visit our website <http://www.aucbm.net>





Cement and Building Materials Review

Arab Album

International News

New Products

Technical Articles

Diary Dates

Editor-in-Chief

Eng. Ahmad Al-Rousan

Managing Editor

Suha M. Canaan

CONTRIBUTIONS

- *The Magazine editorial staff welcome the contribution of experts to enrich the contents of the magazine .*
- *Articles are not to be returned to authors .*
- *Points of view expressed in the magazine do not necessarily express points of view of the AUCBM or the magazine itself . It is rather the opinion of the author. The AUCBM does not bear legal liability or responsibility from any article .*

Advertisements

Please contact Editor-in-Chief

Annual Subscription

Companies & Organisations

US\$ 150

Universities & Research Centers

US\$ 65

Email: aucbm@scs-net.org / aucbm1977@gmail.com

Website : www.aucbm.net

Contents

Arab News

International News

New Products and Media

Articles:

- **Lubrication Systems (in Arabic)**

*By: Eng. Sabah Ahmed Mahmoud, Iraqi
Cement State Company, Iraq*

- **A year in review**

*By: Terry Pavlopoulos, Managing Partner,
Cement Business Research, United
Kingdom*

- **More for less**

*By: Eng. Osama Aly, Scientific Business
Solution, Egypt*

- **Inspections reveal opportunities for
ongoing performance improvements**

By: Bruks Siwertell, Sweden

- **Active prevention of fires caused by
damaged batteries during alternative
fuel production thanks to Lindner's Fire**

Prevention System (FPS)

- *By: Thomas Huber & DI Stefan Scheiflinger-
Ehrenwerth, Lindner-Recyclingtech GmbH,
Austria*

*Ing. Andreas Säumel, Mayer Recycling
GmbH, Austria*

- **Sand Extraction through mobile
processing**

*By: Dipl.- Ing. Sigurd Schütz, RHEWUM
GmbH, Germany*

- **Take Control of Your Power - Using Power
Audits**

*By: Lawrie Evans and Mark Mutter,
JAMCEM Consulting, United Kingdom*

CORRESPONDENCE

Correspondence are to be addressed to the Editor-in-chief at the following address:

Syria, Damascus - P. O. Box 9015

Tel : (+963 11) 611 5412 - 6118598

Fax : (+963 11) 612 1731

Email: aucbm@scs-net.org / aucbm1977@gmail.com

Website : www.aucbm.net



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

EDITORIAL SCHEDULE FOR 2021

ISSUE	THEMES	EVENTS
March 2021	<ul style="list-style-type: none"> - Sustainable Development - Environment Protection - Alternative Fuels - RDFs / SRFs - Cleaner Production in Cement Industry - Filters, Baghouses & Dedusting Equipment - Emission Monitoring & Gas Analysis - Energy Saving - Case Studies 	
June 2021	<ul style="list-style-type: none"> - Low carbon cement - Concrete - XRF and XRD analysis - Chemistry of cement - Cement additives - Silo Cleaning & Blockages - Silo design consideration - Drive systems - Weighing technologies - Sampling Techniques & Samplers - Case Studies 	
September 2021	<ul style="list-style-type: none"> - Bagging, Packaging & Dispatch - Loaders & Unloaders - Feeder Technology - Bulk Storage and Handling - Storage of fuel - Conveyors, Bucket Elevators - Occupational Health & Safety - Coal Preparation and Firing - Case Studies 	

December 2021	<ul style="list-style-type: none"> - Lubrication Systems - Maintenance in Cement Plants - Repair and welding techniques - Spare-parts Management - Vertical Mills - Crushers - Coolers - Burner Technology - Refractories & testing of refractories - Case Studies 	
---------------	--	--

Deadlines for receiving articles, press releases, or advert materials for 2021 issues are as follows:

March issue: **26th February 2021**

June issue: **28th May 2021**

September issue: **31st August 2021**

December issue: **3rd December 2021**

ADVERTISEMENT TARIFFS IN US DOLLARS

PLACE	Once insertion	Twice insertion	3-times insertion	4-times insertion
Outside Front/Back Cover	1,250	****	****	****
Inside Front/Back Cover (Coloured)	950	****	****	****
Full Page (Colored)	750	950	1,250	1,350
Half Page (Colored)	450	550	650	750
Quarter Page (Colored)	300	350	400	450
Full Page (B/W)	300	350	400	450

Size: A4 + bleed on the four sides

For the **outside front/back cover**, dimensions are: 20 (height) x 14 cm (width)

Resolution: 300dpi

File: PSD, EPS, or PDF

BANNERS (JPG) ON THE FIRST PAGE OF WWW.AUCBM.NET

US\$ 150 per month

Size is 200pixel w X 75pixel H

Resolution: 300dpi (please send with the requested link)

DRY CARGO TERMINALS

LISTENING. ENGINEERING. BENEFITTING.

HIGH SILO EFFICIENCY ... 99% EMPTYING DEGREE ... NO DEAD STOCK ... ENERGY SAVING ...



PROCESSING STORAGE MIXING FILLING PACKING PALLETIZING LOADING AUTOMATION





IBAU
HAMBURG

... FASTER TRUCK LOADING ... REDUCED DUST EMISSION ... LESS WEAR ... LONGEVITY



IBAU HAMBURG · Tel.: +49 (0) 40 3613090 · E-Mail: info@ibauhamburg.de · www.ibauhamburg.com

A HAVER & BOECKER Company



ALGERIA

Algerian Ministry of Trade plans to export cement surplus

The Ministry of Trade has drawn up a plan for the export of Algeria's 20Mt/yr surplus cement, over 1.0Mt/yr of which is already being exported to Niger and other West African neighbors. The plan involves the country opening its land and sea borders for the cement, which constitutes 50% of the country's 40Mt/yr total cement production.

Algeria's cement capacity first exceeded domestic consumption in 2017, prior to which it relied on cement imports from Tunisia.

Global Cement

GICA reports successful delivery of clinker to Haiti and the Dominican Republic

Groupe des Ciments d'Algérie (GICA) has completed the export of 41,000t of clinker to Haiti and the Dominican Republic. The clinker, produced at the Hadjar Soud (SCHS) cement plant, was exported from the port of Annaba.

Hadjar Soud cement plant, which operates two production lines totaling 0.9Mta of cement production capacity, will promote its exports in 2021 especially as the demand for clinker will exceed 200,000t.

Global Cement

GICA orders twelve dump trucks from Belaz

Belarus-based automobiles producer Belaz received an order for twelve dump trucks from Groupe des Ciments d'Algérie (GICA), Algeria's leading cement producer with 13.5Mta installed cement production capacity. The company will use the trucks for conveying raw materials in its Saoura quarry in Adrar Province. It previously bought twelve 60t-capacity Belaz-7555I trucks and nine front-loaders in mid-2020.

Global Cement

GICA develops system to inspect cement kilns without stopping the production

The first monitoring successfully completed was carried on at a cement factory in Ain El Kabira.

CW Group

EGYPT

Egyptian Cement to open new plant in Sohag in 2021

Egyptian Cement Group plans to inaugurate its new cement factory in 2021. The plant is located in Sohag. The 2Mta project was originally scheduled to open in the first half of 2020 but was delayed due to the coronavirus pandemic.

Global Cement

FRA approves HeidelbergCement's MTO for acquisition of Suez Cement

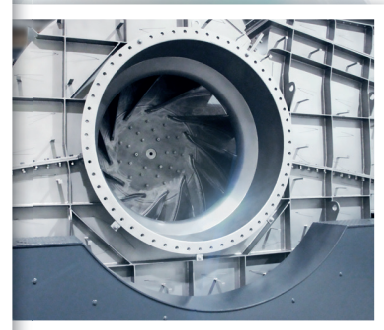
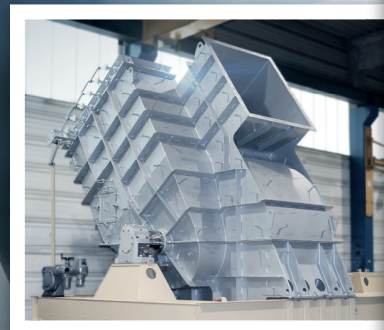
Egypt's Financial Regulatory Authority (FRA) approved a mandatory tender offer (MTO) from HeidelbergCement to acquire the Suez Cement Group.

HeidelbergCement intends to acquire up to 59,791,124 shares, the equivalent of 32.878% of the issued capital of Suez Cement.

The FRA also approved a MTO submitted by Suez Cement, which is 55.08% owned by HeidelbergCement, to acquire 100% of its subsidiary Tourah Portland Cement at EGP 7.18/share.

Suez Cement is expected to operate at 50% of its capacity during 2020, and has been in talks to settle debts worth \$125m during the year. As part of this, it is eyeing the sale of its Kuwaiti subsidiary, Al-Helal Cement.

Menafn



INDUSTRIAL FANS FOR THE HARSHEST CONDITIONS

WE OFFER:

- Tailor-made products
- Energy-efficient and high-performance fans
- Heavy duty industrial standards
- Fast and reliable 24/7 service
- Expert knowledge since 1906

BENEFITS:

- Wear protection
- Low danger of caking
- Gas tightness
- Explosion protection
- Energy efficiency
- Low-maintenance and longevity



Metallurgical Industries Holding sells stake in Egyptian Tourah Portland Cement

Metallurgical Industries Holding has sold its 18% stake in Egyptian Tourah Portland Cement.

[Global Cement](#)

IRAQ

China Machinery Engineering Corporation to Build \$210 mln Harir Cement Plant

China Machinery Engineering Corporation (CMEC) was awarded a contract to construct a cement plant in Erbil, Iraq.

The Company, as the general contractor, will be responsible for the design, supply, construction, warranty, operation and maintenance and other works of the Project. The total construction period of the project is expected to last for approximately 30 months upon commencement of the construction.

[Source: LinkedIn](#)

LIBYA

Zliten cement factory resumes production

After a stoppage of more than a month, Arab Union Company for Contracting (AUCC) announced that its Zliten cement factory has resumed production. It reported that initial production was 100 trailer trucks and that this will increase gradually.

There is high demand for cement with prices sky rocketing due to a shortage in supply. The more than doubling in price was partly put to war damage to local cement factories, some of which had stopped manufacturing.

[Libyaherald](#)

OMAN

Raysut Cement buys majority stake in LafargeHolcim's Maldives cement terminal

Raysut Cement Company (RCC) announced that it acquired a 75% stake in LafargeHolcim's cement terminal

at Thilafushi Island in the Maldives at a purchase value of US\$8 mln, and a new joint venture - Raysut Maldives Cement Pvt Ltd – has been formed.

The new entity has plans to expand the terminal's capacity from current 75,000 tpa to over 200,000 tpa. The terminal will be owned and operated by the RCC-STO JV entity.

[LinkedIn](#)

Oman's largest 10,000 TPD cement plant to come up in Duqm

Construction work is set to begin on Oman's largest integrated cement manufacturing facility in the Special Economic Zone (SEZ) at Duqm.

The project will conform to the latest and advanced specifications of environmental standards and is expected to be operational by Q1 2023. This new plant will help to meet local demand as well cater to the overseas markets of India, Sri Lanka and East Africa with the support of a well-equipped and dedicated port facility at the Port of Duqm.

To cater to the export demand, the promoters are planning to install an additional clinkerisation unit once the operations are stabilised. Currently raw limestone is imported by India due to a shortage of limestone in the subcontinent.

[LinkedIn](#)

Raysut Cement breaks ground on Duqm grinding plant project

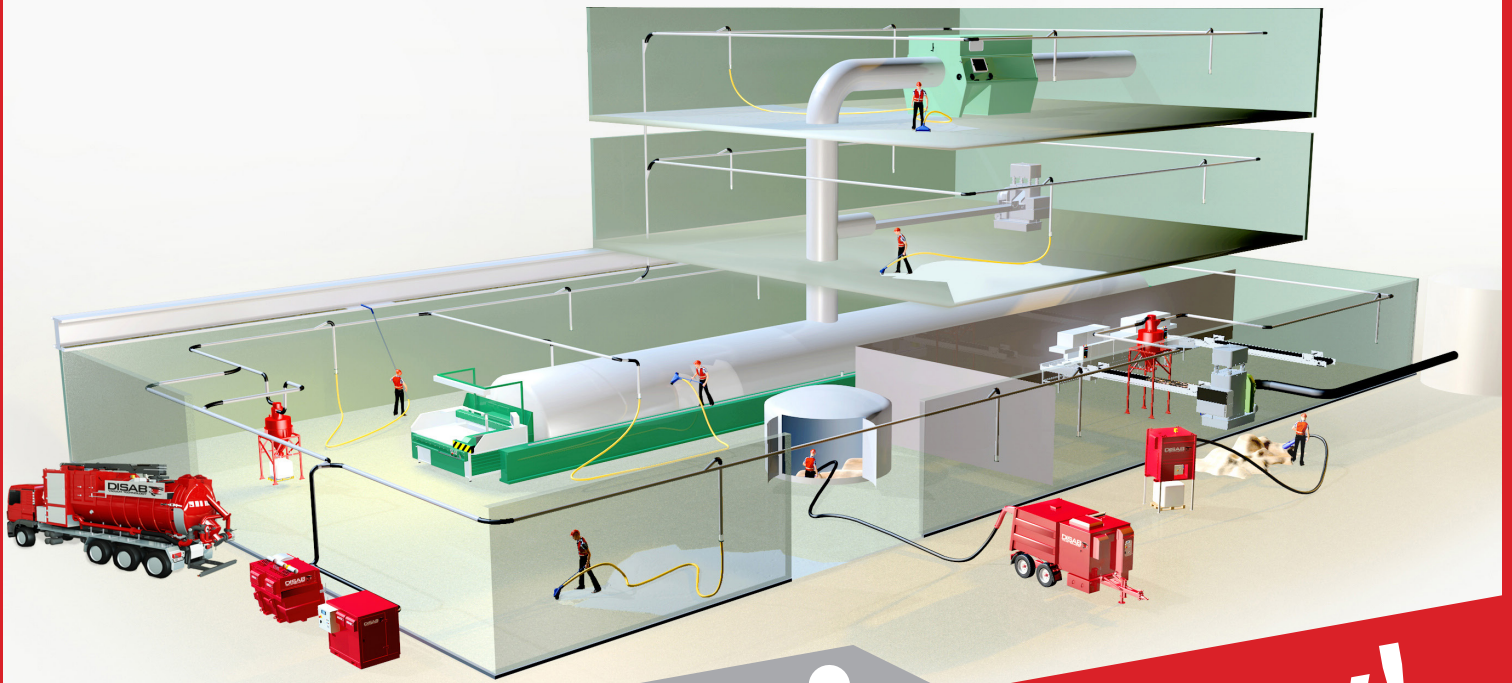
Raysut Cement has held the ceremony for its new 1.0Mta Duqm grinding plant. When operational, the plant will "contribute significantly to our ambitious capacity expansion targets of 10Mta by 2022, which is expected to be further scaled up to 22Mta in the near future," said the Company CEO.

[Global Cement](#)

SAUDI ARABIA

Arab Cement to commission new cement mills at its Rabigh Plant by 3Q 2021

Travel restrictions related to the Covid-19 pandemic



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.

Contact us today and learn how to save money while keeping your cement plant clean and workers safe!

We offer
ATEX
compliant
machines



www.disab.com • ContactUs@disab.com





caused a delay in the project

[CW Group](#)

Northern Region Cement begins oil well cement production

Northern Region Cement has begun oil well cement production at its 2Mta-capacity Arar integrated cement plant in Northern Borders Province. The company will begin sale of the cement in early 2021. The American Petroleum Institute (API) has certified the product.

[Global Cement](#)

Najran Cement to establish transport company by December 31

Last September, the company stated that it expected to complete the establishment of the company on November 1

[CW Group](#)

SYRIA

Hama Cement reach sales of SyP 34 billion in January-October 2020

The company sold 862,808 tons of cement of various kinds in the period. The Company also completed maintenance of its plant No. 3; the maintenance work lasted about a month.

[CW Group](#)

Al-Rastan Cement produces over 44,000 tons of cement in January-October

Cement has been sold at SYP 69,900 per ton.

[CW Group](#)

TUNISIA

Les Ciments de Bizerte resumes bulk cement exports by sea

Carthage Cement has announced the successful shipment of 4100t of cement from its 2Mta integrated Jebel Ressas plant in Ben Arous Governorate. The shipment was postponed from March 2020 due to the coronavirus lockdown in Italy and Tunisia and is to be

the first of a number of shipments of a total of 250,000t of OPC, in accordance with Carthage Cement's contract with a local construction firm.

[CW Group](#)

UAE

Abu Dhabi bans uncertified bagged cement

The Abu Dhabi Department of Economic Development (ADDED) issued a circular which prohibits building material shops from selling any cement that does not have federal or local certifications. The items should have the quality marks issued by the Emirates Authority for Standardisation and Metrology and the Abu Dhabi Quality and Conformity Council.

Fines shall be imposed on shops that will fail to comply with the regulations, and legal action and administrative sanctions shall be taken.

[LinkedIn](#)

Bee'ah, Sharjah Cement sign alternative fuel contract

Bee'ah and Sharjah Cement Factory signed a long-term contract for the supply of alternative fuel from Bee'ah's Solid Recovered Fuel (SRF) plant.

Bee'ah's supply of the fuel to Sharjah Cement Factory is powering the entity's cement factory and reducing the use of traditional fuels. At minimum, 73,000 tonnes will be provided each year. This translates to 73,000 additional tonnes of waste being diverted from Sharjah landfills and being reused by the UAE's industries.

Sharjah Cement Factory's use of SRF from Bee'ah also complies with the UAE government's objectives to replace 10 percent of current fuel sources with alternative fuels produced by waste treatment to protect environment.

[LinkedIn](#)

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



FLSmidth confirms the signing of a definitive agreement for the acquisition of KnowledgeScape, a global leader in digital optimisation solutions for the mineral processing industry.

The addition of KnowledgeScape's advanced solutions to FLSmidth's already robust digital ENABLR™ portfolio will deliver an expanded and exciting range of benefits to customers, from increased automation to improved reliability and enhanced productivity. The KnowledgeScape™ portfolio has documented capabilities in increasing the total output of a processing plant by 4-10%. At the same time, their solutions reduce power, water and reagent consumption, which contribute significantly to the goals of FLSmidth's MissionZero sustainability strategy.

“With this acquisition, FLSmidth reinforces a strong track record of M&A and integration, with special emphasis on the retention of local talent. This acquisition will further solidify FLSmidth as a leading supplier of digital optimisation to the minerals processing industry,” adds Mikko Tepponen, CDO at FLSmidth.

Dustin Collins, CEO, KnowledgeScape, states: “We are excited to join FLSmidth and become a part of its amazing team of mining solutions experts. We are looking forward to providing FLSmidth customers with ever improving optimisation technologies that save costs, time, and drive sustainability.”

FLSmidth delivers sustainable productivity to the global mining and cement industries. We deliver market-leading engineering, equipment and service solutions to our customers enabling them to improve performance, drive down costs and reduce environmental impact. With MissionZero, our 2030 ambition is to enable zero emission and zero waste (water, energy) in cement production and mining. Our operations span the globe and our 11,700 employees are present in more than 60 countries. In 2019, FLSmidth generated revenue of DKK 20,6 billion.

www.flsmidth.com

Chryso and Solidia Partner to Deploy Ultra-Low CO₂ Concrete

Chryso announced that it will collaborate with Solidia Technologies to improve the sustainability performance and material properties of Solidia ultra-low CO₂ concrete through their combined chemical expertise.

The partnership is underpinned by a long-term commitment from both companies to making sustainable solutions accessible to cement and concrete producers worldwide.

“The development of innovative admixture solutions adapted to Solidia's new binder, boosting the final properties of concrete, is one of our R&D works in progress. This will enable higher strengths, an improved finish of the fresh concrete, and the optimization of the curing process. Together with Solidia, we will scale the use of low CO₂ concrete, helping manufacturers produce high quality precast elements,” said Jean Mascaro, Concrete BU director of Chryso.

Tom Schuler, president and CEO of Solidia Technologies, said: “Incorporating Chryso's exclusive water-reducing admixtures adapted to the specific chemistry of Solidia Concrete, will further reduce water consumption in the curing process.”

The deployment of new ultra-low CO₂ concrete will accelerate the decarbonization of the construction industry, said Chryso.

Subscribe today



A unique source
of information
for the latest
developments in
technology

Subscribe online at:
www.worldcement.com/subscribe

**WORLD
CEMENT®**

RAK CERAMICS CONFIDENT OF A POST-PANDEMIC RECOVERY

The recovery started in June, as borders reopened and economies restarted. Strong increase of orders from Saudi Arabia. New marketing tools and product innovation are supporting growth.

RAK Ceramics' first-half 2020 results were only partially affected by the Covid-19 pandemic. The UAE-based ceramic giant, which has more than 20 plants spread across the UAE, India and Bangladesh where it produces yearly over 100 million sqm tiles, 5 million pieces of sanitaryware and 24 million of tableware, saw the parent company's sales remain substantially stable in the first quarter of the year. But since the end of March it has had to cope with the closure of production plants and the prolonged lockdown imposed by local governments in India and Bangladesh, as well as the closure of the borders between countries in the GCC area.

"It would be an understatement to say that the first half of 2020 has been a challenging environment," admits RAK Ceramics' CEO Abdallah Massaad. "Our second quarter performance, especially in May, was significantly impacted by the Covid-19 pandemic in strategic markets such as India, Bangladesh and the Gulf region. Despite this, we have begun to see signs of recovery as borders reopen and economies restart."

Despite the severe impact of the pandemic, the group has shown great resilience and has come through the most difficult period while expecting to see a stronger recovery over the coming months.

"Although we expect this situation to impact our performance in the next few months, we are confident that our strong foundations and sound business model will enable us to face this unprecedented challenge and emerge as a stronger organisation – says Massaad. "We are working hard to not only protect but strengthen our business".

Moving towards the end of the year, RAK Ceramics remain focused on running an efficient and profitable business, protecting its growth in the UAE, India, and Bangladesh and progressing its growth plans in Saudi Arabia. The group will also look to diversify and improve profitability in key export markets and is also focused on implementing measures to limit the impact of Covid-19 on its tableware business, which is heavily dependent upon the airline and hospitality industries. "The demand for tableware and building materials is gradually increasing and a full recovery will without a doubt happen when the pandemic ends", confirms Massaad.

www.ceramicworldweb.it

Zanobia Ceramics (Syria) performs a remote start-up with the SACMI-Euroelettra team

Body preparation and press department automation systems installed and started up in record time. All operations were managed remotely thanks to seamless company-customer teamwork. The results? Above and beyond expectations, with final testing passed in mid-May

"You'll never be left on your own". A philosophy that clearly expresses SACMI-Euroelettra's commitment to customers all over the world so they can continue producing in the face of a pandemic - and the resulting lockdowns - that have, almost everywhere, made travel by specialised technicians impossible.

The latest good news comes from Zanobia, a leading

Syrian producer of floor and wall tiles for twenty years. Located in the city of Adra, not far from Damascus, the company was founded and developed with the goal of producing high quality articles at competitive prices, for both domestic and foreign markets.

Hence the decision to install a complete SACMI line and all the automation for the body preparation department. Managed by Euroelettra - a SACMI company specialising in industrial automation solutions - this order includes systems and software for the automatic transport and storage of raw materials, from spray dryer to silo, from silo to pressing department.

Shipped in January, the order remained on site until April when the SACMI-Euroelettra team - working in close collaboration with the local contact – installed and tested the solution, performing all the necessary tasks remotely. Over a thousand wiring connections and a complex software control system (this configuration features a “dynamic” raw material storage system which, in practice, feeds the press department directly) were completed in just two weeks: a stunning, enormously satisfying success for both the customer and the Euroelettra team, which rose to the occasion impressively.

It is though, as the technical manager of the project pointed out, the smooth networking of men and machines

that makes such accomplishments possible. Technology providers like the SACMI Group and its constituent companies have a duty to show the market how these operations represent an opportunity that is fast becoming the standard and how they can be performed anywhere in the world thanks to highly trained teams (of both supplier and customer) and a technological framework that allows each individual device (and, therefore, the entire factory) to be connected to the global network. Following successful testing of the body preparation lines, the Zanobia plant will, in the coming weeks, proceed with press start-up; the plant is expected to be fully functional after the summer.

BOSTIK ACQUIRES IDEAL WORK; REINFORCES ITS FLOORING PRODUCTS

Bostik strengthens its range of flooring products with the strategic acquisition of Ideal Work which is an Italian company specializing in high-end decorative flooring technologies. This project is in line with Arkema’s targeted growth plan in adhesives, based on the state-of-the-art technologies that perfectly complement Bostik’s current offering for the construction market

Founded in 1997, Ideal Work makes an annual sale of about €10 million with a team of 25 employees. Over the years, it has built a proficient and an exclusive approach in the rapidly growing sector of premium decorative flooring solutions.

The solutions of Ideal Work, that complement the current ranges in the field of flooring adhesives and floor preparation, will support Bostik to develop its offering and position in a high-added-value position market in flooring decoration and renovation. Additionally, Ideal Work will also profit from Bostik’s commercial network to boost its development and proficiency worldwide.

This strategized acquisition is perfectly in accordance with Bostik’s growth strategy in the construction

market and especially in the flooring solutions sector. It is also constant with Bostik’s and Group’s CSR ambition because of the micro-cement technology that utilizes solvent-free products or the products that have less volatile organic compound emissions and recycled materials.

