EuroBulk Systems

The European journal for handling, processing and transport of premium bulk products

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Dinnissen has introduced its latest twin-shaft paddle mixer (see p3).

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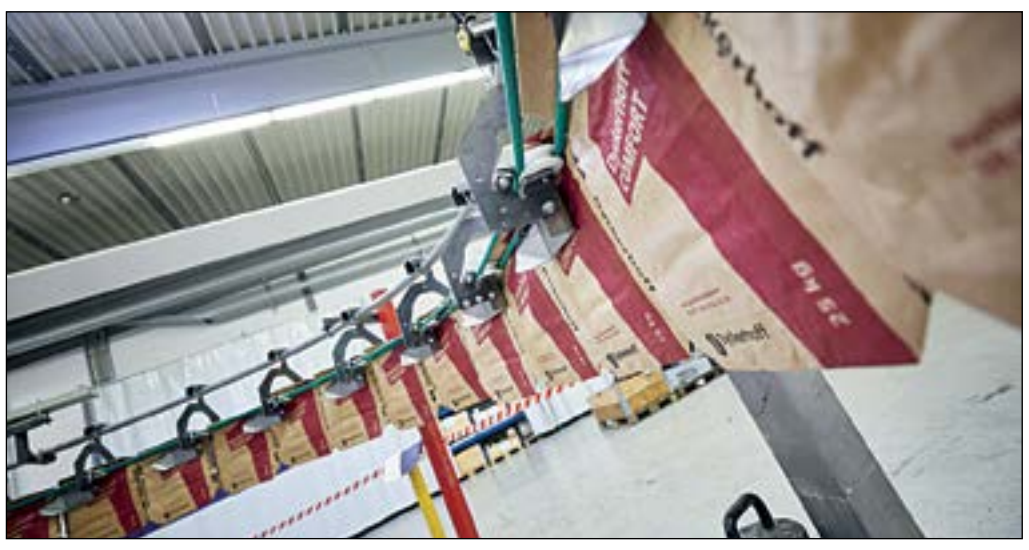
Gericke has launched the GMS Multiflux mixer and innovative AirCIP system, aimed at improving allergen control and cleaning efficiency (see p3).



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Zeppelin's Codos system continuously doses, mixes and kneads solid and liquid Components (see p7).

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Powder blending for allergen control and cleaning efficiency

Gericke GMS Double Shaft Mixer.

Powder mixing is a critical process in the chemical, pharmaceutical, and food industries, where precision, efficiency, and hygiene are paramount. To meet these requirements, Gericke has launched the GMS Multiflux mixer and innovative AirCIP system, aimed at improving allergen control and cleaning efficiency.

The GMS Multiflux mixer ensures short mixing times, excellent homogeneity, and gentle product handling. Its counter-rotating rotors create a fluidised bed, allowing particles to mix freely without excessive force. This prevents density changes and preserves ingredient integrity, making it ideal for applications requiring minimal concentrations of ingredients.

When it comes to cleaning, Gericke's AirCIP system offers an automated solution. Air pulses dislodge residues from the mixer's interior, while a targeted airflow efficiently removes remaining powder. This not only eliminates cross-contamination risks but also significantly reduces product loss and manual cleaning time. The system is fully customisable and compatible with Gericke's GMS Multiflux and GBM batch mixers, as well as retrofittable to existing setups.

www.gerickegroup.com

Greif-Velox expands in the Gulf

Greif-Velox Maschinenfabrik GmbH has announced a strategic partnership with Packme Mena FZ LLC to strengthen its presence in the Gulf region. Under this agreement, Packme Mena will distribute Greif-Velox's advanced packaging systems across Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE, while also providing technical support.

With an established footprint in Turkey, Africa, and Europe, Packme Mena offers both semi-automatic and fully automated solutions tailored to a wide range of manufacturers.

Rising demand for packaging automation in the Gulf—driven by national initiatives to boost local production—makes the timing ideal. Industries such as food and pharmaceuticals are seeking solutions that deliver sustainability and improved Overall Equipment Effectiveness (OEE).

www.greif-velox.com

Industry Updates – Every Week

Every week, *EuroBulkSystems* publishes a digest of the latest industry developments:

• New Products • Technical Innovations • Latest Orders •

For up-to-date news on In-Plant Handling and Bulk Processing, visit: www.eurobulksystems.com

New twin-shaft paddle mixer

Dinnissen Process Technology has introduced its latest twin-shaft paddle mixer, the Pegasus PG-12000-SP, designed for bulk handling applications in the food, pharmaceutical, and chemical sectors.

With a capacity of 15,000 litres, the mixer is manufactured entirely from stainless steel and incorporates ViwateQ finishing, a surface treatment that removes oxide layers and contaminants without the use of chemicals. This process creates a smooth surface designed to reduce product build-up and support easier cleaning procedures.

The twin-shaft paddle design facilitates thorough mixing of ingredients within a short cycle time, while large inspection hatches and optimised paddle configurations provide easier access for cleaning and maintenance. These features are intended to help minimise downtime and support operational efficiency in hygiene-sensitive environments.

The mixer is built in compliance with European regulatory standards, with full traceability of all components. Its construction is aimed at ensuring reliable performance in demanding production environments, while its hygienic design supports quality control processes.

According to Dinnissen, the development of this mixer reflects its focus on working closely with customers to meet specific processing requirements and enhance hygiene and sustainability standards in bulk material handling operations.

The Dinnissen Pegasus PG-12000-SP twin-shaft paddle mixer.

Heat exchange screw for European pyrolysis plant

Solids handling equipment maker, Ajax Equipment, has supplied a leading pyrolysis technology producer with a heat exchange screw conveyor to cool processed char at a European pyrolysis plant. The cooling screw receives char/ash from the pyrolysis process at up to 500degC and cools the material to below 50degC via the conveyor's water filled jacket and screw auger. The screw features full flights with a reduced pitch to provide a positive transfer of char/ash and surface area to effectively transfer heat.

"Cooling bulk solids is a challenging task as heat transfer coefficients can be low and contact areas limited, however, Ajax takes care in equipment design to promote good interface between the particulate material and the water cooled surfaces," says Eddie McGee, managing director, Ajax Equipment.

www.ajax.co.uk

Ajax Equipment Heat Exchange Screw.

Greif-Velox marks 80 Years in Lübeck

Presentation of the VeloVac vacuum technology at Greif-Velox Connect 2024.

German packaging machinery specialist Greif-Velox is celebrating 80 years at its Lübeck headquarters in 2025, marking a significant milestone in its long history of technical innovation and international expansion. The anniversary will be celebrated on May 13, 2025, with *Greif-Velox Connect*, an in-house trade event combining expert talks, machinery demonstrations, and networking opportunities.

Founded in 1936 by Ernst Mahlkuch, following his invention of the automatic bagging scale "Velox," the company relocated to Lübeck in 1945. Since then, Greif-Velox has evolved from a regional scale manufacturer into a global technology leader in automated packaging systems, operating in over 90 countries.

Key innovations developed over the decades include the introduction of valve bag filling machines, sealing machines, and, more recently, the VeloVac vacuum technology. VeloVac enables dust-free packaging of lightweight, fine powders — such as carbon black and silica — securing Greif-Velox's market-leading position in this specialist segment.

Following restructuring in the late 1990s, Greif-Velox expanded its product range to include liquid filling systems and strengthened its international presence, notably with the 2020 establishment of Greif-Velox America in Houston, Texas.

The company's commitment to Lübeck remains strong, with a recent ten-year lease extension securing its future at the site. "Innovation, vision, and our connection to Lübeck are key drivers of our ongoing success," says Managing Director Sebastian Pohl.

The upcoming *Greif-Velox Connect* event reflects this approach, bringing together industry professionals to discuss future trends in packaging technology and explore new ideas for the global bulk handling and processing industries.

www.greif-velox.com

Bulk handling investment rises – as efficiency and safety drive equipment upgrades

New industry research from bulk materials handling specialist Spiroflow points to a rising wave of investment in bulk bag handling equipment, as companies across the industrial processing sector target greater efficiency, reduced downtime, and improved operator safety.

According to Spiroflow's *2024 State of Bulk Bag Handling* report, 77% of industry professionals plan to upgrade or replace their bulk bag handling systems within the next two years. The research also highlights robust sector growth, with 98% of respondents reporting increased activity over the past 12 months, and more than half (52%) experiencing growth rates above 11%.

Efficiency remains a key driver of investment, with 44% of companies seeking to maximise payloads, particularly for materials with lower bulk densities, to reduce transport and storage costs. Maintenance is another priority, with 42% aiming to minimise downtime by installing equipment designed for faster servicing and part replacement.

Operator safety and ergonomics are also influencing equipment upgrades, with nearly one-third of respondents focusing on reducing manual handling risks.

In response, Spiroflow has developed solutions such as its high-speed Cone Table Elite (CTE) Bulk Bag Filler and a new sack tip station designed to improve air quality and handling efficiency - reflecting the evolving needs of bulk handling operations worldwide.

To download the full report click here.

www.akonasolutions.com

Schütz and GIE establish JV for Iberia

Industrial packaging specialists Schütz and Gestión Integral de Envases (GIE) have formed a new joint venture aimed at strengthening their presence in Spain and Portugal. The partnership brings together Schütz's global manufacturing expertise and GIE's local market knowledge to offer a comprehensive portfolio of sustainable packaging solutions and enhanced customer services across the Iberian Peninsula.

GIE, an owner-managed company with over 30 years of experience, specialises in the reconditioning of industrial packaging, including intermediate bulk containers (IBCs), plastic drums, and steel drums. From its central location in Spain, GIE provides delivery, collection, and cleaning services, operating processes that are both environmentally responsible and highly efficient.

