

SHAPA

NEWS



DO YOU KNOW YOUR EXPLOSION RISK?

IEP Technologies have been providing market leading explosion protection solutions for over 60 years. International safety standards and guidelines legally require explosion mitigation and protection techniques to be put in place, however there is no “one size fits all” answer and the most effective solution will often be application specific.

Explosion protection systems are broadly divided into two groups:

- Active Explosion Protection
- Passive Explosion Protection

Active explosion protection systems rely on a detector of some kind – for example - pressure or optical, which then triggers an electrical circuit to cause the rapid actuation of an explosion protection device, such as an explosion suppressor.



In contrast, passive explosion systems rely on the pressure generated during the early stages of explosion development to cause a mechanical movement. For example, explosion relief vents open at a predetermined pressure to relieve the explosion pressure; the opening is caused by the explosion pressure itself.

NEW, IsoDisc™ Explosion Isolation

The IsoDisc™ is an effective, self-actuating and self-resettable passive device providing explosion isolation to applications such as inlets of mills or clean air ducting to interconnected equipment.





Louise Smallwood,
General Secretary,
Solids Handling & Processing Association.

COMMUNITY, COLLABORATION AND CELEBRATION

SHAPA Quarterly Round-Up: Summer 2025

As the UK's manufacturing landscape continues to evolve, SHAPA remains committed in its mission to represent, support, and strengthen the bulk materials handling sector.



We are all looking for normality, but the change of government, rising costs and influence from overseas means that the state of play is ever changing. As we look to support our membership in adapting to the frequent change, SHAPA's collaborative community has become ever more important to our members – with high attendance and extensive knowledge sharing at our AGM, General Meetings and committee meetings.

SHAPA's last quarter has been one of the busiest of the annual calendar. We have been actively engaging with government policy developments through our membership of the Engineering and Machinery Alliance (EAMA), expanding training opportunities, enhancing member services, and championing sustainability; and of course – we held our AGM and the annual Solids Handling Industry Awards in Stoke-on-Trent in May.

DRIVING POLICY ENGAGEMENT: INDUSTRIAL STRATEGY AND SECTOR PLANS

The release of the UK Government's long-awaited Industrial Strategy in June has marked a key moment for manufacturing so far this year. SHAPA, through its alignment with EAMA, has been closely monitoring developments and ensuring members stay informed through the member weekly updates.

The new strategy highlights eight priority sectors, including the Advanced Manufacturing 'frontier' industries - and sets out measures to support digital transformation, R&D, and energy efficiency.

Of particular note is the British Industrial Competitiveness Scheme, aimed at cutting energy costs for manufacturers. Currently scoped for the Industrial Strategy key sectors and foundational industries, SHAPA will advocate strongly through EAMA to ensure its members are considered in upcoming consultations. With energy prices remaining a major concern for many businesses, access to support schemes like this could be transformative.

SUPPORTING SKILLS AND INNOVATION

Skills development is another cornerstone of the new Industrial Strategy, and SHAPA is watching closely as new initiatives unfold. Key proposals include:

- Technical Excellence Colleges to address skill shortages, particularly in engineering and advanced manufacturing.
- Short courses funded via the Skills Levy, with a focus on digital, AI, and engineering disciplines.
- An Up-skilling and Re-skilling Programme, which will prioritise flexible online delivery

SHAPA has long championed continuous professional development and is already adapting its training offer in response to shifting needs. The ATEX & DSEAR training programme is undergoing review, with plans to launch an advanced level offering soon. Meanwhile, the Sales Training Workshop is being restructured as an online course to improve accessibility, and the Marketing Course may return if demand is sufficient.

SUSTAINABILITY AND FUTURE READINESS

With environmental responsibility increasingly influencing procurement and regulation, SHAPA is positioning its members to stay ahead of the curve by recently joining Climate Action for Associations (CAFA) and engaging with the Institute of Environmental Management and Assessment (IEMA).

Further support on sustainability will be a theme of upcoming General Meetings, and SHAPA is exploring opportunities to provide tailored guidance on integrating sustainability into tendering processes - particularly valuable as public procurement reform gathers pace.

CELEBRATING TALENT, INNOVATION AND KNOWLEDGE

On Tuesday 6th May 2025, our industry leaders, innovators, and rising stars gathered in Stoke-on-Trent for the annual Solids Handling Industry Awards - an evening dedicated to



celebrating the achievements and contributions of companies and individuals shaping the future of bulk materials handling.

The event brought together professionals from across the UK's bulk handling and processing sector for an inspiring night of recognition, networking, and celebration. Attendees enjoyed a drinks reception and gala dinner before the awards presentation began, with the evening capped off by a keynote speech from acclaimed broadcaster and business leader Cally Beaton, who shared valuable lessons on resilience, reinvention, and embracing change.

The awards showcased the diverse capabilities of SHAPA members, with finalists representing companies of all sizes and specialisms. Awards were presented in key categories including Innovation in Technology, Sustainability, Export, Training & Development and Safety, highlighting how members are addressing real-world challenges with ingenuity and commitment. New talent was also in the spotlight, with the Newcomer of the Year and Apprentice Project Prize awards highlighting the fresh thinking, problem-solving, and enthusiasm of early-career professionals.



SHAPA continues to grow, with the current membership standing at 104 companies and LinkedIn followers now surpassing 1,000.



LIFELONG CONTRIBUTIONS

SHAPA also recognised two industry legends during the evening.

The IMechE Bulk Solids Handling Award, sponsored by SHAPA, was presented to John Pethullis of Southdowne Solutions for his five-decade-long impact on solids handling technology, including his work on the Drax biomass conversion and the design of the RotaFlo discharger - now a staple in the water and paint industries.

SHAPA also presented its Lifetime Achievement Award to Ian Birkinshaw, marking his exceptional career at Portasilo and over a decade of service as SHAPA's General Secretary. Ian's steady guidance, industry knowledge, and unwavering support for SHAPA members have left a lasting legacy. Though he officially retired in 2024, he continues to advise and assist the Association behind the scenes.

AN INDUSTRY UNITED

The 2025 Awards were not just a celebration of individual accomplishments, but a reflection of the strength, innovation, and community spirit that characterise the UK solids handling industry. With the challenges of technological change, environmental responsibility, and evolving global markets, SHAPA members continue to demonstrate resilience and creativity.

As SHAPA Chair Mike Bradley noted during the evening, the Association remains committed to championing its members - whether through policy engagement, training, or events like these that shine a light on the sector's best and brightest.

Special thanks go to the event sponsors, including Fruitcake Marketing, Process Industry Informer, and ISF, whose support helped make the evening possible. We extend warm congratulations to all nominees, finalists, and winners - and look forward to another year of innovation, collaboration, and excellence in bulk materials handling.

LOOKING AHEAD

SHAPA continues to grow, with the current membership standing at 104 companies and LinkedIn followers now surpassing 1,000. The Autumn General Meeting is scheduled for 22nd October at the Moat House, Acton Trussell and we welcome all members to join us there.

In an environment where policy, technology, and workforce needs are shifting rapidly, SHAPA remains committed to being an agile, informed, and an influential voice for solids handling and processing.



For more information, training schedules, and event updates, visit: www.shapa.co.uk, contact Louise Smallwood at louise@shapa.co.uk or follow us on LinkedIn: @SHAPA



Visit us at



Stand G60



High Speed, High Shear Mixers

Maximised yield, reduce waste
and cut mixing times by up to 90%

Silverson offers a complete range of multipurpose high shear mixers ideal for mixing tasks such as disintegrating, homogenising, emulsifying and hydrating ingredients - with an efficiency and flexibility unmatched by other machines.

SCAN ME



For more information please visit: www.silverson.co.uk
sales@silverson.co.uk • +44 (0) 1494 786331

AKONA LAUNCHES UK PRODUCTION OF CABLEVEY SYSTEMS

Material processing and handling solutions specialist, Akona Process Solutions, is now building Cablevey conveying systems in the UK, delivering faster lead times, lower costs and a smarter solution for European manufacturers.

Previously produced exclusively in the US, the decision to co-locate production to the UK has been driven by customer demand and commercial strategy. With an increasing requirement for shorter lead times, reduced shipping costs and localised services, the shift enables Akona to respond more swiftly and efficiently without compromising Cablevey's proven track record of quality. Production is already underway, with

three UK-built projects in progress. The first system is due to be commissioned in Ireland in the next 3-4 months.

"Customers have been asking for a locally manufactured Cablevey solution for some time," said Akona's Ben Ayrton, Managing Director Europe.

The move also delivers significant commercial advantages for Akona. It opens the door to a broader range of projects and strengthens the company's competitiveness against European alternatives. With UK manufacture now established, Akona can address local markets directly and expand its presence across Europe. Environmental impact has also played a key role in the decision. By eliminating the need for

transatlantic shipping from Cablevey's US base in Oskaloosa, Iowa, Akona can substantially cut carbon emissions.

The shift is also creating opportunities internally as it expands the skillset of the production and drawing office teams, increases aftermarket potential, increases profitability and reduces overall lead times.

"This is more than just a location change, it's a step forward that brings us closer to our customers, improves our flexibility and supports more sustainable operations," added Ayrton. "We're excited to see the first UK-manufactured Cablevey systems commissioned."

Find out more about Akona [here](#).



MIXING AND DISPERSION TECHNOLOGY SPECIALIST YSTRAL BUILDS NEW VALIDATION CENTRE

Machine and plant manufacturer expands testing capacities – completion planned for the end of October

ystral is investing around 1.8 million euros in a new validation centre at its headquarters in Ballrechten-Dottingen (Germany). The centre will enable the machine and plant manufacturer to carry out more tests than before and further improve the testing conditions for its customers. Users do not have to be on site during the tests but can also follow them remotely via livestream.

ystral plans, designs and manufactures highly efficient mixing, dispersing and powder wetting machines as well as process systems. The new validation centre expands ystral's testing capacities, as the existing application technology centre and a development laboratory have reached their capacity limits. "The construction of the new validation centre is

a major step in the history of our company – because this is ultimately the place where we come together with our customers," says Peter Manke, Managing Director and co-owner of ystral. The validation centre is scheduled for completion by the end of October.

Tests with flammable or explosive media are possible

In the new building, production companies will have the opportunity to test ystral technologies, train their operating personnel on ystral machines and use the testing facilities for method and product development. Tests with flammable or explosive media are also possible.

The validation centre offers numerous analysis options. Samples can be examined

with regard to various factors using the optical microscope: Both density measurement and particle size analysis with dynamic light scattering are possible. In addition, viscosities can be determined using various measuring methods with and without tempering and curves of various shear rates can be plotted.

Participation in tests also possible via livestream

Already today, manufacturing companies from all over the world are utilising ystral's testing facilities. With the new validation centre, the mixing technology specialist aims to further expand its international presence. "Users don't have to be on site during the tests, but can follow them remotely via livestream," explains Uwe Klaumünzner, Head of the ystral validation centre. "However, many of our customers still like to come back to us because of our hospitality, our comprehensive support during the trials – and not least because of the scenic surroundings."

ystral gmbh maschinenbau +
processtechnik
Phone: +49 (0) 7634 5603 642
www.ystral.com



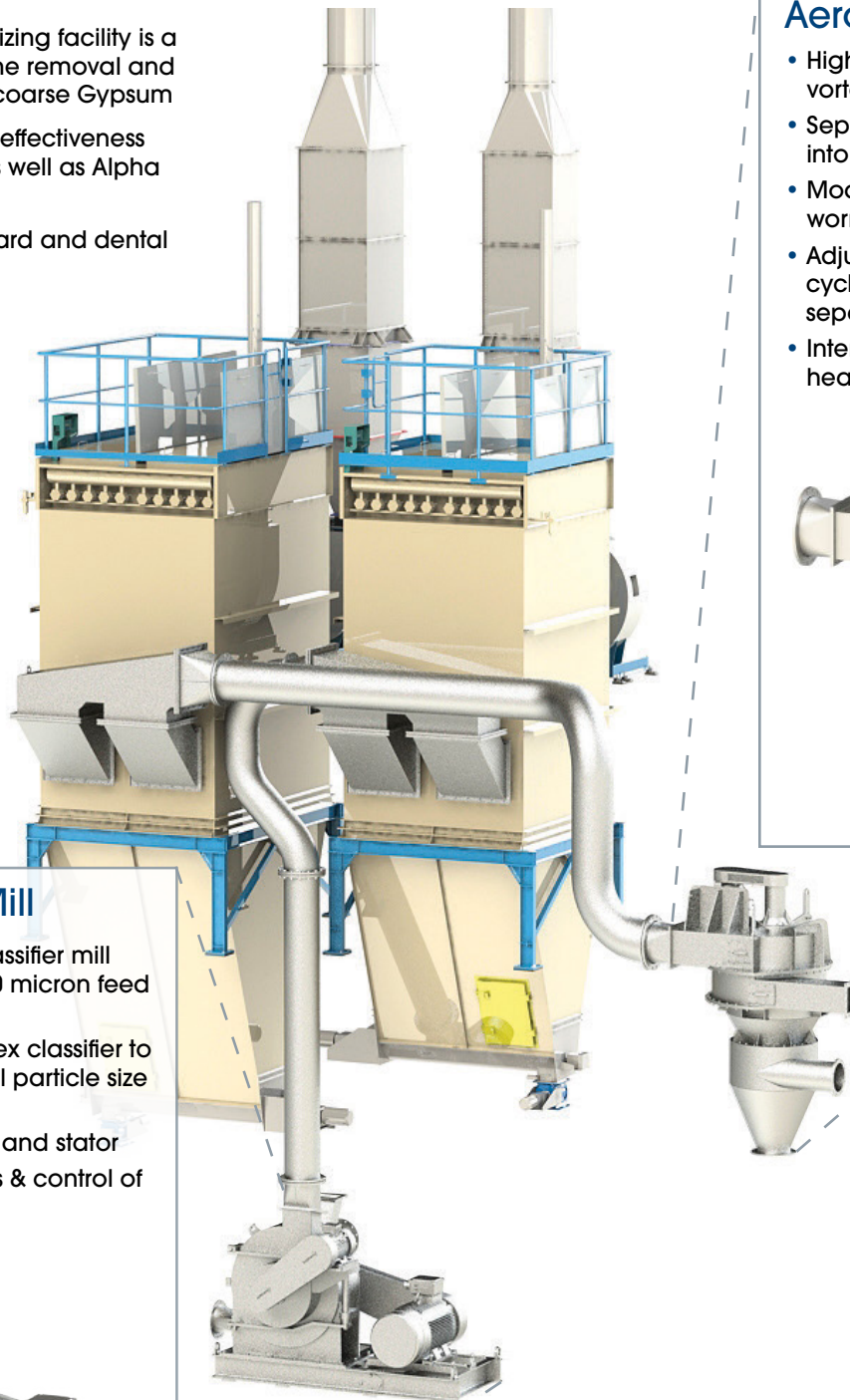
ystral company
site in Ballrechten-
Dottingen /
Germany. A new
testing centre is to
be constructed here
by October.

