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Everstone Capital completes acquisition of Qlar Group

Everstone Capital has finalised its acquisition of Qlar Group, the global industrial technology company formerly known as Schenck Process.

The deal marks a significant milestone for Qlar, a long established supplier of weighing, feeding, conveying, milling and grinding technologies used across cement, steel, chemicals, performance materials, mining and food sectors.

Under the new ownership, Qlar will continue operating under its existing brand and organisational structure, with Everstone committing to long term investment in engineering, innovation and talent development.

The firm aims to strengthen Qlar's market access, expand its aftermarket and service business and accelerate the development of more efficient, circular and lower carbon material processing solutions.

Qlar's CEO, Dr Jörg Ulrich, described the acquisition as "an exciting new chapter", emphasising Everstone's experience in supporting engineering led global businesses.

The partnership is expected to enhance Qlar's ability to support customers with advanced, sustainable processing technologies at a time when industries are under increasing pressure to reduce emissions and improve operational efficiency.

The acquisition reinforces Qlar's position as a key player in the global bulk materials handling sector, with a strong footprint across Europe and Asia and a growing focus on digitalisation and sustainable transformation.



Endoline Robotics boosts flour mill output with palletising upgrade

A UK flour mill has significantly strengthened its production capabilities following the installation of a new high speed robotic palletising system from Endoline Robotics.

The upgrade replaces a legacy palletising line and is already proving instrumental in supporting increased production volumes across two major processing lines.

Capable of handling up to 14 bundles of flour per minute, the system delivers a step change in automation efficiency.

Its flexible configuration allows the mill to adapt quickly to varying production demands, while maintaining consistent stacking accuracy and reducing manual handling requirements.

The investment aligns with the mill's long term strategy to enhance throughput, improve workplace safety, and future proof its operations against rising market demand.

The new palletising solution integrates seamlessly with existing upstream equipment, ensuring smooth product flow and minimising downtime during changeovers.

Its advanced control architecture also supports predictive maintenance and remote diagnostics, helping the mill maintain high service levels and reduce operational costs.

This installation marks a significant milestone in the mill's automation journey, demonstrating how modern palletising technology can transform traditional bulk product environments and deliver measurable performance gains in the UK's competitive food processing sector.

GVS opens new facility in Lancaster

GVS has opened a new facility in Lancaster, UK. The GVS Group is a global manufacturer of filter solutions for applications in the healthcare, life sciences, energy, mobility and health and safety.

The new building houses production, laboratories, cleanrooms, warehousing and office functions. It reflects GVS's commitment to innovation, sustainability and operational excellence. The Lancaster facility introduces cutting-edge manufacturing technologies that elevate precision and performance across multiple product lines.

From automated injection moulding and ultrasonic welding to advanced filtration production and HEPA/ULPA mini-pleating, the plant is equipped to deliver exceptional quality and efficiency.

Lancaster was chosen due its proximity to the M6 motorway and Lancaster city centre's excellent transport and logistics connections.

This location not only enhances operational efficiency but also positions GVS closer to customers and partners, enabling faster delivery and improved service.





MEET THE TEAM



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Eriez unveils X8-SF metal detector

Eriez's newly launched X8-SF metal detector processes food for improved consistency and reliability during inspection. The X8-SF builds on the X8 platform, which includes a hygienic design, an intuitive interface and integrated data capture for traceability and compliance. The X8-SF is designed to improve product quality while minimising disruption to operations. Emmett Keim, Global Product Manager, Inspection Systems at Eriez, said: "Different products can create very different inspection conditions, which is where performance consistency becomes critical. At Interpack, we demonstrated how the X8-SF manages that variability in real time."



Vietnam invests \$50 million in coffee project

Vietnamese agribusiness firm Hoang Anh Gia Lai is investing \$50 million (€43 million) into a 5,000 hectare coffee plantation and processing facility. The project will be based in the Bolaven Plateau located in southern Laos. The project will focus on developing high-

quality coffee plantations alongside processing facilities aimed at producing export-grade coffee beans for international markets. The company said the investment will introduce modern agricultural practices and expand value-added processing in Laos' coffee sector.

AD Ports and CMA CGM Group extend inland links

AD Ports Group has signed a Memorandum of Understanding (MoU) with CMA Terminals Khalifa Port and CMA CGM Group to develop intermodal solutions and extend inland reach across the UAE and wider region. Under the MoU, the three partners intend to use AD Ports Group's network of rail-linked inland container depots, dry ports and cargo depots, extending CMA Terminals Khalifa Port's reach beyond the quay to inland consumer, industrial and regional markets. CMA Terminals Khalifa Port is a joint venture between CMA CGM Group (70%) and AD Ports Group (30%) and one of three container terminals at Khalifa Port operated by major international shipping lines. By supporting more efficient inbound cargo flows to industrial and manufacturing sectors, the collaboration aims to support the UAE's industrial growth agenda by creating flexible and resilient export corridors through multiple inland and gateway routing options. Captain Mohamed Juma Al Shamisi, Managing Director and Group CEO of AD Ports Group, said: "This MoU marks an important step in consolidating the UAE's inland intermodal logistics backbone under one integrated platform. "By bringing CMA CGM as the first global shipping line partner into this network, we are extending CMA Terminals Khalifa Port beyond its traditional role at the quay and creating a more connected, flexible and resilient trade gateway for the UAE and the wider region.



"This initiative, under the wise guidance of our leadership in the UAE, directly supports national industrial growth ambitions by strengthening inbound cargo access, improving corridor optionality and enhancing the long-term competitiveness of national supply chains."

Hosokawa Micron triples cGMP capacity with major expansion

Hosokawa Micron Limited has completed a significant expansion of its Daresbury contract development and manufacturing site, tripling its cGMP-grade processing capacity and enabling multiple pharmaceutical processing projects to run in parallel for the first time. The company has grown from a single cGMP suite to three, moving into a larger footprint within the same building. The upgraded facility supports outsourced powder processing, micronisation, classification and particle design for active pharmaceutical ingredients, excipients and medical device materials. It also provides formulation development, powder testing and production of materials for toxicity studies, stability work, clinical trials and commercial supply. The expansion was driven by sustained demand from cGMP customers, whose requirements differ from Hosokawa's chemical and food sector clients. cGMP work typically involves lower volumes but demands dedicated, compliant environments and stringent process control. Previously, the Daresbury site could only run one job at a time; the new configuration allows three independent workstreams. Each suite has been built from a blank starting

point, with bespoke layouts and dedicated nitrogen and compressed air supplies. According to the company, this approach ensures the controlled conditions required for cGMP manufacturing. Kathryn Hipkins, Technical Operations Director, said the expansion reflects the realities of regulated pharmaceutical work. "cGMP processing demands a level of segregation, traceability and control that you can't easily replicate alongside other sector work," she said. "Moving from one suite to three means we can take on parallel projects without compromising on the standards our customers rely on." Managing Director James Moore said the investment signals Hosokawa's long-term commitment to the UK's cGMP sector. "This expansion reflects where we see the UK cGMP market heading and the role we want to play in it," he said. "Expanding our capacity at Daresbury is a clear signal that we're committed to that side of the business and to supporting UK cGMP manufacturing for the long term." The Daresbury site forms part of a global Hosokawa Micron Group network that includes facilities in Germany, the Netherlands, the USA and Japan. To mark the expansion, the company will open the site to visitors on 7 July 2026, offering tours of the new suites, equipment demonstrations and opportunities to meet the technical team.



EU to subsidise energy-intensive industries

EU members are now able to offer state aid to reduce a beneficiary's extra electricity costs by up to 70%.

The reduction applies to energy-intensive industries under ETS, such as manufacturing, land transport and intra-EU sea shipping.

The Middle East Crisis Temporary State Aid Framework (METSAF) is to support member states' industries with the cost of fuel and fertilisers that have risen sharply, compared to pre-crisis consumption.

The eligible sectors under the METSAF are named in the Clean Industrial State Aid Framework (CISAF), Annex 1 CEEAG and includes manufacturing activities.

Member states can also determine aid by including factors like the size and type of operators' activities and an estimate of fuel consumption, instead of providing actual consumption proof. Under this simplified option, each operator can receive up to €50,000.

Aid of up to 50% of total consumption is already available under the ETS State Aid Guidelines. The METSAF will be in place until 31 December 2026.



SSB Wägetechnik and Automation Steel strengthen European push for palletising robotics



SSB Wägetechnik and Automation Steel have announced a deeper partnership aimed at expanding their presence in Europe's fast growing palletising and automation market.

The move is designed to offer distributors and system integrators clearer support, faster project delivery and improved access to technical expertise.

The collaboration centres on palletising robots from Japanese manufacturer Okura, widely used in high throughput finishing processes across the food, chemical, building materials and consumer goods sectors.

Known for their speed, precision and reliability in continuous operation, Okura systems form the backbone of many automated end of line environments.

By combining their respective strengths, the two companies say they can streamline project planning, simplify communication channels and accelerate the rollout of automation solutions.

Their joint offering spans project design, customised automation development, a broad range of grippers and end of arm tooling, technical support, training and engineering services for bespoke applications.

Distributors and integrators are expected to benefit from faster response times, direct access to robotics specialists and a more structured route into Okura's established technology base.

The companies also highlight opportunities for co developing new market segments as automation demand continues to rise across Europe.

In a joint statement, the partners said their goal is to "provide long term support to distributors and partners for the successful implementation of automation projects", emphasising that the strengthened relationship is part of a wider strategy to expand their footprint in palletising robotics.

They added that they are available to advise on country specific responsibilities, project requirements and the full range of application possibilities for Okura palletising robots.

Hellweg demonstrates new grinding technology

Hellweg has been showcasing updates to its grinding equipment.

Its established wet grinder, traditionally used for film recycling, achieves high quality particle size distribution and geometry for non-wovens, textiles and pulp materials.

A new advanced closure and operating concept enables the machine to be closed and locked hydraulically, saving time during maintenance.

All Hellweg grinders can be fitted with a smart control system which monitors power consumption, motor speed and bearing temperatures. The smart control system can optimise motor load and throughput. The service life of blades, screens and V-belts are also recorded.

One of the newest developments is a smart sonic add-on module. The module uses built-in ultrasound to measure the material flow into the feed system, to ensure consistency. Energy consumption is lowered while the quality of the ground product improves.

The smart flow module, a throughput measurement system that uses microwave technology, is a maintenance-free sensor that measures the flow of bulk material.

The smart control system determines the machine's current output in mass ground per hour and grinding output, providing data that can be used to plan maintenance work and avoid unplanned downtime.

Hellweg's grinders can shred all types of plastic as well as textiles, cosmetics and food products.

The grinders can reduce dust and fine particle content by up to 90%, claims Hellweg. The grinding



process uses up to 75% less electricity than conventional mills.

Managing Director Mark Hellweg said: "Stringent recycling requirements and the tight supply of virgin plastic make the availability of regrind a crucial factor for the recycling cycle."

"The quality of the regrind is a key determinant of the cost-effectiveness of its use. Hellweg's mills have traditionally set the standard in terms of productivity, energy efficiency, low dust emissions and the ideal geometry of the regrind for further processing."

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Mitsui Chemicals introduces Lubmer and Mipelon for PTFE applications

Mitsui Chemicals has introduced two UHMW-PE (ultra-high-molecular-weight polyethylene) product families, Lubmer and Mipelon.

Lubmer and Mipelon offer improved sliding performance and wear resistance and provide a lightweight, PFAS-free alternative to PTFE in applications that do not require extreme heat resistance.

Lubmer includes granules with tailored melt viscosities for injection molding and extrusion of sheets, plates, profiles and hoses.

Available in highly abrasion-resistant standard grades L3000, L4000 and L5000, Lubmer L5220 offers self-lubricating properties. The TM-80B grade has enhanced weather resistance, making it suitable for sliding applications, for example, in the automotive industry.

Lubmer LY1040 is formulated as a PFAS-free additive that is compatible with most engineering plastics. It can completely replace PTFE as a modifier to improve sliding properties even at addition levels as low as 3% to 5%.

It also significantly increases the wear resistance of many engineering plastics, while leaving other performance properties virtually unaffected. LS4140 and LS4120 are ready-to-use PA-based compounds that also enhance strength. Together with the PA masterbatch grade LY4100 for dry dosing at the injection molding machine, they round out the Lubmer portfolio.

Mipelon is designed to be used with thermoplastics, rubbers, paints and protective coating.

Compatible particle size ranges from PM-200, equivalent to 10 µm, XM-220, equivalent to 30 µm and XM-330, equivalent to 65 µm.

