



**Ingredient  
Batching  
Systems**



**YOUR PARTNER FOR PNEUMATIC CONVEYING,  
INGREDIENT MIXING AND MATERIAL  
HANDLING SOLUTIONS**

[www.ingredientbatchingsystems.com](http://www.ingredientbatchingsystems.com)



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+44 (0) 1234 481 008



Unit 8 i-Worx Commercial Park,  
Innovation Way, MK43 9SP



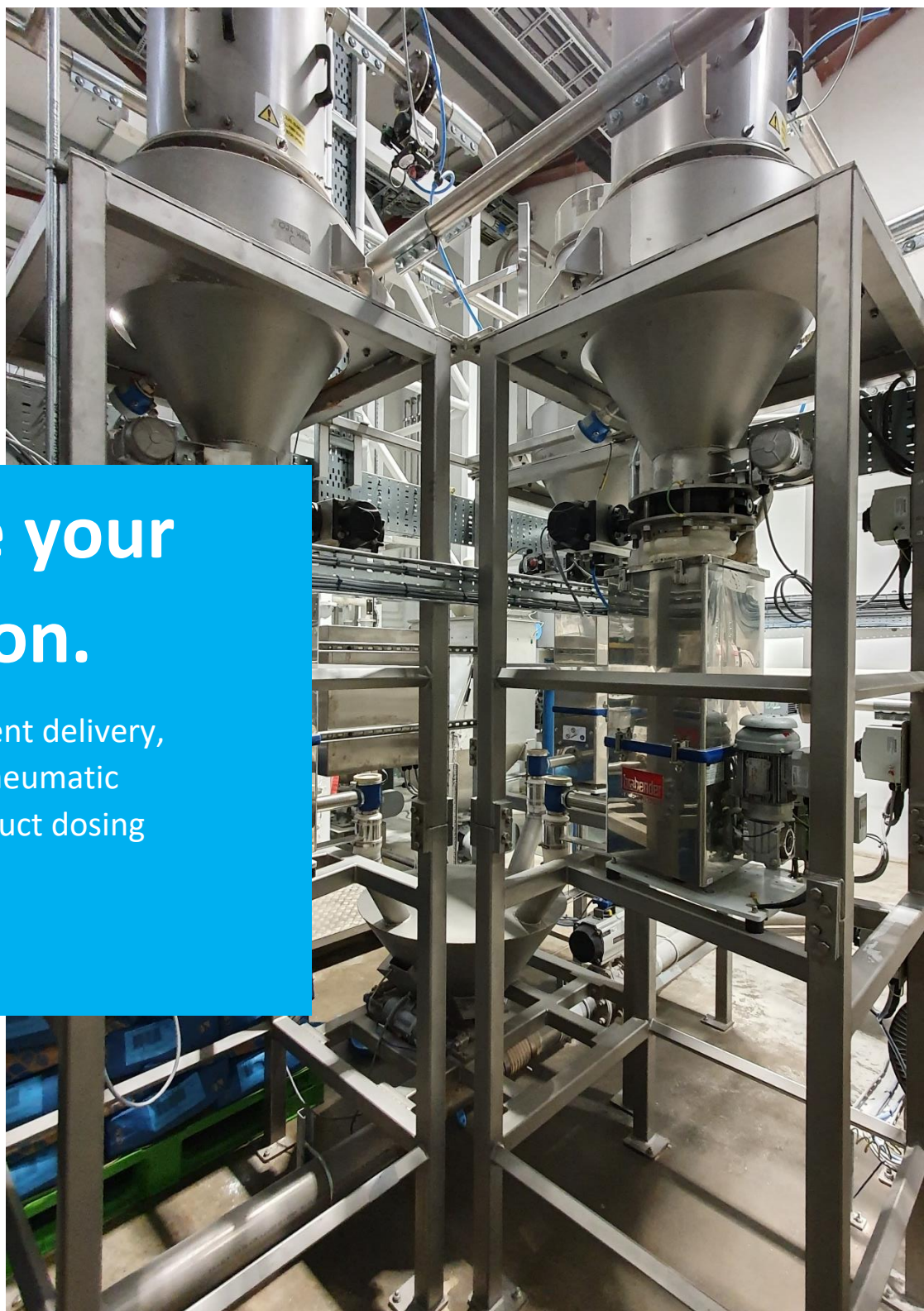
[www.ingredientbatchingsystems.com](http://www.ingredientbatchingsystems.com)





# Optimise your production.

We solve all ingredient delivery, powder handling, pneumatic conveying, and product dosing problems.