Remarkable Gypsum Processing Technology

The British Rema Gypsum sizing facility is a purpose built solution for the removal and ultra-fine micronisation of coarse Gypsum

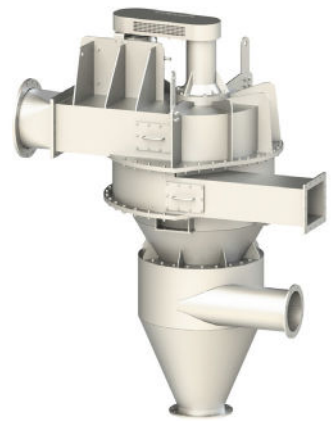
The system is designed for effectiveness with Gypsum Anhydrites as well as Alpha and Beta Hemi-hydrates

Ideal for plaster, plasterboard and dental applications.



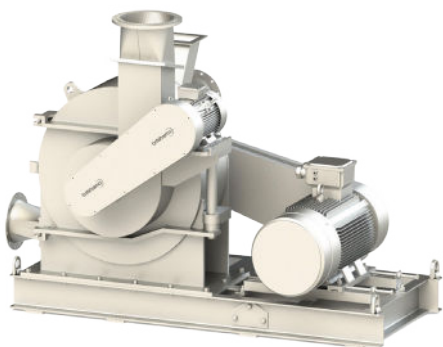
Aerosplit Classifier

- High-efficiency forced vortex air classifier
- Separation of feed material into two distinct fractions
- Modular rotor design allows worn part replacement only
- Adjustable secondary cyclone for optimised fine separation efficiency
- Interchangeable working head to minimise downtime



CLM Classifier Mill

- High speed impact classifier mill effective with up to 300 micron feed material
- Integrated forced vortex classifier to control output material particle size distribution
- Interchangeable rotor and stator
- In-process adjustments & control of superfines generation



britishrema

www.britishrema.co.uk

Image Works,
Foxwood Close,
Chesterfield,
Derbyshire S41 9RB

☎ +44 (0)1246 269 955
✉ knowhow@britishrema.com

in british-rema

f britishremaltd

ⓧ @BritishRema

GRECON PROTECTOR WINS THE IF DESIGN AWARD 2025 IN GOLD

AN INDUSTRY GAME-CHANGER: ULTIMATE RECOGNITION AND THE HIGHEST HONOUR

The iF DESIGN AWARD is among the world's most prestigious accolades for outstanding design; receiving this is the highest honour. The independent iF judging panel awarded the GreCon PROTECTOR, the next generation of industrial fire protection systems (comprising spark/flame detection, a control unit, and an extinguishing module), with the iF Gold Award.

Thanks to its intuitive user interface, modular design, and seamless integration of functionality and aesthetics, the GreCon PROTECTOR sets new standards in industrial safety. It detects and extinguishes sparks in pipelines, machine fire protection, and object protection, helping to prevent fires and explosions in production facilities - before they can even start.

USER-ORIENTED DESIGN AS THE DRIVING FUNCTIONAL PRINCIPLE

The iF judging panel particularly emphasised that Fagus-GreCon has successfully combined user-friendliness with industrial safety - guided by the company's deeply rooted Bauhaus principles. The system merges advanced technology with a well-thought-out, intuitive operation that significantly simplifies users' daily work.

ABOUT THE iF DESIGN AWARD

The iF DESIGN AWARD has been one of the world's leading design prizes since 1954. In 2025, nearly 11,000 products and projects from 66 countries were submitted. The iF panel, consisting of 131 design experts from 23 countries, awarded 2,211 accolades - only 75 were in Gold.

For more information about Fagus-GreCon's award, visit the official iF



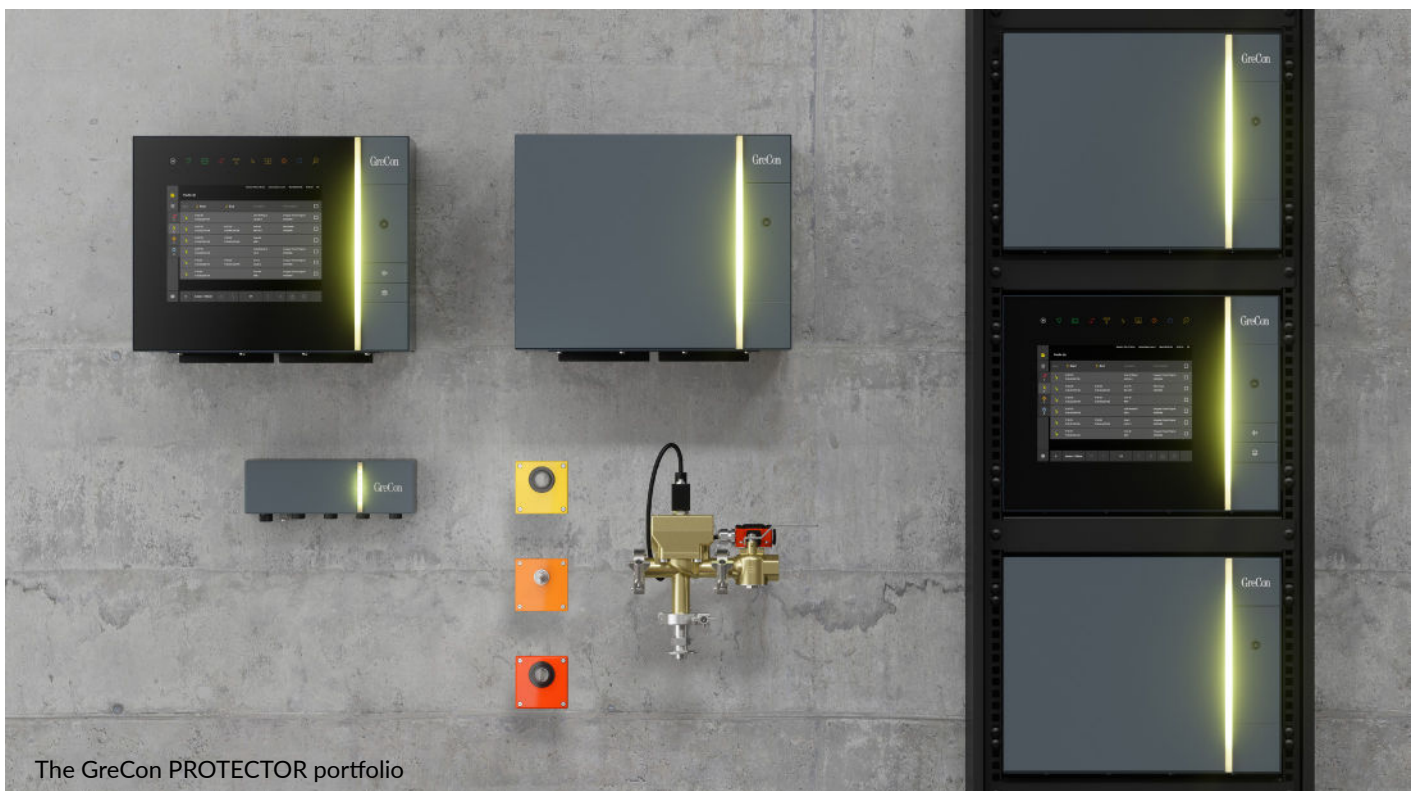
Gold iF DESIGN AWARD 2025

DESIGN AWARD website:

www.ifdesign.com

THE COMMAND CENTRE OF INDUSTRIAL FIRE PROTECTION

A fire protection system must have a central control unit that intelligently coordinates all processes for it to be fully effective. GreCon MISSION CONTROL takes this technology to the next level, offering smart networking, real-time monitoring, and maximum system reliability.



The GreCon PROTECTOR portfolio



Jonathan Hamill, Managing Director of GreCon Limited, said, *"Since our launch at LIGNA 2025 in Hannover, customers have been keen to discuss the benefits of Mission Control as the next generation of intelligence spark detection control panels, either to upgrade existing installations or as part of a feature-rich new fire protection system from the GreCon Protector portfolio. This innovative system combines predictive maintenance, plug-and-play integration, and comprehensive remote access - minimising downtime, enhancing safety, and maximising efficiency."*

Maximised Availability Through Smart Maintenance

With its Segmented Maintenance System (SMS), GreCon Mission Control sets new standards: scheduled and unscheduled maintenance can be carried out on individual components or segments of the production line without



GreCon PROTECTOR – typical deployment

shutting down the entire system. This minimises production downtime and ensures stable processes.

Thanks to full remote functionality, the control panel optimises maintenance and monitoring processes. Firmware updates for the fully digital fire protection system are centrally managed and rolled out to all system components. Real-time alerts, secure data logging, and predictive maintenance enhance operational safety and simplify incident analysis, helping manufacturers quickly assess events after disruptions.

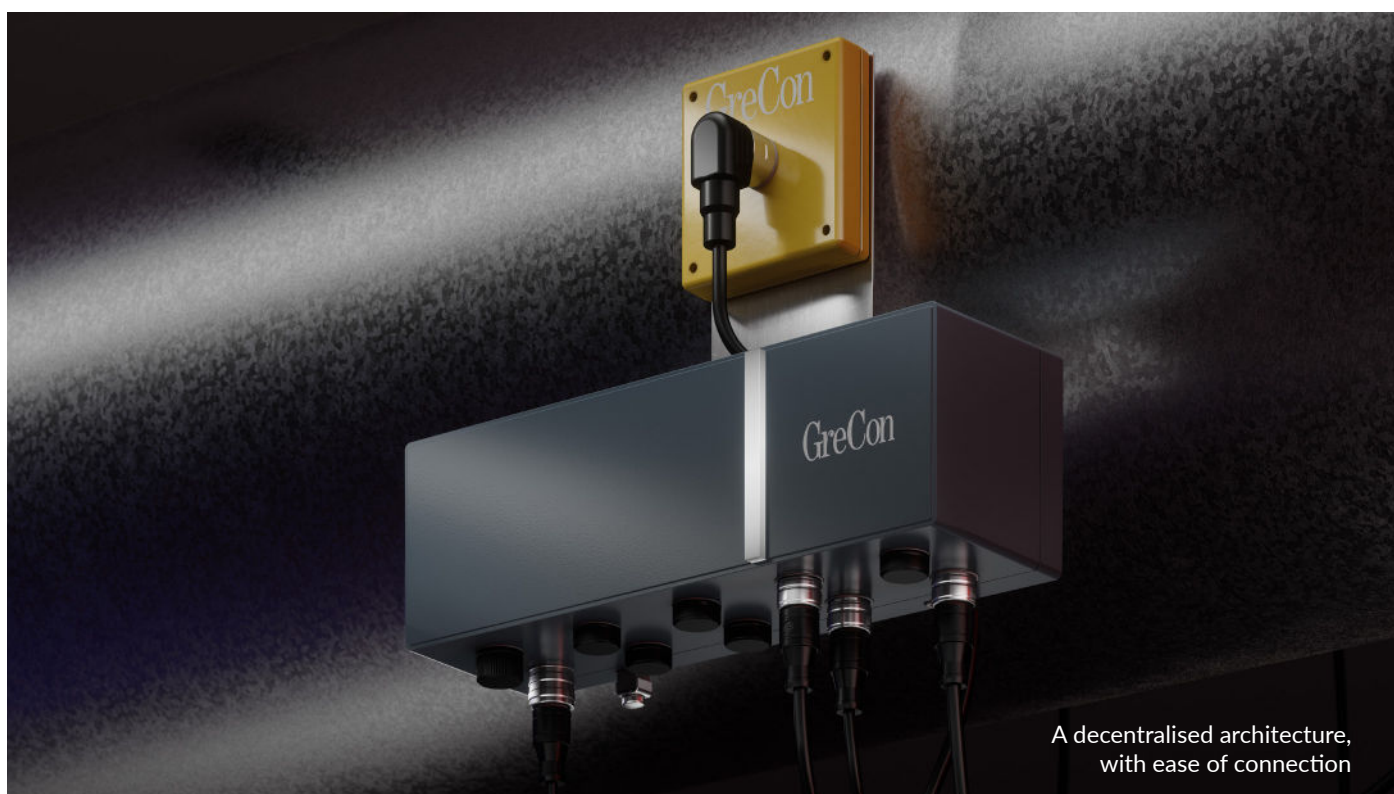
Enabling solution-oriented discussions
Jonathan Hamill continued, *"Our customers depend on us to add vital fire protection and help them optimise their*

manufacturing processes. I'm delighted to support so many solution-oriented discussions with customers and to realise the first orders for GreCon PROTECTOR. We have a privileged position and tremendous opportunity to support our customers by delivering the best-in-class customer service with innovative, dependable products."