The contract is projected to close in the 4th quarter of 2020.

Building on its exclusive expertise in material science, Arkema provides a portfolio of excellent technologies to address the rising demand for new and substantial materials. With an aim to become an untainted player in Specialty Materials in 2024, the group is structured into three complementary, robust, and highly advanced segments dedicated to Specialty Materials including advanced materials, adhesive solutions, and coating solutions that account for nearly 8% of the group’s sales and a competitive Intermediates and well-positioned segment. Arkema provides pioneering technological solutions to meet the challenges of access to water, new energies, mobility, recycling, and urbanization and drives a permanent discussion with all its stakeholders.

SACMI takes over IPREL and continues to expand its Digital Innovation Services

Group now enjoys 100 % ownership of company specialising in the design and development of digital services for industrial supervision and automation.

SACMI has now gained a 100% controlling interest in IPREL, a company that specialises in hardware and software design and supervision system development. As part of a broader Group-oriented logic, this operation (approved at the SACMI Imola Shareholders' Meeting) aims to strengthen the Group's ability to develop and deliver digital design and industrial automation services.

With 120 highly qualified technicians, IPREL has, in recent years, gained in strategic importance in terms of both the service it provides to all SACMI Group Divisions and BUs and the solutions it develops for third-party customers (also in collaboration with laboratories, universities and research institutions). Hence the decision to raise SACMI's parent company's share in IPREL from 50% to the current 100%, with

a view to further enhancing the ability to supply such services both within the Group and outside it.

"Automation and digitalization", observes the President of SACMI Imola, Paolo Mongardi, "are vital in today's world. In a smart manufacturing scenario founded on sustainability and efficiency, they are essential to the development of new products and services. This full takeover of IPREL, in fact, follows that logic perfectly by carrying forward an already-begun plan and boosting SACMI's firepower in these areas".

The year 2019 saw IPREL proceed apace on several development fronts, the main projects concerning advanced big data analysis systems, research into supply chain system technologies and the development of automatic image capture platforms for quality control purposes. In a non-Group context, instead, the company developed advanced sensors for biomedical applications.

IPREL will continue to operate as part of the SACMI "innovation package", which promotes the development of advanced digital innovation services in both the company and the wider world. Further goals for this year include the strengthening and consolidation of partnerships, especially in the big data field, with the aim of setting up new pilot projects for all the Group businesses.



Evolving the well-established

vdz



“We provide our excellent services with pride:
on-site, online or with online-support.”

Martin Schneider, CEO Vdz

Our Services

Low carbon strategies

- Carbon capture concepts
- Clinker efficient cement and concretes
- Burning and characterisation concepts for calcined clay

Process optimisation

- Technical reviews
- Fuel concepts and improvement of burning conditions
- Process and environmental measurements

Maintenance

- Inspection and survey of rotary kilns and ball mills
- Kiln alignment and adjustment
- Tyre and roller grinding

Training and education

- Classroom training and customised courses
- Online courses
- Hands-on, practical training

VDZ

Toulouser Allee 71

40476 Duesseldorf

Germany

vdz@vdz-online.de

www.vdz-online.de

Terreal acquires German roof tile specialist Creaton

The operation expands Terreal's international footprint and establishes it as the leading European player in the clay roof tile sector.



The Terreal group, a global leader in the brick and tile industry with plants located all over the world, has acquired Creaton, one of the largest German manufacturers of brick roofing tiles based in Wertingen, Bavaria.

The agreement is part of the French multinational's strategic plan to expand its international footprint, positioning itself as the market leader in the European roof tile industry (ranking first or second in France, Germany, Poland and South-East Europe) and establishing an overseas presence in South Korea and the United States.

Founded in 1992 as a result of a merger between two Bavarian family-run roof tile manufacturing companies, Creaton has established itself in Germany and Eastern Europe where it enjoys a high level of brand recognition in terms of the quality of its products and services. Also renowned for its capacity for innovation, it has developed a leading platform in the roof tile segment, occupying first place in both Germany and Poland and second place in South-East Europe. The group has 1,240 employees and 7 production plants in Germany, 3 in Poland and 1 in Hungary, as well as a roofing accessories factory and 4 regional warehouses.

“The acquisition of Creaton is a highly transformative step for Terreal,” said Terreal group's CEO Laurent Musy. “By significantly increasing the size of our company and establishing us as Europe's largest clay roof tile producer, we will be able to continue our trajectory of profitable and sustainable growth and expand our international footprint. The acquisition stems from the hard work we have been doing in recent years, including the successful implementation of strategic projects to strengthen Terreal's entrepreneurial

and financial profile with the solid support of our shareholders. We are eagerly looking forward to future collaboration and feel certain that Creaton's teams will easily adapt to our culture focused on operational excellence, customer proximity, openness and teamwork. We are excited about the prospect of continuing Terreal's transformation together.”

The merger between the two dynamic companies with estimated 2020 pro-forma revenues of approximately 610 million euros will create significant operational and commercial synergies, driving sales in Italy, Benelux, Spain and other export countries thanks to a comprehensive range of innovative roofing solutions.

The acquisition is subject to approval and is expected to be completed by the end of the first quarter of 2021.

www.ceramicworldweb.it



Ceramic World Review updates the rankings of the world's top 25 ceramic tile groups

Mohawk Industries, SCG and Lamosa lead once again the rankings. Victoria PLC is the new entry among the big names. For most of the big groups the outlook for 2020 is not overly pessimistic, with declines below -10% and even some players anticipating growth.

Ceramic World Review has updated the figures for the world's top 25 ceramic tile groups (as for production volumes) in 2019. Respect to the previous year, the positions of the three largest tile producers remain unchanged.

Mohawk Industries, Inc. remains firmly at the top of the rankings of the largest 25 world groups with a capacity and output to 31/12/2019 of around 250 million sqm (up from 2018 due to the expansion of production in Russia and the acquisition of Eliane) and tile segment revenues of \$3.631 billion, up 2.2% on 2018 (36% of the group's consolidated revenues). With the greatest impact of the health emergency occurring in the second quarter of 2020 (sales dropped by 21% on Q2 2019), the Global Ceramics division closed the first half of 2020 with revenues of \$1,602 million (-13.7% on 2019), a contraction that is consistent with the 14% decline in the group's consolidated revenue (\$4.3 billion).

In second place is the Thai group SCG Ceramics with a 2019 production of 166 million sqm and tile sales of 669 million euros, slightly down on the previous year. In the first half of 2020, the effects of the lockdown and lower demand for tiles resulted in an 18% decline in sales volumes, from 92 million sqm in 2019 to 75 million sqm.

Next comes the Mexican group Lamosa, also with a 2019 production of 166 million sqm and tile revenues of 647 million euros. Lamosa's tile division also reported a 22% fall in the second quarter of 2020 compared with 2019, resulting in a first half decline in revenues of 13% year on year to about 224 million euros (5,810 million pesos).

The world's fourth largest tile producer is RAK Ceramics, which has increased its production capacity to 138 million sqm and production to more than 101 million sqm, partly due to the start-up of the large slab factory in Morbi (India). Despite the fall in revenues in the first half of the year, the UAE-based group expects to close 2020 at the same levels as 2019.

The remaining groups in the rankings reveal substantial stability in terms of their production volumes, with the exception of Kajaria Ceramics (which increased its output from 66 to 78 million sqm) and the Spanish group STN (up from 65 to 73 million sqm). STN also posted the largest increase in turnover, up 19% on 2019 to 325 million euros.

The new ranking also sees a new entry among the big names in the tile industry, namely the UK-based flooring group Victoria PLC. Between November 2017 and March 2020, Victoria acquired the Spanish firms Keraben, Saloni and Ibero and the Italian companies Ceramiche Serra and Ceramiche Ascot (the latter as of 1 March 2020). Overall, the group has a production capacity of 44.5 million sqm, a 2019 production of 40 million sqm and a turnover of 350 million euros.

Based on the forecasts provided by the groups themselves, the outlook for 2020 as a whole does not appear to be overly pessimistic. In almost all the negative forecasts the potential decline in production and sales is limited to between -1% and -10%, while several players are even anticipating growth (Pamesa, STN, Cersanit and Arwana).

www.ceramicworldweb.it

A YEAR IN REVIEW

By: Terry Pavlopoulos, Cement Business Research, United Kingdom

As 2020 draws to a close, the global cement sector has begun to show signs of a revival. However, as the pandemic lingers, it is time to review the major strategic considerations in the cement industry and how they may be addressed by cement companies.

What is ‘trending’ in the sector?

The major industry protagonists have lately been concentrating on addressing carbon emissions. The concept of carbon neutrality by 2050 has now become the ‘war cry’ of practically all global cement institutions and major cement producers. Naturally, no-one can argue against this laudable aspiration, but is it advisable to concentrate only on carbon emissions to the apparent exclusion of other significant strategic issues facing the industry in the short- to medium-term? What about cement producers who are not currently considering carbon emissions reduction as the primary item on their agendas?

The latest on the pandemic impact

Only a few months ago, no one could have dreamt of the effects of the pandemic on personal and professional lives. At the time of writing, construction activity has opened in many countries and cement consumption has been on the up since May/June 2020. This is indeed good news.

Many economists have published their expectations for economic activity for 2020 and 2021, all of which indicate a sharp decline in 2020 followed by a recovery in 2021. Opinions on the shape of this recovery are divided. The unfashionable concepts of V, U, W or L shaped recoveries have been unearthed and some new ones have been developed (such as a K shaped recovery). However, nobody can say for certain what might be expected in 2021 and beyond.



Major trends in the global cement sector – January 2020

Significant capacity additions in most markets (except developed) – leading to overcapacity

New capacity introduced mainly by new entrants – leading to fragmentation

The sector has not managed to fulfil its promises regarding carbon emissions

Abandonment of emerging markets by major international cement companies

Impact of COVID – 19

Exacerbated in 2020 – recovery path still unclear

Resultant financial distress may lead to consolidation

A priority item for majors (and EU) but what about the rest?

“Batten down the hatches” attitude by majors. Global de-consolidation likely to continue.

The CGC™ Intelligence Platform

The CGC™ (CemBR Global Compendium) is the most comprehensive cement related database and intelligence platform in the world



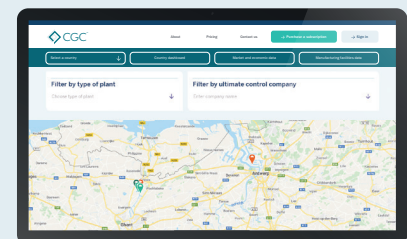
Country dashboard

A snapshot of the market with twelve cement related indicators. Downloadable in PDF.



Market and economic data

Macroeconomic and cement data in tabular and graphical form. Compare markets and download in Excel.



Manufacturing facilities data

Every cement manufacturing facility with detailed information and data. Interactive maps and tables.

The CGC™ is accessed via an annual subscription
Register now at cembrcgc.com



The reality is that the pandemic is still plaguing the world and there are several questions that exercise minds now. How does the situation impact construction activity? Will governments embark on ambitious infrastructure projects whilst there are several other needs that might put a higher pressure on a country's purse strings? Will individuals regain their confidence and invest in capital assets, be they housing or commercial properties? Will overall economic demand recover to an extent that industrial producers re-ignite their CAPEX plans (mostly dormant during 2020)?

These are just a few questions that require answers in order to assess the impact of this crisis on the sector. However, monitoring of the global cement sector so far indicates that 2020 may have seen a decline in cement consumption between 7% and 10% (outside of China). The question is whether the expected economic rebound in 2021 will be enough to return consumption to 2019 levels. Many observers, including CBA, are sceptical of such a strong recovery in the industry and although the company is optimistic about the future, it would advise caution in terms of demand scenarios going forward.

How has the pandemic impacted major recent trends?

As a result of the above considerations, planning (which is always challenging in the cement industry) has now become fraught with uncertainty and doubt. CBA has identified the major trends in cement and assessed the impact of COVID-19 on these trends. Naturally, there are several other regional and even country-specific issues, but these trends are likely to dictate the behaviour of many a player in the industry in the next five years.

The global cement sector was moving to an overcapacity and high fragmentation position well before the pandemic struck. There were several reasons behind this. Three of the most important ones were a) the propensity to replace imports with indigenous supply in deficit markets, b) the desire of local entrepreneurs to enter the cement sector (in most cases from other sectors of the economy with little or no expertise in cement), and c) the belief that emerging markets do not experience cyclical, only growth.



As a result, most markets in the Non-European Mediterranean rim, Sub-Saharan Africa, Central Asia, the Indian subcontinent, South East Asia, and China, introduced significant new capacity estimated at over 2.0 billion t in the last 15 years. Most traditional deficit markets have now switched to a significant overcapacity position.

However, the history of this may not be relevant now. What is known is that at the beginning of 2020 the sector experienced significant overcapacity and increasing fragmentation. These were the two most important trends that were recognised and presented at the beginning of the year. CBA believes that COVID-19 is bound to influence these trends going forward.

Concentrating on carbon reduction

Undoubtedly, the global cement institutions and major cement players appear to have concentrated all their efforts on the carbon issue, attempting to reverse the overall poor performance of the sector so far.

CBA has carried out a significant amount of work in relation to carbon emissions and the cement industry. The company's recent report on the EU ETS & cement provides a data driven examination of the European Emissions Trading System and it clearly identifies the shortcomings of both the system and the industry. This fact coupled with the strong political wave for climate change initiatives in the Western world has understandably encouraged the larger players and institutions to concentrate on this issue.

On the other hand, most of the smaller regional or even one-country producers outside Europe have not yet begun to grapple with the carbon issue as they do not have to currently.

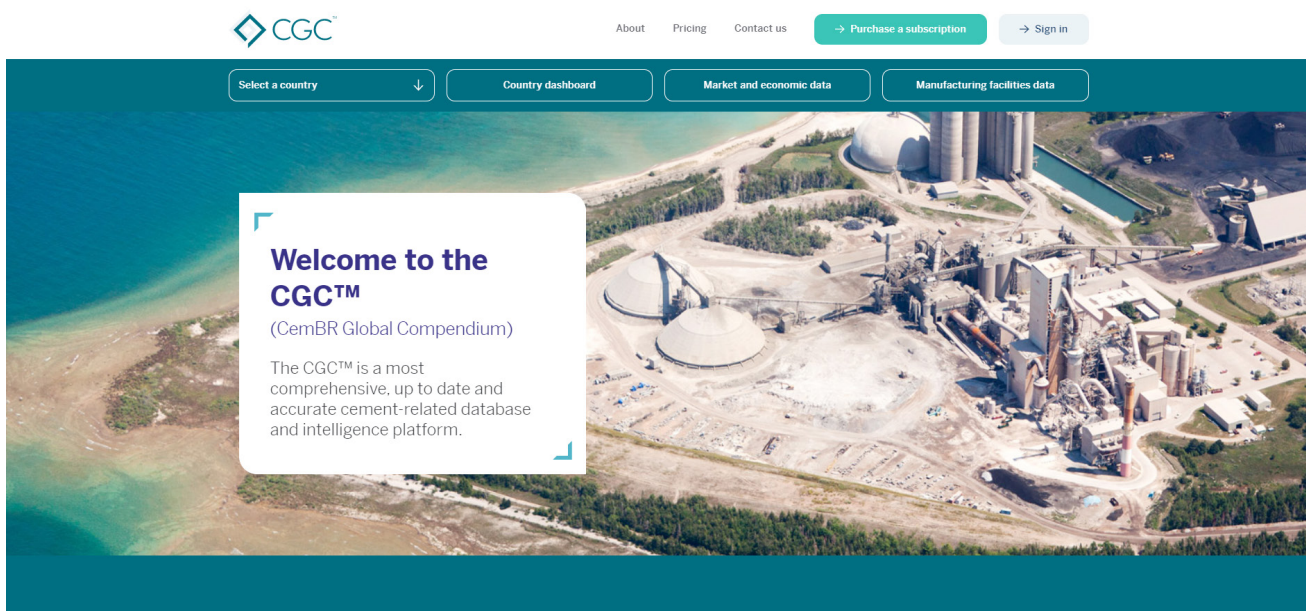
Cement players unaffected by or uninterested in carbon, or those that believe that this issue is not the priority right now, may be unsure of the important challenges facing them currently, and more importantly, what they can do to make sure that they will be around for the next 10 – 20 years. As explained earlier, CBA believes that excess capacity and the increasingly fragmented nature of most markets globally are issues that demand immediate attention. Coupled with the uncertainty of the recovery post-pandemic, these two issues may be instrumental in determining the financial health and indeed, the viability of many cement players globally.

What is to be done?

CBA believes that planning and strategy can only be performed if one has up to date and accurate intelligence. Therefore, the company has launched a database and intelligence platform (the CemBR Global Compendium or CGC), which is a comprehensive and accurate source of data and insights on markets representing over 95% of cement consumption globally.

Realistic, actionable and value-creating options

Quality data and insights should be complimented by an understanding of trends and analytical tools that provide clear, actionable and value-creating initiatives.



The screenshot displays the user interface of the CGC (CemBR Global Compendium) website. At the top, there is a teal header with the CGC logo on the left and navigation links: 'About', 'Pricing', 'Contact us', 'Purchase a subscription', and 'Sign in'. Below the header is a teal navigation bar with buttons for 'Select a country', 'Country dashboard', 'Market and economic data', and 'Manufacturing facilities data'. The main content area features an aerial photograph of a cement plant. Overlaid on the left side of the image is a white box with the text: 'Welcome to the CGC™ (CemBR Global Compendium). The CGC™ is a most comprehensive, up to date and accurate cement-related database and intelligence platform.'

All cement producers should:

- Examine and understand their cost structure and strive to improve it (this is indeed a very large area of activity that covers both plant costs and general operating costs). This may include both physical and digital solutions as well as human resources skills and capabilities and surely must be the highest priority of every cement producer.
- Prioritise CAPEX requirements given the propensity to reserve cash currently prevalent in the sector.
- Work together with other cement producers to convey the fundamental economic principles of cement manufacturing to the relevant authorities. This is pivotal in cement as so much depends on legislation and government intervention. Cement associations may be the mechanism for this initiative.

There is no doubt that overall financial performance in the sector has been showing signs of deterioration for some time. The growth in consumption was not adequate to satisfy excess capacity, keeping prices subdued in many markets. As a result, pricing could not counterbalance increasing costs, leading to an overall financial erosion.

Specific cases

For cash strapped players, there is a need to examine how the business is to be funded to survive in the short to medium term. There are several alternatives cement producers could consider, other than exiting the industry. There is a significant appetite to invest in the sector by commercial financial institutions, offering cement producers the opportunity to raise funds without relinquishing ownership of the business.

For cash rich players, is this is the time to take advantage of opportunities to consolidate their markets or expand beyond their borders? When is a good time to invest in the cement sector? This question has been around for ever. CBA's experience has shown that investment in the sector including M&A activity invariably happens at or near the top of a cycle. It is much easier to justify

such moves when morale and confidence are high. Should this behaviour be re-examined? Cash-rich cement players should contemplate such moves now.

For solvent and committed cement producers operating in highly fragmented markets with excess capacity, there is a need to develop a comprehensive and long-term exports strategy. As it currently stands and perhaps for the foreseeable future, exporting will not be a 'sellers' market. Many low-cost producers with excess capacity are capable of exporting at low FOB prices on an opportunistic basis. A long-term exports strategy requires viewing exports as an integral part of a business not to be undertaken on an opportunistic basis. This may involve investments in destination markets, however the selection of such markets must be based on well thought out criteria.

Will there be winners and losers?

CBA is not suggesting that this advice is groundbreaking, however it is worth reminding cement professionals of the fundamental strategic issues that need to be addressed by a cement company. Of course, it is appreciated that in individual markets, cement producers face market specific issues that may differ from one country to another.

The pandemic has not only exacerbated the issues/trends discussed in this article, but has also elevated the uncertainty and risk profile of the industry. As always in such circumstances there may well be winners and losers.

Those who recognise these issues/trends and work towards real-life, actionable strategies to address them will survive and flourish, whereas those who remain complacent and indulge in wishful thinking may flounder.

About the author

Terry is the managing partner of CBA, an advisory boutique in the global cement sector. Terry is also a Senior Advisor at CemBR, a data, insights and intelligence platform addressing the global cement sector.

MORE FOR LESS

Osama Aly explains the steps of successfully repairing plant equipment, strategic cost reduction, and the profitable manufacture of Portland Cement

Five steps to strategic cost reduction

While cement industry is facing massive disruption and change, marginal efficiency savings can no longer guarantee survival and success. How can one pinpoint resources and sharpen operational capabilities in a way that enables them to set the pace in a fast-changing marketplace?

1. Start with strategy: Have a clear view of one's strategy and ensure it is consistently understood across the organization.
2. Align costs to strategy: Look across the whole organization and differentiate the strategically-critical 'good costs' from the non-essential 'bad costs'.
3. Aim high: Be bold, be brave and be creative – use technology, innovation and new ways of working to radically optimize the cost base.
4. Set direction and show leadership: Deliver cost optimization as a strategic, business transformation program.
5. Create a culture of cost optimization: Ensure to embed a culture of ownership and incentivize continuous improvement.

One of the challenges to apply these steps is the repair/replacement decision for the strategic spare parts in the cement manufacturing equipment.

In today's highly competitive market, the profitable manufacture of Portland cement hinges on the ability of the individual plant to keep equipment running and producing at the highest possible output, while still keeping operating costs at the lowest possible level. One of cost-reduction approaches is not to replace the major spare parts and keep them in a reliable condition. There has always been a difference of opinion as to whether or not fractured or spalled of the major and strategic spare parts can be welded with any reliability. As an example we can discuss, the "Roller Hub" of vertical mills.

Since a worn roller's hub effectively removes a vertical mill from operation until the hub is either repaired or replaced, it is readily apparent that time is absolutely of the essence in any situation where a roller's hub has been worn out.

Referring to the great number of vertical-mill rollers which have been repaired around the world in recent years, which are still operating without subsequent breakage or problems, it seems worthwhile to examine and elaborate on a procedure which has proved to be eminently successful. So we will discuss the procedures, welding materials and methods that have proved successful at many plants around the world.

Constraints of "Repair/Replacement" Decision

According to reliability basic concepts, before doing any repair, replacement option has to be considered. In case of old components where fatigue failure is envisaged, repair option is a temporary measure. It can be selected when there is no availability of spare.

Replacing the roller will generally require dismantling the lubrication pipe and many activities that will be done in order to remove the roller and install the new one. Also, large castings are not only expensive, they are tailor-made and are never readily available on site. A large broken part cannot be used anymore and the equipment becomes idle. There are many different factors for the economical calculation; these factors include redundant production capability and the capital tied up in intermediate stock during the delivery time of the spare part.

Even if a new roller is on hand or readily available, removal and replacement of the roller can still be time consuming. If no replacement roller is available, repair of the worn Hub may be the only chance of getting the mill back in operation reasonably quick, especially since delivery of a new roller may be in the range of four to seven months. Therefore, a reliable repair is mandatory, at least to be used during the lead-time for the spare parts delivery and a time extension to allow the exchange during a scheduled production stoppage.

If the repair route is selected, a number of decisions must be made very quickly, those include whether to do the repair in-house with existing staff and/or contract welders, or whether to contract the job out to a company with experience and equipment to do the entire job. In recent years the latter has increasingly been the most prevalent choice, especially in light of the reduced welding staff available in most plants

today. It should be also considered that once the repair has begun it is most efficient and almost imperative to weld around the clock until it is finished.

This is much more cost-effective than ongoing stopping and starting, and it minimizes the difficulties involved in maintaining correct base metal temperatures throughout the entire repair cycle.

To improve the reliability of this difficult-to-check application, the contractor should insist on the



An application specialist of vertical mill is check wear profile of mill roller.

supervision of the work and the control of the procedure. They shall provide assistance and operator training as well as perform or license the application itself. In a more and more competitive environment, where production losses may cost a company its reputation, its market and its profits, researchers, maintenance and design engineers should be made aware of this reliable solution.

Case study – Saving to grow

Background:

The raw mill hub is part of the material-processing step in a linear production route. Although the cause of wear was not identified, the loss of hub surface dimensions was sufficiently critical to warrant repair using well-tested weld surfacing practices.

Mill Hub Material Description:

Records advise that the hub casting falls into the ductile iron category of intermediate strength cast irons. Such irons are typified by specific grades with specific ranges of mechanical properties. The relevant ASTM Specification A536 and mechanical properties specific to the mill hub grade are highlighted.

From material Datasheet, it can be seen that the hub



An aggressive wear is appear on the roller hub surface.

casting is of intermediate strength with a low-end elongation (ductility) value.

In repair welding, it is very important to keep in mind this value as all of the repair steps are directed to accommodating this particular mechanical property. When welding cast iron, particularly high-strength ductile iron, control of the heat-affected zone is critically important. The HAZ and the zone directly under the weld deposit are the essential “weak spots”. Because of the inherently faster cooling rates associated with arc-welding processes, there always exists a range of complex microstructures after welding. These typically are complexes of martensite, austenite, and primary carbides surrounded by partially dissolved graphite nodules. Although these structures may be present, the degree and amount are most often associated with fast welding cooling rates. This procedure will indicate process management steps to minimize these complex HAZ and under-bead phases.