With Mipelon, sliding performance and abrasion resistance performance improves up to 120 °C. The oil-compatible PM200C grade performs at temperatures as high as 200°C.

Mipelon powders often deliver lower coefficients of friction and higher long-term abrasion resistance.

They outperform PA11, PA12 and PE waxes in sustained sliding applications.

The UHMW-PEs can be used for chemically resistant surface coatings, powder, water-based and solvent-based sprat or dip coatings.

The new ultra-fine grades further enhance lubricity and wear resistance, especially in thin coating layers.

They are also suitable for food contact and food-industry applications.



Abbey adds new food-grade tankers to fleet

Abbey has added 10 more state-of-the-art food grade tank containers to the growing intermodal fleet as the firm looks to provide greener alternatives to road transport.

Tank containers, sometimes referred to as ISO tanks, are an ideal alternative to road tankers on international routes. They can be transported by road rail or sea, giving customers much more flexibility and a more environmentally friendly and cost effective way of moving their bulk products.

The tanks will support movements between the UK and mainland Europe and are part of an expanding service, which includes bulk intermodal silos which are already busy in this area.

CEO Steve Granite said: "Continental Europe has long been a market place we planned to grow into.

"We are still confident that with our existing and new clients we can increase our share of the Europe-UK market. We expect to be increasing our intermodal container fleet over the coming years as we become more competitive in this market and win new business."



Gericke introduces GFS Gen3 for advanced pharmaceutical manufacturing

Gericke has launched the GFS Gen3, a next generation continuous manufacturing platform designed to streamline pharmaceutical production from clinical development through to commercial scale.

The system addresses industry demands for faster development cycles, improved containment and simplified process transitions. GFS Gen3 enables manufacturers to maintain a consistent process philosophy across all stages of oral solid dose (OSD) formulation.

By reducing reliance on multiple batch systems, the platform minimises re qualification work, shortens development timelines and lowers operational risk.

Gericke highlights that the system's modular design supports evolving regulatory and containment requirements, while maintaining high levels of precision and reliability.

The GFS Gen3 platform reflects a shift towards continuous processing in the pharmaceutical sector, offering improved efficiency and reduced disruption across the product lifecycle.



TUF-LOKTM PIPE & TUBE COUPLINGS

Tuf-Lok ring grip pipe and tube couplings are rugged, heavy duty, self-aligning and self-grounded couplings with a high end pull. They can be used for almost any application where pipe or tube ends need to be connected. The Tuf-Lok self-aligning couplings install quickly and easily with little effort.

Features

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- Self-grounding
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- Full vacuum rated
- Stainless or mild steel
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- Low cost
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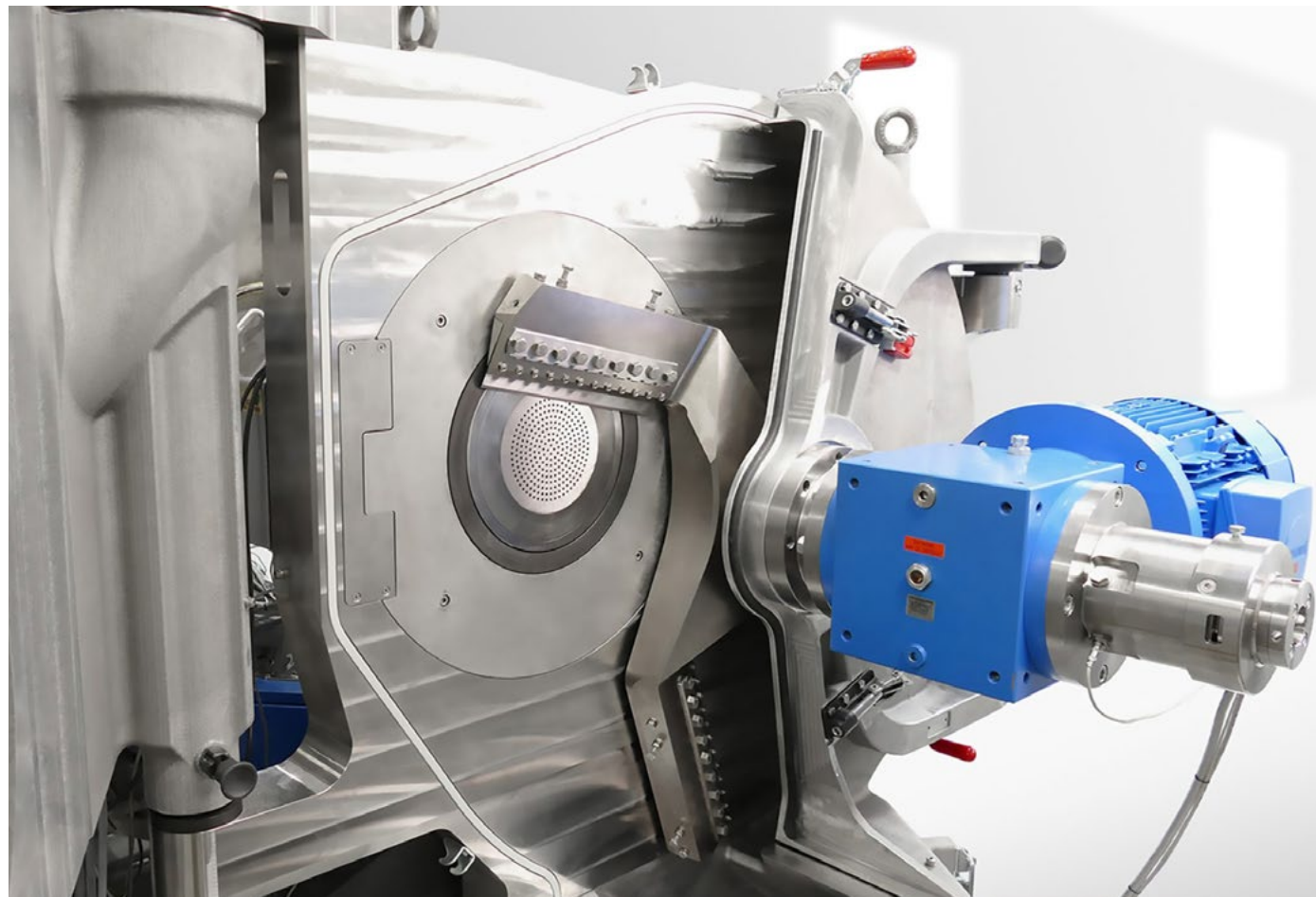
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Coperion launches optimised EGR eccentric pelletiser



Coperion has optimised the EGR eccentric pelletiser for use with its two-stage Kombiplast compounding system, improving the system's overall design, energy consumption, air supply, material conveying and pellet handling.

In its new design, the EGR delivers significantly better pellet quality, particularly when processing temperature- and shear-sensitive plastics, such as PVC or cable compounds.

New smart features also make the redesigned EGR easier to operate compared to the previous model. Heating the pelletising system and carrying out product changes, including die plate exchange, can now be performed more quickly, increasing the compounder's overall equipment effectiveness (OEE).

The system is designed to ensure particularly gentle product handling throughout the compounding process, while also delivering high economic efficiency and maximum flexibility.

It works by feeding raw materials into the process section of a ZSK twin screw extruder, using a twin screw ZS-B side feeder, where they are conveyed, plasticised, mixed and homogenised.

In its ZSK Mv14 design with an increased torque of 14 Nm/cm³, the extruder handles the product extremely gently and achieves very high throughput rates. Product discharge takes place via the ES-A single screw that builds up the required pressure for the EGR eccentric pelletiser.

In the pelletising step the EGR cuts the cylindrical product strands exiting the die plate into uniform pellets using revolving pelletising knives. The pellets are then removed by pressure conveying, with the help of new inflatable seals installed for this purpose.

The pelletising knives are mounted onto a blade that is eccentrically attached to the die plate. The blade's rotation is infinitely adjustable.

Coperion customises the quantity, diameter and geometry of the die plate holes according to the material properties and individual customer requirements.

Vulcan Energy to electrify lithium refining in Frankfurt

The shift toward electrified mineral processing has reached new heights with the start of construction at Vulcan Energy's Central Lithium Plant.

NORAM Electrolysis Systems Inc. (NESI), a Vancouver-based clean technology company advancing industrial electrochemical processing, is marking a major international commercialisation milestone as construction begins on Vulcan Energy Resources' Central Lithium Plant at Infraser Industrial Park Höchst in Frankfurt, Germany.

The facility is part of Vulcan's Lionheart Project. Vulcan Energy is developing one of Europe's most advanced lithium and renewable energy projects, focused on producing battery materials locally while reducing reliance on imported supply.

The Lionheart Project will use NESI's proprietary NORSCAND® electrolysis technology to convert lithium chloride into battery-quality lithium hydroxide monohydrate (LHM), a critical material used in electric vehicle batteries.

The project targets production capacity of 24,000 tonnes of LHM annually, enough for approximately 500,000 electric vehicle batteries per year.

The ground-breaking ceremony was attended by Boris Rhein, Minister-President of the State of Hesse, Mike Josef, Lord Mayor of Frankfurt am Main and other government, financial and industry stakeholders, underscoring the strategic importance of domestic lithium production in Germany and Europe's battery value chain.

For NESI, Lionheart Project represents a significant real-world deployment of its electrochemical platform in the global battery materials supply chain. The Central Lithium Plant will serve as the downstream processing facility for Vulcan's integrated lithium and renewable energy business, combining lithium extraction from geothermal brines with electrolysis-based conversion into battery-quality material. The Lionheart Project is positioned as a cornerstone of Europe's push to secure domestic lithium supply for electric vehicles and battery manufacturing.

"This ground-breaking is a major validation of NESI's role in scaling cleaner electrochemical infrastructure for battery materials," said Jeremy Moulson, President and CEO of NESI.

"By integrating our NORSCAND® technology into the Lionheart Project, we are helping advance a cleaner, electrified approach to lithium refining at commercial scale. This milestone strengthens the German-Canadian

partnership and places NESI's technology at the centre of Europe's lithium and battery materials buildup."

"Commencing construction on our Central Lithium Plant is a defining moment for Vulcan and the European battery value chain," Cris Moreno, Managing Director and CEO of Vulcan Energy, said. "Our collaboration with NESI ensures our operations achieve the high-purity,

low-impact outputs necessary to deliver the world's first integrated sustainable lithium and renewable energy business. We are proud to work alongside partners who share our vision for a decarbonised future."

Vulcan announced that major construction works are now underway at the central lithium chemicals plant, following its positive Final Investment Decision and €2.2 billion

funding package secured in December 2025. Commercial production is targeted for the latter half of 2028.

NESI's participation in Lionheart builds on decades of electrochemical engineering expertise and reinforces its position as a technology provider for lower-carbon critical minerals processing and battery materials production.



Sanitary paddle blender imparts shear

A new Munson Sanitary Paddle Blender with two intensifiers blends, de-agglomerates and disperses dry bulk materials, pastes, slurries and emulsions in batches to 0.34 m³.

Driven by a 3.73 kW wash-down duty motor, the shaft is configured with 16 radial arms and short-length paddles that move material in smaller zones over shorter distances with greater cutting action than with ribbon-style agitators.

Two tulip-shaped intensifiers, also known as high-speed choppers, each independently driven by a 3.73 kW wash-down duty motor, impart additional shear to break down agglomerates and disperse tough-to-blend materials.

The combined action of paddles and intensifiers produces uniform blends of dry solid materials, and of solids with low or high percentages of liquids to produce smooth pastes or slurries.

Designated model HD-24-SSI, the unit is constructed of #304 stainless steel finished to sanitary standards.

One-piece welded construction, heavy-gauge walls and reinforced end panels allow paddles to pass within 1.6 to 3.2 mm of the vessel wall, minimising residual material requiring removal prior to cleaning. The flange-mounted agitator can be hoisted vertically for ease of servicing.

Munson horizontal stationary blenders are equipped as standard with hinged and gasketed cover sections, removable grating with safety interlocks and a bottom discharge valve.



HAVER & BOECKER unveils intelligent ROTO-PACKER RVT for cleaner, faster and sustainable bagging

HAVER & BOECKER has enhanced its flagship ROTO PACKER® RVT rotary packing machine with new intelligent features designed to deliver cleaner, faster and more efficient bagging for cement, building materials and chemical producers.

The company has confirmed that its patented ROTO LOCK® dosing unit is now a standard component on all new ROTO PACKER RV models, significantly reducing dust emissions and product loss during filling.

When combined with the optional ROTO FEED® airless rotary feeder, the system provides a markedly cleaner process – up to 70% cleaner than traditional slide gate dosing systems – while enabling up to 8% faster filling. The improvements support both environmental and operational sustainability by lowering dust exposure, reducing wear and cutting spare parts consumption.

