



CEMENT & BUILDING MATERIALS REVIEW

Published by : Arab Union for Cement and Building Materials No.57 September 2014

Innovation matters –

Discover Mondi's world of industrial
bags innovations

Visit us at
**Arab International Cement
Conference and Exhibition**
11-13 Novembre 2014
Centre International de
Conférences de la Palmeraie,
Marrakech, Morocco
Booth: B51+B34

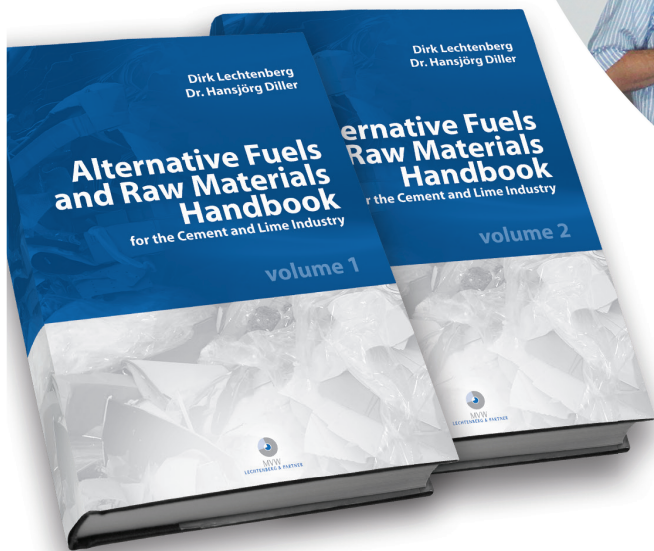
Learn more about Mondi's
industrial bag innovations

Mondi Industrial Bags MENA. We offer a broad range of innovative bag solutions especially suited for the packaging needs of building materials. Our know-how and advanced production technology allow us to offer new bag solutions and to optimise and further develop existing solutions. **Contact us at mena.bags@mondigroup.com**

IN TOUCH EVERY DAY
www.mondigroup.com



MVW Lechtenberg
& Partner has
been sharing
its expertise
in the field of
alternative
fuels for
10 years
now



10 years
of excellence in the field
of alternative fuels

10% discount
on our AFR Handbook

Special offer valid until 20 November 2014

Learn more about:

- Tailored Expertise for the Cement Industry
- In-house Alternative Fuels Workshops
- Tailored Expertise for the Waste Processing Companies
- Alternative Fuels and Raw Materials Handbook



MVW
LECHTENBERG & PARTNER

Visit us on our **STAND No. B43** at the
19th Arab International Cement Conference and Exhibition, 11-13 Nov. 2014, Marrakech, Morocco

Dammstr. 11a, 47119 Duisburg, Germany Tel: +49 203-34 65 16-25 Fax: +49 203-34 65 16-50
sales@lechtenberg-partner.de www.lechtenberg-partner.de



Cement and Building Materials Review

Arab Album

International News

New Products

Technical Articles

Diary Dates

Editor-in-Chief

Eng. Ahmad AL-Rousan

CONTRIBUTIONS

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

Advertisements

Please contact Editor-in-Chief

Annual Subscription

Companies & Organisations

US\$ 150

Universities & Research Centers

US\$ 65

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

Website : www.aucbm.org

Contents

Foreword
Arab News
International News
New Products and Media

Articles:

- **De-aeration of cement in storage**
By: Lyn Bates, Ajax Equipment Ltd, UK
- **Managing chloride in raw materials**
By: Whitehopleman, UK
- **Vortex Blastair® more blasting power for less cost**
By: Staminair, Philippines
- **Meeting Maximum Technical Standards**
By: Joachim May, Kalenborn, Germany
- **Russian Cement Market: Current State and Development Perspectives**
By: Edward L. Bolshakov, "ALIT" Group of Companies, Russia
- **Reduction of investment costs is opportunity for economical civil design?**
By: Martin Wuerth, Wuerth Consulting Engineers, Switzerland

Diary Dates

CORRESPONDENCE

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

Syria, Damascus - P. O. Box 9015

Tel : (+963 11) 611 5412 - 6118598

Fax : (+963 11) 612 1731

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



IBAU HAMBURG – YOUR EFFICIENT PARTNER
for the effective storage and conveying
of all dry powdered bulk materials:

Plant design. Engineering. EPC-Contracting.
From the first sketch to commissioning and maintenance.

- We find the optimum process for your requirements.
- We find the most cost-effective solution for the implementation of your special project.

Innovation. Expertise.

IBAU HAMBURG

Your solution provider.

Cutting-edge technology for the Cement Industry:

- Raw Meal Silos / Cement Silos / Multicompartment Silos,
- Cement terminals and Marine cement terminals,
- Self-discharging cement carriers,
- Ship loaders-/ unloaders.
- And all relevant components, made to measure.

For more information please visit:

www.ibauhamburg.de



IBAU HAMBURG
Rödingsmarkt 35
D-20459 HAMBURG
☎ +49 (0) 40 36 13 090
Fax +49 (0) 40 36 39 83



IBAU's newest Multicompartment silo in Paris/France built for Ciments Calcia / Semapa and inaugurated on 4th July 2014.



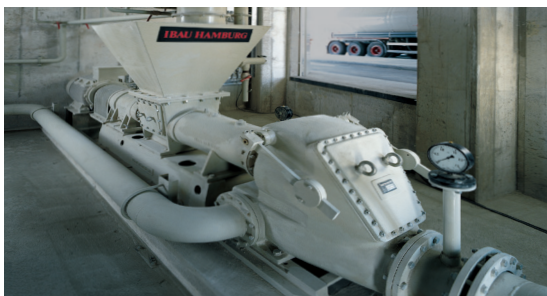
Multicompartment silos from IBAU HAMBURG: The base of the silo floor is formed by the central cone which has proven its worth over many years in ring silos. The compartment divisions result in clear external diameters of 14 to 27 m.

IBAU Multicompartment silos with central cone

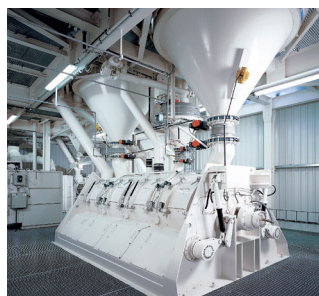
Our development in the field of silo technology has produced pneumatic emptying systems which provided reliable storage of the powdered bulk materials. Changes in the production of binders and fillers have had an effect on silo technology, the preparation of the bulk materials and

ultimately the dispatch technology. The concentration of storage and dispatch for a greatly increased number of bulk materials, interground additives and mixed products has eventually led to the concept of a multicompartment, high-capacity silo system with integral mixing and dispatch systems.

Effective. Efficient.



Material transport via IBAU Pump



The IBAU Batch-type mixer



Bulk loading with IBAU Simplex loader

HAYER & BOECKER combines the complete cement chain:

HAYER & TYLER



Processing

IBAU HAMBURG



Storage / Conveying

HAYER & BOECKER



Packing

Made by

NEWTec BAG PALLETIZING

Loading / Palletizing

AUCBM MEMBER COMPANIES

EGYPT

ASEC Engineering and Management, the leading Cement Plant O&M service provider in Egypt and MENA region has signed a contract with **Cimento Nazionale Ltda** for the Operation and Maintenance of its Cement production plant near the city of Maputo the Capital of Mozambique. Cimento Nazionale Ltda is the second largest producer of cement in Mozambique.

The objective of the contract is for **ASEC Engineering** to utilize its knowhow and expertise to assist Cimento Nazionale Ltda to increase the production volumes, reduce the production cost, and improve the product quality. **ASEC Engineering** is also to introduce and

implement professional systems for all aspects of production, quality, maintenance, warehousing, HR, etc... In addition to that **ASEC's** scope covers extensive training for the local Mozambican staff through the prestigious "ASEC Academy" training programs and courses.

The contract covers a period of one year of operation and maintenance of the cement production facility and is foreseen to be extended for a further 5 years after the conclusion of the first year.

ASEC Engineering is already operating and maintaining 10 cement production lines within Egypt that is accountable for around 25% of the combined

**MORE THAN 100 YEARS EXPERIENCE
IN MATERIAL HANDLING FOR QUARRIES,
CEMENT PLANTS, MININGS.**

**A WORLDWIDE PRESENCE
(EUROPE, AFRICA, MIDDLE-EAST,
SOUTH AMERICA, ASIA)**

atmos

APRON FEEDERS
WOBLERS
BUCKET ELEVATORS
WEIGHT FEEDERS
HELMET GATES

ATMOS S.A.S. - 74, chemin de la Chapelle
Saint-Antoine - 95300 Ennery - FRANCE

tel : +33 (0)1 30 300 300
fax : +33 (0)1 34 22 01 61

www.atmos-handling.com
contact@atmos-handling.com



The meeting you should not miss!



III INTERNATIONAL BUSINESS MEETING

WHITE NIGHTS:

CEMENT. CONCRETE. DRY MIXTURES

May 26–28, 2015

Grand Hotel Europe, Saint-Petersburg, Russia

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.

AUCBM MEMBER COMPANIES

Egyptian Cement production. **ASEC Engineering** is also engaged in various other operations around the region.

“This contract with Cimento Nazionale Ltda is the first fruit of ASEC Engineering ambitious plans to expand its business territory into Sub-Saharan Africa. It is also a fruit of the already strong long-standing position of ASEC Group on the Egyptian, Arabian and North African markets”. Mr. Khaled El Sebaie the MD of ASEC commented.

Suez Cement Group of Companies, Egypt, explains how the group is working to advance environmental standards at its facilities across Egypt.

Suez Cement Group of Companies, a subsidiary of the Italcementi Group – the world’s fifth biggest cement producers, is one of the largest and the oldest cement producers in Egypt. Its industrial network comprises five production facilities, which are located in Suez, Kattameya, Tourah, Helwan and El Minya.

All SCGC plants are ISO 9001 and ISO 14001 certified. They are also subject to comprehensive audits by the Egyptian Environmental Affairs Agency to ensure full compliance with local standards.

SCGC employs more than 3,500 direct staff, all of whom participate in ongoing safety training and advancement programs at each plant. The company follows international safety, environmental and energy policies, a philosophy that embodies the foundation of a sustainable workplace for staff as well as the communities where SCGC operates.

Since 2005, Suez Cement Group of Companies (SCGC) has invested a significant percentage of its industrial investments in the implementation of comprehensive environmental and safety policy.

SCGC understands that the cement industry must take a leadership role in consolidating sustainability at the root of its business.

The Company has therefore made environmental protection one of its key corporate pillars, driven by its comprehensive Energy Policy. This policy forms part of

the driving force behind efforts to move toward a low-carbon economy and develop feasible environmental solutions in partnership with the government and other players in the building material sector.

As part of the SCGC’s ongoing efforts to reduce adverse environmental impacts, regular consultations and information sessions are held with local stakeholders. A company-wide Compliance Action Plan was launched in 2012, with key goals set to be reached this year.

In that vein, the Company has implemented numerous long-term projects at its plants that are designed to reduce emissions, pollution and waste. In fact, in 2013, SCGC received several awards from the Ministry of State for Environmental Affairs for its comprehensive environmental management and performance programmes.

The Kattameya plant was honoured with the “2013 Greenest Company in Egypt” first prize certificate in recognition of its ongoing initiatives designed to reduce the environmental impact of cement production.

Environmental projects

Reducing emissions

Last November SCGC launched a new, state-of-the-art filtration system at its Helwan plant. The filter system reduces dust emissions levels to a maximum of 10mg/m³, which is well below Egyptian and European standards.

In addition, a project to convert electrostatic precipitators to baghouses at the Kattameya, Suez and Minya plants was approved in 2013 with a budget of LE116.7 million

Alternative fuel utilisation

In light of the fuel crisis currently affecting Egypt, SCGC is working to replace traditional fossil fuels with alternative fuels, and thereby decrease its total CO₂ emissions. Meanwhile, waste heat recovery is being explored as a promising option in terms of electricity production or district heating.

On 25 and 26 July 2013, SCGC began construction of innovative waste fuel projects at the Helwan and

WE CONVEY QUALITY



19th AICCE '2014, 11-13th November
Marrakech, Morocco

Visit us at booth number A19

Proven Technology with equal Quality, Strength and Reliability



AUMUND Foerdertechnik GmbH • Saalhoffer Str. 17 • 47495 Rheinberg/Germany
cement@aumund.de • www.aumund.com

AUCBM MEMBER COMPANIES

Kattameya plants. Both have been registered with the Clean Development Mechanism Executive Board of the United Nations Framework Convention on Climate Change.

The purpose of these two projects is to increase the percentage of energy it produces from refuse-derived fuels. Also known as alternative fuel, this RDF is comprised of agricultural waste that includes rice straw and cotton stalks. The hope is that RDF will soon comprise 14% of the Company's overall energy mix.

Looking to renewable energy

As for renewable energy, Italgem, a subsidiary of the Italcementi Group, has signed agreements with the Egyptian Electricity Transmission Company to develop the first privately owned and operated wind farm in Egypt. Phase I is slated to produce 120 MW of electricity and cost 140 million euros, with the aim of eventually producing 400 MW of power in the next phases.

The deal will see Italgem to build wind turbines in the Gulf El Zeit, which is currently under development, just north of Hurghada. The electricity will be transmitted to plants run by SCGC as part of the Company's plans to incorporate a higher percentage of renewable power in all of its facilities.

The government's goal is for 20% of the country's electricity, approximately 7,000 MW, to come from renewable sources, such as solar, water and wind, by 2020. To reach this ambitious target, it is essential that the private sector participate and fund similar projects to ensure the renewable energy sector meets its full potential.

Sustainable products

Furthermore, the Company's products are made with sustainable environmental practices in mind. SCGC controls the quality of each cement type and strength class through its Quality Management System. The goal is to consolidate the company's strategy to improve the quality of its products, processes and services, thereby creating added value along the life cycle of products.

Water management

Water has been increasingly recognized as a key factor in sustainable development by major industrial sectors, including building materials producers. Cement

production requires water to produce "slurry" in wet process kilns, cool gases, improve the efficiency of process filters, control fugitive dust and cool mechanical equipment.

SCGC is striving to improve water management practices and efficient water use as well as apply reporting processes in this area in line with the 2010 WBCSD Global Water Measurement Tool. Some 70% of total water withdrawals were monitored by counters. The remaining 30% are set to be counted by the end of 2014.

Quarry rehabilitation

Last but not least, the Egyptian Group is currently implementing four quarry rehabilitation projects, three of which were undertaken voluntarily. In 2007, SCGC began the first rehabilitation plan by refilling its clay quarry near the Tourah plant, which is the oldest quarry in the country. The other two refilling projects are located in the Suez plant's clay quarry, while the fourth involves planting palm trees around the Kattameya clay quarry to create a barrier between the site and the highway.

"Our hope is that others see us as a leader in environmental protection, and are inspired to follow our lead. Our aim is to ensure Egypt's natural resources can be enjoyed by future generations to come" explained Mr. Carre', CEO of Suez Cement

MOROCCO

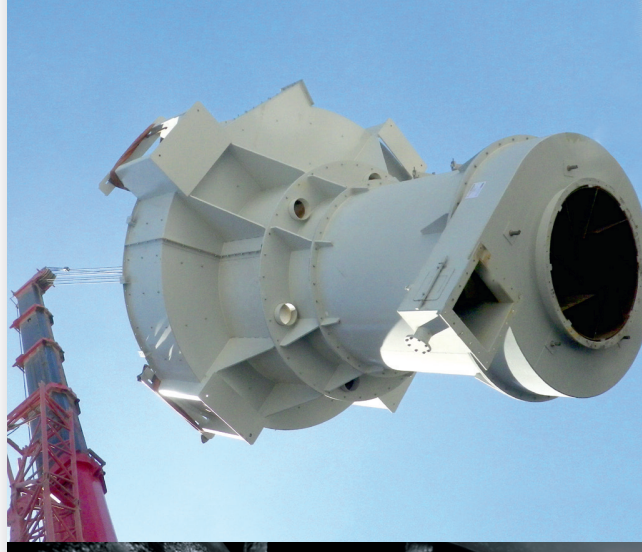
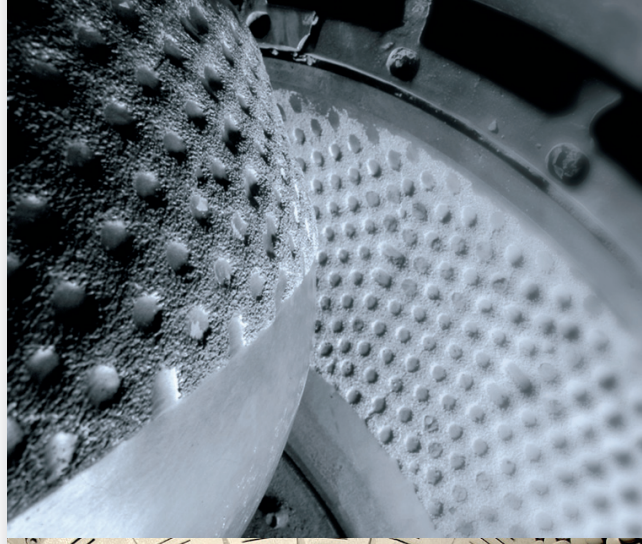
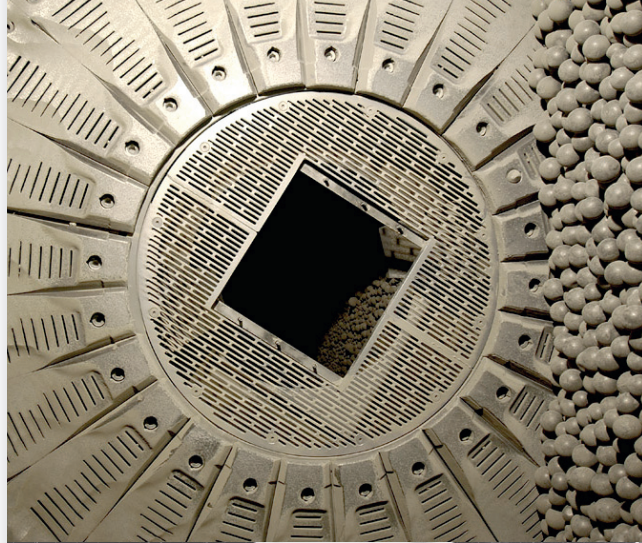
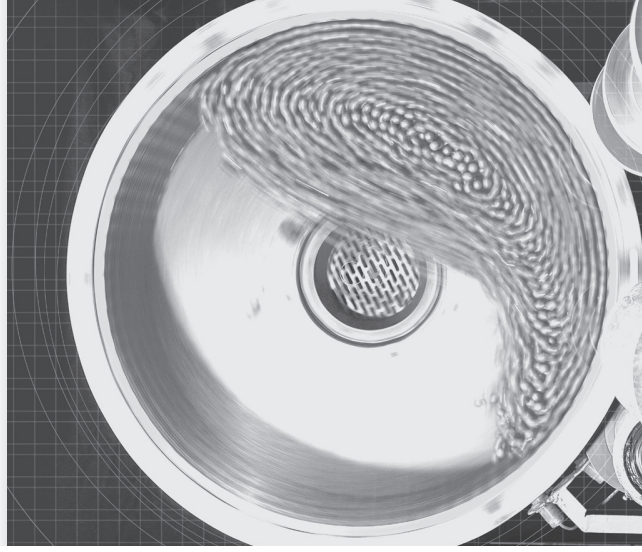
Institutional and professional partnerships developed by Moroccan cement (by Mr. Brahim LARAQUI)

The partnerships developed by Moroccan cement manufactures takes different forms and with different actors, with whom the APC (Professional Association of Cement Manufactures in Morocco) maintains cooperative relations based on shared concerns.

The agreements signed and currently in force are of two types:

- Conventions and agreements based on the promotion of quality and safety, environmental protection and sustainable development, waste

WHATEVER THE CHALLENGES, BOOSTING THE END-RESULT IS CRITICAL



Together we will make technical specifications meet financial requirements by developing a customized solution to optimize your production circuit and processes. Starting with a cross section insight of your value-chain, combining expert advice, service, resources, products and equipment, we will use all relevant levers to help you save costs and optimize cash-generation.



Process optimization solutions for high abrasion extracting industries.