## Powder Conveying



- We specialise in lean phase pneumatic transfer systems of both negative pressure vacuum and positive pressure blowing designs.
- Using our in-house bespoke software and many years of experience handling dry powders in industry.

## Powder Delivery & Ingredient Additions



- We design systems that utilise all forms of ingredient delivery, using bulk tanker delivery, FIBC big bags and sacks.
- Flexibility of design from bulk powder additions, to minor small, weighed additions to process.

## Powder Weighing & Mixing



- We design high speed and highly accurate powder weighing arrangements to dispense multiple powders simultaneously.
- This is then pneumatically conveyed, or gravity fed directly into a process mixer.





## Powder Feeding

## Sifting & Metal Separation

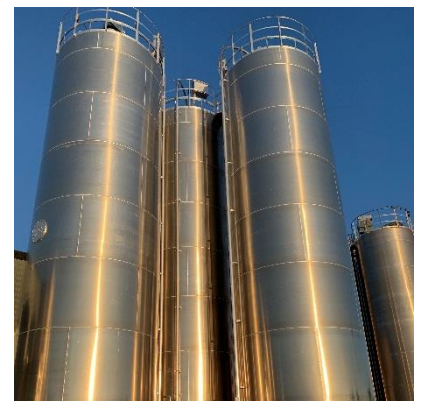
## Powder Bulk Storage & Intake



- Accurate product feeding which comes with robust and reliable system design, to deliver in tolerance batch weighing time and again.
- With precise monitoring, flow control and measurement, managed by the recipe control system ensures final product quality.



- Sifting of all raw material intakes from bulk delivery, FIBC big bag or sack is crucial to ensure the powders are free from foreign matter, before they are delivered to the process, combined with inline metal separation.
- Sifting is also vital to ensure the correct particle size is delivered to the process.



- All vessels and bulk storage silos are emission free using the latest filter technology combined with efficient delivery and unloading systems, these can also be installed with
- land-based blowers for quiet controlled deliveries in sensitive areas.



# EXPERTISE IN PRODUCT SPECIFIC COMPONENTS



**Loss in Weight Feeders**



**Bulk Bag Dischargers**



**Sack Tips**



**Centrifugal Sieves**



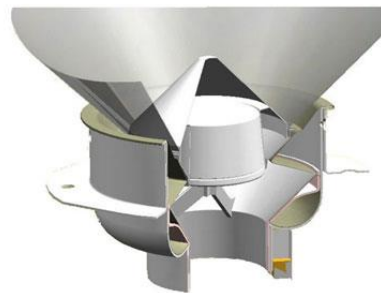
**Diverter Valves**



**Rotary Valves**



**Batch Mixers**



**Cone Valves**





# MATERIAL RECEIPT & STORAGE



- Tailored to your specific application, our bulk storage silos are manufactured in aluminium or stainless steel.
- Silos are supplied with all filtration equipment, explosion relief and dehumidification if required.
- Silo loading is controlled using our fill control panels, and land-based blowers can also be provided to control the tanker delivery to the silo and reduce noise levels.
- The silos are mounted on load cells with telemetry systems that can also be linked to remote monitoring.
- The supply of silos can include the installation by our team of specialist engineers.



**Silo storage**

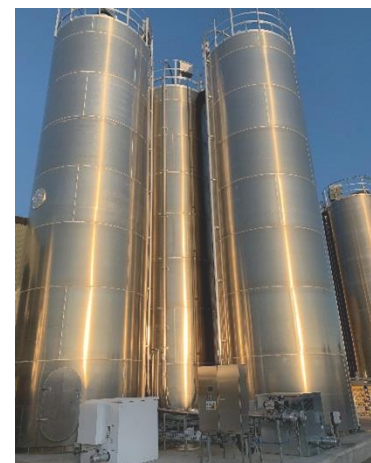
**Stock control management**

**Control of delivery**

**Low maintenance costs**

**High operation reliability**

**Minimal noise levels**





# PNEUMATIC CONVEYING

Our pneumatic conveying systems are just part of the turnkey system designs that we offer. We move the dry powdered ingredients from bulk storages, FIBC big bag dischargers and sack tip stations through sieving, metal removal, grading, batch weighing and minor ingredient dosing using pneumatic transfer systems between each stage of the process. Efficiently conveying the powders in a protected environment of a sealed conveying line using filtered air.