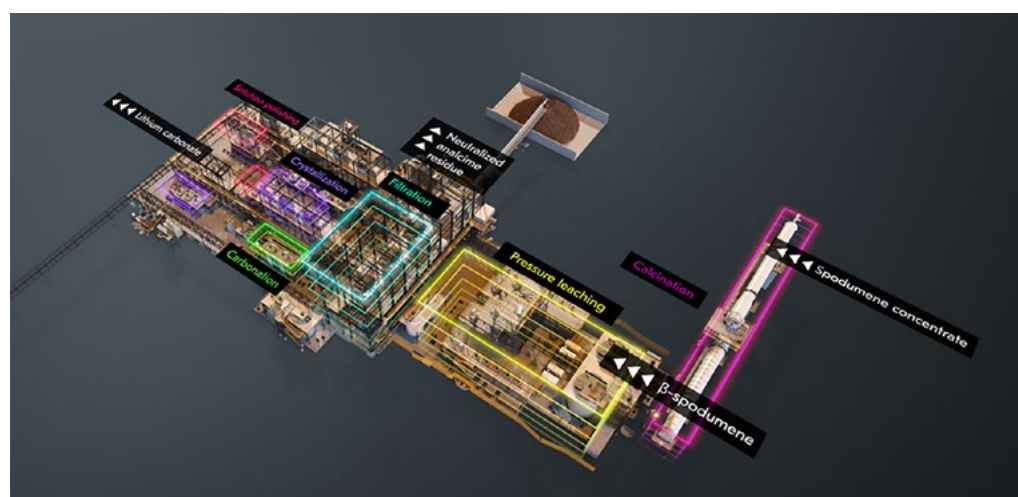
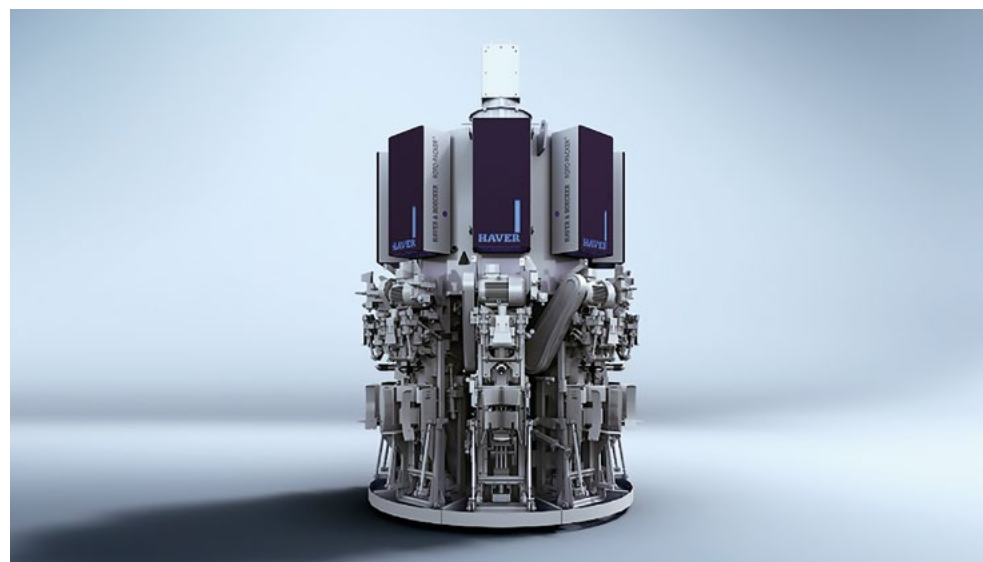
“Less dust around the machine is better for the environment, the people working at the operation and, of course, the bottom line,” said

Mirko Hoffman, Head of Sales – Cement. “Making the ROTO LOCK® a standard feature on our ROTO PACKER® RVT just makes sense.”

The ROTO PACKER RVT is equipped with up to 16 filling spouts and can fill 1,000 to 6,000 bags per hour. Standard features include an intelligent ventilation system, Siemens TIA Portal control, status indicating illumination and MEC 4.0 weighing electronics tailored to bagging applications.

The ROTO LOCK®’s shaft sealed design fully closes the dosing gate after each fill, with a rubber interface preventing dust escape as the carousel rotates. Reduced abrasion extends service intervals and lowers maintenance costs. The optional ROTO FEED® further minimises dust during product feeding.

For fully automated lines, the RVT can be paired with the AMICUS® DEPAL, RADIMAT® bag applicator and AMICUS® PAL palletiser. Existing installations can be upgraded with Performance+ Kits for ROTO LOCK® and ROTO FEED® to improve efficiency and reduce energy use.



Metso unveils next generation lithium carbonate technology to power the global energy shift

Metso has launched a significantly upgraded version of its lithium carbonate production process, positioning itself in the race to supply the battery materials essential for the world's accelerating energy transition.

The new single pass technology is engineered to deliver high purity, battery grade lithium carbonate from spodumene concentrate with greater efficiency, lower operating costs and a markedly reduced environmental footprint.

With global lithium demand set to surge as electric vehicles, renewable energy systems and large scale battery storage continue their rapid expansion, the pressure is on for producers to scale up sustainably.

Metso's enhanced process directly targets this challenge, offering a streamlined, scalable route to battery grade lithium carbonate – particularly relevant as interest grows in lithium iron phosphate (LFP) battery production.

Marika Tiihonen, Metso's Technology Manager for Lithium, said: “We are pleased to introduce our enhanced lithium carbonate process to support customers and partners in lithium minerals related applications.

“By combining our proven thermal and hydrometallurgical technologies with our strong end-to-end flowsheet capabilities and local service support to maximise production, we can deliver high availability lithium processing plants while enabling efficient, safe and reliable operations.

“This launch builds on our strong track record in hydrometallurgical technologies and further strengthens Metso's ability to support customers across the lithium value chain.”

Fewer process steps translate into lower capital expenditure, simplified plant design, faster commissioning and improved operational stability.

At the heart of the system is Metso's alkaline soda pressure leach technology, which selectively extracts lithium while minimising soluble impurities.

The resulting carbonation–decarbonation stage produces battery grade lithium carbonate in one pass and the neutralised mineral residue can be more easily disposed of or repurposed.

Metso is also advancing a circular metallurgy concept aimed at regenerating chemicals used in the alkaline leach process, further reducing waste and environmental impact.

PortRail Group launches as new force in UK bulk materials logistics

PortRail Group has officially launched as a new integrated player in the UK bulk materials handling and logistics sector, following the acquisition of rail freight specialist RFS Works Ltd by JST Ports & Logistics.

The newly formed organisation brings together complementary expertise in port operations, rail freight and bulk material distribution, creating a unified service offering for industries reliant on powders, granules, aggregates and other bulk commodities.

The consolidation aims to streamline multimodal logistics, improve supply chain resilience and enhance the efficiency of bulk material movements across the UK.

By combining port side handling capabilities with dedicated rail freight services, PortRail Group is positioned to offer end to end solutions that reduce transit times, lower carbon emissions and support the growing demand for sustainable transport options.

The launch comes at a time when UK industry

is seeking more integrated and reliable bulk handling networks to support manufacturing, construction and energy production.

PortRail Group's expanded footprint and technical expertise are expected to deliver improved service levels and greater operational flexibility for customers.

This strategic move marks a significant evolution in the UK's bulk logistics landscape, strengthening national infrastructure for the handling and distribution of dry bulk materials.

Mixing and dispersing technology specialist opens new trial centre

The machine and systems manufacturer ystral has opened a new trial centre at its headquarters in Ballrechten-Dottingen, Germany. The new facility enables the company to carry out more customer trials than before while processing a broader range of raw materials



The new trial centre was constructed in a compact cubic design on an area of around 150 m² and can be expanded with an additional trial building

ystral designs, engineers and manufactures highly efficient mixing, dispersing and powder induction machines, as well as process systems, used worldwide in the chemical, paints and coatings, food, pharmaceutical, household and cosmetics industries, as well as in battery production.

At the ystral trial centre, companies from these sectors can develop new products and processes or optimise existing ones, train their operating personnel on ystral machines and test the mixing technology provider's solutions.

ystral has already conducted a number of tests in the new trial building. Its major importance to the company's commercial success became evident from the outset: following trials, a printing ink manufacturer awarded ystral an order with a project volume worth several million euros.

"Our experience shows that tests carried out in our trial centre almost always lead to collaboration," said Uwe Klaumünzner, Head of Development and Trials at ystral.

Trials with flammable and explosive media

The new trial area complies with statutory explosion protection and water protection requirements and the machines used are ATEX-compliant.

Trials with flammable and explosive media are possible on a case-by-case assessment. During the tests, users do not need to be on site themselves, and can instead follow proceedings remotely via livestream.

Comprehensive analysis options

In the company's in-house laboratory, samples can be examined under an optical microscope with respect to various parameters. This includes both density measurement and particle size analysis by means of dynamic light scattering. In addition, viscosities can be determined using various measurement methods, with and without tempering and curves for different shear rates can be recorded.

Adding a new trial building

With a construction and commissioning phase of just under 12 months, work on the trial centre progressed exactly according to plan.

The new trial building was constructed in a compact cubic design on an area of around 150 m² and can, in future, be expanded with an additional trial building on an adjacent site.

"At our current company size, we are very well positioned with our existing trial facilities," concluded ystral Managing Director and co-owner Peter Manke. "However, we planned our new trial centre from the outset in such a way that expansion is possible."

For more information:
Visit ystral.com



Trial area in the new ystral trial centre with installed dust and gas extraction systems. The processing of flammable and explosive media is possible on a case-by-case assessment



ystral prefers to carry out trials on production machines as this produces more reliable results that can be transferred directly to full-scale production

Pictures: Tobias Heink/ystral



New FIBCA vice-president appointed

Laura Heinen, director of sales and marketing at Rapid Packaging, has been named vice-president of the Flexible Intermediate Bulk Container Association (FIBCA).

In her new role as vice president, Heinen will help lead the association's mission to promote the safe and efficient use of bulk bags while fostering innovation and sustainability within the global packaging industry. Her appointment reflects her deep expertise and longstanding commitment to the industrial packaging sector.

"I am honoured to serve as vice president of FIBCA," said Heinen. "The FIBC industry is vital to the global supply chain, and I look forward to working with my colleagues across the association to advance industry standards, safety protocols, and sustainable practices that benefit manufacturers and end-users alike."

Laura Heinen, known as #BagLady, holds a Bachelor of Science in Business Management with an emphasis on marketing.

FIBCA was formed in 1983 to provide a voice for the FIBC industry in the USA.

WERIT reveals new brand appearance

With a new INTRAbOX container series, new structures, modern intralogistics and circular thinking, WERIT has recently revealed a new look.

The INTRAbOX container series was developed for modern intralogistics, functionality, stability and responsible material use.

The containers are suitable for manual handling and for automated conveyor use. They are break-resistant, stable and durable.

The containers have flexible heights and widths, making it easier to integrate them into existing plants.

With a revised logo, WERIT is now forward-looking, transparent and customer-focused.

The company has been structurally reorganised for clarity, to promote synergies and address customers' needs precisely.

The newly expanded Reconditioning Business Unit, which reuses packaging solutions, embodies WERIT's new circular approach.



New global report highlights digital transformation

Rockwell Automation announces new research showing UK manufacturers' shift from AI adoption to industrial execution

Rockwell Automation, the world's largest company dedicated to industrial automation and digital transformation, has revealed the UK findings of its 11th annual *State of Smart Manufacturing Report*.

The study, based on feedback from more than 1,500 manufacturing leaders globally, highlights a clear shift in how UK manufacturers are approaching the digital transformation.

With 87% of organisations now recognising it as essential and allocating an average of 27% of operating budgets to industrial technology, the UK has moved beyond early-stage adoption and into a phase where digital investment must translate into operational performance.

"UK manufacturers are moving beyond experimentation into a phase where digital technologies must deliver consistent operational outcomes," said Phil Hadfield, UK managing director, Rockwell Automation. "The challenge is no longer access to technology, but the ability to embed it into production environments in a way that improves performance, resilience and competitiveness."

Transition phase

Artificial intelligence sits at the centre of this transition. Nearly half of manufacturers have already invested in AI and the adoption of generative AI is now widespread.

The focus, however, is shifting away from experimentation toward practical use cases that deliver measurable value. Cybersecurity has emerged as the leading AI application, followed closely by quality control and process optimisation, reflecting a growing emphasis on protecting and stabilising increasingly complex production environments.