Interested ? Call: + 32 43 61 76 71 • Mail: cement@magotteaux.com • Visit: www.magotteaux.com

AUCBM MEMBER COMPANIES

- recovery and dissemination of good practice...
Conventions of limited duration and purpose for studies, organizing events, training or event sponsorship.

It is important to remember a few iconic partnership activities:

Having accompanied the liberalization of cement sector and the promulgation of the first mandatory standard in Morocco (NM 10.1.004 on cement) in 1995, APC initiated a real policy for institutional and professional partnerships, which resulted in signing around 15 conventions and agreements between 1997 and 2013.

Being keen environmentalists, cement manufactures work for the preservation of natural resources and the development of alternative fuels and materials, giving them the status of zero pollutants.

In this context, the first agreement of its kind was signed in 1997, between the Ministry of Environment and the industrial sector with a view of upgrading environmental level within six years (1997- 2003), by committing to thresholds of liquid discharges and air emissions. These decisions are proactive as the laws have not entered into force yet.

Since 1993, safety in construction sites and roads became a priority, APC exerts every effort to promote the culture of safety based on shared responsibility with actual commitments involving all stakeholders (Ministry of Transport, CNPAC, professional associations, cement carriers, service providers, and contractors) with creation of collective and signed charters on Security.

The social approach of Moroccan cement manufacturers meets the requirements of human development through the support of social housing and the Solidarity Fund, from which around 1.2 million households benefited since 2002. The APC also supports training and assistance for young employees. Add to this, its interest in health, which is illustrated by the medical campaigns for the benefit of neighborhood populations and the support for the Lalla Salma Foundation for the construction and equipping cancer testing centers.

The APC is also involved in various partnerships with colleges and universities for training and support for future work force

The importance of Safety for Moroccan Cement Industry "Road and Workshop Safety Caravan"

The APC, in collaboration with the National Committee for Prevention of Traffic Accidents - CNPAC - and the Federation of Industries of Building Materials - FMC - organized the second edition of the Safety Caravan for Transport of Building Materials.

Safety is a stated desire for both cement producers and their partners, especially the National Committee for Prevention of Traffic Accidents (CNPAC), with the goal of achieving 'zero fatalities'.

They all consider breaking traffic law the cause of many accidents. Safety problems are more often in workshop due to lack of use of PPE (personal protective equipment), signage and loading and unloading. These risks sometimes generate significant economic and social costs. This is why their recognition constitute priorities for prevention.

In this context, the APC, in collaboration with the National Committee for Prevention of Traffic Accidents and the Federation of Industries of Construction Materials-FMC, organized the second edition of the Safety Caravan for Transport of Building Materials, where safety must be a priority.

The event lasted seven days, during which training seminars, awareness campaign addressed to drivers, carriers, officials and site staff, were organized. Around 350 persons benefited from the services offered by a team of 5 qualified delegates by cement manufactures, CNPAC, and industry professionals and leaders.

The aim of the caravan was to improve the conduct and behavior of drivers through education, training and awareness, promoting responsible driving that respects safety standards, particularly GVWR (gross vehicle weight load).

DISCOVER...

...HOW TO **SAVE MONEY AND OPTIMIZE PRODUCTION** SIMPLY BY INSTALLING THE BEST GRINDING SOLUTION.

// **ZKG INTERNATIONAL** PROVIDES THE CRUCIAL INFORMATION YOU NEED TO MAKE YOUR PROCESS MORE EFFICIENT AND COST EFFECTIVE.

ORDER NOW!

WWW.ZKG.DE/ORDER

OR CALL US +49 5241 80-90884

OR SEND US A FAX +49 5241 80-690880

ZKG
INTERNATIONAL

ARAB CEMENT NEWS

EGYPT

Cement production to be impacted by energy cuts and higher fuel prices

The government's decision to cut natural gas subsidies to factories followed shortly after the reduction of petroleum subsidies on Saturday.

In late June 2014, Environment Minister Khaled Fahmy said in a press conference that coal will be introduced to the cement industry due to its energy-intensive nature.

The minister added that the introduction of coal suits Egypt's current economic situation since the international price of coal is \$4 per tonne. He said that the price of gas is \$14 per square metre.

The government's decision to cut natural gas subsidies to factories followed shortly after the reduction of petroleum subsidies on Saturday. This decision is expected to raise the price of natural gas to \$8 per million British Thermal Units (BTUs) for cement factories.

www.dailynewsegypt.com

IRAQ

Lucky Cement Starts Production in Iraq

Pakistan's Lucky Cement has started production in Iraq from February of this year, in a 50 /50 joint venture with the Al-Shawy family.

The company's CEO, Muhammad Ali Tabbā, said that a total of \$40 million has been invested in the grinding mill in Basra, which has a capacity of 3,000tpd,

servicing the Southern Iraq market which has a very high demand for sulphate resistant cement (SRC).

"It's the first phase of development and if we succeed in our projections, we may go for a full cement production line of 1.25m tonnes which may cost around \$125m," he said.

The country is currently producing around 16Mt of cement and consuming around 24Mt, with around 80% of its cement imports coming from Iran.

Source: iraq-busines.snews.com

CEMENT TECHNOLOGY WORLDWIDE

- (SEMI) TURNKEY GRINDING PLANTS ■ MILLS
- ROTARY KILNS ■ HOT GAS GENERATORS

CEMTEC provides the right solution for customers in the **cement industry** and will meet customers' requirements regardless. Projects undertaken at CEMTEC range from **single machines** to **turnkey plants**, from **engineering** to **commissioning** and **after-sales service**.

Competent employees and **professional facilities**, such as the **workshop** and the **laboratory** which enable appropriate **product investigations** and **test runs**, ensure **successful fulfillment** of the **relevant assignment**.

Interested in hearing more about CEMTEC? Please contact us!

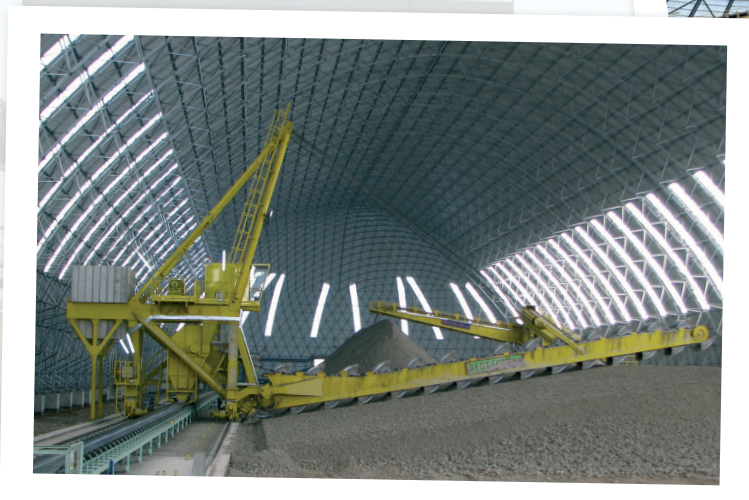
CEMTEC
Cement & Mining Technology

CEMTEC Cement and Mining Technology GmbH, Ennschafenstrasse 40, 4470 Enns, Austria ☎ +43/7223/83620-0, ✉ info@cemtec.at



BEDESCHI

Since 1908...



...taking the best from the past to build the future



BEDESCHI

www.bedeschi.com sales@bedeschi.com

Southern Cement state company got a quality Certificate for both of Kufa & Najaf cement plants.



The Central organization for Standardization and quality control of the Ministry of Planning and Development Cooperation laboratory had awarded both of Kufa cement plant and Najaf cement plant (Iraqi quality Certificate) for their products. Mr. Sinan al-Saidi, Director General of the company Said that the quality Certificate is usually awarded after a series of complex procedures when the products matching the standard specifications. and there are subsidiary additional verifying teams visit the mentioned plants on a regular times to take random samples of the final product and make chemical and physical testing. Also these teams follow all of the production stages of ordinary and sulphate resistance cement. Director-General added that this quality Certificate is not the first in this field as our company headquarters and our factories (Kufa , Najaf, Muthanna , Samawah, Basra and Alnoora) got this Certificate according to (ISO 9001 - 2008) by the Central organization for Standardization and quality control which is the only authorized organization in Iraq for checking and verifying that the procedures are conformed to the international standards.

Southern Cement state Company increasing the production of sulphate resistance cement and reducing the prices of their products.

Southern Cement state Company changed it's production in(Kufa plant) from ordinary cement to sulphate resistant cement depending on self-efforts and the support of high management, this was for avoiding scarcity of sulphate resistant cement in the local markets because of declining of producing this material due to deficiency of electrical power which effect the production continuity. company carried out this step simultaneously with the growing need of Local markets for resistant cement. scarcity Mr. Director-General expressed the Company readiness to Meet the growing demand for resistant cement in required quantities .

Southern Cement state Company started rehabilitation of Kufa and Najaf plants by Iraqi experience and by its own resources.

Southern Cement state company announced for its rehabilitation of production lines for kufa and Najaf cement plants to increase the production capacity and improve the quality of the products by iraqi hands and efforts and depending on its own resources, the works of rehabilitation of the third kiln in Kufa were carried out within (11 months). some of companies in our Ministry participated in this rehabilitation, the work is done entirely by Iraqis hands. and by depending on the efforts of the company and its own resources, So we started-up the production with a capacity amounting to 1350 tons / per day,On the other hand The company had previously rehabilitated Najaf Cement Plant completely. As the works included rehabilitation of both the kiln and the cement mill and replacement of packing machine with a modern machine which actually began the production by self -efforts and depending on our company own resources.



The investment knocking on the doors of Najaf and Samawa plants of Southern Cement state Company.

After the investment of Karbala, Muthanna and Babil plants by iraqi and international companies, The investment knocking on the doors of Najaf and Samawa plants of Southern Cement state Company.as all fundamental procedures had been achieved to complete these important investment opportunities to develop these plants by increasing the amount of production by reaching the design capacity and improving the standard of living of the personnel. and also there is an investment opportunity to Al-Basra Cement Plant under studying. And it will be prepared to make the investment include (Kufa plant, Alnoora plant, and Packing factory).



Southern Cement state Company achieved an increase in production and providing for 2013 by 50% more than 2012

| Year | Production (Ton) | Providing (Ton) | Notes |
|------|------------------|-----------------|---------------------------------------|
| 2012 | 837107 | 825329 | Development ratio 51% compare to 2012 |
| 2013 | 1260585 | 1283208 | Development ratio 55% compare to 2012 |



**13th TÇMB INTERNATIONAL
TECHNICAL SEMINAR & EXHIBITION
7-10 OCTOBER 2015
ANTALYA, TURKEY**

13th TÇMB International
Technical Seminar & Exhibition will be held in
Titanic Deluxe Belek, Antalya, Turkey
between 07th and 10th October, 2015.

“Sustainable Environment and Energy”

- Low Carbon Technologies in Cement Production
- Industrial Symbiosis
- Use of Wastes
- Innovation and New Technologies
- All other subjects related to sector

To be in seminar and exhibition area please contact teknikseminer@tcma.org.tr



Two MVR Cement Mills for Iraq

Sinoma Suzhou Construction, acting as General Contractor, ordered two cement mills of the type MVR 6000 C-6 from Gebr. Pfeiffer SE. In the summer of 2013 Sinoma Suzhou had placed an order with Gebr. Pfeiffer for a raw mill for the same works in Sulaymaniyah. This further order again reflects the strong market position Gebr. Pfeiffer holds in Iraq.

The two MVR cement mills will come equipped with a conventional drive with an installed power of 6,000 kW. They will grind various cement qualities to the required fineness degrees between 3600 - 5500 cm²/g depending on the product type, achieving capacities ranging between 132 and 210 t/h.

The cement mills are scheduled to be delivered at the end of 2014.



Second largest cement mill in the world going to North Africa

In May 2014 Gebr. Pfeiffer SE won a contract through the Chinese General Contractor CBMI to supply a cement mill of the type MVR 6700 C-6 and a raw mill of the type MVR 6000 R-6 which will both be set up at a cement works situated near the Algerian town of Biskra.

Lafarge as the operator of the new cement works ordered Pfeiffer MVR mills no. 3 and no. 4 for its cement plants. This acquisition underpins Lafarge's strategy towards the one-mill solution with MultiDrive[®] and the high level of availability when it comes to cement grinding, thus giving preference to this concept over the conventional two-mill solution with less availability.

The cement mill featuring the innovative and proven MultiDrive[®] concept with an installed total drive power of 9125 kW will be producing 231 - 342 t/h of OPC ground to a product fineness of 3700 - 4800 cm²/g acc. to Blaine.

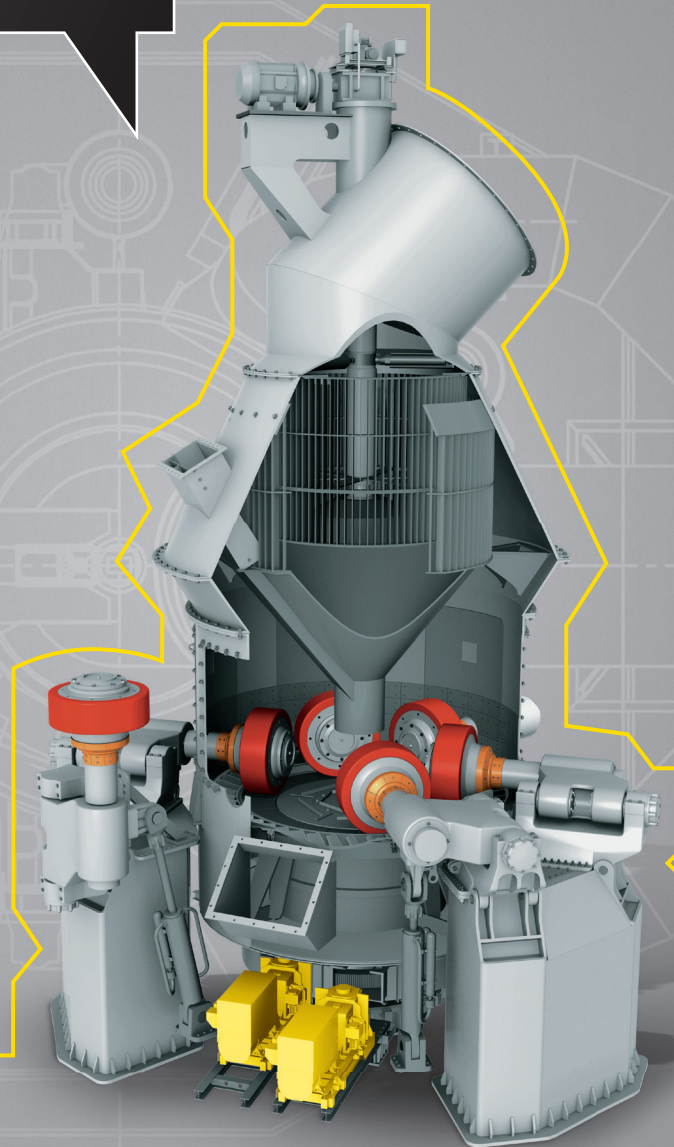
The raw mill, which will come equipped with a conventional drive having an installed power of 6,120 kW, is designed to grind 680 t/h of cement raw material to a finished product fineness of $\leq 12\%$ R 90 μm and 460 t/h of limestone to a product fineness of $\leq 1\%$ R 150 μm .

The delivery of the mill is slated for the summer of 2015.



GEBR. PFEIFFER
Progress is our tradition

12,000 kW
600 tph OPC
1 PFEIFFER MILL



Under erection in Brazil:
The largest VRM in the
world. From Pfeiffer:
OF COURSE!



Pfeiffer MVR with MultiDrive® - the ultimate one-mill solution

Discover the most powerful and economical one-mill concept for highest levels of throughput and availability: The Pfeiffer MVR vertical roller mill together with the unique and innovative high-performance **MultiDrive®**. This combined system with up to 6 grinding rollers and 3 to 6 identical drive modules stands for double active redundancy, providing an installed power of up to 12,000 kW and maximum availability even when one grinding roller or drive module is under maintenance.

Pfeiffer. Progress is our tradition.

MML s.a.l

MML s.a.l

MML s.a.l (Materiaux, Mortier Liban s.a.l.) introduced the wet mortar in the Lebanese market four years ago jointly with Holcim Liban being convinced that the future is for the ready mix (ready to use) and not anymore for the traditional way that is unfortunately still occupying a big market share. In the early nineties, contractors were not convinced to use the ready mix concrete because they were used to the onsite mixers. We can remember how the workers were suffering mixing the aggregates with cement and water with no quality control and spending too much time for the execution of the project. Nowadays almost all building projects in the city of Beirut and its suburbs are using only the ready mix concrete. During the previous period, time had no significant cost and the manpower was not so costly but nowadays it is becoming necessary for the following reasons:

- Cost saving
- Time consuming reduction (less staff on site)
- Waste reduction
- Product controlled in Laboratory
- Same quality all along the project execution
- Standards and quality control.

Our Products “3AMMER” for block fixing, “RASHE” for spatterdash and “LAYESS” for plastering application are 100% ready mixed for immediate use. They are delivered WET AND READY TO USE in buckets of 200 liters. Their life time is between 8 to 10 hours, the necessary time for one full day work on site. This means that we deliver on daily basis the number of buckets that is planned to use for the whole day. For Towers and projects with multi buildings, we deliver the buckets empty and our transit mixer will fill the number of buckets required on daily basis. These buckets will remain on site but are the property of MML.

Our Company MML is also offering the “supply and apply” solution which eliminates a lot of headaches to the contractors.

You can find some pictures that are self explanatory as well as a list of projects that have been executed or still ongoing.

It is our pleasure to welcome you for a visit to the batching plant to check how our products are prepared and distributed.

Patrick Laham
Managing Director
E mail: plaham@mmliban.com/ Tel: 009613852922
Antelias – Doumit Building 3rd floor - Lebanon

Sacmi Sacmi

General Manager Pietro Cassani: “A great opportunity for Sacmi to enhance its technological skills and improve international market positioning”

Sacmi and Cosmec challenge the worldwide heavy clay machine market

Shareholders’ meeting gives go-ahead for purchase of a 60% share in the longstanding Vicenza-based specialist that produces automated solutions for the heavy clay industry

To become a leading international provider of automated solutions to the heavy clay industry while gaining considerable competitive advantages in terms of technological know-how, networking skills and sales penetration on all the industry’s main markets. This, in short, is the aim of the operation put forward at the shareholders’ meeting of 20th June 2014 and completed this morning, giving Sacmi Imola the go-ahead to purchase a 60% share in Cosmec.

A long-standing company based in the Vicenza area that specialises in the design and manufacture of automated heavy clay handling machines and plants, Cosmec has an impressive customer portfolio and is renowned on several emerging markets such as Algeria, Russia and South America. On the other side of the equation lies Sacmi which, in 2013, enjoyed considerable success through its Heavy Clay Division on markets such as, in fact, Latin America, Russia and the Far East; this was achieved by innovating its range of driers and kilns and focussing more and more, via Group company Gaiotto Automation, on providing complete automated solutions for handling, movement and end-of-line operations.

A global industrial engineering player with over 4,000 employees, 70 companies worldwide and interests in various business areas, Sacmi has, in Cosmec, identified the key to reinforcing its position on the heavy clay market while simultaneously offering Cosmec an opportunity to

boost its fortunes and strengthen its brand even further.

In many ways the Cosmec story is emblematic: an industry player since 1974, it was saved in 2011 by the nerve and farsightedness of a group of Vicenza industrialists who rented the ailing company and invested in its existing skills, manufacturing and sales assets; thanks to that operation, within just a few years the brand had bounced back to enjoy success on international markets as a result of harvesting the already rich range of skills and know-how that was the heritage of the highly specialised workshop. Now, by becoming a member of the Sacmi Group, this excellent company can once again aspire to becoming an acknowledged reference point in the heavy clay production process automation field.

“For Sacmi, then,” points out Sacmi Imola’s Managing Director, Pietro Cassani. “this is a dual opportunity: to expand its technical skills as regards automation of the process (the takeover will be completed via the Group company Gaiotto, which will then proceed with reorganization of all corporate activities concerning the heavy clay sector – Ed.) and to achieve further positioning improvements on world markets via the acquisition of a substantial and highly interesting customer portfolio; this will allow us to compete on an equal footing with the industry’s major players and so meet the challenges of a global heavy clay machine market that is worth at least 450 million Euros a year”.

