



CEMENT & BUILDING MATERIALS REVIEW

Published by : Arab Union for Cement and Building Materials No.58 December 2014



BEUMERGROUP

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Cement and Building Materials Review

Arab Album

International News

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CONTRIBUTIONS

- *The Magazine editorial staff welcome the contribution of experts to enrich the contents of the magazine .*
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ARAB CEMENT COMPANIES' NEWS (Results)

EGYPT

Misir Cement Qena 9M profit rises 23.6%

Misir Cement Qena (MCQ) posted a rise by 23.6% in net profit for the first nine months of FY14 to EGP 243.2 million, compared with EGP 196.7 million in the same period a year earlier.

The company's financial results for H114- had shown a rise in net profit by 14% to EGP 165.3 million, compared with EGP 144.9 million in the same period a year earlier.

The company's sales totalled EGP 559 million, compared with EGP 445.8 million in H113-. Q1 financial results had mirrored a drop by 10% in net profit to EGP 72.7 million, compared with EGP 80.4 million in the same period a year earlier. FY13 profit had netted EGP 272 million, compared with EGP 321 million net profit a year earlier.

Source: Mubasher Info

Egypt's Suez Cement ups Q3 profit but hampered by energy shortage

Suez Cement, Egypt's largest listed cement maker by market value, said profits rose sharply in the third quarter though an energy shortage had raised costs.

Net profits after minority interests rose 40.5% to 52 million Egyptian pounds (\$7.3 million) after it managed to pass on higher production costs to customers.

But nine-month profits fell 14.6% on last year, hit by severe energy shortages which forced the company to cut output by 40 percent so far this year.

Suez Cement said it would begin using coal during the next two years while working to diversify its energy mix by adding waste-derived fuel in its factories.

It began testing coal use at its Kattameya plant in September and will begin testing at its Suez plant by year-end.

The company has five plants in Egypt.

<http://af.reuters.com>

GCC

GCC cement firms post \$1.6bn profit in nine months

The cement industry in the Gulf states benefits from growth and expansions in several other sectors. The cement sector is expected to see more expansions and profitability, thanks to the planned and current projects in the Gulf, which are estimated at around \$2.5 trillion.

Amid the current slide in crude prices, the GCC countries are forecasted to continue their efforts to

reduce reliance on oil revenues and boost investments in infrastructure projects that constitute the pivot of the area's construction boom.

A total of 27 cement companies listed in GCC stock markets posted their financial results for the first nine months of FY14, showing \$1.61 billion combined earnings, with 3.4% growth compared with \$1.56 billion reported in the same period a year earlier.

These earnings were boosted by Saudi Cement Co. that took the lion's shares in these earnings.

GCC cement companies posted 21.2% growth in Q3 net profit to \$435 million, compared with \$359 million in Q313-. However, these earnings fell 26.86% compared with \$594 million in Q214-.

Saudi Arabia accounted for the biggest portion of these earnings. Although KSA dominated 48% only of these companies, it made up 78.5% of registered earnings for the nine-month period.

It was followed by the UAE with 29.6% of the number of companies and 5.71% of their combined earnings.

Qatar took the third position with 3.7% of companies and 5.66% of earnings, followed by Oman with 7.4% of companies and 5.2% of earnings.

Kuwait came last, as it accounted for 11% of companies and 4.9% of earnings.

At the level of profit growth, Mubasher statistics showed that the UAE took the leading position with 60.7% growth, as it listed cement companies posted \$91.97 million net profit, compared with \$57.22 million in the same period a year earlier. The eight UAE cement companies reported \$21.8 million earnings in Q3, with 127.7% growth year-over-year from \$9.57 million.

Kuwait came second with 12.5% profit growth, with a total of three companies posting \$79.21 million net profit in the nine-month period, compared with \$70.41 million in the year-ago period. These companies also made \$17.78 million earnings in Q314-, with 26% rise y/y from \$14.11 million.

One Qatari firm, Qatar National Cement, posted 3.1% rise in nine-month period to \$91.21 million, compared with \$88.46 million. Meanwhile, net profit for the third quarter increased to \$25.85 million from \$23.76 million.

The fourth rank was taken by Omani companies that posted 2% growth in nine-month profit to \$83.83 million, compared with \$82.2 million. These companies

also made \$33.14 million net profit in Q3, representing a decline by 16.6% year-over-year from \$23.63 million.

Earnings of Saudi cement companies rose 0.4% to \$1264 million from \$12258 million. Q3 earnings also rose 21.6% to \$349.5 million from \$287.5 million.

Seventeen out of the cement companies posted profit growth in the nine-month period, while ten others posted profit decline.

Source: Mubasher Info

SAUDI ARABIA

Arabian Cement Q3 profit rockets 697%

Arabian Cement Co. posted SAR 133.9 million net earnings for Q3 2014, soaring 697.02% year-on-year from SAR 16.8 million but dropping 32.98% quarter-on-quarter from SAR 199.8 million.

The nine-month net earnings climbed 67.64% y/y from SAR 298.8 million to SAR 500.9 million.

The cement producer ascribed the profit hike in Q3 y/y to the 33% increase in sales revenue to SAR 386 million compared to SAR 290 million in the same quarter of the previous year. In addition, the subsidiary performance improvement as a result of increasing selling prices was behind this hike. The company also recorded an impairment loss of SAR 79 million in Qatrania Company books in the same quarter of the previous year.

The growth in the nine-month earnings was due the 27% increase in sales revenue to SAR 1,289 million this period, compared to SAR 1,016 million a year earlier; the subsidiary performance improvement as a result of increasing selling prices; recording impairment loss of SAR 79 million in Qatrania Company books in the same period of the previous year; and intangible assets write-off of SAR 14.5 million in the same period of the previous year.

Source: Mubasher Info

City Cement reports rise in Q3 profit

City Cement announced a rise in its profit during the third quarter of 2014 by around 3.39%.

The Company attributed the profit increase during the quarter, compared to the same period in 2013, to lower cost of sales as well as lower Zakat provisions and allocations.

The increase comes in spite of lower sales and a slight

decline in selling costs, added to lower administrative and general costs.

Source: Mubasher Info

Hail Cement generates SAR 25.1m profit in Q3

Hail Cement posted SAR 25.1 million net profit for the third quarter of 2014, leaping 48.19% from SAR 16.9 million in Q3 2013 but dropping 45.43% from SAR 45.9 million in Q2 2014.

The cement producer recorded SAR 106.2 million net earnings in the nine-month period until Sept. 30, 2014, with a surge of 392.66% compared with SAR 21.5 million a year earlier.

The company attributed the nine-month profit rise to the growth in sales revenue compared to same period of last year, as the commercial operations of the company in 2013 had started in May.

However, Q3 profit decline q/q was due to the decrease in revenue compared to previous quarter, as sales during the quarter decreased in Ramadan, Eid and Summer holidays. In addition, there is an increase in the direct costs due to shutdown.

Source: Mubasher Info

Al Jouf Cement : posts 17% profit rise for Q3

Al Jouf Cement Co. achieved SAR 8.6 million net profit in third quarter until Sept. 30, 2014.

Q3 profit is 17.12% higher than SAR 7.3 million in

Q3 2013 but 46.52% lower than SAR 16 million in Q2 2014.

At the nine-month level, the cement producer recorded SAR 39.7 million net earnings, falling 13.99% compared with SAR 46.1 million a year earlier;

Source: Mubasher Info

Northern Region Cement profit in Q3

Northern Region Cement made SAR 51.4 million net profit in third quarter 2014. Q3 profit is 2.61% higher than SAR 50 million in Q3 2013 but 17.29% lower than SAR 62 million in Q2 2014.

At the nine-month level, the cement producer recorded SAR 174.2 million net earnings, falling 4.83% compared with SAR 183 million a year earlier;

Source: Mubasher Info

Saudi Cement Posts Near-Flat Q3 Profit

Saudi Cement the Kingdom's largest cement producer by market value made a net profit of SAR232 million (\$61.8 million) in the three months to Sept. 30, up from SAR229 million in the corresponding period of 2013.

The firm attributed the profit rise to improved efficiencies, although quarterly cement sales dropped due to declining local demand.

http://gulfbusiness.com

Southern Province Cement Co Q3 profit boosted by a one-off gain

Southern Province Cement Company (SPCC) reported a Q3 2014 net profit of SAR285mn (+52.4% y-o-y), driven by a one-time gain of SAR112.5mn from the sale of its stake in Industrialization & Energy Services Company.

Adjusting for this one-time profit, the company's net income stood at SAR172.5mn (-7.8% y-o-y), missing our (SAR195.7mn) as well as consensus estimates (SAR198.3mn).

We expect the cement sector to continue on the recovery path over the next quarter.

Source: mec.biz

Yamamah Saudi Cement Co Q3 profit slips

Yamamah Cement's Q3 2014 net profit of SAR137mn (-7.4% y-o-y) came mostly in line with our SAR142.8mn estimate (consensus estimate: SAR145mn).

The company's sales volume fell by 6.3% y-o-y during the first two months of the quarter due to weak demand and rising competition in the central region.

Source: content.argaam.com.s3

Yanbu Cement Q3 profit up 16.4% to SAR 163m

Yanbu Cement released its results for the nine-month period ending on Sept. 30, 2014. Q3 2014 net earnings reached SAR 163 million, growing 16.43% year-on-year from SAR 140 million but decreasing 32.37% quarter-on-quarter from SAR 241 million.

The nine-month earnings netted SAR 609 million, falling 7.87% from SAR 661 million in the same period of last year.

The cement producer said the growth in Q3 net profit y/y was due to the lower cost of sales on boosting production and receiving the clinker import subsidy in Q3.

The nine-month profit decline y/y was due to the lower sales quantity, Yanbu Cement said.

The company also ascribed the decrease in Q3 profit q/q to the lower sales quantity in Ramadan and Eid al-Fitr holiday, as well as the collection of miscellaneous revenues.

Source: Mubasher Info

UAE

RAK White Cement profit falls 16% on revenue in 9M

Ras Al Khaimah White Cement and Construction Materials (RAK White Cement) reported a net profit of AED 36.2 million (\$9.86 million) during the first nine months of the year, compared to AED 43.3 million during the similar period in 2013, registering a profit decline by 19.4%.

On the other hand, net profit for the third quarter of the year leaped by 95.6% to AED 10 million compared to AED 5.12 million during Q3-13.

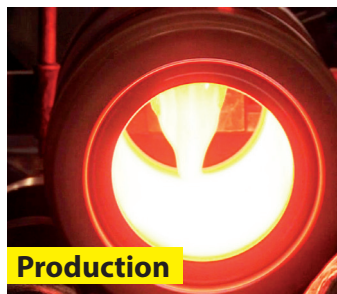
The nine-month profit decline was attributed to retreating revenues amounting to AED 308 million against AED 328.2 million during the first nine months of 2013. Meanwhile, Q3 profit growth was attributed to a significant increase in revenue from investments amounting to AED 7.3 million against AED 3.85 million during Q3-13.

Source: Mubasher Info

Kalenborn provides customized wear protection solutions for the cement industry



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ENVIRONMENT ENVIRONMENT

Egypt's Suez Cement to convert two factories to run on coal

Suez Cement, Egypt's largest listed cement maker by market value, said it planned to spend 600 million Egyptian pounds (\$84 million) in 2015 on equipping two factories to run on coal due to the country's energy crunch.

Egypt is battling its worst energy crisis in decades. Rising consumption and decreasing production have turned it into a net energy importer in recent years and caused regular blackouts.

The cabinet approved the industrial use of coal in April and companies are now in the process of fitting their plants to run on imported coal, a move Suez has said should help boost output and reduce costs.

Suez Cement was one of the companies affected when the government cut natural gas supplies to factories in January and has had to import clinker at higher cost.