Welding Electrode Selection

Based on the end-requirements of optimized machinability, time constraints, process efficiencies, skill levels, and set-up parameters, two products are offered as products-of-choice:

- **EutecTrode XHD 244** is the ideal electrode when welding unknown grades of gray cast iron, particularly when the casting is seriously contaminated with oil, sulfur, etc. EutecTrode XHD 244 is also useful for welding cast irons whose service conditions have oxidized the surface such as furnaces, molds and combustion chamber walls. This easily handled electrode puts down dense, porous free and machinable weld deposits

- **EutecTrode XHD 646** High efficiency, austenitic electrode for intermediate layers and rebuilding 13% manganese steel, alloyed steels and hardenable steels.

Very high resistance to impact; contact deposition qualities; easy slag removal; high work-hardening rate; machinable with tungsten carbide tip tool; corrosion resistance; smooth even appearance; and high metal recovery.



Welding Procedure.

- Preparation: Prepare any casting defect by chamfering with either Eutectic ChamferTrode® or ExoTrode® AC/DC after nominally preheating the casting. If any cracks are present they should be prepared with either a single-V or double-V depending on casting thickness. Allow a root opening of 1/8-in. for full-penetration welds. Use a copper rod to keep the dimension of hole of the hub that found under the segment.
- preheating: A preheating temperature T_p measured only once immediately before any welding operation according to EN ISO 13916. If required a maintenance temperature T_m shall be maintained on a minimum temperature in the weld zone when welding is interrupted.

$$C_{eq} = C\% + \frac{Mn\%}{6} + \frac{Cr\% + Mo\% + V\%}{5} + \frac{Ni\% + Cu\%}{15}$$

$$TP = 350 \cdot \sqrt{C_{eq} - 0.25}$$

Thus, before gouging/cutting, the base metal should be preheated to 200 C°, then cut the sample to send it to analysis to know the exact chemical composition of the base metal, then continue the gouging with this condition until decided the preheating parameters.

Once the material composition of the base metal is known, preheat temperature can be calculated based on the thickness of the work piece and its carbon equivalent% -according to the following equation. In our case, Preheat °C For ductile iron, a preheat of ~ 250-300°C is recommended. This temperature will help to reduce martensite formation in the HAZ.

- Deposition Sequence:



Use the suggested amperage and polarity range shown in the Technical Datasheet. Deposit short runs no longer than 6-in. and weave no more than 3x the diameter (5/32" x 3 = ~1/2-in.) and moderately peen 2nd and subsequent passes. Weld in a back-step mode across the width of the hub bore as shown in the above photograph. Start



at the centerline and work toward the hub edges. If more than one pass is needed, use either a cascade or block welding sequence which can reduce centerline cracking tendencies. After finishing the buffering layers, clean the surface by using hand



grinding machine then start to apply the XHD 646.

- Machinery:
portable Lath Turning: Use standard carbide grinding tools for first grinding layer then use a softer grinding tools. Set speed and feeds typically used when machining nickel-base alloys.

Capsule Repair Overview

Step 1: Degrease initially using an approved VOC-free degreaser

Step 2: Preheat Degrease.

Step 3: Set the welding parameters according to the process selected...

Refer to the appropriate Technical Datasheet. Test weld before starting on the Mill Hub.

Step 4: Preheat as per the selected process

Step 5: Follow the recommended weld deposition sequences.

Step 6: Build-up to the required height.

Step 7: Carefully monitor the interpass temperature.

Step 8: Carry out low tempering treatment.

Step 9: Use the appropriate wheel type, speed, and in-feed recommended for nickel-base alloys.

Recommendations:

The most important aspect of this supervision is to make the decision whether the surface is ready to be welded and the cut-off point for excavation, as there are often some small cracks and porosity evident to the surface and edges of cut-out as already explained. A repair following this method should prove successful and a long lasting repair can be achieved.

It is a very economical solution in matter of time and cost instead of buying new roller.



Eng. Osama Aly Ahmed
Business Development Manager
Scientific Business Solution
Osama.aly@sbs-website.com



INSPECTIONS REVEAL OPPORTUNITIES FOR ONGOING PERFORMANCE IMPROVEMENTS

By: Bruks Siwertell, Sweden

During regular inspections from original equipment manufacturers (OEMs), surveyors often make relatively small adjustments to operational parameters that deliver significant performance benefits, and for many operators, unplanned downtime can be easily avoided.

OEMs can also rapidly assess and determine equipment condition, which ensures that parts are not replaced unnecessarily. They also develop the most cost-effective strategy for repair and renewal, when the time comes.

For some, this can be a major undertaking, requiring precision planning, particularly if equipment is critical to production flow and there is no redundancy in the system. In these cases, the entire facility is required to pause.

A recent example of this involved a major fiber-based packaging, pulp and paper industry manufacturer based in south-east USA.

A routine inspection of its 15-year-old Bruks circular



overpile stacker reclaimer (COSR) in 2017 revealed some significant engineering tasks, but the project had to be arranged at a planned outage at the mill in spring 2020. Given the current boom in e-commerce, any loss of production hours, comes at a significant cost.

The 0.14 million cubic meter (five million cubic feet) stacker reclaimer handles the mill's huge volumes of wood chips, offering a stacker rate of 825t/h and a reclaiming capacity of 280t/h.

COORDINATED PLANNING EFFORTS

“As an OEM, we know our equipment best and from the inspection, we recognized that this would be a special project. It required a great deal of coordination to ensure that, for our part, everything was in place to carry out the work as smoothly as possible, minimizing the time the mill had to pause operations,” says Jason Scott, Key Account Manager, Bruks Siwertell.

“This was a seven-month operation, and our expertise were called upon because we originally delivered the system and have worked with the machine for over a decade, regularly carrying out maintenance as and when it was needed. It was this knowledge and our OEM-status that were deciding factors in the mill contracting us to carry out the work,” notes Scott.

The COSR blends the mill's intake of wood chips, continually keeping them in a prime condition for onward processing, with its reclaiming boom scraping material from the side of the pile. The initial inspection revealed the need to upgrade the slewing gearbox, motor and pinion on the stacker.

“These projects really demonstrate the importance of inspections and how preventative service delivers the most cost-effective return on investment,” he says. “Economizing on maintenance-related activities, buying non-OEM parts and labor, or deferring does not represent value because, in the long run, they will ultimately cost a company more.

“The mill now has a stacker reclaimer fitted with current technology and upgraded mechanics that will see it serving the business for many more years to come,” Scott concludes.

Seeing the benefit of Bruks Siwertell's continuing planned maintenance input, the mill has signed a new service agreement that includes two inspection visits a year.

For more information, please send an email to sales@bruks.com



Active prevention of fires caused by damaged batteries during alternative fuel production thanks to Lindner's Fire Prevention System (FPS)

By: DI (FH) Thomas Huber, DI Stefan Scheiflinger-Ehrenwerth, MSc., Lindner-Recyclingtech GmbH, Austria
Ing. Andreas Säumel, Mayer Recycling GmbH, Austria

SUMMARY: *One of the most pressing recent issues in the mechanical processing and conversion of waste into solid recovered fuels (SRF) is the high fire risk. This is largely due to a constantly increasing number of lithium batteries in the general waste collection. If damaged, a chemical reaction is often initiated, which leads to incredibly high temperatures. This may cause severe damage to facilities and plants and, in the worst case, start a major fire. To minimise such fire hazards, Lindner's FPS (Fire Prevention System) detects overheated particles in the material stream, cools them to a safe temperature and makes sure that objects that cannot be cooled can be safely removed by hand.*

Whether smartphones, cars or toothbrushes – in today's digitalised, mobile society it's hard to imagine life without batteries. Billions of them are used for countless applications. According to the Austrian Chamber of Commerce's information website 'lithium-info.at' (Austrian Chamber of Commerce, 2019), about 4,700 metric tons of rechargeable batteries are sold annually in the Alpine Republic, 40% of which are lithium batteries. Only about 45% of all batteries are disposed of correctly and, according to the University of Leoben, an estimated 1.4 million of them end up in the general waste collection every year (VOEB, 2019). The University also estimates that this figure will double in the medium term to 2.8 million (VOEB, 2019). Consequently, the risk of fire increases exponentially during mechanical processing, when converting waste into alternative fuels. Due to the technology used, lithium batteries, along with other highly flammable materials such as tar-soaked textile waste, have therefore become one of the most common hazards for serious fires.

Problems caused by mechanical battery damage

Just like any other energy storage cell, lithium-ion batteries (LIBs) consist of an anode and a cathode, separated by a Li-ion permeable membrane and a non-conductive electrolyte. Energy is released when the ions flow between the two electrodes or is stored in the anode when over-voltage is applied. Compared to other technologies, lithium-ion batteries have one

of the highest energy densities thanks to the very high working voltage that can be generated between the anode and cathode. Ultimately, this is the problem when the battery is mechanically damaged and short circuits. If mechanical processing bends or severs the cell this could destroy the separator, producing a short circuit. This causes the voltage between the poles to drop to zero, releasing the stored energy as heat at different points. Even with apparently run-down, used batteries, the remaining energy is so high that temperatures of over 600 C may occur.

Under certain circumstances this leads to an unstoppable chain reaction: the thermal runaway. The temperature spikes cause neighbouring cells in the battery to overheat and within milliseconds, to release their stored energy. This results in a fire or explosion that is almost impossible to extinguish. In this context it's particularly problematic that the thermal runaway is delayed and cannot take place immediately after the mechanical damage. In SRF production this means a higher risk of fire throughout processing. The worst-



Fig. 1: Batteries damaged during mechanical processing, when converting waste into SRF, pose an enormous fire hazard

case scenario is for the damaged battery to end up in the fuel storage bunker, where it could cause a devastating fire. Even if the battery burns by itself and doesn't cause an explosion, the resulting temperatures are an enormous problem due to the fuel's ignition point of 319 – 460 C (Lorber, 2010).

Lindner's Fire Prevention System (FPS) actively prevents fires

The continuous, process-related monitoring of surface temperature at several relevant points has proven to be highly successful in combatting potential fire hazards and actively improving safety

in facilities that produce solid recovered fuels (SRF). Lindner's Fire Prevention System (FPS) therefore sports optical sensors that constantly monitor the temperature on the conveyor belts and trigger a water sprinkling system to cool overheated particles in the material stream automatically. Thanks to the very early detection of these particles, most hazards are identified at the start of a thermal reaction keeping the required amount of water low.

Furthermore each unit has its own control sensor detecting objects that cannot be cooled, such as lithium-ion batteries where the thermal runaway has already been initiated.

This triggers an alarm, stopping the conveyor belt under an active cooling nozzle so the hazard can be manually removed. Depending on the application the threshold value can be chosen freely. To counteract even a delayed reaction of the energy cells, it's possible to install as many sensor pairs as needed depending on the size of the facility.

Lindner's FPS is designed as a space-saving plug&go solution to facilitate the integration of the system in existing facilities. Its heated box version also makes it perfect for cold environments.

Best Practice Example – Mayer Recycling GmbH

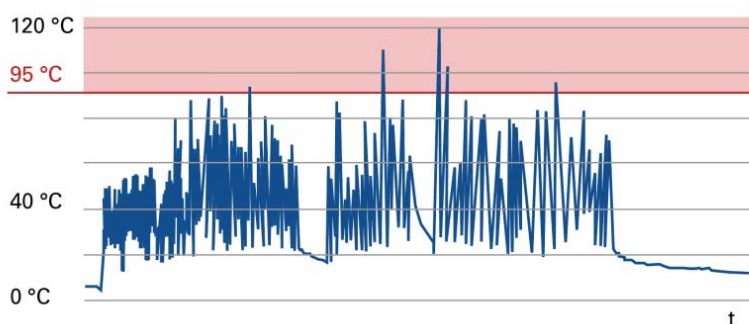


Fig. 2: Typical temperature curve of an SRF production facility



Fig. 3: Cooling after the first sensor was triggered

One of the first companies to try out this innovative solution was Mayer Recycling GmbH in Upper Styria, Austria. The data collected since mid-2019 clearly demonstrates the benefits of this sophisticated technology. Figure 2 shows the temperature on the conveyor belt during typical SRF production. On average, over 350 overheated particles in the material stream are detected per month. Of these, approximately 10% were still too hot for further processing, triggered the alarm and were manually removed. Of the removed materials, around 70% were batteries that were already undergoing a chemical reaction. The remaining system triggers were coolable materials such as metal particles that got too hot after shredding.

To summarise, the data collected clearly shows that Lindner's FPS substantially reduces the fire risk in SRF production facilities.

Literature Review

Lorber, K., R. Sarc & R. Pomberger (2010). Austrian experiences in the use of different wastes as solid recovered fuels (SRF) and possible application problems. Turkish-



Fig. 4: Lindner's Fire Prevention System (FPS) sensor instantly detects overheated particles after the first shredding unit

German Waste Days 2010 – Resource protection through the implementation of sustainable waste management. pp. 327-348 (in German)

VOEB Association of Austrian Waste Management Companies (2019). Press release: 1.4 million highly inflammable lithium batteries end up in the general waste collection every year, <https://www.voeb.at/service/voeb-blog/detail/show-article/14-millionen-brandgefaehrliche-lithiumbatterien-landen-jaehrlich-im-restmuell/>, (accessed: 09 July 2020) (in German)

Austrian Chamber of Commerce, Waste Management and Resource Management Association (2019). Careful handling and correct disposal: Why lithium batteries and lithium-ion rechargeable batteries should never be disposed of in household waste, <https://lithium-info.at/>

(accessed: 09 July 2020) (in German)

Lindner, Spittal an der Drau/Austria (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.

More information:

Mag. Pia Steiner, PR & Marketing, Lindner-Recyclingtech GmbH

Villacher Strasse 48, 9800 Spittal an der Drau, Austria

Phone: +43 4762 2742-729, Fax: +43 4762 2742-9032, **Email: pia.steiner@lindner.com**

Sand extraction through mobile processing

By: Dipl.- Ing. Sigurd Schütz, RHEWUM GmbH, Germany

A flourishing construction industry without sand is unthinkable. According to One Stone Consulting, around 10 to 15 billion tons of building sands are required worldwide each year (1). In addition, we need industrial sands, for example for fracking or the glass industry. This corresponds to a per capita sand consumption of about two to eight tons per year, so that a total of 40 to 50 billion tons of sand and gravel must be extracted. This makes sand the second most traded raw material after water (2)! Since the demand for sand is growing faster than suitable sand resources can be found, sand is instead produced from gravel or transported over long distances. This is not environmentally reasonable. RHEWUM has developed a solution to process sand mobile and therefore directly on site.

THE RAW MATERIAL

Quartzite sand is mainly used in the construction industry. It consists of silicon dioxide (SiO_2). The great hardness of the material (7° according to Mohs) is an advantage. The usual grain sizes in the building

industry for coarse sand are 0.63 to 2.0 mm, for medium sand 0.2 to 0.63 mm and for fine sand 0.063 to 0.2 mm. Whereby the finest fraction (below 63 μm) must be removed to avoid silicosis (pneumoconiosis), as these fine particles settle in the lung tissue and can lead to chronic inflammation.

THE OCCURRENCE

In simple terms, sand is produced by the weathering of minerals. However, all rocks weather differently. A sand-lime brick weathers much faster than a hard quartz rock and subsequently rises again in superficial sediment. The proportion of sand here lies at around 10 percent, while the proportion of gravel in these sediments amounts to 20 percent (1). Unfortunately, the global demand cannot be covered by the sand deserts of our earth, as so often hoped for. It is too fine-grained and round, so it cannot be used as an aggregate for concrete. Usable sand is mainly found in rivers and on the coasts of emerging countries, where it is often extracted without regulation. For this reason, countries such as Malaysia, Cambodia, Vietnam and Indonesia



Figure 1: Sand has become a precious resource today, because it is the basis for our modern society. That is why trading with it is becoming increasingly attractive for many people. (Source: Pixabay)



Figure 2: Singapore's skyscrapers contain vast amounts of concrete. But without sand, there is no concrete. (Source: Pixabay)

have generally banned the export of sand.

THE DEMAND

In Germany, the construction industry is already warning about a sand shortage. Most buildings are made of concrete, which in turn consists of 60 percent sand. Each medium-sized house requires around 200 tons of sand and every kilometer of highway requires around 30,000 tons. In addition to these applications, the raw material is also used in glass, detergents, microprocessors and many other areas. For this reason, ships transport sand daily to regions that need sand but do not have the necessary resources. For example, Singapore imports around 400 truckloads of sand every day, while Bangalore in India imports 100 trucks a day (3). Alternatively, sand is also extracted directly from beaches or riverbeds. The long-term consequences for the environment and its population are controversial.

THE REQUIRED PARTICLE SIZES

Sand for the production of concrete is subject to the relevant standards such as DIN EN 197-1 or DIN 1045-2. Sands usually have a grain size between 0 and 2 mm, while gravel or grit range between 2 and 8 mm. A standard cubic meter of concrete requires about 150 liters of water, 300 kilograms of cement, 630 kilograms of sand, 580 kilograms of fine gravel and 700 kilograms of medium gravel. Correspondingly, just over 30 percent of the total quantity of concrete is building sand (1).

THE PRODUCTION OF SANDS

The extraction of the resource sand is usually handled stationary. For this purpose, the sand is washed and classified into appropriate grain classes. If the resource sand is not available, gravel can be crushed and then classified.

Description	Particle size in mm
Coarse sand	0.63 – 2.36
Middle sand	0.2 – 0.63
Fine sand	0.063 – 0.2
Silt	0.002 – 0.063
Clay	< 0.002

Figure 2: Singapore's skyscrapers contain vast amounts of concrete. But without sand, there is no concrete. (Source: Pixabay)

THE MOBILE SCREENING OF NATURALLY MOIST SANDS

While mobile crushing and screening plants for processing coarser classifications over 2 mm have already proven their worth in road construction, this innovative concept has not yet been able to establish itself for finer separations. One problem in fine classification is the design of the screening machines used. The screening machines normally used, with a vibrating housing and amplitudes and frequencies unsuitable for fine screening, do not achieve the required screening qualities. Accordingly, the industry has not pursued this concept further, although it would offer massive advantages for the operator of such a plant. However, if a directly excited screening machine is placed on a conventional equipment carrier, fine sands can also be produced directly on site in the quarry. Without having to transport them over long distances before processing.

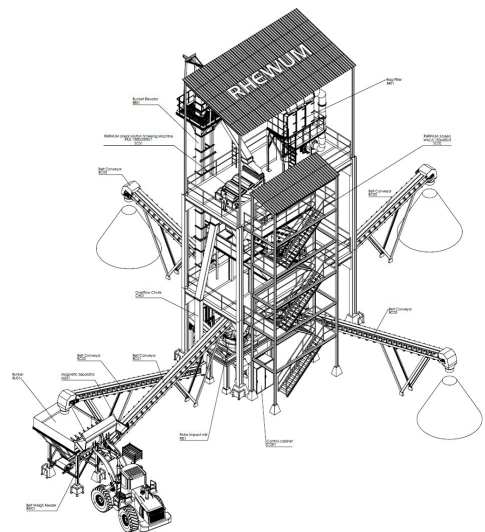


Figure 3: Mobile sand classification with the RHEWUM Liberty Screen (Source: RHEWUM)

THE SEMI-MOBILE PRODUCTION OF MOIST SANDS

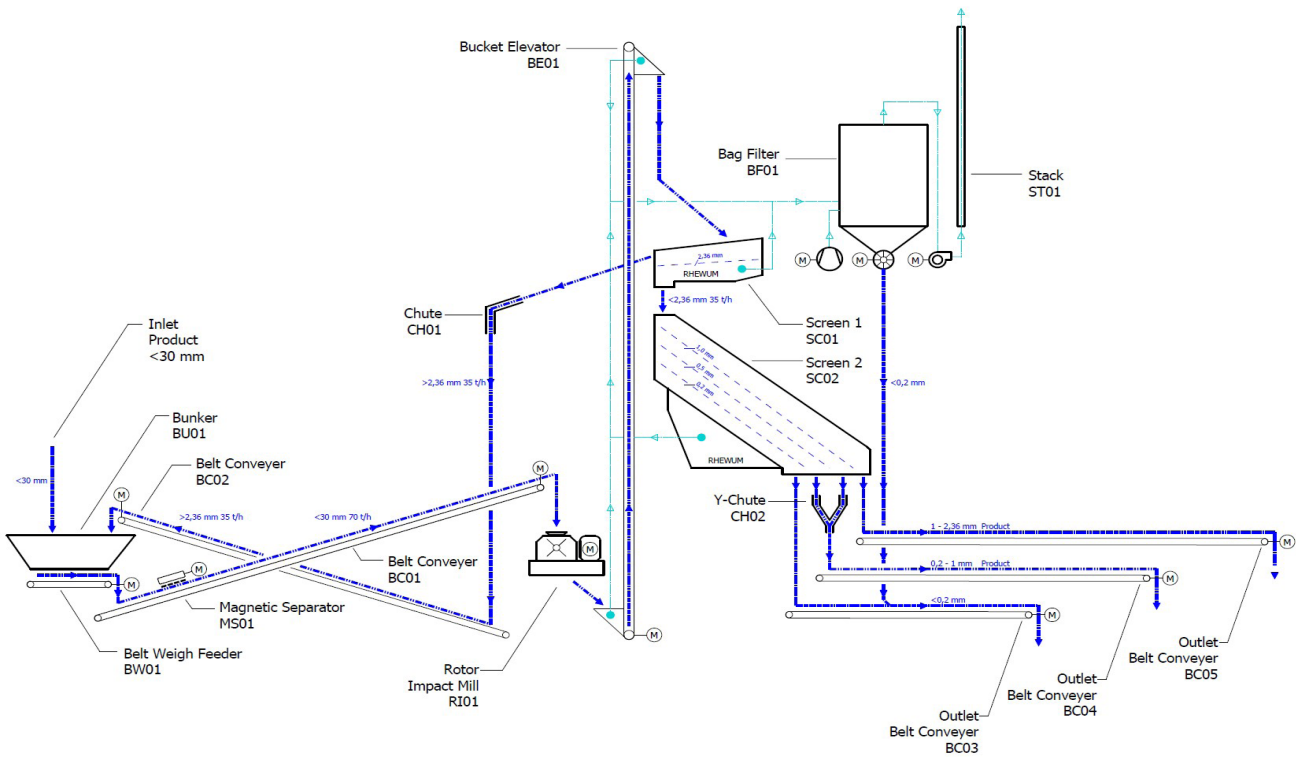
If no sand is available, but gravel is, it can be used as a raw material for semi-stationary processing. Semi-stationary means that the required sand is produced in a light steel construction. An advantageous arrangement of the required machines allows this design. While the supposedly heavy crusher is arranged near the ground, directly excited static screening machines are used for the subsequent fine screening. This relieves the steel construction considerably and the plant can also be easily moved at a later date. The feed material, as well as the fractions produced, are set up directly in the quarry in the first step by means of a wheel loader and only require a floor space of 30 by 20 meters. Only two employees are required to operate such a plant. The example configuration shown in sketch 1 produces around 35 tons per hour of saleable sands.

The flowsheet (see sketch 2) to the sand processing plant from sketch 1 contains only the essentials for producing sand from gravel. After feeding, the material flow is taken from a small storage container by means of a weigh feeder and transported to the plant. To protect the mill, larger metal particles are separated along the way. In this configuration, an energetically efficient rotor impact mill produces the required fractions, which are transported via a bucket elevator to a coarse screen. While the oversized particles are returned to the feed, the usable fraction leaves the coarse screen and is then screened into fractions ready for sale on a directly excited



Sketch 1: Model semi-stationary sand preparation plant (Source: RHEWUM (5))

magnetic screening machine. These fractions are transported by belts to small stockpiles for sale. Both feeding and removal are carried out flexibly by means of wheel loaders.



Sketch 2: Flowsheet of a simple sand preparation plant type (Source: RHEWUM (5))



Figure 4: RHEWUM RIUS Linear vibrating screen for different separations and material transport. Applicable in the sand preparation plant as shown in sketch 2. (Source: RHEWUM)

Thanks to the use of energy efficient machines, the sand processing plant can be operated energy self-sufficiently with the help of a power generator - an advantage in emerging countries with insecure power supply and in remote areas.