The systems that we design in-house using our own bespoke software enables us to determine the correct system layout for the process required for each specific contract.

The pneumatic conveying system provides a clean, efficient, and direct method of conveying powdered products from one process to another. Powders of a hygroscopic nature can be conveyed with dry conditioned air to prevent any moisture take up, or indeed heated air can also be provided when looking to maintain product temperature, common in the cereal manufacturing process.



- **Inline sifting**
- **Conveying of weighed batches**
- **Material management**
- **Low air and energy consumption**
- **High operation reliability**
- **System stability**
- **In-house UK design**





# BATCH WEIGHING & DOSING



- Many systems require the accurate weighing and dosing of multiple powders simultaneously to enable high production rates to be achieved.
- We provide unique batch weighing carousel arrangements for this purpose and a modular design that allows systems to be added to as production demands increase, from a single batch feeder to multiple.

- **Feeding of additives**
- **Multi-component dosing**
- **Modular design**
- **High accuracy**
- **Seamless integration**
- **Optimised start-up and shutdown**





# INTERMEDIATE BULK CONTAINERS & CONE VALVE TECHNOLOGY



- Intermediate Bulk Containers (IBCs) are a unique way of handling powders and granular materials for different processes such as storage, transport, weighing, blending, and batching.
- They are easily identifiable as a batch production vessel for traceability and become part of a reliable and flexible production process. Each IBC is designed with stacking pads which allow IBC to be double stacked.
- Its support structure also facilitates a two-way fork truck transport access.
- The IBC's include a patented Cone Valve design which promotes and controls product flow from the IBC.
- When the Cone Valve is lifted for discharging the product or blended material, there is systematic discharge of materials to avoid Segregation.
- When the IBC is placed on the discharge station, no further manual intervention is required.

- **Lean Manufacturing**
- **Batch Accountability**
- **Flexibility**
- **Lower Downtime**
- **Expandable Systems**
- **Low operator intervention**





# CRAFT BAKERIES



Ingredient Batching Systems have developed a compact system for the craft baking industry that can be used for bread, cake, and pie manufacturers alike. The system provides automation for the bulk addition of flour, starting with a sack tip that combines a vibratory deck sieve that gently separates the particles and removing any unwanted items. The sieve can also be provided with an optional grid magnet, if required.

The flour is then vacuum conveyed to a receiving vessel that will hold a nominal weight of flour of 100kgs. From the vessel a weighed batch of flour is dispensed through a rotary valve into a dough bowl. Any dust generated during filling of the dough bowl is contained and sucked back into the receiving vessel, so reducing any waste.

This system automates what would previously have been a very manual operation, and provides accurate and repeatable batch weight targets, combined with dust containment for a clean operation.



# DELFIN PNEUMATIC CONVEYORS



The IBS-Delfin Pneumatic Vacuum Conveyor Systems allows you to transfer dusty, granular, or solid material from your sack tip, big bag discharger or silo to your production plant, using a venturi vacuum pump, brushless motor, or side channel exhauster to provide the motive force. These units can achieve conveying rates from 100kg – 4,000kgs/hour. IBS-Delfin Vacuum Conveyors overcome the obstacles of mechanical transportation systems, with the following key features:



- Fully enclosed, removing the risk of environmental pollution and product contamination.
- Increased flexibility with the ability to transport material in all directions with ease and cost efficiency.
- Rigid stainless steel or flexible conveying lines ensures minimal space requirements.
- Modularity allows ease of expansion at a later date.
- Minimal components and wear, drastically reducing the cost of your maintenance.
- The exclusive use of uncontaminated compressed air contributes to the maintenance and maximises the efficiency.
- Easy and fast installation and connectivity to other process machinery.







## SERVICING & SPARES

To maintain system optimisation, IBS experienced service division can tailor a maintenance package to your requirements.

Furthermore our 30 years industrial expertise allows us to problem-solve your existing dry powder handling systems to improve your process efficiency.