Contact GreCon Today

The expanded sales team is available for exploratory discussions and is happy to conduct no-obligation surveys. By utilising our know-how, we can play a vital role in helping customers tackle their current challenges. Call us on 0191 414 7200 or email sales@fagus-grecon.co.uk.

www.fagus-grecon.com



A decentralised architecture, with ease of connection



By Ian Birkinshaw,
Technical Advisor

MECHANICAL CONVEYORS AND PNEUMATIC CONVEYING SYSTEMS: A COMPREHENSIVE ANALYSIS

Material handling is a cornerstone of industrial efficiency and productivity, and two prominent technologies in this domain are mechanical conveyors and pneumatic conveying systems. These systems serve the same fundamental purpose, moving materials from one point to another, but they do so in radically different ways. Mechanical conveyors use physical components such as belts, buckets, chains, or screws to move material, while pneumatic conveying relies on air or another gas to carry materials through a pipeline using either positive or negative pressure. Striking the right balance between these systems requires an understanding of their respective strengths, limitations, applications, and operational costs.

Mechanical conveyors are traditional, robust, and highly customisable systems that physically transport materials along a fixed path. Common types include belt conveyors, screw conveyors, chain conveyors, bucket elevators, and vibratory conveyors. These systems are often employed

in industries such as mining, agriculture, manufacturing, and food processing.

COMPARING MECHANICAL AND PNEUMATIC CONVEYING: STRENGTHS AND LIMITATIONS

The main advantages are high capacity, Mechanical conveyors can handle large volumes of material, including heavy, abrasive, or lumpy products over large distances. Energy efficiency, they often consume less energy per ton of material moved compared to pneumatic systems. Material integrity, these conveyors are ideal for fragile or blended materials, as they minimise degradation during transport and ease of maintenance, with straightforward mechanical components, maintenance and repairs are generally less complex and less costly than pneumatic systems.

The main disadvantages include footprint and layout limitations; mechanical systems require more space and are less flexible in routing compared to pneumatic systems. Mechanical wear, moving parts are prone to wear and tear, especially when handling abrasive materials. Dust and containment, mechanical conveyors can generate dust and may require additional enclosure or filtration systems for clean operation.

Pneumatic conveying systems use air pressure or vacuum to move powdered or granular materials through enclosed pipelines. They are common in industries where cleanliness, flexibility, and automation are prioritised, such as pharmaceuticals, food processing, and chemical manufacturing.

The Main Advantages being flexibility and compact design as pneumatic systems can transport materials vertically and horizontally through complex paths with minimal floor space.





“ In modern facilities, a combination of both mechanical and pneumatic conveying systems is increasingly common.

They offer a dust-free operation, since the materials are transported in sealed pipelines there is minimal risk of contamination or dust emissions when used in conjunction either cyclones or suitably sized filtration units. They also reduce spillages and maintain the integrity of the products ideal for handling fine powders and sensitive materials in sanitary environments.

The main disadvantages include the fact that they are energy intensive, these systems generally consume significantly more energy due to the need for air compression and generally have lower throughput rates. They are less suitable for high-density or bulky materials and the high velocity of transport especially in lean phase systems can damage fragile or blended products and higher capital and maintenance Costs: Initial installation and ongoing maintenance of blowers, filters, and pipelines can also be expensive.

Key Considerations for Choosing the Right System

The decision to use mechanical or pneumatic conveying is not binary rather, it hinges on multiple factors including material characteristics, free-flowing, non-abrasive powders are ideal for pneumatic systems whereas abrasive, large, or heavy materials are better suited for mechanical conveyors. Long, straight runs with gentle routing favour mechanical conveyors. whereas complex paths, vertical lifts, and space constraints are better managed by pneumatic systems. Mechanical systems typically offer lower capital costs and higher throughput per energy unit whereas pneumatic systems may have higher installation

costs but offer better automation and lower labour requirements. Mechanical conveyors have visible and accessible parts, easing maintenance and Pneumatic systems, while cleaner, require specialised components and skillsets to maintain.

Trends, Hybrid Solutions, and Environmental Impact

In modern facilities, a combination of both mechanical and pneumatic conveying systems is increasingly common. Hybrid systems take advantage of the strengths of each technology for instance, mechanical conveyors may be used to move bulk material over short horizontal distances, while pneumatic systems handle vertical lifts or delivery to remote processing points. Moreover, advances in sensor technology, automation, and material science are driving improvements in both systems. For example, inverter drives, programmable logic controllers and integrated control systems are making mechanical conveyors smarter and more energy efficient. Pneumatic systems, on the other hand, are benefiting from more efficient blowers and compressors in addition improvements in pipeline design have helped to reduce pressure drops and energy consumption.

Environmental sustainability and health and safety are paramount concerns in modern industry. Pneumatic systems, by virtue of enclosed operation, offer better containment and lower dust emissions, reducing risks related to airborne particles or explosion hazards in combustible environments. However, their

higher energy consumption presents an environmental trade-off. Mechanical systems, while more energy-efficient, may require additional investment in dust collection and enclosures to meet environmental and safety standards. Noise levels can also be higher in mechanical systems depending on the materials and conveyor type.

Conclusion: Striking the Right Balance

There is no universal answer to whether mechanical or pneumatic conveying is superior. Each system has distinct advantages, and the optimal choice depends on application specific factors such as material properties, process integration, space availability, and regulatory requirements. In many cases, a strategic combination of both leveraging the robustness of mechanical systems and the flexibility of pneumatic solutions provides the best outcome in terms of performance cost and sustainability. Ultimately, careful planning, thorough material testing, and lifecycle cost analysis are essential to achieving an efficient and balanced material handling solution.

The complete range of conveying equipment is available from within the SHAPA community and to help there are free to download technical articles available on the SHAPA website at www.shapa.co.uk/technical

To inspire real confidence at throughout the lifetime of your process, visit the Equipment Finder at www.shapa.co.uk/equipment or alternatively, you can email your enquiry to direct to SHAPA at louise@shapa.co.uk



**QUICK
CONNECT**



**DETECTABLE
DESIGN**



**FOOD
GRADE**

EG/EC 1935/2004 plus FDA



JACOB

NO. 1 IN PIPEWORK SYSTEMS

The range of JACOB pipework, with more than 8500 items, offers variety and flexibility with which you can design a pipe system for your area of application.

Discover our comprehensive food-compliant range of products.

www.jacob-group.com/uk

CABLEVEY® LAUNCHES RETROFIT INNOVATIONS TO MINIMISE PRODUCT LOSS AND DOWNTIME

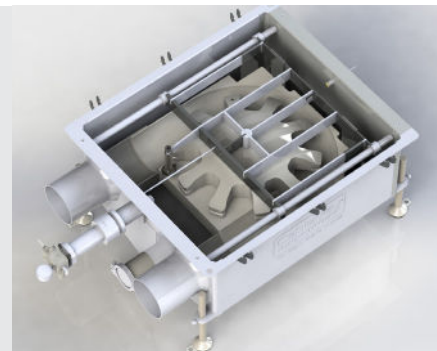
Cablevey Conveyors, a global leader in tubular drag conveying systems, has announced the launch of two customer-driven retrofit solutions designed to reduce product loss and improve operational efficiency - **CleanDrop™** and **CleanTray™**. The innovations mark Cablevey's first significant product introductions since becoming part of Akona Process Solutions, the newly unified material handling group that includes Cablevey, Kason, Marion and Spiroflow.

CleanDrop is designed to address the issue of carryover, which is residual product that clings to conveyor discs and escapes past the intended discharge point. Using a simple, but highly effective mechanism, the system gently agitates the discs as they pass through a specially designed discharge tube, shaking free any clinging product. Initially developed for the coffee industry, lab tests using ground coffee demonstrated a tenfold reduction in carryover, resulting in

significant improvements in yield and cleanliness. Importantly, CleanDrop is fully retrofittable, meaning that existing Cablevey systems can be upgraded with minimal disruption, requiring only a replacement tube and straightforward installation.

The second innovation, **CleanTray**, addresses another key issue - product loss within the conveyor's turnaround section. Traditionally, material that reaches this point can escape the flow path and become waste. Cablevey's new CleanTray captures that residual product and recycles it back into the system, ensuring nothing is lost. The three-piece design allows the tray to move naturally with the system's carriage while maintaining a consistent product path. Like CleanDrop, it is also retrofit-ready, offering a cost-effective solution for improving efficiency in legacy installations.

"These are smart, low-cost upgrades that deliver real value," said John Adair,



Akona's new product development engineering manager. *"By focusing on problem points in the conveying process, such as carryover and turnaround loss, we've engineered solutions that help our customers reduce waste, improve yield and make the most of every batch. And because they're retrofittable, there's no need to invest in a new system to see the benefits."*

With both solutions already in use at major coffee production facilities, Cablevey is now taking orders globally. The launch highlights Akona's ongoing commitment to provide integrated, high-performance material processing systems supported by reliable, specialized expertise.

For more information on Akona and its brands, visit www.akonasolutions.com.

MODU-KLEEN® DOWNDRAFT SERIES DUST COLLECTOR

The Modu-Kleen downdraft dust collector developed by Dynamic Air is an automatic self-cleaning dust collector that offers significant advantages over conventional dust collectors with regard to performance, efficiency, filter access, energy, noise, maintenance and space requirements.



With the Modu-Kleen downdraft dust collector, dirty air enters at the top of the dust collector housing and flows downward to the cartridge filters, improving the filtering process and the material-to-air ratio. Air velocities are much lower than those with a conventional dust collector, reducing the load on each filter cartridge and extending filter life. Cartridge filters are positioned horizontally, requiring less floor space, and making filter removal easier.

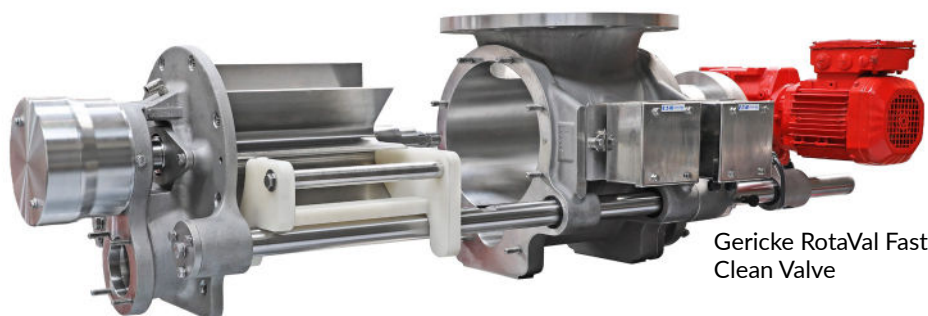
Personnel never have to enter the filter housing for general maintenance or for cartridge filter removal, making the process much safer and quicker. For fast and easy inspections, a large, quick-opening door allows maintenance personnel to closely inspect each cartridge when required and any single cartridge can be removed without disturbing adjacent cartridges. Because each cartridge filter has a unique built-in quarter turn bayonet mount, no tools of any kind are required for cartridge removal.

[Read more here](#)

Dynamic Air Ltd.
Milton Keynes, United Kingdom
+44 1908-622344
E-mail: sales@dynamicair.co.uk
www.dynamicair.com

GERICKE ROTAVAL ADDS INNOVATIVE FEATURES TO ITS FAST CLEAN ROTARY VALVES

Gericke RotaVal announces the launch of its updated range of fast clean rotary valves, designed to enhance productivity and ensure safe operation. The valves are USDA Dairy and EHEDG qualified as well as ATEX certified. Several innovative features maximize production time while minimising downtime.



Gericke RotaVal Fast Clean Valve

Hygienic and Easy to Clean Rotary Valves

The USDA Dairy Accepted HDMF and BSMF rotary valves offer increased productivity through minimal downtime for frequent cleaning. The robust construction makes this fast clean range suitable for nearly all types of industry. The valves are available across the range with single and double end openings to allow for class leading cleaning.

RotaLign Makes Maintenance Easy and Safe

The patented RotaLign system ensures perfect reassembly without requiring further adjustment or checking of body/rotor clearances or rotor orientation. This self-centralising rotor design aids in dismantling and re-assembly, allowing plant operators to clean the valves without special tools. It also simplifies bearing changes with zero or minimal adjustment.