This growing reliance on connected technologies is also reshaping risk. Half of UK manufacturers report experiencing at least one cyberattack in the past year, despite strong levels of investment in cybersecurity. The implication is clear: as digital maturity increases, so too does exposure. Cybersecurity is no longer a supporting function, but it is a central pillar of industrial strategy.

At the same time, workforce dynamics are becoming a defining factor in how quickly digital transformation can progress.

Rising labour costs now affect 40% of manufacturers, while change management challenges have increased significantly year-on-year. Rather than reducing headcount, organisations are focusing on reskilling and workforce development, with more than a third of employees now engaged in training programmes designed to support digital roles.

Critical changes

This shift is closely linked to the growing importance of AI capability. A clear majority of manufacturers now see AI skills as critical to attracting the next generation of talent, highlighting a structural change in how industrial workforces are being shaped.

Alongside AI, simulation technologies such as digital twins are beginning to move from concept to deployment. While just over a quarter of manufacturers having already implemented these technologies, the vast majority are either investing or planning to do so, signalling strong forward momentum. These tools are enabling organisations to test scenarios, optimise processes and reduce operational risk before making changes on the factory floor.

However, the full value of these technologies is being constrained by a more fundamental issue: data. UK manufacturers report using less than half of the operational data they collect effectively, pointing to a persistent gap between data generation and decision-making. Closing this gap is likely to be one of the most important factors in determining future competitiveness.

More broadly, UK manufacturing is showing clear signs of maturity. Smart manufacturing technologies are now widely deployed and adoption is accelerating as organisations focus on scaling what works rather than piloting new tools. Artificial intelligence is increasingly seen as the technology most likely to deliver meaningful operational improvements, reinforcing its central role in the next phase of industrial transformation.

Taken together, the findings suggest that UK manufacturing is entering a new phase of digital transformation. The foundations have been laid, investment is established and adoption is widespread. The next challenge is execution – turning digital capability into consistent, scalable performance in an increasingly complex industrial landscape.

UK at a glance

- 87% of UK manufacturers say digital transformation is essential;
- 27% of operating budgets allocated to industrial technology;
- 49% have already invested in AI, with 38% planning further investment;
- 53% have invested in generative AI, with 33% planning adoption;
- Cybersecurity is the leading AI use case at 48%;
- 62% have invested in cybersecurity technologies;
- Cybersecurity is the leading AI use case for UK manufacturers, cited by 48% of organisations;
- 27% have deployed digital twins, with 47% planning investment (88% total);
- 45% of operational data is used effectively;
- 40% cite rising labour costs as the top workforce challenge;
- 36% cite change management as a key barrier;
- 38% of employees are engaged in reskilling programmes;
- 48% identify AI as the technology with the greatest operational impact.

Research methodology

The *State of Smart Manufacturing Report* reflects insights from manufacturing leaders across multiple countries and sectors, including automotive, life sciences, consumer goods and industrial manufacturing.

The research explores adoption of advanced technologies including artificial intelligence, cybersecurity, digital twins and workforce transformation strategies, providing a comprehensive view of how manufacturers are evolving in response to increasing complexity and competitive pressure.

For more information:

Visit rockwellautomation.com



Ajax launches new continuous food-grade mixer

Solids handling and processing equipment maker, Ajax Equipment, has produced a food-grade, stainless steel continuous mixer, combining the company's mixing and hygienic production expertise into a single machine.

The Ajax twin mixer is designed to quickly and efficiently mix products to a client's desired requirements, while also minimising downtime between production runs.

An inverter rated motor offers a range of speeds for operation and the ability to alter the degree of mixing intensity, making the mixer a very flexible processing machine. Different mixes can be realised by using either the LynFlow™ ribbon augers or paddle augers which are readily interchangeable.

The twin mixer's LynFlow™ paddle or ribbon screws work together to provide gentle yet thorough mixing, ensuring a homogenous mix without compromising on the integrity of the ingredients, with the ribbons offering a gentler combining action than the modest shear intensity offered by the paddle augers.

The mixer features a profiled casing which ensures all the ingredients are mixed actively by the sweep of the screws, preventing any 'dead' areas where material could otherwise build up.

Cleaning is easy as the highly polished mixer has covers, giving access to the internals.

The augers can even be withdrawn without disturbing the drive end arrangement. The mixer can be filled with water and cleaning fluid when its integrated blanking plate is fitted to the outlet.

With the covers down the mixer can safely run as normal and the actions of the rotating screws are highly effective in helping to remove any remaining product.

"Food production is one of the most demanding processes with producers wanting to deliver a variety of high-quality products safely and efficiently, often with delicate ingredients. The design of Ajax's mixer ensures both hygienic and effective production, while the use of quick release augers provides flexibility by enabling manufacturers to easily switch between different types of screws for mixing different products," commented Eddie McGee, Managing Director, Ajax Equipment. "From delicate nuts and cereals to sticky syrups, potato products and even chocolate pastes and inclusions, Ajax ensures every mixer meets the needs of each ingredient. Having built this new 'state of the Ajax art' mixer, we can support our customers fully with the possibility of having hands-on use, practical trials and rentals."

ABB acquires Specialtrasfo

ABB has acquired Specialtrasfo, an Italian manufacturer specialising in medium voltage transformers.

These specialised transformers provide efficient power conversion, control and reliable system performance, for example, in conveyors, kilns and mixers.

Through the acquisition, ABB intends to position itself as a partner of choice for customers seeking integrated, high-performance solutions. The deal is expected to close in Q3 2026.

Juha Koskela, president of ABB's Motion High Power division, said: "This strategic acquisition expands our offering and strengthens our supply chain resilience in high-demand transformers, reinforcing ABB's ability to provide reliable, integrated solutions."

"By combining high-power motors, drives and transformers in a single, high-quality portfolio, we continue to help customers meet their specific industry requirements with confidence."

Why accurate inventory visibility matters in bulk material handling

From estimation to real-time transparency: How 3D LiDAR-based volume monitoring is transforming bulk material management. Dirk Rathsack, VP Business Development and Sales, explains



Dirk Rathsack

Accurate inventory visibility has always been a central requirement in bulk material handling. Whether companies manage wood chips, sand, clinker, granulates, biomass, or recycling materials, knowing how much material is currently available directly impacts procurement, production planning, logistics coordination and financial reporting.

Yet despite the strategic importance of inventory transparency, many industrial operations still rely on methods that are fundamentally limited in terms of accuracy, frequency and scalability.

Manual measurements, visual estimations, truck weighing, or periodic drone inspections may provide approximations, but they rarely deliver the continuous, reliable data required in modern industrial environments.

This challenge becomes even more critical in industries where raw material consumption fluctuates daily. Small deviations in inventory assumptions can accumulate over time, leading to procurement inefficiencies, unexpected shortages, overstock situations, or inaccurate reporting.

Against this backdrop, 3D LiDAR (Light Detection and Ranging) technology has emerged as a powerful solution for automated volume monitoring.

By continuously capturing the geometry of stockpiles and converting this information into volumetric data, LiDAR enables automated real-time inventory transparency with minimal manual effort.

The practical relevance of this technology can be illustrated through the example of Sauerland Spanplatte, a German manufacturer specialising in high-quality tubular particle boards. The company implemented a LiDAR-based monitoring solution to replace labour-intensive manual inventory processes and establish continuous visibility across its raw material storage areas.

Why bulk material volume monitoring is challenging

Accurately determining the volume of bulk materials is far more complex than it may initially appear. In industrial environments, stockpiles are dynamic systems that constantly change in shape, size and composition as materials are delivered, moved, consumed, or compacted during daily operations.

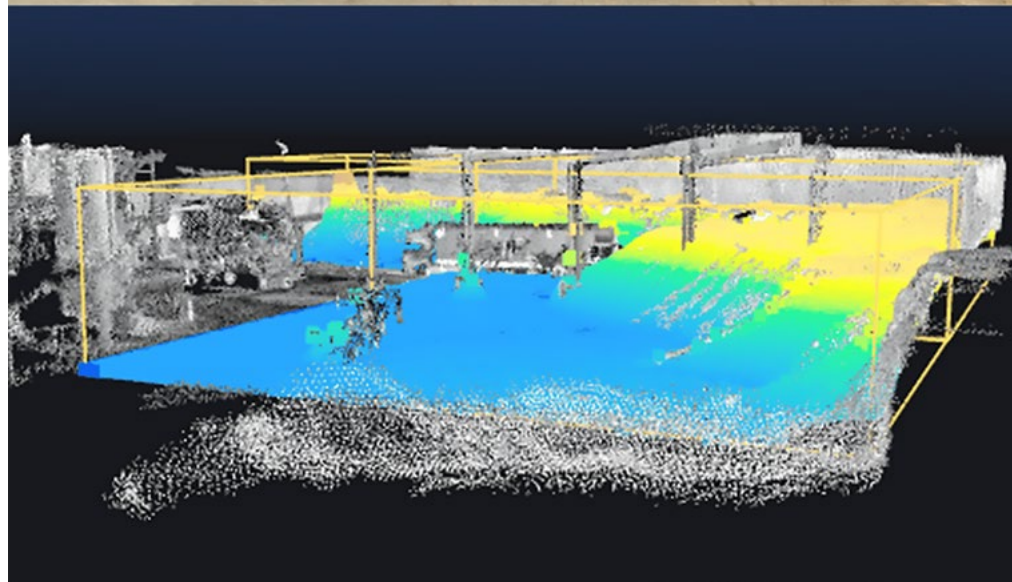
Unlike standardised goods with clearly defined dimensions, bulk materials form irregular surfaces that are difficult to quantify precisely using conventional methods.

The challenge begins with the geometry of the material itself. Bulk materials such as sand, lime, fertilisers, or granulates rarely form uniform piles. Instead, they create uneven surfaces with varying slopes, cavities and compaction zones.

Even small changes in pile geometry can significantly affect the calculated volume. As a result, simple visual estimations often fail to provide the level of accuracy required for reliable operational planning.

Environmental complexity and the need for reliable inventory data

Environmental conditions further complicate the measurement process. Many storage areas are exposed to dust, fluctuating lighting conditions, weather influences, or restricted visibility. Covered storage halls introduce additional challenges because measurement systems must operate



Comparison of camera image and 3D LiDAR point cloud of wood chip stockpile at Sauerland Spanplatte

reliably indoors while coping with structural obstacles such as support beams, machinery, or conveyor systems.

In outdoor environments, changing weather conditions can affect accessibility and measurement consistency.

At the same time, industrial operations require increasingly frequent and accurate inventory data. Procurement teams must ensure that sufficient material is available to maintain uninterrupted production while avoiding unnecessary overstocking that ties up capital and storage capacity. Inaccurate stock information can, therefore, have immediate operational consequences. Underestimating inventory levels may lead to unnecessary deliveries and inefficient logistics coordination, while overestimating available material can result in unexpected shortages and costly production interruptions.

The growing demand for real-time inventory data

Another important factor is the growing role of data-driven decision-making in industrial operations. Modern production environments increasingly depend on continuously available operational data to improve forecasting, optimise logistics and increase process efficiency. Periodic inventory checks, which only provide isolated snapshots of the storage situation, are often insufficient for these requirements. Instead, companies need measurement systems capable of delivering reliable, up-to-date information in real time.

The example of Sauerland Spanplatte illustrates how these challenges converge in practice. The company required a solution capable of handling irregular stockpile geometries, fluctuating consumption patterns, covered storage environments and demanding environmental conditions while simultaneously providing accurate and continuously available inventory data.

These requirements ultimately highlight why conventional measurement approaches often reach their practical limits in modern bulk material handling environments.

The limitations of traditional volume measurement methods

For many years, companies handling bulk materials had only a limited selection of methods available for determining inventory volumes. Although these approaches were often sufficient for rough estimations, they rarely provided the accuracy, consistency, or measurement frequency required in modern industrial environments.

As operational processes become increasingly data-driven, the shortcomings of conventional measurement methods are becoming more apparent.

One of the most widespread approaches is still manual measurement. In many facilities, employees determine stockpile dimensions using measuring

rods, measuring wheels, or visual assessments. While experienced personnel can often estimate fill levels reasonably well, the process remains inherently subjective.

At Sauerland Spanplatte, the monthly inventory process relied heavily on manual measurements. Employees physically inspected the storage areas and estimated stockpile dimensions using measuring equipment.

This approach required considerable time and labour while simultaneously delivering only limited precision. In addition, measurements represented isolated snapshots rather than continuously updated inventory information. Between inventory checks, stock levels changed constantly due to ongoing production consumption and incoming deliveries, meaning that actual inventory conditions could already differ substantially from the most recent measurements.