The government's move was aimed at preserving natural gas for power generation, to avoid blackouts and public unrest. It led cement companies, including Suez, to renew a demand to use coal for power generation.

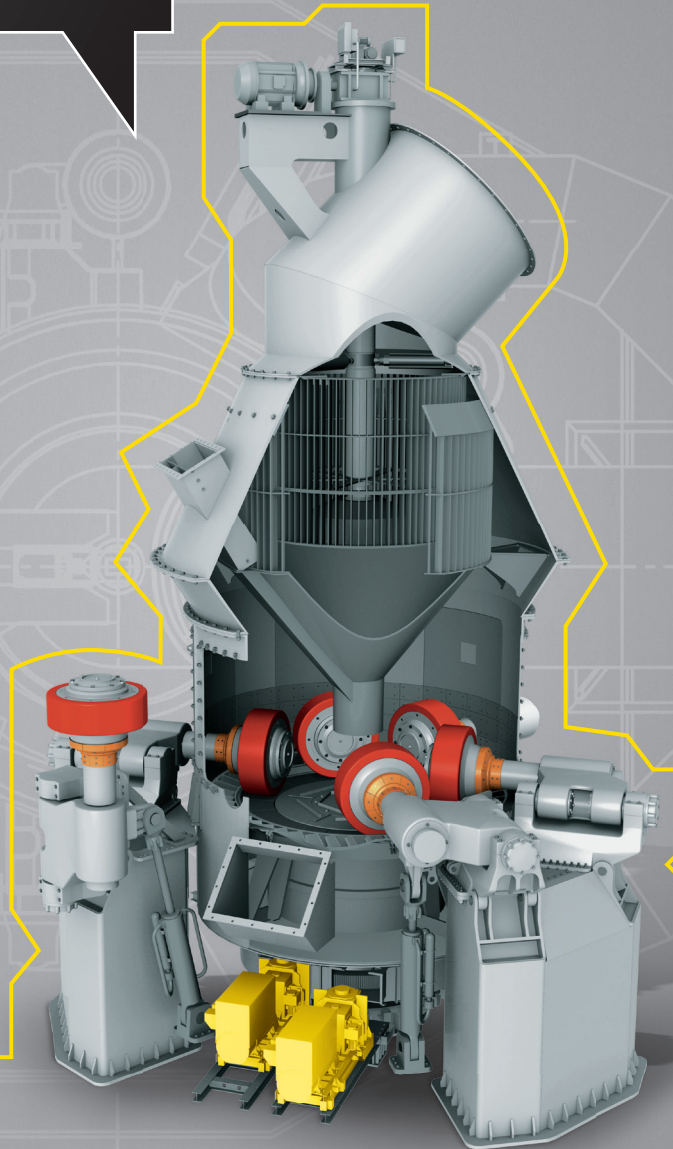
The company has said it would begin using coal during the next two years while working to diversify its energy mix by adding waste-derived fuel in its factories.

Source: Reuters

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Pfeiffer. Progress is our tradition.

MPS 2800 BK – Coal Mill for Egypt

Titan Cement, Egypt, ordered a vertical roller mill of the type MPS 2800 BK from Gebr. Pfeiffer SE. The mill, which will be set up in production line no. 1 of Beni Suef works, is designed for a finished product rate of 40 t/h. The coal having a Hardgrove grindability index of 45 will be ground to a product fineness of 12 % residue 90 µm while simultaneously being dried from a maximum 12 % feed moisture to a maximum 1 % residual moisture by using hot gases from the cement process.

New Siwertell mobile unloader serves Kuwaiti construction industry

Mon, 8 Dec 2014 09:00:00 +0100



CARGOTEC CORPORATION, PRESS RELEASE, 8 DECEMBER 2014, AT 10 A.M. (EET)

Siwertell, part of Cargotec, has announced the successful delivery, commissioning and recent entry into operations of a new mobile Siwertell unloader for Kuwait-based Acico Construction Co. It was ordered in June to help meet the region's growing cement demands and is now operational in Kuwait's second largest port, Shuaiba, located south of Kuwait City.

The trailer-based, diesel-powered Siwertell 5 000 S road mobile unloader is fitted with dust filters and a double bellows system for uninterrupted operations. It was built in Sweden and is now unloading cement at a rated capacity of 300t/h.

The Siwertell road-mobile unloader was originally developed for handling cement, although it can comfortably handle a wide variety of dry bulk materials, explains Jörgen Ojeda, Director, Mobile Unloaders, Siwertell. "Siwertell is considered to be one the leading manufacturers of mobile unloading systems, offering the highest standards of reliability and sustainability, along with the lowest environmental impact possible for cement operations.

"Previously, Acico has enjoyed very positive experiences operating Siwertell mobile unloaders belonging to third parties. This was an important factor in helping the company to conclude that it would like to own and operate its own unit," he adds.

"Siwertell's reputation for delivering reliable systems often makes it the preferred choice. They understand that, in the long run, a low priced system could prove

to be more expensive as a result of longer downtime, high maintenance costs and a substantial need for spare parts to keep the system up and running."

ACICO Construction, part of ACICO Industries Company, was founded in 1990 and has experienced sustained and steady growth, says the company. In 2012, it won the Arabian Business Magazine award for 'Green Building Company of the Year', highlighting the company's aim for good environmental credentials.

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Siwertell ship unloaders and loaders are based on unique screw conveyor technology, in combination with belt conveyors and aeroslides, and can handle virtually any dry bulk cargo, such as alumina, biomass, cement, coal, fertilizers, grain and sulphur. Siwertell's product portfolio includes ship unloaders, mobile ship unloaders, ship loaders, conveying systems and complete bulk terminal solutions, all of which are designed to ensure environmentally-friendly and efficient cargo operations. www.siwertell.com

Siwertell is part of Cargotec. Cargotec's sales totalled EUR 3.2 billion in 2013 and it employs approximately 11,000 people. Cargotec's class B shares are quoted on NASDAQ OMX Helsinki Ltd. under symbol CGCBV. www.cargotec.com



أهمية الحجم
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Size matters: The Plug&Grind® XL has arrived

SCHWENK Zement KG relies on BEUMER Group Pipe Conveyors:

Operational gains with minimal disruption and without any material loss

SCHWENK Zement KG is replacing its old drag chain conveyor line with a modern Pipe Conveyor from BEUMER Group. Requiring a solution that would transport alternative fuels such as crushed plastic material, textiles and paper from the warehouse to the feeding system of the oven in their cement plant in Bernburg, Germany, this fully closed conveying system makes transporting bulk material more environmentally friendly and energy efficient. Maintenance costs are also considerably lower and the system can be optimally adapted to the ambient conditions.

SCHWENK's product diversity and production capacity make the cement plant in Bernburg one of the largest and most efficient building material plants in Germany. The production of cement along the river Saale has a rich history due to the prevalence of high-quality deposits of limestone in this area. The plant has been in existence since 1960. SCHWENK took over the plant in 1990 and tore down the existing systems to build an entirely new plant. Today, SCHWENK's product portfolio includes a wide range of efficient, specialised cement marked by consistently high quality. The company produces the ideal product using modern mixing technology, as required for tunnel, road and well construction, as well as for geothermal and environment engineering.

One topic of great importance to the SCHWENK plant is sustainable production. Production of cement has always been one of the most energy-intensive operations. This is why SCHWENK minimises the use of primary fuels such as coal and oil and focuses increasingly on substitute fuels. These substitute fuels are mainly a mixture of high calorific waste materials, comprised mostly of plastic and packaging residues and textiles. They are processed to high-grade fuels with defined product parameters in external processing plants.

Heat-intensive processes

For the manufacturing of cement, limestone is quarried, crushed and homogenised with additional raw materials.

Belt conveyors then transport the crushed material with other materials from the blending bed to the plant. It is ground to the necessary grain size in the raw mills and then dried. The raw meal is then homogenised and temporarily stored in large silos. To obtain Portland cement clinker, a coarse intermediate product, the raw meal is first transported into the cyclone preheater, then into the calcinator, both powered by alternative fuels. The limestone portion of the raw meal is deacidified at temperatures of over 950 degrees Celsius. The material then moves into the rotary kiln where it is burned at temperatures of approx. 1,450 degrees Celsius.

Up until now, SCHWENK relied on a drag chain conveyor line for transporting the fuels from the storehouse to the feeding systems of its main burner. The baffle plates on these mechanical continuous conveyors are mounted to an endless chain, transporting the bulk material in a trough. "We had been using this system for more than ten years. This meant that we had to put more and more maintenance work into it", says Dirk Fabian, production manager at SCHWENK in Bernburg. Another problem: after further development of the dosing technology, the drag chain conveyor was no longer able to transport enough bulk material, with a density of only 0.2 tons per cubic metre, to the weigh feeders (and thus to the main burner). "We were looking for an alternative solution that would be ecological as well as low in maintenance", explains Dirk Fabian. In addition, the new conveyor should also be optimally adapted to the curved routing in the plant.

Comprehensive expertise, optimum support

For the building material manufacturer, BEUMER Group was their first choice supplier of the optimal conveying technology. SCHWENK has a long-standing and close partnership with BEUMER as an internationally operating system supplier. BEUMER has provided SCHWENK Putztechnik GmbH & Co. KG, headquartered in Ulm in southern Germany, with several BEUMER paletpac® high-capacity layer palletisers, equipped with the newly developed twin-belt turning device. BEUMER has been well-established in the building industry for nearly 80

years as a supplier of conveying technology solutions. BEUMER has bundled its comprehensive expertise in the building material industry and established different Centers of Competence, in order to offer optimal support for global building material manufacturers by offering single-source solutions. The "Pipe Conveyor" segment is one such Center of Competence. These centers are in charge of worldwide project management and sales. They collect and process the expertise from the individual local group companies and pass it on to the global Group experts in each respective field.

High level of environmental protection, low level of maintenance

"Together with the management team in Bernburg, we developed a solution that is tailored exactly to match SCHWENK's requirements", says Michal Mikulec, managing director at BEUMER Group Czech Republic a.s. and supervisor for this project. Our first idea was to combine a new drag chain conveyor with several open belt conveyors, but it was quickly abandoned. It became apparent that a Pipe Conveyor was the best solution offering environmental protection and low maintenance. "Its closed design protects the environment from transported goods falling down. Another advantage is the lack of dust development on the running line", explains Michal Mikulec. These conveyors offer many other advantages. They are able to navigate long distances and tight curve radii. Due to their ability to negotiate curves, considerably less transfer towers are required compared to other belt conveyors. This results in substantial cost savings for the customer and delivery of a system customised for individual routing. BEUMER Group supplied and installed a system with a diameter of 200 millimetres and a length of 230 metres. It conveys up to 15 tons of material per hour. BEUMER was also responsible for the design of the system and the entire steel structure.

Durable conveyor belts guaranteeing tensile strength are used in the SCHWENK solution. "To find the ideal belt version for SCHWENK, we calculated the tractive forces as well as the forces that occur during acceleration and deceleration – always considering the net weight of the belt and the transported item", reports Michal Mikulec. The engineers also precalculated the belt positions in different curve radii for the empty and loaded belt. Another system advantage is the reduced noise emission of the Pipe Conveyors. "Special idlers as well as low-noise bearings and electric motors work very quietly. This improves the quality of our employees' day-to-day work environment and ensures the people living near the plant are not disturbed", says Dirk Fabian.

Trouble-free operation

Cranes pick up the treated substitute fuels in the storehouse and unload them into the discharge bunker with the discharge system. From here, the chain belt conveyor continually transports the material to the new Pipe Conveyor that then transports it to the weigh feeders of the main burner.

