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and Building Materials
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• The magazine editorial staff welcome the contribution of experts to enrich the contents of the magazine.

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Mondi recognised with nine WorldStar Awards for packaging innovation

- Mondi's nine award-winning solutions showcase innovation across paper-based, recyclable and high-performance packaging.
- The recognised products serve customers in eCommerce, food, transit, electronics and consumer goods markets.
- The WorldStar Global Packaging Awards recognise packaging excellence on a global stage, attracting hundreds of entries worldwide.

Mondi, a global leader in sustainable packaging and paper, announces that nine of its innovative packaging solutions have received WorldStar Packaging Awards 2026. Organised annually by the World Packaging Organisation (WPO), the awards celebrate outstanding achievements in packaging design, technology and sustainability across the globe.

Mondi's award-winning products reflect the Group's continued focus on developing packaging solutions that replace less sustainable materials, support recyclability and deliver strong performance for customers. The recognised innovations address diverse end-use needs, from food and eCommerce to transit and electronics, while contributing to a more circular economy.

Andrew King, CEO Mondi Group, said: "We are very proud that nine of our solutions have been recognised with WorldStar Packaging Awards in 2026. These awards highlight our teams' ability to combine innovation, performance and sustainability, and to translate ambitious goals into practical packaging solutions. They reflect our strong customer partnerships and our continued commitment to developing recyclable alternatives at scale."

The WorldStar Packaging Awards are among the most prestigious accolades in the global packaging industry, recognising innovations that address key challenges such as material efficiency, recyclability and product protection. Mondi's success in 2026 further underlines its role as a trusted partner for sustainable packaging solutions worldwide.

Mondi is also delighted to see its customer Werner & Mertz recognised with a WorldStar Award in the Household category for the Frosch fabric softener stand-up pouch. Developed through close, long-term collaboration, Mondi and Werner & Mertz combined their packaging, material and application expertise to co-develop the 100% recyclable pouch, which now

incorporates post-consumer recycled plastic from household collection - underscoring their shared commitment to circular, sustainable packaging.

The WorldStar Packaging Awards 2026 Ceremony will take place in Düsseldorf, Germany, on 8 May, bringing together packaging leaders from around the world to celebrate innovation and excellence.

Mondi's WorldStar Packaging Awards 2026 winners:

- Protective Mailer – eCommerce
- FreshFood BOX – Food
- Ad/Vantage Smooth Brown Semi Extensible – Packaging Materials and Components
- re/cycle HiProtex Paper – Health and Personal Care
- re/cycle ProtectorBAG PocketForm – Transit
- re/cycle CompressWrap – Household
- re/cycle VacuumPack – Non-Alcoholic Beverages
- 3in1 Separator – Electronics
- Koala Display – Point of Sale

Setting sustainable standards together: LOESCHE and Metso present groundbreaking dry grinding technology

Duesseldorf, Deutschland – Loesche GmbH announces the signing of an exclusive partnership with Metso Corporation. The aim of the collaboration is to introduce the pioneering Metso Loesche VRM dry grinding technology for a wide range of mineral processing applications.

The partnership combines Loesche's proven vertical roller mill (VRM) technology with Metso's comprehensive expertise in sustainable end-to-end solutions for mineral processing and global service capabilities. Together, the partners support the mining industry in achieving efficiency gains through innovative technologies and redesigned process flow sheets.

"With Metso at our side, we are excellently positioned to offer significant added value to the mining industry and actively shape the transition to more resource-efficient processes. Our VRM technology has a proven track record with more than 2,400 references



in the cement and other industries worldwide. We are delighted to now be able to use this proven technology in mineral processing, where it offers considerable advantages,” says Stefan Baaken, Managing Director of Loesche Australia and Global Head of Mining Applications at Loesche.

“We are very much looking forward to working with Loesche. The introduction of the Metso Loesche VRM sets new standards in sustainable crushing and brings significant benefits to the mining industry in terms of sustainability and efficiency. It significantly reduces energy consumption in one of the most energy-intensive steps and lowers operating costs through simplified flowsheets and reduced wear part consumption,” says Bjorn Nielsen, Vice President, HPGR & Dry Grinding at Metso. “In addition, the Metso Loesche VRM provides a steeper, more uniform particle size distribution and reduced oxidation of sulfide mineral particles, which improves downstream processing performance and supports more sustainable, resource-efficient mineral processing.”

About Metso Loesche VRM dry grinding technology

The Metso Loesche VRM can replace high pressure grinding rolls (HPGR), horizontal mills in primary and secondary applications and tertiary stirred mill applications, while at the same time simplifying the process and bringing savings in energy consumption and operating costs. Downstream processes benefit from improved mineral liberation and steeper particle size distribution. Furthermore, advanced flow sheets incorporating coarse particle flotation, magnetic separation or other coarse beneficiation technologies can be facilitated, further reducing or even eliminating water consumption if fully dry processes are feasible.

Metso Loesche VRM technology features advanced wear materials to meet the demands of mineral processing applications and ensure high operating availability. Advanced process control is integrated to ensure optimum operation, easy stop-start and rapid ramp up.

Register for the VRM webinar

To learn more about the Metso Loesche VRM, we cordially invite you to participate in the webinar organized by Metso, which will take place on Thursday, March 5, 2026, from 3:00 p.m. to 4:00 p.m. EET. Please click [HERE](#) to register.

Hadramout Cement: Leading Yemen's Cement Industry Toward a Solar-Powered Future

The Arabian Yemen Cement Company Limited – Hadramout Cement has inaugurated the largest solar power plant in the city of Mukalla, marking a groundbreaking step toward sustainable industrial operations in Yemen. With a total capacity of 13.75 megawatts and a 5.7 MWh battery storage system, the project stands as the first and largest of its kind in the country's cement sector.

A Vision for Sustainable Industry

In an era when energy costs and environmental challenges are reshaping the global cement industry, Hadramout Cement took a pioneering decision — to invest in renewable energy and reduce its carbon footprint. With an investment of approximately USD 11 million, the company has initiated its journey toward achieving zero carbon emissions, while ensuring reliable energy for its operations.

Key Features of the Solar Power Plant

- Capacity: 13.75 MW of clean solar energy.
- Smart solar tracking system that follows the sun's movement throughout the day, maximizing energy yield.
- 22,000 bifacial solar panels that generate electricity from both sides, increasing output by 10–15%.
- 5.7 MWh Battery Energy Storage System (BESS) that enhances system stability and protects the plant's electrical network.

The Journey Toward Renewable Energy

The decision to adopt solar energy was not reactive but a well-studied strategic transformation. Recognizing the heavy electrical demands and the technical complexities of cement production, the company's in-house engineering team conducted detailed technical studies. After extensive evaluation, REON Energy from Pakistan was selected as the execution partner for this ambitious project.

Hadramout Cement's engineers worked hand in hand with REON to ensure the system was tailored to the factory's operational requirements. Their combined expertise delivered a solar plant that integrates seamlessly with the existing power infrastructure, reducing generator usage and optimizing energy management even during full factory operation.

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Environmental and Economic Impact

The solar plant produces approximately 34 million kilowatt-hours of clean electricity annually, reducing carbon dioxide emissions by more than 21,000 tons each year. This achievement not only benefits the company but also contributes to a cleaner environment and sets a strong precedent for sustainable industrial growth in Yemen.

Inspiring a National Transformation

This initiative by the Arabian Yemen Cement Company demonstrates how private-sector leadership can inspire national change. By combining innovation,

local expertise, and strategic vision, the company has proven that renewable energy is not only feasible but also essential for Yemen's industrial future.

Looking Ahead

From Hadramout, a new light now shines across Yemen's industrial landscape. The success of this project is expected to encourage other companies and government institutions to adopt renewable energy, paving the way for a cleaner, more resilient future. The solar plant is more than a power source — it is a symbol of perseverance, innovation, and hope.



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Innovating Cement for a Greener Tomorrow

How Industry 4.0 and Digital Innovation Drive Sustainable Cement Production at Riyadh Cement

Dr. Mohammed Fouad, Business Excellence Director, Riyadh Cement Company

Executive Summary

The cement sector is under unprecedented pressure to decarbonize. As cement production contributes up to 8% of global CO₂ emissions, producing greener cement is no longer optional, it is a strategic necessity. Riyadh Cement is meeting this challenge by tightly integrating sustainability with innovation, particularly through Industry 4.0 technologies. This white paper outlines how the company's digital transformation through AI-driven optimization, autonomous operations, predictive maintenance, advanced automation, and smart energy management, will directly enable substantial reductions in emissions, energy consumption, waste, and ecological impact. The transformation of Riyadh Cement demonstrates that sustainability is not an isolated environmental function but the natural outcome of intelligent, technology-enabled, next-generation industrial design.

1. Introduction

The evolution toward greener cement production is inseparable from technological innovation. Traditional cement manufacturing, which relies heavily on fossil fuels, manual operations, and resource-intensive processes, must be replaced by intelligent, automated, and optimized systems to achieve decarbonization targets. Riyadh Cement recognizes that Industry 4.0 technologies, AI, IoT, automation, machine learning, and digital twins, offer the most powerful toolkit available for reducing emissions and building a sustainable, efficient manufacturing ecosystem.

By embedding sustainability goals into the core of its digital transformation, the company will ensure that every technological advancement also will drive environmental progress. This integrated approach will position Riyadh Cement as a regional pioneer in the convergence of innovation and sustainability.





2. Strategic Priorities: Integrating Technology and Environmental Responsibility

Riyadh Cement's strategic priorities illustrate a deliberate fusion of business growth, operational excellence, and environmental stewardship, all enabled through innovation:

- **Profitability through sustainable expansion**, ensuring that the company grows in markets increasingly driven by ESG requirements
- **Operational excellence through digital optimization**, enabling energy and resource efficiency
- **Sustainability through technology**, ensuring emissions reduction and circular material use
- **Digital transformation as the engine of environmental performance**, using smart systems to minimize waste and carbon footprint

This strategic interdependence ensures that digital transformation is not a parallel initiative but the primary driver of sustainability outcomes.

3. Innovation in a Changing Global Context

Global cement producers face pressure to reduce emissions, and many are turning to Industry 4.0 as the most effective pathway. AI-based process control, predictive maintenance, fuel substitution, and data-driven optimization are becoming global best practices for lowering carbon intensity.

Within Saudi Arabia, Vision 2030 and the Saudi Green Initiative propel industries toward cleaner, more efficient practices. Riyadh Cement's investments in digital innovation directly align with national objectives, reinforcing the company's leadership in both sustainability and technology adoption.

4. Sustainability Roadmap Powered by Digital Transformation

Riyadh Cement's sustainability achievements are driven by innovation at every level. The company's carbon-neutrality target for 2050 will be supported by advanced technologies that optimize energy use, reduce clinker factor, enhance circularity, and elevate environmental performance.

Energy efficiency investments, such as waste heat recovery, digital energy management platforms, and optimized kiln operations, are expected to demonstrate how sustainability goals can be achieved through intelligent systems. The circular economy initiatives also will leverage data and digital controls to track and increase alternative material use.

Reforestation programs, biodiversity initiatives, and green area expansions can be managed with precision thanks to improved reporting tools and digital environmental tracking.

5. Digital Transformation as the Engine of Green Production

Industry 4.0 will be central to Riyadh Cement's sustainability success. Without digital technologies, emissions reduction would be significantly slower and less effective.

AI-based optimization tools are expected to allow pinpoint control of kiln temperature, airflow, and material mix factors that directly influence CO₂ output and fuel consumption. IoT sensors can continuously measure environmental performance, enabling real-time adjustments that can minimize waste and energy loss. Machine learning algorithms are expected to detect inefficiencies before they escalate, ensuring optimal energy utilization.

In short, digital transformation will provide the intelligence needed to refine and decarbonize every aspect of cement production.

6. Advanced Digital Innovations and Their Sustainability Impact

Riyadh Cement's proposed digital solutions will reduce environmental impact while enhancing productivity:

AI Quality Prediction and Optimization

AI systems improve product consistency while significantly decreasing energy consumption and emissions by optimizing kiln operations in real time. Small improvements in kiln efficiency translate into large carbon reductions.

Predictive Maintenance

Predictive algorithms minimize machine failures, reduce shutdowns, and prevent energy-intensive restarts. This contributes to lower fuel consumption and reduces environmental footprint.

Automated Process Control

Automated systems produce fewer defects, reduce waste, and maximize resource efficiency. Automation also enables controlled fuel substitution, a key pillar of CO₂ reduction.

Digital Energy Management Systems

Real-time monitoring prevents energy leaks and enables corrective action, ensuring the plant operates at maximum efficiency with minimum carbon impact.

AR-Enhanced Safety Monitoring

A safer workplace supports uninterrupted operations, reducing the need for energy-heavy halts and restarts.

7. Autonomous Mining and its Environmental Benefits

Autonomous quarry operations are not only safer, they are also greener. With optimized routing, automated loaders and trucks consume less fuel, emit fewer pollutants, and minimize human exposure to hazardous conditions. Real-time data from IoT-enabled equipment ensures that mining activities follow environmentally optimal patterns, reducing dust, noise, and carbon intensity.

Automation also minimizes over-extraction, ensuring sustainable resource use and improved environmental compliance.

8. Smart Plant Automation: A Blueprint for Low-Carbon Cement

The fully automated cement plant envisioned by Riyadh Cement will exemplify how smart operation systems can directly reduce environmental impact. AI-driven decision-making can eliminate guesswork and variability, ensuring that systems operate at their most efficient point.

Through centralized remote monitoring, operators will be able to adjust processes instantly, maximizing energy efficiency and reducing unnecessary heat loss. Predictive maintenance can minimize equipment downtime and the associated carbon-intensive restarts, while optimized airflow and fuel management systems drastically cut emissions.

Increasing manpower productivity will also allow the plant to optimize its resource footprint, using data and automation to achieve sustainability objectives at scale.

9. Organizational Transformation for Sustainable Innovation

Riyadh Cement understands that innovation and sustainability require an organization capable of absorbing constant change. Leadership therefore promotes a culture of adaptability and continuous learning, ensuring that digital transformation is supported by the right skills, mindset, and operational structures.

Training programs equip employees with digital and environmental competencies, creating a workforce that enhances the company's transition to greener, smarter practices.

10. Innovation Scaling as a Pathway to a Greener Future

Innovation is most impactful when scaled. Riyadh Cement's model, piloting, learning, adjusting, and expanding, ensures that successful technologies are deployed broadly to maximize sustainability benefits. Each pilot project serves as a learning vehicle, enabling the organization to refine its approach before moving into full-scale implementation.

Continuous improvement cycles ensure that technologies remain aligned with evolving environmental standards, technological advancements, and national sustainability targets.

Conclusion:

Innovation as the Pathway to Greener Cement

Riyadh Cement demonstrates that innovation is the most powerful enabler of environmental sustainability in modern cement manufacturing. Industry 4.0 technologies are not merely operational upgrades, they are essential tools for reducing emissions, enhancing energy efficiency, and producing greener cement at scale.

By linking intelligent automation, digital optimization, and AI-powered decision-making with sustainability goals, Riyadh Cement sets a new standard for achieving profitable, environmentally responsible growth. Through this integrated approach, the company is shaping the future of low-carbon cement production and contributing meaningfully to Saudi Arabia's Vision 2030 environmental ambitions.



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Seamless Packaging Means Elevated Branding

Marta Bortolotti, Division Manager Consumables at HAVER & BOECKER oHG

When it comes to product packaging, every element — from design and materials to compatibility with machinery, product and closure type — plays a vital role in achieving both efficient function and a positive brand image.

To maintain a competitive edge, producers must carefully evaluate their packaging choices.

Partner with an expert

Unlike providers who specialize solely in packaging, full-service manufacturers can combine their expertise in packing equipment and product analysis. They can provide bag recommendations that integrate seamlessly with machinery. This approach enhances efficiency, expedites the filling process and ensures operational flow — all while saving resources, preserving product and strengthening brand perception.

A full-service approach tackles common issues like bag leaks, poor sealing or inefficiencies in bag performance. By leveraging detailed testing processes — such as bag volume checks and valve inspections — some manufacturers ensure the bag material and design are tailored to each packing line and product. This precision minimizes production disruptions, optimizes workflow and delivers packaging that enhances brand visibility and market impact.

Analyze your operational needs

Some manufacturers conceptualize the full-service philosophy as a practical framework that ensures bags, equipment and products work as a cohesive system. By aligning all three pillars, they can create solutions that reduce waste, save resources, improve operational efficiency and maximize output to achieve the perfect flow.

To begin, an expert will analyze the product to define the ideal machine technology and design a packaging solution that fits seamlessly into the operation's preexisting process. This holistic approach ensures each packing facility can tackle even the most challenging requirements with precision and efficiency. Whether an operation is making a switch from open-mouth to valve-bag equipment and wants to ensure it goes smoothly or is simply looking for inefficiencies with their current packing line, analyzing your bags should be a part of the equation.



Test and fine-tune your production line

The process begins with consultations and testing to gain a full understanding of the facility's products and systems. The manufacturer's engineers then create a custom bag report and fine-tune designs after thorough testing with the machinery. Finally, look for a manufacturer that can manage the entire supply chain — from bag testing to supply — ensuring a smooth and hassle-free experience.

Some manufacturers also provide bag optimization plans focused solely on the performance of existing bags to ensure they align with the demands of the production line. Through analysis, these manufacturers identify areas for improvement, offering specific recommendations to enhance bag materials, structure and compatibility. This method not only increases productivity and efficiency but also ensures cost-effectiveness and reliability by minimizing downtime, reducing waste, optimizing resource use and delivering consistent results across all operations.