Another common approach involves estimating inventory indirectly through weight-based calculations. Incoming and outgoing deliveries are documented using truck scales and inventory levels are derived from the recorded material flows. While this method can provide useful information about deliveries and consumption trends, it does not reliably reflect actual stockpile volumes.

Material losses, compaction effects, moisture variations, or inconsistencies in process documentation gradually introduce deviations over time. As a result, the calculated inventory often drifts away from the real physical stock situation.

Drone-based measurements and their limitations

In recent years, drone-based measurement systems have emerged as an alternative capable of improving volumetric accuracy. Equipped with GPS-supported cameras or laser scanning technology, they are able to provide detailed surface models of stockpiles and comparatively precise volume calculations. Particularly in large outdoor storage yards, this approach can offer significant advantages over manual measurements.

However, drone-based solutions also introduce important operational limitations. Measurements are typically periodic rather than continuous, meaning they still provide only isolated inventory snapshots.

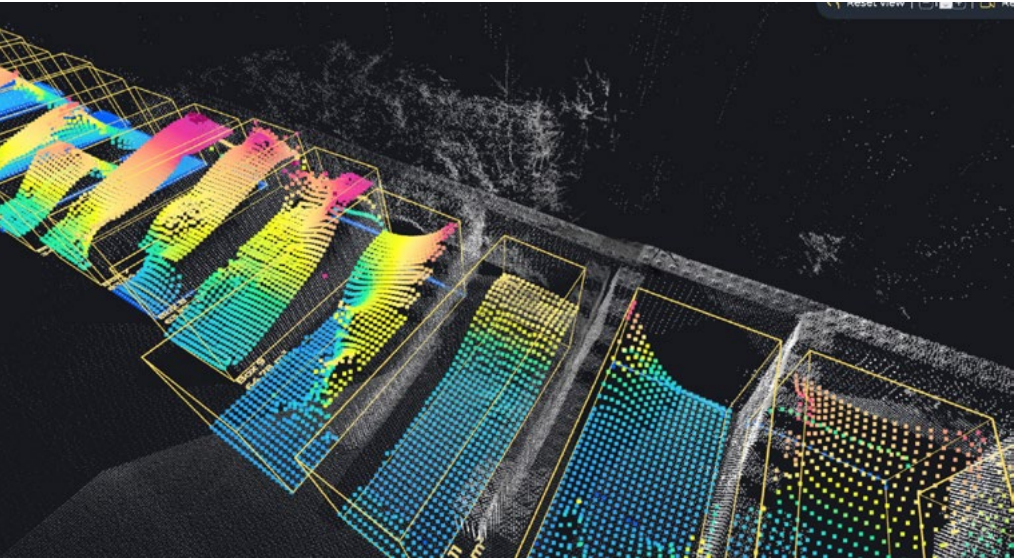
Each flight requires planning, operation and data processing, which increases operational effort. Personnel need to be trained to fly the drone or contractors have to be hired periodically to perform the measurements, which can be quite costly.

Weather conditions such as rain, wind, or poor visibility may further restrict usability. In addition, covered storage halls or indoor storage areas often present major challenges for drone navigation and data acquisition.

Sauerland Spanplatte also evaluated the use of drones for inventory monitoring. Although the



LiDAR sensors are permanently installed to produce continuous stockpile volume data



LiDAR point cloud of several bunkers filled with different materials – each bunker has its own volume monitoring zone to track inventory

“By continuously capturing the geometry of stockpiles and converting this information into volumetric data, LiDAR enables automated real-time inventory transparency with minimal manual effort”

technology appeared promising from an accuracy perspective, the company ultimately considered the solution impractical for daily operations. The required effort for repeated drone flights, combined with the limited suitability for covered storage areas, conflicted with the goal of establishing a continuously available and low-maintenance inventory monitoring process.

Understanding LiDAR-based volume monitoring 3D LiDAR technology combines precise spatial sensing with automated data processing, capturing the complete geometry of a storage environment and converting it into actionable volumetric information in real time. Unlike mobile or periodically deployed measurement systems, LiDAR sensors are typically installed permanently above storage areas, enabling fully automated and continuous monitoring without manual intervention. LiDAR is an optical measurement technology based on the time-of-flight principle. A LiDAR sensor continuously emits hundreds of thousands of laser pulses per second into its surroundings. When these laser pulses hit a surface, the reflected light returns to the sensor.

By measuring the exact time required for the signal to travel back, the system calculates the distance between the sensor and the measured object with high precision. Unlike conventional single-point laser systems, however, modern 3D LiDAR sensors scan entire environments continuously across multiple directions and angles.

Every reflected laser pulse generates a spatial coordinate in three-dimensional space. Combined together, these coordinates form what is known as a point cloud – a dense digital representation of the surrounding environment. In the context of bulk material monitoring, this point cloud accurately captures the surface geometry of stockpiles, silos, or storage areas.

From spatial information to actionable volume data However, the point cloud itself represents only the raw measurement data. To derive meaningful inventory information, the captured data must be processed into volumetric calculations.

The first step in this process involves defining the relevant measurement zones. Virtual boundaries are configured within the software to isolate specific storage areas or separate different material types. This zoning functionality is especially important in industrial environments where multiple stockpiles are stored close to one another.

Once the measurement area has been defined, the LiDAR system processes the captured point cloud to calculate the volume of the stored material.

The software analyses the surface geometry of the stockpile and converts the spatial data into volumetric information by dividing the area into smaller sections and calculating their combined volume. Even in complex storage environments where parts of the surface may be temporarily obscured by shadows, steep slopes, or infrastructure, the system can compensate for missing data using mathematical estimation methods. This enables reliable and highly accurate volume calculations even under challenging industrial conditions.

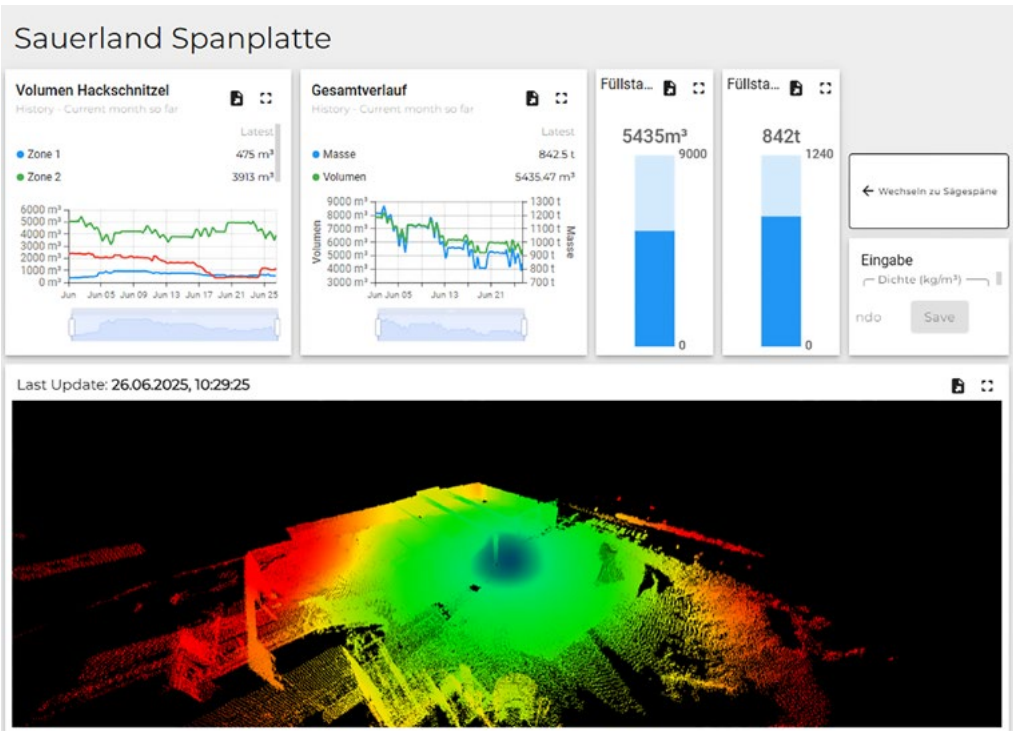
Reliable operation even in dust or darkness One of the major advantages of LiDAR technology

is its ability to operate reliably under difficult environmental conditions. Unlike camera-based systems, LiDAR does not depend on ambient lighting and is, therefore, largely unaffected by darkness or changing illumination conditions. In addition, the laser-based measurement principle performs robustly in dusty environments where optical imaging systems often struggle.

This robustness was particularly relevant for Sauerland Spanplatte, where high dust levels inside the storage halls represent a demanding operating environment. Despite these conditions, the LiDAR system has demonstrated stable and reliable continuous operation.

Real-time dashboards for inventory transparency The processed volumetric data is ultimately made available through a centralised monitoring dashboard. Instead of relying on periodic manual inventory checks, operational personnel gain continuous access to current inventory levels, historical trends and material consumption developments.

At Sauerland Spanplatte, responsible personnel



The data is depicted in a dashboard, bridging the gap between raw data and actionable insights

receive automated daily updates on inventory levels, enabling faster and more informed procurement decisions. Volumes can be viewed both in cubic metres and converted material quantities such as metric tons, creating a direct operational link between spatial measurements and production planning requirements.

From manual estimation to continuous inventory transparency Accurate volume monitoring has become an essential requirement for efficient bulk material handling. Traditional measurement methods, such as manual estimations or periodic inventory checks, often struggle to provide the level of accuracy, consistency and transparency required in modern industrial operations. As production environments become increasingly data-driven, the demand for continuously available inventory information continues to grow.

3D LiDAR technology offers a practical and scalable solution to these challenges. By continuously capturing the geometry of stockpiles and converting this data into precise volumetric information, LiDAR enables real-time inventory transparency with minimal manual effort. The technology combines high measurement accuracy with reliable operation under demanding conditions

such as dust, poor lighting, or covered storage environments, making it particularly well suited for industrial applications. The example of Sauerland Spanplatte demonstrates how LiDAR-based volume monitoring can generate measurable operational benefits in practice. By replacing labour-intensive manual inventory processes with automated and continuous measurements, the company improved inventory transparency, reduced manual effort, accelerated inventory checks and established a more reliable basis for procurement and operational decision-making. Beyond the immediate operational advantages, continuous volume monitoring also creates the foundation for broader digitalisation initiatives. Reliable real-time inventory data enables companies to better understand consumption patterns, optimise processes and improve planning accuracy across multiple sites. As industrial companies continue to pursue greater efficiency, transparency and automation, LiDAR-based volume monitoring is likely to become an increasingly important component of modern bulk material management.

For more information: Visit [blickfield.com](https://www.blickfield.com)



K3 Metrology raises £2.75 million seed funding

K3 Metrology (K3M), based in Wales, UK, has raised £2.75 million (€3 million) in seed funding for its metrology platform, designed for advanced manufacturing environments. K3M is a spin out from the National Physical Laboratory (NPL), which developed Metralis – a technology enabling accurate, real-time measurement of large scale components, helping manufacturers assess and correct performance as products are being built. The spinout was necessary to commercialise Metralis as a real time metrology platform for advanced manufacturing. The system is designed to be self calibrating and to provide

high precision, traceable measurement data throughout production. The £2.75 million seed funding was raised from the Development Bank of Wales, with £1 million (€1.1 million) equity investment, £1 million (€1.1 million) from Parkwalk and £750,000 (€861,000) from the UK Innovation and Science Seed Fund (UKI2S). Thanks to this funding, K3M is now in a position to complete product development, grow the team at their base in North Wales and build early commercial proof points. The Government Office for Technology Transfer (GOTT) supported the spinout through grant

funding to help develop a working prototype, alongside commercialisation advice, helping NPL to map the route for this technology to reach the market and support with investor engagement. This support package helped de risk early development and strengthen the case for external investment, enabling Metralis to be taken to the market in a way that delivers ongoing public benefit. “We certainly wouldn’t be here today if we hadn’t had GOTT support, that’s for sure. GOTT funding was crucial in enabling us to bring Metralis to market,” said Phil Cooper, Technology Transfer Leader, NPL.

The future of efficient material handling

Multi-stage vibratory systems: Combing feeding, screening and conveying

In today's fast-paced industrial landscape, efficiency and cost-effectiveness are essential. Multi-stage vibratory systems represent a transformative technology that combines feeding, screening and efficient conveying into a single, streamlined operation.

By integrating these processes, businesses can reduce costs and improve productivity while maintaining precise control over materials, highlighting the importance of automation systems.