External Washdown Meeting IPx9K

Gericke RotaVal's offering includes a high pressure external washdown option for the fast-clean valves, officially certified to IPx9K, the highest rating for water ingress protection. Easy cleaning and fast access to all equipment components and surfaces have always been a key criterion for Gericke when designing machines. This makes them the perfect choice for many food applications or other industries with frequent cleaning or inspection demands.

Eliminate Damage and Contamination

To prevent potential product contamination, the unique tapered bore with matching rotor design and guide rails provide scratch and damage-free rotor extraction and insertion.

Gericke AG

info@gerickegroup.com

www.gerickegroup.com



Gericke RotaVal Fast Clean Valve





By Hamed J Sarnavi &
Michael S.A. Bradley

AIR DRYING OF PARTICULATE SOLIDS: ESSENTIAL STEPS AND LIMITATIONS

Drying wet particulate solids is part science, part craft. Striking the right balance between the nature of the product, equipment design, and operating conditions is essential, not just to maximise the yield in removing water, but to preserve product quality, and keep the whole process running smoothly in harmony with upstream and downstream operations. Air drying, which uses heated air to dry particles, is a critical operation in many process industries, including food, pharmaceuticals, chemicals, and minerals. Although it is widely used, it still presents challenges, especially when handling powders that tend to be sticky, cohesive, or poor-flowing.

When it comes to handling, storage, and processing of bulk solids, including drying operations, the challenges tend to arise in three main scenarios which demands expert insight to address effectively:

- *Designing or procuring a dryer for a specific product*
- *Optimising an existing drying system*
- *Adapting an existing dryer for new products*

From a decision-maker's perspective, air drying operation is often a balance between three key factors: product quality, energy use, and processing time. Quality refers to preserving the product's key characteristics, such as texture, nutritional value, and stability, ensuring it meets required standards. Energy efficiency measures how effectively the system removes moisture relative to energy consumed, impacting operational costs and sustainability; and throughput denotes the processing rate, balancing production targets with the need to maintain quality and energy efficiency. To achieve this balance, engineers focus their efforts on how well the material, drying air, and equipment interact as each element plays a vital role in overall drying performance.

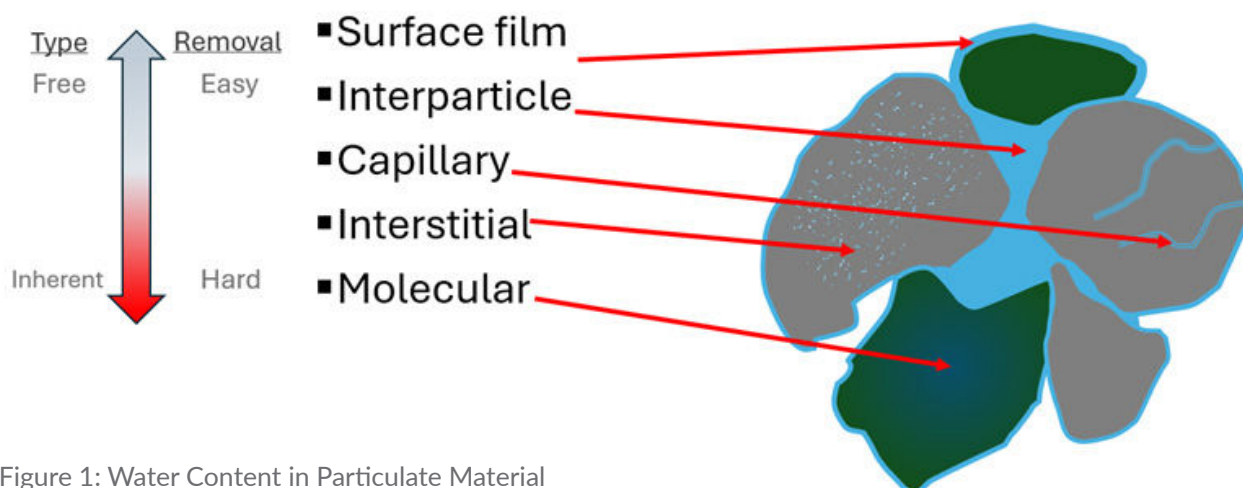


Figure 1: Water Content in Particulate Material

“ DRYING WET PARTICULATE SOLIDS IS PART SCIENCE, PART CRAFT. ”

An air-drying system has three main functions: first, to heat the particles so that moisture inside them moves toward the surface; second, to provide the latent heat required to convert the water into vapour; and third, to carry away the evaporated water. In air drying systems, heated air is used for all three tasks. The air heats the particles, evaporates the water, and has the capacity to hold and remove the resulting vapour. However, if the air is insufficient to provide the required heat, alternative methods can be used, such as infrared radiation or conductive heating, where the product is brought into contact with a heated surface. Volumetric heating can also be used, for example, by microwave heating, which involves exposing the wet material to a microwave field, or by ohmic heating, in which an electric current is passed directly through the wet material.

Figure 1 shows different types of the moisture content and ranked them according to the easiness of removing. Surface water is unbound and the easiest to evaporate; it can be removed effectively by an airstream, provided that sufficient heat is transferred to cause evaporation and that there is adequate airflow with a high

moisture-holding capacity. Heating the air not only supplies the heat required for evaporation but also increases its capacity to hold and remove the resulting vapour. For example, warm air at 50 °C can carry up to six times more moisture than air at 20 °C, which makes drying air temperature control critical. In contrast, capillary and interstitial moisture require more rigorous action to release the water to the surface and expose it to the drying air.

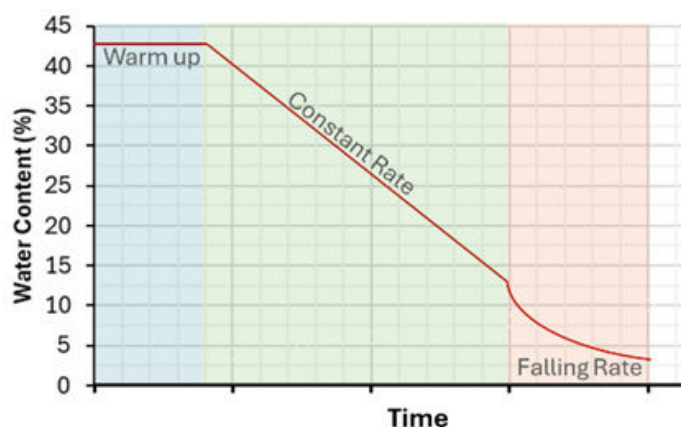
Various air-drying systems, such as tray, belt, flatbed, fluidised-bed, flash, and ring dryers, are suited to different materials and moisture levels. Tray dryers are ideal for small batches but slow, while belt dryers handle large volumes with higher energy use and space needs. Fluidised-bed dryers provide efficient, even drying with adjustable airflow but require careful feed control. Flash and ring dryers offer very fast drying in compact spaces, perfect for fine or temperature sensitive powders, though they need precise feeding and can consume more energy. Ultimately, the choice often depends on budget, available space, market requirements, and the specific needs of the material.

Nonetheless, obtaining technical insights is essential at every stage of management. Practical experience shows that any technical investigation is incomplete without addressing the following key questions:

1. How does moisture content change over time under varying operating conditions?
2. What will be the total energy consumption, and how can it be predicted at scale?
3. What are the limitations in improving the efficiency and throughput without compromising product quality?

To answer these questions, the right data must be collected and analysed by experts, either on-site or through specialised external support. Two key types of data are needed as shown in Figure 2, kinetic drying curves and sorption isotherms. Sorption isotherms show how powders absorb and release moisture under different air humidities at specific temperatures, helping to predict storage behaviour and also estimate the heat required for drying. Dynamic Vapour Sorption systems are used for tiny samples (a few milligrams), while climate chambers are suitable for larger samples of up to one kilogram.

a) Drying curve; kinetic profile
at a specific airflow rate and temperature



b) Sorption isotherm;
Equilibrium state, $T_1 < T_2 < T_3$

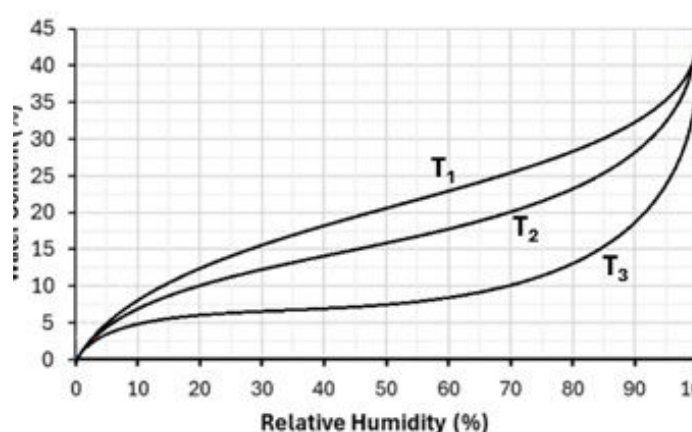


Figure 2: Basic drying characteristics curves

Kinetic drying curves track how a sample's weight changes over time during drying. These should be measured at several different temperatures to understand how drying rates change with various operating conditions. It is important to generate kinetic curves using test rigs that reflect the real dryer design. For example, results from a tray dryer may be acceptable for general use, but a pilot-scale fluidised bed dryer will give better predictions for fluid bed drying systems.

There is well-established thermodynamic analysis procedure to determine the heat of desorption, the energy needed to evaporate one kilogram of water, using the sorption curves data. Comparing the theoretical value of desorption heat with respect to the actual heat used in practice reveals the system's drying efficiency. Fluidised bed dryers typically achieve an energy efficiency of around 20–65%, depending on the material and conditions. Flash dryers tend to be more efficient, sometimes reaching 75%. These figures are not fixed; they depend on how the system is operated, the product being dried, and the effectiveness of heat recovery measures.

While high energy consumption is often the main criticism of drying operations, other challenges must also be tackled, including inconsistent product quality, difficulties in maintaining target moisture levels, and environmental or safety risks. Beyond these, drying systems are still subject to common material flow and handling issues. Most solutions to these challenges involve physical or mechanical interventions during drying, making it essential to understand the mechanical properties of powders, both as individual particles and in bulk, not only before and after drying but throughout the drying process itself.

Therefore, while drying curves provide valuable information, they do not indicate the likelihood of caking or changes in flow properties. Caking can cause significant problems, including quality risks and flowability issues that may halt operations and lead to costly downtime. In other words, how a powder behaves in bulk is often overlooked, yet it is even more critical in drying because the material's state changes significantly as it dries. Powder cohesiveness and flowability are closely linked to both moisture content and thermal treatment. Figure 3 illustrates how caking can occur due to various reasons including moisture migration, mechanical loads, and thermal conditions.

Characterising a material's flow and sticking behaviour helps define practical limits for airflows, bed depths, and feed rates. For example, knowing the maximum airflow that can pass through/over a layer of particulate material without excessive dust generation or loss of air-particle contact is essential. Poor flowability can also limit feed systems that deliver wet product into dryers, especially for flash dryers, which rely on consistent feeding. Shear testing can help identify these limits.

a) Caking due to thermal effect in a grated starch-rich crop



b) Caking due to mechanical load in the rapeseed waste



c) Caking due to moisture migration in salt powder



Figure 3: Caking phenomena in powder handling

Thermal exposure is another crucial aspect in air-drying systems, where some powders are temperature-sensitive and may degrade or become sticky when exposed to higher temperatures. This is why it is important to determine the sticky-point curve, which shows the temperatures and moisture levels at which a powder becomes tacky. This information helps explain why certain materials cake during drying and how mechanical loads from equipment can make this worse.

Knowing the material's drying and flow characteristics allows to predict potential risks and areas for improvement. However, lab tests alone may not be enough especially for large capacity drying systems. Pilot-scale or full-scale trials are still needed to confirm that a system will work reliably. This is why it remains common practice for buyers to work closely with equipment suppliers to run preliminary trials, even when they already have lab test data and expert advice. Independent expertise

is invaluable for bridging the gap between what the buyer needs and what suppliers can offer.

In short, success depends on thoroughly understanding drying behaviour and bulk solids flowability before, during, and after the air-drying process, including storage and handling for the next stage. Expert laboratory analysis, pilot trials, and specialist advice are essential to achieve the right balance between product quality, energy efficiency, and consistent throughput.

The **Wolfson Centre for Bulk Solids Handling Technology**, part of the University of Greenwich since 1992, boasts over five decades of consultancy and research expertise. It stands as a globally unique centre offering independent advice on bulk solids handling and processing, including drying operations. Supporting industries worldwide, the Centre helps ensure powders and bulk materials to behave in the way they need them to!



**SUCCESS
DEPENDS ON
THOROUGHLY
UNDERSTANDING
DRYING
BEHAVIOUR AND
BULK SOLIDS
FLOWABILITY
BEFORE, DURING,
AND AFTER THE
AIR-DRYING
PROCESS.**

Explosion Hazards Limited



Experts in explosion safety
for over 50 years

Showcasing our products
and services

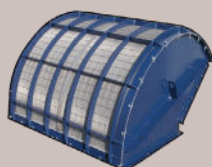
Our specialist industries

- Dairy
- Food & Beverage
- Chemical & Pharmaceutical
- Coal
- Biomass Safety
- Waste
- Cement Industry

www.explosionhazards.co.uk

Explosion Venting

Explosion venting devices limit the over-pressure and mitigate damage to process equipment by controlled venting of the excess pressure with or without flame to a safe area. ATEX explosion venting systems offer an economical, cost-effective means for explosion protection. We have the latest and best in explosion venting technology, over 50 years of practical design knowledge and up to date computer modelling.