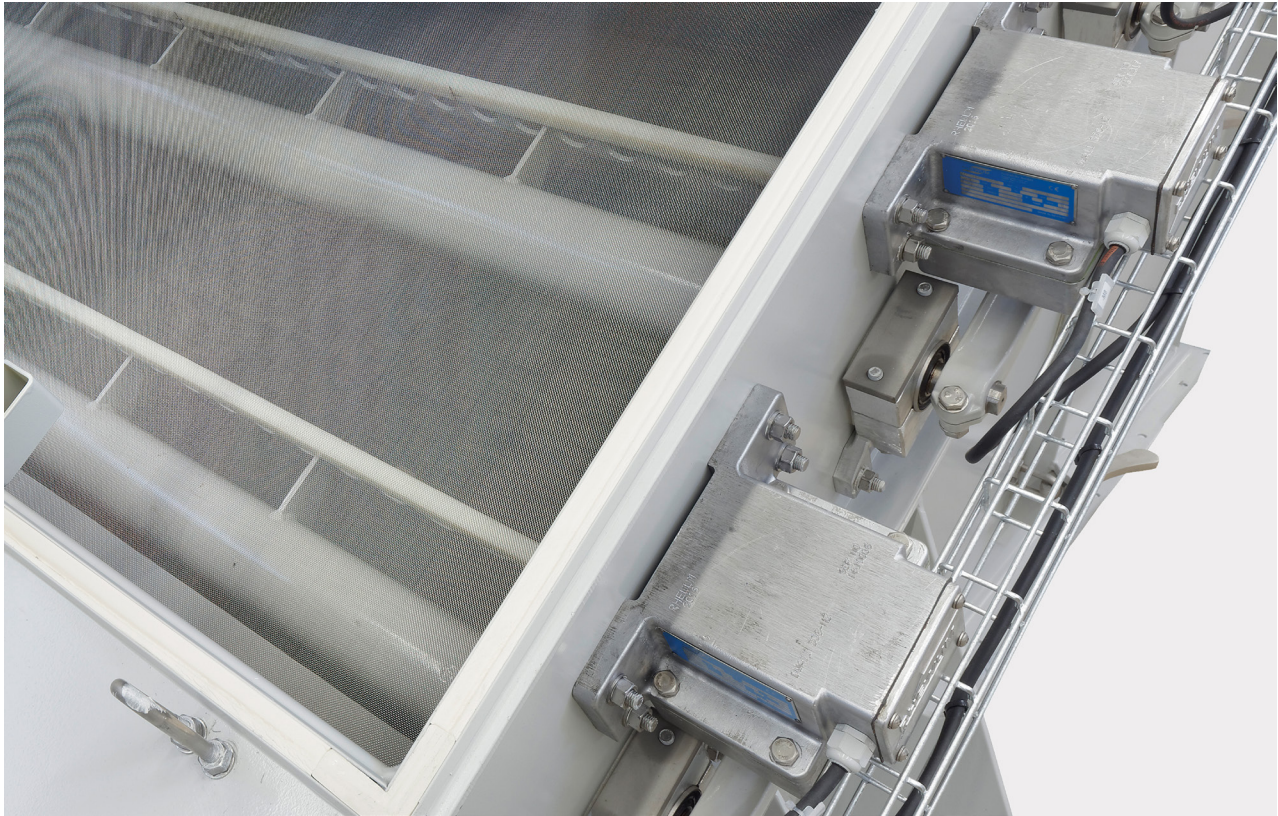


Figure 5: Drive principle of the RHEWUM WA(U) screening machine: The screen cloth is excited directly by a high-frequency knocker shaft movement while the screen housing remains static. Applicable in the sand preparation plant as shown in sketch 2. (Source: RHEWUM)

SUMMARY

The German saying "Like sand on the beach" is no longer true in many areas due to the immense consumption of sand. In order to bring the sand to the consumers, it is possible to transport the sand from sandier areas to sandier areas. In many places around the globe this is already happening today. It is doubtful whether this approach will leave a positive ecological footprint. It seems to make more sense to produce the required sand grains from the far more widespread gravel in the vicinity of the customers. In order to secure the necessary investments as far as possible, it makes sense from the operator's point of view to keep such plants mobile. In this way, sand processing plants can follow either the resources or the customers. Transport costs and negative effects on the environment would thus be minimized.

Literature:

- 1.) Harder, Dr. Joe; 2020, „Rohstoff Sand – Eine Mangelware“, www.onestone.consulting.de
- 2.) Ritter, Johannes; 2019, „Warum Diebe einen Strand klauen“ in FAZ
- 3.) o.V.; 2020, „Der Sandverbrauch führt zum Raubbau an der Natur“, www.ingenieur.de
- 4.) Schütz, Sigurd; 2006, „Erzeugung siebreiner Fraktionen bei naturfeuchten Körnungen mineralischer Rohstoffe“ in *Aufbereitungstechnik*, Nr. 7
- 5.) Design documents of RHEWUM GmbH, 2020

TAKE CONTROL OF YOUR POWER – USING POWER AUDITS

By: Lawrie Evans and Mark Mutter, JAMCEM Consulting, United Kingdom

INTRODUCTION

For the vast majority of cement plants there are two major drivers of variable cost to manufacture clinker – power and fuel. For modern plants with preheater and precalciner kilns, fuel consumption is usually within a narrow band of 3200 to 3400 MJ/t clinker and there is limited capability to make a significant change to this performance. Over the past 30 years, the main effort in this cost area has been to minimise the cost per GJ of the fuel by increasing utilisation of pet coke and alternative fuels.

In contrast, power consumption to clinker has a much higher range of values. Figure 1 shows that even on a country-by-country basis, there is a very wide range of performance (kWh/t clinker) reported. On a plant by plant basis this variation is even greater. There are

normally also limited opportunities to impact the cost per kWh. Most plants have a single available supplier and although there may be cheaper off-peak power offered, this is rarely a significant factor up to the clinker stage, as the kiln has to run continuously and there will only be limited, if any, opportunities to stop the raw mill for extended periods during the off peak period.

BENCHMARKS AND ESTABLISHING THE GAP TO ACTUAL PERFORMANCE

The first step to improving performance in any KPI is always to be aware of the gap between the actual plant performance and the benchmark / target for that KPI. In the case of power consumption to clinker, the benchmark used will depend on the major design components of the plant. From knowledge of several

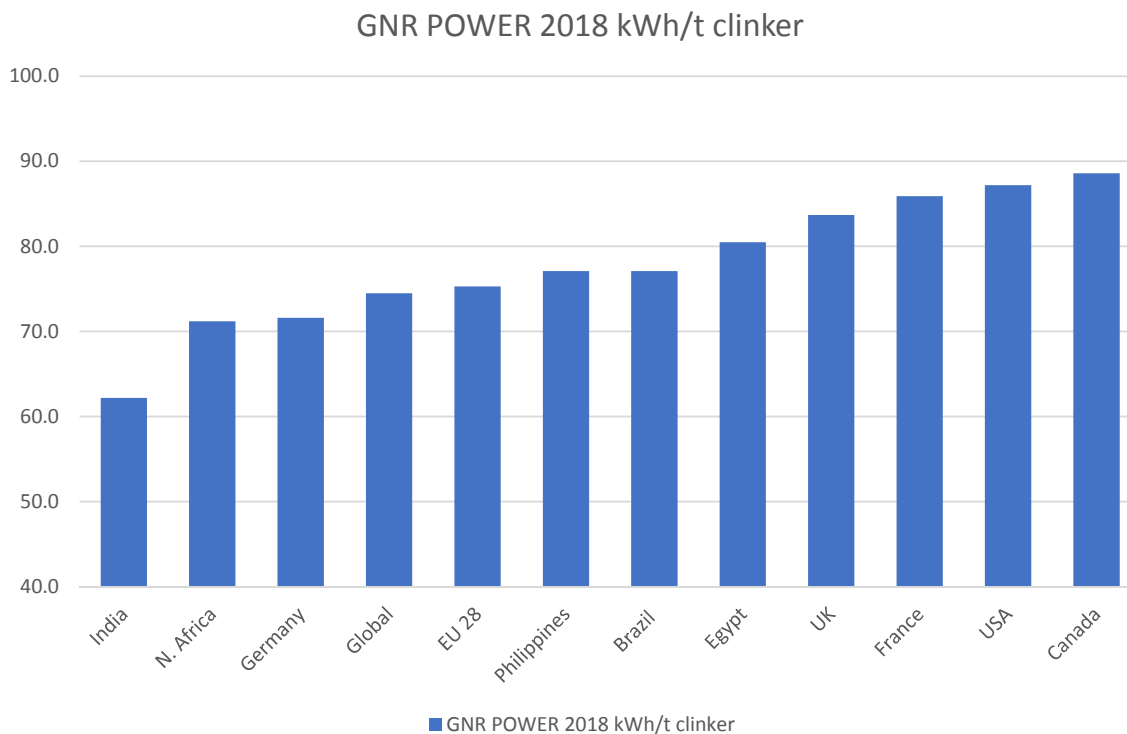


Figure 1: 2018 Reported Power Consumption to Clinker1

ENERGY

RAW MILL TYPE	kWh/t CLINKER
Wet process ball mill	50
Dry process vertical mill	58
Dry process ball mill	68

Table 1: Benchmarks for power consumption to clinker²

hundred different plants, JAMCEM have adopted benchmarks as shown in Table 1. There are a few plants which are known to perform better than these figures, but it is preferable to set achievable benchmarks.

Important to note are the following points:

- The benchmarks shown include power for solid fuel preparation. For plants with gas or oil firing, the benchmarks should be reduced by 3 kWh/t.
- The benchmarks include an allowance for a reasonable number of plant stops / starts, so are not a steady state operation target.
- The benchmarks do not include power for plant services such as plant compressed air, plant lighting, air conditioning etc.

Comparing reported power to clinker for a plant with the benchmarks will easily establish if the gap to benchmark performance is significant and indicates that a full power audit is required.

POWER AUDIT WITH PLANT MEASUREMENTS

The most powerful tool for the improvement of plant performance power consumption to clinker is a power audit. A full plant power audit comprises 4 main components as follows:

- Efficiency of each medium/large drive.
- Power used during periods when the kiln/raw mill are not in production but are either preparing for feed on or running down after feed is stopped.
- Efficiency of utilisation of opportunities for operating plant on off peak power, where such options exist.
- Power factor correction equipment and efficiency.

The focus of this first step in power auditing is limited to the analysis of the efficiency of individual drives. For this, the first action is to list all the motors (usually over 25kW sizing) which are included in the calculation of power to clinker. A typical layout for the information required is shown in Table 2.

The second action is to complete an additional table with the actual measurements for the relevant areas of the plant (crushers, raw mills, kilns) in stable operation. This is shown in Table 3. This is obviously easier if the plant is equipped with a modern SCADA system for power measurements. In parallel with the power readings, a full set of process measurements must be taken. Those required are summarised for each main type of equipment in Table 4. In some cases these measurements may have to be approximations. Finally production rates for the main crushers, raw mills, coal mills and kilns must be recorded together with an

Plant Name		MOTOR NAME PLATE DETAILS					
TAG Number	Drive Name	HP	KW	VOLTS	AMPS	RPM	Cosø

Table 2: Installed motor list with nameplate details

MEASURED POWER											
RPM real	Actual KW (meter)	V ₁	V ₂	V ₃	AVG VOLTS	I ₁	I ₂	I ₃	AVG AMPERES	Cosφ	Power By Formula

Table 3: Installed motor list with nameplate details

Equipment Type				
Fan	Flow (m ³ /h)	Static Pressure in (mbar)	Static Pressure out (mbar)	
Water pump	Flow (m ³ /h)	Head (bar)		
Compressor	Flow (m ³ /h)	Outlet Pressure (bar)		
Bucket Elevator	Horizontal lift (m)	Material flow (tph)		
Conveyor belt	Horizontal run (m)	Vertical lift (m)	Material flow (tph)	
Kiln	Diameter (m)	Length (m)	Speed (rpm)	Slope (o)

Table 4: Process measurements required at time of power audit

oxygen survey and system pressure losses. The total kWh/tonne of clinker reported by this method will not correspond exactly to the plant annual average power reported. This is a result of:

- a) The total calculated by this method does not include the smaller motors of less than 25kW
- b) The annual reported power consumption includes power used during main process stops and start-ups.

It is important that these differences are noted. As an example, Figure 2 shows the results of a recent study where the steady state measurements from the above methodology on the main motors totalled 62.3 kWh/t clinker versus an annual plant report of 69.0 kWh/t clinker. Without a full analysis of the power losses for stops/starts being available for this particular plant, the

difference of 6.7 kWh/t clinker was determined to be made up of 2.0 kWh/t for the stop/start (normal for good practice) and the remaining 4.7 kWh/t for the smaller motors.

Figure 3 was then calculated for this case (vertical raw mill/precalciner kiln/coal firing) using the benchmark of 58.0 kWh/t clinker, which includes the smaller motors and the stop/start allowance. The gap of 11.0 kWh/t clinker remains the same as the overall 69.0 reported and the 58.0 benchmark but this methodology demonstrates that the sum of the power measurements taken for the audit will never be equal to the reported. However, if this gap is excessive, for example greater than 8 kWh/t, then there is a real issue to be investigated either in the stop/start usage, plant instability or in the plant reporting methodology.

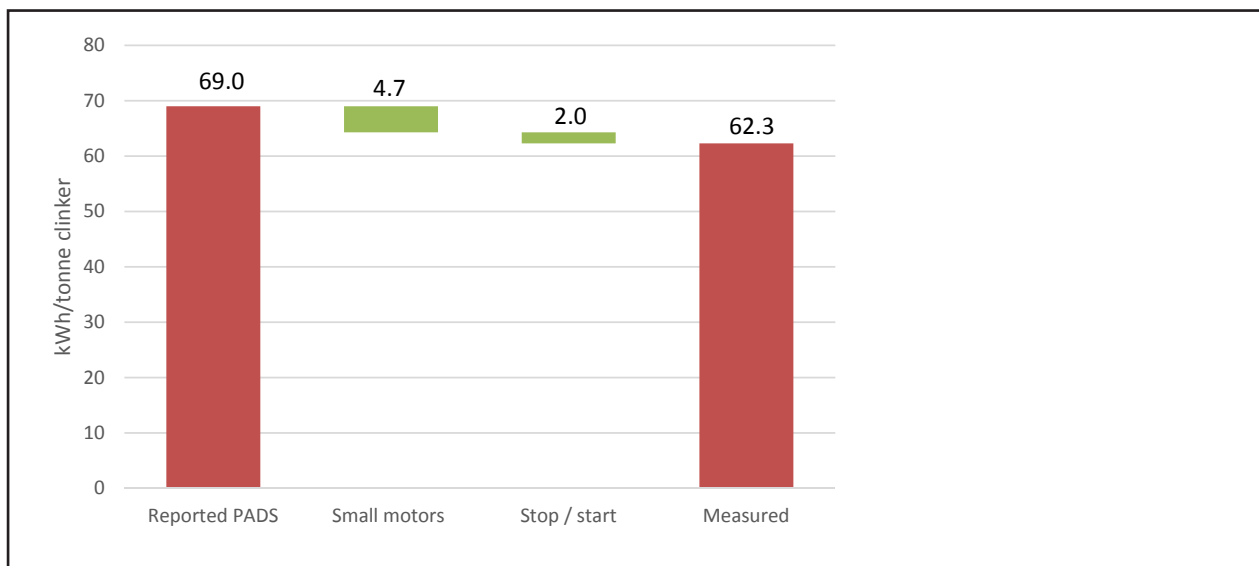


Figure 2: Example of difference between reported and measured power audit result

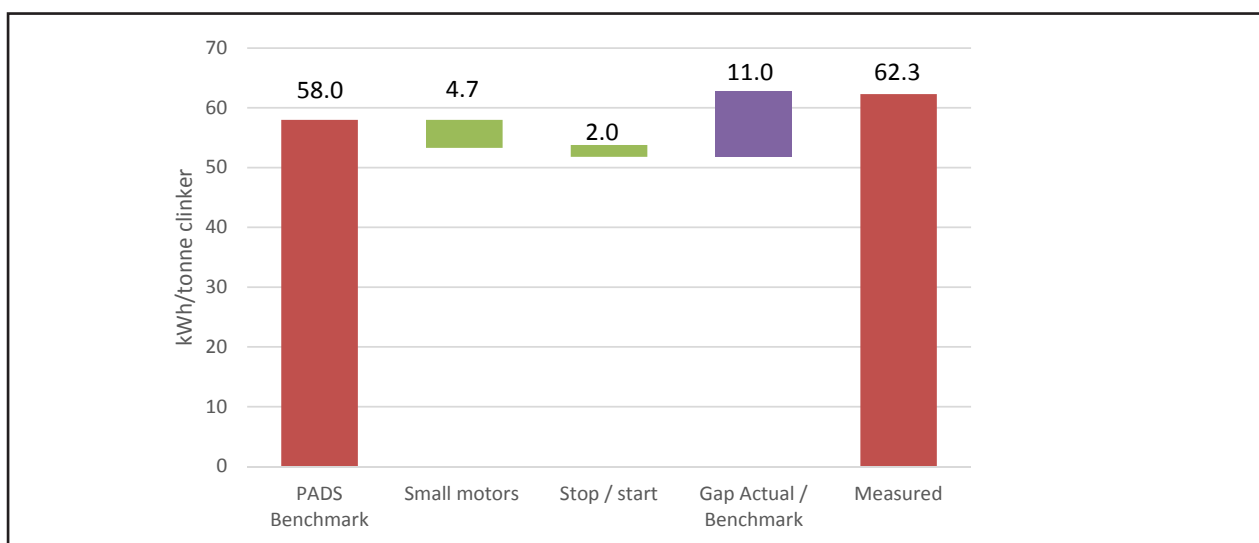


Figure 3: Calculation of gap from benchmark

PROCESS EQUIPMENT EFFICIENCY CALCULATIONS

Analysis of the main body of data is relatively straightforward and follows well established theoretical power calculations. As an example of the analysis, the main filter fan is used and the data shown in Table 5.

The calculation shows that the fan is operating at an overall efficiency of 55%. In this example, the fan has a backward curved impeller, inlet box damper control with parallel blades and is equipped with a variable speed drive. For this arrangement, the overall theoretical efficiency can be targeted at approximately 75% based on the following equation

Overall efficiency (75%) = Fan Efficiency (80%) x

Drive Efficiency (97%) x Variable Speed Drive Efficiency (97%)

Thus the power audit has shown 55% efficiency versus a target efficiency of 75%. What issues need to be checked? The normal order is as follows:

- a) Mechanical condition of the fan - many issues can be the cause but a major concern is always the condition and alignment of the inlet cone.
- b) The damper indicates 100% open, but this is not physically the case.
- c) Actual fan flow and pressure are significantly different to the original design conditions and the

Main Filter Fan Efficiency Calculation						
Flow (m ³ /h)	Static Pressure in (mbar)	Static Pressure out (mbar)	Pressure Differential	Calculated Power kW	Measured Power kW	Efficiency %
720000	-28	-1.2	-26.8	536	974	55

Table 5: Example of overall fan efficiency calculation

fan is thus incapable of efficient operation. This can be ascertained by checking the fan manufacturers original fan curves.

- d) The drive efficiency is low as the installed motor is either of poor original efficiency, has been badly re-wound at some stage in its history or is simply oversized.
- e) The variable speed drive system is inefficient either by original design or is operating at speeds well below 90%.

In addition to the above issues, a full power audit will also need to consider the process issues for the fan. These include:

- a) Is the fan operating with a higher pressure demand than necessary i.e. are there cyclones/ ductwork/ other areas with constricted gas flow causing unnecessary pressure drop in the system?
- b) Is the inleaking air to the system under control and within the target range?

This list is not exhaustive. It can be seen that the overall assessment process is complex. Similar targeting methods can be applied to all process equipment. The list of items to check will be different but the methodology remains the same.

In addition to the analysis of individual drive efficiencies, there are also general process issues which should be included in the power audit. These include:

- a) Establishing the raw materials grindability i.e. by conducting a Bond test at a suitable laboratory and using the results of this test to assess a target for the raw mill drive.

- b) Ensuring that the raw meal target 90-micron residue used is not too low. A burnability test may be required, but an initial check of the acid insoluble residue at 90 microns will enable a decision as to whether this test will be required.
- c) Coal mill efficiency is usually simpler to assess, as the fuel supplied usually includes Hardgrove data, which can be used to target coal mill kWh/t.
- d) As with raw meal, there are methods available to target pulverised fuel residue to give adequate combustion in kiln and precalciner.
- e) Overall circuit design should also be reviewed to ascertain if there are issues which give rise to unnecessary pressure drops and high negative suction in ductwork and other process equipment with the associated high inleaking air issues.

CONCLUSION

Power consumption to clinker is often regarded as largely a factor of the plant design and is difficult to analyse and make improvements. Power auditing, used correctly, is by far the most effective tool for the analysis of opportunities to reduce power consumption and variable cost to clinker.

REFERENCES

- (1) GNR database 2018: <https://gccassociation.org/sustainability-innovation/gnr-gcca-in-numbers/>
- (2) JAMCEM PADS assessment: <http://www.jamcem.com/products/pads>

JAMCEM CONSULTING

REMOTE PLANT OPTIMISATION
IN COVID TIMES

JAMCEM PADS

Our unique plant
performance
assessment tool

1

ELECTRICAL ENERGY AUDIT

Identifying the gap
between current and
benchmark power
consumption

2

WASTE HEAT RECOVERY

Evaluation of the
causes for lower
than expected
power generation

3

QUALITY ASSESSMENT

Covering raw
materials, kiln feed,
clinker and cement
properties

4

INDEPENDENT CONSULTANTS FOR THE
GLOBAL CEMENT INDUSTRY

www.jamcem.com

+44 203 405 1881

sales@jamcem.com

Introduction of water-resistant paper bags for the Australian cement industry by Adbri Ltd, Pope Packaging and Mondi

Mondi's new Advantage Protect White sack kraft paper bag launches in Australia

The new packaging solution aims to deliver cost savings across the building and construction industry, by reducing damaged product and waste.

This innovation has led to Adelaide Brighton Cement, an Adbri Ltd Company, to convert all of their paper bags for cement and hydrated lime, to the new water-resistant bags.

Mondi, a leading global packaging and paper manufacturer, has partnered with Adelaide Brighton Cement and Pope Packaging on the development of a new water-resistant paper bag called 'Rain Barrier,' made out of Mondi's Advantage Protect White sack kraft paper, for the Australian construction market.

Standout characteristics include its water repellent surface and high tensile strength in a wet environment. While a standard paper bag absorbs water, the qualities of the Rain Barrier bag, keeps water from seeping in, as it stays on the surface where it evaporates. The paper itself is rain resistant for up to six hours and can resist water ingress for up to five full days when stored in damp conditions.

After being actively involved in testing and developing the new product, Adelaide Brighton Cement, one of Australia's leading producers of cement, hydrated lime and packaged products, is the first business in the country to market the new innovative product. The business is in the process of converting all of their cement and hydrated lime paper bags, manufactured in South Australia and the Northern Territory, across to Rain Barrier bags.

Applying Mondi's customer-centric EcoSolutions approach, Mondi focused on Adelaide Brighton Cement and Pope Packaging's goal to provide a more functional and sustainable packaging solution.

"We're pleased to be partnering with both Pope Packaging and Mondi, to launch this innovative packaging solution to the market. This partnership has allowed us to provide our customers and end users with additional value and packaging improvements,

that help reduce common industry issues like damaged product and waste due to moisture ingress", said Tara Gracie, National Packaged Products Manager of Adbri Ltd.

Matthew Sullivan, General Manager, Pope Packaging for Papersacks, said: "Until the introduction of Advantage Protect and Advantage Protect White in our bag construction, water damage to bagged cement remained a problem on building sites exposed to weather or damp. Our Rain Barrier bag offers an unbeatable combination of water resistance in a paper bag, which is less costly and has higher filling speeds than the non-paper alternative."

"The new water-resistant paper bags fill just as fast as traditional paper bags and can be filled on existing machinery – so no new investment is needed on the part of the cement companies. They are also made from a renewable natural material, which is part of Mondi's EcoSolutions approach to provide the most sustainable solution for its customers. We're delighted to have helped make a paper bag solution available in Australia," said Gerry Gosen, Head of Sales Region Asia Pacific Sack Kraft Paper at Mondi.

For more information, please contact:
Waltraud Seiner, Head of Marketing and Communication
Mondi Corrugated Packaging
Tel: +43 1 79013 4754

Email: Waltraud.Seiner@mondigroup.com

About Mondi

Mondi is a global leader in packaging and paper, contributing to a better world by making innovative packaging and paper solutions that are sustainable by design. Our business is fully integrated across the value chain – from managing forests and producing pulp, paper and plastic films to developing and manufacturing effective industrial and consumer packaging solutions. Sustainability is at the centre of our strategy and intrinsic in the way we do business. We lead the industry with our customer-centric approach, EcoSolutions, where we ask the right questions to find the most sustainable solution. In 2019, Mondi had revenues of €7.27 billion and underlying EBITDA of €1.66 billion.

The first Variable Speed Rotor Mill which can be used as Centrifugal as well as Cutting Mill!

Multifunctional for efficient pre- and fine comminution – heavy-metal- and iron-free!



premium line – ideal for continuous and batchwise pre- and fine grinding



The Variable Speed Rotor Mill PULVERISSETTE 14 *premium line* in use as Cutting Mill

The **Variable Speed Rotor Mill PULVERISSETTE 14 *premium line*** is ideal for soft, medium-hard, brittle, hard-brittle, fibrous, temperature-sensitive materials and all this with an extremely fast sample throughput.

Overview of the main features:

- ⊕ Two mills in one instrument and the only Variable Speed Rotor Mill, which is suitable for cutting
- ⊕ Easier operation due to Intelligence-Safety-Control – the mill only starts once everything is correct
- ⊕ Parts in contact with the sample can be easily removed without tools, dishwasher safe, sterilizable

The **Variable Speed Rotor Mill PULVERISSETTE 14 *premium line*** offers impact, shearing and cutting comminution in one instrument - with higher performance, better cooling and significantly quieter than comparable instruments.

With powerful 22,000 rpm of the impact rotor, as a centrifugal mill, it ensures a fast sample throughput of 15 l/h and more, which can be further increased by the use of the FRITSCH Cyclone separators. It is ideal for soft to medium-hard, brittle, fibrous and temperature-sensitive samples. Samples which are difficult to grind or extremely temperature-sensitive samples can be embrittled with the addition of liquid nitrogen and subsequently comminuted.

Unique dual use: By using a cutting rotor, the Variable Speed Rotor Mill becomes a Cutting Mill - ideal for efficient pre- and fine comminution of soft to hard-tough, fibrous materials and plastics. And in contrast to conventional Cutting Mills, the entire grinding chamber and all grinding parts can be removed without tools, cleaned in the dishwasher and are autoclavable for sterile comminution.