A Bag That Reflects Your Brand

More than just a functional component, a bag serves as a powerful branding tool and a visual business card for each company. While some companies work with multiple providers for packaging, partnering with a single OEM expert — who understands the product, equipment, and production goals — provides unbeatable efficiency and peace of mind. With an integrated approach, every bag becomes a powerful asset for the brand and business.



Full-service manufacturers can combine their expertise in packing equipment and product analysis. They can provide bag recommendations that integrate seamlessly with machinery.



Partner with a manufacturer that can manage the entire supply chain — from bag testing to supply — ensuring a smooth and hassle-free experience.



More than just a functional component, a bag serves as a powerful branding tool and a visual business card for each company.

About HAVER & BOECKER

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How AI unlocks new sales opportunities by connecting cement silos at your RMX plant

Sébastien APOLLANAT, Director of Global Operations & Industry Relations at Nanolike

In a region where cement demand continues to rise, logistics constraints are becoming one of the industry's defining challenges. While MEA producers have made major strides in modernizing transport operations, one part of the supply chain remains largely analog: the silo. As the pressure to deliver reliably intensifies, silo digitalization is emerging as a new standard for operational performance.

A region under pressure: cement demand growing, logistics struggling to follow

Unlike other regions facing stagnation, the Middle East and Africa continue to experience steady growth in cement consumption. Massive infrastructure initiatives in Saudi Arabia, the United Arab Emirates, Egypt, and Morocco, together with rising urbanization across sub-Saharan Africa, are driving sustained demand. Industry reports value the MEA cement market at nearly USD 40 billion, with annual growth above global averages.

This momentum, however, carries a hidden cost. On the ground, logistics teams report increasing difficulty keeping up with the pace of construction. Long transport distances, variable road conditions, congested urban corridors, and fluctuating fleet availability are daily operational realities. At the same time, producers face intensifying competition in **a market where customers expect uninterrupted supply**, predictable deliveries, and swift response times. The result is a paradox common in the region: production capacity continues to expand, but logistics capacity is reaching its physical and organizational limits.



Logistics costs now shape competitiveness more than production costs

In the past decade, the cement sector has optimized clinker ratios, improved energy efficiency, and modernized kilns. But once the product leaves the plant, the cost structure shifts dramatically. Multiple specialized logistics analyses show that transport and distribution routinely account for **up to 30-35 percent of the cement's final price**. This makes logistics not just a necessary component of the supply chain but a decisive factor in margin protection.

For MEA cement producers, this challenge is even more pronounced. Transport routes often span hundreds of kilometers. Ready-mix plants can sit in densely populated areas with limited delivery windows. Traffic unpredictability has become a strategic variable. And every urgent, out-of-sequence delivery can multiply both direct and indirect costs.

What's more, the **global shortage of licensed heavy-vehicle drivers** (already severe in Europe and increasingly critical in the Gulf) **tightens the constraints** further. Adding trucks is no longer simply a budget question; it is a **human resources challenge** with real operational consequences.

In this environment, dispatchers need accuracy, predictability, and real-time visibility more than ever.

The blind spot:

why inventory visibility at customer plants remains a challenge

Despite impressive progress in digitalizing transport (GPS tracking, TMS systems, automated route planning, fuel monitoring) one component of the supply chain often remains untouched: the silo itself.

Across MEA markets, many ready-mix plants or distributors still rely on manual or semi-manual practices. Operators climb ladders to check levels. Inventory estimates are made by experience rather than measurement. Orders

are often placed by phone, sometimes late, sometimes early, based on perceived urgency rather than objective need.

These practices create cascading inefficiencies. **Deliveries are triggered too late, causing emergency shipments.** Silo stockouts stop production and disrupt contractors and customers downstream. **Dispatch planners must constantly reshuffle routes**, undermining the very tools designed to optimize transport. The result is a pattern of reactivity that inflates costs and erodes reliability.

In short, without silo visibility, even the most advanced fleet management tools cannot deliver their full value.

Digitalizing silos:

a simple but transformational step for MEA cement logistics

The shift toward silo digitalization is not a technological revolution. It is a logical next step, one that other regions have already adopted with strong results. North American, European, and Latin American cement producers now increasingly treat silo data as a critical component of their logistics intelligence.

For MEA, the advantages are even more pronounced. Silo digitalization provides accurate, 24/7 inventory visibility across every customer site, regardless of geographic dispersion, weather conditions, material type, or silo architecture. Suddenly, dispatchers gain a real-time map of needs. Emergencies become exceptional rather than routine. **Planning shifts from reacting to anticipating.**

This is particularly important in regions where infrastructure expansion is rapid and delivery interruptions have major downstream consequences for contractors, government projects, and major industrial sites.

How SiloConnect works:

a patented, non-intrusive and reliable approach built for harsh environments

Among the emerging measurement solutions, SiloConnect brings an approach designed specifically for large-scale industrial deployment. Instead of measuring the top surface of the material or relying on intrusive hardware inside the silo, such as radar, the system uses **a patented method to measure micro-deformations at the base of the silo** (on one of its supporting legs). This principle, combined with integrated algorithms and AI models, provides reliable visibility of levels even in dusty and high-vibration cement environments where traditional technologies often struggle over time.

Because **installation requires only a single sensor per silo and no structural modifications**, deployment is quick and does not disrupt plant operations (a critical factor in ready-mix operations where downtime is costly). The system feeds continuous data to a web-based platform used by dispatchers and logistics managers, and to a mobile application used by onsite operators, supervisors, and drivers.

The result is a fully digitalized view of inventory levels across the entire network. Dispatchers can identify which silos will run low, plan optimized tours based on actual needs, and reduce the frequency of emergency calls. **Operators no longer need to perform manual checks at height, improving safety.** Until now, many customer sites relied on manual data entry, **which is often imprecise and subject to approximation**, creating inconsistencies in the batching system and causing errors that dispatchers must compensate for. Manual silo checks are not only risky but also provide **information that becomes outdated almost immediately**, forcing logistics teams to plan routes without reliable, real-time visibility. With SiloConnect, this uncertainty disappears, decisions are based on continuously updated



data rather than estimates, supported by an **automatic and customizable alert system** that notifies teams as soon as a truck can be sent to a silo.

In essence, SiloConnect does not add complexity; it removes it.

Driving cultural change: digital adoption beyond the device

Digitalizing silos is not only a technological improvement but also an organizational one. For many cement producers, **the transition marks a shift toward more collaborative, data-driven decision-making across departments.** Dispatch teams can coordinate more fluidly with plant operators. Drivers follow more predictable schedules. Customers receive proactive communication rather than last-minute calls. And the sales department can stay more focused on customer needs and on higher value-added tasks.

This transformation often boosts morale as well as performance. Operators can focus on their core tasks instead of physical checks. Dispatchers no longer spend their day firefighting. Planners can finally rely on reliable data rather than working around uncertainties. For companies preparing for aggressive growth or managing complex networks, this cultural shift is just as valuable as the operational gains. “In the cement sector, technology is rarely the real barrier, the challenge is aligning teams behind new ways of working,” says Sébastien APPLANAT, Director of Global Operations & Industry Relations at Nanolike. “What we saw again at AICCE28 in Dubai is that producers understand the value of real-time silo visibility. The real question now is how fast organizations can adopt it at scale.”

And while digital transformation can be challenging, particularly when **it requires teams to adopt new routines and ways of working**, supporting that transition is often the true differentiator. Having accompanied diverse organizations through similar shifts, we know that the effectiveness of the technology depends as much on the quality of the onboarding and change management as on the device itself.

A competitive advantage for MEA cement producers pursuing predictability and growth

As MEA markets continue expanding, the producers able to deliver the most consistent and reliable logistics performance will shape the competitive landscape. Governments, contractors, and industrial players increasingly value supply-chain predictability as much as product quality. Silo digitalization offers a practical, cost-effective way to deliver that reliability.

The logic is straightforward: when the industry’s biggest cost center becomes more predictable, the entire operation becomes more efficient. And when customers receive timely deliveries without disruptions, loyalty follows.

In this sense, **silo visibility is not simply a new feature, it is the foundation of a more resilient, scalable cement supply chain.**

A practical step toward stronger MEA cement operations

Silo digitalization is emerging as a cornerstone of modern cement logistics. It brings accuracy where uncertainty once dominated, improves safety, strengthens planning, and allows logistics teams to deliver with greater confidence. For MEA producers facing rapid growth, intense competition, and structural constraints on transport capacity, it offers a clear path toward more predictable and efficient operations.



If this subject aligns with challenges your teams are currently navigating or opportunities you are preparing for, our team would be glad to share insights, benchmarks, and case studies from similar deployments. Producers interested in exploring this topic further or in understanding how similar deployments have been carried out in comparable markets can reach out to **Nanolike** through the company website or via its professional **SiloConnect** page on LinkedIn.



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Digitization Technology Empowers Material Storage and Transportation Systems Optimization of Cement Plants

Wen Peng, Yang Gongxiao - Henan SRON Silo Engineering Co., Ltd. - China

ABOUT SRON

HENAN SRON SILO ENGINEERING CO., LTD. is committed to providing safe, reliable and technologically advanced bulk material storage and transport engineering system solutions and EPC general contracting services in the field of industrial infrastructure construction for bulk material storage and handling in building materials, grain, minerals, coal, energy, metallurgy, chemical industry and other industries, such as silo engineering system, closed yard system, fast loading system, terminal bulk material loading and unloading system and other bulk material storage and transport engineering system solutions.

Abstract

SRON Silo has achieved remarkable results by applying digital technology in cement plants and bulk material storage and transportation systems. Through digital warehouse management systems, intelligent monitoring and automated control technologies, intelligent monitoring and automated operation of the entire process of material storage and transportation have been achieved. These technologies have optimized material flow efficiency, reduced operating costs, improved production efficiency and management level, and provided strong support for the transformation and upgrading of cement plants in the digital age.



I. Industry Pain Points: The “Three Major Obstacles” of Cement Plant Storage and Transportation

- 1. Data Isolation:** Traditional cement plants often have dozens of raw material silos, clinker silos, and cement silos, but data on silo location, temperature and humidity, valve opening, and belt scale are scattered across four systems: DCS, PLC, weighbridges, and manual ledgers, making real-time aggregation impossible.
- 2. High Energy Consumption:** The average power consumption in the cement industry is 90 kWh/t, of which storage and transportation account for approximately 12% to 15%. Wasted electricity daily by idling conveyors, inefficient elevators, excessive purging of dust collectors and etc may light up a small county.

- 3. Slow Emergency Response:** Blockage, silo overflow, and belt tears are often reported after the fact, with the mean time to repair (MTTR) >4 hours, causing kiln system stoppage and preheater shutdowns, resulting in direct economic losses of millions.

II. Technology System: SRON's “1 Platform + 3 Middle Platforms + N Scenarios” Digital Architecture

Relying on the company's EPC general contracting advantages in welded steel silos, assembled steel silos, spiral folded silos, and air-supported membrane material yards, we have built the industry's first “Storage and Transportation-Specific Digital Twin Platform,” forming a three-layer architecture of “Data Middle Platform - Business Middle Platform - AI Middle Platform,” and implementing it in eight typical scenarios in cement plants.

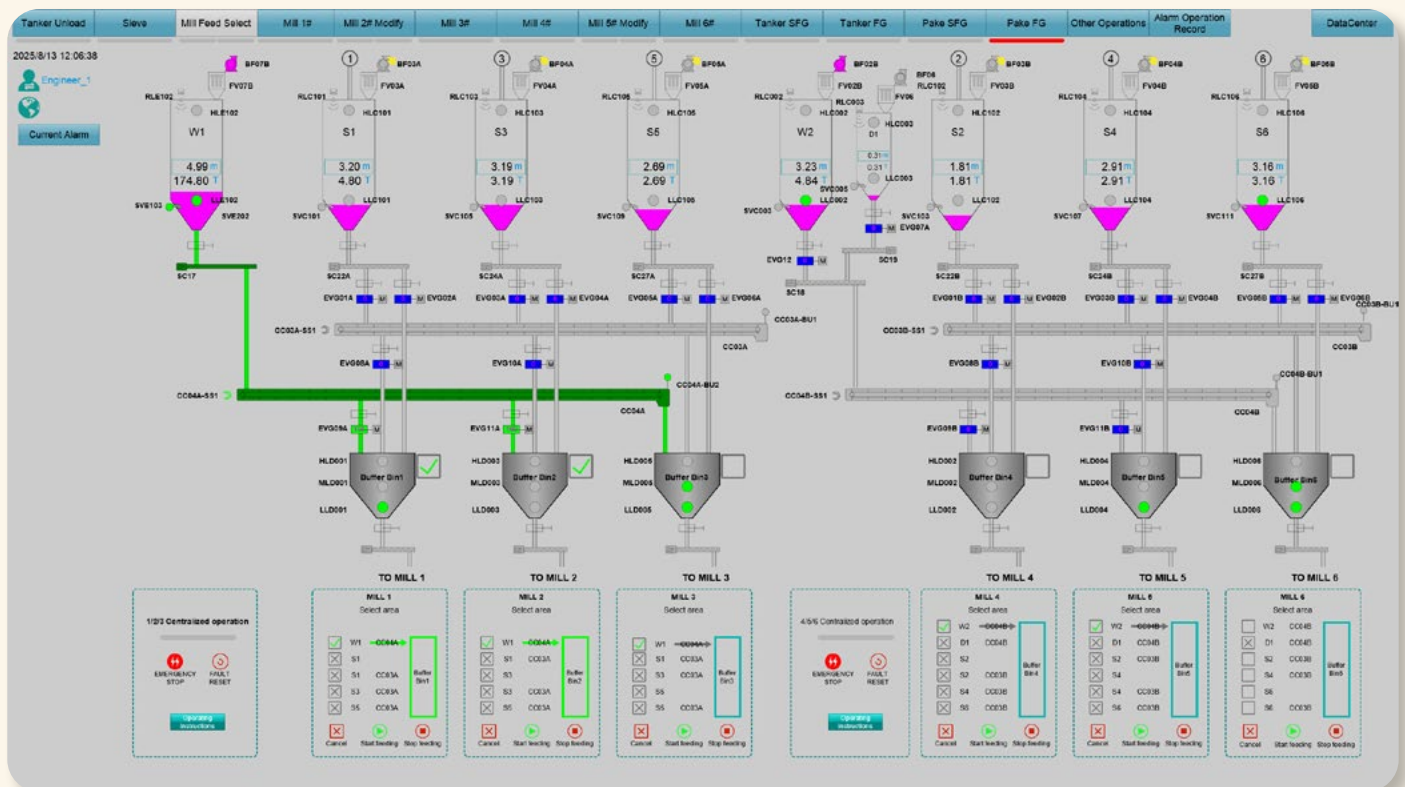


1. Data Middle Platform: Making Every Particle of Material “Speak”

- Full-Element Perception: Deploying 3D radar level meters, arrayed temperature measurement cables, vibration sensors, high-definition AI cameras, environmental dust monitors, and other 12 types of terminals at key nodes or positions such as silo rooftops, silo walls, conveyor corridors, and loading buildings, to collect 28 core parameters at millisecond level such as material level, temperature, particle size, flow rate, and dust content.
- Full-Link Communication: Using a hybrid network of “5G + Industrial WiFi6 + LoRa,” the end-to-end latency within the silo area is <20 ms, ensuring low-latency requirements for scenarios such as mobile loading machines, drone inspections, and AR glasses.

2. Business Middle Platform: Making Processes as “Lego-Like” Programmable

- Inventory Optimization Engine: Taking the clinker silo as an example, the system automatically calculates the “optimal safety stock” curve based on kiln system output, grinding mill plan, and shipping/trucking delivery plan, increasing silo utilization by 8% to 12%.
- Intelligent Dispatch Engine: Integrating the real-time operating conditions of four major conveying subsystems: belt conveyors, elevators, air chutes, and bulk loaders, and using genetic algorithms to dynamically plan paths, reducing average conveying energy consumption by 6.3%.
- Equipment Health Engine: Using the elevator as a pilot, through vibration + current dual-modal feature extraction, it could predicate bearing failure 7 days in advance, improving spare parts turnover rate by 30%.





3. AI Middle Platform: Giving the System the Brain of a “Cement Expert”

- Visual AI: Self-developed algorithms that can identify 21 types of anomalies such as belt misalignment, material flow shape, and cracked belts, with an identification accuracy of 97%.
- Predictive AI: Based on LSTM energy consumption models, combined with weather, output, and peak-valley electricity prices, predicting the next 24 hours of electricity load and automatically issuing “peak shaving and valley filling” strategies, saving a single plant RMB 1.5 million annually in electricity costs.
- Decision AI: Deep reinforcement learning algorithms drive “unmanned loading” scenarios, achieving automatic alignment of bulk cement trucks, automatic material discharge, and automatic printing of tickets, increasing loading efficiency by 50%.



4. N Scenarios: Implementation of Digitalization in the Entire Cement Storage and Transportation Chain

- **Intelligent Feeding:** Raw material stockpiles such as limestone and sandstone use “drone stockpile inventory + 3D stockpile modeling” to complete accurate inventory of 300 m long stockpiles in 10 minutes, with an error of <1%.
- **Intelligent Batching:** Raw meal homogenizing silos achieve a 6% increase in raw meal qualification rate through “material level + composition” dual closed-loop control.
- **Intelligent stock relocation:** Clinker silos use a combination of “air cannons + vibration cleaning machines + VR remote control” to increase emptying efficiency by 3 times, eliminating the need for personnel to enter 50°C high-temperature silos.
- **Intelligent Operation and Maintenance:** “Virtual inspections” based on digital twins replace 70% of manual inspection workload. Inspection robots walk 20 kilometers daily, automatically generating 190 inspection reports.
- **Safety Emergency:** AR glasses real-time overlay silo temperature, material level, and CO concentration. In the event of an anomaly, a remote expert can be called with one click, shortening the average fault localization time from 40 minutes to 5 minutes.
- **Green and Low-Carbon:** The operating parameters of bag dust collectors are optimized in real-time by AI, extending the life of filter bags from 1.5 years to 2.4 years, reducing waste solid waste from discarded filter bags by 20%.