A new jewel in the RAK Porcelain crown

Output capacity boosted by purchase of new Sacmi kiln and new two-head isostatic horizontal pressing unit

The gradual process of doubling output capacity at RAK Porcelain (UAE) has now reached completion following the purchase of a Sacmi TKA 240 / 88,2 roller kiln for firing glazed products (equipped with relative automatic handling) and a Sacmi/Sama 2-head isostatic press mod. LPP-2S-38 for the dry pressing of plates and bowls (equipped with Sacmi/Sama automatic finishing units mod. OFM for non-round articles).

In the recent past RAK had already purchased and

installed an automatic cup-making machine and two pressure casting benches for large trays and plates: these too were supplied by Sama/Sacmi.

The existing ‘biscuit’ kiln has, instead, been modernised to allow two-tier firing.

Thanks to the extraordinary efficiency of the technology adopted by RAK Porcelain, their highly qualified personnel and the outstanding reliability of their machines, output has been boosted while maximising control of both production efficiency and the first-rate product quality that is making ever-larger gains on the luxury tableware market.

M. Şefik Tüzün Becomes the New Chairman of Turkish Cement Manufacturers' Association

Upon assignment as the President of Sabancı Holding Energy Group, Mehmet Göçmen resigned from Board membership and chairmanship of TÇMB at the Board Meeting of Turkish Cement Manufacturers' Association held in İstanbul on 16.09.2014.

At the same meeting, M. Şefik Tüzün, CEO of Votorantim Cement, Turkey and Deputy Chairman of TÇMB, is elected as the New Chairman of Turkish Cement Manufacturers' Association.

M. Şefik Tüzün, Board Member since 28.02.2008, has become the 21st Chairman of TÇMB.

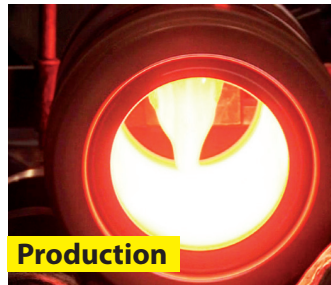
Mrs. Nevra Özhatay, General Manager of Çimsa Cement, is also assigned as the Board Member of TÇMB.

Mustafa Şefik TÜZÜN

Mustafa Şefik TÜZÜN, born in 1955 in Ankara, completed his undergraduate education in Mechanical Engineering of METU in 1978 and his master degree

in 1981. He started his professional life in Etibank as Project Engineer in 1978 and went on it by working as Research Engineer in Denmark University in 1979, as Research Assistant in METU between 1980 – 1982 years. After holding different positions in GAMA Industry between 1982 - 1992 years, TÜZÜN worked in Set Cement between 1992 - 1995 years. From 1995 to 2003 he took different charges in Lafarge Turkey, being in mission of General Assistant Coordinator, too. At the same time, TÜZÜN, carrying on the mission of Lafarge Turkey Cement Group Vice Presidency of Industry between 2001 and 2004, also carried on Lafarge North America Gypsum Group Vice Presidency of Production in USA. When Cimpor Group took over the assets of Yibitaş Lafarge Group, between 2007 – 2009 years he held the mission of Board Membership and Cement Group Presidency, and between 2009 – 2012 years as the CEO. After the transfer of Cimpor Turkey assets to Votorantim Group, TÜZÜN continued his mission as CEO and Vice Presidency of Board. He is married and is the father of one child.

Kalenborn provides customized wear protection solutions for the cement industry



➤ Meet us on the AICCE 2014

19th Arab International Cement Conference and Exhibition · 11-13 November 2014, Le Centre International de Conférences de la Palmeraie, Marrakech, Morocco

➤ Please make an appointment with our Technical Sales: Mr. Ernst Brusckke

ernst.brusckke@kalenborn.com · +49 (0)177 2958603

Kalenborn
Asbacher Strasse 50
53560 Vettelschoss
Germany
Telephone: +49 (0)2645 18-0
Fax: +49 (0)2645 18-112
kalenborn@kalenborn.com
www.kalenborn.com

 **Kalenborn**
Wear Protection Solutions

Meet Christian Pfeiffer at
AUCBM, Marrakesh, Morocco,
November 11th – 13th 2014

Leading Product Efficiency

CPB flow control diaphragm

Assisting the grinding process for
higher production.

Process advantages

- Intelligent material transfer below the centre opening
- Maximum centre opening for highest ventilation
- 30 % more slot opening surface
- 40 % less pressure loss optimizes mill ventilation and transport capacity

Advantages of CPB slotted plates

- high wear resistant rolled steel material RSM 70
- higher hardness
- breakage free guarantee
- longer lifetime
- best slot stability
- best slot accuracy



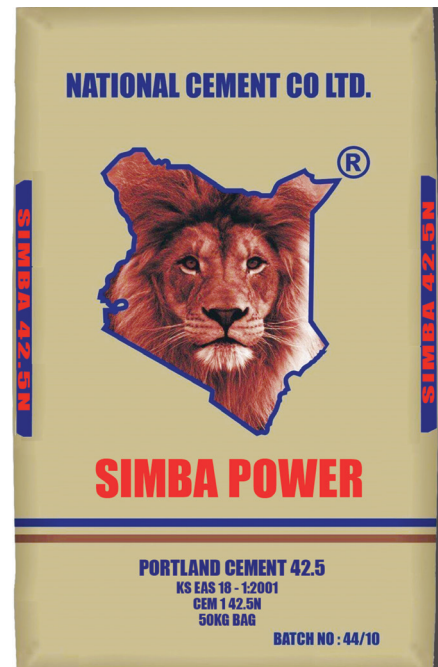
AD*STAR sack production equipment for National Cement Kenya



National Cement Co Ltd., a member of Devki Group, has purchased AD*STAR sack production equipment from Austrian turnkey machinery supplier Starlinger & Co. GmbH. The sack plant is to be installed at the company's Portland cement plant at Athi River, Kenya, and will take up production in October 2014.

“AD*STAR cement packaging is a well-known sack concept which has been adopted across the world” says Kaushik Pandit, Managing Director National Cement Co. Ltd. “The main reason why we decided to use AD*STAR cement sacks is to reduce the bag breakage we are currently experiencing. By using the technologies that Starlinger provides we will be able to lower breakage substantially. This will prove to be cost effective since the sacks would cost us around 290 KSH per 50 kg cement sack, and changing over to AD*STAR could save us almost 2,000,000 KSH and over 300,000 tons of cement a year”, he explains.

AD*STAR block bottom valve sacks are made of coated and printed polypropylene tape fabric. This makes them extremely resistant to breaking and tearing despite being very thin and lightweight, and ensures that the cement is protected against humidity and other environmental impacts.



Packaging cost reduction

“National cement is installing AD*STAR sack production technology because we need an in-house facility to cater to our bag requirements as we buy almost 1,000,000 bags a month”, Kaushik Pandit continues. “Installing our own packaging production line will drastically reduce costs affiliated with the polypropylene bags as well as give National cement an opportunity to sell the bags within the market as Kenya has got a huge potential within the sector.”

The supplied AD*STAR production equipment includes a polypropylene tape production line, winders, circular looms, an extrusion coating line, a roll-to-roll printing machine and an ad*starKON SX sack conversion line for the production of the block bottom valve sacks. The conversion line features bilateral microperforation and a pocket valve production kit for the optional production of sacks with pocket valves. The patented high-precision bottom forming and welding process keeps production waste and machine downtime to a minimum while a specially developed fabric roll unwinding system allows virtually non-stop production.

The Kenyan cement market

Regional economic growth and increased infrastructure spending by the Kenyan government have made Kenya an attractive market for new and existing cement manufacturers who have increased their investments and beefed up their production facilities. In the last six to seven years the cement industry within Kenya and the region experienced a growth rate of 12- 13 %. After this considerable growth, the Kenyan cement market is currently facing overcapacities, leading to a price drop that may continue as new capacities come on-stream. However, Kenya is a significant regional exporter, supplying, among others, to Uganda, Sudan, Tanzania, Democratic Republic of Congo, Rwanda, Eritrea and Burundi. “National Cement plans to increase its capacity in order to satisfy local consumption and regional

demand which will therefore translate into the creation of jobs, economic growth, and knowledge transfer”, says Kaushik Pandit.

According to the HBR (Harvard Business Review) Africa will become the largest labour market in the world, surpassing China by the year 2050 which will attract greater Foreign Direct Investment (FDI) in the region.

In Kenya, the companies Texplast Industries Ltd. and National Cement Co Ltd. use sack production equipment from Starlinger and hold the licence to market the bag under the well-known trade name AD*STAR. More than 5 billion AD*STAR sacks are currently being produced every year worldwide; together with customers, Starlinger continually improves the existing technology and works on new AD*STAR sack designs to help them increase their market share.

About National Cement

National Cement Co. Ltd. is one of currently six cement producers in Kenya. Founded in 2008, it produces 2 million tons of dry-process Portland cement per year, with plans to boost capacities in the near future. National cement sells their product under the brand name Simba on the domestic market and also exports to the wider Eastern African region as well as central Africa. The cement is currently shipped in units of 50 kg and is packaged in polypropylene bags.

www.devkigroupke.com/cement

AD*STAR® is a registered trademark. AD*STAR® sacks are produced exclusively on Starlinger machinery.

About Starlinger & Co. Ges.m.b.H.:

Starlinger is a Vienna-based engineering company with production sites in Weissenbach and St. Martin, Austria, as well as Taicang, China. As the world's leading supplier of machinery and complete lines for woven plastic bag production and PET recycling and refinement, Starlinger & Co. Ges.m.b.H. is a synonym for leadership in quality and technology in over 130 countries. Founded in 1835, the family-owned business has been exporting machines worldwide for more than 45 years with an export quota of over 99.5 %.

Branches in Brazil, China, India, Indonesia, Russia, South Africa, USA and Uzbekistan ensure quick and professional technical support and service.

Further information:

Starlinger & Co. Ges.m.b.H.

Sonnenuhrgasse 4

1060 Vienna, Austria

T: +43 1 59955 -0

F: +43 1 59955- 25

E: sales@starlinger.com

www.starlinger.com

for more information, please contact:

Sigrid Eder, Marketing Manager

Starlinger & Co. Ges.m.b.H.

Sonnenuhrgasse 4

1060 Vienna, Austria

T: +43 1 59955- 1251

F: +43 1 59955- 180

E: sales.ed@starlinger.com

www.starlinger.com



BEUMER develops blending beds for different bulk goods:

Relying on regularity

In many industrial processes – as for example in the cement industry – the regularity of the raw materials used plays an important role in the manufacture of products. This uniform consistency is ensured through blending beds located within the storage yard. As a system supplier, BEUMER Group develops stackers and bridge scrapers, the essential components of blending beds, which stack bulk material reliably and guarantee a maximum blending effect. Thus, operators can homogenise large quantities of various bulk materials dependably and efficiently. BEUMER employees can perform the complete engineering of the blending bed systems.

Be it houses, bridges or tunnels: cement is the material that holds everything together. However, a bag of this material has already come a long way before it arrives at the building site. When the component raw materials are mined and transformed into cement at the cement plant, they pass through many different stages. The most important raw materials for cement production are limestone, clay and marl. Workers break them out of quarries or extract them with heavy tools. Wheel loaders and dump trucks transport the raw materials to the crushing facilities. There, the rocks are crushed to the approximate size of road gravel. These rocks then arrive at the cement works via miles long belt conveyors.

A consistent quality must be ensured so that the producers can further process the material to high-quality cement – fluctuations in the material characteristics must not occur. Therefore, a belt conveyor transports the individual raw materials to the blending beds. These storage location systems mix and homogenise the raw materials.

Experts at work

For almost 80 years, BEUMER has been developing tailor-made system solutions in conveying technology for the stone and quarry industry, power plant industry, mining (ores and coal) as well as the logistics industry (harbours and transshipment terminals). Furthermore, the specialists have comprehensive expertise in engineering of blending beds and stockpiles. Through structural analysis of the associated storage depots and calculation of dimensions, BEUMER is able to provide a design. The blending beds are customised according to their requirements. BEUMER proposes either longitudinal or circular stockpile designs. The recommended design shape results from the spatial conditions and the amount of the material to be stored. Depending on the field of application, BEUMER designed blending beds can be used at extreme ambient temperatures, for very high entry conveying capacities, as well as for the highest degree of homogenisation required. Additionally, BEUMER provides material-specific detailed solutions with robust and low-wear equipment. The environmental impacts are also very low as minimal noise and dust occurs during operation. Blending beds can be set up both outdoors and indoors.

Compiled and extracted in layers

The stacker and the bridge scraper are the basis for a blending bed. If they are perfectly designed, the user will obtain an optimum blending effect. BEUMER offers stackers that stack the bulk material efficiently and effectively. In the end, the stockpile has been raised so reliably that its cross-section shows as many layers of equal material as possible. The stackers can be of fixed or mobile types, depending on the requirement. In case of circular stockpiles the stackers are mounted onto a column and with a longitudinal blending bed, they are mounted on rails. The stackers are designed as fixed, raisable and pivotable booms with conveying

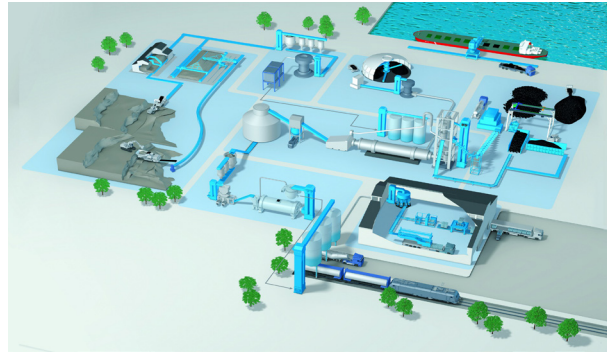
capacities of up to 4,000 tons per hour. The choice of the right system depends on different factors, as for example, the shape and size of the stockpile, the material, the throughput and the desired mobility.

Lastly, the bridge scraper homogenises the material. It has a mobile rake on each side. The material is removed in layers by stroking the face of the stockpile with the rake. The scraper blades move the bulk material towards the belt conveyor which runs parallel to the stockpile. BEUMER bridge scrapers are not only robust, but they also transport the bulk material so that the product is handled gently. This makes them suitable for a variety of bulk materials. Their continuous and comparably simple working motions allow for a fully automated operation and ensure a constant and steady flow of the bulk material.

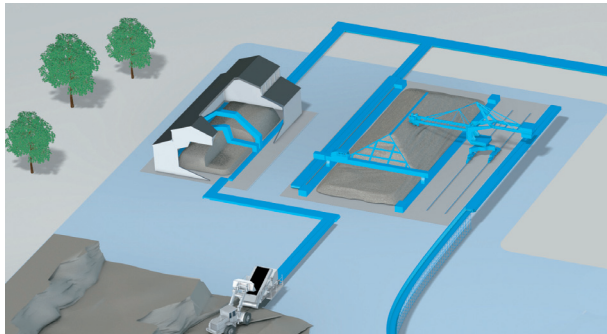
In the past, the new BEUMER team has completed remarkable projects in this field. One such example is an installation of a bridge scraper in Russia, which works at an ambient temperature as low as -40 degrees Celsius. The rail width is 34 metres and this bridge scraper is designed for a conveying capacity of 500 tons per hour. Furthermore, BEUMER has developed a stacker for coal mining, which is operated at ambient temperatures of -20 degrees Celsius. This boom has a length of 41 metres and the belt width measures 1.6 metres. It transports 2,250 tons of bulk material per hour. BEUMER also engineered a bridge scraper with a rail width of 55 metres that conveys 1,100 tons of coal per hour.

BEUMER Group is an international manufacturing leader in intralogistics in the fields of conveying, loading, palletising, packaging, sortation and distribution technology. Together with Crisplant a/s and Enxco Teknologies India Limited, the BEUMER Group employed some 3,700 people in 2013. The group generated an annual turnover of approximately 627 million euros. With its subsidiaries and sales agencies, BEUMER Group is present in many industries worldwide. For more information visit www.beumergroup.com.

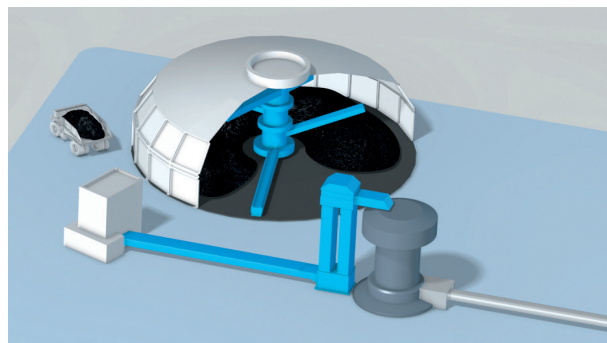
Captions:



Picture 1: BEUMER provides customised system solutions for the cement industry (coloured blue).



Picture 2: BEUMER experts perform the complete engineering of the blending bed systems.



Picture 3: Circular stockpiles for bulk materials are particularly eco-friendly since no material is released into the environment.

Photos: BEUMER Group GmbH & Co. KG

Mohamed Saffour
 BEUMER Maschinenfabrik GmbH & Co. KG
 Sales Manager Middle east
 Office No. 1113 + 1114
 Le Solarium Building
 Dubai Silicon Oasis
 Dubai • United Arab Emirates
 Tel.: +971 529879108
 E-Mail:
mohamed.saffour@beumergroup.com
www.beumergroup.com

Schneider DirectMount Systems reduce measurement errors in gas pipelines:

Accurate Gas Measurement

Nordheim - The effects of pulsation on Natural Gas Measurement are a major factor to consider when designing your meter installations. Pulsations created by compressor, flow control valves, and gas regulators, can produce pulsations in a magnitude that will effect accuracy.

Another problem can be created by some piping configurations that can produce vortices that will create pulsations which would also affect accuracy. The resulting error is called Square Root Error (SRE) which is always a positive error and is inherit to the piping system and can only be reduced by modifications to the piping system which can be costly. A secondary effect of SRE is called Gauge Line Error (GLE) effect is where the Differential pressure for your measuring instrument at the orifice fitting connection is not the same differential pressure that is at the measurement instrument's connection. This error can be both a positive error or can be a negative error. A study by Pipeline and Compressor Research Council (PCRC) in cooperation with Southwest Research Institute (SWRI) in San Antonio, Texas has shown the gauge line error can be reduced mounting your measurement instrument closer to orifice fitting. The best results is a maximum distance of 18" (45 centimeters) and keep your measurement sensing lines a minimum internal diameter of .375" (9.5 millimeters) will allow the pulsations to move in and out of the sensing lines and not build up pressure giving an inaccurate reading. Another factor is keeping both sides of the sensing lines from the orifice fitting to the measuring instrument the same length, deviation or unequal lengths of the «Low Side» and the «High Side» sensing lines could result in a Gauge Line Error.

Another consideration is in Gas Production and Gas Gathering system designs. Designing an installation that will drain condensate and other liquids is important. These liquids will build up in small orifice valves which will affect your accuracy. In these applications it is important to install the measurement instrument above the orifice fitting connections to allow self-draining of the manifold and sensing lines.

AS-Schneider, the specialist for industrial instrumentation, offers the solution that satisfies all of these requirements with its «Schneider DirectMount Systems». This direct vertical assembly allows the measurement instrument to be installed within the required distance and with the minimum diameter orifice of .375" (9.5 millimeters) from the orifice to the measurement instruments sensing element. This assembly is a safe and efficient method of close coupling the measurement instrument to the orifice fitting and thus eliminating or reducing the effects of Gauge Line Error from inaccurate measuring systems. The large orifice valves also allow the self-draining of liquids to prevent liquid build which would also affect your measurement accuracy. AS-Schneider, a family-owned international company with its headquarters in Nordheim near Heilbronn, developed this measuring instrumentation in close cooperation with customers from the gas industry.