Up-dated information on the FRITSCH Variable Speed Rotor Mill can be found here:

www.fritsch-international.com/p-14pl.

For more Information, please contact:
FRITSCH GmbH • Milling and Sizing
Aaron Juchem
Industriestrasse 8 • 55743 Idar-Oberstein • Germany
Phone +49 67 84 70 159
E-Mail: juchem@fritsch.de • Internet: www.fritsch.de

**WANT TO BE HEARD ?
WANTO TO BE KNOWN ?
WANT TO BE UNDERSTOOD ?
WE CAN BE YOUR VOICE !!!**

We serve your
“EXPERTISE”
in the right platter !
We strive for your
“RISE”
because that’s what
“MATTERS !!!”



Contact us: +91-9893306661, email at: industrial.angles@gmail.com
(INDIA)



Industrial Angles has 360 degree experience, expertise and exposure to reach to your target audience and deliver your knack to them. Bank on us for all your communication needs!

www.industrialangles.com



VPInstruments introduces the wide range 3 Phase Power Meter

VPInstruments is proud to launch a new model of the 3 Phase Power Meter. With the 3 Phase Power Meter you can measure the voltage and current of all three phases, thereby, providing a high-accuracy measurement of the real power consumption.

The new model 3 Phase Power Meter can handle a very wide range of voltages: the same meter can be used for all nominal voltages between 100 Vac and 600 Vac, with delta and wye configurations at 50 Hz or 60 Hz. With this one-size fits all model, selection is now very easy.

The new model replaces all current models, leaving just one model for your measurement application.

odbus RTU) interface. VPInstruments 3 Phase Power Meter is the recommended power meter for permanent measurements. The 0.333 VAC CT inputs enables connection to universal current transformers. Or just rely on VPInstruments current transformers to complete the power measurement solution.

Applications:

- Power consumption of large consumers (i.e. compressors, dryers, pumps, water chillers)
- Submetering
- Cost allocation
- Condition monitoring
- Energy management
- Efficiency calculations (i.e. compressor electrical usage vs output)

Specifications:

- True RMS power measurement of single-phase or three-phase systems
- One size fits all: one model for 100 to 600 Vac, 50 / 60Hz
- RS485 (Modbus RTU) output
- Wye or delta in one model
- For permanent installation
- 0.3333 VAC input for current transformers (CT)
- LED indicator for CT status and serial communication
- Configurable using Modbus



About VPInstruments

VPInstruments 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. VPInstruments' 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.

VPInstruments' 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, please contact:

VPInstruments

Joyce van Eijk - joyce.van.eijk@vpinstruments.com

Buitenwatersloot 335, 2614 GS Delft

Tel. +31 15 213 1580

[Internet: www.vpinstruments.com](http://www.vpinstruments.com)



NEWSLETTER

**APPEARS FREE –
EVERY 3 WEEKS**

Always the latest insights
from industry and
development!



All events of the industry
with one click!



SIGN UP NOW!

www.zkg.de/newsletter

Schenck Process launches its new control unit generation CONiQ® Control

CONiQ® Control is a highly flexible control and automation system with many options for use in industrial measuring, weighing and automation technology. Herewith Schenck Process standardizes the use of a common controller platform for a wide variety of processes for the first time. The hardware and software components are optimized with regard to the user interface, connectivity (IIOT), configurability and calibration capability.

The range of applications extends from a wide variety of measuring and weighing technologies to logistical automation solutions and applications in the field of continuous processes that will soon be available – concentrating especially on bulk material handling.

The first available application can be used for is precise, legal-for-trade weighing and automation solutions in the field of static weighing and identification of freight, trucks and cranes.

The new controller's main advantage is the user-guiding, web-based interface, which won the reddot award 2019 for its intuitive interface design.

Launching CONiQ® Control, Schenck Process now offers:

- Award-winning user interface: The touch control interface intuitively guides the user through their task, simplifies and accelerates operations and allows short training times.
- Remote access: Access to the control unit is available using Ethernet or WiFi connections. The web-based user interface also enables operation via mobile devices. Additionally, remote access without app or software installation improves maintenance services, resulting in faster response times and a reduced downtime.
- Customized modularity: In line with increasing standardization requirements of end- and OEM-customers, both hardware and software are modular and can be combined to suit relevant applications. CONiQ® Control has a fieldbus interface for easy system integration and is available with different housing variants. This allows the controller to be adapted precisely to various applications and environments. The functions of the controller are determined by the software, expansion modules used and parameterization.

As a global market leader in industrial weighing and feeding applications, Schenck Process focuses on digitizing existing products and developing new smart ones while combining technology and application processes in a smart and connected way.



reddot award 2019
winner interface design





THE TECHNICAL JOURNAL FOR THE CEMENT INDUSTRY



PRACTICE-RELATED EXPERIENCE

Both reports on practical experience and up-to-date information from the areas of research and development are presented. Concomitant reports and short news items and announcements indicate to readers forthcoming trends in scientific-, product- and market developments.

INTERNATIONAL

CEMENT INTERNATIONAL with international orientation is bilingual (German/English). As the official organ of the German Cement Works Association (VDZ) and the Hungarian Cement Association, the journal can lay claim to the highest standards und superlative quality.

TARGET GROUP ORIENTED

Plant operators, staff at research- and testing institutes, from universities and public authorities, as well as representatives of the plant and supply industry are able to profit from the up-to-minute information featured on the latest findings from research and practice.

COMPARE US ...

WWW.VERLAGBT.DE/CEMENTINTERNATIONAL.HTM

... WITH ALL THE OTHER CEMENT-JOURNALS

VERLAG  BAU+TECHNIK

New Siemens gateway between cloud, incompany IT and production

- Simatic IOT2050 gateway designed for industrial IT solutions directly in the production plant
- Future edge functionality for integration in Siemens Industrial Edge solutions
- Open platform acquires, processes and transfers production data to a cloud system
- Wide range of communication options und easy connection to MindSphere, the open, cloud-based, IoT operating system from Siemens

Siemens is launching a gateway based on the TI ARM processor family which links cloud, in-company IT and production. Simatic IOT2050 is designed for industrial IT solutions for the acquisition, processing and transfer of data directly in the production environment. It can be used for connecting the production process to a cloud-based analysis of machine and production data, for example. The new IoT gateway will also be equipped with remote edge functionality for easy integration into Siemens Industrial Edge solutions.

The gateway can also be retrofitted in already existing plants, where it then harmonizes communication between different data sources, analyzes the data, and passes it on for evaluation to a cloud, for example. This cloud can be MindSphere, or any other solution preferred by the user. The Simatic IOT2050 complements the MindConnect Nano cloud gateway from Siemens. This gateway is already on the market, and is specifically designed for MindSphere.

The hardware of the new Simatic IOT2050 gateway has a compact design and is based on rugged, reliable and long-lasting industrial technology. The device is suitable for both wall and standard rail mounting, is equipped with a power-saving Texas Instruments ARM AM 6548 (+Secure Boot), 2 GB DDR4 RAM and multiple interfaces including two Gbit LAN, two USB, and a serial and Arduino interface. It comes with the Simatic Industrial OS already installed. Simatic IOT2050 can be easily expanded for tailor-made solutions with Arduino shields and mini PCIe cards. It also supports Linux based on Debian. There are also many other options for programming in high-level languages. Together with the planned edge functionality, it is easy for the user to integrate the Simatic IOT2050 into Siemens Industrial Edge solutions.

The Simatic IOT2050 is typically used for preventive machine maintenance and linking production to the ERP (Enterprise Resource Planning) level in order to minimize expensive production downtimes. Relevant indicators can be evaluated and impending signs of wear detected at an early stage. These are the ways the new IoT Gateway contributes to making production more versatile, reliable and efficient. Simatic IOT2050 acquires, processes and stores the relevant data. These are transferred to a cloud-based analysis tool, and the evaluated data then passed back from the cloud to the production maintenance system. This continuous data exchange completes the control loop for optimizing maintenance intervals in production plants.



ЦЕМЕНТ

и его применение

CEMENT AND ITS APPLICATIONS
INDUSTRIAL JOURNAL

SINCE 1901

News

Markets analysis

Science,
technology,
production

Solid partners

Effective
advertising



The journal for producers and consumers of cement and other binders, as well as for construction companies and equipment producers

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

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

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

«Cement and its Applications» is the only initiator and organizer of international cement conferences PetroCem. PetroCem 2018 which was held on April, 2018 in Saint-Petersburg, Russia – gathered more than 520 participants from 36 countries and representing more than 320 companies.

Jcement.ru web-based information portal on cement. Production, technologies, science. Always up-to-date news and data on cement producers, technologies, equipment suppliers and key-players. Journal, interviews, statistics, events, Q&A and other relevant materials.

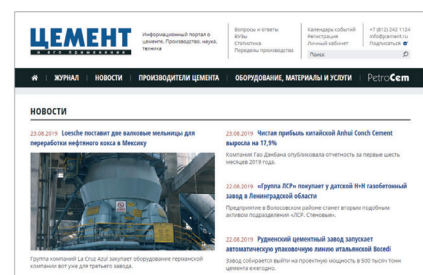
Cement and its Applications, Journal
22 A Zvenigorodskaja Str. No 438
St. Petersburg, 191119, Russia

Tel. +7 (812) 242-11-24

E-mail: info@jcement.ru

Web: www.jcement.ru

www.petrocem.ru



Sacmi HERE: A modular, scalable approach to digitalization

A modular, scalable approach, with immediate tangible benefits. From 'overview' functions to integrated control of production flows, Sacmi HERE makes manufacturing better and faster by optimising every stage of production and creating a new ecosystem that interlinks technology, people and processes.



HERE is a Sacmi-developed digital manufacturing software package that allows fully digital control of factory flows. HERE has been configured as the link between the production environment and the ERP, letting manufacturers control all production-side data flows and optimise all-round factory control by producing better and faster, reducing inefficiencies and automating the entire production flow.

HERE implements advanced MES (manufacturing execution system) functions and acts as the infrastructural link between the Information Technology and Operational Technology levels of the plant. Installable on either a physical or virtual server, the system gives customers excellent access control

and has been designed according to strict cyber-security criteria.

The key advantage of the system is its modularity, which lets customers take a gradual approach to digitalization and enjoy immediate, evident benefits. The first step involves the implementation of overview functions: these let users monitor, via a simple interface that can be consulted on fixed or mobile devices (smartphone, tablet), all essential plant data via the calculation of KPIs and real-time identification of the causes of any problems.

The second step consists of upgrading the system to encompass actual MES functions – process control traceability, quality, energy analysis and maintenance management. In its most advanced configuration, Sacmi HERE interfaces with the client's ERP and calculates product requirements, optimising the different stages of production via recipe management and advanced operational scheduling functions.

Sacmi aims to operate on the market not just as a provider of software and plant engineering solutions but also as an all-round plant digitalization partner. Provision of the HERE solution always begins with a detailed analysis of the company's needs, from case-specific configuration of production flows to the benefits the client wants from the system. That's why Sacmi, in addition to offering a modular approach to digital ceramic manufacturing, can also develop made-to-measure configurations that are indispensable when progressing from an overview approach to implementation of true MES functions.

First launched a few years ago, HERE has since been installed by leading ceramic manufacturers worldwide and optimised on the basis of in-the-field-feedback. Key customer-confirmed advantages include, on the one hand, higher productivity and versatility, and optimised control of economic and environmental costs on the other. In short, a new cutting-edge ecosystem that allows seamless interaction of technology, people and processes.



GSI, TOGETHER WITH SACMI, REACHES A NEW MILESTONE TOWARDS INDUSTRY 4.0

Gruppo Sanitari Italia installs a new ADM casting machine for large washbasins and consoles. This supply is the latest addition to the company's substantial investment in SACMI pressure casting technology for total automation, quality and versatility.

A further milestone has been reached with this latest addition to the large fleet of SACMI machines already installed at GSI (Gruppo Sanitari Italia), which consolidates the company's position as lead player in Italy's sanitaryware manufacturing district for top quality and design ceramic sanitaryware.

Proceeding with its ambitious plan for investment in SACMI's pressure casting technology, GSI has purchased a new ADM machine adding to the other 6 AVM solutions already in operation as well as the AVI and ADS machines.

Dedicated to the casting of large-sized and heavy washbasins and consoles, the ADM is designed to allow maximum versatility in the manufacture of pieces with two-part moulds. The machine is

equipped with the SACMI patented system for rapid size change-over with the possibility to control all the casting, demoulding, loading and unloading operations automatically, without an operator.

The cell includes a SACMI FPV pre-dryer which facilitates the ageing and hardening of the pieces in a controlled environment before loading onto the car. This is a state-of-the-art solution which saves time and energy consumption whilst, at the same time, safeguarding the quality of the product.




The distinguishing feature of the solution supplied - completed by an automatic finishing station for the cast piece before loading onto the car - is that manual operations, from production to product handling, are eliminated.

With this new ADM supplied by SACMI, Gruppo Sanitari Italia has completed a further step towards achieving Industry 4.0, uniting the logic of automation and machine interconnectivity to guarantee higher efficiency and versatility in the running of the factory.

IMPROVE THE FUNCTIONAL AND AESTHETIC CHARACTERISTICS OF MATT GLAZES

Nepheline syenite plays an important role in matt glaze production. Using high-quality materials such as SPECTRUM® can help to significantly improve the functional and aesthetic properties of the matt glaze and finished tile, as well as reducing your overall production costs.

Matt glazes give tiles a natural look and open up different design possibilities. But creating a matt glaze that is also functional (in terms of ease of cleaning and resistance to scratching and chemicals) can be very challenging. Drawn from Sibelco's unique deposits in Norway, SPECTRUM® nepheline syenite enhances the aesthetic and functional characteristics of matt glazes in a number of ways, as well as helping to reduce your production costs. The benefits include:

-  INCREASE SILKINESS AND WHITENESS
-  IMPROVE INK COLOUR DEVELOPMENT
-  INCREASE SCRATCH RESISTANCE





Greater sustainability with organic-based inks

Gruppo Colorobbia's eKo series is a new generation of organic-based digital inks designed for ceramic manufacturers seeking maximum production efficiency combined with a lower environmental impact.

Eco-sustainability is one of the main factors driving ceramic product purchasing trends. This means that environmental awareness is an increasingly important and distinctive added value for a tile brand, and together with elegance, durability and functionality of products is a guarantee of success.

Colorobbia has always been a leader in developing production technology aimed at improving healthiness, fighting climate change and providing end users with the products they want.

For digital decoration of ceramic surfaces, water-based inks such as the AIR series from Colorobbia remain the best solution to environmental problems, provided that this technology offers reliable performance in the ceramic industrial environment. The range has now been expanded with the introduction of the new eKo series, an intermediate product that can be used immediately with today's digital machines.

With the new eKo series, Gruppo Colorobbia ensures efficient use of materials while guaranteeing optimum performance and safety on single-firing tile production lines.

The series comes in a wide range of colours and special materials and guarantees the highest quality during all production



stages.

Its high performance not only lowers ink consumption but also reduces the quantities of applied organic substances. For example, the 20% lower ink application weight leads to a 25% reduction in organic matter and consequently in the carbon footprint left by the inks.

The nature of the atmospheric emissions from the kilns, which is related to the chemical composition of the ink solvents and the quantity of applied organic matter, depends amongst other things on the moisture content of the ceramic body, the firing cycle, the kiln atmosphere and the external weather conditions, all of which are outside the control of glaze and colour producers. What these producers can control however is the composition of their digital products, as is the case in the Colorobbia laboratories.

The new eKo series is formulated with odourless organic solvents of plant origin free from hydrocarbons and glycol ethers. The high decomposition temperature combined with the reduced quantities of applied organic matter ensure complete combustion inside the kiln and reduce the levels of formaldehyde and odours exiting the kiln flue.

In addition to its high performance in terms of the ceramic production process, efficient use of materials and reduction in atmospheric emissions, the eKo series from Colorobbia offers a complete solution for minimising waste and eliminating disposable plastic in compliance with the latest market regulations, thereby offering an advantage to customers.

With care for the environment and personal safety part of the group's DNA ever since it was founded in 1921, Colorobbia has always supplied the ceramic industry with high-quality products while maintaining a focus on environmental sustainability.

The Mediterranean Basin displaces Asia-Pacific-Japan to emerge as the largest cement exporter

Amid the effects of the Covid-19 pandemic on global markets, gray cement FOB prices, in the second quarter of 2020, declined on a year-on-year basis, but are forecasted to increase by 2.7 percent on a quarter-on-quarter basis, according to the 3Q2020 update of CW Research's Global Cement Trade Price Report.

“While demand remained muted due to the pandemic between the middle of the first quarter and the beginning of the second quarter of 2020, prices have defied the expected trend and have for the most part remained resilient. In fact, in India, despite the large drop in volumes in the second quarter FOB prices declined by almost 2 percent q-o-q, and are forecasted to increase to around an estimated USD 52 by the end of the third quarter”, commented Juliana Vieira, Business Analyst at CW Group.

Export volumes remain depressed year-on-year

Gray cement exports volumes in the second quarter of 2020 recorded a decrease of 1.2 percent quarter-on-quarter. The economic effects of the pandemic, however, have contributed to volumes remaining depressed on a year-on-year basis. Global cement export volumes decreased more than 8 percent in the quarter, compared with the same quarter the previous year.

In the second quarter, the Mediterranean Basin and Asia-Pacific-Japan remained the largest exporters, with almost 6 million tons and 5 million tons traded, respectively. Along with Turkey, Vietnam, Germany and Thailand were the top exporters of gray cement in the world in the second quarter of 2020.

FOB cement prices to increase globally

Cement prices are estimated to record a quarterly increase across the globe in the third quarter of 2020, but still remain lower on a y-o-y basis. The two main gray cement exporting regions, Mediterranean Basin and Asia-Pacific-Japan registered divergent trends. Average price of gray cement for Asia-Pacific Japan is estimated to increase from the previous quarter, while the export average price in the Mediterranean Basin is estimated to decline in the third quarter of 2020, compared to the preceding quarter.

CW Research's data set of 49 countries for the third quarter of 2020, revealed that Turkey, which remained the largest cement exporter of the world in the

mentioned period, witnessed a quarter-on-quarter decrease of almost 2 percent in average cement prices, to reach around USD 37 per ton.

Changing dynamics between major players of cement exports market

During the second quarter of 2020, the Mediterranean Basin region surpassed Asia-Pacific-Japan in terms of cement export volumes. Although the Med Basis registered a quarter-on-quarter decrease, Asia-Pacific-Japan clocked a drop in export volumes, mainly due to depressed export volumes from Vietnam in the quarter. Recovery in Vietnam's volumes are estimated for Q3 as demand from China, the major export destination for Vietnamese cement is entering its growth season post the monsoon.

For more information, placing an order, or interview inquiries, please contact Mihnea Manea, Media and Market Services Executive, CW Group, by phone at +40 723 281 704, or [e-mail at mm@cwgrp.com](mailto:mm@cwgrp.com).

About the Global Cement Volume Forecast Report

The Global Cement Trade Price Report (GCTPR) is CW Research's benchmark price assessment for monthly gray cement, white cement, clinker and granulated blast furnace slag prices and volumes. The 150+ page report, published on a quarterly basis, serves as the industry go-to source for monthly price data for over 70 individual markets worldwide, including multiple cornerstone data series: import, export, ex-works and market prices.

About CW Group

The Greenwich, Connecticut, USA headquartered CW Group is a leading advisory, research and business intelligence boutique with a global presence and a multi-industry orientation. CW Group is particularly recognized for its sector expertise in heavy-side building materials (cement), light-side building materials, traditional and renewable power & energy, petrochemicals, metals & mining, industrial minerals, industrial manufacturing, bulk cargo & shipping, among others. We have a strong functional capability, grounded in our methodical and quantitative philosophy, including due diligence, sourcing intelligence, feasibility studies and commodity forecasting.

www.cwgrp.com

Average cement and clinker export prices keep declining in the Persian Gulf-Arabian Sea and in the Med Basin in September

FOB prices for cement and clinker continued to decline both in the Persian Gulf-Arabian Sea region and in the Med Basin region in September 2020, according to **CW Research's Cement and Clinker Price Assessments for Med Basin and Persian Gulf**.

FOB prices for bulk ordinary cement in the Med Basin region decreased by 2 percent month-on-month in September and clinker weakened by over 2 percent, whereas FOB prices for bulk ordinary cement in the Persian Gulf-Arabian Sea recorded a 1 percent contraction, to reach over USD 35 per ton and clinker declined more than 1 percent.

“FOB prices remain on a downward trajectory as producers continue to navigate an uncertain market plagued by low utilization rates and intermittent lockdowns. Rebound in demand remains unevenly distributed, but there exist pockets of exception like Saudi Arabia, where manufacturers are witnessing a robust growth in sales,” assessed Carolina Pereira, CW Group's Manager, Advisory & Research.

Egypt export prices drop in the first half of 2020

Egypt cement export prices dropped by about 23 percent year-on-year in the first six months of 2020, according to the Building Materials Export Council. Losses have affected about 77 percent of the cement companies in the country, where the cement industry is currently suffering from oversupply and weak demand.

Turkish cement exports climbed over 42 percent year-on-year to more than 7 million tons between January and June, according to the Turkish Cement Manufacturers' Association.

Meanwhile, Spanish cement consumption is predicted to decline by 20 percent, after this year's first half witnessed a 16.5 percent decline at 6 million tons, according to the Spanish Cement Association, Oficemen, which stated that lockdowns and construction suspensions heavily affected cement businesses.

Saudi Arabia's cement market continues to grow in August

In August, cement sales in Saudi Arabia climbed by 39 percent to over 4 million tons when compared to the

same period last year. Domestic sales jumped 41 percent year-on-year, while exports declined 19 percent.

Saudi White Cement registered an increase of 24 percent year-on-year in its sales in the first eight months of the year. According to Shuaib bin Jarallah Al-Ayed, the company's CEO, sales are growing boosted by higher demand and the company expects the trend to continue in the remainder of the year.

Pakistan's cement sales also rose, by 5 percent, year-on-year in August. Month-on-month, however, dispatches were less than almost 5 million tons recorded in July. Exports also improved, growing by almost 6 percent.

Shipping market outlook

Reduced demand showed its effects on shipping at global level, with the Baltic Dry Index declining 313 points to 1,282 points on September 14, from the level of August 14. The Panamax market faced challenges in the first two weeks of September, while Supramax and Ultramax market registered lower demand, with losses of 32 points weak results. In terms of vessel trade, Ultramax, a shipping company controlled by the von Appen family, sold in early September its last Panamax bulker, the 2006-built Elena II, for USD 8 million.

For more information, placing an order, or interview inquiries, please contact Mihnea Manea, Media and Market Services Executive, CW Group, by phone at +40 723 281 704, or e-mail [at mm@cwgrp.com](mailto:mm@cwgrp.com).

About the Report

The Cement and Clinker Price Assessments for Med Basin and Persian Gulf are part of CW Research's price assessment series for tradable commodities. The reports offer prompt cargo (next 30-60 day deliveries) pricing insights, regular monitoring of the market and an overview of key developments that are crucial for those involved in the cement, clinker and petcoke trade to understand. The monthly price assessments synthesize key market information based on CW Research analysts' ongoing interactions with market participants, including traders, exporters, buyers and other stakeholders involved in the cement, clinker and petcoke trade.

More information about the price assessments can be found here: <http://www.cwgrp.com/research/researchproducts/price-assessments>

global cement™

EVENTS 2021

Global Cement has become the market leader in the provision of virtual events for the cement industry. Each event is strictly live, is based on premium webinar platform GoToWebinar, is produced to a professional standard by our in-house team and is FREE to register and attend.

www.GlobalCement.com

Virtual Global CemProducer 3

Cement plant maintenance
19 January 2021

Virtual Global Concrete

Global concrete business
2 February 2021

Virtual Global CemFuels 2

Alternative fuels for cement and lime
23 February 2021

Virtual Asian Cement

Market trends and technology in Asia
2-3 March 2021

Virtual Global FutureCem

Low CO₂ options for cement and concrete
16 March 2021

Virtual Global CemTrans 2

Cement and clinker transport and logistics
13 April 2021

Virtual American Cement

Market trends and technology in the Americas
27 April 2021

Virtual Global CemEnergy 2

Conventional fuels and electrical energy for cement and lime
18 May 2021

Virtual Middle Eastern Cement 2

Market trends and technology in the Middle East
6 July 2021

Virtual Global CemQC 2

Quality control for clinker and cement
5 October 2021

Virtual Global CemProducer 4

Cement plant maintenance
9 November 2021

Virtual European Cement

Market trends and technology in Europe
7 December 2021

"Among the cascade of webcasts we're all receiving these days, I'd rank yours #1."
Robert Jutson,
Griffin Capital,
New York

Commercial opportunities
at Global Cement's
virtual events

Exhibition time slides

Supply your 4:3 ratio
Powerpoint slide or graphic:
the slide will be shown in
rotation during the hour prior
to the opening, and during each
break time.

Sponsored videos

Supply your video, up to 2
minutes long, in MP4 format,
and it will be shown once prior
to the start of the event, once
during each break time, and
once at the end of the event.

Sponsored presentation slot

Sponsored presentation slots
- typically 25 minutes and five
minutes for Q&As - are available
at all virtual events.

Downloadable brochures

A strictly limited number of
sponsored PDF brochures can
be made available for download
at each event.

Advertise in the Proceedings

The event Proceedings (including
all presenter slides) is a
popular download at each
event, and each contains a
number of prime advertising
positions.