Schütz Ibérica, active in Spain since 1994, operates three modern production sites in Tarragona and Toledo. These facilities manufacture a wide range of packaging products, including IBCs, high-performance plastic and steel drums, and tank systems for drinking water and heating oil. In addition, Schütz Ibérica supports the company's global Schütz TICKET SERVICE, collecting and reconditioning used packaging to recover high-quality HDPE granulate for reuse in new packaging solutions.

The new joint venture enables both companies to expand their offering of new, reconditioned, and recycled packaging while optimising logistics operations and reducing carbon emissions.

www.schuetz.nett

Schütz recently launched a new plastic frame pallet, suitable for the automated transport of IBCs.

Innovation on display at Chinaplas 2025

Starlinger highlighted its innovative technologies for sustainable polypropylene tape production and food-safe plastics recycling at the recent Chinaplas 2025. With a strong focus on efficiency and circular economy principles, Starlinger presented solutions that optimise production processes while promoting environmental sustainability.

At the forefront of Starlinger's showcase was the starEX 1600 tape extrusion line, designed for superior efficiency and resource conservation. Capable of a maximum melting capacity of 1000 kg per hour and production speeds reaching 550 metres per minute, this system ensures high-quality PP or HDPE/LLDPE tapes for robust packaging applications, including woven PP sacks and big bags.

Starlinger's twinTAPE+ automatic precision winder ensures seamless integration with the starEX line, providing perfect bobbin winding for enhanced weaving efficiency. Its automatic bobbin change procedure reduces manual labor, while the linear traverse system allows flexible bobbin designs.

Addressing the need for high-quality recycled materials in food packaging, Starlinger's recoSTAR PET art and recoSTAR dynamic recycling systems deliver solutions:

recoSTAR PET art enables PET bottle-to-bottle recycling with ultra-low levels of acetaldehyde and volatile organic compounds (VOCs). This system meets FDA and EFSA food safety standards, making it the preferred choice for major global brands.

recoSTAR dynamic offers food-grade recycling for post-consumer HDPE packaging. Its C-VAC module's cascade degassing system and PCUplus ozone-enhanced air flushing ensure exceptional decontamination, making it ideal for food-safe HDPE packaging such as bottles and caps.

twinTAPE+ automatic precision tape winders.

Big bags become big bags again: Closing packaging loops with Starlinger technology.

Starlinger's recoSTAR PET art recycling systems produce food-contact rPET that has been approved by national and international authorities and brandowners.

Other Valves Fight Friction, We Designed it Out

Unlike other valves that seal with friction, Posi-flate's unique butterfly valve uses an inflatable seat to seal with air pressure. Thus it requires less torque and a smaller actuator, resulting in lower cost. Plus, the seat automatically compensates for wear, providing longer life. Some users have reported over six million cycles and the valves are still going strong.

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High-Intensity Electromagnetic Dry Filter for Fine Powder Purification

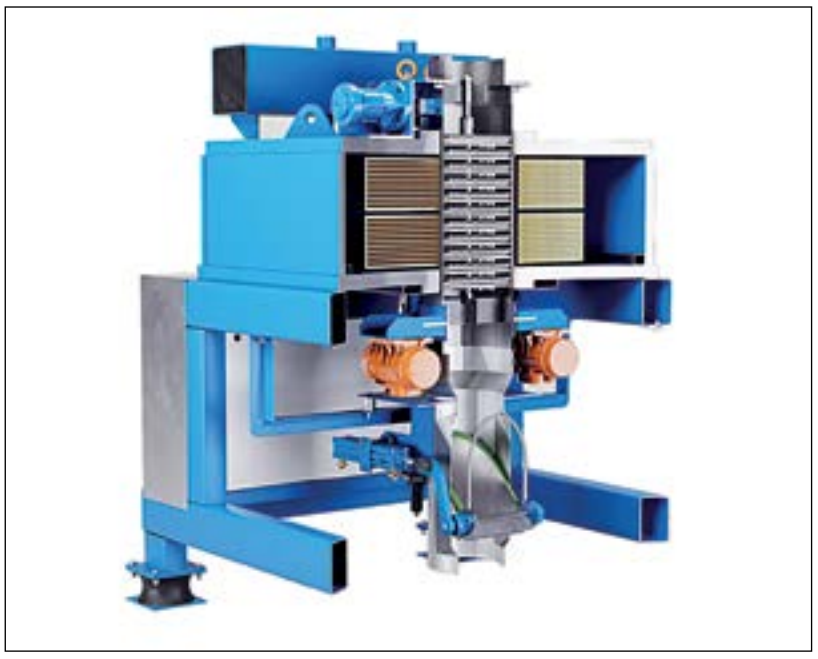
Bunting has introduced an advanced Electromagnetic Dry Filter designed to remove free fine iron particles from powders. This high-intensity magnetic separator generates ultra-strong magnetic fields, ensuring enhanced separation efficiency in a wide range of applications, including mineral processing, chemical and pharmaceutical production, ceramics, and recycling.

The Filter features a centrally located vibrating canister within a specially designed electromagnetic coil. This coil produces magnetic fields between 3,500 and 5,000 gauss in the canister, concentrating on matrix points to reach peaks of up to 12,000 gauss. As fine powder flows under gravity through the vibrating canister, magnetic stainless-steel matrix elements attract and retain ferrous particles. Once the batch feed is stopped, the electromagnet deactivates, releasing the captured particles into a separate collection area before resuming processing.

The Filter is different from permanent magnetic separators, which sometimes struggle with challenges such as bridging, ratholing, and poor flowability due to particle characteristics, electrostatic charges, and environmental factors like humidity. Its ultra-high magnetic fields and multiple capture points significantly improve separation efficiency, making it ideal for purifying high-value fine powders processed in controlled batches.

To streamline operations, the Electromagnetic Dry Filter integrates into production lines via a Siemens S7-1200 PLC and Human Machine Interface (HMI) control system. Designed for minimal maintenance and downtime, it includes a built-in jig crane, enabling quick and easy removal of the matrix canister for inspection and cleaning.

"The development of the Electromagnetic Dry Filter has been customer-driven," said Adrian Coleman, Bunting's Technical Director. "Processing powders is often challenging due to material behavior, and our design engineers focused on optimising powder flow while maximising magnetic separation efficiency."



Stainless steel lift for hygienic handling of pallets, IBCs, and FIBCs

Dutch process technology specialist Dinnissen has introduced a new stainless steel lift system designed to improve the safe and efficient handling of pallets, intermediate bulk containers (IBCs), and flexible intermediate bulk containers (FIBCs) in industrial production environments.

Dinnissen's new stainless steel lift.

Originally developed in response to a customer project in the US dietary supplements sector, the lift was designed to address specific safety concerns. The project required pallets of raw materials to be raised to an 8-metre height, creating significant manual handling risks. When no suitable fully stainless steel, hygienic lift was available on the market, Dinnissen developed its own solution.

Manufactured entirely from stainless steel, the lift meets strict hygiene standards required in the food, nutrition, and pharmaceutical industries. Its design avoids the use of hydraulics, instead utilising a reliable mechanical belt drive to reduce contamination risk and improve durability.

The lift is suitable for a wide range of products, including pallets, drums, big bags, and sack goods. It incorporates an integrated control system, fall protection, LOTO (Lock Out Tag Out) provisions, and complies with CE certification and EN 81-30:2010 safety standards.

Each lift is fully customised to meet client-specific requirements, including height, lifting capacity (ranging from 500 to 2000 kg), and input/output configuration. Dinnissen reports that several units have already been delivered to customers worldwide, with further systems currently in production.

By combining hygiene, safety, and operational efficiency, Dinnissen's new stainless steel lift offers a practical solution for manufacturers seeking to optimise material handling within sensitive production environments.

www.dinnissen.com

Eriez celebrates Cardiff University collaboration

Eriez recently showcased its successful Knowledge Transfer Partnership (KTP) with Cardiff University at the KTP@50 event, held on March 20, 2025, at the historic Pierhead Building in Cardiff Bay. This milestone event celebrated 50 years of KTPs, a program designed to foster collaboration between businesses and academic institutions to drive innovation and industry advancements.

A highlight of the event was Eriez' Enhanced Knowledge Transfer Partnership (eKTP) with Cardiff University, which played a crucial role in the development of advanced signal processing and electronic design for metal detection technology. This partnership directly contributed to the June 2024 launch of the Eriez digital MetAlarm metal detector, now manufactured in Bedwas, Wales, and distributed worldwide.

The success of this initiative has significantly bolstered Eriez' research and development (R&D) capabilities. What began with a single researcher at the company's Bedwas site has evolved into a dedicated five-person team based at Spark|Sbarc, Cardiff University's premier innovation hub. This expansion, supported by additional KTP funding, has strengthened cross-border collaboration and fostered deeper integration between Eriez' global teams and academic experts.

Chris Dyer, Lead R&D Electronic Engineer at Eriez-Europe and a Cardiff University alumnus, represented the company at KTP@50. Dyer, whose PhD research was rooted in the KTP, highlighted the partnership's impact: "Our collaboration with Cardiff University has given Eriez a competitive edge in metal detection, accelerating both development and market adoption of our latest technologies."

Beyond product innovation, Eriez has successfully secured external funding, obtaining £112k through two InnovateUK projects for AI-driven metal detection applications, with further funding applications underway. The company has also privately financed Cardiff University projects, demonstrating its long-term commitment to academic collaboration. Weekly engagement between Eriez and university researchers ensures continuous advancements in next-generation technology.

Gareth Meese, Managing Director of Eriez-Europe, emphasised the transformative effect of the partnership: "Our collaboration with Cardiff University showcases the power of KTPs in turning academic research into real-world industrial advancements. The strong market adoption of the MetAlarm highlights Eriez-Europe's role as a dynamic, forward-thinking manufacturer and employer in South Wales while reinforcing our global leadership in metal detection technology."