BEUMER was able to optimally customise the routing of the conveyor to the plant. Another requirement met by the experts: no supports underneath the Pipe Conveyor that would otherwise obstruct vehicles. This is why the technicians mounted the first support directly to the storehouse. The conveyor take-up system was designed by BEUMER as a take-up tower. It is located right next to the feeding station.

It took only eight months from the time the contract was awarded until commissioning of the new system in February 2014. "We have been working with the BEUMER system for several months now", says Dirk Fabian. "We are very satisfied. It is very robust and we no longer have any failures."

7,911 characters (incl. spaces)

Captions:



Picture 1: The Pipe Conveyor is customised to fit perfectly into the local features of the environment.



Picture 2: A crane discharges the substitute fuel into the discharge bunkers in the storehouse.



Picture 5: The inclination of the Pipe Conveyor measures 18.6 degrees at the point shown.



Picture 3: The chain belt conveyor lifts the material to the height of the Pipe Conveyor.



Picture 6: The discharge station shown is at a height of 26 metres. Here the material is transferred onto the feeding system for the main burner.



Picture 4: The first support is mounted directly to the storehouse.

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Best Belt Technology Provided by AUMUND Steel Cord Belts

Best Belt Technology
Provided by AUMUND Steel Cord Belts

Rheinberg/Germany, November 10th 2014

The mechanical demands on steel cord bucket elevator belts are fundamentally different to those of belt conveyors. High tensile and pull-out strength on cords with small diameters are equally decisive as a straight running and a high temperature resistance in case hot bulk materials have to be conveyed. In more than 30 years, AUMUND continuously refined the belt bucket elevator technology and offers nowadays the strongest and most capable solutions worldwide for the vertical transport of bulk material. The standards forged by AUMUND have been proven in practice a thousand times over.



Fig 3) Belt tailoring at AUMUND

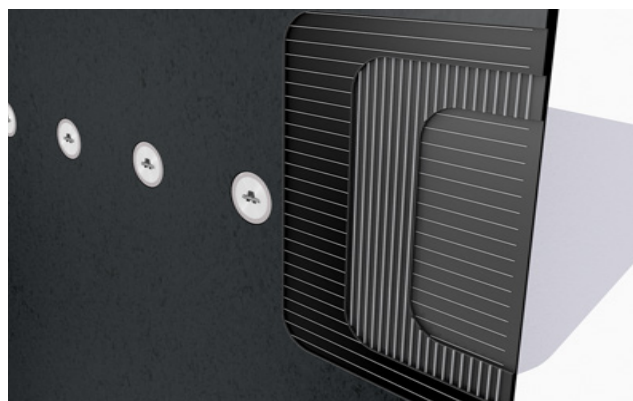


Fig 1) The steel cord transverse reinforcement provides high pull-out strength and reliable fixing for the bucket fastening. The plate screws are used exclusively for fitting the buckets.



Fig 4) Belt bucket elevator for feeding the heat exchanger of a rotary kiln feeding cement silos (Lafarge Wössingen)

Fig 5) Belt Bucket elevators (HOLCIM t.Genevieve USA)

PRESS INFORMATION

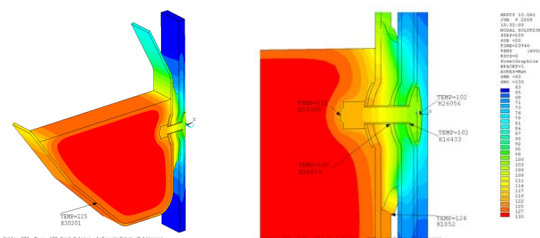


Fig 2) Thermal stress calculation of bucket fastening –only low heat transfer into the belt when hot bulk material is conveyed

More than 170 metres lift height. A conveying capacity of 650 tons of raw meal per hour. Operational 24 hours, 7 days a week. That’s 15,600 tons daily capacity. Those are the performance data of a bucket elevator located at India’s largest and most modern cement plant in Himachal Pradesh belonging to the Ambuja Cement Group. As a result of a conversion by AUMUND, the previously existing bucket elevator was substituted by a high-performance AUMUND Belt Bucket Elevator in 2013.

What is the specific challenge?

The belt of a bucket elevator needs to provide a high tensile strength, a low net weight and low elongation, while simultaneously running in good alignment is demanded. This is achieved by a specialized production process and most of all by a high transverse rigidity. The bucket elevator belt has to be optimally designed for its attachments like buckets, rubber seals and endless splices in order to function as a reliable complete system in daily operation, even after many years. All this is ensured by the special carcass construction of the AUMUND Bucket Elevator Belts in combination with the AUMUND bucket fastening system.

Closely spaced high-tensile steel cords act as continuous tensile members. They allow belt strengths up to 4,200 N/mm for lift heights of more than 200 meters. On the front side as well as on the back side of the tensile members steel cord transverse reinforcements strengthen the belt. In contrast to textile inlays, the advantage of reinforcement by transverse steel cords in comparison to textile fabric as reinforcement is the higher adhesion of the rubber. This higher adhesion ensures a permanent connection of the individual belt layers, even under the influence of temperature.

Simultaneously, the steel cord transverse reinforcement provides high pull-out strength and reliable fixing for the bucket fastening, so that plate screws can be used exclusively for fitting the buckets. These plate screws exclusively developed by AUMUND differ significantly from conventional DIN plate screws and have been designed for a longer belt service life and higher carrying capacity. Therefore, further attachments to increase the clamping force at the bucket fastening are not necessary. As a result, the belt runs smoothly and without high abrasion on the drive pulley. Only small dead loads have to be transported.

Taking advantage of the cross wire structure of this belt design, AUMUND is able to punch holes directly and affix the bucket, with the advantages mentioned above. While this also cuts some longitudinal cables, these, plus a safety are of course not accounted for in the strength rating of the supplied belt, creating the most simple and practical mounting arrangement. AUMUND also uses the advantages of this high-strength belt construction for the most recent development of a coarse grain belt bucket elevator, which makes it possible to transport material of grain sizes up to 80mm with a belt bucket elevator for the first time.

AUMUND Bucket Elevator cord belts for hot bulk materials

”Rubber contracts, steel does not!” As is well-known, rubber ages depending on operation temperature

and dwell time i.e. rubber hardens and loses volume. AUMUND Bucket Elevator Belts have been designed for the transport of hot bulk materials. The continuous steel cords fitted in transversal and lateral direction act like a supporting frame which provides a decisive advantage here as well: the belt loses hardly any volume so that an adequate clamping force can always be ensured in the area of the bucket fastening and the trouble free endless splice.

Newly developed rubber compounds based on ethylene propylene diene monomer (EPDM) allow operational ranges up to a material temperature of 150 °C for AUMUND Bucket Elevator Belts. Even peak temperatures up to 170 °C may be reached. Load tests under industrial daily routines proved that EPDM-belts are much more resistant to aging than belts made of styrene-butadiene rubber (SBR).

The exceptional quality of the AUMUND Steel Cord Belts is successfully on trial daily with 3,600 reference installations worldwide.

About the AUMUND Group

The AUMUND Group is active worldwide. The conveying and storage specialists have special expertise at their disposal when dealing with bulk materials. With their high degree of individuality, both its technically sophisticated as well as innovative products have contributed to the AUMUND Group today being a market leader in many areas of conveying and storage technology. The manufacturing companies AUMUND Förder-technik GmbH (Rheinberg, Germany), SCHADE Lagertechnik GmbH (Gelsenkirchen, Germany), SAMSON Materials Handling Ltd. (Ely, England), as well as AUMUND Logistic GmbH (Rheinberg, Germany) are consolidated under the umbrella of the AUMUND Group. In conjunction with the headquarters of the manufacturing companies, the global conveying and storage technology business is spearheaded through a total of eight locations in Asia, Europe, North and South America.

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Sacmi technology plays pivotal role on Red Sea

Complete plant with an output of 23,000 m² a day supplied to Egyptian firm Ceramica Glamour

A major player on the Egyptian market, Ceramica Glamour-Al Ekhwa has chosen Sacmi technology to complete investment in a new plant located on the Red Sea coast in the industrial district between Suez and Soukna.

Key elements of this new plant include an MMC 111 modular mill, an ATM 090 spray dryer and three PH 3020 presses with relative vertical driers (mod. EVA 983). Sacmi has also supplied two 134-metre kilns with 2850 mm wide intakes, plus a dust abatement system and two sorting lines provided by Nuova Fima, the Sacmi Group company that specialises in the design and construction of automated quality control, handling and end-of-line solutions.

Installed and started up successfully in June-July 2014, this new, complete plant will allow Ceramica Glamour-Al Ekhwa to expand on the Egyptian market thanks to an estimated daily output of 23,000 m² of red body floor and wall tiles in the sizes that are most popular on the local market.

Ceramica Royal aims overseas and chooses NuovaFima

Major investment in process automation at the new El Obour plant

Egyptian firm Ceramica Royal has once again placed its confidence in NuovaFima, the brand by NuovaSima SpA, the Sacmi Group company specializing in the design and production of end-of-line solutions (from automatic inspection to packaging, palletizing, handling and storage) and machines for the mosaic, third fire and trim segments. More specifically, the NuovaFima brand has provided first-class sorting lines for the Royal plant in the El Obour district, a part of the country decidedly cutting-edge in terms of technology and process automation.

The 2 new lines – successfully tested and started up a few months ago – will be used to manufacture large tiles, from 300x300 to 600x900 and even 900x1200. Such high added-value products are ever-more appreciated by the market and require the world's best, most comprehensive technology. Consequently, both lines come complete with a NuovaFima automatic palletizer, sorting line (with 10 stackers) and automatic packaging unit.

Maximum process automation and continuous investment in the development of new sizes form the bedrock of this outstanding Egyptian company. Now, after sounding out other suppliers, they've once again put their trust in the technological quality of Sacmi solutions. With this latest investment Royal aims to expand not just on the home market – where it's already one of Egypt's highest-performing, most efficient ceramic firms – but also to make the most of interesting new opportunities on the export front.



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Production cost saving by using coarse alternative fuels

Written by Thomas Jennewein,
FLSmidth Pfister GmbH

Introduction

Faced with rising primary fuel, oil, gas, coal or pet coke prices, as well as challenging market conditions, cement plants around the world are looking for ways to reduce their cement production costs. The two greatest variable production costs for cement producers are still fuel and power consumption costs. It is therefore no surprise that increasing the substitution rate of alternative fuels is a popular method of remaining competitive and thereby increasing profit in the cement industry.

Many cement plants in Europe began burning alternative fuels in the main burner many years ago. Because the fuel must be transported pneumatically into the main burner and the particle residence time in the kiln at the main burner is quite short, the fuel must be fully prepared. Independent of the feeding, a gravimetric dosing device is mandatory and its accuracy should increase with the substitution rate.

General challenges in dosing secondary fuels

Compared to other raw materials and primary fuels, solid alternative fuels tend to be more difficult to handle: material characteristics vary widely in particle size, moisture and density. The fact that this kind of material is often flaky, fibrous and compressible does not make the feeding and dosing any easier. It is also likely that material sources will change over the course of the year and therefore the type of fuel also changes frequently.

FLSmidth Pfister has overcome this issue by inventing a multi-fuel system that is capable of handling a wide variety of secondary fuels such as Fluff, refuse-derived fuels (RDF), plastics, car shredder, industrial waste, municipal waste, rubber/tyre chips or biomass, e.g. impregnated sawdust, sewage sludge, wood chips, wood waste or animal meal.

Rotor weighfeeder Pfister® TRW-S/D has proved its reliability in many applications and with a vast array of materials and densities ranging from 0.05 t/m³ up to 0.8 t/m³.

Installation possibilities

The multi-fuel FLSmidth® Pfister® Rotor Weighfeeder system can be installed in different places and in nearly all variations of alternative fuel installations (Figure 1). Its application ranges from simple trial or truck docking stations. or any kind of silo installations, leading up to large storage halls, and it is suitable for pneumatic material feeding to kiln burners, or mechanical material transport into calciner inlets.