Sponsored Packages

The following are available for
individual sponsorship:
Video access
Delegate list download
Presenter PDF package

Contact Paul Brown for details

Virtual Event Enquiries

Exhibition and sponsorship:
paul.brown@propubs.com

Keynote speakers:
robert.mccaffrey@propubs.com

DIARY DATES

CEMENT

Webinar: Producing green cement using FCT Calciner Clay Technologies - Part 2 - Rotary Calcination

Date : 13 January 2021 at 2:00 PM GMT

For more information, please contact:

Mr. Adriano Greco

Email: adriano.greco@fctinternational.com

www.fctcombustion.com

Virtual Global CemProducer 3: Refractories, wear, lubrication & cement plant maintenance

Date : 19th January 2021

Venue: Your device / Free Registration

For more information, please contact:

Dr. Robert McCaffrey, Global Boards Conference convenor

Tel.: +44 1372 743837

Fax: +44 1372 743838

Email: info@propubs.com

<http://www.cemproducer.com>

Webinar: Successfully Reduce Costs Burning Alternative Fuels in Cement Kilns

Date : 20 January 2021 at 2:00 PM GMT

For more information, please contact:

Mr. Adriano Greco

Email: adriano.greco@fctinternational.com

www.fctcombustion.com

Webinar: Safely Converting to Natural Gas whilst Reducing Consumption and Increasing Production

Date : 28 January 2021 at 2:00 PM GMT

For more information, please contact:

Mr. Adriano Greco

Email: adriano.greco@fctinternational.com

www.fctcombustion.com

Virtual Global Concrete

Date : 02nd February 2021

Venue: Your device

For more information, please contact:

Dr. Robert McCaffrey, Global Boards Conference convenor

Tel.: +44 1372 743837

Fax: +44 1372 743838

Email: info@propubs.com

www.Global-Concrete.com

CemTech 2021 Virtual Middle East & Africa conference

Date : 08 - 11 February 2021

Venue: Online

For more information, please visit:

www.Cemtech.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

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

Mobile: +40-754-023-330

Email: aga@gmiforum.com

www.gmiforum.com

Virtual Global CemFuels

Date : 23rd February 2021

Venue: Your device

For more information, please contact:

Dr. Robert McCaffrey, Global Boards Conference convenor

Tel.: +44 1372 743837

Fax: +44 1372 743838

Email: info@propubs.com

www.cemfuels.com

15th Global CemFuels Conference and Exhibition on alternative fuels for the cement and lime industry

Date : 24 - 25 February 2021

Venue: Lisbon, Portugal

For more information, please contact:

Dr. Robert McCaffrey, Global Boards Conference convenor

Tel.: +44 1372 743837

Fax: +44 1372 743838

Email: rob@propubs.com

Virtual Asian Cement

Date : 02 - 03 March 2021

Venue: Your device

For more information, please contact:

Dr. Robert McCaffrey, Global Boards Conference
convenor**Tel.: +44 1372 743837****Fax: +44 1372 743838****Email: info@propubs.com****www.AsianCement.com****3rd ICCCM (third International Conference on the Chemistry of Construction Materials)**

Date : 15 - 17 March 2021

Venue: Your device

Email: info@drymix.info**For more information, please visit:****www.drymix.info****3rd Future Cement Conference and Exhibition 2021 - Virtual**

Date : 16 March 2021

Venue: Your device / Free Registration

For more information, please contact:

Dr. Robert McCaffrey, Global Boards Conference
convenor**Tel.: +44 1372 743837****Fax: +44 1372 743838****Email: info@propubs.com****8th International Drymix Mortar Conference idmmc8**

Date : 22 March 2021

Venue: Nürnberg, Germany

Email: info@drymix.info

For more information, please visit:

www.drymix.info**5th Mortar Convention**

Date : 23 March 2021

Venue: Your device

Email: info@drymix.info

For more information, please visit:

www.drymix.info**Argus Solid Fuels Asia Conference**

Date : 31st March 2021

Venue: Mumbai, India

Tel.: +65 6496 9899**Email: asiaconferences@argusmedia.com**

For more information, please visit:

www.argusmedia.com**2nd Virtual Global CemTrans Conference and Exhibition 2021**

Date : 13 April 2021

Venue: Your device

For more information, please contact:

Dr. Robert McCaffrey, Global Boards Conference
convenor**Tel.: +44 1372 743837****Fax: +44 1372 743838****Email: info@propubs.com****www.Cem-Trans.com****CBI – Cement Business & Industry Africa 2021**

Date : 15 - 16 April 2021

Venue: Johannesburg, South Africa

For more information, please contact:

Mr. Ali Assad, Business Development Executive

Tel.: +40-754-023-330**Email: aga@gmiforum.com****11th International PetroCem Conference**

Date : 25 - 27 April 2021

Venue: Astoria Hotel, St. Petersburg, Russia

Tel.: +7 812 2421124 / 7645612**Fax: +7 812 712-3683****Email: info@jcement.ru****<http://www.petrocem.ru> / www.jcement.ru****Virtual Global CemEnergy 2**

Date : 18th May 2021

Venue: Your device

For more information, please contact:

Dr. Robert McCaffrey, Global Boards Conference
convenor**Tel.: +44 1372 743837****Fax: +44 1372 743838****Email: info@propubs.com****CBI – Cement Business & Industry Brazil and Latin America 2021**

Date : 19 - 20 May 2021

Venue: São Paulo, Brazil

For more information, please contact:

Email: sales@gmiforum.com**<https://www.gmiforum.com>****15th Global Slag**

Date : 16 - 17 June 2021

Venue: Vienna, Austria

For more information, please contact:

Dr. Robert McCaffrey, Global Boards Conference
convenor**Tel.: +44 1372 743837****Fax: +44 1372 743838****Email: info@propubs.com****www.globalslag.com****Virtual Middle Eastern Cement 2**Date : 06th July 2021

Venue: Your device

For more information, please contact:

DIARY DATES

Dr. Robert McCaffrey, Global Boards Conference convenor

Tel.: +44 1372 743837

Fax: +44 1372 743838

Email: info@propubs.com / rob@propubs.com

www.MiddleEasternCement.com

Concrete – Challenge for Sustainable and Resilient Built Environment

Date : 08 - 10 September 2021

Venue: Faculty of Civil Engineering, Czech Technical University in Prague, Czech Republic

For more information, please contact:

Czech Concrete Society

Email: fibiccs20@cvut.cz

Internet: www.fibiccs.org

Middle East Concrete 2021

Date : 12 - 15 September 2021

Venue: Dubai World Trade Centre (DWTC), Dubai, United Arab Emirates

For more information, please visit: [https://](https://www.showsbee.com/fairs/70982-Middle-East-Concrete-2020.html)

www.showsbee.com/fairs/70982-Middle-East-Concrete-2020.html

European Coatings Show

Date : 14 - 16 September 2021

Venue: Nürnberg, Germany

Email: info@drymix.info

For more information, please visit:

www.drymix.info

CW EMENA Cement & Fuel Summit

Date : 22 - 23 September 2021

Venue: Madrid, Spain

Email: inquiries@cwgrp.com

For more information, please visit:

www.cwgrp.com

CERAMIC

Coverings 2021 - The global tile & stone experience

Date : 07 - 09 July 2021

Venue: the North Hall of the Orange County Convention Center, Orlando, Florida, USA

For more information, please visit: [https://](https://www.coverings.com)

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://](https://www.cersaie.it/en/)

www.cersaie.it/en/

27th Tecnargilla 2021

Date : 27 September - 1 October 2021

Venue: Rimini Expo Centre, Italy

Tel: +39 0541 744111

Fax: +39 0541 744200

Email: segreteria@tecnargilla.it

GENERAL

9th Edition of the Future of Polyolefins Summit

Date : 20 - 21 January 2021

Venue: Düsseldorf, Germany

For more information please Contact:

Mr. Mohammad Ahsan:

Tel.: +44 2031410606

Email: 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 Physical & Virtual Summit

Date : 27 - 28 January 2021

Venue: Kuala Lumpur, Malaysia

For more information please Contact:

Mr. Ian Rawlings

Tel.: +603 2775 0067

Email: ianrl@asiabusinesssummit.com

John Karras

Email: johnk@trueventus.com

8th European Biopolymer Summit

Date : 03 - 04 February 2021

Venue: London, UK

For more information, please contact:

Mr. Mohammad Ahsan

Email: mahsan@acieu.co.uk

Tel.: +44 2031410606

www.wplgroup.com

Alternative Fuel and Raw Materials Americas 2021

Date : 18 - 19 February 2021

Venue: Cancun, Mexico

Mobile: +351 939 114 543

E-mail: mk@gmiforum.com

Skype: [fe37dec818559e6d](https://www.skype.com/fe37dec818559e6d)

Construction Technology Festival

Date : 23 - 24 February 2021

Venue: Dubai, UAE

For more information, please contact:

Katie Briggs, Content Director

B2B Connect

Email: kbriggs@b2bconnectgcc.com

Mobile: +971 56 800 4337

<https://ctf-uae.com>

3rd Annual Facilities Management

Date : 24 - 25 February 2021

Venue: Melia Kuala Lumpur, Malaysia (Physical & Virtual Summit)

For more information, please contact:

John Karras

Tel.: +603 2775 0067**Email: johnk@trueventus.com****interpack Düsseldorf**

Date : 25 February - 3 March 2021

Venue: Düsseldorf, Germany

For more information, please visit:

www.interpack.com**4th Weimar Gypsum Conference**

Date : 09 - 10 March 2021

Venue: Weimar, Germany

For more information, please visit:

www.uni-weimar.de**Innovation and Valorisation in Civil Engineering and Construction Materials INVACO'2021**

Date : 17 - 19 March 2021

Venue: Hammamet, 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'2021>****5th Hydrogen & Fuel Cells Energy Summit
Maximizing commercial opportunities and partnerships in the renewable hydrogen & fuel cells industry**

Date : 17 - 18 March 2021

Venue: Porto, Portugal

For more information, please contact:

Mr. Mohammad Ahsan

Tel.: +44 203 141 0606**Email: mahsan@acieu.net / mahsan@acieu.co.uk****Chief Data Scientist**

Date : 17 - 18 March 2021

Venue: Kuala Lumpur, Malaysia

For more information, please contact:

John Karras

Tel.: +603 2775 0067**Email: johnk@trueventus.com****3rd Annual Modern Warehouse - Physical & Virtual**

Date : 17 - 18 March 2021

Venue: Kuala Lumpur, Malaysia

For more information, please contact:

John Karras

Tel.: +603 2775 0067**Email: johnk@trueventus.com****5th Annual Fleet Management Summit - Physical & Virtual**

Date : 17 - 18 March 2021

Venue: Kuala Lumpur, Malaysia

For more information, please contact:

Mr. John Karras

Tel.: +603 2775 0067**Email: johnk@trueventus.com / georgep@regionaleventrunning.com****Agile Management**

Date : 17 - 18 March 2021

Venue: Kuala Lumpur, Malaysia

For more information, please contact:

Kevin Hayder

Tel.: +603 2775 0067**Email: kevinh@globalsymposiumsanf.com****2nd Annual Modern Procurement Method (Physical & Virtual)**

Date : 17 - 18 March 2021

Venue: Kuala Lumpur, Malaysia

For more information please contact:

John Karras

Email: johnk@trueventus.com**Digital Supply Chain Congress**

Date : 17 - 18 March 2021

Venue: Kuala Lumpur, Malaysia

For more information please contact:

John Karras

Email: johnk@trueventus.com**Digital Logistics Asia Summit**

Date : 17 - 18 March 2021

Venue: Kuala Lumpur, Malaysia (Physical & Virtual Summit)

Tel.: +603 2775 0067**For more information, please visit:****www.globalsymposiumsanf.com****Global Insulation LIVE**

Date : 23rd March 2021

Venue: Your device / Free Registration

For more information, please contact:

Dr. Robert McCaffrey, Global Boards Conference convenor

Tel: +44 1372 743837**Fax: +44 1372 743838****Email: info@propubs.com****www.globalinsulation.com****4th Annual Digital Transformation**

Date : 24 - 25 March 2021

Venue: Kuching, Malaysia

For more information, please contact:

Tel.: +603 - 2775 0067
Email: tedl@internationalresourceevents.com

Digital Shutdown & Turnaround Conference

Date : 24 - 25 March 2021
Venue: Kuala Lumpur, Malaysia
For more information, please contact:
Mr. Kevin Hayder

Tel.: +603 2775 0067
Email: kevinh@globalsymposiumsanf.com

Digital CFO Summit - Physical & Virtual

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 / georgep@regionaleventrunning.com

27th International Mining Congress and Exhibition of Turkey

Date : 25 - 28 March 2021
Venue: Antalya, Turkey
Tel.: (+90 546) 4251072
Fax: (+90 312) 4175290
For more information, please contact:

E-mail: imcet@maden.org.tr / madenmuhodasi@maden.org.tr
Web: www.imcet.org.tr

MosBuild 2021

Date : 30 March - 2 April 2021
Venue: Crocus Expo, Moscow, Russia
For more information, please visit:
www.mosbuild.com

1st Construction Technology Forum

Date : 06 - 07 April 2021
Venue: Intercontinental Riyadh, KSA
For more information, please visit:
www.ctf-ksa.com

Hannover Fair

Date : 12 - 16 April 2021
Venue: Hannover, Germany
For more information, please visit: <https://www.hannovermesse.de/en/>

Global Gypsum Live

Date : 20th April 2021
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
www.globalgypsum.com

11th Annual European Algae Industry Summit

Date : 21 - 22 April 2021
Venue: Reykjavik, Iceland
For more information, please contact:
ACI (Europe)
Mr. Dimitri Pavly

Tel.: +44 203 141 0610
Email: dpavlyk@acievents.eu

International Powder & Bulk Solids

Date : 27 - 29 April 2021
Venue: Donald E. Stephens Convention Center
Rosemont, IL, USA
For more information, please visit: <https://powderandbulkshow.com/>

Gasification 2021 - 9th Annual Gasification Summit

Date : 05 - 06 May 2021
Venue: Lyon, France
For more information, please contact:
Mr. Mohammad Ahsan

Tel.: +44 203 141 0606
Email: mahsan@acieu.net

Chief Digital Officer Summit

Date : 19 - 20 May 2021
The Berkeley Hotel, Pratunam, Bangkok, Thailand
For more information, please contact:
John Karras

Tel.: +603 2775 0067
Email: johnk@trueventus.com

3rd Annual Digital Marketing and Customer Experience

Date : 19 - 20 May 2021
Venue: Bangkok, Thailand
Tel.: +603 2775 0067
Email: sama@internationalbusinesscongress.com

Digital CFO Summit

Date : 19 - 20 May 2021
Venue: Bangkok, Thailand
For more information, please contact:
Mr. Phil Slater

Email: phils@globalprgramrunner.com

Chief Data Scientist

Date : 19 - 20 May 2021
Venue: The Berkeley Hotel, Pratunam, Bangkok, Thailand
For more information, please contact:

INTERNATIONAL CEMENT CONFERENCE

Cemtech

PRODUCTION EXPERTISE - MANAGEMENT SKILLS

MIDDLE EAST & AFRICA

Cementing a new future
8-11 February 2021



With support from
AUCBM

4-DAY VIRTUAL EVENT



Cemtech MEA 2021

For the first time ever, the forthcoming Cemtech MEA 2021 will be held entirely as a virtual event. The new online format will continue to offer the best opportunity to explore the developments in the regional cement industry and examine key challenges.

As 2021 gets underway, how will the pandemic continue to impact cement demand in the Middle East, Africa and beyond?

Which key technologies should cement players adopt to achieve productivity gains and make cement players more resilient to future disruptions?

Join us in February for this live cement conference - register today!

Keynote speeches from industry leaders

Sector leaders address the key challenges facing the cement sector, from the impact of the pandemic to decarbonisation, and explore pathways to a sustainable future.

Incisive discussion, expert presentations

Over 25 presentations from world-class experts, exploring market developments and sharing best practice for companies seeking to achieve manufacturing excellence.

Network with delegates & virtual plant tours

A full virtual experience over four days with free access to a wealth of information.



Held on
Zoom



Meet &
Interact



Attendance
Certificates

Register for free:
www.cemtech.com/MEA2021

Mr. Sam Ward
Tel.: +603 2775 0067
Email: samw@runbestevents.com

13th ERBIL BUILDING

Date : 26 - 29 May 2021
Venue: Erbil, Iraq
For more information, please contact:
Mr. Tarek Alamer, International Sales Manager
Pyramids Group Fair Inc.
Tel.: +90 216 575 28 28 ext. 223
Mob: +90 507 064 78 23
E-mail: tarek.alamer@pyramidsfair.com

17th Edition SteelFab 2201

Machinery, Technology, Equipment
Date : 07 - 10 June 2021
Venue: Expo Center Sharjah, UAE
For more information, please contact:
Tel.: +971 6 5770000
Email: steel@expo-centre.ae
For more information please visit: www.steelfabme.com

BATIMATEC Expo

Salon International du Bâtiment des Matériaux de Construction et des Travaux Publics
Date : 07 - 11 June 2021
Venue: Palais des Exposition Pins Martimes, Algiers, Algeria
For more information, please visit:
www.batimatecexpo.com

SOLIDS Dortmund 2021

Date : 16 - 17 June 2021
Venue: Dortmund, Germany
For more information, please visit:
www.easyfairs.com

4th European Environmental Port Conference

Date : 16 - 17 June 2021
Venue: Rotterdam, The Netherlands
For more information, please contact:
Cheryl Williams
Tel.: +44 203 141 0605
Email: cwilliams@acieu.co.uk

Hillhead 2021

Date : 22 - 24 June 2021
Venue: Hillhead Quarry, Buxton, Derbyshire, UK
For more information, please visit:
www.hillhead.com

Chemical Industry 4.0 Summit

Date : 28 - 29 June 2021
Venue: Bangkok, Thailand
For more information, please contact:

John Karras
Tel.: +603 2775 0067
Email: johnk@trueventus.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

9th Annual Modular & Prefabrication Construction

Date : 07- 08 July 2021
Venue: Equarius Hotel, Resort World, Sentosa, Singapore
For more information, please contact:
Mr. John Karras
Tel.: +603 2775 0067
Email: johnk@trueventus.com

MBOD Summit

Date : 07- 08 July 2021
Venue: Equarius Hotel, Resort World, Sentosa, Singapore
For more information, please contact:
Mr. John Karras
Tel.: +603 2775 0067
Email: johnk@trueventus.com

2nd Annual BIM Summit

Date : 07- 08 July 2021
Venue: Equarius Hotel, Resort World, Sentosa, Singapore
For more information, please contact:
Mr. John Karras
Tel.: +603 2775 0067
Email: johnk@trueventus.com

Digital Shutdown & Turnaround Conference

Date : 18 - 19 August 2021
Venue: Bangkok, Thailand
For more information, please contact:
Mr. John Karras
Tel.: +603 2775 0067
Email: johnk@trueventus.com

2nd Annual World Digital Engineering Summit

Date : 18 - 19 August 2021
Venue: The Berkeley Hotel, Pratunam, Bangkok, Thailand
For more information, please contact:
Mr. John Karras
Tel.: +603 2775 0067
Email: johnk@trueventus.com

XXIII INTERNATIONAL CONSTRUCTION FORUM

CEMENT • CONCRETE DRY MIXTURES

NOVEMBER 9-11, 2021. EXPOCENTRE, MOSCOW.



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

More than **6000**
exhibition visitors

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

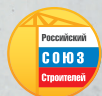
450 members
of the business
program

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



2nd Annual Sensor Tech in Engineering Summit

Date : 18 - 19 August 2021

Venue: The Berkeley Hotel, Pratunam, Bangkok, Thailand

For more information, please contact:

Mr. John Karras

Tel.: +603 2775 0067**Email: johnk@trueventus.com****2nd Annual Digital Predictive Maintenance Summit**

Date : 18 - 19 August 2021

Venue: The Berkeley Hotel, Pratunam, Bangkok, Thailand

For more information, please contact:

Mr. John Karras

Tel.: +603 2775 0067**Email: johnk@trueventus.com****The 2021 US Base Oils & Lubricants Summit**

Date : 25 - 26 August 2021

Venue: USA

The exact dates and location of the event are TO BE CONFIRMED

For more information, please contact:

Cheryl Williams

Tel.: +44 203 141 0605**Email: cwilliams@acieu.net****NAMUR Annual Conference China 2021****“Enhanced Connectivity for Smart Production”**

Date : August 2021

Venue: China

Contact in China

Dai Xiaolong

BASF-YPC Co. Ltd.

Phone: +86 25 5856 9383**daixl@basf-ypc.com.cn****Du Feng**

Phoenix contact China

Phone: +86 25 5212 1888**Dufeng@phoenixcontact.com.cn****The Big 5 Solar**

Date : 12 - 15 September 2021

Venue: Dubai World Trade Centre, Dubai, UAE

For more event please visit:

www.thebig5solar.ae**The Big 5 Heavy**

Date : 12 - 15 September 2021

Venue: Dubai World Trade Centre, Dubai, UAE

For more event please visit:

www.thebig5heavy.com**Breakwaters 2021**

Date : 13 - 15 September 2021

Venue: Portsmouth, UK

Email: breakwaters@ice.org.uk

Contact in Germany

NAMUR e.V.

c/o Bayer AG

Nils Weber

Building K9

51368 Leverkusen

Germany

Tel.: +49 214 30-71034**E-Mail: office@namur.de****www.namur.net**

Phoenix Contact

Wilfried Grote

Dringenauer Straße 30

31812 Bad Pyrmont

Germany

Tel.: +49 5281 946-3033**E-Mail: wgrote@phoenixcontact.com****www.phoenixcontact.com****<https://phoe.co/process-industry>****9th European Bulk Liquid Storage Summit**

Date : 29 - 30 September 2021

Venue: Cartagena, Spain

For more information, please contact:

Cheryl Williams

Tel.: +44 203 141 0605**Email: cwilliams@acieu.net****3rd session of Digital Refining & Petrochemicals Summit 2021**

Focusing on Asset Performance Management against a Backdrop of Digital Transformation

Date : 05 - 06 October 2021

Venue: London, UK

For more information, please contact:

Mr. Marcin Janecki

Tel.: +48616467047**Email: mjanecki@acieu.net****Web: <http://acieu.net>****2021 European Base Oils & Lubricants Summit**

Date : 17 - 18 November 2021

Venue: Amsterdam, The Netherlands

For more information, please contact:

Mr. Mohammad Ahsan

Tel.: +44 203 141 0606**Email: mahsan@acieu.net****Web: www.acieu.net****Powtech 2022**

Date : 26 - 28 April 2022

Venue: Nürnberg, Germany

For more information, please visit: [https://](https://www.powtech.de/en)**www.powtech.de/en**



www. **UAECement.com**

Become a member of UAECEMENT.COM ...