While celebrating past successes, Eriez remains focused on the future. As Dyer noted, "The breakthroughs we've achieved are just the beginning—we're excited to build on this success and continue leveraging our partnership with Cardiff University to push technological boundaries even further."

Zeppelin Systems at iba 2025

Fermentation plant – a modular system.

Zeppelin Systems is set to present its expertise in food plant engineering at iba 2025, the premier trade fair for the bakery, confectionery, and snack industries. This year, the company will highlight its Triple Plus concept, focusing on three critical areas: reducing costs, saving time, and conserving resources.

The DymoMix system has long been recognised for its ability to streamline dough production. By eliminating batch mixing, it significantly reduces processing time, increases throughput, and enhances dough hydration with minimal moisture input. Its robust transmission system ensures energy efficiency, while automated cleaning processes reduce downtime and maintenance efforts. Suitable for batch, continuous, linear, and fermentation processes, the DymoMix operates efficiently at a performance range of 1,000 to 6,000 kg/h.

The Codos continuous mixing and kneading system stands out for its versatility, allowing for quick recipe changes and optimised ingredient integration. Multiple loading points prevent over-kneading and ensure even distribution of sensitive ingredients like chocolate chips. With an innovative drive concept and intelligent data monitoring, the Codos system improves energy efficiency and reduces waste. Its compact, closed design minimises dust and dough leakage, further cutting cleaning time and operational costs.

Zeppelin Systems' fermentation equipment ensures reproducible results across all pre-dough and sourdough processes. Advanced sensor technology and adaptive control loops enhance production efficiency while reducing water consumption. The system's modular design allows for future expansion, making it a cost-effective solution for long-term production growth.

The Codos system continuously doses, mixes and kneads solid and liquid components.

Depth control system for decanter centrifuges

GEA has launched Varipond C, a new control system designed to improve the flexibility, efficiency, and energy performance of its decanter centrifuges. The system enables fast and precise adjustment of pond depth and separation zones during operation, helping operators maintain product quality and optimise yields without production interruptions.

Suitable for GEA decanters from the CF 3000 to CF 8000 series, and applicable to both two-phase and three-phase separation processes, Varipond C is aimed at industries where the consistency of raw materials can vary significantly — such as food, beverage, edible oils, and industrial refineries.

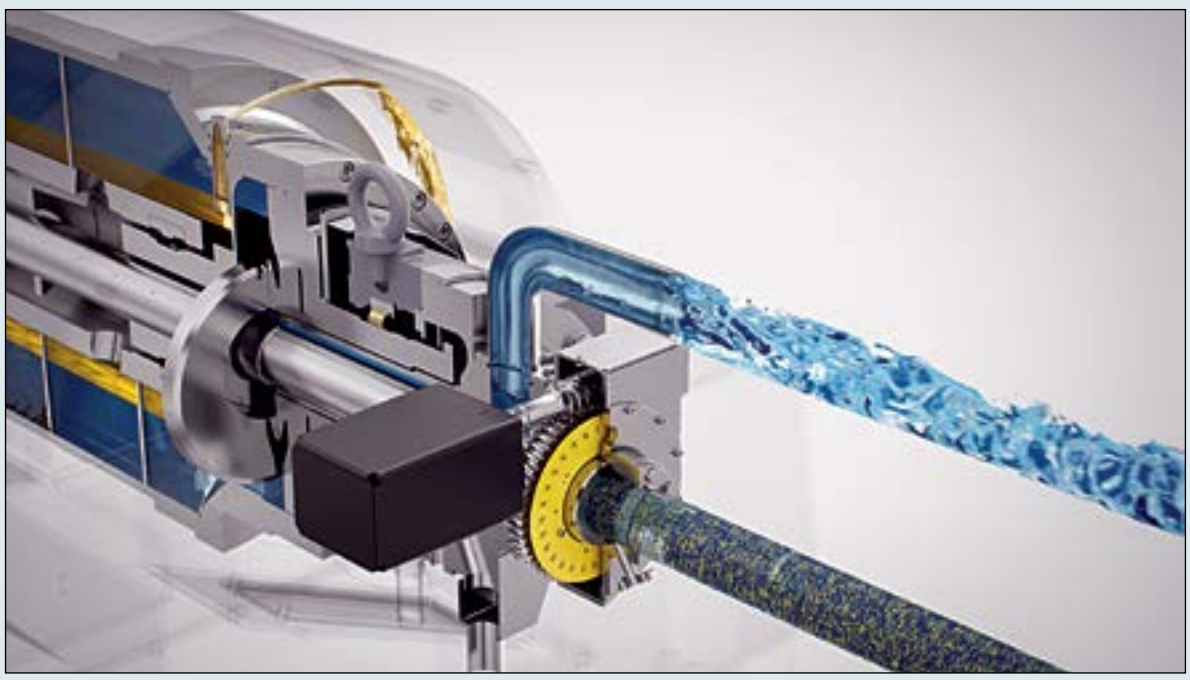
One of the key benefits of Varipond C is its potential for energy savings. GEA reports that the system can reduce energy consumption by up to 30% compared to traditional centripetal pump-based designs. This is achieved through a lower-friction, mechanically simpler configuration, which is also compatible with clean-in-place (CIP) procedures and certified for hygiene-sensitive environments.

Additional features include compatibility with hydrohermetic sealing to minimise oxygen ingress during separation, helping to protect product quality in applications such as beverage production.

Varipond C can also be integrated with GEA's digital services via an IoT-enabled gateway. This connectivity allows operators to monitor and optimise performance using real-time and historical data, as well as manage process recipes and track operational metrics remotely.

With Varipond C, the pond depth and separation zone can be precisely adjusted either manually with a handwheel or automatically with a servomotor (image) to optimally adapt the separation process to different operating conditions.

According to GEA, Varipond C has already been deployed successfully in a range of industrial applications, including wheat starch production, animal fat processing, and refinery sludge treatment. In one case at a refinery in Colombia, decanters equipped with Varipond C achieved dry solids content levels of up to 60% in processed sludge.



The system is available for all GEA decanters ranging from CF 3000 to CF 8000 and is suitable for both two-phase and three-phase processes, regardless of decanter size.

Gentle raw material wetting with the DymoMix.

Strong progress for Dinnissen UK

Dan Baxter, Director of Dinnissen UK operations.

Six months after its establishment in September 2024, Dinnissen UK reports positive growth, citing strong client engagement and key project milestones. The UK branch was launched to enhance local support and strengthen relationships with clients across the UK and Ireland.

According to Dan Baxter, Director of UK Operations, the company has seen rapid development and an encouraging market response. A key achievement has been facilitating client visits to Dinnissen's headquarters in the Netherlands, reinforcing confidence in its solutions.

Despite regulatory challenges, the company has successfully navigated compliance processes while maintaining a focus on customer service. Notable projects, including a turnkey pet food facility and the delivery of 50 bulk bag discharging systems, highlight its expanding presence.

Looking ahead, Dinnissen UK aims to build on this momentum, continuing to provide process solutions tailored to the region's needs.

www.dinnissen.com

QA in pharmaceutical production enhanced

In the pharmaceutical industry, maintaining the highest quality standards in oral solid dosage (OSD) production is essential. Gericke, a leading provider of process engineering solutions, has introduced the innovative Gericke Sampling Valve (GSV) to enhance quality assurance in continuous manufacturing.

The GSV is specifically designed to ensure accurate sampling of materials during the production process. Unlike conventional sampling methods, this valve is the only one capable of taking representative samples from a flowing material stream, capturing an entire cross-section. This feature ensures product consistency, enhances safety, and reduces risks such as drug shortages and extended development times.

Key attributes of the Gericke sampling valve include its precision in obtaining accurate samples, seamless integration with continuous manufacturing systems, and compliance with current Good Manufacturing Practice (cGMP) standards. The valve also allows for quick cleaning and product changeovers, minimising downtime. Furthermore, its adjustable sampling size meets unit dose requirements while reducing material waste.

Designed for versatility, the GSV accommodates various OSD forms and can be used in high-containment applications. It also features a Wash-in-Place (WIP) option, enabling safe and efficient dismantling. These attributes make it a reliable and effective solution for pharmaceutical manufacturers seeking to enhance process efficiency and product quality.

The Gericke sampling valve is a crucial component of the company's broader portfolio, which supports continuous manufacturing. Integrated within the Gericke Formulation Skid (GFS), it functions alongside high-precision loss-in-weight feeders and compact blenders, ensuring a streamlined production process. Pharmaceutical manufacturers can test these components at Gericke's global test centers or opt for on-site trials through rental services, offering flexibility and convenience.

Gericke Sampling Valve GSV.

gerickegroup.com

Announcing: Conference on "Fire Prevention in Biomass and Bulk Materials Storage"

The University of Greenwich's Medway campus will host the 4th Conference in the 'Silo Fires' series on 10 June 2025. Organised by the Wolfson Centre for Bulk Solids Handling Technology, the event aims to raise awareness about fires in silos and flat storage facilities, discussing prevention and management strategies.

Unlike explosions, which are regulated under DSEAR, fires in bulk solids storage often receive less attention despite their frequency. The conference will provide insights through case studies, discussions on current scientific research, and guidance on managing fire incidents, including safety measures through design and operational practices.