III. Implementation Results: The “Real Money” of Digitalization

1. **Economic Benefits:** Digital transformation saves 2.8 million kWh of electricity, 1200 tons of coal, and reduces downtime losses by RMB 6 million annually, with a comprehensive ROI of 14 months.
2. **Social Benefits:** Dust emission concentration is stabilized at $\leq 15 \text{ mg/Nm}^3$, which is better than the national ultra-low emission standard; major safety accidents have been “zero recorded” for three consecutive years.
3. **Knowledge Accumulation:** The project has accumulated 8 invention patents and 4 software copyrights, forming a replicable “Cement Storage and Transportation Digitalization Implementation Guide.”



IV. Co-creation Ecosystem: From “Project Delivery” to “Continuous Operation”

- **Platform Openness:** The energy management system of the SRON digital twin platform is plug-and-play.
- **Financial Empowerment:** We have partnered with banks to launch a “Storage and Transportation Digitalization Transformation + Green Loan” model, allowing customers to start projects with a 30% down payment and repay in installments using the energy savings.
- **Continuous Iteration:** The platform releases upgrade packages every quarter, and AI models learn online to ensure that the technology does not become outdated.

Conclusion:

***Making Storage and Transportation Simpler,
Making Cement Greener.***

The ultimate goal of digitalization is not to show off skills, but to make every cement plant safer, more efficient, and greener. SRON will continue to uphold the concept of “Technology creates the beauty of project” and work with partners throughout the industry to reshape the future of the cement industry with the power of digitalization. We look forward to carrying out deeper cooperation with everyone present to jointly build a “digital engine” for high-quality development of the cement industry!

High-Efficiency & Low-Resistance Membrane Filter bags promote the green development of Cement Industry

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Abstract:

One case 5000 t/d cement clinker production line in the Middle East, emission concentration 15-30 mg/Nm³ from the kiln , failing to meet the environmental protection requirements for ultra-low emission target. The system operating pressure drop was 1700-2200 Pa, with excessively high operating resistance, increasing the power consumption of the exhaust fan. Sinomatech-Nanjing fiberglass R&D ,through technical transformations such as upgrading the filter bag material and reducing the filtration wind speed, the particulate matter emission from air pollution was reduced to below 5 mg/Nm³, and the system pressure below 1000Pa.

Keywords: Dust Collector; High-efficiency membrane ; Material Upgrade; Ultra-Low Emission; Energy Conservation

Introduction

As an important industry in the national economy, the cement industry faces practical problems such as high energy consumption and high pollution, which affect the sustainable development of the industry. The cement plants clarifies the assessment and control of energy consumption to promote the green development of cement industries. Therefore, reducing the power consumption of the exhaust fan in the dust collector system plays a key role in lowering the energy consumption per unit product and helps the cement industry achieve the dual carbon goals.

Bag filters are key equipment for controlling particulate matter emissions in cement plants, and filter bags, as one of the core components of the bag filter system, are particularly important. Conventional filter bag materials can no longer meet the current environmental protection and energy-saving requirements. Sinomatech-Nannjing R&D upgrade and improve the High-efficiency low-resistance membrane filter material, and reduce the filtration wind speed of the dust collector system as much as possible to achieve the goal of “energy conservation and emission reduction” of the system.



1. Technical Parameters of the Kiln Tail Bag Filter

The kiln flue gas system is a three-fan system. During clinker production, the output of the raw material mill is greater than the kiln feed rate, and when the homogenization silo is full, the mill needs to be shut down for 4-5 hours per day.

The kiln tail bag filter was designed and manufactured in 2008, with a designed filtration wind speed of 0.97 m/min, a designed dust emission requirement of ≤ 30 mg/m³, and a system resistance of ≤ 1800 Pa, which is far from the current environmental protection and energy-saving situation of the cement industry. The technical parameters of the bag filter before transformation are shown in Table 1.

Item Details	Technical Parameters
Processed Dust	Raw meal powder and kiln tail exhaust gas dust
Inlet Dust Concentration	80-150g/Nm ³
Normal Operating Temperature	≤ 200 , instantaneous 250°C
Filter Bag Material	Woven fiberglass with membrane
Net Filtration Area	16213m ²
Filtration Wind Speed	0.97m/min
Fan Air Volume	940000m ³ /h
Operating Speed	860r/min
Motor Power	1400kW

Item Details	Technical Parameters
Rated Current	97A
Outlet Dust Emission	5-8 (mill running); 11-14 (mill shut down)mg/Nm ³
System Operating Pressure Difference	1700-2200Pa
Filter Bag Service Life	3Year

Table 1 Technical Parameters of the Bag Filter Before Transformation

2. Analysis of Existing Problems

It can be seen from Table 1 that the operating effect of the dust collector before transformation had two items of operating data that failed to meet the requirements of the current situation: first, the dust emission exceeded 10 mg/Nm³ when the mill was shut down, failing to meet the environmental protection requirements for ultra-low emission; second, the system operating pressure difference was 1700-2200 Pa, and the high resistance led to high power consumption of the fan; third, the system filtration wind speed was 0.97 m/min, which is relatively high in the industry. Combining the system operating conditions, operating effects and on-site investigation, we believe that the main reasons for failing environmental protection standards and high power consumption are the low filtration efficiency of the filter material, high filtration resistance and excessively high system filtration wind speed.

2.1. Low Filtration Efficiency of the Filter Material

The average pore size of the PTFE membrane on the surface of the original woven fiberglass filter material is relatively large, resulting in a decrease in the capture rate of fine dust. When the mill is running, the dust collector filtration the raw mill dust, whose average inlet dust particle size is relatively large, meeting the requirements for ultra-low emission of particulate matter; when the mill is shut down, the kiln dust average particle size is relatively fine. The large average pore size of the PTFE membrane will cause some fine dust below PM_{2.5} to escape, resulting in the particulate matter failing to meet the ultra-low emission limit (10 mg/m³).

2.2. High Filtration Resistance of the Filter Material

The structural resistance of the bag filter itself is generally around 300 Pa. In the early stage, the operating pressure drop of the dust collection system was basically 1700-2200 Pa. The high pressure drop mainly comes from the filtration resistance of the filter bag. The original filter material PTFE membrane with lower porosity and low air permeability, and some fine dust enters the base material of the filter material, resulting in a decrease in the overall air permeability of the filter bag and a gradual increase in the system operating resistance. The high resistance leads to high power consumption of the fan motor.

2.3. Excessively High System Filtration Wind Speed

The designed filtration wind speed of the dust collector system is 0.97 m/min, which is relatively high in the industry. The excessively high flue gas flow rate will not only affect the particulate matter emission concentration but also the system operating resistance. The enterprise once considered: (1) Installing dust collection chambers at the front or rear of the dust collector to increase the total number of filter bags. However, due to the limited space distance at the inlet and outlet of the dust collector and high construction difficulty, this plan had to be abandoned; (2) A technical transformation plan of raising the clean air chamber and tube sheet

of the dust collector upward to lengthen the filter bag length to increase the filtration area, but the one-time transformation investment cost was relatively high.

3. Solutions

3.1. Upgrade and Improvement of Filter Material

Membrane filter adopt the mechanism of “surface filtration”. Their filtration efficiency and filtration resistance depend on the technical performance of the surface PTFE membrane. How to improve various performance indicators of the PTFE membrane during the design, manufacturing and processing process, such as average filtration pore size, porosity and uniformity, to achieve the purpose of improving the filtration efficiency and reducing the operating resistance of the membrane-coated filter material.

3.1.1. Improvement of Filtration Efficiency

Micropore control technology: Through process optimization, the microstructure of the ePTFE membrane is redesigned, and the average pore size distribution of the new generation of microporous membranes is more uniform.

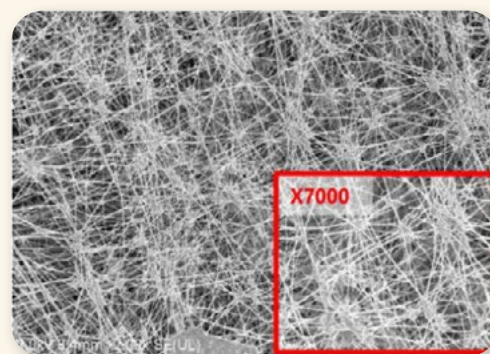


Figure 1 Microstructure Diagram of the Previous Generation ePTFE

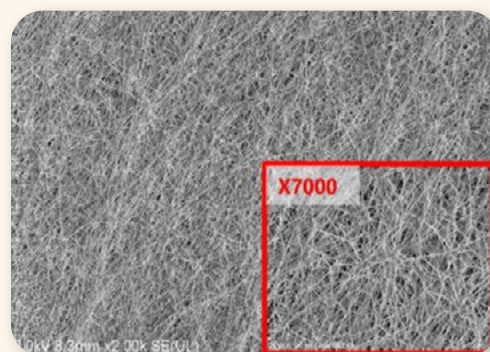


Figure 2 Microstructure Diagram of the New Generation ePTFE

Compared with the previous generation of e-PTFE membranes, the new generation of membranes shows significant optimization characteristics at the microstructural level. Its “fiber island” - shaped nodes are significantly refined, and the density of fiber distribution is greatly increased, leading to an improvement in dust interception efficiency. The filtration efficiency for PM2.5 particulate matter can reach more than 99.999%, which greatly improves the filtration efficiency of the membrane-coated filter material and achieves “near-zero emission”.

3.1.2. Reduction of Operating Resistance

Fiberization technology: Sinaomtech-Nan Jing Fiberglass R&D Conduct research on the mechanism, and simulate the fiber formation method of the ePTFE membrane through simulation technology, as shown in Figure 4.

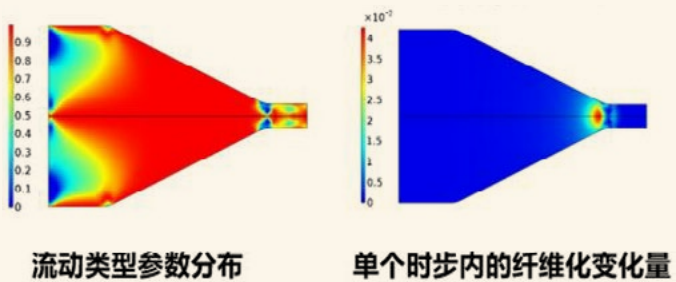


Figure 4 Simulation Diagram

Through process optimization, the expansion degree of the membrane is significantly improved, the porosity of the membrane is increased, and the air permeability is greatly improved. The air permeability of the new generation of ePTFE membranes is 30% higher than that of the previous generation. In actual operation, this advantage can effectively reduce the system operating resistance, ultimately achieving the goals of saving system energy consumption and improving overall operating efficiency.

3.2. Reduction of Filtration Wind Speed

According to the structural design drawings of the kiln tail dust collector and on-site actual measurements, there is an 800 mm space between the bottom plane of the filter bag and the plane of the ash hopper, and the flue gas inlet of the box does not directly blow to the filter bag, as shown in Figure 5.

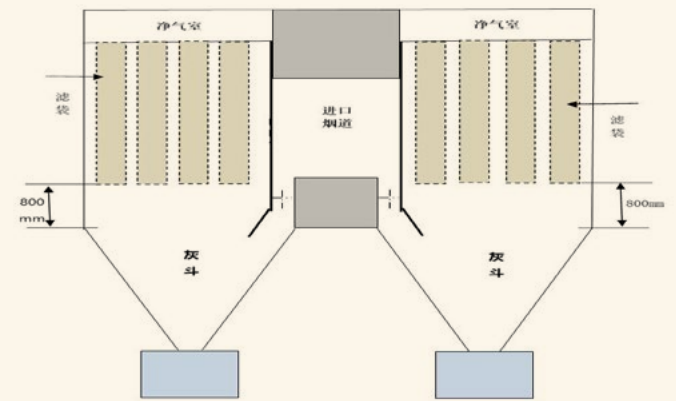


Figure 5 Front Sectional View of the Dust Collector Inlet

Therefore, it is not necessary to modify the overall structure of the dust collector. Only by increasing the length of the filter bag from the original 6000 mm to 6500 mm, the net filtration area can be increased by 1351 m². After lengthening, the system filtration wind speed can be reduced from 0.97 m/min to 0.89 m/min, a decrease of 8.3%. See Table 2 for the technical parameters of the bag filter after transformation.

Item Details	Technical Parameters
Processed Dust	Raw mill and kiln
Normal Operating Temperature	≤200, instantaneous 250℃
Inlet Dust Concentration	80-150g/Nm ³
Filter Bag Material	High-efficiency membrane filter

Item Details	Technical Parameters
Net Filtration Area	17564m ²
Filtration Wind Speed	0.89m/min
Fan Air Volume	940000m ³ /h
Operating Speed	860r/min
Motor Power	1400kW
Rated Current	97A
Outlet Dust Emission	3-5mg/Nm ³
System Operating Pressure Difference	≤1000Pa

Table 2 Technical Parameters of the Bag Filter System After Transformation

Particulate Matter (mg/m ³)		O ₂ (%)	Remarks
Actual Concentration	Converted Concentration		
4.08	2.95	5.75	After upgrade, mill running
4.20	3.07	4.96	After upgrade, mill shut down

Table 3 Hourly Average Values of Particulate Matter in Exhaust Gas Pollutants (June 5, 2023)

4. Operating Effect

As of March 2025, it has been put into operation for 22 months. After the upgrade and transformation, the on-line monitored hourly emission of particulate matter during both mill operation and shutdown is less than 5 mg/m³, meeting the environmental protection requirements for ultra-clean emission, as shown in Table 3.

The initial operating pressure difference of the dust collector system is less than 600 Pa, and after 22 months of operation, the system operating pressure difference is below 1000 Pa. The motor current has decreased by about 8%, and the fan speed has decreased by about 5%, achieving the goal of reducing the system operating resistance of the dust collector system, as shown in Table 4.

System DP(Pa)	Motor Current (A)	Fan Speed (r/min)	Remarks
1800	64.9	663	Before upgrade, mill shut down
580	59.4	632	After upgrade, mill shut down
950	60.7	649	After upgrade, mill shut down
745	57.2	552	After upgrade, mill running

Table 4 Comparison of Central Control Data of System Operation

According to the estimation and calculation of operating data: the annual reduction of dust emission is about 30 tons, the fan power saving per ton of clinker is about 1.0 kWh/t, and the total annual power saving is about 1.2 million kWh, promoting the green development and achieving good social and economic benefits.

5. Conclusions

5.1. The core of a bag filter is the filter material. Choosing Sinomatech-Nanjing Fiberglass R&D a high-efficiency and low-resistance membrane-coated filter material provides great help for cement manufacturing enterprises to achieve "Energy conservation&emission reduction".

5.2 The filtration wind speed of the system affects the operating results such as dust emission, system resistance and filter bag service life. The impact of the system filtration wind speed must be fully considered before the project design and transformation.

5.3. To meet the requirements of ultra-low emission of particulate matter for bag filters, it is not necessary to modify the equipment shell. As long as the system filtration wind speed is appropriate and high-efficiency and low-resistance membrane-coated filter materials are adopted, the requirements of ultra-low emission of particulate matter and low-resistance operation can also be achieved.

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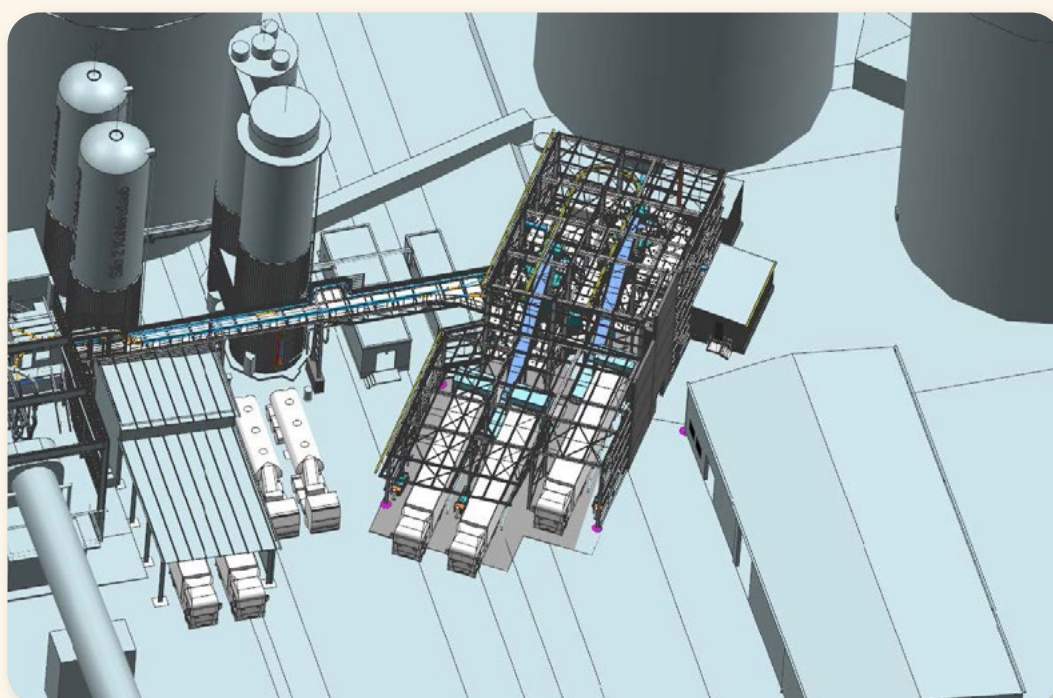
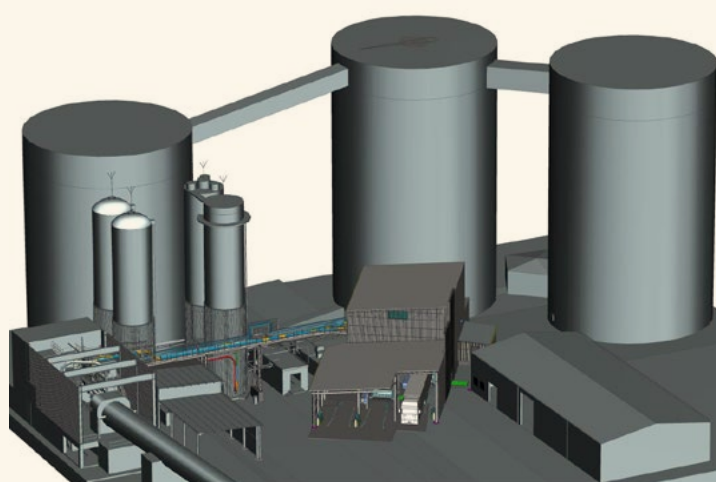


Two current case studies for the use of alternative fuels for cement

Intercem Engineering GmbH

Intercem assumes the responsibility of engineering, supplying and installing cutting-edge alternative fuel projects for its customers, placing great emphasis on environmental concerns and resource optimisation.