Stabilized Connector provides for more security

At the heart of the «Schneider DirectMount Systems» is the patent pending, stabilized connector. This may be manufactured from carbon steel, stainless austenitic steel or nickel-based alloys depending on requirements. In order to be able to connect the valve manifold to the measuring orifice flange, a special adapter is necessary. This adapter is supported on the body of the measuring orifice flange which provides for more stability, explains Markus Häffner, Head of Design & Development on AS-Schneider: «Normally, the connector is only screwed into the orifice with a conical thread. The entire structure with the 5 valve manifold and measuring instrument has, however, a high net weight. In addition, vibrations from the pipeline can affect this connection so that this thread is often damaged or destroyed.» With the AS-Schneider Stabilized Connector, there is no such risk. The system therefore is much more secure. If necessary, AS-Schneider can also equip the connector with an isolation/block valve.

Between the stabilized connector and 5 valve manifold, a dielectric isolator kit is installed. This is a plastic gasket and bolt insulator to shield the measuring instrument from electrical voltage. «In order to protect the pipelines from corrosion, a mild electric current is present in the pipeline. This procedure is known as cathodic corrosion protection,» says Markus Häffner. However, if this current connects with the measuring instrument it would falsify the measurement results. Thus the insulation made of plastic: «The dielectric kit ensures that there is no metal to metal contact between the orifice fitting and the measuring instrument», explains Häffner.

Reliably tight up to 6,092 psi (420 bar)

On the 5 valve manifold, two shut-off valves ensure a reliable primary shut-off if the measuring instrument has to be dismantled and serviced. The valves are available with different sealing materials such as the plastic PTFE and withstand temperatures from -67°F (-55°C) to 450°F (232°C) and a pressure up to 6,092 psi (420 bar) depending on the version. In addition, the 5 valve manifold has a venting valve, over which the static pressure in with closed primary shut-off can escape in a controlled manner as well as two equalizer valves. «Using this, the operator can calibrate the measuring instrument for the differential pressure measurement without having to dismantle it, Häffner explains. If the valves are open, the pressure difference between the two outputs of the 5 valve manifold on which the measuring instrument is connected equals zero. If the measuring gauge displays a value other than zero in this state, it must be re-adjusted.

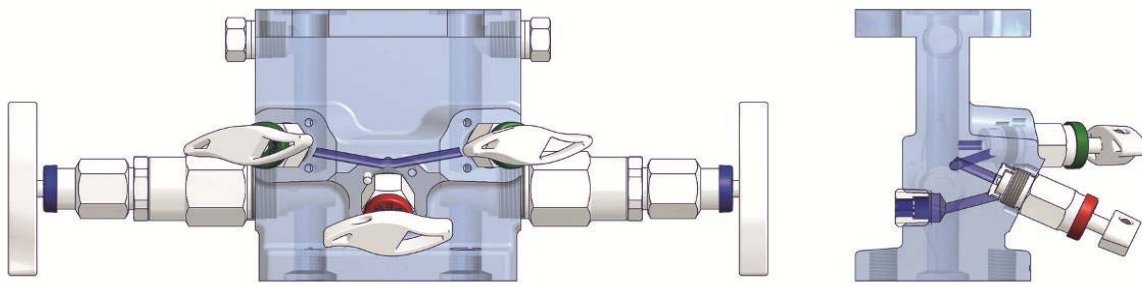
The «Schneider DirectMount Systems» has a continuous inner diameter of 3 / 8" (9.5 millimetres), as recommended in the PCRC study. In addition, the distance between orifice and measuring instrument is less than 30 which is also an important recommendation for accurate measurement. The robust design of the stabilized connector ensures high stability and makes the «Schneider DirectMount Systems» insensitive to vibrations. The user can forego additional lines or valves and thus gets a compact, easy-to-use and robust installation - which is also easy, fast and cost-effective to install. Because AS-Schneider provides the «Schneider DirectMount Systems» Stabilized Connector with integral isolation/block valve pre-assembled, pretested and ready for installation.

More accurate measurement saves costs and avoids lost and unaccounted for gas

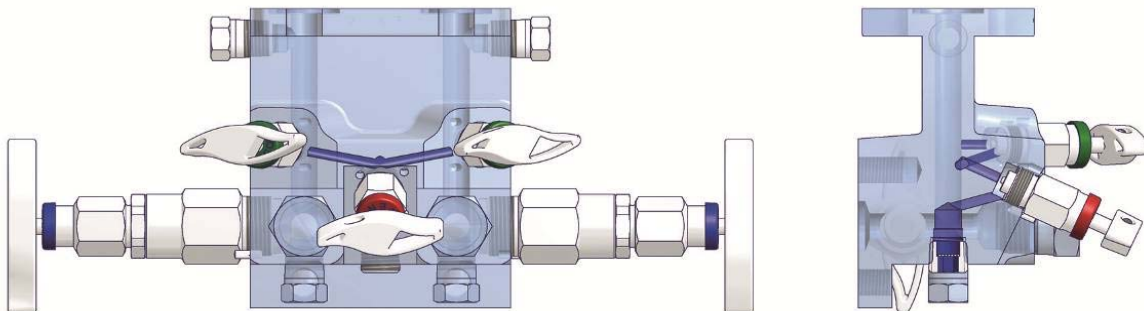
«With the «Schneider DirectMount Systems», we can reduce a significant amount of the pulsations in the differential pressure lines», says Markus Häffner. «Flow measurement is thus much more accurate and less error-prone.» Much to the delight of the users. «Based on the more accurate measurement, you now have fewer errors in the billing. This not only reduces much “lost and unaccounted for gas”, but also saves substantial costs.» Due to its robust construction, the «Schneider DirectMount Systems» is also extremely durable and resistant to malfunctions - even under the often harsh conditions to which it is exposed in the gas pipelines. «This is definitely noticeable with the service and maintenance costs,» says Häffner.



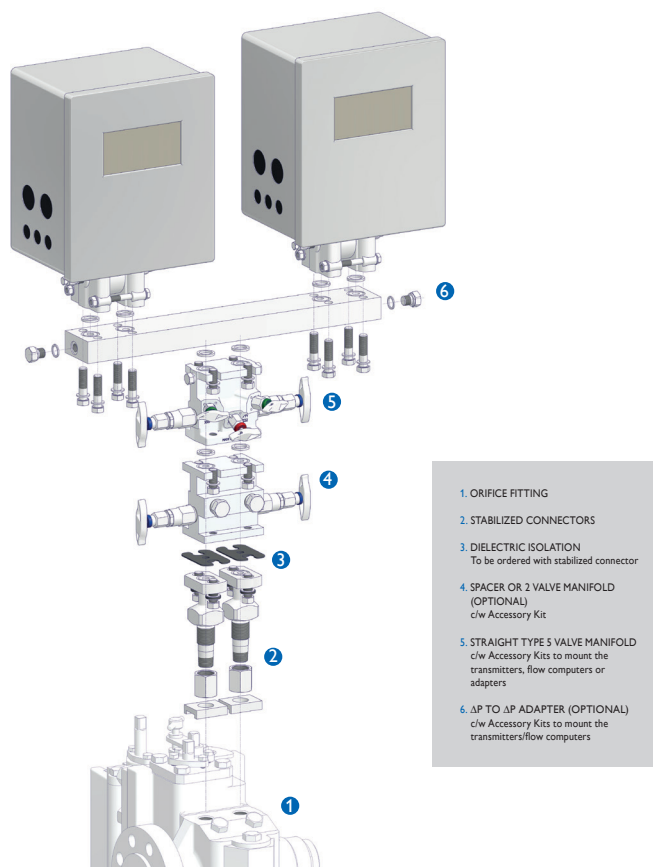
Picture 1: «Schneider DirectMount Systems» - More accurate measurement saves costs and lost and unaccounted for gas.



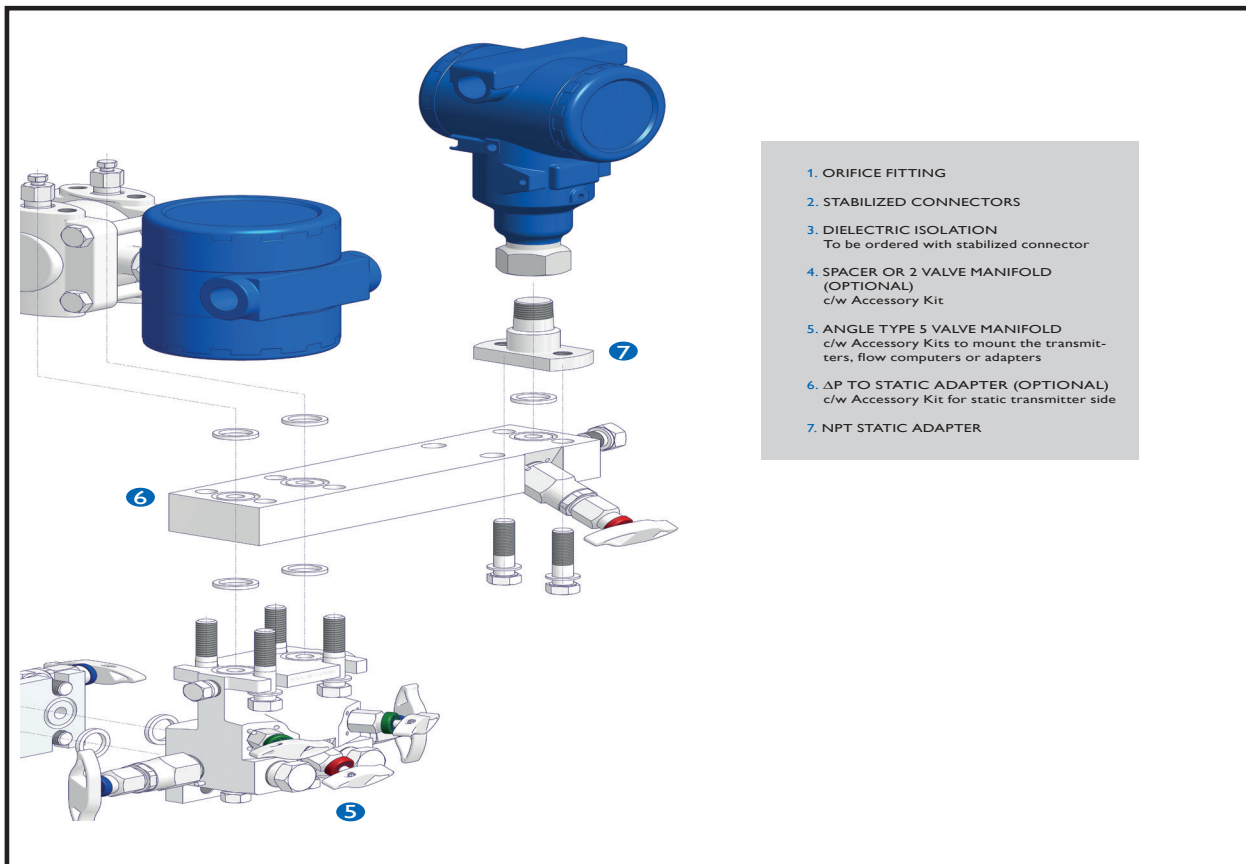
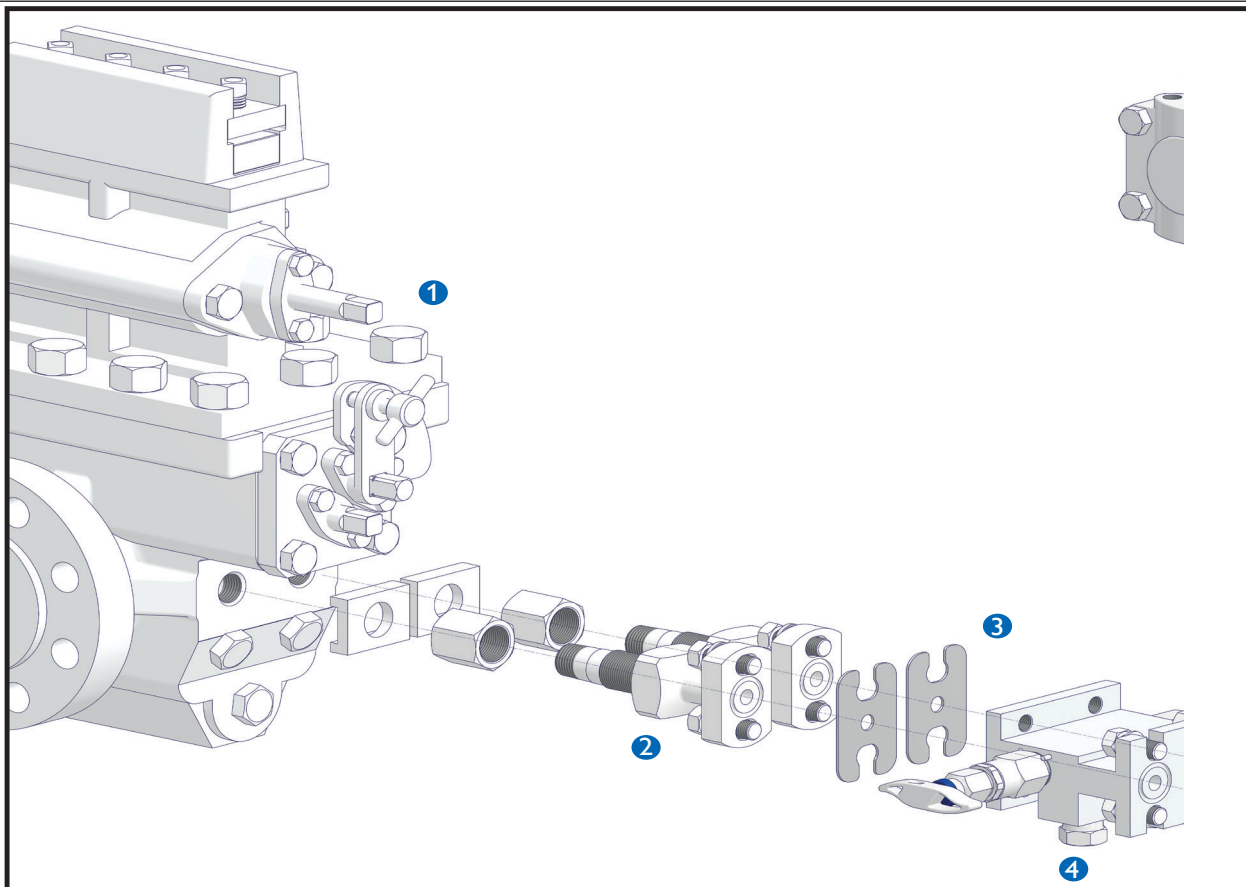
Picture 2: Flow pattern of straight type 5 valve manifold - Reduce freezing issues: Flow paths machined to self-drain condensates and liquid accumulation.



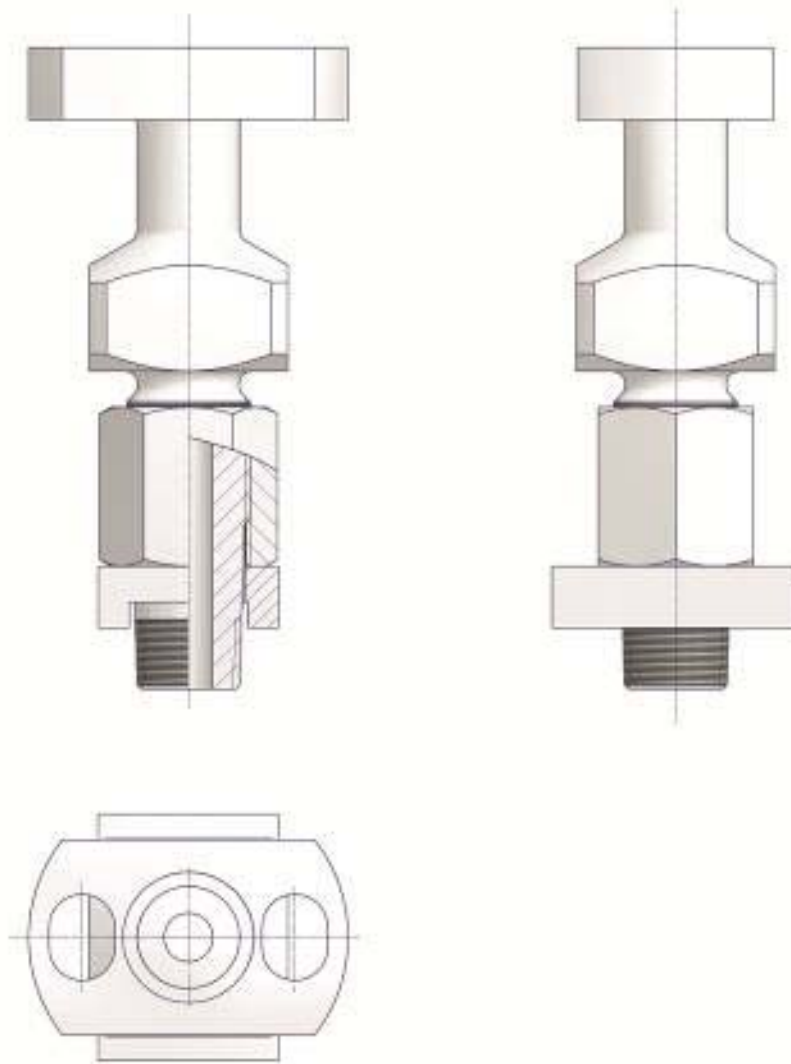
Picture 2 a, b: Flow pattern of angle type 5 valve manifold.



Picture 3: Vertical installation - Exploded view.



Picture 4: Horizontal installation - Exploded view.



Picture 5: Long type stabilized connector (Patent Pending) - The robust design of the stabilized connector ensures high stability and makes the «Schneider DirectMount Systems» insensitive to vibrations.

Pictures by: Armaturenfabrik Franz Schneider GmbH + Co. KG

About AS-Schneider

The family-run company, AS-Schneider, was founded in 1875 and with over 350 employees, is one of the leading manufacturers of Instrumentation Valves and Manifolds worldwide. In the market segment for Large-Bore Diesel Engine Valves such as those used in marine propulsion and the generation of electricity, AS-Schneider is even the world market leader. With our own subsidiaries in Romania, Singapore, Dubai (UAE) and Houston (USA) and professional partners in more than 20 countries worldwide, we are located everywhere our customers need us.

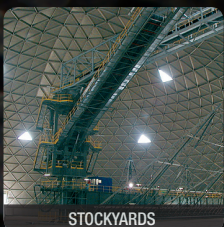
Cement granules magnified x100.
© Claudius Peters

Cement Technik

We make it our business
to understand the detail.



CLAUDIUS PETERS



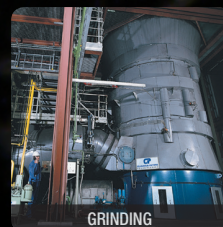
STOCKYARDS



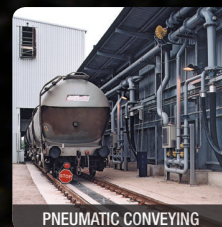
MIXING SILOS



COOLERS



GRINDING



PNEUMATIC CONVEYING



PACKING

We know how

claudiuspeters.com

CALCINING / COOLING / DISPATCH / DOSING / DRY BLENDING / DRYING / GRINDING / PACKING / PNEUMATIC CONVEYING /
PULVERIZED FUEL SUPPLY / SILO SYSTEMS / STOCKYARD SYSTEMS / ALUMINA HANDLING SYSTEMS / TURNKEY PROJECTS

HEADQUARTERS: CLAUDIUS PETERS PROJECTS GmbH
Schanzenstraße 40, DE-21614 Buxtehude, Germany. Tel: +49 (0) 4161 706 0



A Langley Holdings Company

Claudius Peters Technologies SAS – Ilzach / Claudius Peters (Americas) Inc. – Dallas / Claudius Peters (China) Ltd. – Beijing & Hong Kong / Claudius Peters (UK) Ltd. – London / Claudius Peters (Italiana) S.r.l. – Bergamo
Claudius Peters (Iberica) S.A. – Madrid / Claudius Peters România S.R.L. – Sibiu / Claudius Peters (do Brasil) Ltda. – São Paulo / Claudius Peters (India) Pvt. Ltd. – Mumbai / Claudius Peters (Asia Pacific) Pte. Ltd. – Singapore

Primasonics
Primasonics

Eliminate Material Side Wall Build-up and Bridging with a ‘Sound Solution’

Primasonics® Acoustic Cleaners are widely employed wherever ash, dust and powders are generated, processed, stored or transported. This range of acoustic cleaners has been of tremendous benefit in both preventing material hang-up and ensuring maximum, continuous material flow in silos and hoppers. Indeed some of Primasonics most challenging but successful applications were within silos which contained dry materials such as cement, chemicals, carbon black gypsum and food. Primasonics have solved silo storage problems in over 50 countries worldwide. The two main problem areas within hoppers and silos are:-

- Ratholing – where the material builds up on the sidewalls causing severely reduced “funnel flow”, which also restricts the silo being used to its full storage capacity.
- Bridging – where the material bridges over the outlet area either severely restricting flow or stopping it completely.