This article delves into the intricacies of multi-stage systems, highlighting their benefits across various industries and explaining why BPS is a good partner for customised solutions that drive return on investment (ROI) and operational excellence.

Introduction: Why multi-stage systems are a game-changer

Multi-stage vibratory systems are revolutionising bulk material handling in various industries by integrating feeding, screening and conveying into a single, more reliable operation. This innovation enhances process reliability, productivity and ROI for manufacturers.

As industries seek customised solutions that occupy less space and minimise handling steps, multi-stage vibratory systems are emerging as practical options for a wide range of applications, including food processing, pharmaceuticals and mining.

What are multi-stage vibratory systems?

Multi-stage vibratory systems are sophisticated material handling solutions designed to efficiently integrate multiple operations – including feeding, screening and conveying – into a cohesive process that enhances overall productivity.

These systems utilise a variety of components, such as vibratory feeders, vibrating tube conveyors and advanced control technology, to ensure smooth material flow and reliable processes across diverse applications.

By combining these functionalities, they meet the needs of various industries, ranging from food processing to recycling and pharmaceuticals. These systems effectively address key challenges, such as material blockages, while ensuring the gentle handling of sensitive materials.

Multi-stage systems integrate feeding, screening and conveying processes to streamline operations, reduce manual intervention and maximise productivity. These systems help optimise material flow, minimising the risk of material blockages and enhancing the overall efficiency of bulk material handling.

By combining these processes, industries ranging from food manufacturing to recycling can ensure consistent product quality and reliability while adhering to stringent operational standards like ISO 22000 for food safety.

Feeding with consistent flow

Consistent material flow is essential for multi-stage vibratory systems and vibratory feeders are employed to ensure precise material delivery and optimal performance.

These feeders are designed to handle bulk solids and maintain a steady flow, which minimises disruptions and enhances overall productivity in material handling systems.

By integrating advanced automation systems, industries can achieve high accuracy in feeding, reducing waste and facilitating smooth material transfer throughout the production process.

In bulk material handling, a consistent feeding flow is particularly important. Modern vibratory feeders leverage sophisticated technology for material transport, optimising operations across various industries.

In the food sector, they ensure the even distribution of ingredients, thereby maintaining quality and safety compliance (FDA cGMPs). Similarly, the pharmaceutical sector relies on these systems for accurate dosing, which is critical for preserving product quality.

Recycling operations also benefit from improved sorting procedures enabled by these systems, facilitating effective material recovery.

The versatility of vibratory feeders enhances productivity by reducing downtime, increasing throughput and allowing for easy integration into existing production lines. Ultimately, the adoption of this technology leads to lower costs and greater operational efficiency.

Screening for precision and quality

Screening is a crucial function of multi-stage vibratory systems, which utilise vibratory screeners to ensure precision and quality in material handling operations. By effectively separating and sorting

materials based on size and composition, these systems enhance quality control across various industries, particularly in food processing and pharmaceuticals.

Accurate material screening contributes to the elimination of contaminants, ensuring that only the highest quality raw materials enter the production process, thereby safeguarding product safety.

Vibratory screeners operate by utilising the strength of vibration to induce movement within materials, allowing particles to stratify according to their dimensions and densities.

Ultimately, the application of vibratory screeners across different domains underscores their essential role in promoting quality assurance and operational excellence.

Conveying for seamless material movement

Conveying is a crucial aspect of multi-stage vibratory systems. Vibrating tube conveyors serve as effective conveying mechanisms that facilitate the movement of materials through various stages of the production process, including feeding, transferring and packaging.

These systems ensure a continuous flow of materials, thereby preventing stoppages. Additionally, conveying systems can transport large quantities of materials quickly while requiring fewer personnel and lower energy costs (CEMA).

They are designed to achieve optimal material flow and are commonly employed in bulk material handling applications across industries such as food, packaging, construction, chemicals and mining and mineral processing.

Business benefits of multi-stage vibratory systems

Multi-stage vibratory systems provide numerous business benefits that enhance operational efficiency and productivity.

Their compact design facilitates flexible installation within existing production lines and reduces the number of material handling steps involved in processing.

As a result, companies can achieve lower labour costs while also improving process reliability and ensuring consistent product quality across various handling applications. This ultimately leads to a stronger bottom line and a better return on investment.

The space-saving design of multi-stage vibratory systems allows industries to maximise floor space while seamlessly integrating into existing bulk handling operations. This flexibility enables manufacturers to efficiently adapt their production lines to accommodate varying material types and sizes without the need for extensive modifications.

Consequently, companies can achieve higher productivity rates within limited operational footprints, making these systems valuable assets in modern manufacturing environments.

In the pharmaceutical industry, the ability to

handle powders without contamination supports ISPE regulatory best practices.

Reduced handling steps and lower labour costs

One of the major benefits of multi-stage vibratory systems is the reduction in handling steps.

By integrating feeding, screening and conveying into a single system, including additional equipment such as dust suppression and food materials handlers, these vibratory systems minimise the number of steps in the material processing workflow, thereby decreasing reliance on manual labour.

In mining, automating the separation process with a multi-stage vibratory system can significantly decrease downtime and manpower needs.

Increased productivity and system reliability

Implementing multi-stage vibratory systems in material handling operations offers significant benefits, including increased productivity and system reliability.

By integrating feeding, screening and conveying processes, these systems ensure uninterrupted operations, minimising downtime and maximising output.

As businesses seek greater efficiency, multi-stage vibratory systems provide proven solutions that enhance performance reliability, enabling manufacturers to consistently meet production demands while upholding high quality standards.

Precise material control for consistent outcomes

These systems offer precise material control, which is essential for achieving consistent results in bulk material processing. By utilising advanced control technology and automation systems, including real-time data analytics, these solutions ensure that every component of the system operates in harmony, facilitating accurate material flows throughout the production line.

In the food industry, this precision supports HACCP plans and FSMA compliance. In pharmaceuticals, it aligns with ICH Q-series quality guidelines.

Industries benefiting from multi-stage vibratory systems

Multi-stage vibratory systems are utilised across various industries, each benefiting from the unique advantages these integrated systems offer for material handling applications and other industrial environments.

In food processing, where FDA compliance is essential, these systems help ensure product safety and quality. In pharmaceutical applications, precise handling of materials is crucial for maintaining strict quality control.

Additionally, in mining and recycling operations, multi-stage vibratory systems enhance the efficiency of bulk material processing and contribute to improved operational workflows.

Food and beverage processing

The food and beverage processing industries greatly benefit from multi-stage vibratory systems, which are designed to comply with strict FDA requirements while ensuring efficient handling of bulk materials.

These systems facilitate careful processing of food-grade materials, transforming raw ingredients into finished packaged products while adhering to quality control standards like Codex Codes of Practice.

Chemical and pharmaceutical manufacturing

Multi-stage vibratory systems play a crucial role in chemical and pharmaceutical manufacturing, enabling precise control over material flows essential for maintaining quality.

Recycling and waste management

The recycling and waste management industries utilise multi-stage vibratory systems to enhance material flow and operational efficiency in the sorting and processing of recyclable materials.

Mining and aggregate processing

In the mining and aggregate processing industries, multi-stage vibratory systems are employed to optimise bulk material handling and enhance operational efficiency.

Best Process Solutions (BPS) is one of the leading manufacturer of multi-stage vibratory systems, renowned for their custom design and engineering capabilities.

BPS prioritises high-quality, durable equipment that is designed to withstand the test of time.

Multi-stage vibratory systems offer numerous advantages that can significantly enhance material handling and various processes across different industries. By integrating feeding, screening and conveying into multiple stages, these systems streamline handling, boost productivity and improve product quality.

Organisations should consider adopting multi-stage vibratory systems to take full advantage of these benefits.

Along with multi-stage vibratory systems, incorporating supplementary equipment can enhance performance in bulk material handling processes. Components such as weigh belt feeders, dust suppression systems and pneumatic conveying solutions work in conjunction with existing systems to optimize feeding, screening and conveying functions.

The future of multi-stage vibratory systems is poised for significant advancements. Innovations in automation technology, the integration of advanced control systems and improved data analytics are expected to enhance efficiency and reliability.

For more information:

Visit bpsvibes.com



SYMAS & MAINTENANCE 2026 set for Poland's leading bulk solids and maintenance trade fair

Kraków prepares to host the 17th edition of the country's flagship event for powder processing, bulk solids handling and industrial maintenance

The countdown to one of Central Europe's most important industrial gatherings has officially begun with SYMAS® & MAINTENANCE 2026 returning to EXPO Kraków on 14–15 October.

The dual trade fair, now in its 17th edition, remains the only event in Poland that comprehensively connects the worlds of bulk solids technologies, powder processing, plant maintenance and industrial safety. Thousands of decision makers are expected to attend the pivotal event.

Why SYMAS & Maintenance matters in 2026

At a time when manufacturing facilities are under pressure to modernise, automate and comply with increasingly complex regulations, SYMAS® & MAINTENANCE has become a crucial meeting point for suppliers and plant operators. This year's edition will spotlight the technologies and challenges shaping the next decade of industrial operations, including:

- The expanding role of artificial intelligence in predictive maintenance and process optimisation;
- New cybersecurity threats facing industrial networks;
- Upcoming changes to the Machinery Directive;
- Compliance requirements linked to ATEX and Tools directives;
- Advances in fire and explosion protection;
- Innovations in occupational health and machine safety.

These themes will be brought together within the show's dedicated Industrial Safety Zone, supported by expert presentations and real world case studies delivered during the 360° Safety in Industry conference, organised by the IHAS Academy.

A meeting place for the entire industrial ecosystem

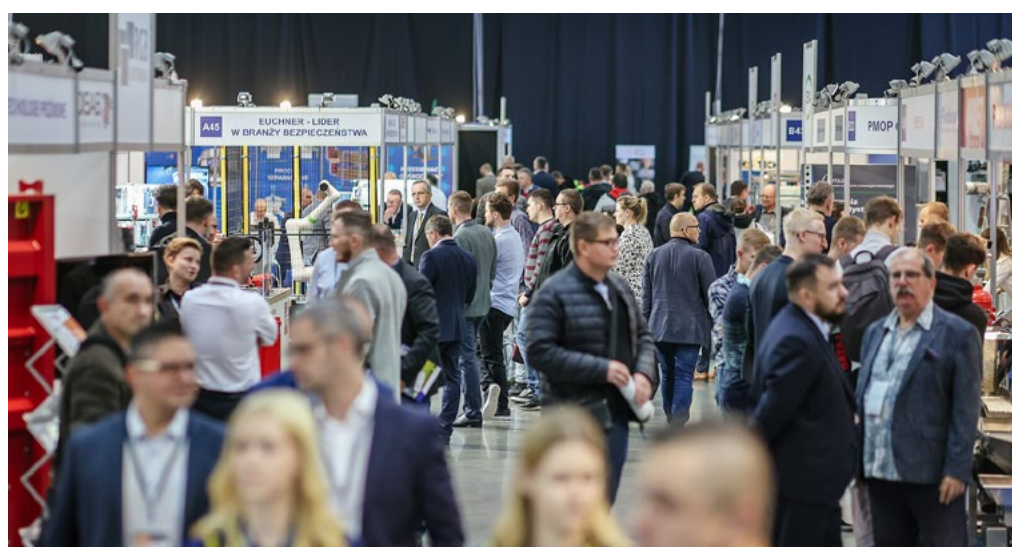
The 2026 fair is expected to once again attract a broad cross section of professionals responsible for the safe and efficient running of industrial plants. Typical attendees include:

- Plant directors and production managers;
- Maintenance engineers and reliability specialists;
- Health and safety inspectors;
- Power and energy engineers;
- Logistics and warehousing teams;
- Technologists and process designers.