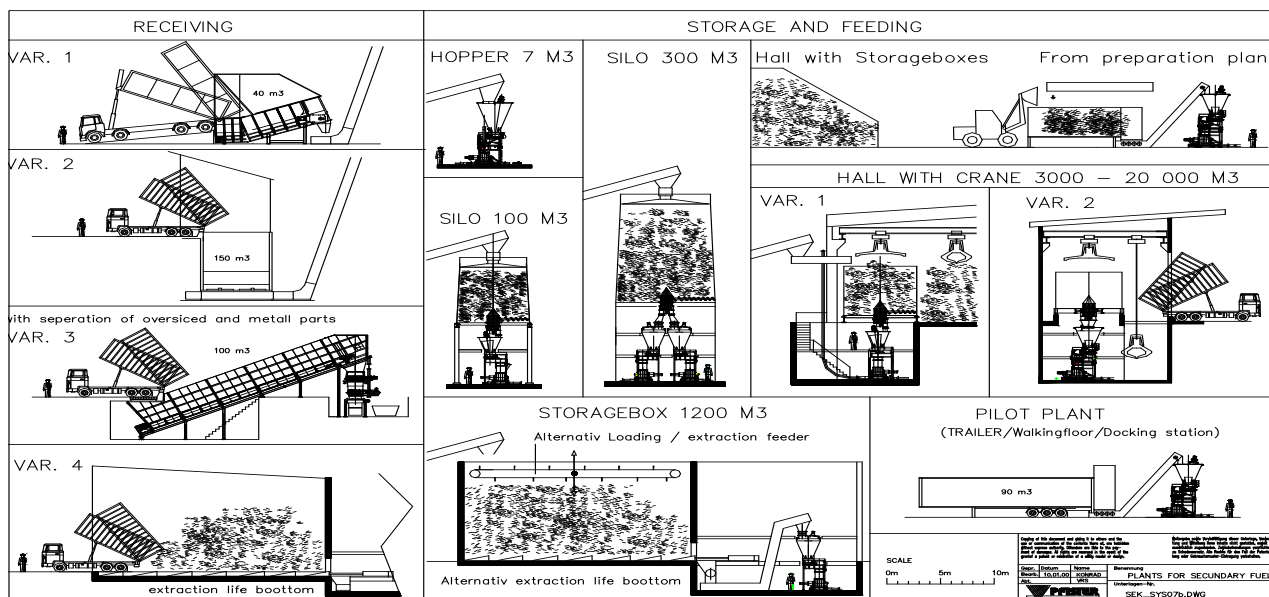


Figure 1. Examples for receiving and storing alternative fuels combined with the Rotor Weighfeeder Pfister® TRW-S/D.

Dosing of coarse material

A lot of equipment and electrical power is necessary for producing fully prepared RDF. Therefore, the price of such fuel, for main burner firing for example, is much higher than coarse RDF, which is only prepared for calciner firing. As a result, there is a growing trend to use lump sized materials where less preparation is necessary. This offers high potential cost savings for cement plants.

A brief outline of some of the projects that FLSmidth Pfister successfully executed together with its clients is provided below.

In 2009, FLSmidth Pfister delivered a rotor weighfeeder Pfister® TRW-S for dosing up to 15 tph of coarse RDF for calciner firing in Ireland. The material size was up to 100 x 100 mm, with a bulk density of 0.07 t/m³ – 0.3 t/m³ (Figure 2A). Although using the coarse RDF, FLSmidth Pfister successfully installed pneumatic transport running from the dosing equipment into the calciner.



Fig. 2A) material example

Figure 3A shows an FLSmidth® Pfister® rotor weighfeeder located in Germany, which has been in operation for more than five years. In this case, rotor weighfeeder Pfister® TRW-S mechanically doses up to 10 tph of coarse RDF into the calciner.

This plant initially began using fully prepared RDF, but due to the fuel price, the plant has only been using medium calorific material for the last few years.



Figure 3A) Installation of a rotor weighfeeder Pfister® TRW-S in the calciner tower

This RDF has a regular 2D-size of up to 100 x 100 mm. However, it also includes oversized material, such as long strips of up to 1000 mm and other foreign bodies, e.g. pieces of metal up to 100 x 50 x 50 mm (Figure 3B+C). Due to its design, rotor weighfeeder Pfister® TRW-S is working well with the described material.



Figure 3B) material example



Figure 3C) material example

In Brazil, a rotor weighfeeder Pfister® TRW-S doses tyre chips (Figure 4) with a bulk density of 0.7 t/m³ into the calciner.

ALTERNATIVE FUELS

The rubber chips are up to 100 x 100 x 30 mm in size, plus overlapping steel wires and some oversized parts. It has a capacity of up to 12 tph.



Figure 4) material example – tyre chips
Test-centre

In 2012, FLSmidth Pfister carried out test runs on several different materials in one of its two test centres. These tests included the following (figure 5A, B, C):



Figure 5A) Wood chips with some straw
Figure 5B) straw

Bulk density: 0,152 t/m³ Bulk density: 0,048 t/m³
max. material size: 200x50x50mm M a x .
length: 150mm
max. Mass flow 25t/h max. Mass flow 25t/h



Figure 5C) Mixture with a bulk density of 650kg/m³:

As foreign bodies:

Some Big-bag-stips 2000x200mm
Some textiles, like pullovers and trousers
Some rubber-chips, size 300x200x30mm
Some pieces of wood 100x100x30mm
Some plastic bottles, some were filled with water
Some course plastic parts, up to 300x300x10mm

Main parts:

wet peat
wood-chips, see above
straw from corn, 200mm long
max. Mass flow 25t/h



The results of the tests strongly attest to the elaborated design of the rotor weighfeeder Pfister® TRW-S/D. This dosing system has a very robust construction and the design prevents blockages even if foreign bodies are included in the material. The ability to feed almost all kinds of solid alternative fuel is complemented by FLSmidth Pfister's experience in the field. More than 220 units have been sold worldwide.

Operating principle of the multi-fuel dosing system

Rotor weighfeeder Pfister® TRW-S/D is a fully enclosed continuous gravimetric dosing system that can be internally compared with a circular chain conveyor. Figure 6 illustrates the components of a multi-fuel dosing block. The fuel is fed from the storage location via a pre-feeding system (1) into the calibration hopper (4), which is equipped with a stirrer (5) and with a level sensor (3). The eccentric located stirrer (5) lifts and homogenizes the material, loosens it up and lets it flow freely out of

the pre-hopper on the opposite side of the outlet into the rotor weighfeeder Pfister® TRW-S (6). This means that the material will never be pressed, which is very important for a stable flow. Static load cells (7) integrated into the frame enables an online calibration during operation and can allocate the pre hopper content in real time.

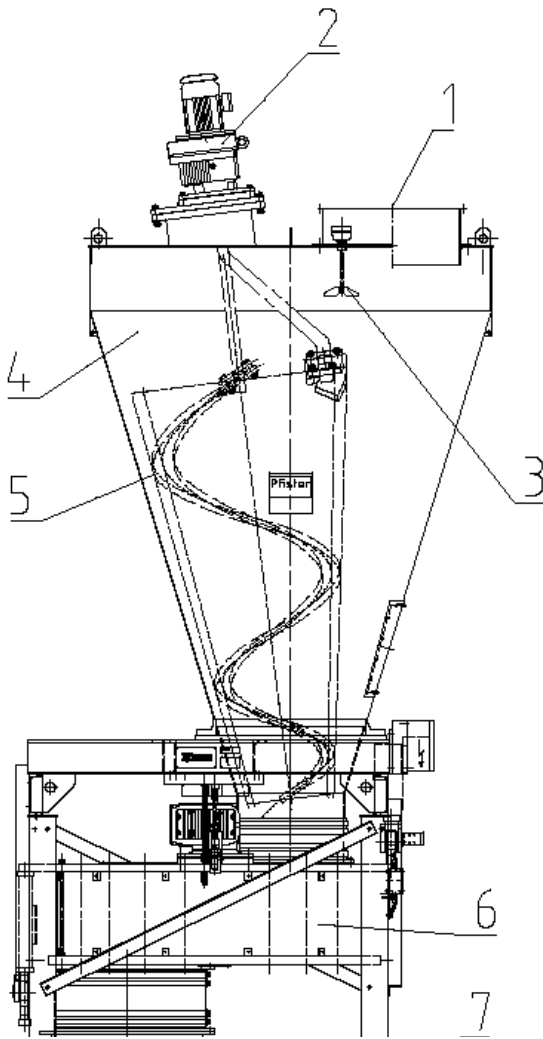


Figure 6) Operating principle of the multi-fuel dosing system

Operating principle of rotor weighfeeder Pfister® TRW-S/D

As demonstrated in Figure 7, a FLSmith® Pfister® rotor weighfeeder feeds the material in a circular direction with radial scrapers (6) and circulating through walls (7). The bulk material is extracted directly from the homogenization hopper by the rotor wheel via a feed chute (1) with a layer height limiter. Reliable extraction of the bulk material out of the homogenization hopper and controlled, slip-free transport of the bulk material over the base plate (5), as well as the measuring system, is ensured by the side walls, which circulate along with the scrapers. The rotor wheel is supported by the central drive so that it can tilt and move vertically. Part of its load is taken by laminated spring strips. The wheel rests on the base plate so that it can float and rotate. This virtually rules out any jamming of the rotor by oversized parts of the bulk material or foreign bodies. The material is carried over the weighing section and fed directly into the process.

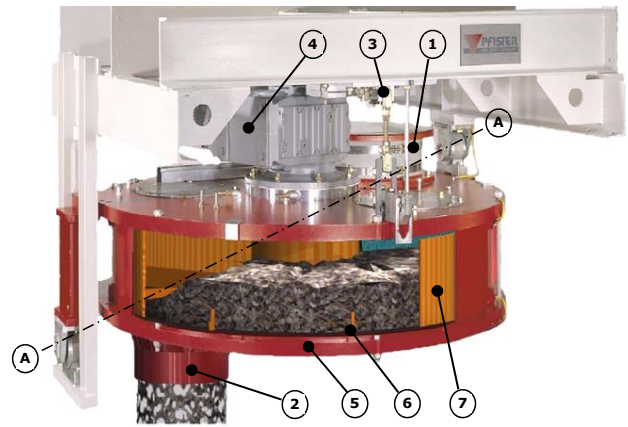


Figure 7) Weighing and operating principle of a FLSmidth® Pfister® Rotor Weighfeeder for course material

Weighing principle

The fuel that is transported by the rotor from the inlet (1) to the outlet (2) produces a moment around the weighing axis A-A. The weighing axis is located through both bearings (A to A). This weighing axis is eccentric to the rotor-shaft but through the middle of both the inlet

(1) and outlet (2). This produced moment is measured by the load cell device (3). The measured value provides information on the bulk material mass in the rotor weighfeeder before material discharge. The loading of the rotor weighfeeder with the related rotor position is stored by the weighing electronics.

The weighing electronic calculates the required speed of the motor (4) for the time of the discharge with the specified output feed rate and the measured bulk material mass. This means that the speed of the rotor is controlled inversely to the loading of the rotor at the outlet (2). With the state-of-the-art proactive control strategy ProsCon®, the

Rotor weighfeeder Pfister® TRW-S/D fulfils the high requirements for stable fuel dosing with high short and long-term accuracy and ensures outstanding burning conditions. _

The benefits of this construction are listed below.