Case study 1: Truck receiving station and dosing for alternative fuels for the feeding of the rotary kiln in the Solnhofen Portland cement plant.



Masterlayout

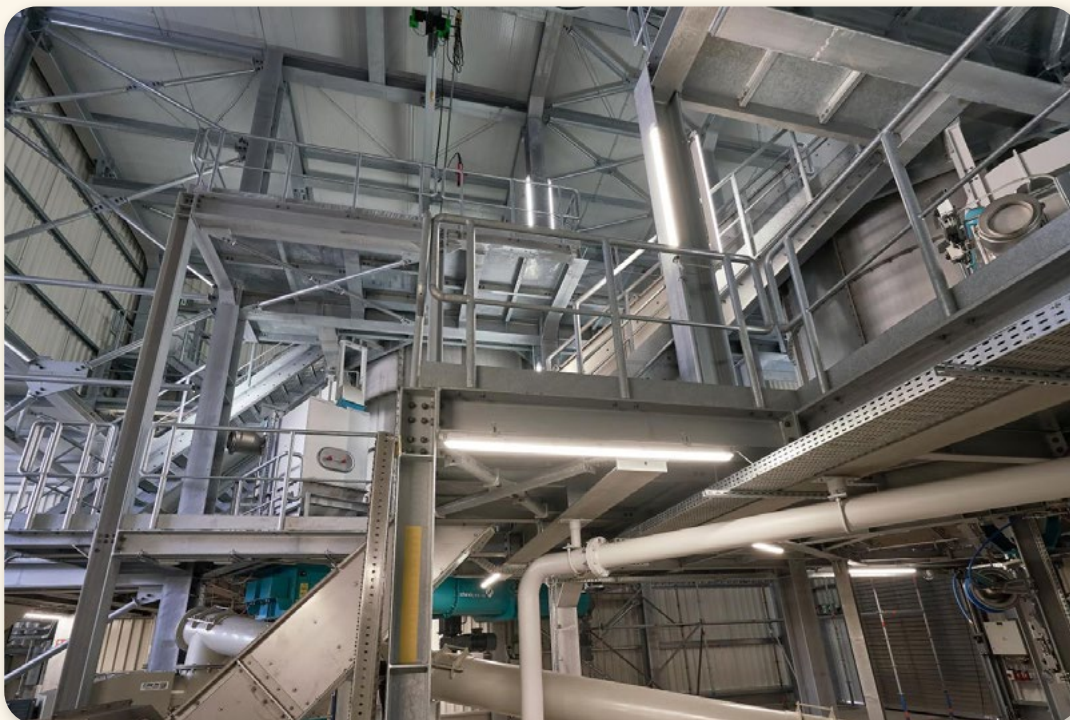


Alternative fuel truck receiving and dosing station at Solnhofen cement kiln

The aim of this investment/optimisation was to increase the substitution of alternative fuels for the fuel supply of the rotary kiln, the flexible feeding of the individual qualities and the homogenization by weighing of each individual fuel of the total output of the fuel calorific values.

In preparation for optimizing the alternative fuel feeding station, several key measures were

implemented. The feeding of various alternative fuels to the rotary kiln was addressed to ensure flexibility and efficiency. Additionally, the existing pulverized coal feeders at the Portland cement plant in Solnhofen were upgraded to improve performance and reliability. The conversion to the latest state-of-the-art technology took place between 2020 and 2021, laying the foundation for enhanced operational capabilities.



Processing of alternative fuels



Truck receiving station and dosing for alternative fuels in operation since June 2022

Objective of installing the EBS intake & dosing station:

Plant description Pyro process:

- Rotary kiln with 4-stage heat exchanger, built in 1970, with 7% chlorine bypass
- High-dust catalyst with approx. 1,100 t/d clinker production.
- EBS feeding exclusively via kiln head.

Feeding via the Unitherm burner:

- Light fuel oil and coal dust for heating up the plant after a shutdown
- Production operation:
- EBS/fluff
- Tyre fluff

Feeding via satellite burner:

- Animal meal and coal dust (powder agent against grease build-up in the conveyor line).

The primary objective of installing the EBS intake and dosing station is to significantly increase the share of alternative fuels used in the rotary kiln, raising the current proportion of EBS from approximately 60% to a target range of 95–98%. This upgrade is a critical step toward improving fuel efficiency and reducing reliance on conventional fossil fuels. The system is designed to handle and feed multiple types of fuels individually and independently, ensuring precise dosing and operational flexibility. These fuels include EBS and fluff in various types and qualities, tyre fluff, animal meal, and coal dust. Each material presents unique handling and dosing requirements, which the station must accommodate to maintain consistent combustion performance and meet environmental and operational standards. By implementing this solution, the plant aims to optimize energy utilization, enhance sustainability, and achieve greater cost efficiency in its production process.

Operating results:

	Feed quantities	Operating mode	Calorific value (Kcal/kg)
AF	2,5-3,5	Individual feeding	5.100-5.400
Fluff		Individual feeding	5.700-5.900
Tyre fluff	1,0-1,3	Individual feeding	7.800-8.000
Animal meal	2,8	Only in combination	4.300-4.800
Coal dust	0,12 – 0,15		6.500-6.700

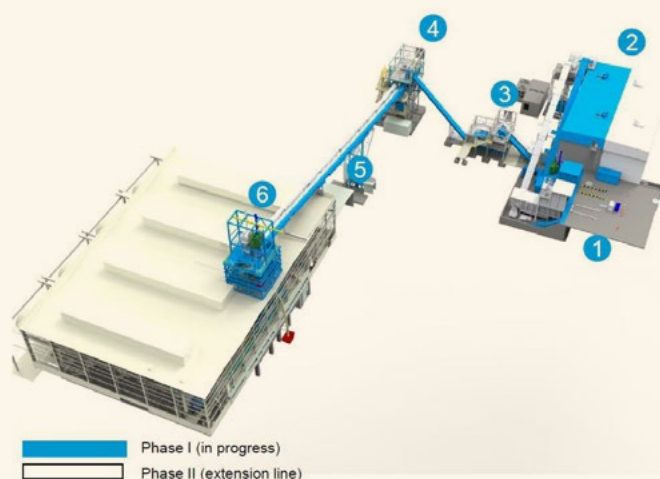
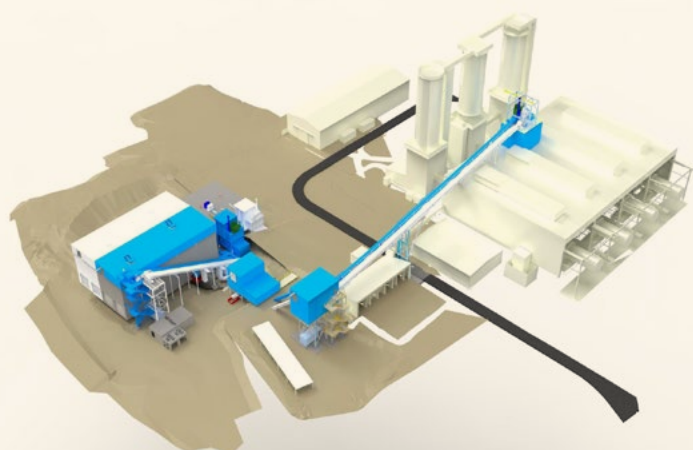
The plant has been operating virtually trouble-free since June 2022, which means three years of stable performance, with only one repair required on a drive station of an RDF chain conveyor. The RDF feed has reached an annual average of 96–98%, with an availability of approximately 8,000 production hours per year. However, achieving a full 100% RDF feed without disruption is not possible because coal dust can only be fed in combination with animal meal.

In 2023 and 2024, the cement plant was recognized as the facility in Germany with the highest EBS feed rate and the lowest CO₂ emissions.

Case study 2: European Customer / Project in progress.

Intercem is responsible for the engineering, supply, and installation of a state-of-the-art alternative fuel plant at a European customer's facility.

The customer aimed to increase RDF rate on rotary kilns and reduce CO₂ emissions.





1. Truck receiving station



3. AF screen tower



2. AF (alternative fuel) storing with automatic reclaimer



4. Transfer tower



5. Air-supported belt conveyor

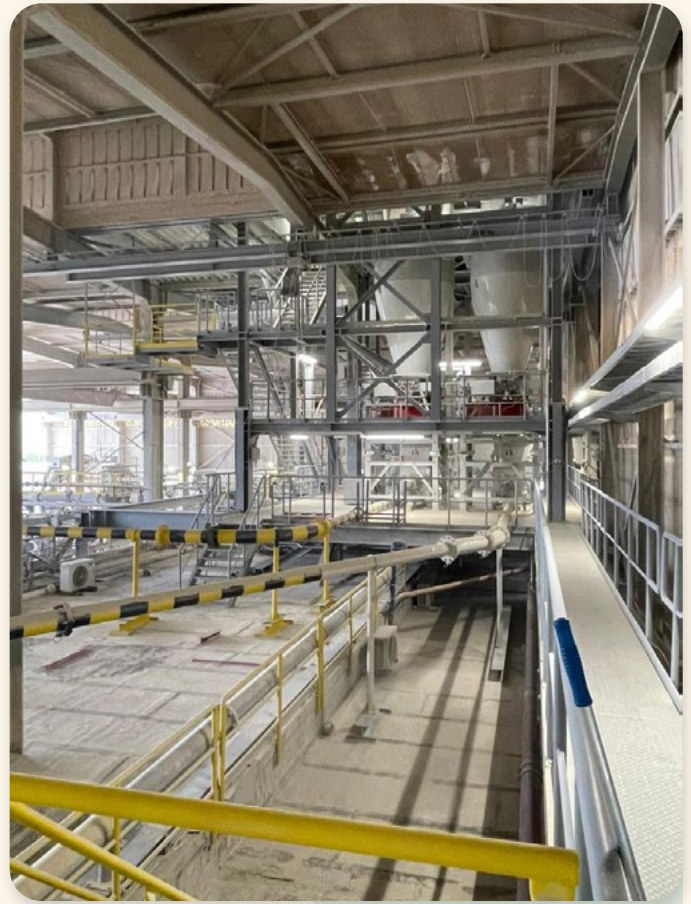
The process begins with the delivery of fluff material to a tailor-made truck receiving station by walking floor trailers after which it is smoothly conveyed to a storage box for phase I and a second storing box in phase II, allowing for continuous material flow.

From there, the material is discharged and conveyed towards the dosing systems on the burner platform. An automatically operated reclaiming system allows smooth storing and reclaiming. The removing of foreign matters from the fluff is ensured by the meticulous sorting process.

An advanced disc screen separates oversized material from the main process flow. The alternative fuel is transported to the feeders and three dosing units for phase I, precisely supplying the main burners of the rotary kilns.

Challenges

The project presents a range of significant challenges. First, the financial aspect is considerable, as building a new alternative fuel plant and integrating advanced technologies involves high upfront costs that can put pressure on company resources. Beyond the financial



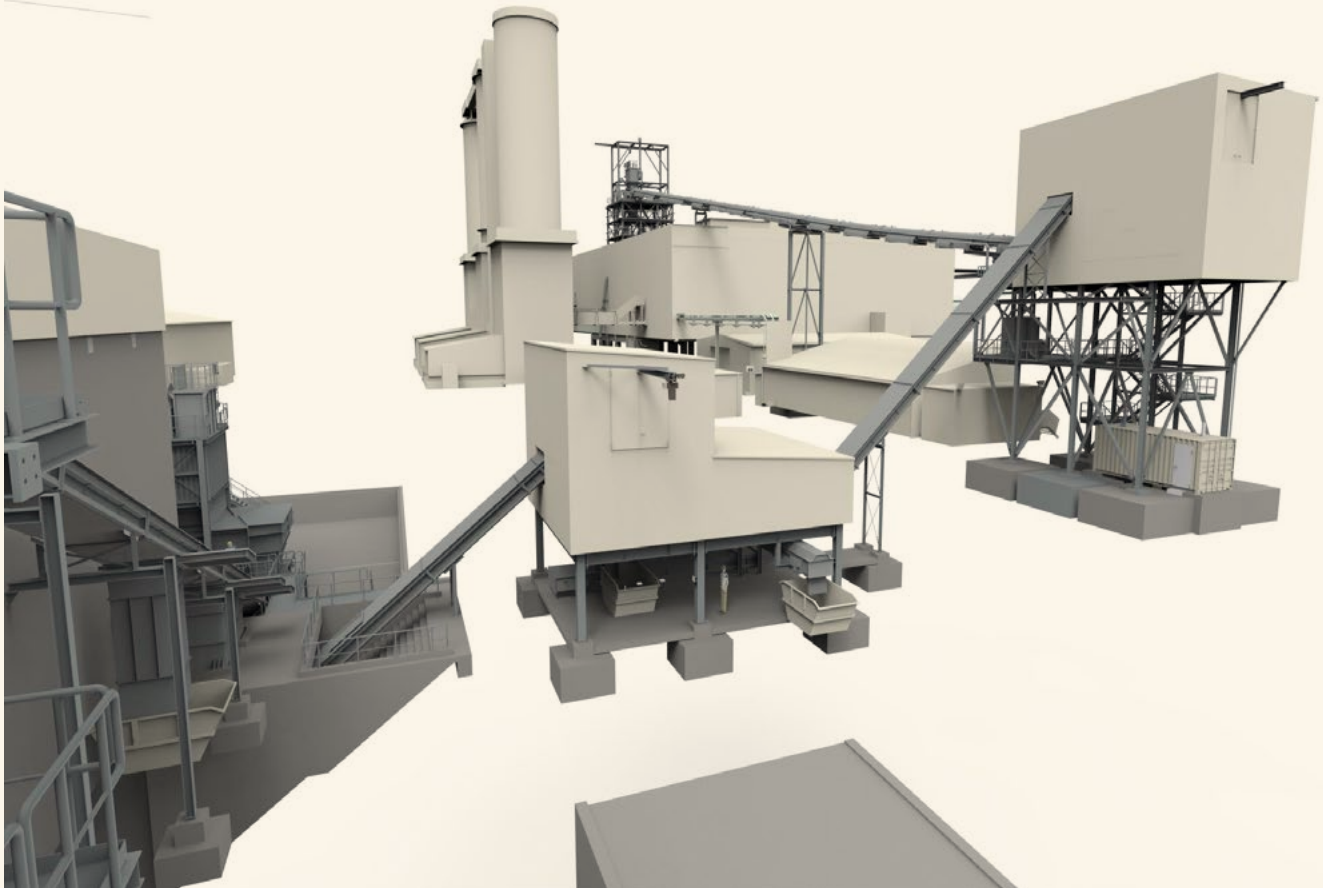
6. Dosing tower with dosing units

investment, operational complexity increases substantially, requiring careful management of storage, sorting, and multiple dosing units, which in turn demands additional training and ongoing maintenance to ensure smooth operations. From a technical standpoint, integration poses its own difficulties: introducing new equipment into existing infrastructure requires precise engineering and installation planning, while ensuring interface clarity and structural compatibility is critical to avoid operational risks. Existing elements such as cable trays and conveyor pipelines must be taken into account during design and implementation, and extensive engineering expertise is essential to manage these complexities effectively and keep costs under control. Together, these factors highlight the need for thorough planning and resource allocation to successfully deliver the project.

Achievements and goals

The project has achieved its targeted production volumes, successfully meeting throughput goals. The system demonstrates the capability to handle a wide variety of alternative fuel types, ensuring flexibility in operations. The alternative fuels plant operates with exceptional reliability,

providing very high availability. Furthermore, the highest dosing accuracy is maintained, guaranteeing consistent and stable operation across all four rotary kilns. Optimized processes enable continuous production, ensuring uninterrupted kiln operation and overall efficiency.