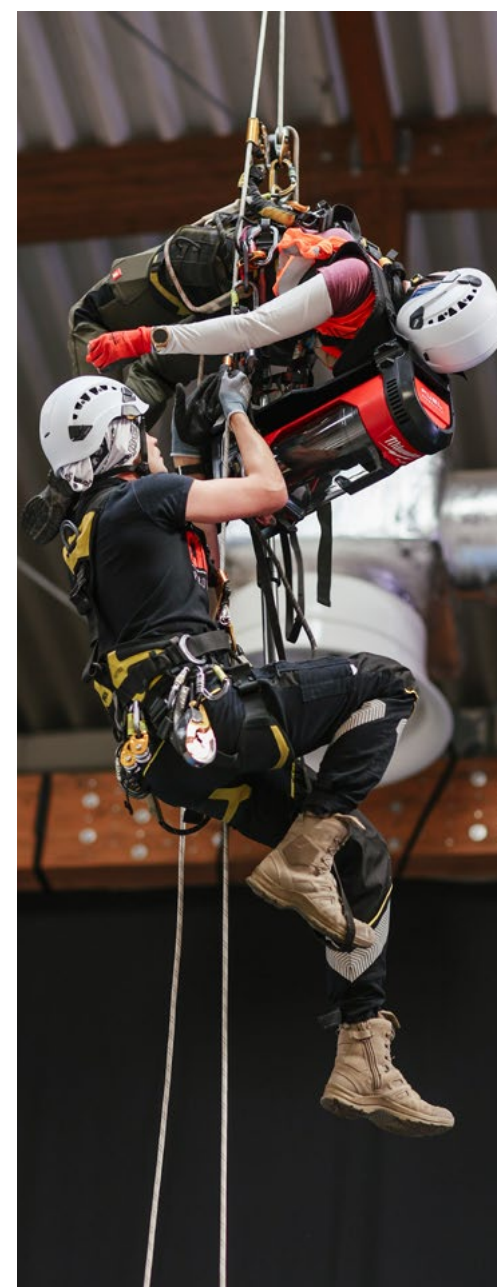
For exhibitors, this diversity is a major advantage. The event's combination of technical showcases, specialist knowledge and peer to peer exchange



A visitor engaging with a supplier



The event is expected to be packed out once again



The Industrial Safety Zone

continues to draw both Polish and international companies seeking new customers, partners and insights.

What to expect

During the two day event, EXPO Kraków will be transformed into a hub for modern manufacturing technologies. The co-located SYMAS® and MAINTENANCE fairs will offer a comprehensive overview of:

- Bulk solids handling and processing equipment;
- Dust control, filtration and environmental protection systems;

“The dual trade fair, now in its 17th edition, remains the only event in Poland that comprehensively connects the worlds of bulk solids technologies, powder processing, plant maintenance and industrial safety”

- Maintenance tools, services and predictive technologies;
- Automation, robotics and digitalisation solutions;
- Industrial safety systems and compliance tools;
- Energy efficiency and plant optimisation technologies.

The Industrial Safety Zone will serve as a focal point for companies offering solutions in machine safety, process safety, fire and explosion protection and cybersecurity.

With regulatory expectations tightening across Europe, this area is expected to draw significant

attention from plant operators seeking practical, compliant solutions.

A platform for innovation, knowledge and collaboration

Beyond the exhibition floor, SYMAS® & MAINTENANCE 2026 will feature a rich programme of seminars, expert talks and technical demonstrations. These sessions are designed to help visitors navigate the evolving landscape of industrial regulation, digital transformation and operational risk.

For exhibitors, the event offers a rare opportunity to position their brand at the centre of Poland's industrial innovation ecosystem.

Whether launching a new product, strengthening customer relationships or entering the Polish market for the first time, the fair provides a high impact platform for visibility and engagement.

As the manufacturing sector continues to evolve, SYMAS® & MAINTENANCE 2026 remains a vital forum for the technologies, expertise and partnerships that will define the future of industrial operations.

This latest event promises to be another milestone edition – and the best opportunities will go to those who secure their place now.



Delegates will be able to marvel at the latest technologies on show



Project manager Karol Miernikiewicz can be contacted for any inquiries

For more information:

Visit symas.krakow.pl/en. Contact project manager Karol Miernikiewicz at miernikiewicz@targi.krakow.pl for further details



Herbold provides support for used machinery through application-oriented consulting and technical assistance tailored to individual process requirements. Picture: Herbold Meckesheim, Germany



Comprehensive portfolio of used machinery, ranging from granulators and plastcompactors to shredders, pulverising systems and washing line equipment

Expanding role of used machinery in processing industries

Second-hand recycling machines gain importance as a flexible investment option

Herbold Meckesheim continues to broaden its provision of used machinery for the plastics recycling industry, supplying second-hand equipment from its own portfolio as a flexible and cost efficient alternative to new systems.

Depending on configuration and availability, machines can often be delivered at short notice.

The range includes granulators, shredders, pulverisers, plastcompactors and washing line components such as friction washers and dryers. All machines are selected according to defined technical criteria and supplied in a tested, fully functional condition.

Growing market relevance of used machinery

Used machinery has long formed part of the plastics recycling landscape, but its relevance has increased in recent years. Higher investment costs, shorter project timelines and the need for greater operational adaptability have all contributed to rising interest in second-hand equipment.

Across the sector, used machines are now viewed not simply as interim solutions, but as credible alternatives to new systems. For many applications, they support faster project implementation while still meeting required technical performance levels.

Comprehensive inspection and refurbishment

Before resale, each machine undergoes a detailed technical assessment. Depending on its condition, type and intended use, it may be inspected and serviced or fully refurbished. In certain cases, equipment is dismantled and evaluated component by component.

Key parts such as bearing seats, roller bearings, seals and other wear elements are checked for

tolerances, dimensional accuracy and overall condition.

The same precision measuring and testing equipment used in new machine production is applied to these processes, ensuring that refurbished machinery meets clearly defined technical and operational standards.

Technical and economic advantages for customers

Used machinery offers a combination of proven technology, reduced investment cost and shorter delivery times.

Many machines can be supplied immediately or within a few months, helping customers accelerate project schedules.

Second-hand systems provide a balanced relationship between cost and performance while still delivering the reliability required for demanding recycling applications.

Customers also benefit from technical guidance and application specific support to help identify suitable equipment for their processes.

"We see a clear increase in demand for used machines, driven by higher investment costs and the growing need for short-term solutions," said Karlheinz Herbold, Senior Specialist of Sales Used Machines at Herbold Meckesheim.

"For many customers, a used machine is no longer a compromise, but a deliberate and economically sound decision. They receive proven Herbold technology, expert-level consulting and dependable service, combined with shorter lead times and attractive investment conditions."

For more information:
Visit herbold.com

Flexicon introduces dust-free mobile bag dumping system

Flexicon has unveiled a new mobile bag dumping station designed to improve dust control, operator safety and process flexibility in bulk materials handling environments.

The system enables manual emptying of hand held sacks into a sealed enclosure, preventing airborne dust and protecting both personnel and surrounding equipment.

The unit integrates bag dumping, compaction and flexible screw conveying within a single mobile frame.

Operators access the enclosure via a hinged door fitted with glove ports, allowing safe handling of powders, granulates and other dry bulk materials. A built in dust collector maintains negative pressure, while dual cartridge filters capture particulates generated during dumping.

Empty bags are transferred into an integrated compactor capable of compressing up to 80 bags into a removable bin, reducing waste handling time.

The flexible screw conveyor transfers discharged material to downstream equipment, with screw designs suitable for cohesive, smear prone or fluidising materials.

Mounted on locking casters, the system can be moved between production lines or positioned for cleaning, supporting manufacturers requiring adaptable, contamination free handling solutions.

Flexicon states that the design enhances productivity while maintaining strict hygiene and safety standards across food, chemical, pharmaceutical and plastics applications.



Photo Credit: Greg Harding

GEODIS to open pharmaceutical warehouse

Global logistics provider, GEODIS, is set to open a new pharmaceutical warehouse in Manchester, UK. The warehouse will support pharmaceutical customers with enhanced inventory management and cross-docking operations.

The facility will offer 2,000 pallet positions for sensitive pharmaceutical products that require strict temperature management and regulatory compliance, temperature-controlled zones with 24/7 monitoring, sustainable design with energy-efficient systems and waste-reduction processes.

"This new facility allows us to provide highly reliable end-to-end solution for temperature-sensitive healthcare products," said Paul Morris, Head of Pharma & Healthcare Vertical for GEODIS in UK.

"With advanced monitoring systems, robust compliance

standards and strong connectivity across the UK, we are well positioned to support pharmaceutical and biotech companies with safe, efficient and scalable logistics solutions."

A Warehouse Management System (WMS) will provide barcode scanning, batch traceability, full audit trails and real-time inventory visibility to ensure compliance, transparency and operational efficiency throughout the supply chain, whether for inventory holding or fast-moving distribution flows.

The Manchester site meets a wide range of international quality and security standards, including GDP/ WDA pharmaceutical compliance, as well as ISO 9001, ISO 14001, ISO 45001, ISO 50001, TAPA, AEO and Dangerous Goods certifications.

Bag palletising is the process of systematically stacking filled bags on to pallets for storage or shipment. This essential step in the packaging chain ensures safe and efficient handling of bulk products, particularly in industries where large volumes of materials, such as grains, chemicals, or building materials, need to be moved



Key features and how to choose the right one

Bag palletising involves the use of machinery to place filled bags in a structured, stable configuration on a pallet. This process can be fully automated, semi-automated or manual, depending on the equipment used and the production requirements. By relying on automation, the risk of manual handling errors is minimised, ensuring uniformity and reducing the likelihood of damaged products.

Automating the palletising process is crucial in high-output industries. It streamlines production, minimises human error and allows businesses to meet high-volume demands with consistent quality. Additionally, automated palletising reduces strain on workers, enhancing workplace safety.

Types of bag palletising systems

Choosing the right bag palletising system is essential for optimising production efficiency. Concetti offers three main types of systems, each designed to meet different operational needs:

- **Robotic palletisers** – Robotic palletisers utilise precision-driven robotic arms to place bags on to pallets. This type of system offers flexibility in handling various bag types, sizes and weights. It is ideal for businesses requiring frequent product changeovers or customised stacking patterns. Concetti's robotic palletisers, supported by a US-based service team, guarantee accuracy and reliability.
- **Conventional palletisers** – Conventional systems use mechanical methods to arrange bags into predetermined stacking patterns. Known for their speed and ability to handle large volumes, these systems are suited for industries with high-output demands, such as the construction and chemical sectors. Concetti's conventional palletisers are built for longevity and can be customised to meet specific production requirements.
- **Hybrid systems** – Hybrid systems combine the flexibility of robotic palletisers with the high throughput of conventional systems. These systems offer a balanced approach, delivering precision and efficiency for businesses that need to adapt to varying production demands. With the ability to process a wide range of open-mouth bags – such as paper, plastic and multilayer materials – Concetti's hybrid systems are a versatile solution for diverse industries.

Key components of a bag palletising system

A bag palletising system is made up of several key components, all working together to ensure smooth and efficient operation. One of the core elements is the conveyor system, which moves bags from the filling station to the palletising area.

These conveyors are built to handle bags of various weights and materials, ensuring a seamless transition at every stage of the process.

Another essential component is the pallet dispenser, which automatically supplies empty pallets to the palletising area, ensuring uninterrupted production.

This, combined with load transfer mechanisms, guarantees that filled pallets are safely moved for storage or shipment, significantly reducing the risk of damage during transport and handling.

Lastly, the efficiency of any palletising system depends on its stacking patterns. Concetti's advanced software optimises stacking arrangements, ensuring that bags are stacked in a way that maximises both stability and storage space. This optimisation is crucial for companies aiming to streamline logistics and cut down on



Efficient handling of bulk products like grains, flour and animal feed is critical in the food and agriculture sectors

“By relying on automation, the risk of manual handling errors is minimised, ensuring uniformity and reducing the likelihood of damaged products”



Concetti offers three main types of bag palletising systems

transportation costs, while also maintaining the integrity of their products.

Benefits of automated bag palletising

Automating the palletising process offers numerous benefits:

- **Increased productivity** – Automation minimises manual handling and reduces the potential for errors, ensuring consistent performance and higher output. Whether palletising bags of flour, fertilisers, or construction materials, these systems are designed to handle the job efficiently.
- **Enhanced worker safety** – By automating heavy lifting and repetitive tasks, the risk of worker injury is significantly reduced. Workers can focus on supervising the process rather than engaging in physically strenuous activities. The systems are engineered with safety in mind, protecting both the workforce and products.
- **Reduced operational costs** – Automation reduces the need for manual labour and speeds up the palletising process. Additionally, these

systems are designed to minimise material waste by efficiently handling thinner films in Form, Fill and Seal (FFS) bagging systems, which help reduce plastic consumption.

- **Resistance** – No material dispersion, no economic loss resulting from breakages during transport. Logistical efficiency that produces direct economic savings, no product dispersion even in the environment.

Common applications of bag palletising

Automated bag palletising systems are used across a wide range of industries:

- **Food and agriculture industry** – The efficient handling of bulk products like grains, flour and animal feed is critical in the food and agriculture sectors. The company's palletisers can handle a variety of open-mouth bag types, ensuring safe and stable packaging for transportation.
- **Construction materials** – Bagged cement, mortar and other construction materials require durable, high-capacity palletising solutions.