- Completely dust tight: the FLSmidth® Pfister® rotor weighfeeder is a completely closed unit. This prevents environmental pollution and the emission of dust or odours.
- Maintenance work regarding rotor weighfeeder Pfister® TRW-S is kept to a minimum as all parts that come in contact with the fuel are made of steel and there is only one rotating part – the rotor wheel itself.
- Fuel homogenization bin: the pre-hopper stirrer to ensure a consistent fuel quality. Secondly, it ensures a steady loading of the rotor weighfeeder even if there is a short interruption to the material supply or if the pre-hopper is fed over a long distance.
- Stable design and avoids blockages: the discharge aid in the pre-hopper – the stirrer – lifts the material, so that it is not compressed and will continue to flow out of the pre-hopper. The smallest gap inside rotor weighfeeder Pfister® TRW-S/D is between 150 mm and 450 mm (depending of the size of the device), see figure 7. This is one of the reasons why rotor weighfeeder Pfister® TRW-S/D is well designed for coarse materials. In some other feeding systems (e.g. screw feeders) the gap between a screw and its housing is normally only 10 – 30 mm.
- Available with ATEX-certificate and in explosion proof design: some alternative fuels, such as saw dust or sewage sludge, are flammable and as a result an explosive atmosphere could be created if mixed with air. In some countries it is necessary to have explosion proof equipment when handling such dangerous materials.
- High feeding accuracy: high accurate feeding of fuel is the basis of stable kiln operation. When dosing secondary fuels, the fact that very light materials, such as plastic, are difficult to measure because of their extremely low gravimetric force has to be taken into account. FLSmidth Pfister has overcome this problem by measuring a material layer of up to 500 mm in the feeder without the risk of material spilling. The relatively large mass of bulk material in the rotor weighfeeder leads to a high momentary load in the measuring section of the feeder. In combination with prospective control ProsCon®, a high and stable dosing accuracy is achieved. Along with high mechanical reliability, this ensures constant kiln firing.

Conclusion

Stable and accurate dosing of secondary fuels is one of the key elements required to produce clinker profitably and efficiently. With its multi-fuel rotor weighfeeder Pfister® TRW-S/D concept, FLSmidth Pfister is offering a future oriented technology that can dose up to 25 tph. With more than 220 installations worldwide, customers of FLSmidth Pfister are feeding many million tpa of secondary fuels.

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INNOVATION AND EFFICIENCY FOR DUST EMISSIONS & POLLUTION CONTROL

By: **RUGGERO BALDI** – Sales Manager Industrial Minerals
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Submitted at :
Nineteenth Arab International Cement
Conference & Exhibition (AICCE19)
Le Centre International de Conférences de la Palmeraie, Marrakesh, Morocco
11 - 13th November 2014

THE COMPANY



Founded on 1963 Scheuch company offers reliable and efficient dedusting equipment for every step of the cement manufacturing process. The product spectrum includes complex and complete solutions for process exhaust gases and decentralized compact filters for general dedusting.

Headquarter is located in Auroldmünster - Austria and Scheuch Group involve more than 800 employees, Scheuch is active worldwide through several international offices located in Germany, France, Italy, Russia, Slovakia, USA, Canada.

With continuous investments on Research & Development Scheuch provides the most advanced and specific technologies for gas cleaning and pollution control developed to fulfill the modern regulations on emissions for cement industry.

SCHEUCH GmbH
Industrial Minerals

COMPLETE IN-HOUSE PROCESS



Scheuch organization offer a complete service for equipment supply and turn-key solutions including:

<p>Engineering process, mechanical, electrical</p>		<p>Scheuch 9m-Filter 98000 m³/h 60% verringerte Geschwindigkeit</p> <p>Stromlinien</p> <p>Path Lines Colored by Velocity Magnitude (m/s)</p> <p>Oct 20, 2003 FLUENT 6.1 (3d, segregated, ssa)</p>
<p>Equipment manufacturing</p>		

SCHEUCH GmbH
Industrial Minerals



BAG FILTER TECHNOLOGY FOR PROCESS APPLICATIONS



EMC technology has been specifically developed by Scheuch for main application in cement industry:

- Kiln & Raw Mill Dedusting
- Clinker Cooler Dedusting
- Cement Mill / VRM Dedusting



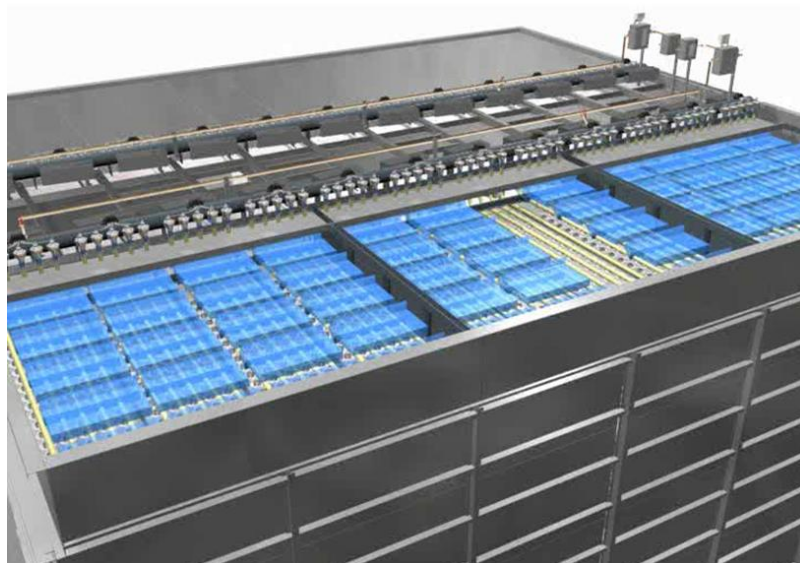


Scheuch EMC technology provides the best performances in terms of dust emissions control and costs savings due to the low energy consumption for operation and reduced maintenance costs due to prolonged bags lifetime.

Scheuch EMC filters are designed for large capacity up to 3.000.000 m³/h gas flow rate, dust load up to 1.000 gr/m³, hot gas temperature up to 280 °C and provides dust emissions lower than 10 mg/Nm³.

EMC technology and filters can be installed at place of existing systems no more suitable to meet the increased plant capacity and/or the modern regulations on dust emissions.

Cleaning of filter bags for EMC filters is done in flowless condition in combination with proven IMPULS cleaning system, maintaining a constant and stable filter differential pressure.



Advantages of EMC Technology

Filter bags cleaning in flowless conditions	<ul style="list-style-type: none"> - High efficiency - Longer bags length 10-12m - Compact design
Low compressed air pressure	<ul style="list-style-type: none"> - Longer bags lifetime - Energy savings
Easier dust discharge	<ul style="list-style-type: none"> - Low ΔP pressure losses - Less fan power consumption
Compact design with bags length 10-12m	<ul style="list-style-type: none"> - Reduced filter footprint - Reduced supporting structures - Reduced foundations - Reduced length dust transport system - Reduced lengths ductworks

CASE STUDY 1 – KILN / RAW MILL DEDUSTING

New Bag Filters at place of Electrostatic Precipitators (2x)

HEIDELBERG Schelklingen Plant (Germany)

Gas flowrate filter inlet 2 x 700.000 Am³/h



SCHEUCH GmbH
Industrial Minerals

CASE STUDY 2 – KILN / RAW MILL DEDUSTING

Modification of Electrostatic Precipitators to Bag Filters (2x)

HOLCIM Lägerdorf Plant (Germany)

Gas flowrate filter inlet 2 x 720.000 Am³/h



SCHEUCH GmbH
Industrial Minerals

CASE STUDY 3 – KILN / RAW MILL DEDUSTING

New Bag Filters in series of existing Electrostatic Precipitator

AFRISAM Ulco Plant (South Africa)

Gas flowrate filter inlet 800.000 Am³/h



SCHEUCH GmbH
Industrial Minerals

CASE STUDY 4 – CLINKER COOLER DEDUSTING

New Bag Filter and Heat Exchanger at place of Electrostatic Precipitator

HOLCIM Apaxco Plant (Mexico)

Gas flowrate filter inlet 200.000 Am³/h



SCHEUCH GmbH
Industrial Minerals

CASE STUDY 5 – CLINKER COOLER DEDUSTING

New Bag Filter and Heat Exchanger at place of Multicyclones

Cementos ARGOS Rioclaro Plant (Colombia)

Gas flowrate filter inlet 152.000 Am³/h



SCHEUCH GmbH
Industrial Minerals

Eight years on and still state-of-the-art



Unloading rates offered by Siwertell technology were so far ahead of the market that the unit delivered to Houston Cement Company in 2006 remains extremely competitive today; with efficient maintenance it has many more years of efficient operations ahead

The Siwertell cement terminal in the Port of Houston, USA, began commercial operations in mid-2006. It is an excellent example of how an increased initial investment in economical ship unloading can create future savings and increased profits, impossible to obtain with traditional thinking.

In early 2005 the Houston Cement Company LP, Houston, Texas, called on Cargotec's bulk handling expertise for its new cement import terminal, with the focus on high efficiency and a high unloading capacity. At the time, the cement market's understanding of high capacity meant an unloading rate of 800t/h, introduced by Siwertell in the early 1980s and accepted as an informal industry standard for mechanical ship unloaders. However, Cargotec had an alternative to offer, a new-generation rail-mounted Siwertell ST 640-D unloader designed to offer cement unloading rates of up to 1,500 t/h.

Jim Gatens, President of Houston Cement Company, explains why the high capacity unloader was an attractive proposition. "The terminal was maxed out at about 1,000,000 tonnes/year and was very difficult to manage logistically due to the size of our ships, the size of the storage domes, and the numerous suppliers we were



utilising at that time. We needed increased throughput and increased storage options.

“Our decision to opt for a Siwertell solution that offered a discharge capacity well in excess of the existing industry standard really came down to freight rates and demurrage rates and the fact that we wanted the terminal to have a much higher annual throughput than the existing terminal.”

He says the expertise and advice available from Siwertell’s specialists were extremely important in helping to make the decision to invest in the unloader. “We consulted with other manufacturers for information on their units and they took a similar forward-looking approach, but no other unit could match the high unloading rate that we wanted and Siwertell could offer. Other factors that influenced our decision to approach Siwertell experts for design services included past experience and our familiarity with the machines.”

Looking back at the first eight years of operations, Mr Gatens says the terminal has functioned as advertised and has performed very well. “It has done everything that we hoped it would.”

When it was commissioned, the terminal was considered state-of-the-art; asked if it still warranted this description, Mr Gatens replied: “I think it does. The terminal is eight years old and of course all the electronics are eight years old as well. We have updated our computers, software, and computer system wiring over the last year so we feel that we are still state-of-the art.”

He says the terminal has proved to be cost effective and worthy of the additional investment in the Siwertell high capacity unloader. “With the high freight rates and throughputs we saw in 2006, 2007, and 2008 we feel we recuperated our additional investment for the high speed unloading by 2008,” he notes.



The unloader has, in fact, regularly exceeded its projected discharge rates, says Mr Gatens, and it can comfortably handle cement with varying characteristics. “Upon initial start-up of the Siwertell unit, it was discovered that the machine would unload well over the 1,500t/h mark. The entire machine itself had to be cut back by about 20 per cent as it could easily discharge at over 2,000t/h and more.

“Cements from the different suppliers have different discharge characteristics, some can be discharged at a higher capacity than others – more than likely due to the fluidity of the product. By using the speed setting on the inlet device, it is possible for the terminal personnel to compensate for the different cements while still achieving a desirable unloading rate. The Siwertell unit itself is also designed to unload the cement at a consistent rate by varying the speed on the inlet device depending on the amp load of the vertical conveyor. This, for the most part works well, but there have been times when we have seen momentary spikes well over 2,300 t/h.”

Siwertell systems employ a PC-based human machine interface (HMI) system, named SIMON (Siwertell Monitoring System), which continuously provides operating data. It also contains the complete operation and service manuals and relevant pages can easily be printed out for maintenance work.