Confirmed presentations include:

- Lynemouth Power: Case Study on Fire Incidents
- Southdowne Solutions: Silo Fire Ignition Sources
- Firefly: Early Fire Detection, Prevention, and Preparation
- Robecco and Thorwestern Vent: Silo Fire Safety 2.0
- The Wolfson Centre for Bulk Solids Handling Technology: Predicting Self-Heating in Large Biomass Stores

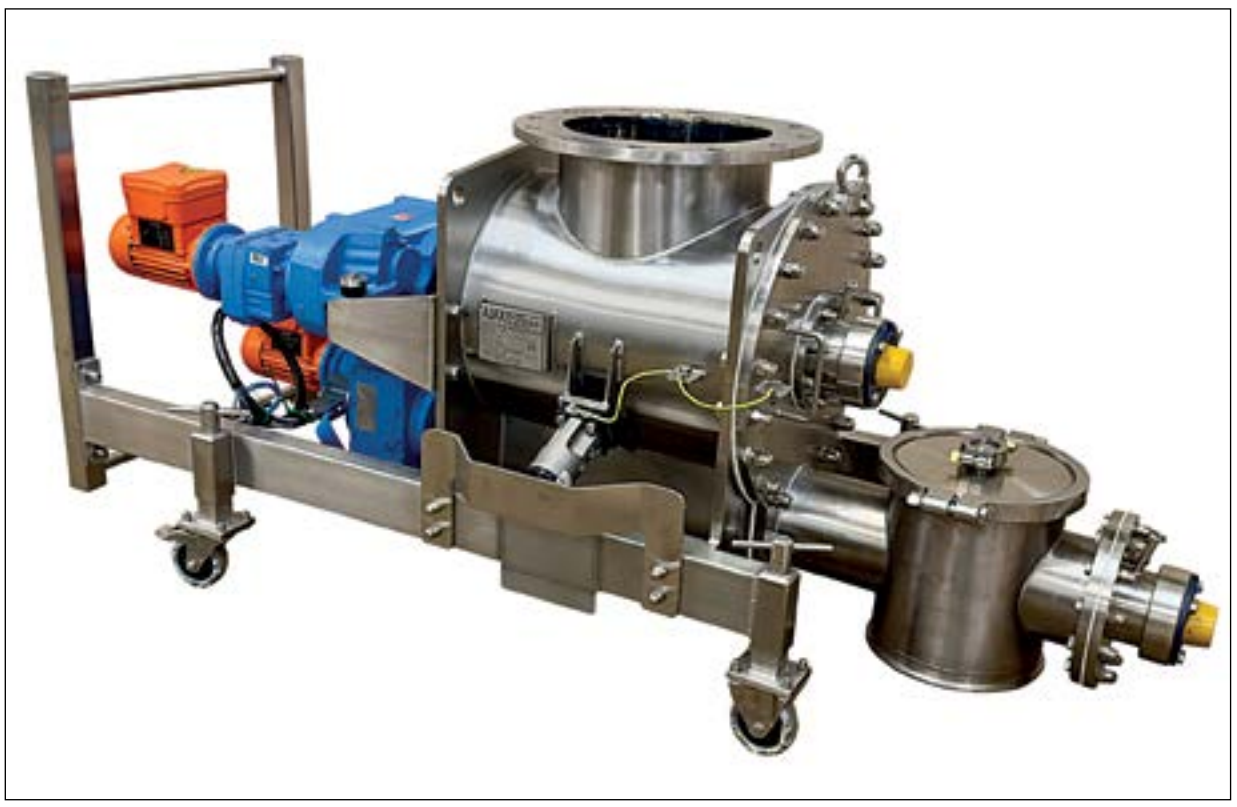
Additional presentations will be announced on the event website.

Early bird registration is available at £200 per person until 9 May 2025, after which the standard fee of £250 will apply. Various sponsorship and exhibition opportunities are also available.

For more details and registration, visit the event webpage – click HERE or contact deborah@constableandsmith.com.

The conference is supported by SHAPA, MHEA, and IMechE.

Agitated screw feeder for Sterling Pharma Solutions



Sterling Pharma Solutions agitated screw feeder.

Ajax Equipment has supplied a stainless steel, ATEX-rated agitated screw feeder to Sterling Pharma Solutions for feeding an active pharmaceutical ingredient (API). The unit, mounted on a mobile frame, supports controlled and reliable powder delivery to downstream processing equipment.

Following powder flow testing to assess handling characteristics, Ajax tailored the feeder's design to meet pharmaceutical standards. The hopper features a mirror-polished interior to promote powder flow and facilitate cleaning, while the agitator prevents compaction and ensures consistent feeding to the screw mechanism below.

Lewis Shaw, Technical Sales Engineer at Ajax, highlighted the importance of robust design and hygienic features in pharmaceutical applications. The feeder's mobile frame also allows for easy removal from the production line when needed.

Sterling Pharma's Gerard O'Mahony praised Ajax's communication and technical support throughout the project.

www.ajax.co.uk

Haver & Boecker showcases technological advancements

Haver & Boecker presents its latest innovations in bulk material processing, packing, and palletising.

Haver & Boecker will exhibit at bauma 2025, highlighting innovations across its technology brands. Under the Haver & Boecker Machinery Division, companies including Haver & Boecker Niagara, IBAU Hamburg, MAJOR, and NEXOPART will present advancements in screening, packing, screen media, and laboratory equipment.

Attendees will explore solutions in screening, processing, packing, palletising, and digital optimisation. Demonstrations and technical discussions will showcase how these technologies enhance industrial operations across multiple sectors, including building materials, food, cement, and chemicals. The company and its brands will exhibit in Hall B2, Stand 149, from April 7-13, 2025.

A century of innovation

In 2025, the Haver & Boecker Machinery Division marks 100 years of innovation in industrial storage and packing solutions. The company remains dedicated to sustainable and efficient technologies, with its Planet Blue initiative emphasising energy efficiency, material optimisation, and eco-friendly production practices. By integrating digital solutions and high-efficiency machinery, Haver & Boecker continues to advance industrial sustainability.

Screening and crushing solutions

Haver & Boecker Niagara will present its latest screening and crushing solutions, designed to enhance material quality, operational efficiency, and reliability. Featured technology includes the Niagara F-Class vibrating screen, which utilises a double eccentric shaft assembly for optimal material stratification. The brand will also showcase expertise in diagnostics, spare parts, and consumables such as screen media and liners.

Additionally, Haver & Boecker Niagara will introduce its Niagara primary crushing plants, engineered to enhance throughput and product quality while reducing energy consumption. These plants optimise efficiency in material processing across various crushing stages.

Screening innovations

MAJOR EUROPE will showcase its FLEX-MAT high-vibration technology, developed to improve screening efficiency and reduce material blinding. The updated MAJOR App provides real-time vibration analysis, data retrieval, and augmented reality features for enhanced monitoring and maintenance.

A new polyurethane strip variant for the FLEX-MAT Modular series will also be introduced, offering improved durability in wet and corrosive environments, extending screen media lifespan, and reducing operational downtime.

Laboratory Particle Analysis

NEXOPART will present its EML sieve shakers and computerised particle analysis (CPA) system, designed for precise particle size determination in dry and wet bulk materials. The CPA 2-1 model streamlines particle analysis, improving efficiency in industries such as pharmaceuticals, plastics, and construction materials.

Silo technology Innovations

IBAU Hamburg specialises in storage, mixing, conveying, and shipping solutions. At bauma 2025, it will highlight advanced silo technology and engineering solutions, including plant design, EPC contracting, and just-in-time spare part services. Visitors can explore the company's latest developments in production and customer collaboration.

Haver & Boecker Niagara presents advanced screening and crushing solutions, including the Niagara F-Class vibrating screen and primary crushing plants.

NEXOPART highlights its innovative laboratory particle analysis solutions, including the EML sieve shakers and CPA 2-1 image analysis system.

Western Bio-Energy installs magnet for ferrous metal removal

Western Bio-Energy Ltd, based in Margam, South Wales, has enhanced its biomass power plant operations with the installation of a high-performance EMAX Overband Magnet from Bunting Magnetics. The air-cooled electromagnetic separator is now in operation, removing tramp ferrous metal from incoming woodchip used in power generation.

Western Bio-Energy operates a 15.8MWh biomass plant using a variety of wood sources, including brash chip, whole tree chip, RCF chip, and virgin wood.

EMAX140 Overband Magnet over the 1.2-metre-wide conveyor.

Due to the nature of the raw materials, contamination with ferrous metal such as nails, bolts, and tools is common. Such metal poses risks to plant equipment and fire safety.

Following an on-site assessment, Bunting supplied the EMAX140 model, which is installed inline over the head pulley of a 1.2-metre-wide conveyor transporting an average of 22 tonnes per hour of woodchip. The magnet lifts ferrous contaminants from the woodchip into a designated collection area via a self-cleaning belt running faster than the conveyor to enhance separation efficiency.

The Overband Magnet features a durable armoured belt with HDPE slats and stainless-steel fixings to extend operational life. The system efficiently separates a wide range of metal debris, helping protect downstream equipment and maintain safe, consistent plant operations.

Ben Clemett, Area Sales Manager at Bunting, noted that the installation has significantly reduced concerns about metal contamination at the site.

www.bunting-redditch.com

Separated tramp ferrous metal.

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Enhanced belt cleaning at Richards Bay

Transnet, South Africa's largest port operator, has introduced new belt-cleaning technology at its Richards Bay bulk minerals terminal. This move aims to improve efficiency and reduce maintenance challenges at one of the country's key import-export hubs. The terminal, located in KwaZulu-Natal, handles approximately 20 million tonnes of commodities annually, including exports such as magnetite, ferrochrome, bauxite, and woodchips, while importing materials like sulphur, coking coal, and alumina.

The facility operates a network of about 30 conveyors, transporting bulk materials around the clock. Given the high volume of operations, minimising transfer times is essential to maintaining shipping schedules. However, excessive spillage, blockages, and material buildup can lead to conveyor damage or operational disruptions. To address these challenges, Transnet has implemented CleanScrape belt cleaners from Martin Engineering, a company specialising in bulk material handling solutions.