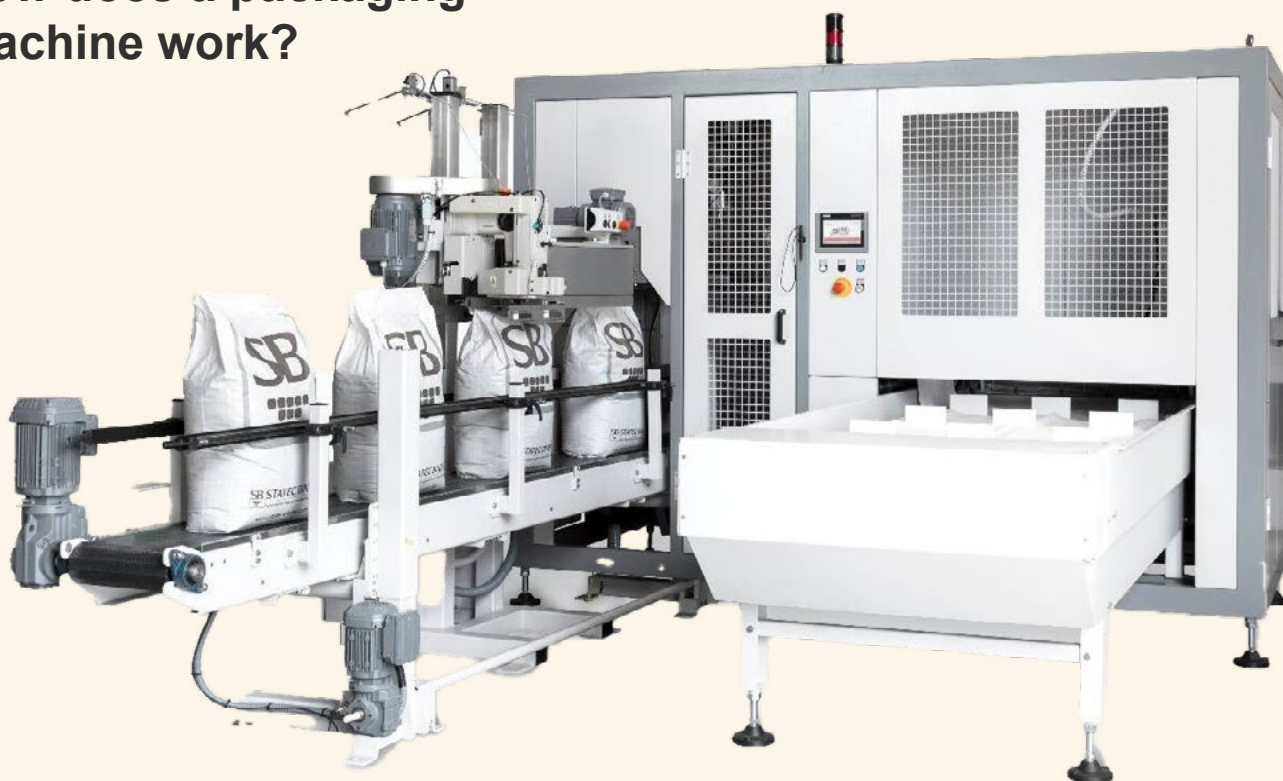


Impression of Our Latest Project: Alternative Fuel Plant



Alternative Fuel Plant in operation since Q1 2025

How does a packaging machine work?



The purpose of any packaging machine is basically always the same: to package products as efficiently and, above all, safely as possible.

But how does such a packaging machine basically work? Depending on the type of packaging machine, in our case open-mouth bags or FFS (form-fill-seal) for free-flowing to powdery products, the packaging process runs differently. The basic principle is the same:

1. A single bag, made of woven PP, PE or paper, is placed on the filling clamp
2. The product is precisely filled into the bag after the product is previously weighed by a scale
3. It is conveyed to a closing machine.

Sounds like a simple process. The complex thing about packaging machines is not the basic process, but the adjustments and precision of the components. Fully automatic packaging machines only function reliably when specific process steps are coordinated with each other.

The interaction is of utmost importance here, because otherwise it could happen that a filled bag is released too early or the product

flows without a bag having been attached to the filling clamp. Such scenarios must of course be prevented and this requires precise programming, commissioning and operation.

If cleaning and maintenance measures are then carried out regularly, a packaging machine will provide several decades of good service.

Most common types of packaging

- Open-mouth packaging machines, using a pre-made bag made of paper, PE or woven PP
- FFS (Form-fill-seal) packaging systems
- Big Bag Filling stations

Open-Mouth versus FFS bagging:

The modes of operation of the two machines clearly show the differences between the two types of packaging machines. Whereas open-mouth bagging machines use a prefabricated bag and either sew, seal or heat-seal it after filling, the FFS packaging machine makes the bag before filling and always seals it. Depending on the product to be packed and the required output, either an open-mouth or FFS machine is the better choice.

Open mouth bagging machines

The processes up to the filled and sewn bag are designed to be simple but effective. Prefabricated bags made of woven PP, PE or paper are separated from a stack in the magazine with the aid of vacuum suction cups and transported to the deposit table.

Here, the bag is opened by means of a squeegee, placed on the filling clamp, clamped and filled. The filled bag is then picked up and placed on the conveyor belt and from there transported to the bag closing machine, which sews, welds or heat-seals the bag depending on the material.



FFS (form-fill-seal) bagging machines:

The work stations of the machine are divided into forming, filling and sealing the bags. Due to this principle, three bags can always be processed at the same time.

The advantage of this is that the cycle time of each work step is optimized and, even at high production speeds, it is ensured that the bags are always formed, filled and sealed at exactly the right time.

1. The tubular film is pulled to the first sealing bar with the help of a dancer roller/balancing rocker, where the bottom of the bag is sealed and a knife cuts the individual bag from the roll.
2. The bag is then passed to the filling station and placed on the filling clamp.
3. Once the bag is filled, it is passed to the next welding station where the top weld is made.
4. As soon as this is finished, the bag is transported by conveyor belt, e.g. to a palletizer.



Vertical FFS bagging machine

1. The flat film is pulled over a forming shoulder, which has a low-friction coating, and formed into a tube.
2. A permanently heated sealing bar performs the vertical overlap sealing.
3. The weighed product enters the bag via the filling tube.
4. Two electronically controlled sealing bars seal the finished pack at the top and simultaneously form the bottom seal for the next pack.
5. Intensive air cooling enables the shortest possible cycle times.
6. A built-in knife separates an already filled bag from the tube.
7. The bag is then transported via a conveyor belt to a palletizer.

Differences in product handling

The basic structure above the machine is similar for both FFS and open-mouth. An infeed hopper is installed above the packaging machine. On a steel frame placed above the machine is a scale, depending on the product with gravity, belt or screw dosing, which in turn is placed below a product silo or the product infeed.

Depending on the characteristics of the product, machines can be equipped with, for example, a dust-tight filling clamp or, in the case of abrasive products, with a special casing.

How does a palletizer work?

In palletizers, whether high-level or robotic palletizers, bags or cartons are stacked on a pallet and then secured for storage or shipping, for example. A simple description of how a palletizer works:

1. A bag or carton arrives at the palletizer via a conveyor belt.
2. It is brought into the correct position and positioned on the pallet.
3. As soon as the layer is finished, the next layer is started and thus bags or cartons are stacked more and more on top of each other.
4. When the defined number of layers has been reached, the entire pallet is conveyed to the pallet securing unit.



Degrees of automation in packaging systems

1. Manual: In the case of manual bagging systems, personnel are always required during operation of the machine to place the bag to be filled on the filling clamp, fasten it and, after filling, guide it to be sewn or welded. All these steps must of course be carried out in compliance with various safety precautions.
2. Semi automatic: If a semi-automatic packaging machine is used, only personnel are required to place the bag to be filled on the filling clamp. The machine fills the bag and places it back on the conveyor belt, which transports the bag to a closing machine, without the intervention of personnel.
3. Fully automatic: Fully automatic packaging systems clearly have the advantage that the machine works independently and carries out processes automatically. For this reason, personnel are only required to monitor the safe operation and settings of the machine. This means that personnel resources can be used more efficiently. In addition, fully automatic bagging systems can increase performance and thus output. A variety of safety precautions ensure reliable and, above all, safe operation.



Dust-free compression/packaging of empty big-bags in clean rooms

Dust emission when folding big-bags is avoided by using a big-bag compactor with an integrated compressed-air cleaned filter

Big-bags are increasingly being used in the processing of raw materials. After big-bags are emptied, they are often folded. During folding, dust is generated. This dust emission can be avoided by using a big-bag compactor with an integrated compressed-air cleaned filter.

The Poeth big bag compactor, is specially developed for dust-free compression and packaging of empty big-bags in clean rooms.

The space inside the compactor is so large that the big-bag fits neatly inside it without folding. The amount of waste is reduced to a minimum. At the end, the empty big-bags are packed dust-proof in an endless film.

The integrated filter is suitable for very different powders: from very fine to very sticky. A secondary HEPA filter can be placed behind the filter. Whether

mobile or not, the unit is equipped with its own control/control box.

Conventional bag compactors used to compact empty big bags often get stuck because big bags are much stiffer than empty bags. The Poeth big bag compactor, which was specially developed for big bags, does not have this disadvantage.

The system can be supplied both internally and externally fully ATEX certified.





Can pneumatic conveying be gentle and energy efficient?



The Gericke dense phase pneumatic conveying systems are designed to deliver exceptional bulk transport performance while preserving the integrity of sensitive materials.

Dense phase pneumatic conveying systems are designed to deliver exceptional bulk transport performance while preserving the integrity of sensitive materials. The Swiss Gericke Group is a leader in this technology, integrating dedicated controllers to simplify integration and optimise the processes while conserving energy.

Dense phase conveying systems are designed for applications where product quality is paramount. Whether handling powders, granules, flakes, or pellets, Gericke's dense phase conveying technology ensures minimal changes in bulk density and particle size distribution, while also reducing the risk of demixing. This makes them ideal for industries requiring gentle handling of fragile or blended materials.

A key advantage of the system lies in its use of pressure vessels without rotating parts. This significantly reduces maintenance requirements and eliminates the risk of metal contamination. The systems are completely dust-tight, offering a clean and safe solution with no leakage—unlike rotary valve systems used in dilute phase conveying. Operating at pressures of up to 6 barg, they enable high solids loading and low gas consumption. This translates into energy efficiency and reduced operational costs.

Gericke's dense phase systems are capable of conveying materials over distances of up to 500 metres and at capacities reaching 150 m³/h. They are available in carbon steel or stainless steel, with vessel volumes ranging from 20 to 5,200 litres, and comply with PED 2014/68/EC, ASME, and GB 150 standards. This flexibility makes them suitable for a wide range of industries, including food, chemical, and raw material processing.

The systems support a variety of applications, from gentle transfer of spray-dried products to demixing-free transport from mixers to filling lines, and even direct reactor loading. They also accommodate batch weighing, high-capacity handling, inert gas conveying, and gentle unloading from trucks or railcars.

Gericke offers three conveying modes tailored to specific needs: the "DenseFlow" PHF system for continuous layer transport at moderate gas velocities, the "PulseFlow" PTA system for pulsed plug conveying at low velocities, and the "PulseLine" PTA PL system, which enhances long-distance conveying with external air injectors for maximum process safety.

With the addition of the Gericke GUC -C controllers, these systems are not only powerful but also user-friendly, offering intuitive operation, precise control and link to SCADA systems.

Conveying tests with original products and industrial performance in one of our test centers provide results that are helpful for planning.

Reliable conveyor belts specially designed for every application

Reliable belt conveying for diverse bulk environments, with options from light to heavy duty tailored to intensity and application needs.

In almost every bulk process line, the belt conveyor determines the flow, the energy consumption and the availability of the installation. When a conveyor belt shows wear, is incorrectly dimensioned or not aligned with the application, the risk of downtime increases. As a result, the need grows for reliable, carefully engineered conveying solutions that operate seamlessly in various environments such as recycling, bulk terminals, minerals, food industry and grain storage.



Variants of belt conveyors

At Jansen&Heuning we distinguish several variants within belt conveying. The main choices are the heavy duty and light duty version. The division between the belt conveyors is directly linked to the intensity of use. Consequently, different variants have emerged, each addressing a specific load level.

Belt conveyors ensure a continuous material flow with low rolling resistance. As a result, they are suitable for both horizontal and inclined conveying. For trajectories where standard belts lose grip, Jansen&Heuning provides an elevator belt that handles steep angles and limited space without difficulty.

Problems arise when a conveyor does not match the actual process conditions. This may be related to insufficient belt width, an incorrect trough shape, an incorrectly selected drum diameter or a belt type that provides insufficient grip.

Below is a technical outline of the four main variants, with emphasis on application, construction and dimensioning.

1. Heavy Duty belt conveyors

Heavy industrial use requires a conveyor with high load capacity, a strong frame construction and a drive that supports continuous operation without effort. This variant is suitable for environments such as recycling, minerals processing, concrete industry, bulk terminals and heavier agro processes.

Technical specifications of previously built variants:

- Belt widths: 500 mm to 1400 mm
- Capacity: approx. 65 to 710 m³ per hour at 1 metre per second
- Drive: drum motor or drive drum with shaft-mounted motor
- Drum types: rubber-lagged, cage roller, closed drum

Heavy duty belt conveyors are used in applications with high impact, heavy loads and long-term continuous operation. Drum selection, tensioning system and belt type determine both lifetime and availability.

2. Light Duty belt conveyors

The light duty belt conveyor is developed for light to medium-weight bulk work within storage, logistics and agricultural processes. The design is compact and efficient, and performs reliably on medium-length conveying routes.

Technical specifications of previously built variants:

- Belt widths: 500 mm and 650 mm
- Frame widths: 550 mm and 750 mm
- Trough angle: up to approx. 20 degrees
- Roller diameters: 63 mm or 89 mm

Light duty conveyors often operate as distribution belt, loading belt or internal feed line. Thanks to the compact construction, this conveyor can be installed quickly in existing logistics environments.



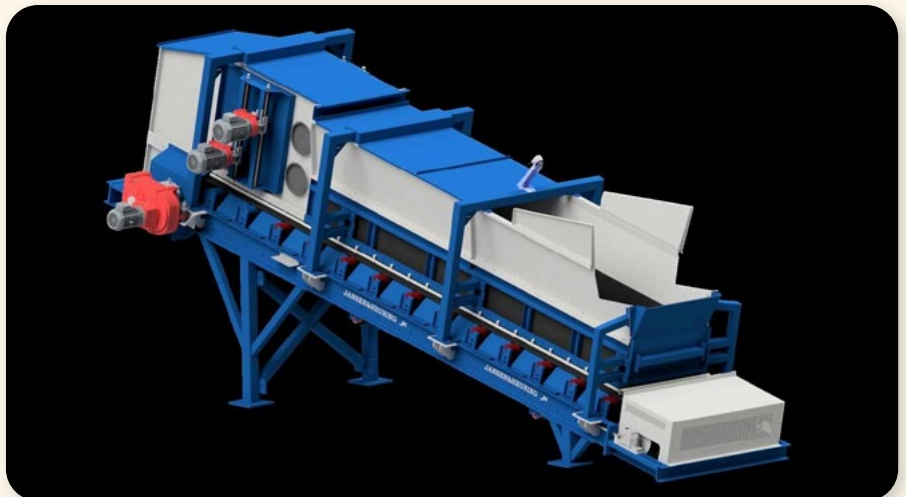
3. Inclined belt conveyors

When space is limited or when product flows must be conveyed vertically or at steep angles, the inclined belt offers an efficient configuration. By building the belt in a straight, kinked, L or Z shape, a compact installation is created with minimal floor space and maximum conveying height.

Technical specifications of previously built variants:

- Incline angles: 10 degrees to 90 degrees
- Belt widths: from 300 mm
- Special version: elevator belt with sidewalls and cleats for steep conveying angles

Inclined belts are used when smooth or profiled belts provide insufficient grip. The elevator belt transports product stably, even with varying flow rates and different material types.



4. Belt conveyors for grain

The grain version is specifically developed for applications in grain storage and agricultural logistics. The construction is similar to the light duty belt, but fully aligned with grain, seed and comparable products.

Technical specifications of previously built variants:

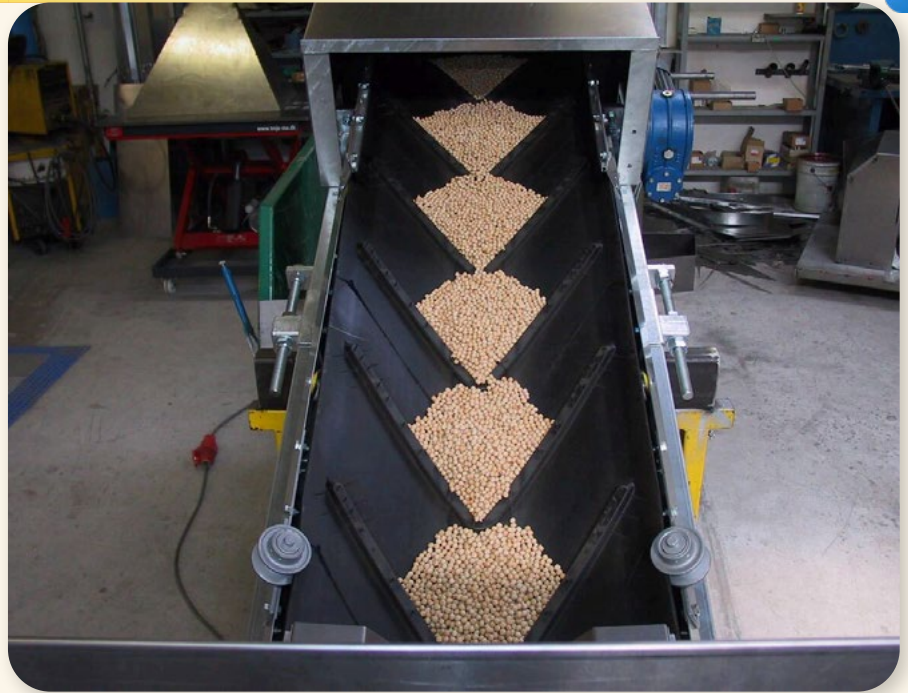
- Capacity: approx. 60 to 150 tons per hour (at 750 kilograms per cubic metre)
- Belt widths: 400 mm to 650 mm
- Incline: up to approx. 35 degrees with profile belt

This variant is ideal for distributing grain in long storage sheds, filling storage bays or connecting cleaning and drying.