Explosion Suppression

Explosion Suppression Systems are fast fire extinguishing systems that detect the explosion pressure in a protected plant and then mitigates the flame/pressure damage to an acceptable level. For the very best in explosion suppression solutions, view our full range of ATEX solutions.



Explosion Isolation

Most processes involve interconnection with associated vessels. To prevent propagation to other vessels, it is essential to apply appropriate explosion isolation devices to prevent flame, spark and/or pressure from transmitting to the other vessels. For the very best in explosion isolation solutions, view our full range.



Atex CO ACOM Systems

The Atex CO detection system uses advanced carbon monoxide (CO) sensors to detect early stages of powder combustion before a fire or explosion can be ignited.



Email: info@explosionhazards.com



2025 SOLIDS HANDLING INDUSTRY AWARDS WINNERS



INNOVATION IN TECHNOLOGY AWARD

WINNER: FEG Global

The patented LGC Scrubber from FEG removes both oil mist and odour from industrial cooking and frying applications.

FEG self-funded the product development after trying to solve a problem for a client frying coated fish products - particularly tricky as it involves the removal of oil mists, sticky particulate and burnt crumb and requires scrubber compounds in vapour phase. There is not a single technology other than a thermal oxidiser that can deliver this, and many projects/solutions fail to deliver the desired results.

The product also acts as a fire barrier, accepted by insurance companies, and reduces cleaning and maintenance costs, with its built-in CIP program able to link with the clients' fryer CIP system. In addition, it separates collected oil from the liquor which clients sell for recycling, providing a revenue stream and improved sustainability by avoiding discharging to drain/waste treatment.

Finalists: Dust Control Environmental and Perry of Oakley



SUSTAINABILITY AWARD

WINNER: RHF Fans

In 2023 RHF Fans made a significant investment in renewable energy by installing a 257.72kW solar photovoltaic (PV) system, consisting of 600 solar panels. Since its installation, the solar system has produced a total of 180,600kWh of energy. This achievement represents a substantial step towards reducing its environmental impact and promoting a cleaner, greener future. RHF is now on track to help its customers lower operational costs by investing in an ambitious program to develop the industry's most energy-efficient centrifugal fans.

On top of this - RHF's Smoothflow™ technology involves contouring their fans inlet cone and impeller shroud to create a smoother air path. This design reduces turbulence, lowers noise, and decreases the power required for a given airflow and has been implemented across the entire product range.

The Smoothflow™ technology has proved to lower the absorbed power of the fan, reducing energy consumption and saving money. This is helping customers and end users to reduce energy consumption and helping the supply chain with their sustainability goals.

Finalists: Polimak and Promtek



NEWCOMER OF THE YEAR AWARD

WINNER: Katie Burrell from APS UK

Having recently joined APS UK, Katie Burrell's background is in technical support. She comes to APS as an experienced Technical and Project Engineer, with her previous work involving designing and implementing dust and fume extraction systems that prioritise both safety and environmental sustainability.

In her new role at APS Katie is involved in managing the planning and execution of the Local Exhaust Ventilation (LEV) solutions APS provide. Her self-motivation and enthusiasm are boundless as well as infectious and have already been noted by the APS team; as has her ability to navigate often convoluted regulatory demands while maintaining efficiency and precision resulting in a safer working environment for all operatives and highly satisfied clients.

She has developed customised solutions for clients, addressing their specific needs and challenges, enhancing operational efficiency and safety whilst prioritising environmental sustainability in all projects - contributing to the reduction of industrial emissions and promoting cleaner production processes.

Finalists: Sam Somers from Perry of Oakley and Ben Kimpton from Sigma HSE



EXPORT AWARD

WINNER: Woodcock & Wilson

Woodcock & Wilson's recent export growth has seen international sales soaring sevenfold.

It puts its success down to its mission to understand and address the specific challenges of each market. By identifying pain points, the business is able to provide solutions that prioritise safety, quality, reliability, and technical support.

The most remarkable growth has come from the Middle Eastern market where it's seen an 5900% increase - achieved by working closely with end users and design partners to tailor fan solutions to endure the region's extreme environmental conditions while ensuring extended operational life.

The company has also seen impressive growth in the North American and Australian markets as well as growth in Malaysia, China and India.

Finalists: Akona Process Solutions and Rusell Finex



INNOVATION IN TRAINING & DEVELOPMENT AWARD

Winner: Promtek

In 2024 Promtek hired two apprentices into its Projects team and one into the Service team, as well as offering two students from a local school the opportunity to gain real-world experience through a 3-month work placement, ensuring that young professionals are well-equipped for the future.

Last year, Promtek was among the first companies to achieve the 'Make UK Engineering Apprenticeships: Employer Kitemark' through the 'Next Gen Makers Engineering Apprenticeships: Best Practice Programme'. This recognition places Promtek alongside industry giants such as Festo, Marshall Aerospace, and Thyssenkrupp Materials, acknowledging the business as one of the best employers for engineering apprenticeships in the UK.

Promtek achieved 'Gold Accreditation' with the 'Next Gen Makers Excellent Employer Scheme', with an assessment score of 99/100, further affirming its commitment to excellence.

Additionally, Promtek is currently recruiting a new member in its service team through a forces employment charity, which reflects its commitment to diversity, inclusion, and supporting individuals from varied backgrounds.

Finalists: Baker Perkins and ISF



INNOVATION IN SAFETY AWARD

Winner: Woodcock & Wilson

For this business, safety is the cornerstone of its identity and Woodcock and Wilson's enhances its approach to safety by:

- Championing Safety Beyond Compliance
- Proactively Adopting Advanced Standards
- Independent Certification and Auditing
- Creating a Cultural Shift Toward Safety Excellence

While current legislation allows for self-regulation for mechanical Ex equipment, it recognises that this can leave gaps, potentially exposing operators and environments to unnecessary risks. This is why it ensures 'Third-Party Certification of its Ex Equipment', ensuring that its approach is independently verified by an external certification body.

The business also undertakes 'Continuous Training & Awareness' with the team trained to understand the nuances of Ex compliance and safety standards, and the company's directors being on technical committees at IECEx, ATEX, and CEN. They are also 'Regularly Audited & Inspected' by a third party to confirm that safety standards are maintained.

Finalists: Fike UK and Hargreaves Industrial Services



Cameron Fraser from:
 **EBRO ARMATUREN**
 Stafsjö 

APPRENTICE PROJECT PRIZE AWARD

Winner: Cameron Fraser from Ebro Valves

On Cameron's first day at Ebro he arrived in a 1970's MG sports car - which he had bought and maintained himself! After completing his A-Levels, Cameron joined Ebro Valves in July 2022 as an Engineering Apprentice, studying with Loughborough Technical college.

During the second year of his Apprenticeship Ebro had secured a £151,000 / 172 valve project order for Endress and Hauser and Cameron played a key role in the project delivery team.

During Endress and Hauser's visit they brought along their own test equipment. During the final testing a mechanical fitting problem was identified and a solution was found by Cameron who worked with the guidance of Endress and Hauser to resolve the situation. Glyn Croft - Project Engineer Manager from Endress and Hauser commented: *"He's a real find - you need to keep him!"*

As part of Cameron's continuing apprenticeship, he will soon move to a new position within the Pre-Sales Department as a 'Trainee Technical Valve Engineer'. Cameron will follow his current path with a HNC Engineering course to take him to the next level. Cameron's success has spurred Ebro on to recruit another apprentice and Cameron will be their mentor.

Finalists: Matty Carroll from Akona Process Solutions and Ellis Granger & Henry Graves from Baker Perkins



COMPANY OF THE YEAR AWARD

Winner: Promtek

Promtek has achieved significant business growth in the last year, with a 20% revenue increase and global expansion through strategic partnerships, including recognition as a 'Global System Integrator Giant'. It has also strengthened its commitment to best practices, securing ISO 9001 and 45001 certifications, and the 14064 Carbon Reduction accreditation, reinforcing a focus on quality, safety, and environmental responsibility.

Investment in cutting-edge technology has led to groundbreaking product developments, such as the launch of Condor Microman, that enhances batch traceability, reduces manual errors, and supports digital transformation. It also introduced a cloud-based subscription model, allowing customers to access solutions through flexible, scalable, and cost-effective payment options.

The business was awarded 'Next Gen Makers Gold Accreditation for Engineering Apprentice Excellence', highlighting its efforts to nurturing the next generation of engineers. Promtek was also Runner-up for SME of the Year 2024 at the MAKE UK Awards and a finalist at the 2025 Food Manufacture Excellence Awards for its work in collaboration and partnership.

Finalists: ISF & Vent-Tech

SOLIDS HANDLING INDUSTRY – LIFETIME ACHIEVEMENT AWARD

Winner: Ian Birkinshaw

Ian joined Shepherd Engineering Services (SES) as an electrical apprentice, before transferring to its sister company Portasillo when his apprenticeship was completed.

Portasillo was a leading UK Bulk Material Handling specialist and Ian started his career there in the drawing office as an electrical design engineer.

After many years designing control systems for bulk material handling projects, Ian moved into project management as a Contract Manager. He has always been very 'hands on' meaning his transfer to the operations side of the Portasillo business was a natural progression in his career. Here, Ian worked initially as the Works Manager and finally as Operations Director before he 'retired'.

In 2014 Ian took over as the General Secretary of SHAPA. Ian's approach to the association was much like his approach to Portasillo – very hands on. He became a go to source of information for all of the SHAPA members and its committees - and a huge support to the Chair's and the Council.

Ian spent most of 2024 operating a phased handover with the new General Secretary Louise Smallwood – this has proved invaluable in making the transition seamless. In fact – even though he's supposed to have retired and we're now well into 2025 there isn't a week that goes by where Louise is dropping him a Whatsapp or email and he's very much providing guidance, advice and helping to steer Louise in the right direction for all things related to the association.

Michael Bradely, Chair of SHAPA, the members of the Council and Louise would like pass on their heartfelt gratitude for all he has done for the association in the last eleven years - and all he continues to do behind the scenes.



To read more about all of the finalists [click here](#) to download the Awards Brochure

SPONSORED BY:



Part of Absolent
Air Care Group



SILVERSON ULTRAMIX – IDEAL FOR POWDER INCORPORATION

The [Silverson Ultramix](#) is a versatile industrial mixer designed to excel in applications that challenge conventional agitators and stirrers, without the intense high shear of a rotor/stator mixer.

The Ultramix features an innovative single-piece dynamic mixing head, combining superior performance with minimised cleaning and maintenance requirements. This narrow profile is particularly well-suited for use in containers with small openings, such as IBCs (tote bins).

As the mixer rotates at high speed, the propulsion grooves on the outside of the mixing head project the surrounding product outwards, creating an area of low pressure outside the head. This draws product from within the mixing head through the radial slots to the outside. The material is subjected to a shearing action as it passes through the slots and is projected back into the body of the mix with great force. Fresh material is simultaneously sucked in through the holes in the top and bottom of the mixing head, setting up a vigorous flow pattern throughout the vessel.

This ensures all materials are constantly engaged in the mixing process, and movement is maintained throughout the vessel, even in difficult containers such as IBCs. This vigorous action effectively handles fine, cohesive powders like gums and



thickeners, preventing clumps and agglomerates from forming to ensure even distribution throughout your mix.

It also excels at incorporating difficult powders that tend to float or “raft,” including light-density powders that traditional agitators struggle to overcome due to buoyancy. Agitators and impellers might not achieve the same level of movement, especially in high viscosity mixes such as gums and thickeners, leaving pockets of unmixed material.

Silverson has a range of Ultramix models including a laboratory scale unit, allowing the user to accurately reproduce the performance of production mixers in the laboratory.

Silverson Machines will be exhibition at the
PPMA Total Show on Stand G60.



Masters in Dust Extraction

Master Your Dust Control with a DCE High Performance Dust Collector

- Efficient Dust Control for Solids Handling and Processing Environments
- Tailored to Specific Applications
- Compact and Versatile
- Sustainable



To find out more,
scan the QR code
or get in touch



Visit our new website to view the full range

T: +44 (0)1924 335500 E: sales@dcelimited.com

www.dustcontrolenvironmental.com

ENVIROJET • ECO • TYPHOON • TORNADO • STORM • VORTEX • COMPACT • WELDING EXTRACTION • PAINTING & FINISHING



Bella XN Mixer

FAST, HIGH CAPACITY, GENTLE MIXING

The Bella fluidized zone twin shaft paddle mixer by Dynamic Air achieves fast, high-capacity, low shear, precision mixing of either dry bulk solids or liquids with solids. Regardless of particle size, shape or density, materials are mixed with a fast, efficient, and gentle action with typical mixing times of 15 to 30 seconds. A weightless zone created by low-speed counter rotating paddles generates very low friction without shear. This makes it ideal for abrasive products and fragile products that cannot tolerate rough handling. Even flakes or spray-dried bodies remain intact.