Irrespective as to whether the bulk material storage facility is under 500 kg or over 30,000 kg capacity **Primasonics® Audiosonic™ Acoustic Cleaners** have eliminated both of these problems. Typical examples range from small 20 tonne capacity internal pre-packing hoppers right up to 30,000 tonne capacity cement silos. Where the problem is ratholing with the material building up on the sidewalls, a low frequency, larger **Primasonics® Acoustic Cleaner** model such as the PAS-60 or PAS-75 is mounted on top of each silo to prevent material wall and thus ensure that the full capacity of the silo is utilised. These units can be located at any position on top of the silo, as sound

waves travel at over 344 metres per second and in a 360° radius. Generally speaking they are mounted on top of an existing inspection hatch, thus installation is simple and inexpensive.

A typical example is shown in Photograph 1.

Moving on to silo and hopper discharge, in such applications one of the smaller **Primasonics® Audiosonic™ Acoustic Cleaners** model such as the PAS-350 or PAS-420 with higher frequencies is employed. The higher the frequency the shorter the wavelength and so all the acoustic power created by the Wave Generator is concentrated over a much shorter range – say between 1 and 5 m. Therefore a higher frequency **Primasonics® Audiosonic™ Acoustic Cleaner** mounted just above the discharge will prevent material bridging and ensure even maximum material flow. A typical example is shown in Photograph 2.

It is important to note and understand several main advantages that Acoustic Cleaners have over alternative methods, which may have been tried in the past to try and aid material flow. Primasonics Acoustic Cleaners operate at frequencies very much higher than the resonance frequency of steel, ceramic lining, concrete etc. Therefore Primasonics Acoustic Cleaners are guaranteed not to cause vibrational damage to any vessel or structure. This is quite unlike vibrators, which by their very nature and method of installation, cause vibration and stress weaknesses within the vessel or structure to which they are attached. The vibration resonances first have to pass through the vessel wall before reaching the material. With the Acoustic Cleaner, the higher frequencies are directly absorbed into material giving 100% efficiency.

Air cannons/blasters seek to affect a very localised cure for a blockage problem, which has already occurred. In many cases the air cannon simply “blows” a localised hole through the blockage, necessitating the installation of many air cannons within the general problem area. It is generally true to say that one very rarely finds a single air cannon in effective operation. This is totally the opposite with Primasonics Acoustic Cleaners where a single Acoustic Cleaner can replace multi air cannons; however we then approach the problem with a totally different philosophy - by preventing the build up from occurring in the first place.

So in simple terms how do Primasonics® Acoustic Cleaners Work?

Acoustic cleaners are extremely simple in their operation, requiring only normal plant compressed air for their initial energy source. Compressed air enters the Wave Generator and forces the only moving part, the ultra high-grade titanium diaphragm to oscillate very rapidly within its specially designed housing. These rapid oscillations create the base tone and the various different bell sections convert, amplify and distribute this base tone into a range of different key fundamental frequencies. Primasonics have selected seven such key fundamental frequencies for their Audiosonic Acoustic Cleaner range from 60 Hz to 420 Hz. The acoustic cleaners only require activating for a few seconds at periodical intervals. The Prima Range of Acoustic Cleaners is shown in Photograph 3.

Primasonics® Audiosonic™ Acoustic Cleaners are aiding material flow from hoppers and silos in such diverse industries as Cement, Gypsum, Flour, MDF Wood Products, Ceramics, Chemicals, Carbon Black, Petrochemicals and Power Plant. They are also employed in a range of ancillary plant such as filters, cyclones, fans, ductwork, SCR’s, ESPs and steam/ power generation plants.

www.primasonics.com and www.quattrosonics.com



PHOTO 1



PHOTO 2



PHOTO 3

INCREASED USE OF CEMENTITIOUS MATERIALS IN THE ARABIAN CONSTRUCTION MARKETS

The construction markets in Arab countries have started to follow the market trends in Europe and the US to use more cementitious materials in ready mixed concrete to improve its durability and workability. This does cause logistical challenges as these materials generally are not produced in the Arab markets and have to be imported.

Cementitious products added in ready-mixed concrete, precast or cement will give improved characteristics to the end product, responding to specific requirements in construction projects. They also improve production efficiency and, when used in cement, increase production output.

Lower hydration heat will reduce the risk of cracking, especially important in hot climates and/or for large pours.

Concretes containing cementitious products achieve better durability through higher long term strength and better resistance against aggressive media (e.g. sea water, sulfates).



Amorphous fly ash increases workability through better fluidity. Wherever pumping is required, it will reduce abrasion and energy cost. It also has a self levelling impact on wet concrete. Producing smooth and fine concrete surfaces, fly ash and GGBFS are highly appreciated by architects whenever esthetics are important. Last not least, replacing CO₂ emission-intensive clinker or OPC by CO₂ neutral cementitious products significantly reduces the carbon footprint.



- **Cementitious products for better concrete performance**
- **End-to-end supply chain solutions ensuring reliable supply**
- **Continuous quality control and management on both ends**
- **Professional application support**

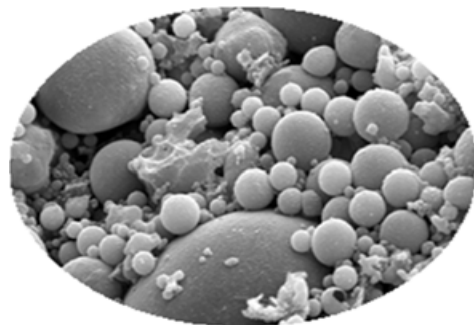
- Cementitious products for better concrete performance
- End-to-end supply chain solutions ensuring reliable supply
- Continuous quality control and management on both ends
- Professional application support

During the past years, fly ash and GGBFS have become standard ingredients for ready-mixed concrete or blended cements (SPC) in most developed industrial markets, allowing a wider range of customized product solutions while reducing the usage of standard OPC. The average addition rate for Europe in concrete is 50 kg per cbm and 70 kg in the US even though blended cements already have a higher market share than OPC.

Hawar Power Minerals provides cementitious product solutions to clients in the Middle East and the Indian Ocean rim with a strong focus on the growing construction materials sector. Unlike a common trading company, it focuses on long term and lasting relationships, linking sources and clients by investing in logistic chains that guarantee efficient and reliable supply. Product quality is monitored and managed along the entire supply chain in close cooperation with sources and clients. Our growing portfolio currently consists of fly ash from coal-fired power stations, ground granulated blast furnace slag (GGBFS) from steel plants as well as silica fumes and other minerals for industrial applications.



Hawar Power Minerals is a Qatar based JV between a local business holding and the German Steag Power Minerals, European market leader for by-products from coal-fired **power plants** with a sales volume of some 4 million tonnes. Hawar Power Minerals products comply with both ASTM and European standards and are subject to ongoing quality monitoring and control.



Hawar
Hawar
Hawar

Weatherproof and durable – the new HAVER ADAMS®

HAVER ADAMS® fills powder-type building materials and minerals with challenging flow properties into tight, water-resistant PE bags

It all started with a customer's request to pack his cement into tight, water-resistant PE bags – a challenge that HAVER & BOECKER, specialist for packaging and processing technology, was more than happy to accept. The result is a form-fill-seal system named HAVER ADAMS®. Since its market introduction, the FFS packaging system has been continuously optimized to enter an array of new application areas. While the system initially only packed powder-type products, micro-granulates and powders into PE bags, the new generation is also able to gently fill products with challenging flow properties. Almost 60 systems have already been installed in different branches all over the globe. The new HAVER ADAMS® is set to make its mark in the building materials and minerals industry.

Who would have imagined some years ago that cement and other powder-type construction materials could be filled into compact and weatherproof polyethylene bags in an environment-friendly process? Almost ten years ago, HAVER & BOECKER, headquartered in Oelde/Germany, took the initiative in cooperation with a bag manufacturer. The result is called HAVER ADAMS®: a form-fill-seal (FFS) packaging system that fills powder products into PE tubular film bags. At first, the industry was skeptical about the development. The machine not only implemented an unusual bag concept, it took the idea to the next level by changing the entire filling process to FFS technology. The HAVER ADAMS® set out to conquer other sectors. Today, the filling system also achieves peak performance for customers in the building materials and minerals industry.

The fine art of bagging

FFS packaging systems are used for filling and packaging bulk material into bags. The bag is formed inside the filling machine, which obtains the continuous PE tubular film from a reel. The product is then transported into the bag via specifically adapted dosing and weighing systems, while the bag is formed and sealed in the packaging unit.

Packaging granulated and grainy products with FFS machines has been part of daily production routines for a long time. But ultrafine products face completely different challenges: "They have a very high dust content. At the same time, compaction is the most important prerequisite for clean and efficiently bagged products," explains Burkhard Reploh, head of the building materials and minerals division at HAVER & BOECKER. To ventilate granular products in PE bags, the foil is normally needled or micro-perforated. "This is not possible for powder products, because they can even leak through micro-perforated foil. Subsequently, the long storage time required for hygroscopic construction material cannot be ensured," says Reploh.

Powder products like cement, on the other hand, have a packing factor of up to 1.6; the volume must be reduced by 60 percent before the bag is sealed. If this is not the case, the bag might be damaged during transportation. Apart from insufficient outdoor storage possibilities, the unacceptable damages that occur during filling and transportation were the main reasons for the industry to start looking for alternatives.

Based on these requirements, HAVER & BOECKER teamed up with cooperation partners and developed a new bagging and filling concept. The PE bags are now not only clean, tightly closed and weatherproof; their compact size also facilitates space-saving transportation and storage. Reduced material loss is equally easy on environment and budget. The PE bags also offer several advantages for marketing activities: they allow for multi-color full-surface printing, for instance with photorealistic images, product information or barcodes.

FFS technology re-interpreted

The first HAVER ADAMS® was an intermittent, rotating packer with eight filling spouts and a performance of 1,000 to 1,200 bags per hour, depending on product fineness. "A list with all challenges formed the basis of our development work. We solved one item at a time, scientifically validated each point, and ended up

with a compact machine,” Burkhard Reploh explains. Different versions derived from this machine have established an entire product family, whose output begins at 200 bags per hour for stationary units and goes all the way up to 1,200 bags per hour for rotating machines.

When manufacturers started demanding even higher output and speed, HAVER & BOECKER sounded the bell for the next level of development. The objective was to achieve filling performances of minimum 2,000 bags per hour for bag weights of 5 to 50 kilograms, making the machine attractive for mass-oriented markets and companies. Up to this point, the multi-spout machine had operated in intermittent mode. The new continuous operation was able to increase performance from 1,200 to more than 2,000 bags per hour.

Based on components from the rotating packaging machine HAVER ROTO-PACKER®, the engineers developed a new filling module with gross weighing for shorter filling times. The bag handling modules that place and remove the PE bags on the new filling spouts are also new. The rotating modules have two gripper units each, which ensure highly accurate transfer.

Air or turbine units can be used as filling modules. The combined control and weighing electronics MEC®, an in-house development by HAVER & BOECKER, provides for exact filling quantities; internal and external vibrating units ensure the required product compaction. Thanks to micro-vibration, the air bubbles inside the product automatically move to the top. The main advantage of this mechanical procedure is its very high availability. In contrast to vacuum systems, micro-vibration does not suck off any fine particles. The filled bags are safely sealed in low-maintenance pulse welding stations and then transported to the bag forming section. If required, a head seam cleaning and cooling system can easily be integrated.

The modular configuration of the HAVER ADAMS® makes it possible to use between one and twelve filling spouts. This significantly increases the circle of applications. All products that are filled in valve bags and have a minimum bulk density can now also be filled in PE bags.

Service has top priority

Apart from high performance, ease of operation and noise protection range amongst the key features of modern filling systems. The complete enclosure of the HAVER ADAMS® keeps noise development at a low level, leading to high noise insulation as well as significantly reducing dust. Thanks to the HAVER Service Pad (HSP), remote support is accessible at the push of a button. The system, consisting of a touchpad

and integrated camera and software, enables operators, service technicians and specialist workers to directly communicate via a high-speed internet connection. The result: short reaction times and higher machine availability.

At present, almost 60 HAVER ADAMS® machines from HAVER & BOECKER are used all over the world. Just recently, a HAVER ADAMS® was sold to a titanium dioxide filling plant. The filling system offers optimum product protection and extended storage times, even in case of adverse weather conditions. The machine delivers resilient packaging and a clean logistics chain in all fields of application. With its compact dimensions, the HAVER ADAMS® is suited for all production environments. For the building materials and minerals industry this means: an entirely new, yet well-tried process FFS filling of powder-type products and products with challenging flow properties into PE bags.

Contact

Robert Brüggemann
HAVER & BOECKER
Product Manager
Tel: 02522 30664
Email: r.brueggemann@haverboecker.com

Images and captions

Robert Brüggemann, Product Manager, HAVER &



BOECKER

The HAVER ADAMS® packaging machine achieves

Packaging



performances of up to 2,000 bags per hour. After having been formed, filled and sealed 2,000



compact, tight and water-resistant bags per hour leave the packaging unit.

They shrug off bad weather: PE bags for powder-type bulk material and products with challenging flow



properties.

Operators, service technicians and specialist workers can directly communicate via a high-speed internet connection.



About HAVER & BOECKER

HAVER & BOECKER is a traditional - conscious, family-run, mid-sized company with headquarters in Oelde, Westphalia, Germany. Under the umbrella of HAVER & BOECKER OHG, one finds the Wire Weaving and Machinery Divisions. Together with over 50 subsidiary companies on all five continents, they make up the HAVER Group which has more than 2,550 employees and 150 representatives. In 2012 the HAVER Group posted a sales turnover of 402 million euros.

The Wire Weaving Division produces woven wire mesh and processes it into engineered woven wire products. They are used for screening and filtration by the chemical, plastics, automotive, aviation, aerospace, electronics, foodstuffs and feed industries, as well as for architectural applications and analysis sieves.

The Machinery Division specializes in packing and weighing technology. It develops, produces and markets systems and plants for filling and processing loose, bulk materials of every type. The product range includes packing and loading systems for powder-type and granulated materials, packing machines for filling food and animal feed, as well as filling stations and complete filling lines for liquid and pasty products. The product range is supplemented by screening machines, machines for washing, pelletizing plates, agitators, mixers, palletizing and loading systems, silos, ship loading and unloading equipment.

High-efficiency filtration from TTL France and the Testori Group

Dust removal is a very important subject in the cement industry as it covers both the production process and environmental issues. Nowadays, the legislation in different countries is becoming more strict and fixing lower emission limits especially for the fine dust, the PM10, responsible for very serious atmosphere pollution problems. As a consequence, the market needs are for more performing filter media both in process and environmental uses. The filtration media is confectioned by TTL into the form of bags, sleeves and pockets, specially designed for every individual filter type.

TTL France therefore (part of the Testori Group) has developed a range of needle felts for filtration, some of them made of ultra-fine fibers (microfibers). In the frame of new developments for low temperature filtration, DURAtes polyester microfiber media were launched. DURAtes is particularly suited to:

- Processes dealing with very fine dust and very low emission limits (cement, steel foundries, food and wood industries)
- Ease of cleaning, that keeps Δp values low with consequent energy savings.



We have demonstrated that T 607 SA DURAtes is an excellent solution for decreasing the total dust concentration at the filter outlet and the risk of clogging, leaving the bag with a lower residual pressure drop. As a consequence, DURAtes allows the customer to save on the energy required to activate the pulse-jet cleaning system.

Filtration Solutions from TTL in the Cement Industry

TTL offers adapted solutions taken from its wide range of filter media, designed to meet the specific dimensional and process requirements.



FILTERS

TTL France specifies the most appropriate filtering media for each step of the production process, aiming at the highest possible performance and the longest durability. For example:

| POLYMER FIBRE | EXAMPLES OF TTL MEDIA | CEMENT PRODUCTION STEP |
|---|--|---|
| Polyester – PES (or Greenfelt™ version) | T 552 SA or KL T 555 SA T 652 SA or KL TW (antistatic) T 607 SA DURAtes T 452 Novates | <ul style="list-style-type: none"> ▪ Crushing Mill ▪ Belt Conveyor ▪ Homogenization ▪ Additives Silos ▪ Clinker Cooler ▪ Cement Mill ▪ Coal or Coke Mill ▪ Packing and Shipping |
| Acrylic - PAN | DT 550 SA or KL DX 600 SA D 550 Novates | <ul style="list-style-type: none"> ▪ Raw Mill ▪ Cement Kiln (at low temp.) |
| Poliimide - P84® | X 544 RH X 547 MT | <ul style="list-style-type: none"> ▪ Cement Kiln (at high temp.) ▪ Clinker Cooler |
| Glass Fabric | G 745 KTX | <ul style="list-style-type: none"> ▪ Cement Kiln (at high temp.) |
| Aramidic | X 501 SA | <ul style="list-style-type: none"> ▪ Clinker Cooler |
| Endurafelt™ | X 559 RH | <ul style="list-style-type: none"> ▪ Clinker Cooler |

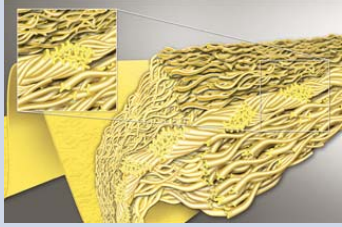

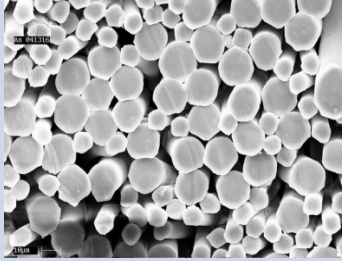



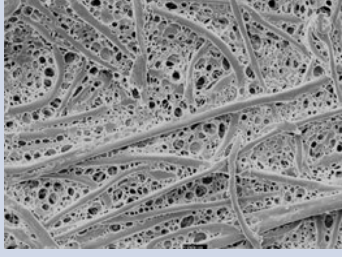
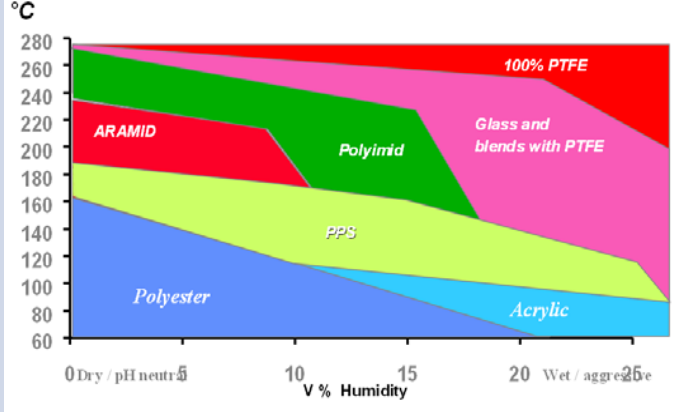
Special felts and finishing treatments for the Cement Industry

Endurafelt™ fibre blend was designed to create an optimal balance between high resistance to corrosion and good mechanical properties (tensile strength) for long life. In operation, Endurafelt™ retains more of its strength than standard aramid felt.

To face new challenges of sustainability and environmentally friendly products, Testori has developed a new line of green products. In the gas filtration market **GreenFelt™** combines the satisfaction of the mechanical and emission performance with a lower contribution to global warming: the batt is 100% made out of regenerated polyester fibres, coming from the recycling process of PET bottles.

In addition to standard glazing and singeing treatments, Testori provides several special treatments. Testori's **Novates** is a urethane based, partially embedded surface treatment typically applied to polyester and homopolymer acrylic needle felts. What distinguishes Novates from other surface treatments is its application: by partially embedding the emulsion during treatment, Novates retains a portion of the fibrous layer of a needled felt while adding the higher separation structure of the cellular urethane.