Operational conditions for variant selection

Problems arise when a conveyor does not match the actual process conditions. The performance of a belt conveyor is directly linked to correct dimensioning. Crucial parameters include:

- Material type and bulk density
- Capacity in m³ per hour or tons per hour
- Belt width and belt speed
- Incline angle (if applicable)
- Length of the conveying route
- Type of drive and required power
- Choice between idler sets or sliding support
- The type of industry, such as food, chemicals, agro, minerals or recycling



Integration and future readiness

Companies increasingly opt for modular belt conveyors that can be easily adjusted when processes change or capacity needs to be expanded. Factors such as lower energy demand, improved maintenance, longer lifetime and better accessibility for service teams also play an important role.

By choosing a correctly engineered conveyor, energy consumption decreases and the reliability of the entire installation improves. Contact our specialists so we can assemble a solution that fits your situation.





Customized bucket elevator design

Why material testing is essential

In vertical conveying applications, the success of a bucket elevator does not begin with selecting the bucket type or motor power—it starts with a thorough understanding of the product to be lifted.

Every bulk material reacts differently during transport, especially when elevated, and overlooking its specific behavior can lead to premature wear, product degradation, or operational failures.

Product characterization

Product characterization: The foundation of reliable vertical transport. When dealing with fragile, abrasive, greasy, or high-temperature materials, a generic elevator design often proves insufficient. Each material must be assessed for its physical properties to determine the optimal configuration for buckets, belts, and structural elements.



Key parameters to analyze

- Bulk density
- Particle size and shape
- Flow behavior and angle of repose
- Humidity and fines content
- Operating temperature
- Abrasiveness and corrosiveness

These values directly influence not only how the material is discharged from the buckets but also how it interacts with belts, chains, and contact surfaces during elevation.

Laboratory tests and pilot trials

Laboratory tests and pilot trials: A prerequisite for precision. At Sinfimasa, every elevator project begins with rigorous testing. Laboratory analyses and full-scale pilot runs are carried out to simulate real conditions and detect potential issues early. Typical tests include:

- Sieve and granulometry studies
- Flow and repose angle testing
- Moisture and cohesion evaluation
- Wear and hardness analysis

The right bucket elevator for each product

Vertical transport poses unique challenges, and only a tailored design ensures consistent performance and product integrity. Critical design variables are:

- Bucket material and geometry
- Drive system and speed
- Discharge zone design

Options and choices

- Steel buckets for high strength and durability
- Plastic buckets (HDPE, nylon, polyurethane) for fragile or easily damaged materials
- Belt or chain selection based on material behavior:
- Abrasion-resistant belts for aggressive solids
- Oil- or grease-resistant belts for fatty or sticky materials
- Heat-resistant belts, or use of chains for high-temperature products
- Food-grade belts where hygienic handling is required
- Carbon steel for industrial applications
- Stainless steel (AISI 304/316) for corrosive or sanitary conditions
- Internal linings with anti-wear plastics or steel to prolong service life

Unmatched advantages

The strategic value of a customized designed bucket elevator based on actual product data and bulk solid behavior, delivers unmatched advantages, such as:

- Fewer stoppages
- Long equipment life
- Minimal product degradation
- Lower maintenance
- Safer, cleaner operation

Conclusion

At Sinfimasa, we believe precision begins with the product. By testing material behavior before design, we ensure that every bucket elevator we manufacture is tailored to elevate your product efficiently, safely, and with maximum reliability.

Knocker to go

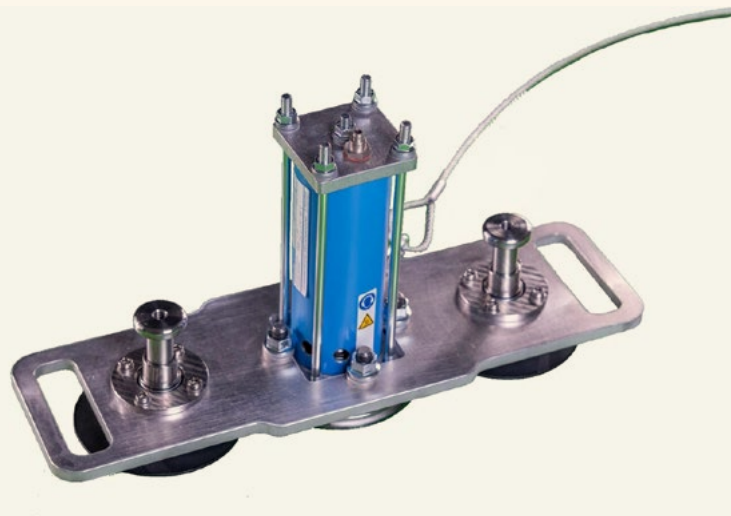
Practical magnetic holder
makes knockers mobile



New development at Singold Gerätetechnik

The “Knocker to Go”

Singold Gerätetechnik GmbH continues its history of masterful engineering: with the newly developed magnetic holder, its pneumatically operated knockers—tried and tested for decades—can be turned into a Knocker to go in no time at all.



Versatility and Ease of Use

Unmatched Mobility for Interchangeable Containers. The magnetic holder is easy to use, wear-free, comparatively lightweight, and makes the pneumatic knocker mobile. The Knocker to go is ideal for interchangeable containers, as it can be attached to silos and containers exactly where needed with minimal effort and complete flexibility.

Technical Design and Adaptability

Innovative Magnetic Tech for Curved and Rough Surfaces. This revolutionary new development from the specialist in magnetic holding force is based on an aluminium plate that combines low weight with robustness. Mounted on this plate via ball joints are two suction cups made of flexible plastic with integrated neodymium magnets. The magnet–suction cup combination flexibly adapts to the shape of the container and compensates for inclines and curvatures. As a result, the Knocker to go is also perfectly suited to rough and contaminated surfaces.



Durability and High-Impact Stability

Secure Grip and Easy Handling Under High Pressure. Thanks to their spring suspension, the magnets do not detach despite the high impact force of the pneumatic knocker. To allow the strong holding force to be released without great effort, the mobile knocker is equipped with two mounting handles, which also enable adjustment of the preload of the retaining springs.

Maintenance and Portability

Maintenance-Free Engineering Built for Transport. The magnetic holder for the Knocker to go is lubricant-free, maintenance-free and wear-free, as the joint bearings feature self-lubricating dry sliding layers. Because particular emphasis was placed on low weight during development and the holder is fitted with two side carrying handles, it is especially easy to transport. This allows it to be used as required on interchangeable containers and at changing locations, including containers where permanent installation is not an option.

The magnetic holder is suitable for the pneumatic knockers K40, K63 and K80.

Future Outlook

The Next Frontier: Electric Innovation in 2026. The history of innovation at singold gerätetechnik gmbh will soon gain another chapter: preparations are under way for a purely electric knocker, which is expected to reach market readiness in 2026.



Advanced feeding control

Flexible, scalable, and future-proof

The GUC-F Universal Controller from the Swiss Gericke Group sets a new standard for process control in powder handling.

The Gericke GUC-F Universal Controller delivers precise, reliable control for feeding, dosing, batching, and weighing. It combines industrial robustness with the connectivity and flexibility demanded by modern powder handling applications.



The GUC-F Universal Controller from the Swiss Gericke Group sets a new standard for process control in powder handling. Engineered for industries where accuracy, efficiency, and integration are paramount, the GUC-F Controller streamlines feeding and dosing operations across food, chemical, pharmaceutical, and specialty sectors. Its modular design and intuitive interface make it the ideal solution for both new installations and upgrades to existing systems.

A key advantage of the GUC-F Controller lies in its versatility and scalability. One unit can control up to four feeders in any combination, supporting both gravimetric and volumetric modes for batch or continuous production. This reduces equipment costs and simplifies automation setup, while its flexible architecture allows users to add additional feeders at any time. It eliminates therefore the need for extra controllers. The system supports analog and digital load cells, ensuring the right weighing accuracy for every application.

The GUC-F Controller features ultrafast signal processing and a self-optimizing control algorithm

(TrendTec), achieving maximum accuracy even under demanding process conditions or during refill. Its intuitive HMI offers multiple language options and standard/expert modes, accessible via local display, tablet, remote browser, or integration with superior automation systems. With full support for IoT functionality and predictive maintenance, the GUC-F is ready for tomorrow's automation challenges.

Data integrity and process safety are built in. The controller's configurable user access system, secure logging, and direct A/D conversion of weight signals ensure compliance and traceability. Software updates and upgrades are available locally or over-the-air (OTA), making the GUC-F a future-proof investment.

Gericke's GUC-F Controller is designed for seamless integration with all state-of-the-art automation networks, supporting rapid changeovers, remote access, and advanced diagnostics. Its robust, industrial-grade design ensures reliable operation, while advanced filter technologies eliminate random signals and environmental disturbances.

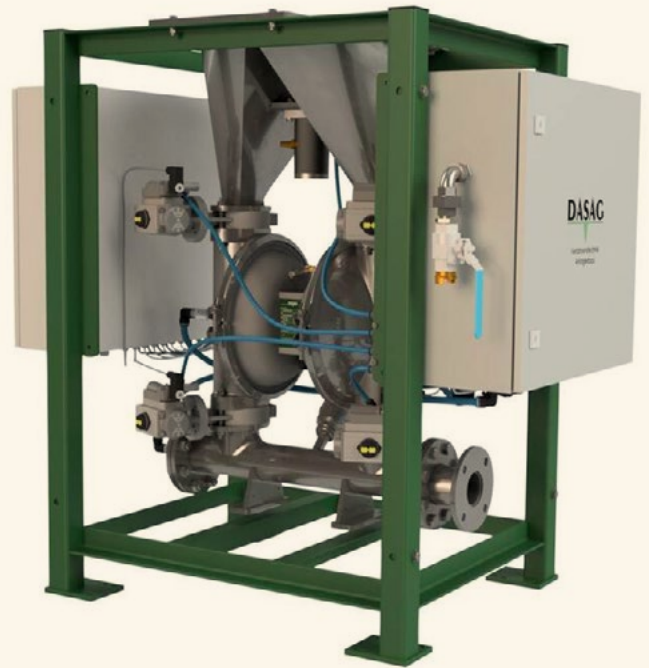
Efficient bulk material handling with the DASAG powder pump

DASAG GmbH Verfahrenstechnik - Anlagenbau presents its specialized powder pump, an advanced solution for dust-free conveying and precise dosing of a wide variety of powders and granulates in demanding industrial processes.

Versatile applications in modern powder processing

The DASAG powder pump is designed for a wide range of applications, especially for emptying silos, BIG BAG's and containers. It effectively processes difficult materials and heavy powders with bulk densities exceeding 0.5 kg/dm³.

- fully pneumatic operation ensures high operational safety.
- low conveying speeds protect combined with low conveying pressures protect sensitive bulk materials.
- integrated PLC control enables precise dosing and automation.
- compact design allows flexible integration into plants.

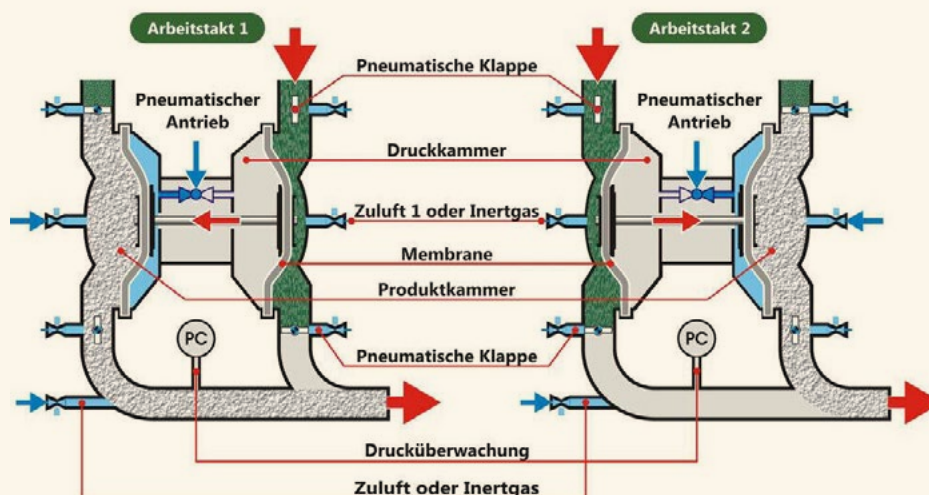


Optimized technical performance for industrial systems

The system achieves a conveying capacity of up to 10 m³/h and covers distances of 40 meters and more.

Proven reliability in critical environments

With over 30 years of market presence, this technology is suitable for use in explosive atmospheres. The system's intrinsic safety is maintained by continuous pressure monitoring, often exempting it from certain pressure equipment testing.



WEMO-technik supplies integrated sample transport systems

WEMO-technik provides high-performance pneumatic transport systems designed to centralize sample collection for the bulk solids industry, enhancing efficiency across the food, feed, and chemical sectors.

Automated vacuum technology for dry solids

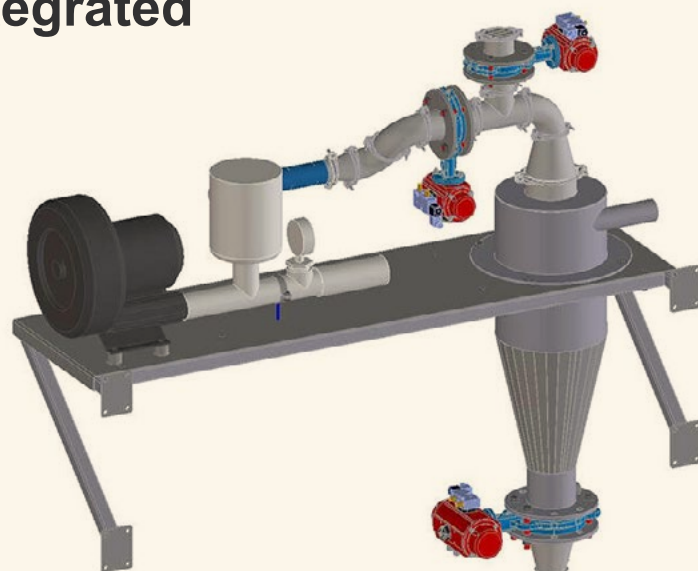
The system utilizes a powerful blower to generate a vacuum, moving individual samples through dedicated lines to a central cyclone. This design allows for the safe collection of free-flowing dry solids from multiple points in the production process.

Optimized integration and modular design

Engineered for industrial versatility, the equipment connects directly to MES systems for full automation. Its modular construction supports various process layouts, catering to aggregates, chemicals, and recycling applications.

Key features of the pneumatic transport solution

- Centralized collection at a single reception point
- Capability for transport lines reaching up to 70 meters
- Seamless integration with automatic packaging machines
- Fully expandable architecture for diverse requirements



Efficiency in sample reception and testing

By automating the transfer from the production line to the laboratory or collection station, the system reduces manual handling and ensures sample integrity. This streamlined approach allows for rapid testing and higher throughput.



WORLD CEMENT[®] *Podcast*

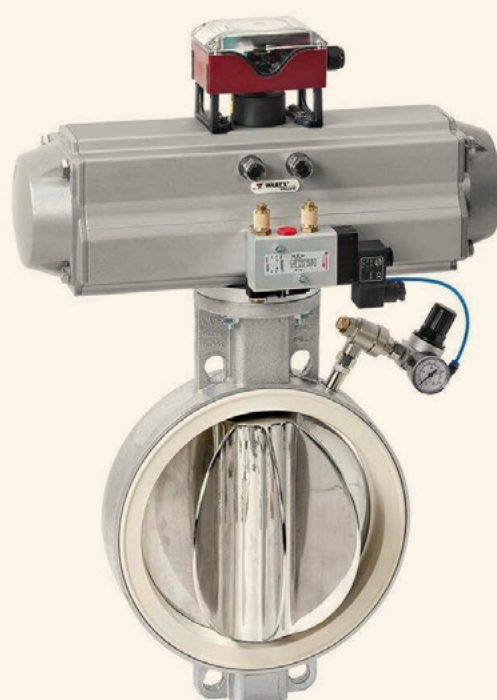


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Explosive media safely under control with Warex Valves



Warex Valve supplies ATEX-certified shut-off solutions for processes with fine dust, corrosive and other high-risk media.

As a specialist company for explosion-proof valves, Warex Valve specialises in demanding applications, is familiar with the ATEX directives applicable throughout Europe and offers 'turnkey' butterfly valves and rotary valves for hazardous areas. These guarantee users maximum flexibility and can be easily installed in existing systems.

Tested and Certified

All automated Warex Valves have already undergone EC type testing and are certified by DEKRA Testing and Certification GmbH for the intended use in potentially explosive atmospheres in accordance with the ATEX directive. This saves plant operators time and money.

Warex butterfly valves are used worldwide in potentially explosive processes and have proven themselves over the decades under the harshest operating conditions in the chemical, food and pharmaceutical industries as well as in plant and container construction.