“The HMI is very user friendly and is a great asset while unloading as the progress in the holds can be tracked as well as the alarms,” Mr Gatens explains. “The unit also has a nice feature where maintenance activities done are added to a log. SIMON also keeps track of equipment hours, letting the operators know when maintenance is due. It will pinpoint fault locations in the electrical switch gear as well as the monitoring of all motor amps and important data.”

Houston Cement Company originally took out a three-year Siwertell service contract and since then has ensured that the Siwertell engineers inspect the unit annually. Mr Gatens says his experience supports Siwertell’s



excellent reputation for the longevity of its equipment. “We have a very good maintenance and parts maintenance programmes for the unit and anticipate getting many more years out of it.

“What few problems we have experienced over the years, Siwertell experts have been quick to assist us with solutions. Their field representatives are all extremely knowledgeable and capable,” he says.

“The mechanical engineer is local to the terminal and is well versed in all aspects of the maintenance and repair of the unit. He will always answer questions that we may have and assist us if in the area. The electrical engineer is also extremely knowledgeable with the onboard electrical systems and, as with the mechanical engineer, will always get back to us in a timely manner when we have a problem. The support of these two Siwertell representatives has been excellent.”

The terminal today is basically the same as it was upon commissioning, with only some slight changes to the truck loading system as well as the addition of six lump crushers – one at the discharge of each silo.

“We have seen ships with 48,000 tonnes of cement unloaded in less than three days with the Siwertell unit and most unloading operations are performed at over 14,000 tonnes/day,” notes Mr Gatens. “This alone has showed us that this unit is very capable and dependable, and able to meet the challenge of increased shipments as the market recovers. We saw reduced shipments starting in 2008 and they have not recovered to the levels we saw in 2007, but we are confident that the ship unloader is more than capable to handle future increases.

“The terminal unloading equipment itself is virtually dust-free when unloading. The problems I foresee in the future will be the fugitive dust from the cargo holds of the ship while unloading as well as the hold cleaning operation.

“If we were considering a similar new terminal today, probably the most significant change would be the addition of more truck loading bays. We have discovered that it is much easier and faster to put the cement in than to get it out. The true limiting factor of this terminal is the ability of moving the bulk trucks out. Also, seeing as the cement can be moved well at the 1,500 t/h speed, we could possibly consider going to an even higher unloading rate.”

[ends]

[separate box:] Siwertell solution for Houston Cement Company

Material handled: cement

Unloader model: ST 640-D, rail-mounted

Rated unloading capacity: 1,500t/h

Maximum ship size: 60,000 dwt, beam 31.7m

Total weight: 449 tonnes

In addition to unloading operations, the terminal includes storage silos with capacities up to 100,000 tonnes in total. “With low costs for maintenance and power consumption, this heavy duty unloader is exceptionally suitable for the terminal’s high annual throughput,” says Jörgen Ojeda, Director for Siwertell mobile unloaders.

For transferring the cement to the jetty belt conveyor, the delivery includes a movable transfer trolley. The fully-enclosed trolley is connected to the feeding conveyor and moved along the shore conveyor by the ship unloader. It is equipped with a set of wheels travelling on a rail profile attached to the shore conveyor.

A dust collector is built onto the trolley, ensuring the transfer takes place under negative pressure to prevent emissions from escaping the system. “This arrangement is unmatched by any other technology currently on the market and is the only way to achieve high ship unloading efficiency while maintaining environmental safety. The movable transfer trolley design includes versions for screw or belt conveyor receiving systems,” Mr Ojeda notes.

The terminal also features shore conveyors from Cargotec [?].

[ends]

*Research Projects of Collaboration in Tunisia***Saving Energy in Building Sector**

CASE STUDY

Soussi Chokria,^b , Ben ali Mohamed^c , Agrebi Youssef^{a,d} , Driss Aliaechokrisousi@gmail.com - mohamedbenali.isetn@gmail.com - agrebi69@yahoo.fr - drissalia@yahoo.fr^a: Institut Supérieur des Etudes Technologiques de Sfax - Tunisie^b: Université de Sfax, Laboratoire de Géoressources, Matériaux, Environnement et Changement Globaux, Faculté des sciences de Sfax - Tunisie^c: Institut Supérieur des Etudes Technologiques de Nabeul - Tunisie^d: Lab STA, Ecole Nationale d'Ingénieurs de Sfax - Tunisie^e: Centre Technique des Matériaux de Construction, de la Céramique et du Verre CTMCCV- Département Recherche & Innovation - Tunisie**Abstract:**

This case study is interested research works on the thermal improvement of buildings that aim to improve the energy performance of the heritage of territorial communities. In Tunisia, the sector of building is the biggest consumer of energy (more than 30% of the total final energy). The real estate property of territorial communities often presents a bad energizing performance because of the lack of human resources and sufficient financial means to exploit at best the field of energy saving and the absence of a thermal codes for building materials.

The state threw national programs for the improvement of the energizing performance of buildings that aim three main axes of research.

- Building materials: characterization, study and codes.
- Technologies and innovations for a sustainable construction
- Energy consumption of buildings

The objective of this work is to develop three priority axes of research associated to the saving energy and its control in the building sector.

1. Introduction:

The building consumes some energy during the

manufacturing of materials (cement, brick, sand, stone floor) and during its life cycle. According to the world statistics, the existing building consumes more than 40 % of the energy, without counting the energy consumption of materials during the manufacturing. For Tunisia, energy consumption of the sector of building gives the following tendencies (tablen°1).

- In 2010, the growth rate of the energy consumption of the sector of building (Residential +tertiary sector) exceed the growth rate of the total consumption for periods 1992-2001 (also for the forecasts of 2020).
- The part of the energy consumption of the sector of building would pass successively of the 3rd position, after the branch of industry and after the transport, in the second position in 2010 and in the first position on the horizon 2020.

The building is thus an important field of energy saving which can create a dynamics of innovation and employability To reduce the energy consumption of the sector of building, it is important:

- To list the energy consumption of building materials, to remedy the causes and to penalize the energy-consuming products.
- To reduce the energy consumption during the life cycle of building (use of new techniques, new and innovative materials).

Table n°1: Evolution of the final consumption of the conventional energies on 1992 - 2020 (*)

Sector	Energy consumption (Ktep)							
	1992	%	2001	%	2010	%	2020	%
Industry	1388	37	1861	35	2712	30	3664	27
Transport	1139	31	1681	32	2879	32	4301	31
residential and tertiary sector	902	24	1338	26	2829	32	4991	36
Agriculture	280	8	365	7	549	6	719	5
Total	3708	100 %	5245	100%	8969	100%	13675	100%

(*)Sources :

1. Pour les années 1992 et 2001; Observatoire National de l'Energie (ONE).
2. Pour projections 2010 et 2020; "Communication Initiale de la Tunisie à la Convention Cadre des Nations Unis sur les Changements Climatiques" Ministère de l'Environnement et de l'Aménagement du Territoire – Octobre 2001 (d'après scénario de référence)

2. Axis of research N° 1: building materials: characterization, study and codes

2.1. Problematic

Every construction project requires materials that the main function is a constructive function. However the mechanical, thermal, phonic properties are not considered in technical documents of the manufacturers and builders. The architect, the engineer, thinks that materials fill correctly their role without having any indication on:

- The energy consumption of materials during the manufacturing
- The physico-chemical characterization of the main used materials
- The use of the new materials and the valuation of waste in an objective of energy saving

2.2. thematic of research

2.2.1. The energy consumption during the manufacturing

In addition to the direct energy consumption of buildings, that has a concrete financial impact which

we can easily quantify, it is necessary to quantify also the energy necessary for the manufacturing, transport and the recycling of materials.

This energy is named grey energy which is spent during:

- The conception of products or materials
- The extraction and transport of raw materials
- The transformation of raw materials and the manufacturing of products
- The marketing of material
- The use or the implementation of material
- The recycling of material

From this energy, we can classify and choose the material which is the most respectful of environment

For example, the grey energy for a block of raw earth is established at 220 kWh / ton, whereas it is of the order of 33 700 kWh / ton for the aluminium. The objective of this thematic is to determinate the grey energy of the most used building materials, the energy labelling of materials, the use of the local materials (Being able to answer also the modern requirements of construction such as the cooked, bricks the cement, the ceramic and insulators) and the labelling "eco-materials" of materials..

2.2.2. The characterization of the main used materials

To assure at the same time, the constructive function, the control of the cost, the energy saving, the respect of the sustainable development, It is necessary to know the physico-chemical properties which permit to choose the materials.

Analyses of material characterization (mechanical,

physical, chemical, mineralogical, thermal conductivity, toxicity) are necessary to choose the suitable material. However, it is essential to proceed to an energy and ecological classification of the main building materials. This classification has to refer to the physico-chemical characteristics of the main used materials such as: plaster, stone (natural or reconstituted) , clay, sand of crushing and local materials (natural lime, gypsum, , ceramic...).

Finally it would be to:

- Proceed to a labelling of the main building materials
- Receive on construction site only products with a marking.
- Make an adequate choice of the suitable materials

2.2.3. Substitution materials and valorization of waste:

For a new material, it is necessary to define a strategy to encourage the innovations especially permitting a reduction of the energy consumption. . A particular interest must be directed to materials valuing waste or using substitution materials. This type of materials is economic and permits to limit the emission: of gases has greenhouse effect.

As examples, we can mention the use of the following products: Géopolymères, vegetable fibers (alpha, palm tree) , Marine sediments , phosphogypse ,substitution of hard rocks crushed in sands and gravels , waste of the construction of textiles, and the light aggregates .

2.3. Objectives

- Classification of materials according to their grey energy
- Optimization of the not renewable natural resources,
- The waste management and their valorization in materials.
- Reduction of CO₂ emissions and protection of urban environment.
- The knowledge of the characteristics of materials

2.4 Expected results

The expected results are essentially:

- An energy classification, during the phase of the manufacturing of various materials used by the sector of the construction
- A classification "eco-materials", during the life cycle of the various materials used by the

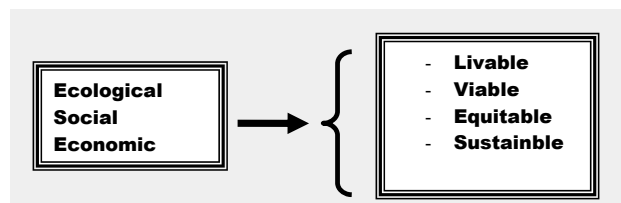
sector of the construction

- A guide of information about the grey energy of the various materials usually used
- A standards and labels will be proposed, and classifications according to criteria will be defined.

3. Axis of research 2: technologies and innovations for a sustainable construction

3.1. Problematic

Enter an ecological, livable, viable, social, equitable or economic, the cost of the construction and the energy consumption during its life cycle are totally different, each type of construction is addressed to different clientele. . The intersection between these various terminologies is the sustainable construction (with various levels) which respects a number of requirements such as a socially bearable and economically viable energy.



3.2. Objectives

The reduction of the energy consumption of buildings passes by the following objectives:

- The promotion of the existing technologies and the research for the new and innovative techniques of energy saving for the new buildings.
- The control of tools to implement a global offer of energy improvement of the existing buildings.
- The implementation of tools of Diagnosis of Energy Performance (DEP).
- The control of the techniques of products implementation and energy improvement processes of buildings. - The implementation (execution).
- The information and the training of the participants in building sector.
- Classification and labelling of buildings.

3.3. thematic of research

3.3.1. Optimization and synergy between the various existing materials and techniques:

The objective is to test and evaluate the energy performances of techniques and building materials usually used and new techniques (prefabrication, cellular concrete, light concrete, double glazing, etc...). For every type of building (individual, collective, administrative, tertiary, social,) must be proposed a set of techniques permitting an energy saving .It is important to encourage techniques respecting the notion of sustainable development and to measure the socioeconomic impact of the various measures.