Furthermore Testori, thanks to the collaboration with important field tester plants, has been developing a series of **customised blends** that can better perform in specific process conditions, always aiming at respecting stringent emission and efficiency requirements as energy consumption issues, at a competitive price.

| SPECIAL TESTORI PRODUCTS | CASE HISTORY | BENEFIT | |
|---|--|--|---|
| <p>POLYIMIDE MICROFIBER (P84®)</p> |  | <p>DX 600 KL bags on a cement mill filter previously equipped with standard 600 g/m² acrylic fiber.</p> <p>X 547 RH bags on a cement mill & kiln filter previously equipped with standard denier P84®</p> | <p>Higher filtration efficiency and lower pressure drop were experienced</p> <p>Increased bag life and reduced risk of clogging</p> |
|  |  | <p>T 607 SA DURates bags on coke mill at a cement plant in Italy</p> | <p>Compared to previous set of bags, higher efficiency and lower pressure drop were experienced</p> |
| <p>ENDURAFELT™</p> |  | <p>X 559 RH bags installed on a ceramic kiln filter, previously equipped with aramid-fiber filter bags.</p> | <p>Chemical resistance to hydrolysis more than doubled.</p> |
|  |  | <p>Various cement end users have switched to GreenFelt in different steps where standard polyester is commonly used</p> | <p>CO₂ emission saving, green-procurement</p> |
| <p>NOVATES</p> |  | <p>D 550 Novates bags installed on a raw mill where both hydrolysis and efficiency issues occurred</p> | <p>Compared to membrane Novates shows higher resistance to abrasion and avoids the risk of delamination</p> |
| <p>SPECIAL FIBER BLENDS</p> |  | <p>Testori works on customized solutions to match with special technical requirements with an eye of regard to the competitiveness on the market</p> | |

FILTERS

TTL France and the Testori Group.

TTL France is part of the Testori Group, which has been operating for over 100 years in the technical textiles field, specifically applied to industrial filtration for both production processes and environmental protection installations. Our core business is in the design, production and marketing of textile items (fabrics, cloths, felts, bags etc) and products for gas and liquid filtration.

In the past few years Testori Group has broadened its boundaries reaching the Middle Eastern (Abu Dhabi, UAE) and the North American (Cincinnati, OH, USA) markets, where it has inaugurated productive sites and warehouses to better satisfy the need of European-quality fabrics in industrial filtration.

TTL's offering fully meets the needs of all customers: designers/plant constructors (OEMs), bags/cloths manufacturers, end users. Testori's vertically integrated manufacturing operations allow us to cover the entire value chain, from processing the raw materials (fibre and yarn) through to the production of finished items and offers an additional post sales assistance service (mounting, maintenance, scientific consultancy).

TTL offers its know-how and resources for installation, maintenance, inspections, leakage tests and troubleshooting.

TTL France: technical expertise and solutions provision

TTL France, a subsidiary of the Testori Group since 1999, is based in Mulhouse, France, Alsace.

TTL France is directly responsible for the African market. Its internal confectioning department allows TTL to be very versatile and customer focused in its market approach.

TTL France specialises in the confection of customer specific filtration solutions, for both gas and liquid applications. TTL offers technical expertise, service and guidance, combined with maintenance and installation provision. TTL's on-site installation and analysis capability can be summarised as follows:

- Installation of filtration bags and pockets for all types of filters
- Leakage test with fluorescent powders
- Installation inspections and audits
- Expert assessment and media analysis
- Spare parts provision
- Maintenance assistance
- On site media regeneration

To optimize the selection of filtration media and performance in application, TTL conducts regular analysis on used filter bags.

The tests conducted by the TTL laboratory include the following:

| | |
|--|--|
| • Fiber type identification | • Permeability and efficiency test (VDI) |
| • Dynamometric test to evaluate mechanical properties | • Antistatic properties measurement |
| • Chemical tests to verify process conditions and the dust type | • Environmental emissions measurement (with electrodynamic probe) |
| • Granulometric test | • Optical and electronic microscopy tests |
| • Porometric test | • Leakage test with fluorescent powder |



MORE THAN JUST A CONVENTIONAL CONDITION MONITORING SYSTEM - HOW TO IMPROVE THE LIFECYCLE OF VRM

Dr. Franz Muschaweck MD,
DALOG[®] Diagnosesysteme GmbH, Germany



Dr. Franz Muschaweck is Doctorate of Mechanical Engineering. He is the owner and CEO of DALOG[®] GmbH, Germany. He is a former worker of a big gearbox manufacturer in Germany. There he was responsible for Diagnosis Systems and Knowledge based Systems. In 1998 he founded the DALOG[®] Company. He has more than 30 years of experience in rotating equipment vibration diagnostics, reliability, trouble shooting, inspection and maintenance engineering and he has a Ph.D. in vibration diagnostics on gearboxes

ABSTRACT

Cement factories must be designed for reliable production over many years. Unplanned standstill periods lead to high production losses. Reliability, availability and automation are decisive factors affecting the profitability of vertical roller mills in cement plants. Milling and grinding is a stochastic process. The high degree of dynamic loading resulting from this process, such as impacts, shocks etc., have a major effect on bearing and gear wear and therefore on the plant operating lifetime. Many systems exist for monitoring these components. Conventional CMS (Condition Monitoring Systems) use acceleration sensors to monitor bearings and gears. This is good to get early information about the condition of bearings and gears. Real protection must start earlier. The aim must be to identify potentially damaging process influences and initial damage at an early stage to increase the Life-Cycle of the VRM. The DALOG[®] Company has developed a modern, powerful Mill Protection Concept D-MPC[®] on the basis of its know-how and experience which correlates the torque values with the process values. The control room will be informed about critical and unstable mill behavior way advanced before the mill usually trips on high vibration and the damaging stress can be reduced by counteractions immediately. Each event will be stored, and can be analyzed offline – the root cause of the high dynamic or shocks can be identified. This gives the customer the possibility to reduce and avoid critical situations and the possibility of streamlining of the operations. DALOG[®] is monitoring more than 200 VRMs and will present in some case studies the success of a Mill Protection Concept. Case studies from different installations will be shown in this paper.

INDEX TERMS

Condition Monitoring Systems, torque monitoring systems, gearbox failures, process monitoring

INTRODUCTION

The DALOG[®] Company is developing condition based monitoring systems and proactive monitoring systems for the cement industry, and is nowadays well known for Vertical Roller Mill and gearbox monitoring. Since every third VRM gearbox with more than 2000 KW was failing and 60% of the gearboxes failed more than once, many big cement producers e.g.: Holcim, Lafarge, Italcementi, Heidelberger and many more were seeking us for monitoring their VRM gearboxes. Nowadays the DALOG[®] Company is monitoring more than 200 VRM Gearboxes worldwide and due to the high knowledge inside the DALOG[®] Company more and more cement producers are seeking our help.

Of course very fast the question came up – why the Gearboxes are failing. It showed that most of the VRM Owners are not aware of the dynamic of their machine – nor that it can be improved. The vertical roller mills are designed for a specific target of production and material quality but not many operators are looking at the dynamic of the machine to reach the desired target. How much vibrating/shaking/impacting during “normal” operation is healthy? And how much is accepting during extra ordinary situations? The Dynamic of the machine is normally measured with conventional vibration sensors – comparison of these limits with different VRM manufactures is not possible since e.g. Loesche is measuring the vibration at the mill body, ThyssenKrupp Polysius and FLSmidth at the gearbox bottom, and vibration limits can get adjusted on case to case – so the VRM owner is left alone and looking only on the output of the mill and some desired vibration limits. And in many cases the price can be a breakdown of the Gearbox due to unstable / high dynamical operations.

Therefore the DALOG[®] Company has developed the D-MPC[®] - DALOG[®] **Mill Protection Concept**.

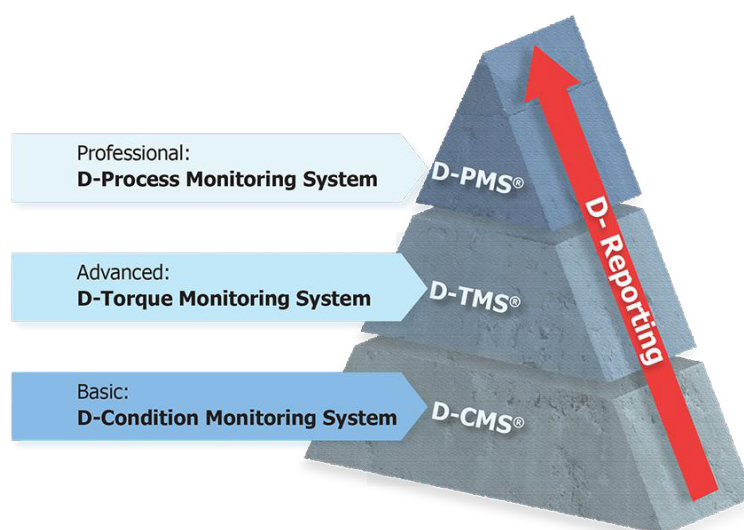
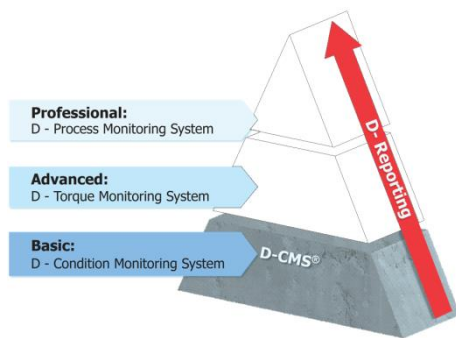


Fig. 1: D-MPC[®] – DALOG[®] Mill Protection Concept



The fundament of the D-MPC[®] is the D-CMS[®] DALOG[®] Condition Monitoring System

Coming back to the roots of the DALOG[®] Company - 20 years ago we started to equip the first Vertical Roller Mill Gearbox with the D-CMS: DALOG[®] Online Condition Monitoring System. Using acceleration, temperature, vibration and torque sensor to detect early changes in the condition of the gear box.

The DALOG[®] Condition Monitoring System is sending online and in real time alarms and warnings to our customers informing about developing bearing and gear failures to avoid unplanned stoppages and expensive secondary failures. With the DALOG[®] online monitoring system even bearing failures could be traced over 1 year until replacement was necessary. Profit from our experience and knowledge in gearbox monitoring and get an objective and independent analysis. We are monitoring gearboxes for vertical roller mills made by Siemens, FLSmidth, RENK, Philadelphia, Seisa, UBE, CQ, Nanjing, etc...

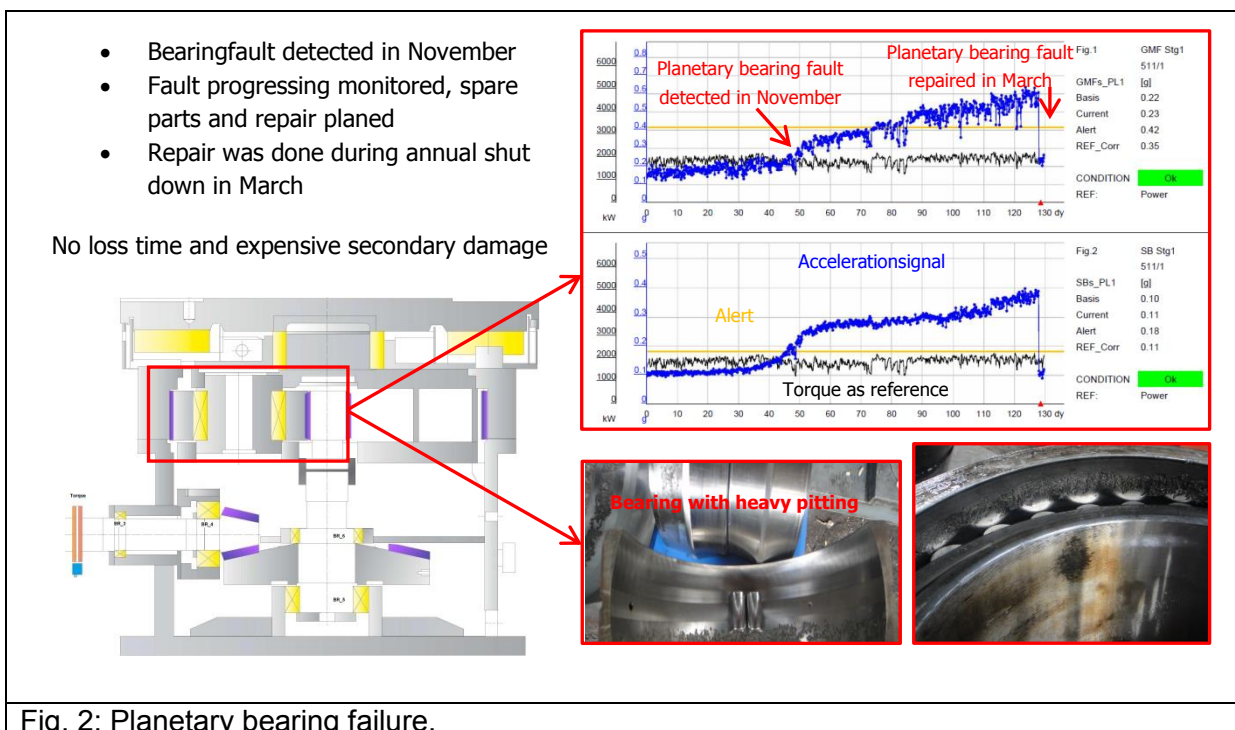


Fig. 2: Planetary bearing failure.

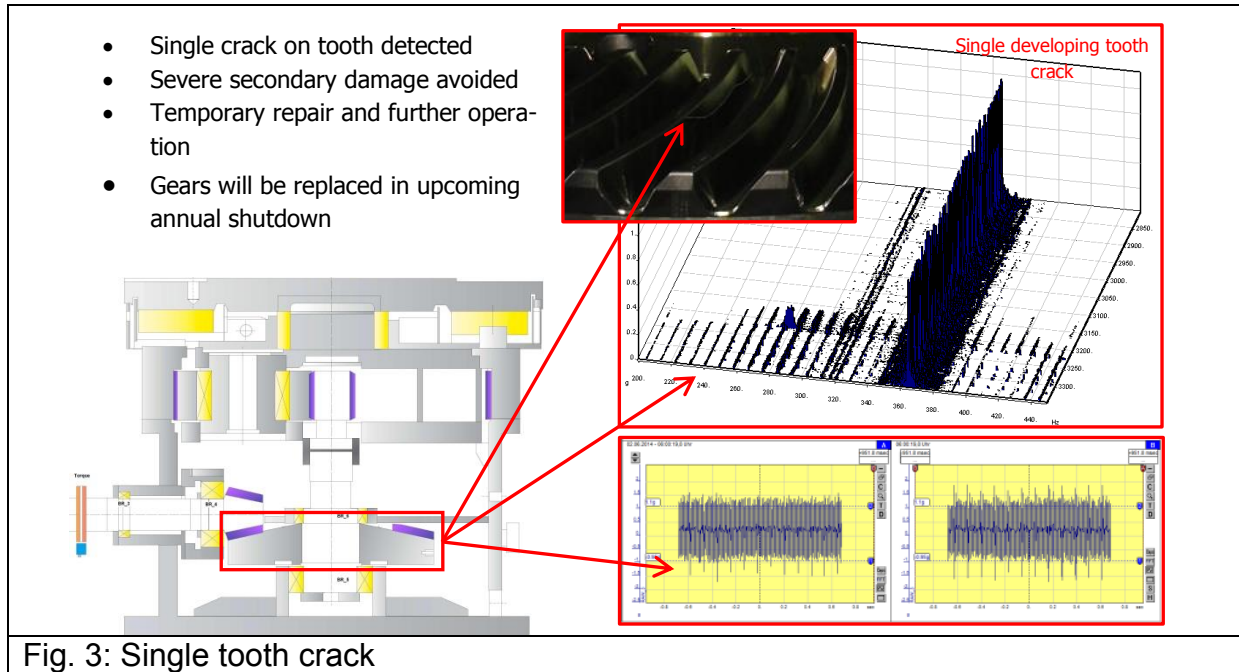
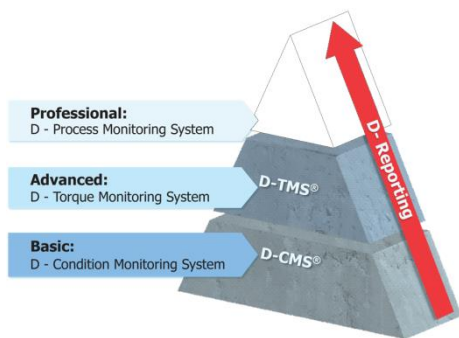


Fig. 3: Single tooth crack



At the end of the day gearbox faults should be minimized or even avoided. This can be achieved by understanding the dynamic of the machine and therefore working towards smoother operation. Let's have a closer look at the second part of the DALOG[®] – Mill protection System the D-TMS DALOG[®] Torque Monitoring System.

The DALOG[®] Company has developed a torque measurement equipment to exactly measure the dynamic of the machine and having a uniform system independent of size and produced material to classify the VRM in stable and unstable. The torque sensor can be installed without dismantling the gearbox – together with the DALOG[®] 650 online high speed sampling datalogger – the signal of the torque gets processed immediately (1000 times per second). The information measured and recorded by the torque sensor can be used to understand the machine behavior and in accordance with machine operator the process can be adjusted for a longer lifecycle of the equipment. But how does it work? The torque sensor is a strain gauge based measuring equipment which will be attached to the input shaft of the gearbox. The sensor is a so called direct measurement, since it is direct sitting on the rotating shaft, in comparison a vibration sensor is always attached to the body of the gearbox. Even faults of grinding tables and rollers as well as wear had been detected and analyzed by the torque sensor. Furthermore improper starting procedure had been detected which are harmful for the lifecycle of the gearbox – and of course also removed.



Fig. 4: DALOG[®] Torque Sensor

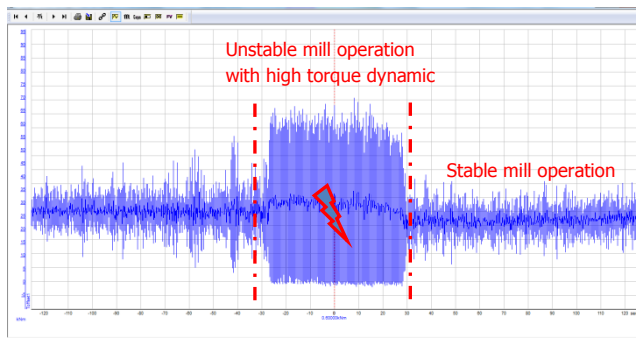


Fig. 5: DALOG® Torque Signal – Machine operation with high and low dynamic. Warnings and so called “torque alarms” about the stability of the operation can be sent to the operator.