Absolute tightness

The DKZ 110 butterfly valve series, which is ideally suited for handling demanding media, is an example of safety and durability even in problematic applications. The tight-closing wafer-type butterfly valve for flanges in accordance with DIN EN 1092 guarantees absolute tightness in accordance with DIN EN 12266 leakage rate A. The shut-off valve has a one-piece body and can be supplied with a replaceable sealing sleeve or with a permanently vulcanised sealing sleeve. The Ex version of the DKZ 110 is ideal for processes with solid, liquid and gaseous media. The special Rotary Valve DKZ 110 APS® (Air-Pressure-Sealing) version is particularly suitable for use with abrasive bulk solids and granulates.

Own production facilities

All engineering services are designed to produce safe and innovative valves, which are manufactured and tested by our experienced team of engineers and technicians in our own production facilities in Senden.

Fagus-GreCon

Reliable fire protection with GreCon protector



The GreCon PROTECTOR remains a benchmark for safety in bulk solids, providing a reliable, modular system that detects and eliminates ignition sources without interrupting critical industrial material flows.

Proven detection for complex bulk processes

The processing of grains and granulates creates constant ignition risks from friction. This established system uses SCOUT sensors to identify sparks and smoldering nests even in high-dust or varying light conditions.

Reliable functional components

- SCOUT: High-performance sensors for early ignition detection.
- HUNTER: Automated technology for millisecond response times.

- RANGER: Decentralized modules for rapid on-site signal processing.
- MISSION CONTROL: Central unit for analysis and process control.

Stable architecture minimizes plant downtime

The modular design allows for seamless integration into conveying systems and silos. By using decentralized modules and pre-assembled cabling, the system ensures high availability and simplifies maintenance routines.

Standardized platform for diverse industry needs

This solution provides a stable framework adaptable to specific risks in the food, biomass, and recycling sectors. It supports various extinguishing methods and remains open for future technological extensions.

ЦЕМЕНТ

и его применение

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

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

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

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

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Zvenigorodskaya street, 22,
office 440

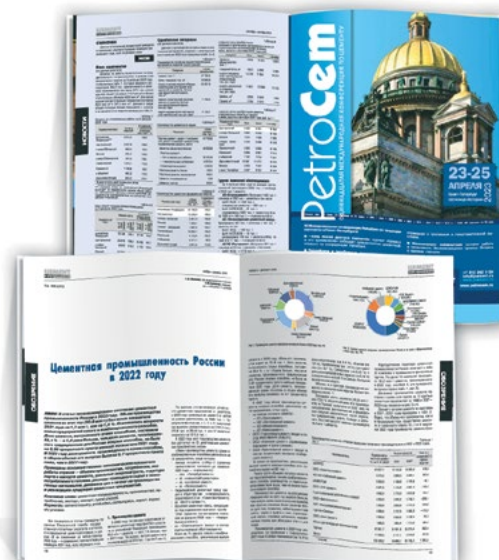
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Web: www.jcement.ru

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HE 5760 controls up to 576 valves on dedusting systems

The HE 5760 filter control is a CAN-based controller specifically designed for chamber-oriented dedusting systems.

Highly adaptable

With the HE 5760, AXXERON HESCH offers the industry a master-slave system for large-scale plants, where the required slave controllers are connected to the master control via fieldbus based on the plant size. The flexible design accommodates nearly any desired number of filter chambers and valves. This allows the system to be custom-configured and pre-assembled up to the valve connector. Plant operators benefit from significantly reduced commissioning times and costs.

Intuitive configuration

Configuration of the HE 5760 is simple and requires no programming. Instead, it is done through function selection. Parameters can be quickly and easily set using AXXERON HESCH's SmartTool PC software or via the control menu.

Scalable

The HE 5760 can control up to 576 valves through up to 48 slave controllers, each managing up to 12 valves (e.g., the HE 5725 model). This enables even complex filter control tasks to be implemented with multi-chamber large filter technology. Thanks to its scalability, the system can also be cost-effectively adapted for smaller installations.

Complete system

AXXERON HESCH optionally delivers the HE 5760 as a complete system housed in a control cabinet. At its facility in Neustadt near Hanover, the company manufactures custom-designed control cabinets and boxes. These are produced according to individual specifications and in compliance with applicable standards and regulations (EMC/UL/ATEX).



Reduction of dust emissions during ship loading

Dust emissions during ship loading are often a burden on the environment. It is possible to minimise dust emissions by fairly simple means.

When loading ships, product flows down a loading pipe from a great height and gains a lot of speed. When the material flow collides with the product mountain in the ship's hold, a lot of energy is released. This leads to violent movement of the material, which can stir up a lot of dust.

The loading pipe (or loading conveyor) is often telescopic and pivoting, in order to load the vessel as efficiently as possible. Sometimes a dump pipe is used, equipped with a loading bellows at the end. To minimise dust generation, two basic solutions are possible, which can also be applied in combination:

- A sealing of the product surface and possible extraction.
- A speed reduction of the material flow from the loading pipe.

Reducing dust emissions with dust skirt

An example of closure is the deployment of a dust skirt under the spout. An automatic height adjustment ensures that the skirt rests on the product surface. A well-designed dust skirt is very effective, especially when moving vertically. Horizontal movements should be limited as much as possible or done in small increments, to keep the connection to the product surface intact. In practice, this is where things sometimes go wrong. A dust extraction has an effect, but this is completely lost if the seal is not good enough.

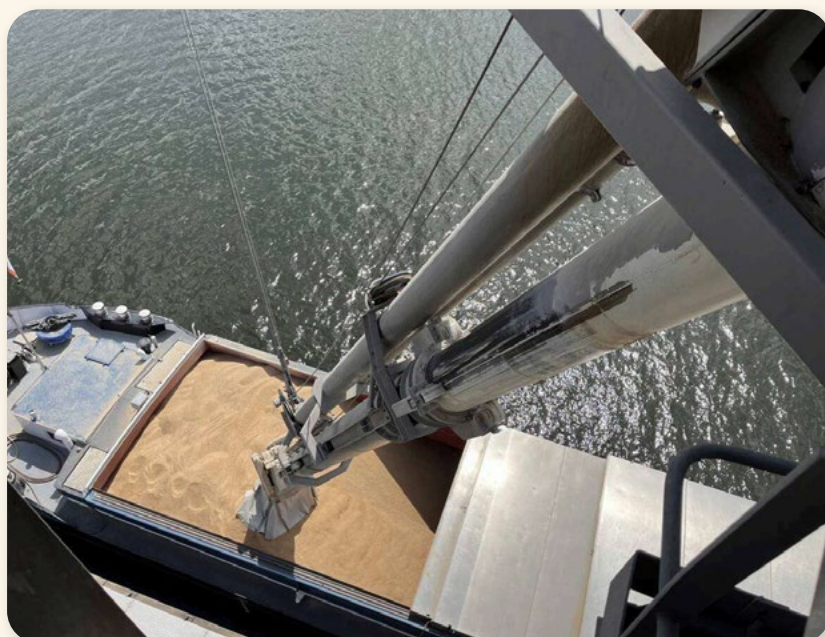


Reducing product speed with rotary valve or flap

The speed of the material flow at the end of the loading pipe can be reduced in various ways. A rotary valve removes all speed from the material flow and is therefore very effective. Another possibility is to use a sliding valve controlled by sensors, so that there is always a layer of product on the slide. The product then falls almost without speed. It is important, however, that the valve responds quickly enough in case of strongly fluctuating flow rates. A third, simple option is a cascade valve. This also inhibits the product, but is less effective than the rotary or sliding valve.

Custom solutions

Jansen&Heuning specialises in dust-free ship loading. We have created tailor-made solutions for various customers. Because we work with our own engineering, production and assembly departments, we can quickly and accurately design, test and, where necessary, optimise a suitable solution. Would you like to know more? Get in touch.



Indian Global Magazine on Industry

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The Industrial Leader's Vision



**WANT TO BE HEARD?
WANT TO BE KNOWN?
WANT TO BE UNDERSTOOD?
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Beta Edimax Astor Group extends its technological capacity and size range with SACMI



Present in the ceramic-making industry since the 1970s and a driving force in quality, design and innovation, the company recently completed a production line upgrade that included the first-ever installation of SACMI's new RD multi-channel dryer. The forming department was also given a boost with the addition of the PH8200 'Veloce'

The Beta Edimax Astor Group has joined forces with SACMI to complete another technological leap forward, **raising both productivity and extending the size range**. A key player in the sector since the 1970s - and a standard-setter for quality, design and innovation - the company now has a fully renewed production line that includes the all-new **SACMI RD5** (the first machine in the latest range of SACMI RD multi-channel dryers to be installed in a working factory).

Having between 5 and 9 levels, the RD offers **outstanding configurability** and an **optimized footprint**, combining all the advantages of the existing range of SACMI EM5/7 and ECP multi-channel dryers. Key design features include improved **accessibility for easier maintenance** and the option - as in the ECP range, at the customer's discretion - of installing partitions between the roller decks to improve process management whatever the manufacturing requirements.

Edimax has gone for a **5-level machine** with a **2,850 mm wide inlet** and an overall length of **22.4 meters**. This replaces the previous EVA vertical dryer. The result: **no more inflexibility in terms of size**, ensuring maximum versatility with all types of production. "We're proud to be the first to install this newly designed dryer," explains **Roberto Bernabei**, President of the Beta S.p.A. Group. "This is in perfect keeping with our hallmark policy of focusing on technological innovation."

For the company, the entire project is a step up in terms of technological quality and extends the range to include **higher-added-value products**. In addition to the dryer, it includes upgrades to the forming department; a **PH8200 'Veloce'** press will soon become operational, joining the other SACMI presses. "This will provide us with optimal productivity on the highest-added-value formats yet still give us the opportunity to cut sub-sizes," adds Bernabei.

This project doesn't just underscore SACMI's role as a privileged partner in Beta Edimax Astor Group's development plans: it also confirms the market's positive response to the **new RD dryer range**, which was previewed at the Tecna international trade fair in Rimini in 2024. Also worth highlighting is the **close collaboration between the Edimax and SACMI technical teams** that ensured the project was completed on schedule without interrupting production.



26-29

April 2026

68th IEEE-IAS/PCA Cement Conference 2026

Fort Lauderdale, USA



12-13

May 2026

Asia Carbon Capture
Advancing CCUS for Net-ZeroCrowne Plaza Kuala Lumpur City
Centre, Kuala Lumpur, Malaysia

13-15

CEMENTTECH 2026The 27th China International Cement Industry Exhibition**Fuzhou Strait International
Convention and Exhibition
Center, Fuzhou, China**

For more information, please contact:

Ms. Joanna Long

Tel.: +86-10-88083329



18-19

AshTrans Asia 2026

Mumbai, India



19-20

**1st Global CementAI Conference,
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For more information, please contact:

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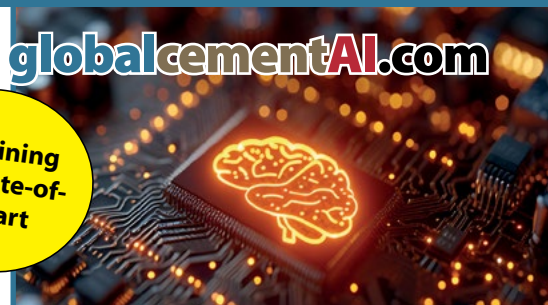
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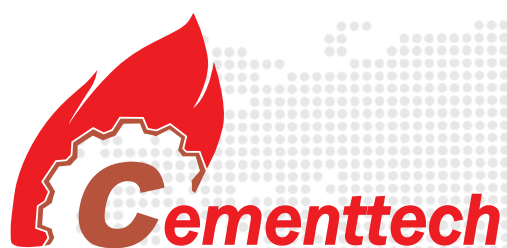
Details:



All Enquiries

Exhibition and sponsorship:
paul.brown@propubs.com

Programme and speakers:
robert.mccaffrey@propubs.com



CEMENTTECH 2026



May 13-15, 2026



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China Cement Association



CCPIT Building Materials Sub-council

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09-10

June 2026

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For more information, please contact:

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Tel.: +44 1372 743837

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**Hamburg, Germany**

14-17

Cemtech ASIA 2026

For more information, please contact:

David Hargreaves

Events Organiser

Cemtech Conferences & Exhibitions

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**Avani+ Riverside Hotel,
Bangkok, Thailand**

15-17

INTERCEM Africa 2026

For more information, please contact:

Ms. Lola Carragher, Commercial Sales Manager**Accra, Ghana**

16-17

2nd Low Carbon Data Centres**Bangkok, Thailand**

06-07

July 2026

INTERCEM Shipping Forum 2026**Naples, Italy**

08-10

September 2026

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30 September – 2 October

2026

XXVIII International Construction Forum 2026

Cement.Concrete.Dry mixtures



Moscow, Russia

Tel.: (+7 812) 3350992



Info



Press



05-06

October 2026

AshTrans 2026



Athens, Greece



27-29

CarbonZero – Alternative Fuels & Raw Materials Global Conference & Exhibition



Brussels, Belgium

For more information, please contact:

Industry Link

Ms. Mariana Gheorghe, Marketing and Program Manager

Tel.: +40726 497 448



30

Women in CemCO – EMEA



Brussels, Belgium

For more information, please contact:

Industry Link

Ms. Mariana Gheorghe, Marketing and Program Manager

Tel.: +40726 497 448



17-19

November 2026

INTERCEM Americas 2026



Los Angeles, USA

For more information, please contact:

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30/09 – 2/10 2026

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15-17

December 2026

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India Expo Centre & Mart, Greater Noida

17-18

March 2026

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For more information, please contact:

Dr. Robert McCaffrey

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Fax: +44 1372 743838



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18-22

October 2027

The 17th International congress on the Chemistry of Cement ICCC 2027

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For more information, please contact:

National Council for Cement and Building Materials



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12 October 2026

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20 April 2026
13 July 2026
19 October 2026

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Cement Kiln Pyroprocessing
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27 April 2027
20 July 2026
26 October 2026

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20 - 23 April 2026

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tical guide to technology evaluation**
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April 2026

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Foshan Tanzhou International
Convention & Exhibition
Center, China

For more information, please contact:
Mob: +86 18566021320

Info



22-25

September 2026

TECNA 2026 – The Global Expo for Ceramics and more



Rimini Expo Centre, Italy



02-04

December 2026

ceramics Vietnam & stone Vietnam 2026



Hanoi, Vietnam



03-05

March 2027

Indian Ceramics Asia 2027



Gandhinagar (Gujarat), India



October 2027

ceramics Thailand & stone Thailand



Bangkok, Thailand





22-24 April 2026

Analytica Vietnam 2026

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International Exhibition Center (ICE) | Hanoi, Vietnam

04-07 May 2026

IFAT Munich 2026

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Munich, Germany



05-06 12-14

10th Plastics Recycling Show Europe 2026

RAI Amsterdam, The Netherlands



EMEC 2026 – Energy Mediterranean Exhibition and Congress

BolognaFiere, Bologna Italy



14-15

Argus Black Sea and Caspian Key Terminals and Logistics Conference

Batumi, Georgia

For more information, please contact:
Damir Iskandiyarov



10-14 June 2026

24th SYRIA BUILDDEX

Syria Buildex International Construction Exhibition

Damascus Fairground, Syria

For more information, please contact:

PYRAMIDS GROUP FAIRS

Tel.: +90 216 5752828



16-18

Breakbulk Europe

Rotterdam Ahoy, the Netherlands





21-24

June 2026

21st Saudi Plastics & Petrochem

 Riyadh International Convention & Exhibition Center (RICEC), Saudi Arabia

23-25

Big 5 Construct Egypt



 Egypt International Exhibition Center (EIEC), Cairo, Egypt

27-30

August 2026

16th ERBIL BUILD EXPO

Erbil International Building and Construction Exhibition

For more information, please contact:

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Tel.: +90 216 5752828



 Erbil Build Expo, Iraq



27-30

10th IRAQ BUILD EXPO BAGHDAD

Iraq International Building and Construction Exhibition

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Tel.: +90 216 5752828



 Baghdad International Fairground, Baghdad, Iraq



05-07

September 2026

Egypt Projects 2026



 Egypt International Exhibition Center – Cairo

15-18

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**17 September 2026**

**9th Central and South European Drymix
Mortar Conference cedmmc9**

 **Istanbul, Türkiye**

**21-24**

**International Foundry and
Metallurgy Exhibition**

 **SAFEX Exhibition
Palace, Algiers, Algeria**

**23-25**

24th International Coal Congress and Exhibition

 **Zonguldak, Türkiye**

**30th September - 1st October 2026**

**ESG and Sustainability International
Summit Europe**

 **Bucharest, Romania**

For more information, please contact:
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Tel.: +40726 497 448

**September 2026**

Big 5 Construct Saudi

 **Riyadh, Saudi Arabia**

**06-08 October 2026**

**Morocco International Mining Congress
(IMC Morocco)**

 **Rabat, Kingdom of Morocco**





16-18

November 2026

Analytica China 2026

The International trade fair for laboratory technology, analysis and biotechnology in China

 **Shanghai New International Expo Centre (SNIEC)**



18-19

Breakbulk Asia

 **Marina Bay, Singapore**



23-26

Big 5 Global

 **Dubai World Trade Centre, UAE**



24-27

Bauma China 2026

 **Shanghai New International Expo Centre, China**



26

The International Conference and Symposium on Building Rehabilitation, Renovation, Refurbishment and Re-Purposing (ICB4R)



 **Shanghai, China**



04-06

December 2026

Big 5 Construct Syria

 **Syria Expo Center, Damascus Fairgrounds**



31 March – 2 April 2027

Analytica Vietnam 2027

International Trade Fair for Laboratory Technology, Analysis, Biotechnology and Diagnostics

 **Hanoi, Vietnam**



مجلة عالم الإسمنت ومواد البناء

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جدول موضوعات المجلة لعام 2026