RELIABLE COMPANIES

UAE CEMENT TYPES

CEMENT ARTICLES

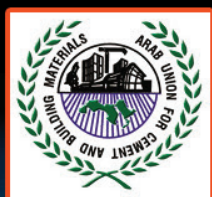
UAE CEMENT FACTORIES

ARAB CEMENT FACTORIES

UAE CEMENT NEWS

INTERNATIONAL CEMENT CONFERENCES

Our Partners :



www.aucbm.org



www.simankhabar.ir



www.cmtevents.com

UAE CEMENT PORTAL WEB SITE

www.UAECEMENT.com

info@uaecement.com



عالم الإسمنت ومواد البناء

تصدر عن : الاتحاد العربي للإسمنت ومواد البناء العدد 82 ديسمبر / كانون الأول 2020

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



ADVERTISERS: December Edition # 82, 2020

AUCBM Cement and Building Materials Review	IFC	www.aucbm.net
ALIT, group of companies CEMENT. CONCRETE. DRY MIXTURES	69	www.infocem.info
CemBR Global Compendium (CGC™)	23	www.cembrcgc.com
CEMENT INTERNATIONAL	53	www.verlagbt.de/cementinternational.htm
CemWeek	13	www.Cemweek.com
DISAB	11	www.disab.com
Global Cement Global Cement Events 2021	61	www.GlobalCement.com
IBAU Hamburg	6 + 7	www.ibauhamburg.com
Industrial Angles	49	www.industrialangles.com
International Cement Review Cemtech MEA 2021	67	www.cemtech.com/MEA2021
JAMCEM Consulting	46	www.jamcem.com
Journal Cement Magazine	55	www.jcement.ru
POLLRICH	9	www.pollrich.com
Siman News – Iran Cement News Agency	17 AR	www.simankhabar.ir
UAE Cement Portal Website	71	www.uaecement.com
VDZ	19	www.vdz-online.de
World Cement	15	www.worldcement.com/subscribe
ZKG INTERNATIONAL	51	www.zkg.de/newsletter



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

الإشتراكات السنوية

150 دولار أمريكي

65 دولار أمريكي

الشركات والمؤسسات

الجامعات ومراكز البحوث

Email: aucbm@scs-net.org / aucbm1977@gmail.com

Website : www.aucbm.net

المكتويات

أخبار عربية
أخبار عالمية
منتجات جديدة

الموضوعات:

- أنظمة التشحيم
إعداد: م. صباح أحمد محمود / الشركة العامة للأسمنت
العراقية - جمهورية العراق
- استعراض لصناعة الإسمنت خلال عام 2020
إعداد: Terry Pavlopoulos, Managing
Partner, Cement Business Research,
United Kingdom - المملكة المتحدة
- الحصول على أفضل النتائج مقابل أقل التكاليف
إعداد: م. أسامة علي / Scientific Business /
Solution - جمهورية مصر العربية
- الوقاية الفعالة من الحرائق التي تسببها البطاريات
التالفة أثناء إنتاج الوقود البديل بفضل نظام
Lindner's Fire Prevention System
(FPS)
إعداد: DI (FH) Thomas Huber & DI Stefan
Scheiflinger-Ehrenwerth / Lindner-
Recyclingtech GmbH - النمسا
Andreas Säumel / Mayer Recycling
GmbH - النمسا
- استخراج الرمال بأنظمة المعالجة المتنقلة
إعداد: د. Sigurd Schütz / RHEWUM GmbH
- ألمانيا
- عمليات التفتيش تكشف عن فرص لتحسين الأداء بشكل
مستمر
إعداد: Bruks Siwertell - السويد
- كيف يمكن التحكم في الطاقة الكهربائية باستخدام
عمليات تدقيق الطاقة
إعداد: Lawrie Evans and Mark Mutter /
JAMCEM Consulting - المملكة المتحدة
- مؤتمرات ومعارض

المراسلات

توجه كافة المراسلات بإسم 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 / aucbm1977@gmail.com

Website : www.aucbm.net



مجلة عالم الإسمنت ومواد البناء

جدول موضوعات المجلة لعام 2021

المناسبات	الموضوعات	العدد
	<ul style="list-style-type: none"> * التنمية المستدامة * حماية البيئة * الوقودات البديلة * الوقود المستمد من النفايات الصلبة / الوقود المستمد من النفايات * الإنتاج الأنظف في صناعة الإسمنت * المرشحات ، أنظمة الترشيح القماشية ومعدات إزالة الغبار * مراقبة الانبعاثات وأنظمة تحليل الغاز * توفير الطاقة * دراسات حالة 	مارس/آذار 2021
	<ul style="list-style-type: none"> * 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) * دراسات حالة 	يونيو/حزيران 2021
	<ul style="list-style-type: none"> * التعبئة والتغليف والتسليم * معدات التحميل والتفريغ من السفن * تكنولوجيا التغذية * تخزين ومناولة المواد السائبة * تخزين الوقود * أنظمة النقل والرافعات الدلوية * الصحة والسلامة المهنية * إعداد الفحم وإشعاله * دراسات حالة 	* سبتمبر/أيلول 2021
	<ul style="list-style-type: none"> * أنظمة التشحيم * الصيانة في مصانع الإسمنت * تقنيات الإصلاح واللحام * إدارة قطع الغيار * الطواحين العمودية * الكسارات * الميردات * تكنولوجيا الحراقات * الحراقيات وفحص الحراقيات * دراسات حالة 	ديسمبر/كانون أول 2021

- آخر موعد لاستلام المقالات أو النصوص الصحفية أو الإعلانات لأعداد عام 2021 هو على النحو التالي :
1. عدد مارس / آذار : 26 فبراير / شباط 2021
 2. عدد يونيو / حزيران : 28 مايو / أيار 2021
 3. عدد سبتمبر / أيلول : 31 أغسطس / آب 2021
 4. عدد ديسمبر / كانون أول : 3 ديسمبر / كانون أول 2021

الإعلانات

(بالدولار الأمريكي)

الإعلان في عدد واحد	الإعلان في عددين	الإعلان في ثلاثة أعداد	الإعلان في أربعة أعداد
1,250	*	*	*
950	*	*	*
750	950	1,250	1,350
450	550	650	750
300	350	400	450
300	350	400	450

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

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)

الأخبار العربية

تعتمد في 2014 تصدير الكنكر عبر البحر نحو السوق الإيطالية وعدد من البلدان الأفريقية كساحل العاج والكاميرون وغيرها .

www.radioexpressfm.com

إلغاء قرار استعمال أكياس البلاستيك لتعبئة الإسمنت
أعلنت وزارة الصناعة أنه تقرر إلغاء قرار استعمال أكياس البلاستيك لتعبئة الإسمنت .

<https://ar.tunivisions.net>

الجمهورية الجزائرية

وزارة التجارة الجزائرية تخطط لتصدير فائض الإسمنت

وضعت وزارة التجارة خطة لتصدير فائض الإسمنت الجزائري البالغ 20 مليون طن في السنة ، والذي يتم بالفعل تصدير أكثر من 1.0 مليون طن في السنة إلى النيجر والدول المجاورة في غرب أفريقيا .

وتتضمن الخطة قيام الدولة بفتح حدودها البرية والبحرية للإسمنت، والذي يشكل 50 % من إجمالي إنتاج البلاد من الإسمنت البالغ 40 مليون طن سنوياً . وقد تجاوزت طاقة الإسمنت في الجزائر الاستهلاك المحلي لأول مرة في عام 2017 ، حيث كانت تعتمد قبل ذلك على واردات الإسمنت من تونس .

[المصدر: https://news.tn](https://news.tn)

مؤسسة GICA تبلغ عن تسليم ناجح للكنكر إلى هايتي وجمهورية الدومينيكان

أتمتت Groupe des Ciments d'Algérie (GICA) تصدير 41,000 طن من الكنكر إلى هايتي وجمهورية الدومينيكان. حيث قامت الشركة بتصدير الكنكر المنتج في مصنع الإسمنت في حجار سود من ميناء عنابة . وسيعمل مصنع إسمنت حجار السود ، الذي يشغل خطي إنتاج يبلغ إجمالي طاقته الإنتاجية 0.9 مليون طن في السنة على تعزيز صادراته في عام 2021 خاصة وأن الطلب على الكنكر سيتجاوز 200 ألف طن .

<https://news.tn>

بيلاز تشحن 12 شاحنة نقل إلى الجزائر

قامت شركة هندسة السيارات البيلاروسية BelAZ بتسليم 12 شاحنة نقل BelAZ-7555E إلى أكبر شركة لتصنيع الإسمنت في الجزائر Group Industrial Cement Algeria (GICA) . وكانت الشركة الجزائرية قد استلمت من قبل 12 شاحنة نقل بسعة حمل 60 طناً وتسع رافعات أمامية . ومن المفترض أن تزيد المركبات من إنتاج الإسمنت في حفرتي الساورة والزهانة المكشوفتين .

الإمارات العربية المتحدة

"اقتصادية أبوظبي" تحظر بيع الإسمنت المعبأ في أكياس لا تحمل شهادة الجودة

أصدرت دائرة التنمية الاقتصادية في أبوظبي تعميماً إلى منافذ بيع مواد البناء على مستوى الإمارة ، حظرت بموجبه بيع الإسمنت المعبأ في الأكياس التي لا تحمل شهادة الجودة الاتحادية أو المحلية ممثلة بهيئة الإمارات للمواصفات والمقاييس ومجلس أبوظبي للجودة والمطابقة . ويهدف هذا التوجيه إلى تحقيق معايير الجودة للمنتج المحلي لمواد البناء بما يضمن سلامة المنتج المحلي وحفظ حقوق المستهلكين ومحاربة الغش التجاري .

وشددت "اقتصادية أبوظبي" ، على أن مخالفة ما جاء في هذا التعميم من الشركات والمؤسسات المعنية سيعرضها للمخالفة والمساءلة القانونية وفرض الجزاءات الإدارية وفق ما الإجراءات المتبعة لديها .

www.emaratayoum.com

"إسمنت الشارقة" تتعاقد مع "بيئة" لتوريد الوقود البديل

وقعت شركة "بيئة" المتخصصة بتدوير النفايات والخدمات البيئية في الشارقة اتفاقية طويلة الأجل مع مصنع "إسمنت الشارقة" لتوريد وقود بديل من محطة "بيئة" لتوليد الوقود الصلب المسترد .

وتشمل الاتفاقية استخدام النفايات التجارية والصناعية بالإضافة إلى النفايات المنزلية المتنوعة من مجمع إدارة النفايات الحديث التابع لشركة "بيئة" لتطوير مصدر طاقة نظيف يضاهاى الوقود المشتق المسترد وهو وقود يستخدم بكثرة في مصانع الإسمنت .

وستزود "بيئة" مصنع إسمنت الشارقة بالوقود النظيف لتشغيل مرافق تصنيع الإسمنت وتقليل استخدام الوقود التقليدي ، حيث سيتم توفير 73 ألف طن من الوقود سنوياً ، وهذا يعني أيضاً التخلص من 73 ألف طن إضافية من النفايات وتحويل مسارها من المكبات في الشارقة لتستخدم في صناعات عديدة في الدولة .

www.argaam.com

الجمهورية التونسية

شركة إسمنت بنزرت تستأنف تصدير الإسمنت عبر البحر

استأنفت "شركة إسمنت بنزرت" عملية تصدير الإسمنت عبر البحر منذ 19 أكتوبر / تشرين الأول 2020 بشحن أول باخرة من الإسمنت باتجاه ليبيا وعلى متنها 3,700 طن من الإسمنت .

وكانت الشركة قد توقفت عن تصدير الإسمنت منذ سنة 2007 عبر البحر، وعوضتها بالتصدير عبر البر نحو ليبيا والجزائر ، قبل أن

الجمهورية العربية السورية

صيانة المعمل رقم (3) في الشركة السورية لصناعة الاسمنت بحماة

بدأت الشركة السورية لصناعة الاسمنت في محافظة حماة أعمال صيانة شاملة للألات ومعدات المعمل رقم 3 .

وتأتي أعمال الصيانة نتيجة انتهاء العمر التشغيلي لعجلات الطحن والأجر في الفرن ، علماً بأن كل الأعمال المنفذة هي ضمن المواصفات القياسية المعتمدة والبرامج الزمنية المحددة ، علماً بأنه ، وأثناء توقف المطحنة عن العمل بسبب الصيانة ، هناك خطوط إنتاجية احتياطية في الشركة يجري تشغيلها كبديل لها لضمان تغذية الفرن والاستمرار بإنتاج الاسمنت .

جمهورية العراق

نجاح الهندسة الميكانيكية الصينية في مصنع إسمنت حرير في العراق

وقعت شركة الصين للهندسة الميكانيكية عقداً لمشروع مصنع إسمنت حرير العراقي . ويشمل نطاق المشروع إنشاء معمل إسمنت حرير ومنشآت مساندة في العراق . والشركة ، بصفتها المقاول العام ، مسؤولة عن تصميم المشروع والتوريد والبناء وضمان الجودة والتشغيل والصيانة . ووفقاً للعقد ، سيبدأ المشروع في البناء بعد استيفاء شروط معينة ، وستكون فترة البناء حوالي 30 شهراً بعد بدء البناء .

www.seetao.com

معاونة الاسمنت الشمالية تكشف عن زيادة إنتاجية معاملها

كشفت معاونة السمنت الشمالية التابعة للشركة العامة للسمنت العراقية عن تشغيل خمسة خطوط إنتاجية في مجمع إسمنت بادوش بطاقات تتراوح من 70 % إلى 90 % من الطاقات التصميمية ولأول مرة في الشركة وتحقيق معدل إنتاج يومي 4,500 طن .

ويتألف مجمع إسمنت بادوش من ثلاثة معامل لإنتاج الاسمنت تشمل معمل إسمنت الرافدين ومعمل إسمنت بادوش الجديد ومعمل إسمنت بادوش التوسيع والتي تعمل بطاقات تقارب الطاقة التصميمية وتنتج الاسمنت البورتلاندي العادي بنوعية عالية جداً ومواصفات قياسية ، إضافة الى معمل لإنتاج البلوك والذي تم تأهيله وتشغيله لإنتاج البلوك بمواصفات ونسب قياسية ، وكذلك معمل الأكياس الورقية الذي أحيل الى شركة قطاع خاص لغرض تأهيله لإنتاج الأكياس الورقية وإضافة خط جديد لإنتاج أكياس البروبلين . وتسعى معاونة الاسمنت الشمالية جاهدة لمعالجة معوقات العمل الحالية من خلال إنشاء محطة كهربائية خاصة بمجمع بادوش لضمان كفاية واستقرارية الطاقة الكهربائية وإعادة تأهيل خزانات النفط الأسود لخزن الكميات الكافية لديمومة الإنتاج .

كما تم إحالة معامل إسمنت حمام العليل والحدياء وسمنت سنجار التابعة للمعاونة الى الاستثمار لغرض تأهيلها وتحديثها وتطويرها ، حيث من المؤمل أن يباشر معمل إسمنت سنجار بالتشغيل والإنتاج قبل نهاية هذا العام بطاقة 2,000 إلى 2,500 طن يومياً في الوقت الذي سيتم المباشرة بوضع خطة التأهيل

و BelAZ هي شركة رائدة عالمياً في مجال شاحنات النقل ومعدات النقل لصناعة التعدين وصناعة الهندسة المدنية ، وتمثل حوالي 30 % من السوق العالمية لشاحنات النقل ذات القدرة الاستيعابية الكبيرة للغاية .

تقنية جديدة تسمح بتصنيف الأفران دون توقيف نشاط المصانع

اعتمدت شركة الصيانة للشرق ، التابعة للمجمع الصناعي إسمنت الجزائر (جيكا) ، تقنية جديدة للمراقبة والتشخيص ، يسمح من خلالها إجراء عملية تصنيف الأفران دون توقيف نشاطات مصنع الإسمنت . وقد تمت المراقبة الأولى لتصنيف الفرن بمصنع الإسمنت بعين الكبيرة بولاية سطيف بنجاح من طرف تقنيي شركة الصيانة للشرق .

<http://www.aps.dz>

المملكة العربية السعودية

الاسمنت العربية تنهي مشروع إنشاء طواحين جديدة في مصنع رابغ خلال الربع الثالث من 2021

أعلنت شركة "الإسمنت العربية" توقيعها الانتهاء من مشروع إنشاء طواحين إسمنت جديدة في مصنعها رابغ والتشغيل التجاري للمشروع خلال الربع الثالث من 2021 .

وأوضحت الشركة أن سبب التأخر عن التاريخ المعلن سابقاً ، يعود عدم التزام المقاول بالجدول الزمني إضافة للظروف الحالية وتوقف حركة السفر والطيران بسبب جائحة فيروس كورونا المستجد حيث لم يتمكن المقاول من استكمال أعمال التركيبات اللازمة للتشغيل واختيار المعدات من قبل الشركات المصنعة بسبب عدم تواجد عمالة المقاول بموقع المشروع في الوقت الحالي .

www.aleqt.com

إسمنت الشمالية تعلن عن إنتاجها إسمنت آبار البترول

أعلنت شركة إسمنت المنطقة الشمالية تمكثها من إنتاج إسمنت آبار البترول ، مبينة أنها حصلت على اعتماد من المعهد الأمريكي للبترول (API) لهذا المنتج.

وقالت الشركة إنها حصلت أيضاً على الاعتماد لجميع منتجاتها (إسمنت آبار البترول – الإسمنت البورتلاندي العادي – الإسمنت المقاوم للكبريتات – الإسمنت الأبيض) .

www.argaam.com

إسمنت نجران تتوقع اكتمال إجراءات تأسيس شركة نقل ذات مسؤولية محدودة في نهاية العام الجاري

أعلنت شركة إسمنت نجران أن نسبة الإنجاز المتحقق بخصوص إنشاء شركة نقل ذات مسؤولية محدودة بلغ 95 % ، مبينة أن التاريخ المتوقع للانتهاء من الحدث 31 ديسمبر / كانون الأول 2020 . ويأتي هذا بعد الإعلان السابق عن أنه تم الانتهاء من تأسيس الشركة وإصدار الترخيص المبدئي لمزاولة النشاط الصادرة من هيئة النقل العام .

www.maaal.com

لمعامل إسمنت حمام العليل والحدياء قريباً .
وزارة الصناعة العراقية

موقع وزارة الصناعة العراقية

معمل إسمنت كبيسة يكمل 88% من مراحل الاعمار والتأهيل

كشفت الشركة العامة للإسمنت العراقية عن تمكن الشركة العالمية لصناعة الإسمنت المستثمرة لمعمل إسمنت كبيسة من تحقيق نسب إنجاز متقدمة في إعادة اعمار وتأهيل المعمل بعد تعرضه للتدمير والتخريب .

وقد باشرت الشركة المستثمرة بتأهيل المعمل في نهاية الربع الأول من عام 2018 والذي كان متضرراً بنسبة أكثر من 70% وقامت بتنفيذ حملة لرفع الأنقاض وتأهيل كافة المكائن والمعدات للخطين الإنتاجيين والتي شملت طواحين المواد وطواحين الإسمنت والأفران والمرسبات وبنابيات السيطرة والورشة المركزية وخزانات الوقود ومباني الإدارة والتعبئة وجميع مرافق المعمل الأخرى إضافة إلى تجهيز مكائن ومعدات جديدة من مناشئ أوروبية مختلفة منها محطة توليد وتوزيع الطاقة الكهربائية وأجهزة فحص مختبرية حديثة ألمانية وانكليزية المنشأ ومكائن التعبئة الجديدة بعدد 4 مكائن والتي تعمل أوتوماتيكياً بتقنية متطورة ولأول مرة في معمل الإسمنت . وتم إنجاز 88% من مراحل وفقرات التأهيل وتحقيق طاقات إنتاجية بلغت 80% إلى 90% من الطاقة التصميمية ما يعادل 800 ألف طن / سنوياً لكل خط ، وتم إنتاج أكثر من 100 ألف طن شهرياً من الإسمنت العادي البورتلاندي والإسمنت المقاوم وفق المواصفة العراقية رقم 5 لسنة 2019 والمطابقة للمواصفة الأوروبية وبنوعية وجود عالية وقوة وصلادة فائقة بما يغطي حاجة السوق في محافظة الأنبار إضافة إلى طرحه في العاصمة بغداد والمحافظات الأخرى .

وزارة الصناعة العراقية

سلطنة عُمان

ريسوت للإسمنت تستحوذ على حصة الأغلبية في لافارج هولسيم مالديف

أعلنت شركة ريسوت للإسمنت استحواذها على 75% من أسهم شركة لافارج هولسيم مالديف المحدودة مقابل ثلاثة ملايين ريال عماني (8 ملايين دولار أمريكي) .

[/https://wafoman.com](https://wafoman.com)

إنشاء أكبر مصنع إسمنت متكامل في سلطنة عمان بـ 435 مليون دولار

تستعد شركة الدقم الدولية للمشاريع الإسمنتية العمانية لتنفيذ أكبر مصنع متكامل في صناعة الإسمنت في سلطنة عُمان بالمنطقة الاقتصادية الخاصة بالدقم باستثمار يقدر بحوالي 435 مليون دولار أمريكي ، وذلك من أجل تعزيز تطور قطاع صناعات البنية الأساسية بالسلطنة . وتبلغ الطاقة الإنتاجية للمصنع الجديد حوالي 3.5 مليون طن في السنة أي بمعدل يبلغ 10 آلاف طن في اليوم .

وسيُسهم المصنع الجديد في تلبية احتياجات السوق المحلي من مادة الإسمنت بينما يوجه جزء من الإنتاج إلى أسواق خارجية مثل الهند وسريلانكا وشرق إفريقيا استغلالاً للتجهيزات العالمية في ميناء الدقم .

وتتوي الشركة المالكة للمشروع بتوسعة المصنع في مرحلة لاحقة

الشركة العامة للإسمنت العراقية تحقق تطوراً ملموساً في إنتاج وتسويق الإسمنت

أعلنت الشركة العامة للإسمنت العراقية عن تحقيق طفرة وتطور ملحوظ في إنتاج وتسويق الإسمنت خلال العام الحالي على الرغم من ظروف العمل القاسية والوضع الصحي الحرج بسبب تفشي وباء كورونا وتداعياته .

حيث تمكنت بعض معامل الشركة من تنفيذ الخطة الإنتاجية المرسومة فيما تمكنت المعامل الأخرى من تخطي الخطة الإنتاجية الموضوعية ما نتج عنه تحقيق نسبة أكثر من 70% من الطاقة الإنتاجية لهذا العام لتلك المعامل من المماثل من عام 2019 .

كما تنوي الشركة عرض فرص استثمارية لإنشاء خطوط جديدة لإنتاج الإسمنت في بعض معاملها من خلال الشراكة والاستثمار مع الشركات العالمية المتخصصة بصناعة الإسمنت تمثلت بإنشاء خط في مجمع إسمنت بادوش بطاقة 4,000 طن يومياً مع شركة سوسيداد الإسبانية . إضافة إلى عرض فرصة استثمارية لإنشاء خط جديد في معمل إسمنت الكوفة وبالقرب من معمل حمام العليل الجديد لتوفير البنى التحتية وقرب المواد الأولية لتحقيق الجدوى الاقتصادية في تقليل كلف الإنتاج ، فضلاً عن اتخاذ قرار إعادة إعلان معمل إسمنت المثني إلى الاستثمار بطريقة وأسس جديدة . وسيشهد عام 2022 إكمال أعمال التأهيل للمعامل المحالة إلى الاستثمار ودخولها إلى العمل والإنتاج .

تجدر الإشارة إلى ان الشركة العامة للإسمنت العراقية تضم 18 معملاً منتشرة في معظم محافظات البلاد وتختص بإنتاج الإسمنت العادي البورتلاندي والإسمنت المقاوم للأملاح إضافة إلى إنتاج الإسمنت المقاوم فائق النعومة واطئ القلوبات وإسمنت أبار النفط نوع B و G .

موقع وزارة الصناعة العراقية

معاونة الإسمنت الجنوبية تحقق 83% من خطة الإنتاج خلال هذا العام

أعلنت معاونة السمنت الجنوبية التابعة للشركة العامة للسمنت العراقية عن تمكنها من تحقيق الإنتاجية المطلوبة من مادة الإسمنت وفق الخطة الموضوعية من قبل الشركة رغم الظروف التي مرت بها البلاد بسبب تفشي وباء كورونا .

وأفصحت معاونة الإسمنت الجنوبية عن تحفقات الإنتاج للمعاونة خلال العشرة أشهر الأولى من العام الحالي والبالغة 83% من الخطة الموضوعية وبمعدل إنتاج يومي يتراوح بين 4,500 إلى 5,000 طن للمعامل غير المستثمرة وتشمل معمل إسمنت الكوفة والنجم الأشرف وإسمنت بابل . كما تم اتخاذ خطوات مهمة لتحديث المعامل ورفع الطاقات الإنتاجية وتقليل كلف الإنتاج تمثلت بوضع خطة لإنشاء خطين إنتاجيين جديدين في معمل إسمنت الكوفة والنجم الأشرف بطاقات عالية جداً كفرص استثمارية مع شركات متخصصة ، وكذلك نجاح كوادر معمل إسمنت الكوفة في التنفيذ المباشر لأعمال الصيانة العملاقة للمسننات بكلف أقل بكثير من كلف استيراد هذه المسننات ، فضلاً عن القيام بتحويل منظومة الحرق إلى الغاز في أفران معمل إسمنت الكوفة بنسبة 50% بعد

جمهورية مصر العربية

المصرية للإسمنت تفتتح مصنعاً جديداً في سوهاج عام 2021

تخطط مجموعة الإسمنت المصرية لافتتاح مصنعها الجديد للإسمنت في عام 2021 . ويقع المصنع في سوهاج وتبلغ تكلفته الاستثمارية الإجمالية 285 مليون دولار أمريكي ، وكان من المقرر افتتاح المشروع الذي تبلغ طاقته الإنتاجية 2 مليون طن في السنة في النصف الأول من عام 2020 ، لكنه تأخر بسبب جائحة فيروس كورونا .

[/https://news.tn](https://news.tn)

الهيئة العامة للرقابة المالية توافق على استحواذ هايدلبرج سيمنت على السويس للإسمنت

وافقت الهيئة العامة للرقابة المالية في مصر على عرض إجباري (MTO) من شركة HeidelbergCement France للاستحواذ على مجموعة السويس للإسمنت بسعر 7.50 جنيه مصري للسهم.

وتتوي HeidelbergCement الاستحواذ على ما يصل إلى 59,791,124 سهماً ، أي ما يعادل 32.878 % من رأس المال المصدر لشركة السويس للإسمنت. كما وافقت الهيئة العامة للرقابة المالية على عرض MTO المقدم من شركة السويس للإسمنت ، المملوكة بنسبة 55.08 % لشركة HeidelbergCement ، للاستحواذ على 100 % من شركتها الفرعية إسمنت بورتلاند طرة المصرية بسعر 7.18 جنيه مصري للسهم .

ومن المتوقع أن تعمل السويس للإسمنت بنسبة 50 % من طاقتها خلال عام 2020 ، وتجري محادثات لتسوية ديون بقيمة 125 مليون دولار خلال العام . وكجزء من ذلك ، فإنها تتطلع إلى بيع شركتها التابعة الكويتية ، شركة الهلال للإسمنت .

[/https://govirall.net](https://govirall.net)

الصناعات المعدنية تبيع حصتها في إسمنت بورتلاند طرة

قامت شركة الصناعات المعدنية ببيع كامل حصتها في رأس مال شركة إسمنت بورتلاند طرة المصرية والبالغة نحو 17.945 % والممثلة في 6.367 مليون سهم ، بقيمة إجمالية للصفقة 45.718 مليون جنيه .

الجدير بالذكر أن شركة السويس للإسمنت تستحوذ على الحصة الأكبر بهيكل ملكية شركة إسمنت بورتلاند طرة المصرية بنسبة 66.122 % ، يليها شركة ميناف بنسبة 5.81 % .