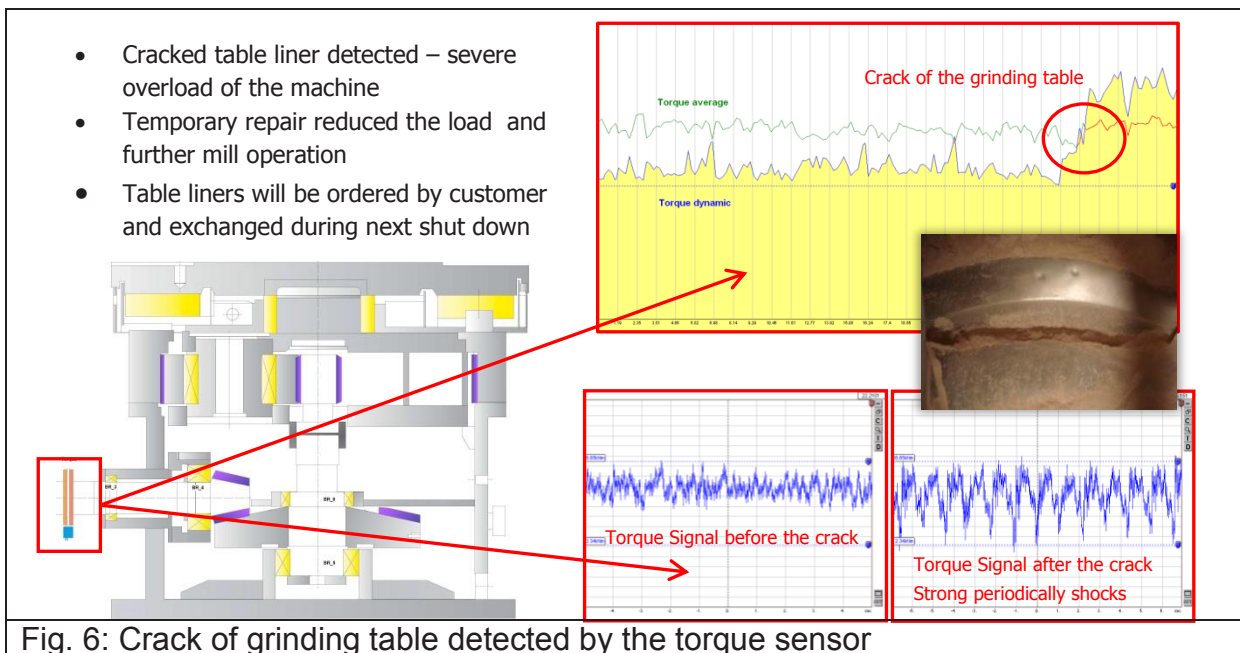
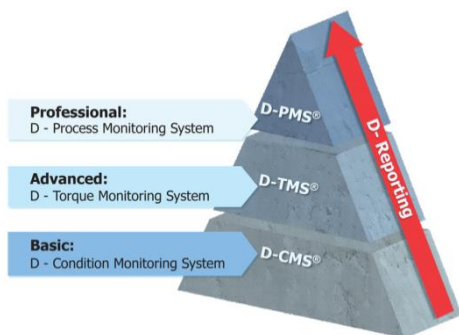


Fig. 6: Crack of grinding table detected by the torque sensor



Let’s start our third part of the D-MPC System with the Motto of the DALOG® Company:

“High Dynamic and Vibrations are Symptoms – find the root cause”

Being alarmed and informed about mill instabilities is good but not enough – since in most cases torque alarms / unstable mill operations are caused by the change in operation conditions. Therefore DALOG® has developed the D-PMS: DALOG – Process Monitoring System.

The monitoring of torque vibration is an important technique to understand the dynamic of the whole system meaning the gearbox/motor reacting on their operation. Critical operations can be diagnosed as well as overloading of the machine can be avoided. The DALOG® Process Monitoring System will also record at the same time the main operation parameters of

the machine e.g.: mill feed, inlet temperature, hydraulic pressure, water injection, etc.. to directly correlate critical process situations indicated by the torque sensor with the actual process parameters. Operation errors can also analyzed and machine operations streamlined - for a longer lifecycle of the machine.

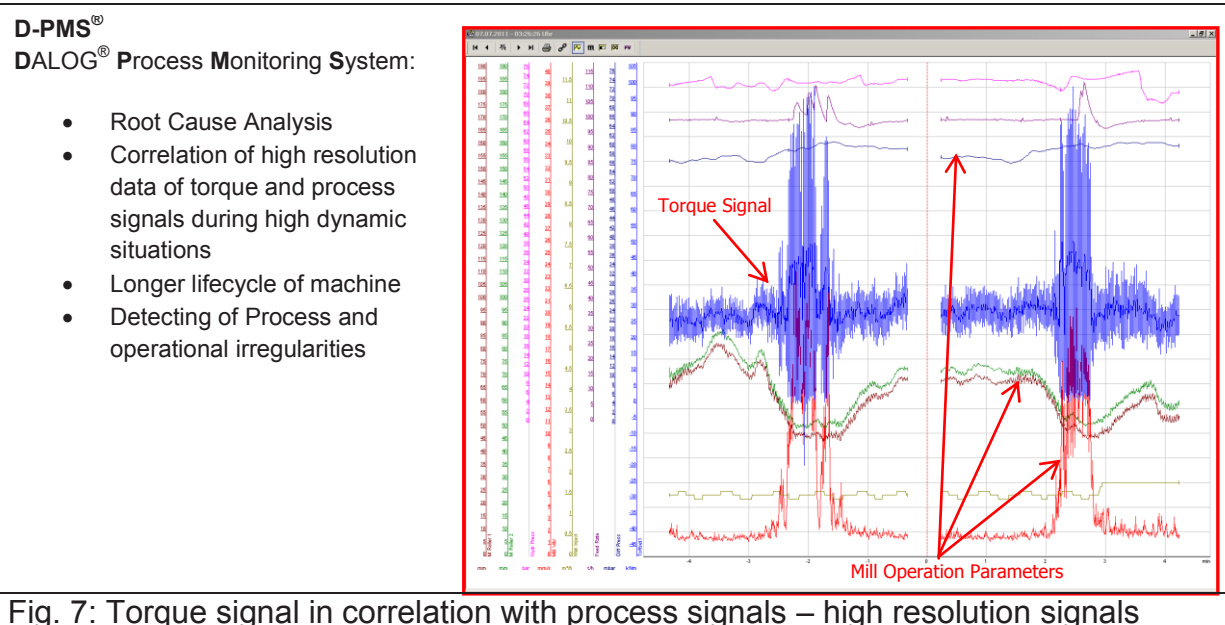


Fig. 7: Torque signal in correlation with process signals – high resolution signals

DALOG® Diagnosesysteme GmbH
 Muehlbachstrasse 21
 86356 Neusaess
 Germany

Tel.: +49 821 74 777 110
 www.dalog.net



CEMENT

► PROCESSING ► PERFORMANCE ► APPLICATION

INTERNATIONAL

A "must" for everyone involved with cement

TECHNICAL CEMENT KNOWLEDGE ON SUBSCRIPTION

Name/Company

Address

Postcode/City/Country

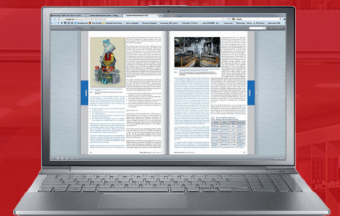
Telephone/Fax/eMail

Date, Signature

Yes, I would like to
subscribe to the
technical journal
CEMENT INTERNATIONAL

I will receive 6 issues at the special
annual subscription price of
270,00 € inland / 280,00 € abroad

E-Journal free for
subscribers



Guarantee confirmation: This order may be cancelled within 10 days in writing to the PressUp GmbH, Leserservice, P.O. Box 70 13 11, 22013 Hamburg. Sending the cancellation within this period will ensure compliance with the stated time limit

WWW.CEMENTINTERNATIONAL.COM

VERLAG  BAU+TECHNIK



LOESCHE ThermoProzess GmbH heading stronger into the future



The LOESCHE ThermoProzess building in Gelsenkirchen

Integration of Küppersbusch Wärmetechnik successfully finalised

Gelsenkirchen - Küppersbusch Wärmetechnik has been an integral element of LOESCHE ThermoProzess GmbH (LTP) since the complete takeover two years ago. By successfully integrating the traditional company, LOESCHE ThermoProzess GmbH has strengthened and consolidated its expertise and positioning as one of the leading enterprises for thermal process engineering and burners.

The innovative spirit of LOESCHE ThermoProzess and the high quality demands in the LOESCHE Group have ensured certification of its integrated quality and environmental management system by the TÜV South in line with ISO 9001 and ISO 14001.

The over 40 employees at the Gelsenkirchen site of LOESCHE ThermoProzess develop, design and construct industrial burners and fuel control lines as well as multiple lance burner systems (MLB) for lean gas combustion. Other LTP products are Monoblock-burners as well as nozzle burners and welding electrode dryer.

From the initial idea through to service on site at the customer across the entire product life cycle, LTP ensures reliable operation of production plants in diverse industries and fields of application. As a result, LTP products are typically at work throughout the world in iron and metal production and treatment, in foundries, in environmental technology as well as in

the glass industry. The LOESCHE Monobloc- burner series also serves the industrial hot water and steam boiler market, amongst other sectors.

Important application fields include applications in the cement industry as well as in the coal and minerals processing industry. The proven and efficient burner technology of LTP in the powerful and precisely controlled LOESCHE hot gas generators and other plants ensures the highly-pure hot gas flow required for drying the cement raw material and end product.

The company is managed by CEO Matthias Authenrieth, Michael Nisch as Head of Sales and Operations along with Dr. Christian Barczus as Head of Technology. The excellent customer response in the first business year, with a sales result that is around 50 % above that of the previous year, reveals the good product basis and positive reception by the market.

The LTP concept: «Realisation of customer-specific projects for the industrial burner market» is on the up.

CONTACT

LOESCHE ThermoProzess GmbH (LTP)

Sandrine Brisset
Uechtingstraße 19
Gebäude D9
45881 Gelsenkirchen
Tel. +49 209 36 17 22 110
Fax. +49- 209 36 17 22 190
E-mail: sandrine.brisset@LOESCHE-tp.de
www.loesche-tp.de

LOESCHE GmbH

Karin Boeker-Mahr
Hansaallee 243
D-40549 Düsseldorf, Germany
Tel.: +49.211.53 53- 417
Fax: +49.211.53 53- 500
E-Mail: public-relations@LOESCHE.de
www.LOESCHE.com

INTERNATIONAL CEMENT CONFERENCE

Cemtech

PRODUCTION EXPERTISE - MANAGEMENT SKILLS

**MIDDLE EAST
& AFRICA**

DUBAI, UAE

Market insights & production expertise

8-11 February 2015
Grand Hyatt Hotel,
Dubai, UAE



8-11 February 2015, Grand Hyatt Dubai, UAE

Cemtech is proud to invite you to the 10th edition of its Middle East and Africa conference and exhibition, taking place at the Grand Hyatt Dubai (UAE) on 8-11 February 2015.

Now established as THE event for cement professionals active in the Middle East and Africa markets, Cemtech MEA regularly attracts delegates from over 30 nations keen to network with other senior industry executives, engage in the high-quality conference programme and visit the Cemtech exhibition.

This year delegates can expect 25 top-class presentations from industry experts reporting on the market and technical advances in countries spanning the regions from Algeria to Angola, South Africa to Saudi Arabia.

Participants will gain insights into the latest market trends and drivers for change in our industry. Country profiles, trade reports and regional forecasts will provide the context for a comprehensive technical programme featuring new projects, the latest technologies and best practice in cement manufacturing. Expect stimulating case studies tackling key issues such as plant optimisation, alternative fuel systems and their implementation, new plant construction and much more.

The Cemtech exhibition will again provide an important space for delegates to network and interact with a range of technology suppliers, while a tour of local cement plants will offer the chance to appreciate the challenges and successes facing producers in the UAE.

Cemtech's renowned hospitality, including city tours and gala dinner, complete an exceptional programme carefully shaped for all forward-looking cement professionals in 2015.

www.Cemtech.com/MEA2015

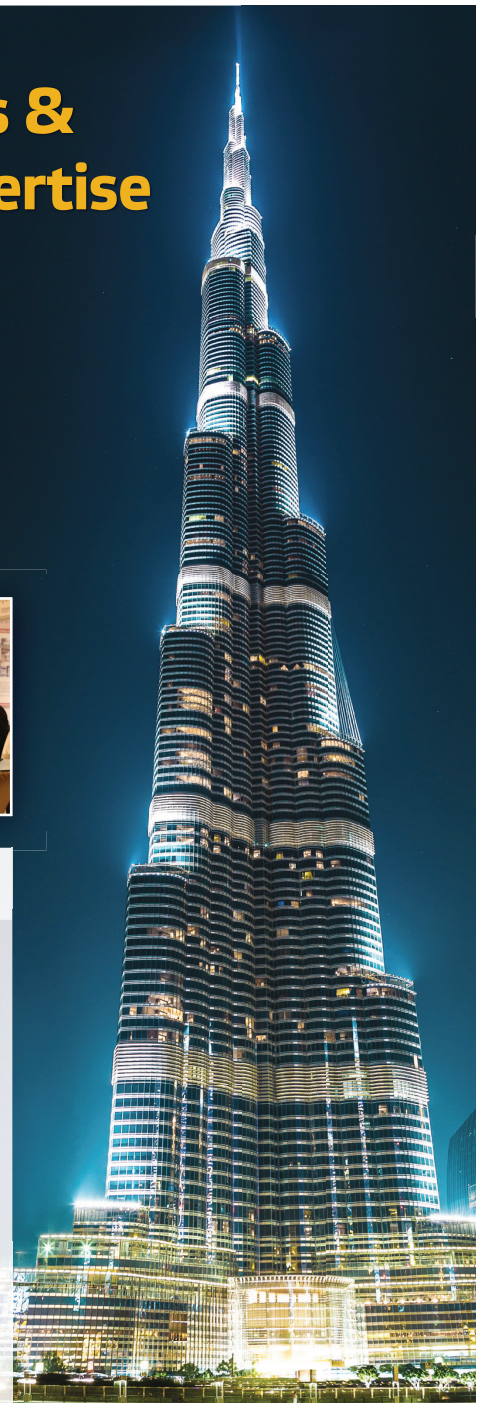
Conference & exhibition
organised
by
International
Cementreview

Supported by
the AUCBM



For further information, early-bird discounts and programme updates, please visit:

www.Cemtech.com/MEA2015





BEUMER’s BG software suite provides customers with a modular control system:

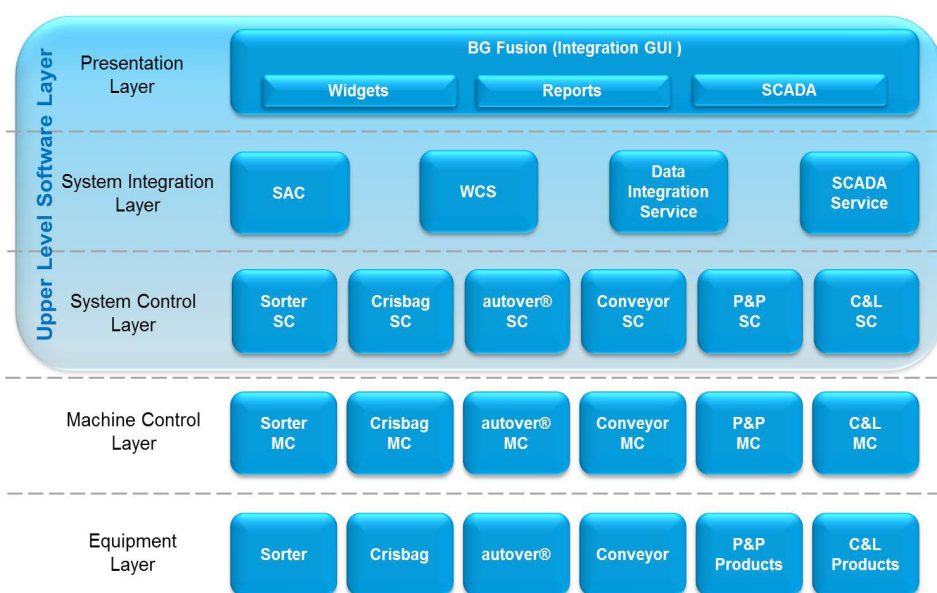
For optimal control of material flows

The BEUMER Group is one of the world’s leading manufacturers of conveying and loading equipment, filling, palletizing and packaging equipment, and systems for sorting and distribution. The product range of this full-line supplier includes the BG software suite, which allows customers to control their material flows from start to finish. The suite can be adapted to each company’s special needs. Third-party products can be integrated without difficulty.

BG, which stands for BEUMER Group, is the name for the company’s software suite for high-level computer systems. The suite’s modular structure allows users to adapt it to their machinery and equipment and add modules at any time in order to optimize their material flows. The Beckum-based intralogistics specialist also provides the BG Fusion interface, which displays process data, reports and machinery statistics for all parts of the program. Users can call up data on their monitor without having to switch between applications. BG Fusion is fully scalable, meaning it can run on desktop PCs as well as mobile devices like tablets.

Customized for each user

The left area of the interface displays important information in a compact form for all users. The main area is reserved for data relevant to the particular application. Three different desktops are available. Users can store their individual settings so that they can go right to work with the same data when they log in again. The user interface can also be switched between different languages. The web-based interface runs on all current Windows operating systems. Users can export all data displayed on the screen to PDF or CSV files. A screenshot function is also included.



Smooth communication

The BEUMER Group Warehouse Control System (BG WCS) module allows the BG software suite to link up with the customer’s warehouse management system or ERP system via a network connection. Thus communication is possible between different control levels.

As a full-line supplier, the BEUMER Group can draw on many years of experience in control and

Photo 1: The modular BG software suite gives users optimal control of their material flows.

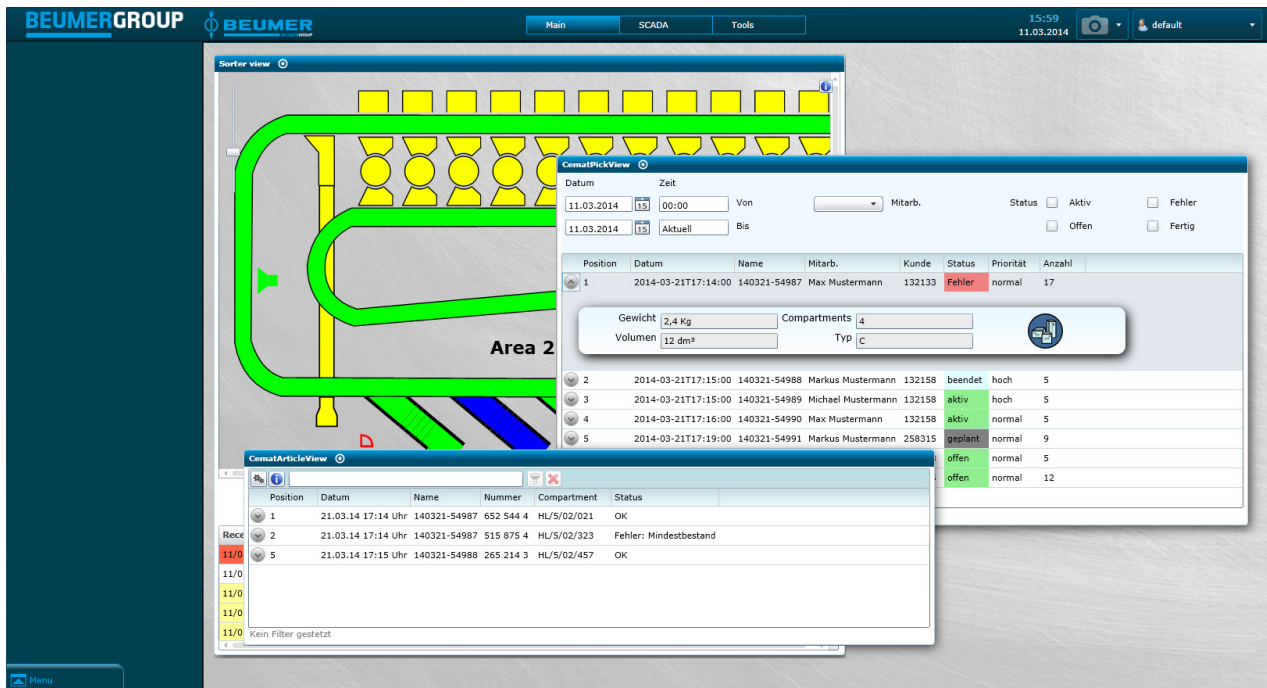


Photo 2: The BG Fusion user interface provides users with access to all available data without having to switch between different applications.

**WAREHOUSE CONTROL SYSTEM
WCS**

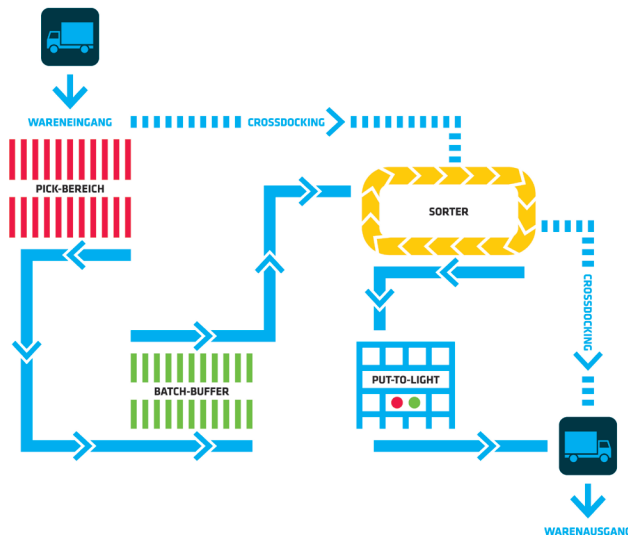


Photo 3: The BG WCS module allows the BG software suite to link up with the customer's warehouse management system or ERP system.

automation technology. It is able to plan and implement complex projects in intralogistics, including intelligent

linking of machinery and systems and their integration into existing process control or merchandise information systems. Customers get everything they need from a single source, interfaces are avoided, and possible sources of error are eliminated.