العدد: يونيو/حزيران 2026، رقم 104		
آخر موعد لاستلام المقالات أو النصوص الصحفية أو الإعلانات هو: 28 مايو / أيار 2026		
المناسبات	الموضوعات	
	- استعادة الحرارة المفقودة - التصوير الحراري - إعادة التدوير الحراري - طرق معالجة واستخدام غبار الممر الجانبي - الحماية من الانفجار في صوامع تخزين الوقود البديل - أنظمة مناولة الوقود البديل - إنتاج واستخدام الوقود الصلب المسترد	- المبردات - المراوح - مدافع الهواء - الصحة والسلامة المهنية - تكنولوجيا الطحن - الطواحين العمودية - زيادة إنتاج مطحنة الإسمنت - التكسير - مساعدات الطحن والطحن
العدد: سبتمبر/أيلول 2026، (عدد خاص)، رقم 105		
آخر موعد لاستلام المقالات أو النصوص الصحفية أو الإعلانات هو: 24 سبتمبر / أيلول 2026		
المناسبات	الموضوعات	
المؤتمر والمعرض العربي الدولي التاسع والعشرون لصناعة الإسمنت ومواد البناء القاهرة جمهورية مصر العربية نوفمبر / تشرين الثاني 2026 23-25	- التحول الرقمي - الرقمنة في صناعة الإسمنت - الحراقات وعمليات الحرق - تطوير المشاريع - التحديث والأتمتة - تحليل الغازات - الاختبار والتحليل - معدات المختبرات	- المعالجة الحرارية - التحكم في العمليات والتحسين نحو الأمثل - هندسة عمليات الإسمنت - أفران الإسمنت - معالجة النفايات الخطرة ومراحل ما قبل معالجتها - معالجة غازات المداخن
العدد: ديسمبر/كانون الأول 2026، رقم 106		
آخر موعد لاستلام المقالات أو النصوص الصحفية أو الإعلانات هو: 8 ديسمبر / كانون الأول 2026		
المناسبات	الموضوعات	
	- الإسمنت الخالي من الكربون - إنتاج الكلنكر منخفض الكربون - المواد الخام لمضافات الإسمنت - إدارة الإمدادات - إنتاج الإسمنت بطاقة منخفضة - تأكيد الجودة ومراقبة العمليات في مصانع الإسمنت - توفير تكلفة إنتاج الإسمنت	- تصنيع الإسمنت الأبيض - الإسمنت المخلوط - الإسمنت متعدد المكونات - إسمنت الخبث - إنتاج الإسمنت الأخضر - خلائط الإسمنت - مضافات الإسمنت - مكونات الإسمنت - كيمياء الإسمنت

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الكمبيوتر المحمول: الشريط الجانبي الأيسر الهاتف المحمول: شريط علوي بعرض كامل الشاشة	عرض 150 بيكسل وارتفاع 100 بيكسل	150
الكمبيوتر المحمول: الشريط الجانبي الأيسر الهاتف المحمول: شريط علوي بعرض نصف الشاشة	عرض 75 بيكسل وارتفاع 100 بيكسل	100
الكمبيوتر المحمول: الشريط الجانبي الأيسر الهاتف المحمول: شريط علوي بعرض ثلث الشاشة	عرض 50 بيكسل وارتفاع 100 بيكسل	75

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المملكة الأردنية الهاشمية

مجمع المناصير الصناعي يستحوذ على حصة لافارج هولسيم في شركة مصانع الإسمنت الأردنية

أعلن مجمع المناصير الصناعي، أحد شركات مجموعة المناصير، عن إتمام صفقة الاستحواذ على حصة لافارج هولسيم في شركة مصانع الإسمنت.

وفي هذا الإطار، عُقد اجتماع الهيئة العامة لمساهمي شركة مصانع الإسمنت الأردنية وتمت المصادقة على نقل ملكية ما نسبته 50,275% من رأس مال الشركة المصدر، والنتيجة عن عملية البيع من قبل شركة لافارج فينانسبير إلى شركة مجمع المناصير الصناعي.

وسيشمل هذا الاستحواذ برنامجاً متكاملاً لإعادة تأهيل وتطوير مصنع الرشادية، ودراسة فرص الاستثمار والشراكات الاستراتيجية، إضافة إلى إعادة تأهيل واستثمار الأراضي والمناطق التابعة للشركة في الفحيص بما يخدم المجتمع المحلي، مع التأكيد على عدم التوجه لأي مشاريع صناعية في المنطقة.

الإمارات العربية المتحدة

فخر الدين العقارية توقع مذكرة تفاهم استراتيجية مع هولسيم الإمارات لتسريع وتيرة البناء المستدام في المنطقة

أعلنت شركتا فخر الدين العقارية وهولسيم الإمارات عن توقيع مذكرة تفاهم استراتيجية تهدف إلى دفع عجلة البناء المستدام على مستوى المنطقة.

ويستند هذا التعاون إلى خبرات هولسيم الإمارات في حلول البناء الدائرية ومنخفضة الكربون، في إطار استراتيجية هولسيم العالمية للجيل القادم للنمو، التي تركز على توسيع نطاق البناء المستدام، إلى جانب رؤية فخر الدين العقارية للتطوير المستدام. وتهدف الشراكة إلى تطوير مجتمعات مستقبلية متكاملة تجمع المسؤولية البيئية والقيمة الاجتماعية بصورة متوازنة.

المملكة العربية السعودية

“إسمنت الرياض” توقع عقد بناء محطة شبكة كهربائية مع شركة تشينغزو ديزاين ريسيرتش إنستيتيوت

وقعت شركة إسمنت الرياض في ديسمبر / كانون الأول 2025 عقداً مع شركة تشينغزو ديزاين ريسيرتش إنستيتيوت بقيمة 85 مليون ريال لبناء محطة شبكة كهربائية في إطار برنامج إزاحة الوقود السائل.

ويهدف العقد لاستكمال مشروع إيصال الخدمة الكهربائية لمصنع الشركة في نساح، على أساس عقد تسليم مفتاح، وتصل مدة العقد سنة.

وتوقعت الشركة أن يساهم هذا المشروع في تعزيز كفاءة استغلال الطاقة، وخفض الانبعاثات الناتجة عن إنتاج الكهرباء داخل مرافق الشركة، وزيادة موثوقية العمليات التشغيلية للشركة، مما يدعم استقرار عمليات الإنتاج اعتباراً من تاريخ التشغيل، بالإضافة إلى تحقيق أهداف برنامج إزاحة الوقود السائل المدعوم من قبل وزارة الصناعة والثروة المعدنية، كذلك تحسين كفاءة استهلاك الطاقة، وتعزيز الاستدامة البيئية.

بدء التشغيل التجريبي لخط إنتاج جديد بمصنع “إسمنت الجنوب” في جازان

ضمن استراتيجية الشركة لتعزيز كفاءة التشغيل وتحديث أصول الإنتاج أنجزت شركة إسمنت المنطقة الجنوبية نسبة 98% من مراحل إنشاء خط إنتاج جديد بمصنع جازان وبدء التشغيل التجريبي في بعض مراحل الإنتاج، وذلك وفقاً لخطة التنفيذ المجدولة. وتم إنتاج أول كمية تجريبية من الكلنكر في ديسمبر / كانون الأول 2025، ومن المتوقع الانتهاء من جميع مراحل الإنشاء والوصول للطاقة الإنتاجية الكاملة وبدء التشغيل التجاري خلال عام 2026.

وذكرت الشركة أن تشغيل هذا الخط يأتي في إطار تنفيذ استراتيجية الشركة الهادفة إلى تعزيز كفاءة العمليات التشغيلية وتحديث أصول الإنتاج، وذلك من خلال تبني تقنيات إنتاج حديثة في صناعة الإسمنت، مع تحقيق خفض تكاليف الإنتاج والحد من الانبعاثات الكربونية، وذلك اعتباراً من تاريخ بدء التشغيل التجاري.

وكانت الشركة قد أعلنت في ديسمبر / كانون الأول 2022 عن إنشاء خط إنتاج جديد بمصنع إسمنت جازان ليتم إحلاله محل خطوط الإنتاج الحالية، كما أعلنت شركة “إسمنت الجنوب” في مايو / أيار 2023 عن توقيع عقد مع شركة سينوما العالمية الهندسية المحدودة لإنشاء خط إنتاج كلنكر بطاقة 5 آلاف طن/يومياً وطاقة طحن إسمنت تبلغ 10 آلاف طن يومياً مع بنية تحتية لخط إنتاج كلنكر آخر بطاقة 5 آلاف طن يومياً.

“إسمنت نجران” توقع عقد مع “سينوما” لتنفيذ مشروع الربط بالشبكة الكهربائية

أعلنت شركة إسمنت نجران توقيع عقد مع شركة سينوما للهندسة والمقاولات العالمية المحدودة بقيمة 48.9 مليون ريال وذلك لتنفيذ مشروع الربط بالشبكة الكهربائية في إطار برنامج إزاحة الوقود السائل لاستكمال إيصال الخدمة الكهربائية لمصنع الشركة في سلطنة على أساس عقد تسليم مفتاح.

وتبلغ مدة العقد ثمانية أشهر، حيث من المتوقع أن يساهم هذا المشروع في تعزيز كفاءة استهلاك الطاقة وخفض الانبعاثات الناتجة عن إنتاج الكهرباء داخل مرافق الشركة وزيادة موثوقية العمليات التشغيلية للشركة، مما يدعم استقرار عمليات الإنتاج.



ويهدف المشروع إلى تعزيز كفاءة استهلاك الطاقة ويعزز من الإستدامة البيئية ويساهم في دعم رؤية المملكة 2030 بالإضافة إلى تحقيق أهداف برنامج إزاحة الوقود السائل المدعوم من قبل وزارة الصناعة والثروة المعدنية.

قطر

هيئة الأشغال العامة تعلن عن توقيع اتفاقية مع إسمنت الخليج التابعة لمجموعة المستثمرين القطريين

في إطار دعم جهود الاستدامة وتعزيز ممارسات الإدارة البيئية الرشيدة للنفايات، أعلنت هيئة الأشغال العامة "أشغال" عن توقيع اتفاقية شراكة استراتيجية مع شركة الخليج للإسمنت (AKCC) إحدى الشركات التابعة لمجموعة المستثمرين القطريين (ش.م.ع.ق)، وذلك بهدف إعادة تدوير 100% من الحماة الناتجة عن محطات معالجة مياه الصرف الصحي التابعة لأشغال في مختلف أنحاء دولة قطر.

تجسد هذه المبادرة نقلة نوعية نحو تطبيق مبادئ الاقتصاد الدائري في دولة قطر، حيث تهدف إلى تحويل ما بين 744 ألف إلى 1.29 مليون طن من الحماة إلى طاقة نظيفة خلال 5 سنوات، فبعد أن كانت تُصنّف كنفايات، أصبحت اليوم مورداً ذا قيمة مضافة يُعالج ويُعاد تدويره بالكامل وفق معايير الاستدامة. كما تلعب هذه الاتفاقية دوراً محورياً في معالجة تحديات التخلص من الحماة، عبر الحد من عمليات النقل والطمر، مما يساهم بشكل مباشر في خفض الانبعاثات الكربونية.

ويسهم هذا النهج في تقليل الاعتماد على مكبات النفايات، وخفض معدلات استهلاك الوقود الأحفوري، والحد من الانبعاثات الكربونية، بالإضافة إلى الاستفادة من المحتوى العضوي للحماة عبر استخدامها كمصدر بديل للطاقة في عدد من القطاعات الصناعية.

وتُشكل الحماة الناتجة عن محطات المعالجة تحدياً بيئياً متصاعداً في ظل تنامي معدلات الإنتاج، وما يترتب على الطرق التقليدية في التخلص منها من تبعات بيئية واقتصادية سلبية. ومن هنا، يأتي تحويلها إلى وقود حيوي بديل كحل مستدام ينسجم مع التوجهات العالمية لإدارة الحديثة للنفايات، ويدعم مبادرات كفاءة استغلال الموارد.

ليبيا

وزارة الصناعة تبحث مقترح إنشاء مصنع إسمنت في البلاد بطاقة إنتاجية تبلغ مليوني طن سنوياً

بحثت وزارة الصناعة والمعادن للشؤون العامة والإنتاج والمناطق الصناعية في اجتماع مع مسؤولي شركة (Goodwell Ceramic LTD) الترتيبات والإجراءات الفنية المتعلقة بمقترح إنشاء مصنع متطور لإنتاج الإسمنت داخل البلاد.

وتركزت المناقشات حول وضع إطار عمل تنظيمي يضمن مواءمة المشروع مع الخطط الوطنية لتطوير القطاع الصناعي، وبحث السبل الكفيلة بتذليل العقبات الإدارية أمام تنفيذ هذا الاستثمار الاستراتيجي.

واستعرض الاجتماع تفاصيل السعة الإنتاجية المستهدفة للمشروع والتي تقدر بمليون طن سنوياً، مع التأكيد على اعتماد أحدث التقنيات العالمية التي تراعي المعايير البيئية الصارمة وتعمل على الحد من الانبعاثات الكربونية.

جمهورية مصر العربية

"إسمنت النهضة" تبرم اتفاقية مع «كوبالت» لتوليد الطاقة المتجددة

تم توقيع عقد شراء الطاقة الكهربائية (PPA) بين شركة النهضة للصناعات - المالكة لمصنع إسمنت النهضة بمحافظة قنا، إحدى شركات الشركة القابضة للصناعات الكيماوية - وشركة «كوبالت» لبيع وتوزيع الكهرباء، التابعة لشركة «إيرسك» لحلول الطاقة المتجددة.

وبموجب الاتفاقية، تشتري شركة النهضة للصناعات الطاقة الكهربائية المنتجة من مصادر متجددة بنظام شراء الطاقة (PPA) لمدة 30 عاماً، حيث تتولى شركة «كوبالت» تنفيذ الدراسات الفنية والتمويل، وبناء وتشغيل محطة طاقة شمسية بقدرة 27 ميجاوات، بهدف تزويد مصنع إسمنت النهضة بالطاقة الكهربائية النظيفة بأسعار تنافسية.

كما تتولى «كوبالت» إدارة وتنفيذ جميع مراحل المشروع، بما يشمل التمويل، والأعمال الهندسية، والتوريد والإنشاء، إلى جانب التشغيل والصيانة طوال مدة التعاقد، وفقاً لأعلى معايير السلامة والصحة المهنية والاشتراطات البيئية.

مصر توافق على ثلاث رخص جديدة لإنتاج الإسمنت

وافقت المجموعة الوزارية للتنمية الصناعية في مصر على إصدار ثلاث رخص جديدة لإنشاء مصانع إسمنت، بحيث يضم كل مصنع خط إنتاج واحد، إلى جانب الموافقة على مشروعات توسعة في عدد من المصانع القائمة، وذلك في إطار تحركات الحكومة لتأمين الإمدادات واستقرار الأسعار.

وتأتي المشروعات الجديدة ضمن استراتيجية أوسع لتعزيز الطاقة الصناعية والاستعداد لأي طلب كبير محتمل، خاصة في ضوء خطط إعادة الإعمار الإقليمية، بما في ذلك إعادة إعمار غزة. ومن المتوقع الانتهاء من مشروعات الإسمنت وبدء الإنتاج التجاري خلال عام واحد.

«تيتان مصر» تستثمر 8 ملايين يورو لإنتاج 400 ألف طن وقود بديل

تستهدف شركة "تيتان مصر" للإسمنت الوصول بمعدلات الطاقة البديلة إلى 400 ألف طن وقود، بنهاية 2027 باستثمارات تتراوح بين 7 إلى 8 ملايين يورو، لتمولها الشركة الأم العالمية.

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دورات تدريبية عربية

- نظام إدارة أمن سلسلة الإمداد للمصانع والخدمات اللوجستية ISO 28000
07- مايو / أيار 2026
- تطبيق نظم إدارة الجودة ISO 9001
18-21 مايو / أيار 2026
- تطوير منهجية التحسين Lean 6 Sigma ودورها في تحسين أداء المؤسسات الصناعية والتعدينية
08-11 يونيو / حزيران 2026
- منهجية حسابات الغازات الدفينة بواسطة بروتوكول غازات الاحتباس الحراري GHG Protocol
06-09 يوليو / تموز 2026
- أسواق وأرصدة الكربون بين النظرية والتطبيق (الطريق إلى التطبيق الفعلي)
27-30 يوليو / تموز 2026
- إعادة تدوير المخلفات ومعالجة النفايات الصناعية «الصلبة / السائلة / الغازية» واستخدام التكنولوجيا الأنظف في الصناعة
03-06 أغسطس / آب 2026
- التميز والإبداع في التطوير الإداري وتنمية الموارد البشرية – أدوات التحفيز وتشجيع الموارد البشرية والتطوير
17-20 أغسطس / آب 2026
- مؤشرات الأداء واستخدام التقنيات الحديثة والذكاء الاصطناعي في عمليات القياس والتخطيط بالمؤسسات الصناعية والتعدينية
31 أغسطس / آب – 03 سبتمبر / أيلول 2026
- كيفية إعداد دراسات الجدوى المتكاملة للمشروعات الصناعية والتعدينية
17 - 14 سبتمبر / أيلول 2026
- أثر الثورة الصناعية الرابعة على أداء المؤسسات والشركات الصناعية في ظل الفرص والتحديات العالمية الجديدة
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- أنظمة إدارة الطاقة ISO 50001:2018 كيفية دمج كفاءة الطاقة في العمليات الصناعية
12 - 15 أكتوبر / تشرين الأول 2026

للاستفسار

المنظمة العربية للتنمية الصناعية والتعدين
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