The CleanScrape system is designed to efficiently remove carryback material using tungsten carbide wear tips arranged in a helical pattern across the discharge pulley. This approach minimises contact pressure while ensuring up to 95% of residual material is cleared, extending the service life of the cleaning system up to four times longer than conventional blades. Additionally, the system requires minimal maintenance, with only occasional tension adjustments needed.

CleanScrape uses a matrix of tungsten carbide wear tips lightly tensioned across the discharge pulley in a three-dimensional helix shape.

The low-profile design of CleanScrape makes it ideal for situations where access is difficult and space is limited.

Transnet first trialled CleanScrape technology in 2015 to address excessive spillage and material adhesion on select conveyor belts. Following a successful pilot, the system was expanded to additional conveyors, particularly those in areas with limited access for maintenance. As part of a broader plant upgrade, Transnet has now installed CleanScrape® cleaners on 12 more conveyor belts, ensuring all primary belts at the terminal are fitted with the technology.

To further enhance conveyor cleanliness, Transnet has also integrated Martin Engineering's SQC2 secondary belt cleaners. These secondary units feature durable blades capable of withstanding highly abrasive materials and incorporate a slide-in/out mechanism for safe and efficient servicing. The combination of CleanScrape® primary cleaners and SQC2 secondary cleaners has contributed to significant reductions in spillage and maintenance requirements.

Cyril Dludla, Technical Supervisor at Transnet, highlighted the improvements brought by the new system: "There has been a significant reduction in spillage since the installation of CleanScrape® belt scrapers. As a result, we plan to expand the use of these systems across the entire Richards Bay facility."

Janco Shulze, Sales Representative at Martin Engineering in KwaZulu-Natal, noted the positive impact of the partnership with Transnet: "We are pleased to support Transnet in optimising its bulk handling operations. The reliability of CleanScrape® means maintenance teams can focus on other critical areas, ensuring uninterrupted conveyor performance."

Transnet's investment in advanced belt-cleaning solutions aligns with broader efforts to enhance efficiency, safety, and cost-effectiveness at its terminals. By reducing material spillage, extending equipment lifespan, and lowering maintenance demands, the adoption of CleanScrape contributes to a more streamlined and sustainable port operation.

www.martin-eng.com

Martin's SQC2 Secondary Belt Cleaner features a unique slide-in/-out assembly for safe and easy blade replacement.

Selecting the right conveyor drives for recycling operations

Efficient material handling is essential in recycling plants, where conveyors transport a wide variety of materials with differing characteristics. Selecting appropriate conveyor drive units is critical for smooth operation, safety, and throughput. David Strain, Technical Director at systems integrator Technidrive, outlines the key considerations when specifying drives for belt feeders, transfer belts, and picking belts.

Each conveyor type plays a distinct role in recycling operations. Belt feeders, located beneath hoppers, regulate material flow into the line. These systems often use inverter-controlled drives to allow fine speed adjustment — particularly important when handling irregular materials like construction waste. Material characteristics, rather than bulk capacity, should guide drive sizing in these applications.

Transfer belts move materials between process stages. While drive specification here may be more straightforward, consistent speed matching is vital to prevent material build-up and flow disruption.

Picking belts, used for manual or automated sorting, depend heavily on speed control. Slower speeds support positive picking (removal of more items), while faster speeds suit negative picking (removal of selected items).

Mechanical considerations such as friction and alignment can also impact drive performance. Poorly aligned skirt rubbers or friction-heavy flat-bed conveyors can cause overheating and drive failure. In response, Technidrive offers an integrated Drum Drive system, where the motor and gearbox are housed within the conveyor drum, reducing friction, improving reliability, and saving space.

Variable speed operation is often key to handling real-time process demands. Whether working with OEMs or control panel suppliers, matching the right drive solution to the specific conveyor role enhances performance, minimises downtime, and supports the overall efficiency of recycling lines.

Ultimately, proper drive selection enables conveyors to do more than move materials — they keep the process flowing efficiently and safely.

technidrive.co.uk

Keeping the line moving.

Carlsberg Bulgaria invests in advanced can filling line

The Innopro KZE takes up little space and is low on energy consumption.

Carlsberg Bulgaria has taken a significant step in expanding its production capabilities with the installation of its first in-house canning line. Supplied by packaging technology provider KHS, the high-speed line supports the brewer's strategy for growth and operational efficiency in a changing market landscape.

The company, formed in 2004 through the merger of two long-established Bulgarian breweries—Shumensko and Pirinsko—now produces over two million hectolitres of beer annually. Its product portfolio includes domestic brands and international labels such as Tuborg, 1664 Blanc, and Grimbergen.

With increasing consumer preference for canned beer, Carlsberg Bulgaria launched its canning operation at the Blagoevgrad facility in early 2023. The KHS line can fill up to 60,000 330ml cans or 40,000 larger cans per hour. According to Metodi Stoyanov, integrated supply chain director, the compact, less complex machinery improves production efficiency and ease of maintenance, currently achieving an OEE of 76%.

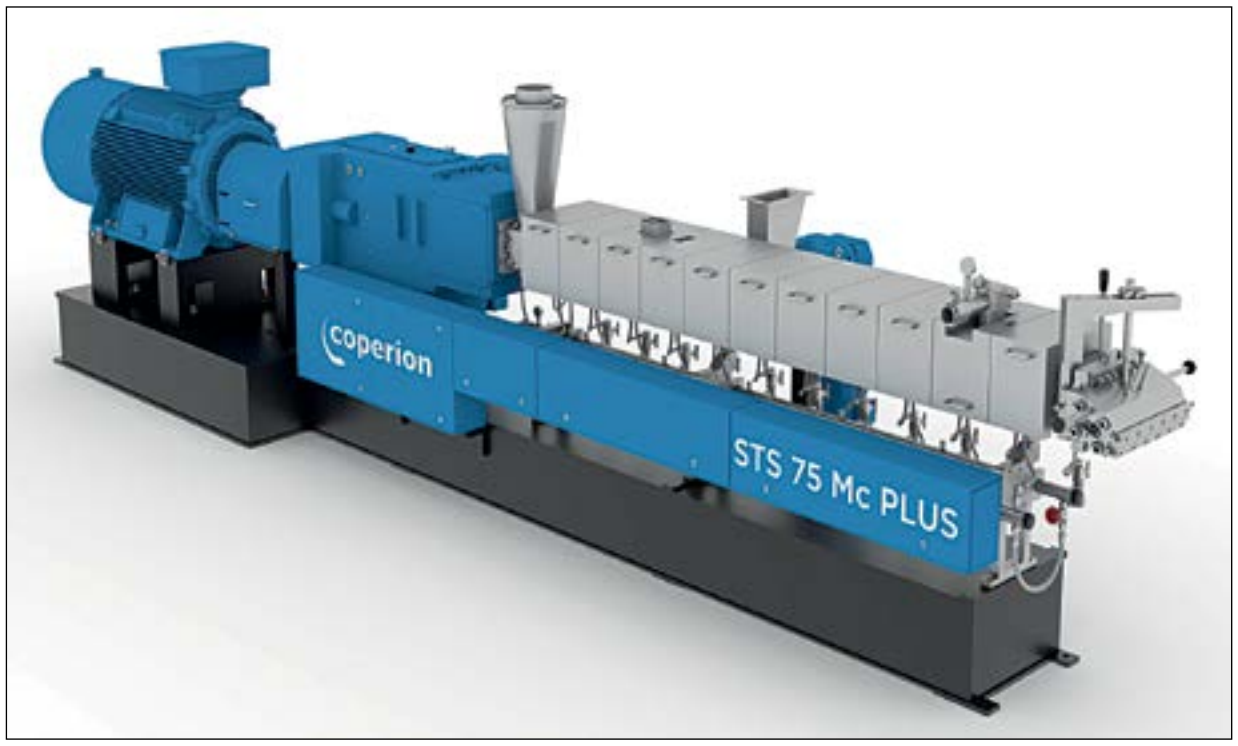
A key feature of the new line is its use of a flash pasteuriser rather than a traditional tunnel pasteuriser, offering energy and space savings while maintaining high hygiene standards. To prevent condensation on packaging, a compact heater gently warms the cans before tray packing.

Despite post-pandemic supply chain challenges, the installation proceeded smoothly and on schedule. Carlsberg Bulgaria has also signed a three-year service agreement with KHS, covering predictive maintenance and remote diagnostics through the ReDiS platform.

The project reflects Carlsberg Bulgaria's aim to enhance flexibility, sustainability, and product quality in its operations. The partnership with KHS has delivered a strong foundation for its new canning operations, supported by technical expertise and ongoing service.

www.khs.com/media

Advanced compounding and recycling technologies at Chinaplas 2025



The Coperion STS 75 Mc PLUS twin screw extruder achieves up to 20% greater throughput with improved product quality, at an increased specific torque of 13.6 Nm/cm³.

At Chinaplas 2025, held from 15–18 April at the Shenzhen World Exhibition & Convention Center, Coperion presented a comprehensive range of technologies focused on improving efficiency in plastics compounding and recycling. The company's exhibit highlighted innovations across the entire processing chain, from feeding and conveying to extrusion and recycling.

On display were two extruders tailored for today's challenges in plastics production. The 4th generation STS 75 Mc PLUS twin screw extruder, offering 13.6 Nm/cm³ specific torque, demonstrated a potential increase in throughput of up to 20%, delivering improved product quality. Alongside it, the ZSK 58 Mc^{18} extruder, with a torque of 18 Nm/cm³, was shown as a solution for high-performance applications, particularly engineering plastics. Both extruders are manufactured in China under CE-compliant standards.