2,531 characters (incl. spaces)

Captions:

Photos: BEUMER Group GmbH & Co. KG

BEUMER Group is an international leader in the manufacture of intralogistics systems for conveying, loading, palletising, packaging, sortation and distribution. Together with Crisplant a/s and Enexo Technologies India Limited, the BEUMER Group employed some 3,700 people in 2013. The group generated an annual turnover of approximately 627 million EUR. With its subsidiaries and sales agencies, BEUMER Group is present in many industries worldwide. For further information visit : www.beumergroup.com.

BEUMER has developed a new machine from the BEUMER stretch hood model range.

Smaller, faster, more practical

As a single-source provider for filling, palletising and packaging technologies, BEUMER Group supports its customers in all respects supplying sustainable solutions from a single source. The BEUMER stretch hood A sees the intralogistics specialist from Beckum redesign its tried-and-trusted packaging system from scratch. During the development, our specialists analysed various components and optimised them in terms of function, arrangement and ergonomics. This includes an intuitive menu system on the machine control via a soft-touch panel, an optimised, ergonomically designed workplace for the operator and material-friendly transporting of the film in the machine thanks to an innovative film transport system. The new system also features improved system performance and needs far less floor space.

For companies in the construction material, chemical or food and beverage industries, the topic of safety when transporting and storing palletised products has been becoming more important. This is what prompted BEUMER to develop a new machine in its proven BEUMER stretch hood model range that offers even more practical and safer handling for the user, compared with other machines in this model range. To facilitate work for maintenance staff, and thus ensure higher machine availability, the new BEUMER stretch hood A is accessible without a platform and steps. Maintenance work, such as changing the blades, or the sealing bars, are now handled at floor level. The operator opens a drawer for these activities, providing free access to blades and sealing bars. The machine is automatically brought to a standstill to protect the operator. This removes the need to move subassemblies to maintenance position. Due to this rapid access capability, maintenance work is accelerated, and the risk of accidents and malfunctions minimised.

The machine's ergonomics have also been consistently advanced. With just a few actions, and completely without tools, the operator can feed in the film. This means substantial reductions to tooling and conversion times.

Additional benefits include the compact design of the BEUMER stretch hood and the resulting low height and small footprint.

An innovative, material friendly film transport system feeds the previously created film hood into the system. On its way to the crimping and stretching unit, the sealing seam on the film hood cools down so that it can be crimped without losing time. This removes the need for an energy-intensive cooling unit and time-consuming cooling. The pallets can be packed in a shorter cycle time thus reducing idle times, while at the same time ensuring improved packaging performance and less energy consumption.

The developers have also improved the human-machine interface to offer an even more ergonomic workflow to the user. For this, the intralogistics specialist has introduced the BEUMER Group Human Machine Interface (HMI), a newly-developed operator panel with an optimised user interface and graphical navigation. This easily understandable and intuitive interaction concept helps to define efficient working sequences. The operator can control the machine safely with only a little training saving time and money, which ensures high economic efficiency. The soft-touch panel uses pictograms to guide the user through the machine control menus. The panel also gives the operator access to all required training programs. The system is controlled by a Siemens SIMATIC S7- 300.

Energy-saving motors and low compressed air requirements ensure a favourable energy balance. The compressed air requirements have been significantly reduced compared with the previous model.

With its U-shaped frame design, the BEUMER stretch hood can be easily connected to existing conveying systems. Removing the need to interrupt the conveying system also guarantees smooth conveying performance for the pallets and stability of the palletised goods.

The BEUMER stretch hood can be equipped with the BEUMER OptiStretch system. The crimping bow, made of high-quality steel, swivels in even closer to the package, thus substantially improving the controlled application of film to the package. This improves system availability and enhances the visual appearance. The palletised goods are clearly visible through the smooth surface of the transparent, highly flexible film. Film packaging protects the goods against atmospheric influences, water, dust and insects and transport safety is substantially improved.

To be able to process various films, and implement a variety of packaging processes, such as understretch or high-rack stretch, the new system can be equipped with the BEUMER multistretch system.

In addition, the operator receives an eLearning program via USB stick for this system. This way the employees can train themselves immediately in operating the new BEUMER stretch hood A. This ensures a flexible and rapid familiarisation with the system.

Caption:



Picture: BEUMER is presenting a new machine from the BEUMER stretch hood model range.

Photo: BEUMER Group GmbH & Co. KG



No material spillage along the way

Impact Beds from Flexco ensure that no bulk goods fall off the conveyor belt.

Loss of material can be expensive in the long term for operators of conveyor systems such as those used in coal mining, underground mining or in gravel plants. The energy of impact during transfer is a frequent reason for the loss. Flexco Europe GmbH supplies and installs impact beds that slow down the speed at which the bulk material falls. This absorbs the impact energy and prevents damaging vibration. This solution from Flexco significantly increases the service life of conveyor belts, as these are subjected to much less load.

Flexco supplies impact beds for a wide range of applications. In order to select the appropriate impact bed, the user needs to ascertain the weight of the largest materials that are to be conveyed as bulk. This figure is then multiplied by the height of the fall. The result gives the approximate impact energy. If the user is conveying coarse, large-sized bulk material at great heights, for example, very strong impact forces can quickly be generated. The DRX3000 impact bed is equipped with additional vibration damper for this purpose. These absorb most of the energy that occurs upon impact. In addition to these, there are fixed impact rails at the sides. Together with skirt clamps, these seal off the transfer area.

High impact forces can also occur on conveyor belt systems that are used in coal-fired power stations, coke plants and unloading stations, as the materials can be up to 30 centimeters in diameter. Flexco offers DRX1500 impact beds to provide additional force reduction with isolation bars that further absorb the impact.

For applications with moderate impact forces, Flexco offers the DRX750 impact bed. These are used in belt conveyors that, for example, transport limestone or hard rock with material sizes up to 25 centimeters.

These impact beds are also equipped with isolation bars. For rock sizes up to 15 centimeters, gravel for example, Flexco has the DRX200 impact beds in its product range.

Caption:



Flexco impact beds absorb the impact energy at the transfer points, substantially reducing material loss.

Figure: Flexco Europe GmbH

About Flexco Europe GmbH

Flexible Steel Lacing Company (FLEXCO), headquartered in Downers Grove, Illinois/USA is the leading international specialist for mechanical conveyor belt fastening systems, belt cleaners, belt positioners, deflectors and pulley laggings for light-duty and heavy-duty conveyor belts. The use of innovative solutions from Flexco can considerably reduce downtimes and increase productivity. FLEXCO Europe GmbH, the German subsidiary of FLEXCO, is headquartered in Rosenfeld (Swabia), where the Group currently employs 60 people. For more information, please go to: www.flexco.com



CemWeek.com



cement industry knowledge: news, interviews, data & research

You need to know what is happening in the global cement industry. Right now. Your competitive advantage demands it.

CemWeek must be your information and market intelligence source. *CemWeek.com – knowledge delivered.*

CemWeek's online news and knowledge platform for the global cement industry identifies and researches key industry events and uncover hard-to-find news from around the world. CemWeek regularly speaks to cement sector experts to provide a continuous flow of insights and analysis.

- ❑ **Daily news:** The cement industry's leading news service, offering detailed and insightful articles put together by our global team of writers covering more markets and more news than any other industry source.
- ❑ **Proprietary intelligence:** Interviews with cement industry thought-leaders and experts, including CEOs, executives, analysts and consultants through the *CemExec* feature series.
- ❑ **Market research:** High-quality research reports, including detailed market studies, competitive assessments, cement trade flows, and export opportunity assessments, among many others. Custom research available upon request.
- ❑ **Data services:** Statistical and data research tools offering industry practitioners a wealth of cement supply and demand data.

global cement industry knowledge platform | global cement industry knowledge platform | global cement industry knowledge platform

www.cemweek.com | inquiries@cemweek.com | t: +1-702-430-1748



Optimal for size-reduction with minimal cleaning effort - FRITSCH Cutting Mills!



[Video: How the FRITSCH Cutting Mills work!](#)



[Video: Cleaning of FRITSCH Cutting Mills – fast, easy, safe!](#)



Patented FRITSCH sample exhauster with Cyclone separator

Ideal for size reduction of soft to medium-hard, tough-elastic and fibrous materials as well as for heterogeneous mixtures. They are indispensable in the areas of environment, plastics, agriculture, forestry, construction materials, textiles, chemistry and as well as for analytic and sample preparation for RoHS-analysis.

Unmatched ease of cleaning

A particularly important criterion for a Cutting Mill is the question how fast and easy it can be cleaned in daily laboratory use. Therefore we have placed particular value on the easy cleaning when we developed the FRITSCH PULVERISETTE 19.

While you are still tightening the screws on other mills, your FRITSCH Cutting Mill is already clean!

Because the entire grinding chamber can be opened easily in seconds and both the rotor and the sieve can simply be removed with simple motions. Only at FRITSCH **Cutting Mills** it is possible to lift open the entire top part of the housing as well as the door – in fact, the door can be completely removed. And that's not all: The rotor of the FRITSCH Cutting Mills can be removed easily without tools for quick cleaning in between and it can be turned by hand, when the mill is open.

The result: a completely open and empty grinding chamber with minimal dead space for easy and quick cleaning – a secure protection against cross contaminations!

Opening up possibilities: the FRITSCH Cyclone separator

In connection with the PULVERISETTE 19, the patented FRITSCH sample exhauster with Cyclone separator ensures with its powerful vacuum function, based on negative pressure a simple feeding, fast throughput and good cooling, effectively prevents sample material from escaping during feeding and opens up new possibilities in the processing of heterogeneous mixture of materials, such as derived fuels in the cement industry.

FRITSCH
FRITSCH

By the way:

FRITSCH offers 5 different models of Cutting Mills, with max. feed sizes from 70 x 70 mm – 120 x 85 mm, max. throughput from 50 l/h up to 85 l/h, final finesses from 0.2 – 20 mm and rotational speeds from 300 – 3400 rpm – for each application the perfect **Cutting Mill!**

Practical application examples as well as comparison grindings can be found online at www.fritsch.de in the area **SOLUTIONS.**

NEW: powerful model for gentle size-reduction

Now the Universal Cutting Mill PULVERISETTE 19 is also available with 300 to 360 rpm. This combination of low cutting rate and extreme cutting forces (power consumption 3240 Watt) ensures an extremely powerful size reduction of hard, tough-elastic samples or smaller sample amounts – and is the ideal solution in all cases in which, for example thermal damage, the loss of easy volatile substances or a larger fine share should be avoided. More info at www.fritsch-milling.com/p-19108000.

Test the FRITSCH CUTTING MILLS!

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

Up-dated information on the FRITSCH **Cutting Mills** for efficient sample preparation at www.fritsch-milling.com/cutting-mills.

You can view both videos at:

Video: How the FRITSCH Cutting Mills work: www.youtube.com/embed/GtEOcidZS4w?rel=0

Video: Cleaning of FRITSCH Cutting Mills – fast, easy, safer: www.youtube.com/embed/Nlk5B2c-jhM?rel=0

contact: FRITSCH GmbH • Milling and Sizing

Andrea Köhler

Industriestrasse 8 • 55743 Idar-Oberstein • Germany

Phone +49 67 84 70 146

Fax 0 67 84 70 11

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

DIARY DATES

CEMENT

3rd Global Landfill Mining Conference & Exhibition

Global landfill mining for profit

Date : 17 - 18 November 2014

Venue: London, UK

For more information please visit:

www.landfill-mining-co.uk

INTERCEM Energy Forum

Date : 01 - 02 December 2014

Venue: Cairo, Egypt

For more information please visit:

<http://www.intercem.com>

“Cement. Concrete. Dry Mixtures 2014” Conference and Exhibition

Date : 02 - 04 December 2014

Venue: Expocentre, Moscow, Russia

For more information please contact:

Organizer: LLC «AlitInform»

Phone/Fax: +7 (812) 380 6572, (495) 580 5436

Email: mail@con-tech.ru

10th Global Slag Conference & Exhibition

Global slag production, applications and trends

Date : 08 - 09 December 2014

Venue: Aachen, Germany

For more information please visit:

www.GlobalSlag.com

2014 Middle East Cement Strategy, Finance and Trade Summit

Date : 09 - 10 December 2014

Venue: Dubai, UAE

For more information please contact:

Mr. Adrian Serban, Client Service & Development

GMI Global LLC

Tel.: +40740592534

Email: as@gmiforum.com

2nd Global Well Cem Conference & Exhibition

Global oil well cement production and well cementing

Date : 22 - 23 January 2015

Venue: Houston, Texas, USA

For more information please visit:

www.Well-Cem.com

Cemtech Middle East & Africa 2015

Date: 08 - 11 February 2015

Grand Hyatt, Dubai (UAE)

To register:

Online: www.Cemtech.com/MEA2015

Phone: +44 1306 740 363

Email: info@cemtech.com

9th Global CemFuels Conference & Exhibition

Fuels for cement and lime

Date : 16 - 17 February 2015

Venue: Dubai, UAE

For more information please visit:

www.CemFuels.com

2nd International Conference on Enhanced Usage of Alternate Fuels in Cement Plants

Date : 19 - 20 February 2015

Venue: New Delhi, India

For more information please contact:

Cement Manufacturers' Association

**global
cement**
PRINT & DIGITAL MAGAZINE

**global
cement**
LINKEDIN & TWITTER

**global
cement**
DIRECTORY

**global
cement**
WEEKLY - NEWSLETTER

**global
cement**
.COM

THE
**global
cement**
UNIVERSE

**global
cemfuels**
CONFERENCE

**global
wellcem**
CONFERENCE

**global
cement India**
CONFERENCE

**global
cemtrader**
CONFERENCE

**global
slag**
CONFERENCE

**global
cempower**
CONFERENCE

**global
refractories
wear &
maintenance**
CONFERENCE

18 great years!
1997-2014

DIARY DATES

CEMENT

CMA Tower, A - 2E, Sector 24,
Noida 201301 (U.P.)
Tel: 0120 2411955, 2411957, 2411958
Fax: 0120 2411956
Email: cmand@cmaindia.org

3rd Global Cement India Conference & Exhibition
Cement production technology and market trends in
India
Date : 17 - 18 March 2015
Venue: Mumbai, India
For more information please visit:
www.Cement-India.com

1st Global SynGyp Conference & Exhibition
Global synthetic gypsum production and applications
Date : 20 - 21 April 2015
Venue: Chicago, USA
For more information please visit:
www.GlobalSynGyp.com

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 CemTrader Conference & Exhibition
Global cement, clinker, ash and slag trade and
markets
Date : 01 - 02 June 2015
Venue: London, UK
For more information please visit:
www.CemTrader.com

Concrete 2015
Date : 30 August - 02 September 2015
Venue: Pullman Albert Park, Melbourne, Australia
For more information please visit:
www.concrete2015.com.au

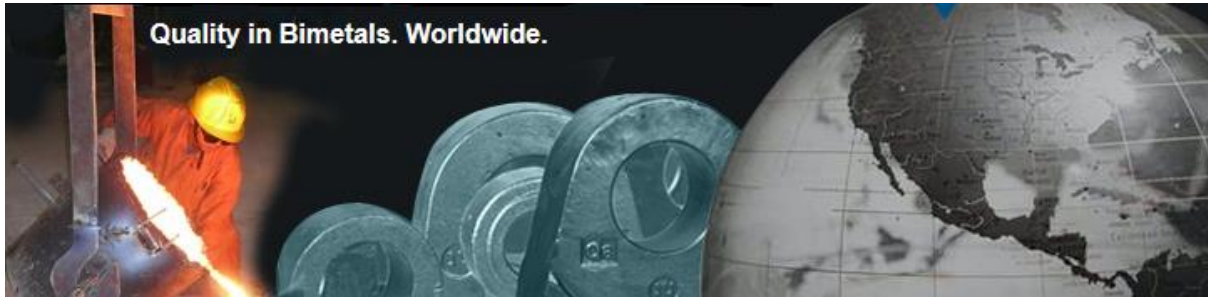
13th TÇMB International Technical Seminar &
Exhibition
Main theme: "Sustainable Environment & Energy"
Date : 07 - 10 October 2015
Venue: Titanic Deluxe Belek Hotel, Antalya, Turkey
For more information please click:
<http://www.tcma.org.tr/ENG/index.php>

HARDTOP

Gießereitechnologie GmbH

HARDTOP Giessereitechnologie GmbH
Reichelstrasse 23 • D-39124 Magdeburg

Tel.: + 49 (391) 532969-0
Fax.: + 49 (391) 532969-21
E-Mail: info@hardtop-gmbh.de
www.hardtop-gmbh.de



Castings for the cement industry

The raw material of modern construction cement is a mixture of lime stone and clay as well as corrective substances such as iron ore or sand.

On their way from the quarry to the finished product, the materials undergo a large number of processing steps. The installations and equipment for the cement production need to meet strict requirements with regard to wear and heat resistance.

For many years HARDTOP has been manufacturing and supplying both

- wear-resistant castings for crushers and mills as well as
- heat-resistant castings for furnaces, coolers and heat exchangers.

Our extensive product range includes:

- hammers for crushers, hammer mills and clinker crushers,
- impact bars and linings for impact crushers,
- spare parts for jaw crushers and roll crushers,
- shell linings for ball mills,
- infeed and discharge sections of rotary kilns,
- cooling and side plates,
- trailing chain links,
- grate bars,
- grinding rolls and tables for bowl mill crushers,
- grinding rings and roll shells for pendulum mills,
- liner plates for cyclone separators as well as
- blow-out nozzles.

DIARY DATES

GENERAL

ICC Advanced Training on International Contracts in English and French
Date : 17 - 20 November 2014
Venue: Paris, France
For more information please contact:
Tel.: +33 1 49 53 28 67
Fax: +33 1 49 53 30 30
Email: events@iccwbo.org
www.iccevents.org

SWITCHGEAR AND CIRCUIT BREAKERS:
OPERATION AND MAINTENANCE
Date : 27 -28 November 2014
Venue: Manila, Philippines
For more information please contact:
Tel: +603 2781 1567
Fax: +603 2781 1505
Email: ryanw@trueventus.com
http://trutrainingglobal.com/ENG/SWITCHGEAR_MNL.pdf

Project Budgeting for Engineers
An Engineers guide to understanding the finance function on Mega Projects
Date : 1 - 2 December 2014
Venue: Manila, Philippines
For more information please contact:
Mr Ryan Wong
Tel: +603 2781 1567
Fax: +603 2781 1505
Email: ryanw@trueventus.com
http://trutrainingglobal.com/ENG/BUDGET_ENGR_MNL.pdf

Advanced Condition Monitoring
Date : 1 - 2 December 2014
Venue: Manila, Philippines
For more information please contact:
Mr Ryan Wong
Tel: +603 2781 1567
Fax: +603 2781 1505
Email: ryanw@trueventus.com
http://trutrainingglobal.com/ENG/ADV_CM_MNL.pdf

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/>

Turkey Stone
Date : 14 - 17 October 2015
Venue: Antalya Expo Center, Turkey
For more information please contact:
Pyramids Fair Group
Kucukbakkalkoy Mah. Koca Sinan Cad.Gumrukcu Sok.
No.7 34750
Atasehir, Istanbul, Turkey
Email: pyramidsfair@ebultenim.com
www.pyramidsfair.com

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



Special English language issue of the journal Cement and its Applications the most complete information on cement industry in Russia, CIS and Baltic countries

- ✓ Cement production and markets
- ✓ Transportation of cement
- ✓ New cement production facilities and raw materials bases
- ✓ Current status of cement holdings and various enterprises

For advertising and purchase please contact: **Journal Cement Ltd.**
 Tel.: +7 812 7645612, +7 812 2421124. Fax: +7 812 7123683. E-mail: info@jcement.ru.
www.jcement.ru • www.petrocem.ru