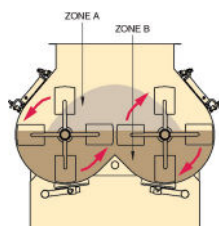


Figure 1

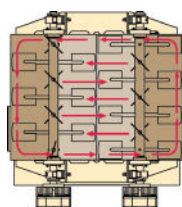


Figure 2

The Bella mixer consists of twin drums which have two counter-rotating agitators with specifically angled paddles. They overlap at the center and completely sweep the entire bottom of both mixer drums and allow it to be started under full load (Figure 1). The material in the mixer moves in a horizontal counterclockwise direction at the perimeter while simultaneously moving both left and right in the center (Figure 2). The material in Zone B (Figure 1) is in its

normal gravimetric state as it is being moved and disbursed.

In Zone A, a weightless zone is created which effectively lifts the ingredients to an almost weightless state allowing them to move freely and randomly, regardless of particle size and density. Thus, the two zones' interaction becomes highly efficient as every particle moves rapidly to a highly homogeneous mix, the key to the Bella Mixer mixing technology for fast, precise mixing.

The Bella mixer is available in stainless steel for food applications. Custom sizes, finishes and materials of construction are available upon request.

[Read more here](#)

Dynamic Air Ltd.

Milton Keynes, United Kingdom

+44-1908-622344

E-mail: sales@dynamicair.co.uk

www.dynamicair.com

CONSULTANCY AND EDUCATION SERVICES

PROVIDING COST-EFFECTIVE SOLUTIONS TO INDUSTRIAL PROBLEMS

CONSULTANCY

PNEUMATIC CONVEYING, RELIABLE FLOW AND DISCHARGE, PLANT WEAR, PLANT DESIGN, STORAGE AND HANDLING OF BULK MATERIALS, PRODUCT QUALITY, HOPPERS AND SILOS, EXPERT WITNESS SERVICES

EDUCATION

SHORT COURSES - ONLINE OR FACE TO FACE, IN-COMPANY; SEMINARS AND WEBINARS, PRACTICAL WORKSHOPS, CONFERENCES

SPOTLIGHT ON THE PHARMACEUTICAL INDUSTRIES

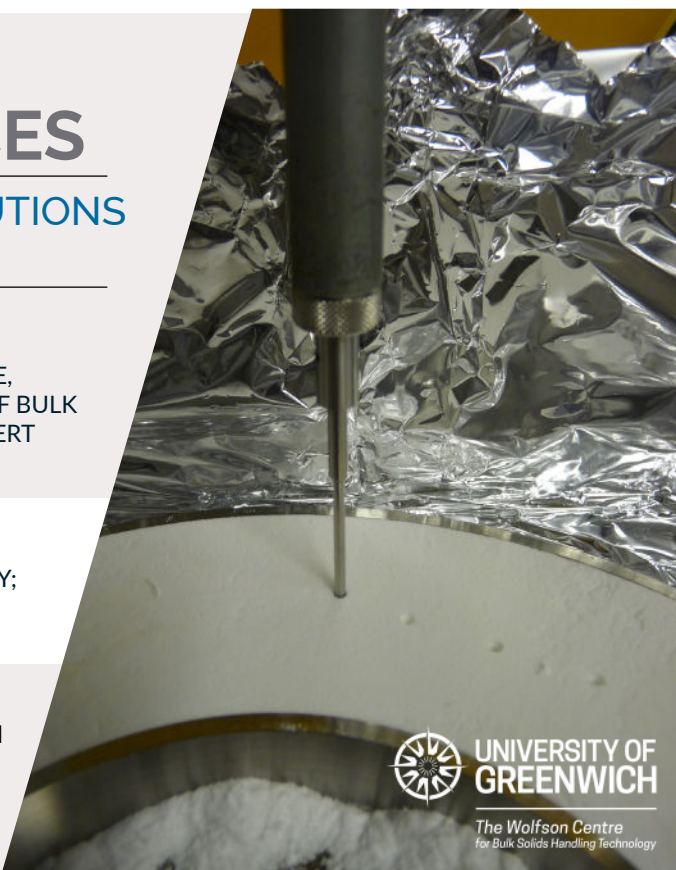
New One Day Short Course: Storing and Handling Powders and Bulk Materials for the Pharma Industries

30 September 2025; 09:00 – 17:00

Venue: Chatham, Kent, UK

Registration is open now – book your place [here](#)

THE WOLFSON CENTRE FOR BULK SOLIDS HANDLING TECHNOLOGY



 **UNIVERSITY OF GREENWICH**
The Wolfson Centre
for Bulk Solids Handling Technology

www.bulksolids.com | +44 20 8331 8646
Wolfson-enquiries@gre.ac.uk



+44(0)151 356 2322

www.rotechsystems.co.uk
sales@rotechsystems.co.uk



ROTECH SYSTEMS

Rotech End of Shaft or belt driven units are used for monitoring:

- Stop/slip
- Underspeed/overspeed
- Interlocking/sequencing
- Distance/direction
- Rotation control
- Belt weighers





By Andrew Clarke,
Managing Director of
MWS Weighing Solutions

BOOST YOUR BOTTOM LINE WITH AUTOMATED CHECK WEIGHING

Picture this scenario: a manager walks through a production hall where operators are eyeballing material levels on a filling line. They glance occasionally at the packs as they glide by, making manual adjustments when they have time, and generally hoping for the best. Meanwhile, tonnes of expensive product are being given away through overfilling, and underfilled packs are on their way to a customer who could potentially raise a complaint. Regulatory headaches are a cost of doing business, and the manager prays that they don't get caught again as he doesn't want to have to explain why trading standards are visiting for the second time this year.

This is a scenario playing out in manufacturing businesses across the UK, yet many companies

still view integrated weighing systems as too complex or costly to implement into their production site.

This would have been true a few years ago, but today it's no longer the expensive, disruptive process to install a system as many people think it is. The weighing industry has evolved a lot, and integration is more accessible than ever before. Automation has become a key driver in raising the weighing industry's standards.

A wise business leader called Peter Drucker proclaimed that "*you can't manage what you don't measure*", or words to that effect, and this principle applies perfectly to bulk materials handling, where measurement is necessary for effective process control. Every gain, no matter



how small, hits the bottom line and has the potential to be a massive boost to a company's profitability.

Real-time adjustments through automation

Manual filling methods create a whole host of problems that many people simply accept as an inevitable part of running a business. When operators rely on visual markers, filling to a line or making guesstimates about material levels, the results are predictably inconsistent. You're either overfilling (losing money) or underfilling (upsetting customers and not meeting regulatory compliance).

Automated systems challenge this approach. Linking weighing solutions with PLCs and control equipment to manage fill levels with mathematical precision enables you to create feedback loops, thus removing any guesswork involved.

The beauty of these feedback loops lies in their ability to make trend-based adjustments. Rather than analysing and adjusting to every weight variation, clever systems will identify the patterns and make small corrections. This results in tighter tolerance bands and improved accuracy, even in high-speed production environments.

This type of check weighing system also reduces manual intervention and human error, as the system handles these tasks automatically.

The results will often speak for themselves; companies gain tighter control over their NET target weights while reducing material loss through giveaway. More importantly, they deliver consistent, traceable weights which means higher customer satisfaction and product confidence in the marketplace.

Software & systems integration

Modern weighing systems can operate either as standalone solutions or be integrated into larger sitewide plant control systems. It has become incredibly easy to integrate weighing data



Manual filling methods create a whole host of problems that many people simply accept as an inevitable part of running a business.



into control rooms or production dashboards. For example, factory control systems such as SCADA can be connected to load cells through established protocols such as RS485, ProfiNET, DeviceNET, and EthernetIP.

More complex weighing indicators can capture shop floor data such as job numbers, product types, and shift information. Managers have the ability to gain real-time visibility into production performance without leaving their offices. Problems can be detected immediately rather than hours or days later, or worst-case scenario,

are never detected until the customer makes a complaint.

Integrating weighing solutions with other systems such as robot palletisers and labelling systems has become a reality that is simple to deliver.

Debunking the myths of cost and complexity

Your goal to create a streamlined, simplified operation that provides centralised control and full traceability throughout the production process is not as far reaching as it once was.

It's no longer true that the integration of weighing systems requires huge capital investment with a long return-on-investment period. Entry-level load cell systems have become significantly more affordable, while compatibility with existing equipment has improved significantly.

Retrofitting a weighing system is easier than people realise, even in tight or awkward spaces. Modern load cells and their mounting assemblies are designed with existing infrastructure in mind, and design engineers have developed solutions for virtually every space constraint and operational challenge that we see. This is true for ATEX zones as well, where cost barriers have decreased dramatically over the years.

Installing weighing systems that can pay for themselves in the short to medium term by reducing giveaway on bulk materials which cost hundreds or thousands of pounds per tonne deliver savings even with small improvements in accuracy.

Consider a facility processing materials worth £800 per tonne. A 2% reduction in giveaway across 500 tonnes monthly results in £8,000 worth of savings. Many weighing systems can cost less than a couple of months of such savings, making the business case a no-brainer for any Financial Director who has been asked to look at the Capex proposal.



It's no longer true that the integration of weighing systems requires huge capital investment with a long return-on-investment period.

Advice for companies considering an upgrade

The difference between reactive and proactive approaches becomes clear when comparing check weighing after the fact versus in-line weighing during production. Check weighing identifies problems after they've occurred. In-line weighing prevents problems from developing.

Companies uncertain about whether integration is right for them should consider working with a specialist first to evaluate the systems they already have in place. You might be surprised that what you thought was an impossible task might in fact only require a simple solution.



You could also consider doing a partial upgrade rather than a complete overhaul of the production line. Adding load cells under an existing conveyor, for example, can bring about benefits without major disruption or cost.

Final considerations

The weighing industry has come a long way in recent years, and integration with bulk material handling systems has become

much more cost effective. Modern solutions give businesses the flexibility, affordability, and performance that were not available even just a few years ago.

Companies should consider investing in weighing as part of their continuous improvement initiatives. In a world where margins are tight and compliance strict, automated weighing systems offer a clear path to gaining an edge over the competition.



About the author

[Andrew Clarke](#) is the Managing Director of [MWS Weighing Solutions](#) (MWS Ltd) and Ortu Group Ltd, with 30 years of experience in industrial weighing. He leads MWS, one of the UK's few end-to-end scale manufacturers, serving industries such as food, chemical, pharmaceutical, and logistics. Andrew specialises in technical sales, business development, and delivering bespoke weighing solutions for OEMs and manufacturers. Passionate about innovation and team development, he is committed to solving complex weighing challenges. MWS provides full turnkey services, from design and manufacture of weighing scales to installation, calibration, software, and ongoing support.





PNEUMATIC PRECISION

from



**EXPERT
SUPPORT
YOU CAN
RELY ON**

GIVE YOUR SYSTEMS A COMPETITIVE EDGE WITH OUR PNEUMATIC COMPONENTS

- Cylinders
- Valves
- Fittings
- Control Systems
- Air Preparation
- Tubing
- Stainless Steel Components
- Pneumatic Dampers

API UK

Units 21 & 22
Britannia Park,
North Road,
Stoke-on-Trent,
Staffordshire
ST6 2PZ



01782 206995



sales@apiuk.co.uk



www.apiuk.com

BOONE MIXERS

MANUFACTURER OF OPTIMUM BATCH OR CONTINUOUS MIXERS

Delta Blade for Shortcrust Pastry to Tile Grouts

Paddle Blade for Wallpaper paste to Ceramic Powders

Helical Blade for Tile Adhesive to Herb & Spice Mixes

Drum Blender for Coated Seeds to Flavoured Teas.

For Powders,
Granules, Pastes
and Flakes

Stand A11 – NEC
23-25 September



01260 272894
www.jrboone.com

BRITISH REMA MINISPLIT SUPPORTS CERAMIC RESEARCH WORK

The Potteries is famed for its ceramic sector and today much of the work is focused on ceramics research. Lucideon is a progressive company based in Stoke on Trent working in materials classification and testing, processing and computational techniques. The company also hosts the AMRICC Centre, a hub for businesses to seek technical support on their product development and commercialisation journeys.

Remarkable companies require remarkable products and in 2023 Lucideon specified a British Rema Minisplit for their low volume powder testing work. The enquiry arose after a member of the team used the machine on another job and thought it would be the ideal addition to the range of advanced ceramic processing equipment situated at the AMRICC centre.

Chris Thompson is a Ceramics Processing Consultant working at Lucideon and is not only pleased with the reliability and efficiency of the product for his own work, but also delighted that another key piece of equipment in the AMRICC centre enables industrial partners to access it for their own product development requirements;

“The Minisplit enables us to tailor a powder’s particle size distribution for a variety of applications, which is a great benefit for our testing needs. We also specified the Jet Mill attachment for the machine which has increased our powder size reduction capability too. These benefits are now on offer to the companies that use the AMRICC Centre which speeds up their own product development programmes.”



The machine was delivered and commissioned by a British Rema engineer who simultaneously delivered training to the Lucideon operatives;

“The training was very thorough and covered classroom training prior to expertly delivered hands-on training using actual materials. From quoting through to commissioning the unit, the service from British Rema was exceptional. The team is very responsive and delivered on everything they promised; a rare attribute. The machine is very robust and also easy to operate and has transformed our low volume capabilities.”

British Rema Minisplit

The Minisplit is a compact forced vortex air classifier with integrated feeder, classifier, collector and control panel. Encased in a mobile, castor mounted cabinet it provides a nimble, plug & play solution for low volume, small particle separation and processing.