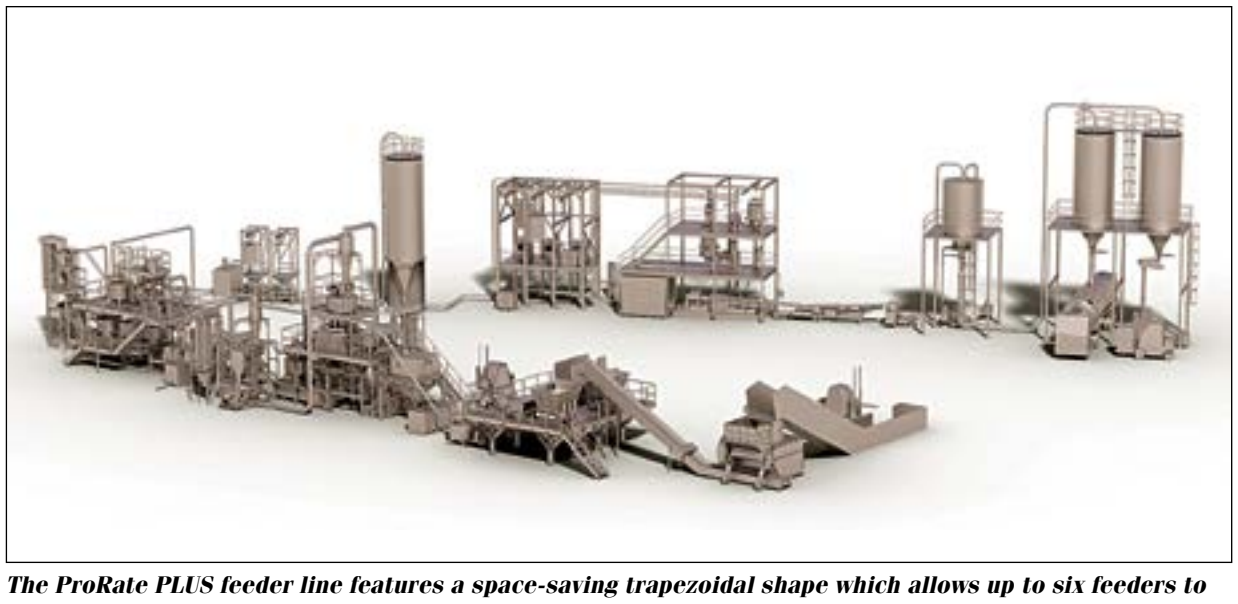
Coperion also showcased its latest feeding technologies, including the ProRate PLUS-M feeder from its gravimetric single and twin screw range, designed for compact layouts and high feed rate flexibility. The Coperion K-Tron T35 gravimetric feeder, featuring the ActiFlow bulk solid activator and EPC system, highlighted solutions for consistent feeding of cohesive materials.

A collaborative display with Herbold Meckesheim demonstrated a virtual 3D model of a complete plastics recycling plant, providing visitors with insight into integrated solutions for mechanical, PET, and chemical recycling. Of particular note was the ZSK FilCo filtration compounder, designed to reduce energy use and emissions by over 50% through single-step filtration and compounding.

Throughout the show, Coperion underlined its commitment to process efficiency, modularity, and long-term service support, offering upgrades and maintenance for both new and existing systems.

www.coperion.com

The reliability of plastics recycling machinery from Coperion and Herbold Meckesheim excels, achieving very high recyclate product quality.



The ProRate PLUS feeder line features a space-saving trapezoidal shape which allows up to six feeders to be easily grouped around an extruder inlet within a 1.5 metre radius.

New European Quality Manager at Bunting

David Summers: European Quality Manager, Bunting Magnetics.

Bunting Magnetics has appointed David Summers as European Quality Manager, reinforcing its commitment to continuous improvement and quality assurance across its operations.

With extensive experience in quality management, Summers holds chartered status with both the IMechE and CQI, and is trained in Lean Six Sigma and leadership.

Since joining the company in March 2025, Summers has focused on process optimisation and enhancing collaboration across Bunting's supply chain. He recently led a cross-functional team in addressing a complex aerospace project involving a 4-pole SmCo magnetic assembly, where high-precision tolerances and specialist measurement techniques were critical.

Working with QCI Group, a metrology and quality engineering specialist, Summers coordinated a review of inspection methods, leading to a more efficient and cost-effective measurement process.

In his new role, Summers will lead Bunting's European Quality Team, supporting improvements in magnet and assembly design, production, and client satisfaction.

https://e-magnetsuk.com

Optimising valve bag packing

The Pathfinder transfers bags from the Radimat — a bag separation and feeding device — to the Roto-Packjer automatic packing machine, achieving a fully automated packing line even in space-constrained plants.

Packing operations in the cement, building materials, and food industries are benefiting from greater flexibility and efficiency with Haver & Boecker's new Radimat Pathfinder edition. The Pathfinder conveyor system transfers bags from the Radimat, an automatic empty bag applicator, to the Roto-Packer packing machine.

Designed to overcome space limitations and enhance automation, the system supports improved safety and productivity. With a 20-metre length and a flexible route, the Pathfinder enables separate positioning of the Radimat and Roto-Packer.

The fully automated setup reduces worker exposure to dust and simplifies maintenance by improving access to equipment. Haver & Boecker's solution allows facilities that previously lacked space for a bag applicator to integrate the Radimat, enhancing operational capability and safety.

www.haverboecker.com

Operations can experience great adaptability by curving the Pathfinder's route to either the left or right to transfer bags.

Feeders integrated into Pfizer's high containment facility

Pfizer's newly constructed high containment pharmaceutical production facility in Freiburg, Germany, features high-accuracy batch feeders from Coperion K-Tron as part of its automated manufacturing process. The facility, which employs over 2,000 people, is designed to double the company's drug production capacity while reducing overall production time.

Coperion K-Tron's K3 line of pharmaceutical feeders was selected for its accuracy, modular design, and ability to meet the stringent demands of high containment pharmaceutical manufacturing. The Freiburg plant, which handles highly potent OEB 4 compounds, uses completely enclosed systems incorporating split butterfly valves and glove boxes for safe material transfer.

The Coperion K-Tron K3-PH feeders are integrated into an automated batch system where raw materials—including APIs and excipients—are delivered from various container types and dosed according to set formulations. The feeders operate under a PLC-based control system, which communicates precise batch setpoints to the feeder's KCM-III controller.

The KCM-III controller is equipped with advanced Smart Force Transducer (SFT) weighing technology, providing a resolution of 8,000,000:1 in 20 milliseconds. It ensures precise dosing, while also storing event logs and process data for traceability.

Designed to comply with cGMP guidelines and FDA requirements, the K3-PH feeders feature a compact footprint, quick-change components, and options for wash-in-place cleaning. These features support both batch and continuous manufacturing needs.

The integration of Coperion K-Tron's feeders into Pfizer's state-of-the-art facility highlights the increasing role of precise material handling in pharmaceutical production, contributing to greater efficiency, safety, and product consistency.

www.coperion.com

Coperion K-Tron pharmaceutical feeders are an integral part of the Pfizer high containment automated production facility in Germany.

Coperion K-Tron's pharmaceutical feeder with a redesigned trapezoid scale shape and significantly smaller footprint is optimised for multi-feeder clusters around a process inlet.

Detectable plastics highlighted as tool for contamination prevention

Eriez additives.

Manufacturers in food, pharmaceutical, and other processing industries are facing increasing demands to improve product safety and minimise the risk of contamination. A recent technical paper from Eriez, Detectable Plastics and Rubber: A Game-Changer in Contamination Prevention, examines how detectable plastics can play a key role in reducing the risk of plastic and rubber contamination in production environments.

John Collins, PolyMag Additives Manager at Eriez and author of the paper, highlights the significant financial and reputational risks posed by contamination incidents. According to Collins, product recalls due to plastic or rubber contamination can cost manufacturers an average of $10 million per incident, in addition to potential damage to brand credibility.

The technical paper outlines how detectable plastics, such as Eriez's PolyMag Additives, can be incorporated into a wide range of components commonly used in processing and packaging operations. These additives enable plastic and rubber parts to be identified by standard metal detectors and X-ray inspection systems, supporting compliance with regulations such as the Food Safety Modernisation Act (FSMA) and Hazard Analysis and Critical Control Points (HACCP).

PolyMag Additives can be used in conveyor belts, cable ties, machine parts, packaging materials, and various plant equipment, including scoops, scrapers, safety wear, and cleaning tools. Manufactured under Good Manufacturing Practices (GMP), the additives meet both U.S. FDA and EU food contact regulations.

Research cited in the Eriez technical paper forecasts continued growth in the detectable plastics sector, with the market projected to reach a value of $2.1 billion by 2030. The increasing use of detectable plastics is driven by regulatory requirements, technological innovation, and their role in reducing contamination risks across processing industries.

Further details and access to the technical paper are available from Eriez at:

https://www.eriez.com/Americas/Products/Metal-Detection/PolyMag.htm.

Grolsch adopts sustainable pallets in circular economy initiative

Sustainable pallets made from recycled plastic - the result of a joint project between Schoeller Allibert and the Dutch brewery Royal Grolsch.

Royal Grolsch brewery in the Netherlands has partnered with Schoeller Allibert to introduce sustainable pallets made entirely from recycled plastics, supporting its transition toward a circular economy. The new pallets, in use since January 2025, replace outdated, heavier models that no longer met the brewery's operational or environmental requirements.

Schoeller Allibert developed the tailor-made keg pallets using 100% post-consumer and post-industrial recycled plastics. A high-pressure injection moulding process and honeycomb structure have reduced the pallet weight by 12 kilograms, improving handling and lowering CO_2 emissions by up to 83% compared to virgin material alternatives.

Additional design features include smoother fork entries for easier forklift access, enhanced stackability, and seamless integration with existing pallets. The collaboration reflects a shared focus on sustainable innovation between the two companies.