[/https://amwalalghad.com](https://amwalalghad.com)

ليشمل وحدة إضافية لإنتاج وتصدير مادة الكنكر ، مستهدفة بذلك أساساً السوق الهندية المتنامية الاستخدام لهذه المادة ، وبذلك يسهم المشروع بقيمة مضافة عالية .

[/https://al-sharq.com](https://al-sharq.com)

ريسوت للإسمنت تضع حجر الأساس لمصنعها بالدقم

احتفلت شركة ريسوت للإسمنت بوضع حجر الأساس لوحدة طحن جديدة بالدقم وذلك بتكلفة 30 مليون دولار أمريكي . وتأتي هذه الخطوة إضافة جديدة للتوسع الاستراتيجي للشركة بإضافة مليون طن إلى إجمالي إنتاج المجموعة ، ليرتفع إجمالي إنتاجها إلى 7.4 مليون طن سنوياً .

وصرح الرئيس التنفيذي للشركة بأن وضع حجر الأساس يعتبر علامة فارقة لشركة ريسوت لمساهمتها في توسيع الطاقة الإنتاجية البالغة 10 ملايين طن بحلول عام 2022 والتي من المتوقع أن تزداد إلى 22 مليون طن في المستقبل القريب . تجدر الإشارة إلى أن الشركة وقعت في سبتمبر 7 أيلول الماضي عقد إيجار أرض واتفاقية خدمات ميناء مع شركة ميناء الدقم كجزء من تطوير وحدة الطحن الجديدة .

وكان شركة ريسوت للإسمنت قد استحوذت على شركة إسمنت صحار بمبلغ 60 مليون دولار أمريكي في مايو / أيار 2019 كجزء من توسعها العالمي ، وأعلنت الشركة أيضاً عن إنشاء مصنع للإسمنت بطاقة إنتاجية سنوية بمقدار 1.2 مليون طن سنوياً بالقرب من تبليسي ، جورجيا في أوروبا الشرقية في أكتوبر / تشرين الأول الماضي . وستقوم شركة بابونير لصناعة الإسمنت بتطوير المصنع وهي شركة مملوكة بالكامل لشركة ريسوت للإسمنت في دولة الإمارات العربية المتحدة ، والتي تمتلك امتيازاً لمناجم الحجر الجيري في جورجيا ، كذلك أعلنت عن استثمار 40 مليون دولار أمريكي في وحدة طحن جديدة في بربرة ، الصومال في شرق أفريقيا . وفي أكتوبر / تشرين الأول من هذا العام كان الاستحواذ لشركة ريسوت للإسمنت على غالبية محطة الإسمنت التابعة لشركة لافارج هولسيم في جزر ثيلافوشي في جزر المالديف .

[/https://www.omandaily.om](https://www.omandaily.om)

دولة ليبيا

استئناف الإنتاج بمصانع زليتن يُخفض أسعار الإسمنت بالسوق

تراجعت أسعار الإسمنت في السوق إلى مستويات منخفضة بعد استئناف العمل داخل مصانع الإسمنت ببلدية زليتن والتي توقفت أكثر من مناسبة نتيجة انقطاع الكهرباء ونقص الوقود .

وقال أحد المشغلين لمصنع الاتحاد العربي للمقاولات بأن عودة الإنتاج بمعدلات أقل من السابق إلا أنها ساهمت في انخفاض أسعاره داخل السوق . وسيساعد مصنع العربية الذي استأنف العمل بداخله في عملية تغطية احتياجات السوق من مادة الإسمنت واستقرار سعرها أيضاً .

وحالياً ، يبلغ معدل إنتاج مصنع الاتحاد ما يقارب من 5.4 ألف طن يومياً بينما يبلغ إنتاج مصنع العربية 2.5 طن يومياً . ومن المتوقع أن تساهم عودة الإنتاج في التقليل من الأزمة التي تسبب بها توقف عمل المصانع الفترة الماضية .

<https://sada.ly>

نشاطات عربية

ورشة العمل العربية حول تطبيق نظم الإدارة البيئية في المؤسسات والشركات الصناعية طبقاً للمواصفة القياسية الدولية ISO 14001: 2015 وآثارها في المحافظة على الموارد الطبيعية والتنمية المستدامة
المكان: عن طريق الانترنت

التاريخ: 17 - 19 يناير / كانون الثاني 2021

الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعددين - المكتب الإقليمي ، بالتعاون مع المنظمة العربية للتنمية الإدارية

لمزيد من المعلومات يمكن التواصل عبر:

هاتف: (+202) 23807565 / (+202) 23583990

فاكس: (+202) 23803880

بريد إلكتروني: aidmoroc7@gmail.com / aidmoroc@yahoo.com

موقع إلكتروني: www.aidmo.org/roc

المؤتمر العربي السنوي الحادي عشر

تكنولوجيا الموارد البشرية ... إنشاء وإدارة مراكز الأزمات

المكان: القاهرة ، جمهورية مصر العربية

التاريخ: 10 - 13 يناير / كانون الثاني 2021

الجهة المنظمة: الاتحاد العربي لتنمية الموارد البشرية

للحصول على كافة التفاصيل يرجى التواصل مع إدارة التدريب: أ / ميرفت شاهين

موبايل واتس اب : +201009306111 / +201110231700

بريد إلكتروني: mirvat@uhrda.net / Mirvatuhrda.net@gmail.com

ورشة العمل العربية حول المتطلبات العامة لكفاءة مختبرات المعايرة والاختبار طبقاً للمواصفة الدولية

ISO/IEC17025: 2017

المكان: عن طريق الانترنت

التاريخ: 07 - 09 فبراير / شباط 2021

الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعددين - المكتب الإقليمي ، بالتعاون مع المنظمة العربية للتنمية الإدارية

للحصول على كافة التفاصيل يرجى التواصل عبر:

هاتف: (+202) 23807565 / (+202) 23583990

فاكس: (+202) 23803880

بريد إلكتروني: aidmoroc7@gmail.com / aidmoroc@yahoo.com

موقع إلكتروني: www.aidmo.org/roc

المؤتمر العربي التاسع

التطوير الإداري في المؤسسات الحكومية

المكان: القاهرة ، جمهورية مصر العربية

التاريخ: 07 - 10 فبراير / شباط 2021

الجهة المنظمة: الدار العربية للتنمية الإدارية
للحصول على كافة التفاصيل يرجى التواصل مع: نائب مدير التدريب: أ / سارة عبد الجواد
موبايل واتس اب: +201062992510
هاتف: +20237800583 / +20237800693
فاكس: +20235866323 / +20237800573
بريد إلكتروني: saragwadi@gmail.com
www.Ahadhr.org

ورشة العمل العربية حول تطبيق نظم إدارة الطاقة في المشروعات الصناعية بالعالم العربي وفقاً لمتطلبات
المواصفة القياسية الدولية 2018: ISO 50001
المكان: عن طريق الانترنت
التاريخ: 21 - 23 فبراير / شباط 2021
الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعدين - المكتب الإقليمي ، بالتعاون مع المنظمة العربية
للتنمية الإدارية
للحصول على كافة التفاصيل يرجى التواصل عبر:
هاتف: +202) 23807565 / +202) 23583990
فاكس: +202) 23803880
بريد إلكتروني: aidmoroc7@gmail.com / aidmoroc@yahoo.com
موقع إلكتروني: www.aidmo.org/roc

ورشة العمل العربية حول نظم الإدارة المتكاملة "الجودة والبيئة والسلامة والصحة المهنية" طبقاً
لمتطلبات المواصفات العالمية IMS
المكان: عن طريق الانترنت
التاريخ: 07 - 09 مارس / آذار 2021
الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعدين - المكتب الإقليمي ، بالتعاون مع المنظمة العربية
للتنمية الإدارية
للحصول على كافة التفاصيل يرجى التواصل عبر:
هاتف: +202) 23807565 / +202) 23583990
فاكس: +202) 23803880
بريد إلكتروني: aidmoroc7@gmail.com / aidmoroc@yahoo.com
موقع إلكتروني: www.aidmo.org/roc

ورشة العمل العربية حول استراتيجيات إعداد خطط العمل وآليات اتخاذ القرار في المؤسسات الصناعية
المكان: عن طريق الانترنت
التاريخ: 21 - 23 مارس / آذار 2021
الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعدين - المكتب الإقليمي ، بالتعاون مع المنظمة العربية
للتنمية الإدارية
للحصول على كافة التفاصيل يرجى التواصل عبر:

هاتف: (+202) 23807565 / (+202) 23583990

فاكس: (+202) 23803880

بريد إلكتروني: [aidmoroc7@gmail.com](mailto:aidmoroc@gmail.com) / aidmoroc@yahoo.com

موقع إلكتروني: www.aidmo.org/roc

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

المكان: عن طريق الانترنت

التاريخ: 04 - 06 أبريل / نيسان 2021

الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعددين - المكتب الإقليمي ، بالتعاون مع المنظمة العربية
للتنمية الإدارية

للحصول على كافة التفاصيل يرجى التواصل عبر:

هاتف: (+202) 23807565 / (+202) 23583990

فاكس: (+202) 23803880

بريد إلكتروني: [aidmoroc7@gmail.com](mailto:aidmoroc@gmail.com) / aidmoroc@yahoo.com

موقع إلكتروني: www.aidmo.org/roc

ورشة العمل العربية حول تخطيط ومراقبة الإنتاج والاتجاهات الحديثة لتحسين الانتاجية وتطبيق الصيانة
الشاملة "TPM" في المصانع والشركات

المكان: عن طريق الانترنت

التاريخ: 25 - 27 مايو / أيار 2021

الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعددين - المكتب الإقليمي ، بالتعاون مع المنظمة العربية
للتنمية الإدارية

للحصول على كافة التفاصيل يرجى التواصل عبر:

هاتف: (+202) 23807565 / (+202) 23583990

فاكس: (+202) 23803880

بريد إلكتروني: [aidmoroc7@gmail.com](mailto:aidmoroc@gmail.com) / aidmoroc@yahoo.com

موقع إلكتروني: www.aidmo.org/roc

ورشة العمل العربية حول تعريف وتقييم مخاطر الأعمال وكيفية إدارة الأزمات في المؤسسات الصناعية
وفقاً لإرشادات المواصفة الدولية 31000:2018

المكان: عن طريق الانترنت

التاريخ: 06 - 08 يونيو / حزيران 2021

الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعددين - المكتب الإقليمي ، بالتعاون مع المنظمة العربية
للتنمية الإدارية

للحصول على كافة التفاصيل يرجى التواصل عبر:

هاتف: (+202) 23807565 / (+202) 23583990

فاكس: (+202) 23803880

بريد إلكتروني: aidmoroc7@gmail.com / aidmoroc@yahoo.com
موقع إلكتروني: www.aidmo.org/roc

الصالون الدولي الثالث والعشرون للبناء ومواد البناء والأشغال العمومية

المكان: قصر المؤتمرات ، الجزائر
التاريخ: 07 - 11 يونيو / حزيران 2021
الجهة المنظمة: BATIMATEC EXPO SPA
هاتف / فاكس: +21323354555 / +21323354560 / +21323354561 / +21323354562
بريد إلكتروني: batimatec.expo@gmail.com
الموقع الإلكتروني: www.batimatecexpo.com

ورشة العمل العربية حول إعادة تدوير المخلفات ومعالجة النفايات الصناعية واستخدام التكنولوجيا الأنظف في الصناعة

المكان: عن طريق الانترنت
التاريخ: 20 - 22 يونيو / حزيران 2021
الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعدين - المكتب الإقليمي ، بالتعاون مع المنظمة العربية للتنمية الإدارية
للحصول على كافة التفاصيل يرجى التواصل عبر:
هاتف: +202) 23807565 / +202) 23583990
فاكس: +202) 23803880
بريد إلكتروني: aidmoroc7@gmail.com / aidmoroc@yahoo.com
موقع إلكتروني: www.aidmo.org/roc

ورشة العمل العربية حول نظام إدارة استمرارية الأعمال في المؤسسات الصناعية طبقاً لمتطلبات المواصفة القياسية الدولية ISO 22301:2019

المكان: عن طريق الانترنت
التاريخ: 04 - 06 يوليو / تموز 2021
الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعدين - المكتب الإقليمي ، بالتعاون مع المنظمة العربية للتنمية الإدارية
للحصول على كافة التفاصيل يرجى التواصل عبر:
هاتف: +202) 23807565 / +202) 23583990
فاكس: +202) 23803880
بريد إلكتروني: aidmoroc7@gmail.com / aidmoroc@yahoo.com
موقع إلكتروني: www.aidmo.org/roc

ورشة العمل العربية حول تطبيق نظم الإدارة الرشيقة Lean Management لضمان تحسين الأداء
بالمؤسسات

المكان: عن طريق الانترنت

التاريخ: 01 - 03 أغسطس / آب 2021

الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعدين - المكتب الإقليمي
للحصول على كافة التفاصيل يرجى التواصل عبر:

هاتف: (+202) 23807565 / (+202) 23583990

فاكس: (+202) 23803880

بريد إلكتروني: aidmoroc@gmail.com / aidmoroc@yahoo.com

موقع إلكتروني: www.aidmo.org/roc

ورشة العمل العربية حول مبادئ وممارسات الذكاء الاصطناعي ودورها في تحسين عملية اتخاذ القرارات
وإدارة الشركات على مستوى الإدارات العليا والمتوسطة

المكان: عن طريق الانترنت

التاريخ: 15 - 17 أغسطس / آب 2021

الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعدين - المكتب الإقليمي ، بالتعاون مع المنظمة العربية
للتنمية الإدارية

للحصول على كافة التفاصيل يرجى التواصل عبر:

هاتف: (+202) 23807565 / (+202) 23583990

فاكس: (+202) 23803880

بريد إلكتروني: aidmoroc@gmail.com / aidmoroc@yahoo.com

موقع إلكتروني: www.aidmo.org/roc

ورشة العمل العربية حول كيفية إعداد دراسات الجدوى المتكاملة للمشروعات الصناعية الجديدة في العالم
العربي

المكان: عن طريق الانترنت

التاريخ: 05 - 07 سبتمبر / أيلول 2021

الجهة المنظمة: المنظمة العربية للتنمية الصناعية والتعدين - المكتب الإقليمي ، بالتعاون مع المنظمة العربية
للتنمية الإدارية

للحصول على كافة التفاصيل يرجى التواصل عبر:

هاتف: (+202) 23807565 / (+202) 23583990

فاكس: (+202) 23803880

بريد إلكتروني: aidmoroc@gmail.com / aidmoroc@yahoo.com

موقع إلكتروني: www.aidmo.org/roc

دورات تدريبية عربية

الإبداع المؤسسي ودور القيادات الإدارية في التنمية داخل المنظمات

المكان: القاهرة، جمهورية مصر العربية

التاريخ: 03 - 07 يناير / كانون الثاني 2021

الجهة المنظمة: الدار العربية للتنمية الإدارية

للحصول على كافة التفاصيل يرجى التواصل مع مدير التدريب أ / ريهان سالم

هاتف: +20237800693 / +20237800583

موبايل: +201062992510 / +201006000691

فاكس: +20235866323 / +20237800573

بريد إلكتروني: tadrib.ahad@gmail.com

www.Ahadhr.org

القواعد القانونية في عقود B.O.O.T

المكان: القاهرة، جمهورية مصر العربية / اسطنبول ، تركيا

التاريخ: 10 - 14 يناير / كانون الثاني 2021

الجهة المنظمة: الدار العربية للتنمية الإدارية

للحصول على كافة التفاصيل يرجى التواصل مع مدير التدريب أ / ريهان سالم

هاتف: +20237800693 / +20237800583

موبايل: +201062992510 / +201006000691

فاكس: +20235866323 / +20237800573

بريد إلكتروني: tadrib.ahad@gmail.com

www.Ahadhr.org

تطوير مهارات منسقي التدريب

المكان: اسطنبول ، تركيا

التاريخ: 10 - 14 يناير / كانون الثاني 2021

الجهة المنظمة: معهد التنمية الإدارية

للحصول على كافة التفاصيل يرجى التواصل مع إدارة التدريب:

جوال واتساب وفايبر: +201091780140

هاتف أرضي: +20237795650

بريد إلكتروني: Training@iadmena.com

الاتجاهات الحديثة في التنظيم وتبسيط الإجراءات

المكان: القاهرة، جمهورية مصر العربية / شرم الشيخ ، جمهورية مصر العربية

التاريخ: 17 - 21 يناير / كانون الثاني 2021

الجهة المنظمة: الدار العربية للتنمية الإدارية

للحصول على كافة التفاصيل يرجى التواصل مع مدير التدريب أ / ريهان سالم
هاتف: +20237800693 / +20237800583
موبايل: +201062992510 / +201006000691
فاكس: +20235866323 / +20237800573
بريد إلكتروني: tadrib.ahad@gmail.com
www.Ahadhr.org

الإحلال الوظيفي وتصميم خطط التعاقب
المكان: القاهرة، جمهورية مصر العربية
التاريخ: 17 - 21 يناير / كانون الثاني 2021
الجهة المنظمة: معهد التنمية الإدارية
للحصول على كافة التفاصيل يرجى التواصل مع إدارة التدريب:
جوال واتساب وفايبر: 00201091780140
هاتف أرضي: 0020237795650
بريد إلكتروني: Training@iadmena.com

إدارة صادر ووارد الأرشيف ونظم المعلومات
المكان: القاهرة، جمهورية مصر العربية / دبي ، الإمارات العربية المتحدة
التاريخ: 31 يناير / كانون الثاني – 04 فبراير / شباط 2021
الجهة المنظمة: الدار العربية للتنمية الإدارية
للحصول على كافة التفاصيل يرجى التواصل مع مدير التدريب أ / ريهان سالم
هاتف: +20237800693 / +20237800583
موبايل: +201062992510 / +201006000691
فاكس: +20235866323 / +20237800573
بريد إلكتروني: tadrib.ahad@gmail.com
www.Ahadhr.org

الاتجاهات الحديثة في تخطيط المسارات الوظيفية وهيكل الأعمال وتصميم الوظائف
المكان: القاهرة، جمهورية مصر العربية / دبي ، الإمارات العربية المتحدة
التاريخ: 31 يناير / كانون الثاني – 04 فبراير / شباط 2021
الجهة المنظمة: الدار العربية للتنمية الإدارية
للحصول على كافة التفاصيل يرجى التواصل مع مدير التدريب أ / ريهان سالم
هاتف: +20237800693 / +20237800583
موبايل: +201062992510 / +201006000691
فاكس: +20235866323 / +20237800573
بريد إلكتروني: tadrib.ahad@gmail.com
www.Ahadhr.org



SIMAN NEWS

Iran Cement News Agency



www.simankhabar.ir

پایگاه خبری تحلیلی صنعت سیمان ایران

 IRAN Cement Industry Capabilities and Equipments Production in Simankhabar.ir

SK Automatic Big Bag Filling Station With Lifting System



For Export



SK Cement Packing Plant



For more information please contact us :



Tel : +98 21 6642 89 14

Fax: +98 21 6691 53 29

info@simankhabar.ir



أنظمة التشحيم

إعداد: م. رئيس مهندسين صباح أحمد محمود / الشركة العامة للسمنت العراقية

يعتمد المحرك على عدة أنظمة للقيام بعمله ، هذه الأنظمة تصنف كأنظمة تشغيل المحرك . نظام بدء الإدارة ، نظام دخول الهواء ، نظام التشحيم ، نظام الوقود ، نظام الإشعال ، نظام التزييت ، نظام التبريد ، نظام التحكم في الملوثات ، نظام العادم .

وظيفة نظام التزييت Purpose of lubrication system:

يقوم النظام بتزييت lubricate الأجزاء المتحركة لتقليل التآكل عن طريق حيك الخلوص بين الأجزاء المتحركة مثل كراسي التحميل bearings، الأعمدة shafts، . . . إلخ . وبالتالي تتحرك الأجزاء على طبقة من الزيت ، وليس عن طريق اتصال مباشر مع بعضها البعض ، وبالتالي تقلل من الفقد في قدرة المحرك الناجم من الاحتكاك بعمود المرفق connecting rod وعمود الكامنة cam shaft .

يقوم الزيت بتبريد الأجزاء المتحركة للمحرك ويعمل على نقلها إلى الزيت البارد الموجود بحوض الزيت / علبة عمود المرفق oil pan وبالتالي يقوم الزيت بعمل وسيط تبريد . بعض المحركات بها رشاشات التي تقوم برش الزيت بأسفل المكابس pistons، وبالتالي تقوم بالتخلص من حرارة المكابس .

يقوم الزيت بحمل الحمل carrying load عن طريق ملء الخلوصات بين الأجزاء الدوارة وكراسي التحميل . عند زيادة الحمل من المكابس على كراسي التحميل ، يعمل الزيت كعامل تخميد .

يقوم الزيت بالحبك seal عن طريق تكوين حابك بين جدران الاسطوانة cylinder wall وحلقات المكبس piston rings، وبالتالي يقلل من تهريب الغازات gas blowby من الأسطوانات لعلبة عمود المرفق .

يقوم الزيت بالتنظيف cleaning عن طريق تنظيف أسطح الأجزاء المحتكة من برادة المعدن وحملها إلى علبة عمود المرفق . الأجزاء الكبيرة تبقى في قاع علبة عمود المرفق والأجزاء الصغيرة يتم تنقيتها عن طريق المرشح filter .

تقليل التآكل reduce wear عن طريق منع اتصال معدن بمعدن metal-to metal contact بين الأجزاء المتحركة .

الأجزاء المتحركة للمحرك التي يتم تزييتهاها Engine parts lubricated by engine oil:

- حركة المكبس piston داخل الاسطوانة cylinder wall .
- دوران عمود المرفق crankshaft في كراسي التحميل (الكراسي الرئيسية main bearing، وكراسي النهاية الكبرى (big end bearing))

- دوران بنز المكبس piston pin في جلب bush النهاية الصغرى small end لذراع التوصيل connecting rod .
- دوران عمود الكاماة camshaft في كراسي تحميل عمود الكاماة .
- الحركة الترددية reciprocating motion لساق الصمامات valve stems .
- الحركة الدورانية لتروس الصمامات valve gear بمحركات حرف في (V engine) .
- الحركة الدورانية لعمود الشاحن التريبيني turbocharger .

أجزاء نظام التزييت وعملها Parts and Operation of Lubrication System:

- مضخة الزيت Oil pump : كل محرك يحتاج إلى كمية معينة من سريان الزيت لتزييت كراسي التحميل bearings، عمود الكاماة camshaft، مجموعة الصمامات valvetrain، والأجزاء المتحركة. ويتم هذا عن طريق مضخة الزيت ، ولكن مضخة الزيت لا تولد ضغط الزيت . كل ما تفعله المضخة هو نقل الزيت ودفعه خلال مسارات الزيت ، وبذلك يمكنه أن ينساب إلى كراسي التحميل ومجموعة الصمامات العلوية . الذي يولد ضغط الزيت فعلاً هو المقاومة التي يواجهها الزيت خلال انسيابه خلال المحرك . ويوصي مصنعو السيارات بضغط أدنى للزيت 10 رطل / بوصة مربعة لكل 1,000 لفة / دقيقة للمحرك . وبذلك يكون الضغط المتولد 50 إلى 60 رطل / بوصة مربعة . يتم سحب الزيت عن طريق مصفاة زيت floating oil intake and screen ، والتي تعمل على منع الجزيئات الكبيرة العالقة من الدخول للمضخة .

هناك نوعان من المضخات المستخدمة في نظام تزييت المحرك:

The gear pump- Twin gear pumps (also called external pumps)

The gear-rotor pump- Rotor pumps (also called "gerotor" pumps)

- حوض الزيت Oil pan : ويطلق عليه أيضاً علبة عمود المرفق ، وهو خزان لزيوت المحرك ويثبت بأسفل جسم المحرك عن طريق مسامير ويفصل بينهما جوان لحبك الزيت . وفي أدنى نقطة للحوض تكون هناك طبة تصفية الزيت . يحتوى الحوض على مضخة الزيت ، عصى مقياس الزيت تستخدم لقياس مستوى الزيت بحوض الزيت .
- مبرد الزيت Oil cooler : يمنع مبرد الزيت السخونة الزائدة للزيت overheating، وذلك من خلال راديئاتير ، بحيث يمر وسيط التبريد عبر أنابيب تحمل الزيت الساخن ، ويقوم وسيط التبريد بنقل الحرارة وتبريدها .
- منقي الزيت Oil filter : يمر الزيت من مضخة الزيت خلال منقي الزيت ليصل إلى كراسي تحميل المحرك. يمنع الفلتر مرور الشوائب والجزيئات العالقة ويسمح للزيت النقي بالمرور .
- مبین ضغط الزيت Lubrication system indicator: هناك ضوء مبین يضيء عندما ينخفض ضغط الزيت .
- الزيت Motor oil: هناك العديد من الأنواع مختلفة اللزوجة متوفرة بالأسواق .
- جوانات وحوابك الزيت oil gaskets and Radial shaft seal Gasket لمنع تسريب الزيت للخارج من بين الأجزاء المتصلة ببعضها ، الجوانات بين الأسطح العدلة ، والحابك لمنع التسريب من الأعمدة الدوارة .
- مقياس مستوى الزيت Oil dipstick : عصى قياس مستوى الزيت ، تمر من أنبوب خارجي وتستقر داخل علبة عمود المرفق ، وبها علامتان علامة قصوى max، وعلامة سفلى min ، ويجب أن يكون مستوى الزيت بين العلامتين .