Concetti's systems ensure that heavy-duty products are palletised with precision, reducing the risk of damage during shipping and handling.

- **Chemicals and fertilisers** – Chemical and fertiliser packaging often involves handling materials that require specific containment and stability solutions. The palletising systems are designed to meet the stringent safety and handling requirements of these industries, offering reliability and consistency in every operation.

Automated bag palletising is a vital component of modern bulk packaging operations. By investing in a Concetti palletising system, businesses can increase productivity, reduce costs and improve safety – all while minimising material waste and meeting sustainability goals.

For more information:
Visit concetti.com

Milling and grinding: 60 seconds with British Rema's Tony Goodwin



Tony Goodwin, Managing Director, British Rema

British Rema might just be the company that businesses may not have come across, but it is one that has long been at the forefront of milling and grinding technology.

Based in Chesterfield in the UK, the SME is a long-established and well renowned UK engineering company specialising in powder processing, particle size reduction, milling, grinding, micronising and in particle size control technologies for customers around the globe.

Now approaching its centenary year, the company was founded in 1927 to develop roller mills for the coal industry and it later expanded into powder processing, equipment and rotary engineering. Tony Goodwin, the firm's Managing Director, discusses milling and grinding technology.

What is the purpose of milling and grinding technology when it comes to processing bulk solids?

Milling and grinding technology is used in bulk solids processing to reduce the size of particles, which can dramatically influence the physical properties of a material. These technologies are essential in industries such as food processing, pharmaceuticals, chemicals, mining, cement and agriculture because many products must meet strict particle size requirements before they can be used effectively in specific processes, where particle size affects the product's physical reactivity and performance, including packaging and transportation.

There are a variety of practical and economic reasons why an operator must grind a product reduce the particle size. The obvious one is to meet the specifications of the customer who requires a certain powder fineness or particle distribution.

However, more and more it is to improve process efficiency – moving particles more easily through mixers, conveyors and reactors and to enhance product performance.

An example would be in the food sector where finely ground flour produces smoother baked

goods, or in the production of paints where fine pigments create better paint coverage.

Of course, commercially, there is always a focus on increased productivity and lower costs and so the focus is also on minimising waste and increasing maximum product yield.

What trends have you seen in milling and grinding over the last five years?

High performance polymer milling and grinding focussed on the growth in the additive manufacturing market (3D printing) presents some specific challenges around particle size distribution.

Many other changes are being driven by incoming regulations such as PFAS, pushing customers to seek alternatives to harmful forever chemicals, which may respond very differently to grinding processes or need a completely different particle size distribution.

There is a growing trend in the requirement for ultra-fine powders under 10 microns for the pharmaceutical, chemical and food sectors where demand is for smoother textures, instant solubility and cleaner formulations.

In the food sector this is driven by wellness consumers who are seeking plant proteins, alternative proteins, spices and ingredients, nutraceutical powders and functional ingredients.

This has increased demand for jet milling, classifier milling and micronising systems.

What types of milling and grinding technologies are out there?

The most common machines for dry material milling include:

Air micronisers (Jet mills): These are ideal for producing ultra-fine powders, particularly when starting with already fine feed. These mills use extremely fast air jets to cause particle collisions within a high intensity airstream so that particles are reduced in size by means of impact and attrition grinding.

Air micronisers are available in opposed jet and spiral flow configurations – the latter being able to handle harder materials and offering precise particle size control.

Jet mills are designed for throughputs of between 0.5 kg and 2 tonnes per hour. Spiral flow jet mills are designed for throughputs of between 1 kg and 100 kgs per hour.

Compared to other milling technologies jet mills tend to have low throughput rates and high energy consumption.

Rotary impact mills: These are also called beater mills, which use high-speed rotors to impact particles against liners and themselves. They are suitable for materials up to three on the Mohs hardness scale and effective for medium-coarse to fine grades, typically with a D50 within the 30-to-100-micron range. Rotary impact mills are widely used for reducing particle size in the chemicals, food, metal powders, minerals and plastics industries.

It can be hard to achieve a narrow particle size distribution on these types of mills, even with the

incorporation of screens within the milling chamber. Highly abrasive products can also rapidly reduce the life of both the rotating and static grinding components.

Classifier mills: These hybrid machines are a combination of impact rotor and precise classifier wheel machines and are suitable for applications requiring tightly controlled distributions. Classifier mills can also handle products with complex melting or softening points due to options for chilled or secondary air injection. They are used for throughputs of between 1 kg and 6 tonnes per hour.

Ball mills and other tumbling mills (tube mills, rod mills and batch mills): These have been used for centuries and are used for robust, coarse or fine grinding across a range of mineral applications, especially where longer retention times or heavy-duty size reduction are required.

Their low rotational speeds combined with simple and robust construction make them ideal for grinding hard and abrasive materials where continuity of service, low maintenance and minimum down time are a necessity.

British Rema has for many years been amongst the leaders in design and application of ball mills and milling systems for the size reduction of a wide variety of materials including minerals, ores, coal, carbon products and general chemicals.

Ball mills can be used in conjunction with a wide range of units in a variety of forms in both open and closed-circuit with an appropriate classifier that can control the final product size and system efficiency.

With larger units especially demanding high capital expenditure, return on investment calculations can often be challenging.

How does product type affect the type of milling/grinding technology an operator chooses?

The type of product being processed has a major influence on the milling or grinding technology an operator selects because different materials behave very differently during size reduction.

Factors such as density, heat sensitivity, particle shape, contamination risk, moisture content, hygiene requirements and target particle size all affect the choice of equipment and process conditions.

In practice, milling technology is selected not just to achieve a certain particle size, but also to preserve product quality, safety, functionality and regulatory compliance.

It sounds obvious, but food milling focuses on hygiene, temperature control, taste and texture preservation and the avoidance of contamination. Food products such as flour, sugar, spices, coffee, starch and proteins are dependent on milling technologies.

What common issues arise with milling and grinding? And how can an operator avoid them?

As with every technology there will be issues while perfecting the required product for the customer. In milling and grinding operations it is necessary to consider particle size control, heat generation, contamination, material flow behaviour and system efficiency etc.

Selecting the optimum solution and then thorough testing is key to overcoming common issues such as heat build-up, mill speed and incorrect particle size.

Too much heat can cause product degradation, moisture migration, loss of aroma and flavour, etc.

The operator will need to optimise mill speed and feed rate to eliminate friction and reduce

temperature. It could be a case of incorrect settings, worn components or overloading the mill, but these can be overcome by working with the manufacturer to establish best practise.

Using inherently cooler milling technologies such as jet mills can be especially useful because particle reduction occurs via particle-to-particle collision in a decompressing, cool gas.

Inconsistent particle size is another common issue and can be caused by uneven feed, overloading the mill, material moisture as well as the possibility of incorrect settings and worn components.

Reduction in product quality, texture variation in food or poor tablet compression can all result from this. Air classifier mills separate oversized particles automatically, thus helping to improve uniformity, yield and reproducibility.

Other issues, such as control of feed consistency, cross contamination and product build up/caking, can be overcome with automated feeders, appropriate mill construction, cleaning protocols and moisture and temperature control systems.

Essentially, working with a specialist supplier, such as British Rema, enables customers to specify the correct equipment for the application.

What are the safety/compliance/training issues to consider?

The very nature of processing demands that operators practise strict Health & Safety Management Systems, carrying out COSHH analyses and chemical task risk assessments for all the materials they process and creating Safe Systems of Work for all processes and tasks.

COSHH

The impact of every material for processing must first be assessed for the plant, or process it is assigned to and each plant must be equipped with the necessary controls. A thorough risk assessment will be needed and designing appropriate engineered solutions around feed in and collection points will be critical to operator safety. As a minimum, operators will be required to wear the correct personal protective equipment (PPE), for both their own protection and, in some cases, also for the protection of the material itself.

ATEX

The evaluation of a material's suitability is not solely restricted to its toxicity or reactivity. Many chemicals can form an explosive atmosphere when certain conditions are met and these conditions invariably exist within a milling system. The team at British Rema assesses the risk of each compound to determine what classification the milling process will fall into, designing in the appropriate safety systems required to meet regulations and ensure safety in operation.

What else would you like to add?

I can't stress enough how much well-conceived and conducted process trials can be in ensuring the correct selection of milling technology and application optimisation.

For more information:
Visit britishrema.co.uk

“There are a variety of practical and economic reasons why an operator must grind a product reduce the particle size. The obvious one is to meet the specifications of the customer who requires a certain powder fineness or particle distribution”



A Classifier Mill Unit



An Impact Mill Unit

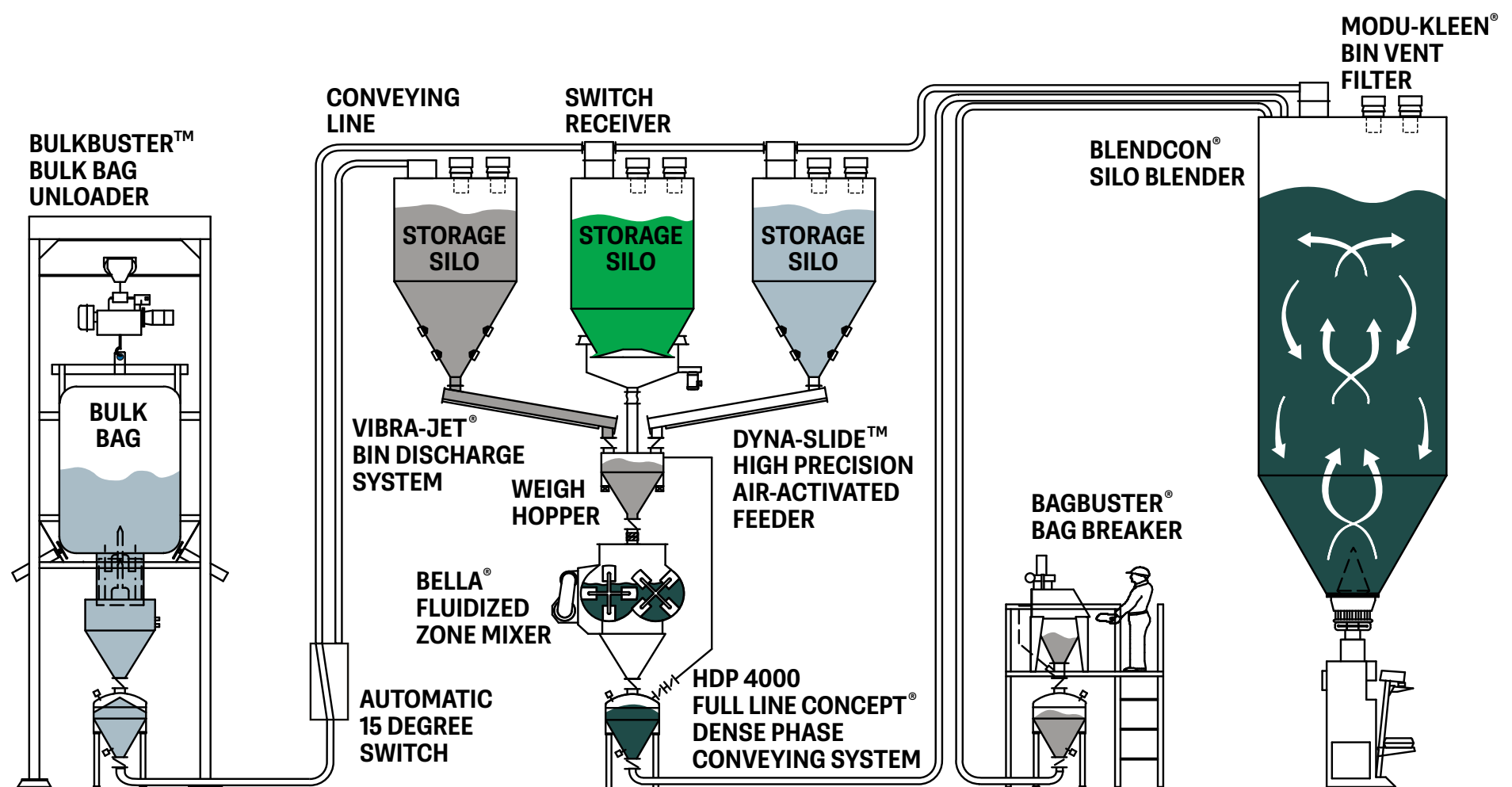


A Spiral Flow Jet Mill



A Stag Ball Mill Unit

SOLUTIONS *that Power Success*



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.



Dense Phase Transporter



DC-5® Air Saver Control



Bella® Fluidized Zone Mixer



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