Once the pallets reach end-of-life, Schoeller Allibert reclaims and recycles them, completing the circular product lifecycle.

www.schoellerallibert.com

The new pallet is lighter and stronger thanks to its honeycomb structure, and its stackability reduces the space required for return transportation.

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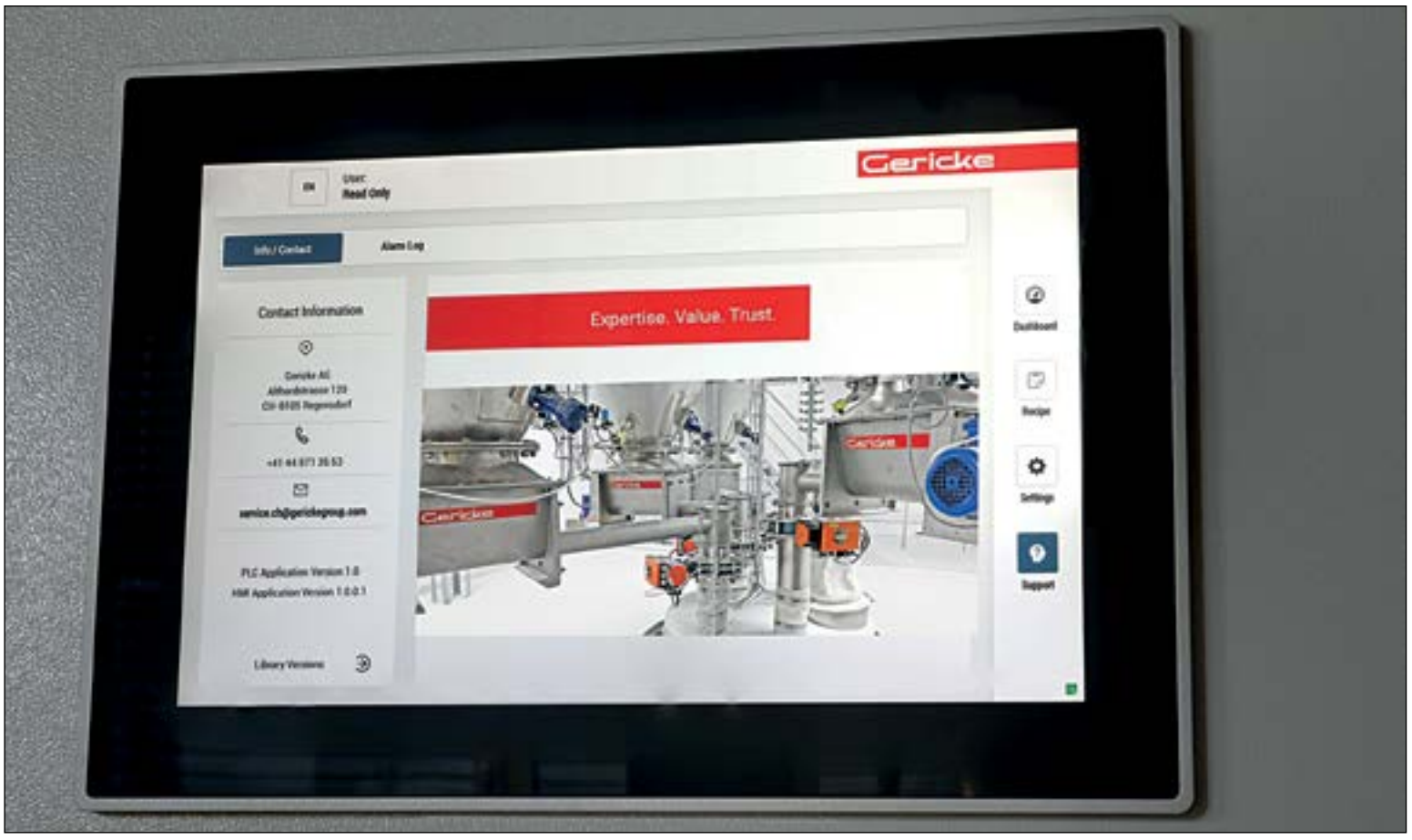
Choosing the right control solution for Loss-in-Weight feeders

Swiss-based equipment specialist Gericke evaluates the options: Dedicated Controllers vs. PLC-Based Systems.

In bulk materials handling, the precision and efficiency of feeding and dosing technology are critical factors for maintaining production quality and reducing operational costs.

One of the key decisions faced by operators and system designers is whether to control loss-in-weight feeders using a dedicated control solution or a programmable logic controller (PLC)-based system.

Swiss-based equipment specialist Gericke has developed its Universal Controller GUC-F as an integrated solution designed specifically for feeding and dosing applications. This article explores the differences between dedicated controllers, such as the GUC-F, and PLC-based alternatives, focusing on performance, integration, service support, and cost considerations.



Gericke Feeding Control Unit.

Integrated design

Unlike PLC systems, which often require separate weighing electronics and bespoke programming, the Gericke GUC-F combines all essential components within a single package. This integrated approach can significantly reduce setup complexity and enhance system performance.

A key benefit of the GUC-F is the elimination of additional weighing modules and customised programming typically required by PLC systems. The GUC-F controller comes pre-configured for feeding and dosing applications, enabling faster commissioning and minimising the potential for errors.

Gericke's controller also features a modern Human-Machine Interface (HMI), which simplifies operation and reduces reliance on manuals or specialist programming knowledge. In contrast, PLC-based HMIs may require extensive development time and programming expertise, adding to project lead times and costs.

Integration of feeding, dosing and weighing

One of the distinctive features of the GUC-F is its mechanical and functional integration with the feeding and dosing equipment. Most feeders in bulk handling processes are not stand-alone units and must be seamlessly integrated into larger systems.

The GUC-F is designed specifically to handle these complex requirements. It supports both analogue and digital load cells and accommodates different weighing platforms based on the application's accuracy demands. The controller's built-in algorithms are engineered to filter out environmental influences, ensuring precise weighing even in challenging operating environments.

Another notable feature is the GUC-F's ability to manage multiple feeders from a single controller. Parameters for each connected loss-in-weight feeder are configured and tested in advance, allowing users to operate several dosing processes without additional programming effort.

Service and process support

A potential limitation of PLC-based systems is the lack of dedicated process expertise and service support from weighing technology suppliers. Many weighing equipment manufacturers do not produce feeders and, therefore, cannot test the complete configuration before shipment or provide comprehensive support during commissioning and operation.

Gericke positions itself differently by offering an integrated package that covers both the hardware and the process expertise. The company provides extensive customer support across feeding, dosing, and weighing applications, helping to resolve operational issues and optimise system performance.

Preconfigured frequency inverters further support this approach, reducing the time needed for programming and commissioning. This contrasts with PLC-based solutions, where variable speed drives often require separate integration and setup.

Cost comparison: total cost of ownership

When comparing costs, the GUC-F's integrated design offers clear advantages. By combining weighing electronics, drive control, and process-specific algorithms within a single unit, the need for multiple devices and complex programming is reduced. This integration helps to lower both installation and maintenance costs.

Moreover, the availability of preconfigured components, such as frequency inverters and adaptable weighing technologies, reduces the need for additional investments in equipment or operator training.

In contrast, PLC-based systems may appear to offer flexibility but often incur higher total costs due to the need for separate modules, increased engineering effort, and longer commissioning times. The absence of dedicated support for feeding and dosing applications can further extend downtime and escalate maintenance expenses.

Applications

In summary, the choice between a dedicated controller like the Gericke GUC-F and a PLC-based solution will depend on the specific requirements of the bulk handling application. However, for operations seeking an integrated, user-friendly, and cost-effective control solution for loss-in-weight feeders, the GUC-F presents a compelling option.

Its ability to manage multiple dosing processes, advanced filtering algorithms, and support for a range of weighing technologies make it well suited to the demands of modern bulk handling systems. Combined with Gericke's dedicated service and support, the GUC-F offers a robust alternative to conventional PLC-based systems, providing both operational efficiencies and long-term cost savings.

gerickegroup.com

Efficient material separation in extraction processes

Specialists in metering and process pump technology, LEWA explains the role of bellows pulsators in enhancing mixing performance.

Separation of fluid mixtures is a key process in the chemical and pharmaceutical industries. When the components of a mixture have similar boiling points or when energy consumption must be kept low, conventional extraction methods often struggle to deliver effective results. In such cases, pulsating extraction processes provide a practical and economical alternative.

LEWA, a specialist in metering and process pump technology, offers bellows pulsators designed specifically to improve separation efficiency in continuous-flow extraction columns. These pulsators generate uniform pulsations that are gentle on the system and the process medium, while offering adjustable stroke volumes and frequencies to suit a range of separation tasks.

LEWA pulsators for the chemical industry.

Improved separation efficiency

In many industrial extraction applications, large volumes of complex fluid mixtures need to be processed continuously and reliably. A key challenge lies in achieving sufficient mixing between phases within the extraction column. Inadequate mixing can result in poor separation, lower product purity, and increased process times — all contributing to higher operating costs and material losses.

Pulsating extraction processes address this issue by introducing mechanical pulsation at the base of extraction columns. This controlled movement enhances the interaction between the liquid phases, increasing the efficiency of the separation process while reducing energy consumption. LEWA's bellows pulsators are particularly suited to this application, and can be used in both sieve tray and packed column extractors.

Range of applications

LEWA's bellows pulsators are capable of operating in extraction columns up to 18 metres in height. The design enables stroke volumes ranging from 0.2 to 28 litres per stroke, with stroke frequencies adjustable between 20 and 160 strokes per minute.

To accommodate large stroke volumes, the latest LEWA systems feature the electronic synchronisation of multiple pulsators. This modular approach provides considerable flexibility, allowing for optimal performance even in large-scale extraction processes.