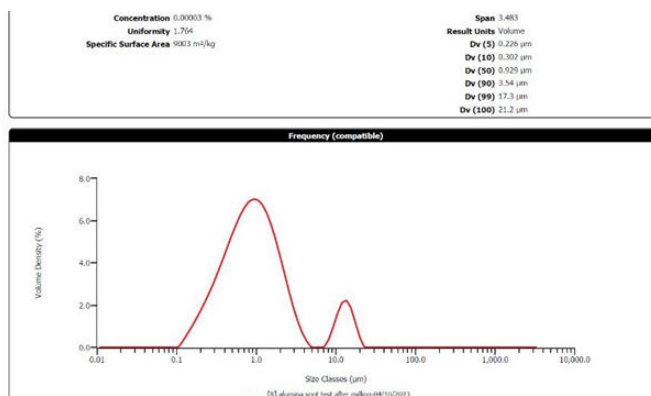
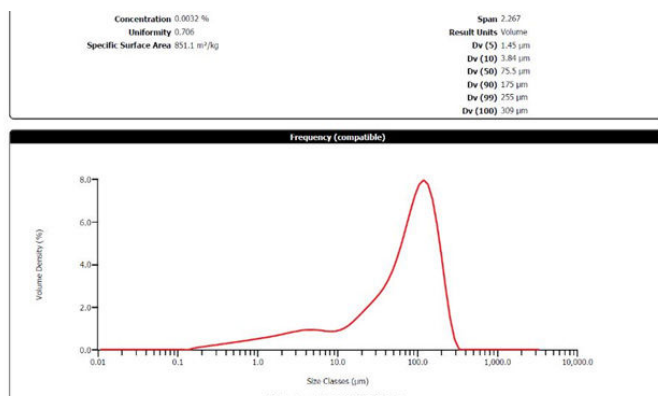
One small unit, multiple benefits:

- Very sharp cuts up to 1 micron
- Feed rate of 1 to 75 kgs/hr

- Control of mean particle size within 0.5 microns
- Precise on-stream control of cut-point by variation of rotor speed
- Adjustable secondary air system for optimisation of classification efficiency
- Optional screw or vibrating tray feeders
- Feed and product bin capacities to suit customer requirements
- Inbuilt control system allows ‘on the fly’ changes to process parameters via the touchscreen HMI control panel
- ‘Recipe save’ function enables machine parameters to be stored for replication of specific PSDs ensuring efficiency and ease of operation

Optimum versatility

The Minisplit can be supplied with interchangeable components for easy conversion to a Fluid Bed Jet Mill for the particle size reduction of a wide variety of materials. The simple conversion requires the substitution of the classifier coarse discharge cyclone with the Fluid bed jet mill chamber



ENGINEERING AROUND CONSTRAINTS:

ISF Delivers End-to-End Milling Upgrade for Long-Standing Client

At the end of 2024, ISF was approached by one of our long-standing customers – a national poultry feed mill in Buckinghamshire – and tasked with delivering a complex plant upgrade. We've worked with the customer for over 35 years, and this was another successful project completed by ISF.

The project was split into two phases to minimise disruption to production and was completed earlier this year. It gave us the perfect opportunity to demonstrate our ability to solve technical challenges, maximise throughput, and deliver high-impact engineering under tight time constraints.

PHASE ONE: A COOL SOLUTION TO A HOT PROBLEM

The initial brief focused on a key piece of process equipment: the cooler. This single-deck unit, essential for cooling freshly pressed feed pellets before dispatch, was due for replacement, ideally with a more efficient double-deck version. The goal was to reduce batch changeover time and boost hourly throughput. However, the mill's location in a former aircraft hangar, just two storeys high, posed a significant challenge. A conventional double-deck cooler simply wouldn't fit.

Our engineering team conducted a full site survey before designing a bespoke under-hopper system to work around

the height limitations. Using in-house 3D modelling tools, the team developed a shallow-profile discharge hopper with a 1.5m wide chain and flight conveyor. Combined with shortened support legs, this reduced the total cooler height by 500mm, making the installation viable within the restricted headroom.

We arranged for two teams of three engineers to complete the installation of the new, upgraded equipment within an agreed three-day shutdown period. Then, to ensure compatibility with downstream equipment, the wider replacement conveyor was calibrated to run at a slower speed, maintaining flow consistency. Our team stayed onsite during electrical commissioning to ensure a smooth start-up.

As a result, throughput increased from 12 to 16 tonnes per hour, and batch changeover times were significantly reduced, with the upper deck now able to hold product while the lower deck discharges.

PHASE TWO: BREATHING NEW LIFE INTO AN AGEING SYSTEM

With the new cooler in place, we could move on to replacing ageing equipment further up and down the line. This included upgrades to the press, conditioner, crumbler, and sieve; components that had seen years of heavy use and were becoming inefficient and unreliable.

The conditioner was especially critical, as it injects steam and molasses into the meal before pelleting. From there, the newly formed pellets travel through the cooler, into the crumbler, and then through the sieve to remove dust before fat coating and storage.

The customer sourced the new specialist equipment, and we designed and manufactured the bespoke



steelwork to support it. Our engineers then removed the old press and conditioners and installed our newly fabricated equipment and steelwork using a 300-tonne crane supplied by Baldwins. We also took the opportunity to replace the industrial fan to avoid a future shutdown. It all took place over two visits of two days each to reduce downtime for the customer.

We supported the customer throughout, from planning the equipment layout and shutdown schedule to designing and fabricating custom steelwork at our site in York and installing it.

PROVEN IMPACT, ENGINEERED TO LAST

Once both phases were complete, throughput increased to around 20 tonnes per hour, an overall uplift of more than 60%. The mill is now equipped with modern, efficient, and reliable equipment that will support production well into the future.

This project showcases ISF's problem-solving mindset: instead of asking *if* a solution is possible, the team asks *how* it can be done. From tight spaces to tight schedules, we continue to deliver results by combining practical engineering, in-house design and fabrication, and a collaborative approach that puts our customers' goals first.

To discuss your next mechanical upgrade, get in touch with the ISF team: www.isfyork.com/contact



MEMORY LANE CAKES CREATES CREAMY SUCCESS WITH ADVANCED MIXING TECHNOLOGY

Market-leading bakery Memory Lane Cakes, based in Cardiff and part of the Finsbury Food Group, has significantly upgraded its production process by replacing ageing equipment with state-of-the-art Horizontal Helical Blade Mixers from John R Boone. The new mixers are enhancing the production of cake, batters, buttercream fillings and toppings used in both branded and own-label products for many of the UK's top supermarkets.

Keeping pace with the ever-evolving tastes of the British sweet-toothed consumer is no small task. With over 100 different buttercream recipes in rotation – not to mention a wide variety of cake batters, the demands on mixing equipment are substantial. Unlike batters, creams present greater technical challenges, particularly when ingredients like 5kg blocks of butter must be blended at low temperatures of 8–10°C. Ganache mixtures, combining approximately 60% chocolate and 30–40% cream, add another layer of complexity.

To address these challenges, Memory Lane sought out robust and cost-

effective mixing solutions, following comprehensive product trials, John R Boone's Helical blade mixer technology was selected. These mixers feature four helical blades forming a double-interrupted spiral that promotes an efficient criss-cross material flow. The mixer's short and tall design, along with its omega-shaped shell, ensures all product is thoroughly entrained.

Mixing times vary between 3–4 minutes depending on the recipe, offering a notable improvement in speed and consistency. The equipment operates with minimal noise and vibration, making for a quieter, more stable environment on the production floor.

Cleanability was also a crucial factor in the decision. The patented arm design reduces product adherence, while the rotating trough ensures complete discharge of the mix. The result is a system that is quick and easy to clean, returning to a near-new appearance after each washdown.

Each unit is equipped with an intuitive, hygienic touchscreen

control panel. Recipe data, including mixing times and ingredient sequencing, is stored on a memory card and can be downloaded for seasonal production requirements. The system is also compatible with wider factory control infrastructure, allowing for future integration as needed.

To date, Seven John R Boone Helical Blade Mixers have been installed at the Cardiff site. The decision to expand reflects the reliability of Boone Mixers, ease of use and consistent performance delivered by the new mixing systems.

By investing in advanced powder mixing and cream preparation technology, Memory Lane Cakes continues to innovate in the competitive UK bakery sector, combining traditional indulgence with modern production excellence. For further information, please contact:

John R Boone Ltd
Tel: +44 (0)1260 272894
Fax: +44 (0)1260 281128
Email: sales@jrboone.com
Website: www.jrboone.com





Innovative Air Solutions

Explosive dusts

Metallic dusts

Wood / Stone

Chimical / Painting powder

Papers / Cardboard

Composite / Carbon

www.dustolex.co.uk

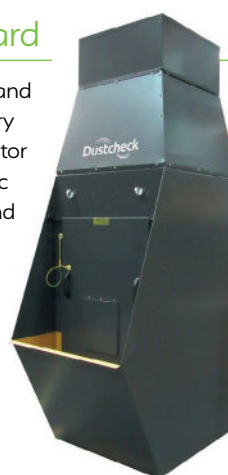
Tel: +44 (0)1706 377344 - sales@dustolex.co.uk
Ebor Street - Littleborough - Rochdale - OL15 9AS

Done &
Dusted.



AirGuard

Compact and versatile dry dust collector for hygienic capture and filtration



NonFlam

Wet dust collector, ideally suited to white metal dust extraction

Maxi

Compact dry dust collector for medium to large applications



Selecting the most suitable dust control equipment is not an easy task

Filtermist manufactures wet and dry dust collectors under the Dustcheck brand.

We can make selecting your next dust collector simple.

Acting as one source for all of your dust and fume extraction solutions, we give you the peace of mind of knowing your project will be right first time.

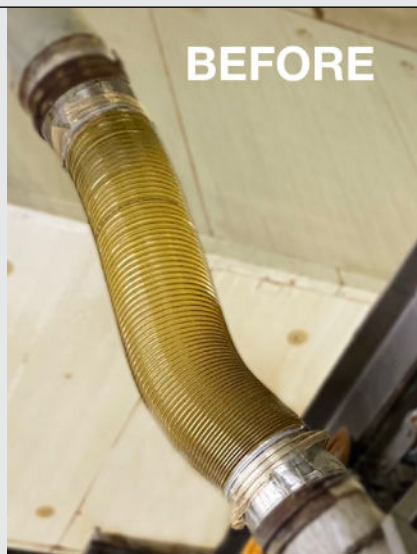


Part of Absolent
Air Care Group

Find out more at
www.dustcheck.com
Or call the team
for more information on
+44 (0)1952 290500

PET FOOD MANUFACTURER STREAMLINES MAINTENANCE & INCREASES HYGIENE SIGNIFICANTLY WITH BFM® FITTING

By replacing a jubilee clipped flexible connector with BFM® fitting - connector maintenance reduced from 2 hours to 15 minutes per month, with product leakage eliminated.



The challenge

A British pet food manufacturer has been specialising in delivering consistent, high quality dry food for 40 years. Their operations meet the British Retail Consortium Global Standards (BRCGS) and European Pet Food Federation Code of Practice (FEDIAF) certification, ensuring the utmost safety and hygiene.

As part of the production process, dry pet food is pneumatically conveyed from the extruder to the dryer. A 1.5m flexible sleeve was required to connect the two pieces of equipment, due to the fact a dogleg configuration meant that using a solid run of pipework was impractical. Multiple flexible connectors were tested, yet failed to perform because of the negative pressure experienced. As such, the team settled on using a heavy-duty corrugated hose.

Although functional, the corrugated hose wasn't an ideal solution. It was difficult to handle, ill-fitting and prone to leaks.

The hose was clamped on the pipework with jubilee clips, but the corrugated properties of the hose and inflexible media made it difficult to obtain an effective seal. This led to frequent leaks. Product residue would then also accumulate in crevices between the clamps, increasing the risk of contamination.

As a result, the hose required monthly maintenance and housekeeping, taking up to 2 hours to complete. The connector was cumbersome and difficult to handle. This was exacerbated by the location, which was inaccessible without a mobile elevating work platform, at around 3m above ground-level.

A combination of the faulty hose & poorly aligned pipework also meant that product would sometimes hit internal edges of the pipe, causing deformation which may then result in a quality fail.

The solution and improvement

A member of the ProSpare BFM® team visited site and recommended that two [BFM® fittings](#) be installed at each end of a new section of modular pipework. For each of the respective BFM® flexible connectors, one BFM® spigot was welded to the existing pipework and the second, a lipped spigot, was attached via quick release clamp to the modular pipework. 300mm x 100mm Seeflex connectors were then snapped in place.



After installing BFM® fitting, the benefits were immediately felt and the Engineering Manager contacted us to provide an update.