3.3.2. Tools to implement a global offer of energy improvement of the existing buildings:

Based on the results of the thematic «Optimization and synergy between the various existing materials and techniques “and on a Diagnosis of Energy Performance, it is a question of presenting tools to implement an offer of energy improvement in existing buildings This includes the tools of diagnosis (Tools for the Diagnosis of Energy Performance (DEP)), the tools of simulation, and the tools of intervention on the existing products. The DEP gives to the users some advices of behaviour for the daily control of the energy. The DEP recommends the most effective works to save the energy: (quality insulation, more successful and less energy-consuming equipments of heating, production of hot water, ventilation,).

3.3.3. Practical steps for a sustainable construction

The sustainable construction (respecting the objectives of the High Environmental HQE, and the Sustainable Development, SD), is at the same time a clear notion, on the ideological and political plans, and ambiguous on the technical plan. It is important to specify the application measures of the sustainable construction to reach energy saving and the following objectives:

- Economy savings for the users and a better comfort (noise, health).
- A reduction of the global cost of buildings.
- Savings of not renewable resources (energy, water, raw materials)
- An increase of the qualification of companies.
- A politic of social redistribution.
- The contribution to the fight against the greenhouse effect.
- An education for the environment.
- A partnership between the city and the professionals of building sector.

- An association of the urban affairs and the environmental politic.

3.4 Expected results

- According to the class of buildings, a set of techniques will be recommended having tested and compared by digital simulation. The various techniques (new, innovative, and sustainable) ending in technological combinations, permit an optimization and a synergy of the various existing techniques.
- Tools of a global offer of energy improvement of building
- Evaluation tools of the energy performances of building
- The implementation of a device of Diagnosis of Energy Performance (DEP),
- The control of the techniques of implementation of products and processes of energy improvement of buildings
- Educational Tools of training and information

Based on the results of three thematic above, it is important to broadcast the information according to the receiving source. Indeed the following actions will be led:

- A teaching aid for the pupils of the vocational training
- Leaflets for the private individuals
- Leaflets for the promoters and the services of the state
- Labelling, regulations, measure of accompaniment
- Practical guide for a (sustainable construction

4. Axis of research 3: Energy consumption of the existing buildings

4.1. Problematic

The analysis of the consumption of built existing permits to identify the sources of useless consumption and the ways to remedy. This problematic allows a complete analysis of the problems relative of the energy consumption in the building sector.

We suggest studying the energy consumption of the existing buildings of the residential and tertiary sectors. To identify the global consumptions and the potential of energy saving, it is essential to make a follow-up

of the energy consumption from the targeted measures.

4.2. Approach and objectives

This study passes by:

- **Approach 1:** Selection of a representative lodging sample in terms of standing, exploitation and climatic context
- **Approach 2:** Implementation of a system of acquisition and reliable in situ, this system must be reliable and continuous during all the selected period
- **Approach 3:** Storage, treatment and analysis of information to view the impacts of the improvements introduced at the level of the targeted operations.

Approach 1: Selection of a lodging sample and preliminary approach

The following diagram retraces the stages of the mission, the techniques of intervention and the results discounted in the term of every stage.

Stage 1:

- Visits on sites for selection of lodgings
- Judgment on site of the intervention difficulties with the users
- Evaluation of the complexity of the circuits and networks

Stage 2:

- Implication of the organism's public and private to grant the necessary authorizations for the conduct of measures

Stage 3:

- Discussion with the taking parts on the typology of measuring equipments, the collected information and the diagnosis

Approach 2: Implementation of a measurement system

- Localization of circuits and identification of the behaviour of the users
- Clear Identification of the measured parameters
- Specify Definition of mode of data collection
- Definition of a processing chain of the data
- Implementation of an investigation system in situ
- Monthly Collection of the data and the redaction of the follow-up reports

Approach 3: storage, Treatment and Data analysis

- Setting up of filtering tools of information
- Assurance of all the functions of data treatment
- Identification of consumptions and the evaluation of savings

5.

Conclusion:

The control of the energy consumption is for a long time a major concern for Tunisia. As we indicated, the building is classified the first sector of the final energy consumption. In this paper, we have dealt with the case study of saving energy in building sector. In order to improve the energy performances of buildings, it is necessary to target three axis of researches: building materials: characterization, study and codes, technologies and innovations for a sustainable construction and energy consumption of buildings.

In the first axis of research, the expected results must be interested the principal thematic which are: the energy consumption during the manufacturing, substitution materials and valorization of waste and the characterization of the main used materials

In the second axis, to reach the results, it is necessary to follow the chronology of the various thematic of research which are: optimization and synergy between the various existing materials and techniques, tools to implement a global offer of energy improvement of the existing buildings and practical steps for a sustainable construction.

Finally, to measure the energy consumption of the existing buildings, this axis of research has to follow the three approaches:

- Approach 1: Selection of a representative lodging sample in terms of standing, exploitation and climatic context
- Approach 2: Implementation of a system of acquisition and reliable in situ, this system must be reliable and continuous during all the selected period
- Approach 3: Storage, treatment and analysis of information to view the impacts of the improvements introduced at the level of the targeted operations.



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Mondi launches rain resistant Splash Bag

Vienna, 9 December 2014 – In response to lively customer interest for rain-repellent paper bags, Mondi has developed the Splash Bag. This new bag resists rain for up to two hours and withstands humidity better than a standard paper bag.

Standard paper bags for packaging cement and other powdery products are generally vulnerable to rain. To tackle the issue, Mondi, working in collaboration with major cement producer Lafarge, has developed an innovative rain-repellent bag particularly suitable for cement. The new wetstrengthened, machine-finished Splash Bag is designed to absorb less moisture than conventional bags. Its outer ply of Mondi Advantage Protect sack kraft paper has a water-repellent surface and is formulated to keep high tensile strength even in a wet environment. It also helps prevent moisture ingress if conditions are damp or humid during storage. Advantage Protect sack kraft papers have a water-repellent surface and are formulated to have high tensile strength, to help prevent rupture. For example, Advantage Protect in a grammage of 80 g/m² has a tensile strength of 5.6 kN/m in the machine direction – an impressive figure.

Splash Bag's water-resistive properties are immediately apparent in side-by-side visual testing versus standard paper cement bags (test conditions simulating direct exposure to rain). "Water gathers on the bag's surface without being absorbed, then evaporates over a period of several minutes, leaving the bag essentially dry," explains Claudio Fedalto, Deputy COO Mondi Industrial Bags. "By contrast, the standard bag absorbs the water, weakens as a result and may potentially rupture if exposed to extremely wet conditions," he adds. Results of Cobb tests, which measure the amount of water absorbed into the surface by sized paper over a set period of time, indicate that Splash Bags are resistant to rain for nearly two hours. If inadvertently left in damp (rather than wet) conditions, e.g. on damp sand, Splash Bag resists moisture ingress for up to 12 hours.

Even after two hours of direct exposure to rain, Splash Bags can be moved, handled and emptied without any difficulties. Bag breakage rates are significantly reduced, leading to genuine cost savings: fewer broken bags translate to lower vehicle and site clean-up costs, fewer trips from warehouse to site, as well as time savings for logistics and site managers. Excellent moisture resistance can also mean better protection of the filling good if conditions are damp or humid at the warehouse.

Importantly, none of these advantages comes at the expense of filling speeds or de-aeration rates, which match those of standard bags (in tests performed on Mega Gurley equipment at Mondi's Bag Application Centre in Austria).

According to interviews carried out at construction sites, Splash Bag has already won generous plaudits from construction workers for its ability to resist rain and moisture when used to package cement. The construction workers surveyed were particularly impressed that the bag shrugs off rain and remains strong and easy to handle even under damp conditions.

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LOESCHE supplies the first 2 Vertical Roller Mills for Cement Grinding to El Arish Cement of Egypt



Similar mill type LM 63.3+ 3 installed in Nallalingayapalli, India

El Arish Cement is extending the clinker production capacity of its existing cement plant and will add 2 new lines with a clinker production capacity of 5,500 tpd each.

El Arish Cement already operates 2 LOESCHE vertical roller mills - Type LM 56.4 - for cement raw material grinding within their existing lines No. 1 and No. 2.

Due to their extremely good experience with the performance of the existing LOESCHE mills, El Arish Cement decided to have the same mills again also for the 2 new lines. Those LOESCHE mills, Type LM 56.4, will grind raw meal with a capacity of 450 tph and a fineness of 12%R90 μm .

As the new mills are of the same type than the existing once, common spare parts can be used keeping the spare parts demand to a minimum.

For cement grinding El Arish Cement also decided in favor of LOESCHE vertical roller mills by selecting 2 large mills of Type LM 63.33+. The table diameter of those mills equal to 6.3 m and will be driven by a drive system with a rated capacity of 6,800 kW.

The mills will grind various cement types with capacities of up to 305 tph.

Amongst El Arish's very good experience with their existing LOESCHE mills in operation, a very low specific energy demand of the milling system and the vast experience of LOESCHE - now with 310 vertical roller mills for cement grinding sold worldwide - were major decision factors to trust LOESCHE also for the supply of their first 2 vertical roller mills for cement grinding.

In addition to that, El Arish Cement wanted to be ready for a changing market, requiring not only simple OPC cements but also various types of additive cements with a wide band of different product finenesses.

LOESCHE vertical roller mills are ideally designed for such demands, guaranteeing a quick and simple changeover from one product to another and at the same time ensuring an energy efficient production for all cement types required.

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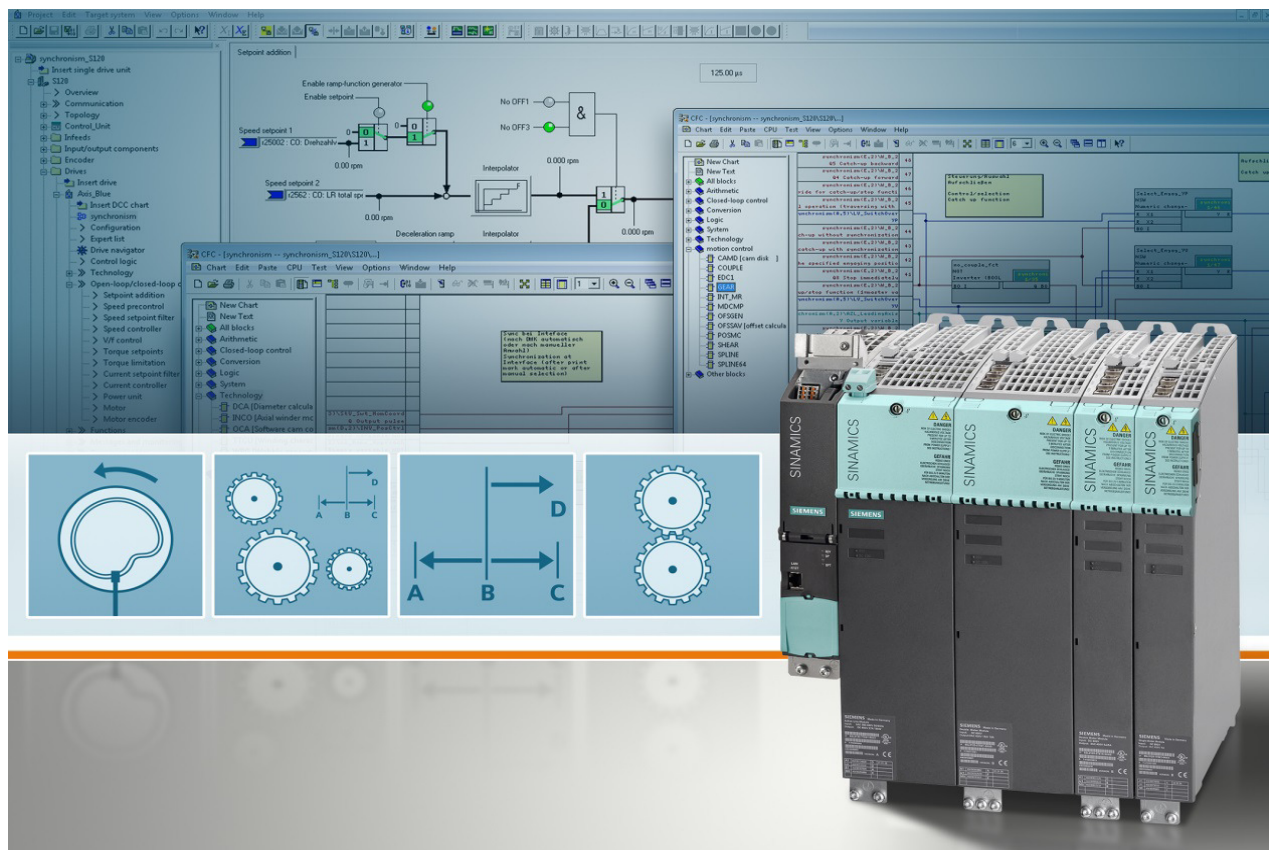
New software-based drive functions