Karl-Heinz Vogler, Head of Sales Division Process Industry & Downstream at LEWA, explained: "Our mechanical drive units operate on the variable eccentric principle, which means stroke length can be adjusted precisely and continuously during operation. Stroke frequency can also be controlled using a frequency inverter, allowing both parameters to be modified independently or in combination."

Durable construction

A hallmark of the LEWA bellows pulsator is its robust and hygienic design, which ensures reliable operation over long periods. The wetted components are manufactured from stainless steel and PTFE, materials known for their chemical resistance and suitability for hygienic environments.

In addition, the bellows pulsator features a gas cushion-supported pressure equalisation system. This system helps to extend the service life of the bellows while reducing the energy required to generate the pulsation. According to Vogler, "This feature significantly reduces operating costs, especially in systems with high pulsation volumes and tall extraction columns."

Leakage monitoring

Safety is a key consideration in industrial processes, particularly when equipment is operating in Ex-rated zones. To address this, LEWA's bellows pulsators are equipped with comprehensive leakage monitoring systems.

Sensors detect fluid leaks at an early stage and can trigger an alarm or automatically shut down the system to prevent damage. The nitrogen pressure supporting the bellows is also continuously monitored and can be adjusted to suit the specific process requirements.

This controlled nitrogen environment stabilises the movement of the bellows, reducing wear and ensuring even pulsation. The nitrogen atmosphere also prevents the formation of ignitable mixtures within the pulsator, ensuring safe operation even in hazardous environments.

Customised solutions

Flexibility is a defining characteristic of LEWA's bellows pulsators. In addition to the adjustable stroke volumes and frequencies, the design allows for the pulsator to be adapted to the specific requirements of the extraction column.

Vogler commented: "When designing pulsators, we take into account material specifications and any special design features to ensure that the equipment is optimally suited to the intended operating environment. This includes, for example, installing multiple pulsators on rails, allowing for quick and easy replacement of the bellows when necessary."

By matching the connection geometry of the bellows pulsator to the extraction column and incorporating other customer-specific requirements, LEWA provides solutions that combine operational efficiency with ease of maintenance.

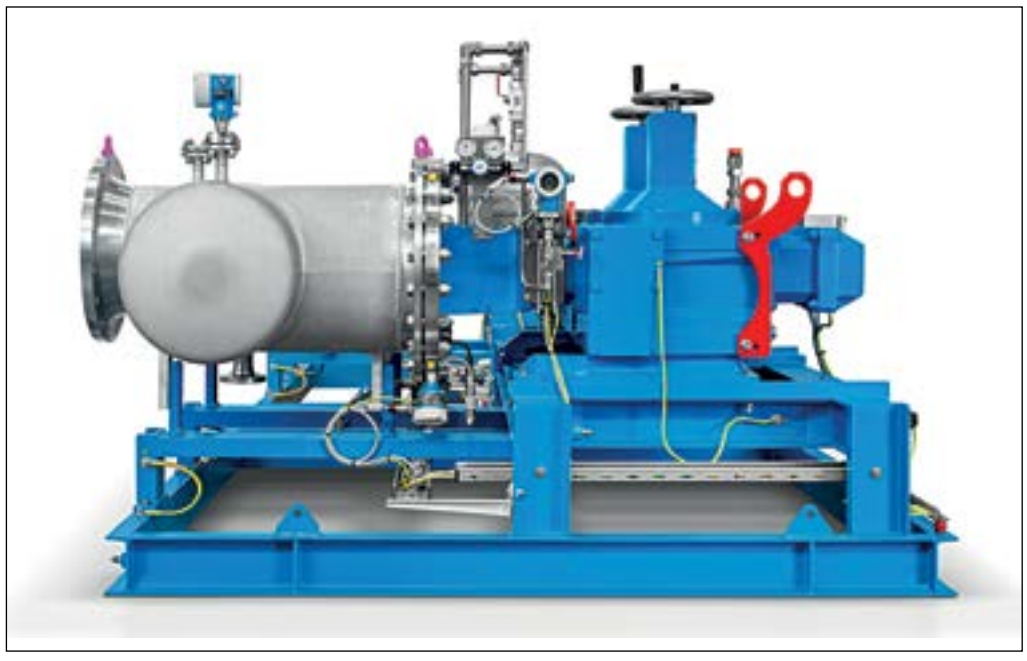
Conclusion

LEWA's bellows pulsators offer an effective solution for improving material separation in industrial extraction processes. By generating controlled and uniform pulsations, these systems enable better mixing within extraction columns, helping to increase product purity, reduce energy consumption, and lower operating costs.

With a modular design that supports a wide range of stroke volumes and frequencies, robust construction for continuous operation, and integrated safety features suitable for use in Ex-zones, LEWA's bellows pulsators are well suited to the demands of modern chemical and pharmaceutical production.

Further information about LEWA bellows pulsators is available at:

https://www.lewa.com/en/systems/lewa-bellows-pulsator



LEWA pulsators.

Triple pulsator.

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Planning ITCO Events in 2025

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- Tank Container Digitalisation and Efficiency Conference – Antwerp, April 2025
- Tank Container Village at transport logistic 2025 – Munich, June 2025
- ITCO 2025 Annual Members Meeting – Singapore, November 2025

Further details on www.itco.org

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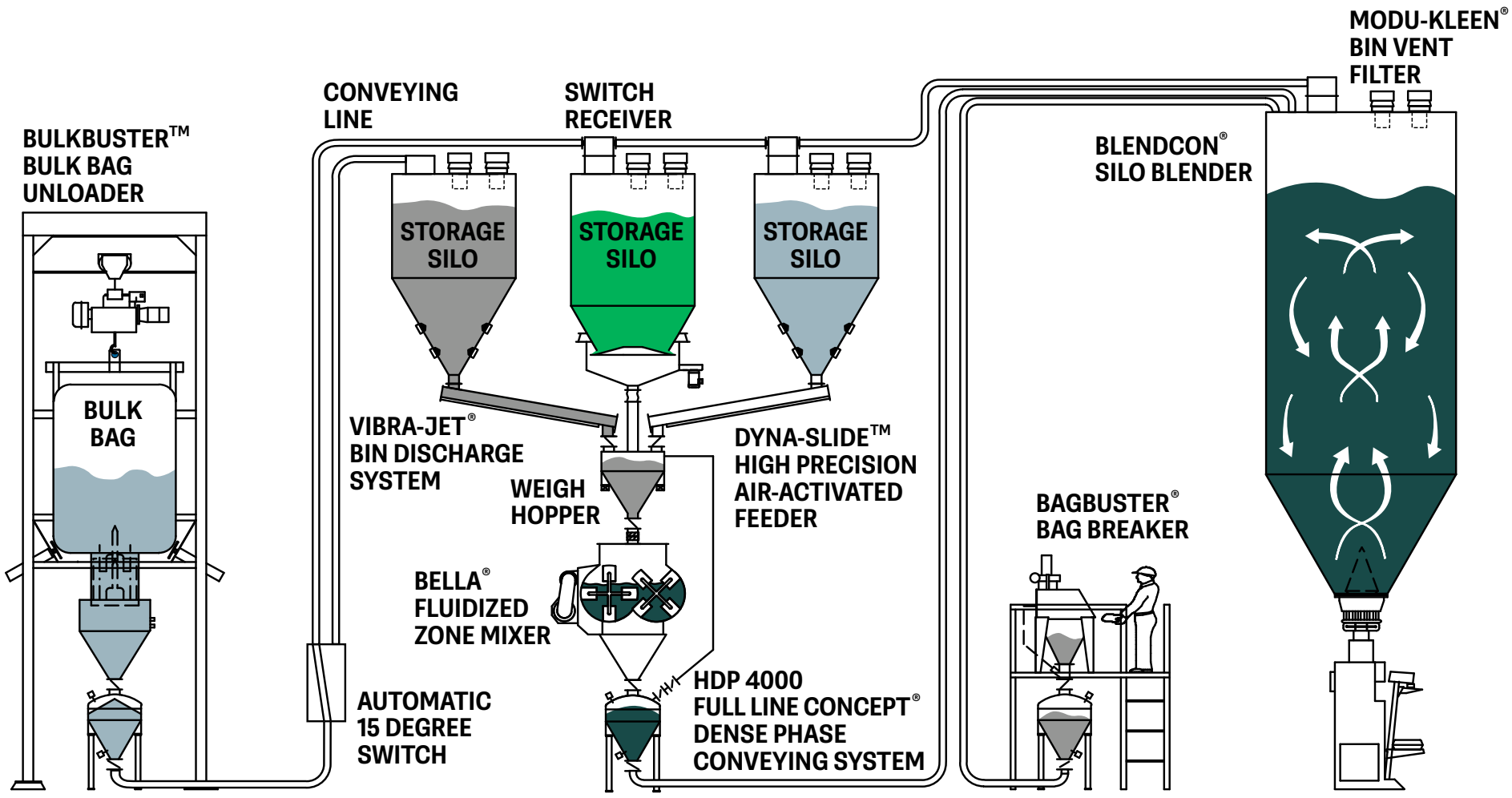

Who We Are

Dynamic Air has over five decades of expertise in designing and manufacturing pneumatic conveying systems and equipment for handling dry bulk solids. We are a leading provider of custom solutions for the handling of bulk materials for processing businesses across various industries.

Our Approach

We never take a cookie-cutter approach just to cut costs up front; we know that the right solution will save you money in the many years to come. Our tailored solutions involve thoughtful planning, meticulous engineering and precise manufacturing that optimize efficiency and productivity.

Dynamic Difference

At Dynamic Air, we set the standard for excellence in bulk solids handling. With a relentless focus on quality, reliability, and customer satisfaction, we deliver reliable, high-quality pneumatic conveying systems, equipment, and custom solutions that exceed expectations.

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www.dynamicair.com