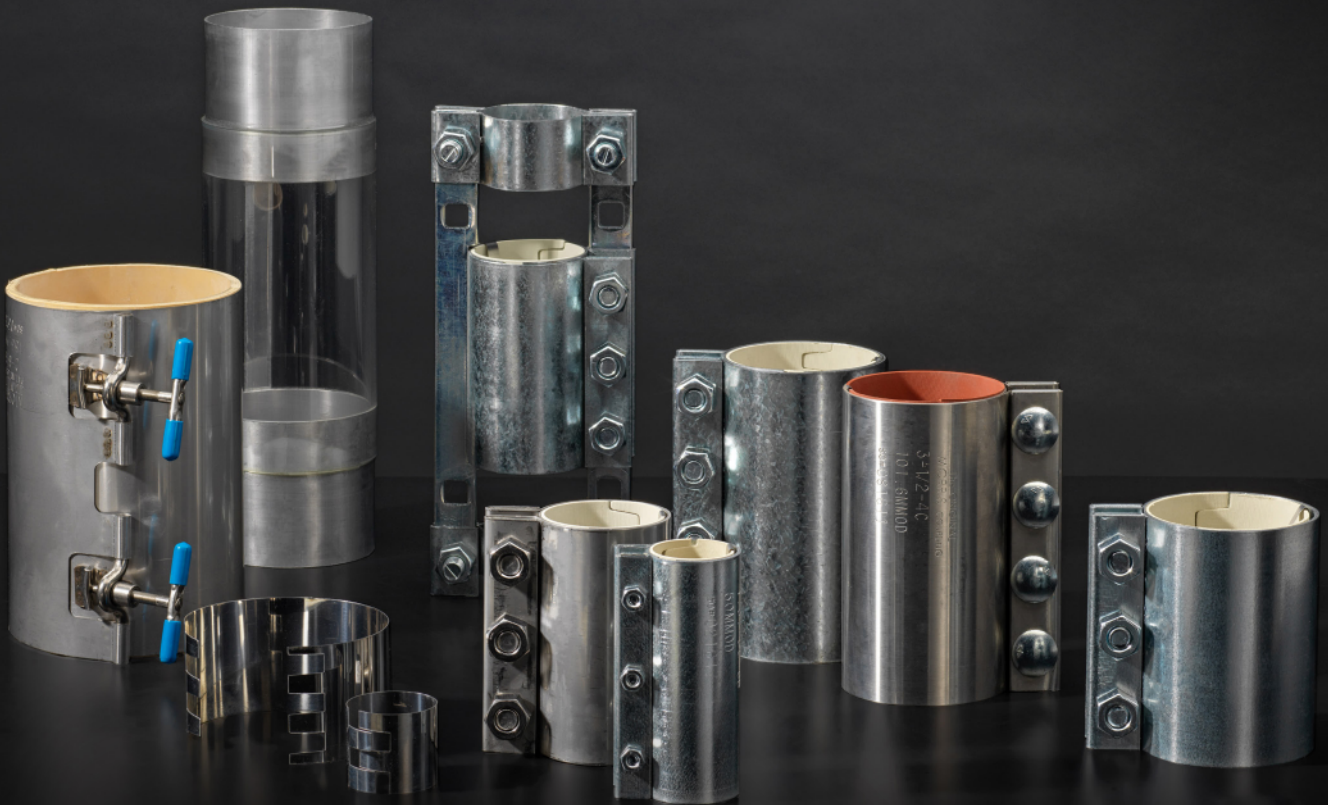
Previously, the site was spending up to 2 hours per month removing, maintaining and re-connecting the hose. With BFM® fitting, **it now takes just 15 minutes**, effectively reducing downtime by almost 90%.

Moreover, the previous connector suffered from frequent leaks. Now BFM® fitting is installed, they said it "provides a tight, consistent seal, preventing product loss and ensuring a cleaner work environment. The new fitting eliminates crevices where product could accumulate, reducing the risk of contamination."

Also, the product deformation previously experienced is now a thing of the past. The cuff on a BFM® connector snaps perfectly into the corresponding ridges on BFM® spigots. Once snapped in, a smooth internal surface is created for product to flow over. The team commented "with a better-fitting, leak-free design, the new system optimises airflow and transport efficiency, leading to smoother operations and improved throughput." Their final comments were: "With BFM® on the extract hood, it's the best it has ever been."

The investment in a new system has significantly improved cleanliness, operational efficiency, and overall hygiene on site. By eliminating leakage points, accommodating the dogleg configuration, and reducing maintenance demands, the upgrade supports a safer and more efficient production environment, ensuring consistent product quality for pet food manufacturing."

For more information, contact ProSpare Ltd - UK distributor for BFM® fitting:
01773 814008
sales@prospare.co.uk
www.prospare.co.uk



MAIN DISTRIBUTOR FOR **MORRIS COUPLING** IN UK & EUROPE

COMPRESSION COUPLINGS

The original Morris compression coupling is designed to join pipe and tubing for pneumatic conveying systems. Couplings are made of heavy-gauge zinc-plated steel or stainless steel. The gaskets are available in a variety of materials, from white neoprene to blue metal detectable silicone, and are easy to install.

For more information, contact our sales department at **+44 1249 818 400** or **dmn.uk@dmnwestinghouse.com**.



By Kelsey Taylor,
Marketing Manager at
Summit Systems Group

EFFICIENT BULK MATERIAL STORAGE: FROM TOWER SILOS TO SPACE- SAVING ALTERNATIVES

Efficient bulk material storage is more than just a practical necessity, it's a critical component in keeping process operations smooth, safe, and cost-effective. Whether you're handling grain in agriculture or powders in food processing, how and where you store those materials can impact everything from product quality to operational uptime.

One of the most popular solutions, due to its ease of use and space-saving design, is the Tower Silo



Tower Silos in Practice

Tower Silos are indispensable structures in industries such as agriculture, food processing, and manufacturing. Their primary role is to store bulk materials securely while preserving quality and preventing the loss of valuable stock. From grains to industrial materials like cement, silos are built to protect their contents from environmental factors such as moisture, pests, and temperature fluctuations.

Choosing the right silo type isn't just about capacity; it also involves understanding material compatibility, cost implications, and operational convenience.

Tall, cylindrical and typically constructed from strong steel or other durable metals, modern silos are designed with space saving in mind. They can vary in height depending on requirements, while taking up minimal ground space.

Materials are loaded via conveyor systems at the top, allowing gravity to compress and optimise storage density. They then discharge from the bottom using augers, air slides or conveyor systems, ensuring fast, hands-free access.

Tower Silo Benefits

One of the most significant benefits of Tower Silos is the reduction in material waste, which has significant financial and environmental advantages. In industries such as agriculture, food processing, and pharmaceuticals, material spillages can have costly consequences, both in materials and potential revenue.

Tower Silos, with their fully enclosed and sealed designs, protect materials from exposure to moisture, pests, UV light, and air contamination - all of which can affect the performance of sensitive materials. This is particularly important in the storage of powders, grains, and chemical compounds where even minimal exposure can affect the quality of your material.

“

Tower Silos, with their fully enclosed and sealed designs, protect materials from exposure to moisture, pests, UV light, and air contamination - all of which can affect the performance of sensitive materials.



Additionally, the use of gravity-fed loading and unloading reduces mechanical handling, which in turn reduces the risk of material damage or loss during transfer. Maintaining a controlled environment and reducing manual interaction helps silos to preserve the material integrity, further enhancing product consistency and lifespan.

Over time, the preservation and protection of material in Tower Silos translates into a reduction in operational waste, lowering cleaning and disposal costs, not to mention a smaller environmental footprint – a key factor for companies aiming to meet sustainability goals.

Industry Applications

Tower Silos can be used across a variety of industries, to house a wide range of materials;

- **Agriculture:** This industry is heavily reliant on the storage, mixing and distributions of bulk materials and reducing contamination whilst maintaining product quality are key priorities that are highly sought after within their bulk solid storage selection phase. As it is critical within all industries, that materials are kept in top quality to improve product quality and reduce potential financial loss.
- **Food Processing:** Bulk solid storage is used throughout all stages of food processing. Maintaining strict hygiene

standards, whilst eliminating cross contamination is a leading priority within this industry. Tower Silos are well-suited for these needs, ensuring raw food materials remain secure and protected.

- **Pharmaceuticals:** The tight regulations surrounding this industry means that preventing cross-contamination is critical. Tower Silos offer a high level of cleanliness, helping eliminate potential risks.

Key Considerations before Choosing a Silo

Before investing in a Tower Silo as your Bulk Solid Storage Solution of choice, it is important to establish whether it is the correct storage solution for your materials. Common challenges include:

- **Material Characteristics and Flow:** Flow properties can be affected by temperature, bulk density and material size. Free-flowing or poor-flowing materials may require different storage solutions to maintain the integrity of your material and also ensure that you have easy access when required.
- **Dust Control:** Dust is quite often an issue within bulk storage, and it may be needed to implement dust control systems, especially in environments where controlling dust is a health and safety concern.

- **Safety Requirements:** Industries that have higher safety standards, such as food processing and chemicals, require storage equipment that has been designed to minimise contamination and cross contamination are crucial.
- **Equipment Wear and Tear:** The type of material stored can affect equipment longevity. Regular maintenance checks are essential to ensure optimal performance. Failing to regularly check your equipment may result in loss of material, loss of production time and ultimately loss of earnings.

Alternatives to Tower Silos

Where large-scale storage isn't required, or indoor storage is preferred, storage hopper and material bins offer a flexible and space-efficient alternative.

Compact and modular, they are designed for short-term or immediate storage and are useful in batch-processing environments. Designed for precision control over material flow, they are ideal for feeding raw materials into production lines. Unlike Tower Silos these can be placed inside your production facilities, reducing the distance materials need to travel and material handling.

The key advantages of using hoppers or material bins is their

ability to streamline production. They reduce labour, help maintain product quality and consistency, and are easy to scale. For facilities with limited floor space, modular hopper systems offer flexibility without the footprint of a full-sized silo.

Conclusion

Choosing the right bulk solid storage comes down to more than just volume – it's about material compatibility. Selecting the right solution is essential to maintain material quality, improving processing efficiencies, and meeting industry-specific demands. Tower Silos remain a dependable choice for many industries, thanks to their high capacity, space-saving design and ability to protect your materials from external elements.

However, where a smaller scale storage is required, material hoppers and bins offer practical and flexible alternatives.

The most suitable storage solution will depend on the characteristics of your material, your production workflow, and site constraints. By investing in the right storage system, and maintaining it properly, you can reduce waste, protect material integrity and boost overall productivity across your business.



About the author

Kelsey Taylor is the Marketing Manager at [Summit Systems Group](#), where they specialise in material handling and process cooling solutions for the manufacturing and industrial sections.



LEV Training

vent-tech

industrial environment control



Upcoming Course Dates:

September:

P600 22nd September @Bristol

P601 23rd-26th September @Bristol

October:

P602 13th-16th October @Bristol

P603 16th-17th October @Bristol

P604 20th-23rd October @Bristol

November:

P600 17th November @Luton

P601 18th-21st November @Luton



BOHS accredited Qualifications provided by Vent-Tech

Vent-Tech are the only LEV Installation company in the UK accredited by BOHS to deliver training courses

Why train in LEV?

By law, employees need to be protected from harmful substances - one method for doing this is using Local Exhaust Ventilation (LEV) Systems.

The legal requirement (COSHH Regulation 9) requires all LEV systems to be tested by a competent person every 14 months.

The industry standard BOHS (British Occupational Hygiene Society) training courses that Vent-tech offer ensure that employees are protected and that legal obligations are met.

Courses we offer

P600 - Methods for Testing the Performance of LEV Systems

P601 - Thorough Examination and Testing of LEV Systems

P602 - Basic Design Principles of LEV Systems

P603 - Control of Hazardous Substances - PPE

P604 - Performance Evaluation & Management of LEV Systems

IP601 - International Proficiency Qualification. Examination and Testing of LEV Systems

M200 - Basic Principles of Occupational Hygiene

Where are the courses held

We offer courses all over the UK to allow easy access for anyone wishing to attend. All our courses are also available to attend online. We even offer the option to run bespoke LEV courses at your premises. **For all the latest course dates, visit our website or call us today to discuss.**



Stephen Ryan

4 reviews • 3 photos

★★★★★ 12 weeks ago

Did my P604 course with them
And Adrian support, knowledge and delivery was outstanding.
A lot better than other training providers I had in the past.
I will only use Vent-Tech moving forward with the rest of my courses



Steve Ablett

10 reviews • 1 photo

★★★★★ 13 weeks ago

I recently attended the P601 course and I was thoroughly impressed with both the content and delivery. The course covered a significant amount of material, yet it was structured in a way that made even the more complex areas accessible and engaging. Adrian demonstrated deep expertise, breaking down challenging concepts and formulas into digestible sections while maintaining an interactive and supportive learning environment.

Despite the intensity of the content, the course was well-paced, allowing for thorough understanding and practical application. I left feeling confident in LEV Testing and inspection and would highly recommend this course to anyone looking to deepen their understanding in this topic.

Vent-Tech Ltd. Head Office
19a Osprey Court, Hawkfield
Business Park, Hawkfield Way,
Bristol BS14 0BB



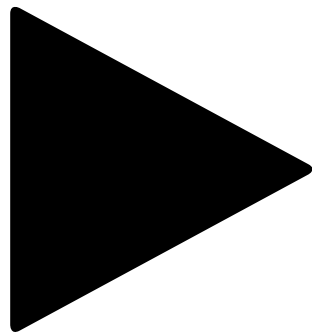
Tel: 0117 964 7945
Email: enquiries@vent-tech.co.uk

www.vent-tech.co.uk

FIND YOUR NEXT SUPPLIER ON THE PII PRODUCT FINDER

Create a buyer account now to:

- Contact suppliers with one click
- Chat live with suppliers
- Send RFQ's



Make sure you bookmark
PII Podcasts to listen to each
new episode!

www.processindustryinformer.com/podcasts

PII PODCAST