Siemens is extending the range of applications for its Sinamics S120 drives family with new, software-based Advanced Technology Functions. The specific functions concerned are synchronous operation (1:1 or with gear ratio), camming, and positioning of the synchronous axes. The new functions are part of the DCB (Drive Control Block) extension function block library General Motion Control (GMC), which is available for downloading from the Siemens Industry Support web pages. The Advanced Technology Functions allow users to extend their existing or new Sinamics S120 drive systems with new application-specific functions. In addition, drive-related control and adjustment tasks can be transferred from the controller to the drive, making it possible to protect critical process knowledge effectively against unauthorized access.

The DCB extension function block library and the new functions can be installed quickly and easily on the Sinamics S120 drives via the graphical user interface of the DCC (Drive Control Chart) Editor. The DCC Editor is part of the Starter commissioning software. To access the full range of Advanced Technology Functions, users must activate a chargeable license on the drive.

In addition to the motion functions now being exhibited, Siemens plans to offer even more Advanced Technology Functions for its Sinamics S120 drives in the future, ranging from further DCB extension function block libraries through to an open architecture interface and application-specific functions for hydraulic servo pumps or sway controls.

The DCB extension function block libraries are created using the DCB Studio software. Customers can purchase the DCB Studio to develop their own functions, or can commission Siemens to create specific module libraries and functions for them.



Siemens is extending the range of applications for its Sinamics S120 drives family with new, software-based Advanced Technology Functions.

information is available on the Internet at www.siemens.com.

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Antica Ceramica di Rubiera and Nuova Fima: going from strength to strength

Excellent debut for EkoSort, the innovative sorting solution by the Sacmi Group, with a second machine already on order for the Polish production facility

At the last edition of Tecnargilla, one of the machines that aroused the most attention at the Sacmi stand - and beyond – was undoubtedly the new sorter with the EkoSort carousel. This latest product from Nuova Fima, the Sacmi Group brand specialising in end-of-line solutions, became the focus of intense interest and also impressed on account of innumerable advantages: functional and constructive simplicity, strength, accessibility, silent running, minimal size changeover times etc.

Little more than a month after the end of the fair, the expected success has already been achieved: ordered at the start of October by Antica Ceramica di Rubiera, the EkoSort has already been assembled, started up and tested in the space of just a few days.

The Rubiera plant is undoubtedly one of the most highly efficient ceramic factories in the industry: high tonnage presses with Rapid Mould Changeover, a latest-generation kiln with a 2950 mm wide inlet, all offering practically unbeatable efficiency, productivity and, above all, usage coefficients. It is in this context, then, that the new EkoSort has been perfectly inserted, completing, together with the existing EkoRoll cardboard packaging unit, one of the most advanced, flexible lines ever installed by the Sacmi Group.

Given the success of this Nuova Fima solution, it seemed only natural for the Frascari family, the owners of Antica Ceramica di Rubiera, to choose Ekosort for the planned expansion (soon to be assembled) of its facilities in Poland (Ceramika Konskie): based on a wide-clearance press and the new EKO kiln, this latest line will allow direct production of porcelain tiles, even very thick, structured ones. A new challenge, then, awaits the Konskie Group (Stargres, Stardust, Ceramika Konskie and Ceramika Color) and Sacmi: but tenaciousness and determination will ensure even higher levels of efficiency and automation, with consequent benefits in terms of lower output costs and increased quality.

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http://businesscem.ru

3rd Global CemPower Conference & Exhibition
Waste heat recovery and energy efficiency for cement and lime
Date : 11 - 12 May 2015
Venue: London, UK
For more information please visit:
www.CemPower.com

III International Business Meeting
White Nights: Cement. Concrete. Dry Mixtures
Date : 26 - 28 May 2015
Venue: Grand Hotel Europe, St. Petersburg, Russia
For more information please visit:
www.white-nights.info

4th Global CemPower Conference
Date : 01 - 02 June 2015
Venue: London, UK

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For more information please visit:

<http://www.globalcement.com/conferences/global-cempower/introduction>

2nd International Exhibition on Cement

Date : 09 - 12 June 2015

Venue: Isfahan, Iran

For more information please contact:

Rastak Pad Vision Co.

Email: int@rastak-expo.com / Info@rastak-expo.com / expo.rastak@gmail.com

Tel: +98 21 883464557-

Fax: +98 21 88346457

Http:\\ www.rastak-expo.com

Concrete 2015

Date : 30 August - 02 September 2015

Venue: Pullman Albert Park, Melbourne, Australia

For more information please visit:

rastak-expo.com

Email: info@rastak-expo.com

10th Global Insulation Conference & Exhibition

Date: 29 - 30 September 2015

Venue: Istanbul, Turkey

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

[//www.globalinsulation.com/conferences/global-insulation/introduction](http://www.globalinsulation.com/conferences/global-insulation/introduction)

13th TÇMB International Technical Seminar& Exhibition

Main theme: "Sustainable Environment & Energy"

Date : 07 - 10 October 2015

Venue: Titanic Deluxe Belek Hotel, Antalya, Turkey

For more information please click:

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

15th Global Gypsum Conference & Exhibition:

Date: 26 - 27 October 2015:

Venue: New Orleans, US

For more information please visit:

<http://www.globalgypsum.com/conferences/global-gypsum/introduction>

11th Global Slag Conference & Exhibition: Bangkok

Date: 1718- November 2015:

Venue: Bangkok, Thailand

For more information please visit:

<http://www.globalslag.com/conferences/global-slag/introduction>

14th NCB International Seminar

Date : 01 – 04 December 2015

Venue: New Delhi, India

For more information please visit:

www.ncbindia.com/

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GLASSPEX India – 4th International Exhibition for Glass

Date: 13 - 15 March 2015

Venue: Mumbai, India

For more information please visit:

www.glasspex.com

CERAMICS China 2015

Date: 01 - 04 June 2015

Venue: Guangzhou, China

For more information please visit:

www.ceramicschina.com.cn

email: overseas@ceramicschina.com.cn

14th Biennial Worldwide Congress – UNITECR 2015

Date : 15 - 18 September 2015

Venue: Vienna, Austria

For more information please visit:

www.unitecr.org

CERAMITEC 2015

Date: 20 - 23 October 2015

Venue: Munich, Germany

For more information please visit:

<http://www.ceramitec.de>



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III INTERNATIONAL BUSINESS MEETING

May 26–28, 2015

Grand Hotel Europe, Saint-Petersburg, Russia

WHITE NIGHTS:

CEMENT. CONCRETE. DRY MIXTURES

Five reasons to participate in the International Business Meeting:

1. Overview of the current state of the industry and projections for development of the global and regional cement, concrete and dry mixtures markets;
2. Informal discussions with colleagues and leading industry experts from all over the world regarding important topics;
3. A unique opportunity to acquire business acquaintances, useful for your company's development;
4. Chance to conduct business negotiations with suppliers and potential customers;
5. A memorable visit to the magnificent Saint-Petersburg in time of the famous White Nights, which you won't ever forget!



"I was very glad to meet officials in the Russian cement and building materials industries and would look forward to having the opportunity of meeting all of you again in near future. I reiterate my cordial congratulations for the grand success of the event".

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



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

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

Plan your participation right now!



white-nights.info

For participation please fill the application form on the website. The business meeting will be held in Russian and English with simultaneous translation.

GENERAL

Advanced Inventory Optimization in Modern Supply Chains

Date : 26 - 27 January 2015

Venue: Manila, Philippines

For more information please contact:

Mr Ryan Wong

Email: ryanw@registerforatruconference.com

http://www.steelfabme.com/

Maintenance Strategies for Above
by trueventus Ground Atmospheric Storage Tanks

Date : 27-28 January 2015

Venue: Bangkok, Thailand

For more information please contact:

Mr Ryan Wong

Tel: +603 2781 1567

Fax: +603 2781 1505

Email: ryanw@trueventus.com

http://trutrainingglobal.com/ENG/ATM_TANK_BKK.pdf

11th SteelFab 2015

The Middle East Tradeshow for the metal working,
metal manufacturing and steel fabrication industry

Date : 26 - 29 January 2015

Venue: Expo Centre Sharjah, UAE

For more information please visit:

Email: info@expo-centre.ae

http://www.steelfabme.com/

International Commercial Arbitration
Mock case study under the ICC Rules of Arbitration

Date : 10 - 13 March 2015

Venue: Jounieh, Lebanon

Language: English

For more information, please visit:

http://www.iccwbo.org/Training-and-Events/All-events/Events/2015/International-Commercial-Arbitration-Mock-case-study-under-the-ICC-Rules-of-Arbitration/

3rd Annual ICC Conference on International
Arbitration in the MENA

Date : 13 - 15 April 2015

Venue: Dubai, UAE

Language: English and Arabic, with simultaneous
interpretation

For more information, please visit:

http://www.iccwbo.org/Training-and-Events/All-events/Events/2015/rd-annual-ICC-conference-on-International-Arbitration-in-the-MENA/

38th YAPI - TURKEYBUILD ISTANBUL

Date : 21 - 25 April 2015

Venue: Istanbul, Turkey

For more information please visit:

www.yapifuari.com.tr/eng/

5th Global Maintenance & Refractories Conference

Date : 12 - 13 May 2015

Venue: Istanbul, Turkey

For more information please visit:

www.GlobalCement.com

9th ERBIL BUILDING Exhibition

Erbil Int'l Building-Construction, Municipality
Equipment, Machinery & Natural Stone Exhibition

Date : 14 - 17 May 2015

Venue: Istanbul, Turkey

For more information please contact:

Mr. Behnam Ghasemi, Int'l Sales Executive

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Tel.: +90 216 5752828 / 228

Fax: +90 216 575110102-

Email: behnam.ghasemi@pyramidsfair.com

THERMO PROCESS - 11th International Trade Fair
and Symposium for Thermo Process Technology

Date : 16 - 20 June 2015

Venue: Düsseldorf, Germany

For more information please visit:

www.thermoprocess.de

www.tbwom.com

5th ICC YAF Global Conference

Date : 26 - 27 June 2015

Venue: London, UK

Language: English

For more information, please visit:

http://www.iccwbo.org/Training-and-Events/All-events/Events/2015/th-ICC-YAF-Global-Conference/

EURO PM2015 Congress & Exhibition – International
Congress & Exhibition

Date : 04 - 07 October 2015

Venue: Reims, France

For more information please visit:

www.epma.com

Turkey Stone

Date : 14 - 17 October 2015

Venue: Antalya Expo Center, Turkey

For more information please contact:

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