Many existing systems will lose efficiency over time for a variety of reasons such as modification with ill matching components, minimal maintenance or just simple wear and tear. All of these can have an impact on energy consumption and efficiency. IBS can survey your existing equipment/system and provide you with a detailed document that will advise you on how to improve the system back to its original system duty.

Decreasing your operational costs and increasing efficiency.

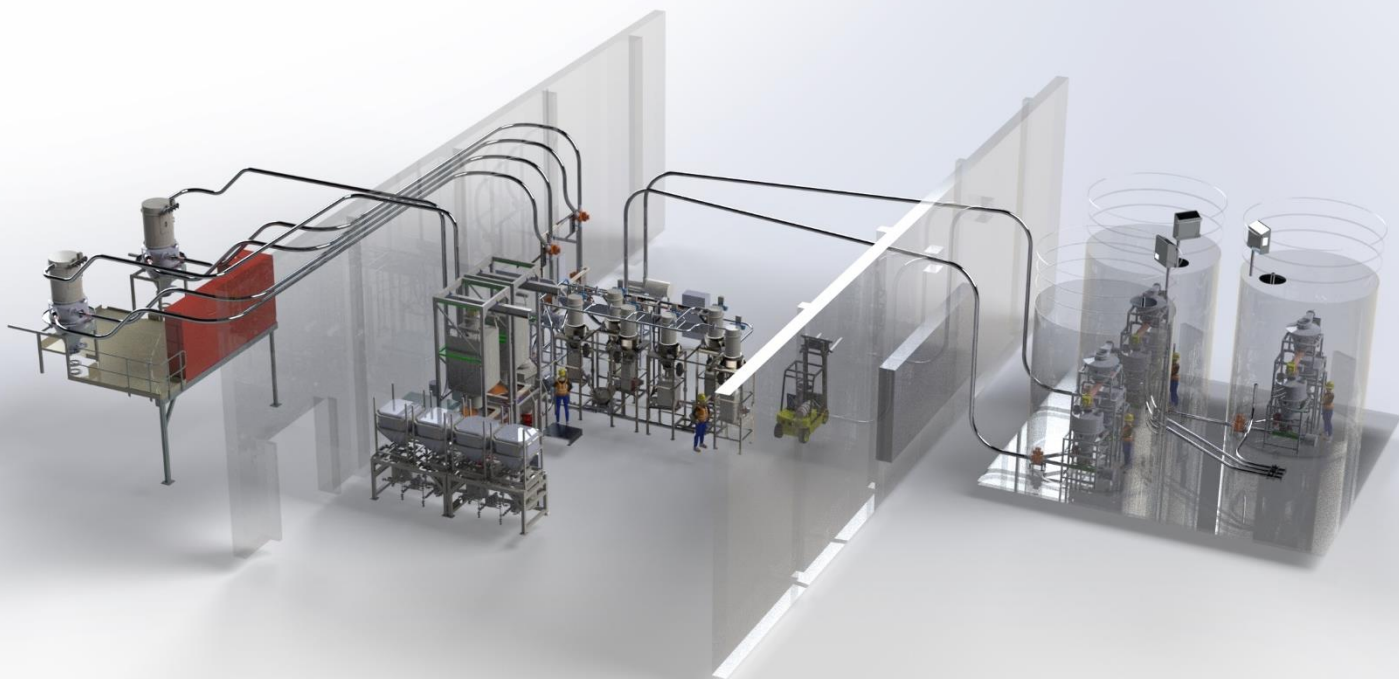


- **Bespoke maintenance packages on all manufacturer's equipment.**
- **24/7 maintenance support.**
- **Maintenance training and schedules provided for equipment familiarity. Encouraging proactive instead of costly reactive maintenance.**
- **Detailed service report to deliver system optimisation.**
- **Expert advice on legislations and upgrade requirements to meet ATEX/DSEAR, Health & Safety, COSHH.**
- **Plant drawings and detailed spare part schedules.**





# TURNKEY PROJECTS & COMPLETE PROJECT MANAGEMENT



We provide our clients with full turnkey project planning and delivery, from the original concept through to the final project completion.

No matter how big or small the project maybe our staff provide a professionally managed project throughout.

Customer service and satisfaction is an extremely important value for us, and we build our reputation on this key element.

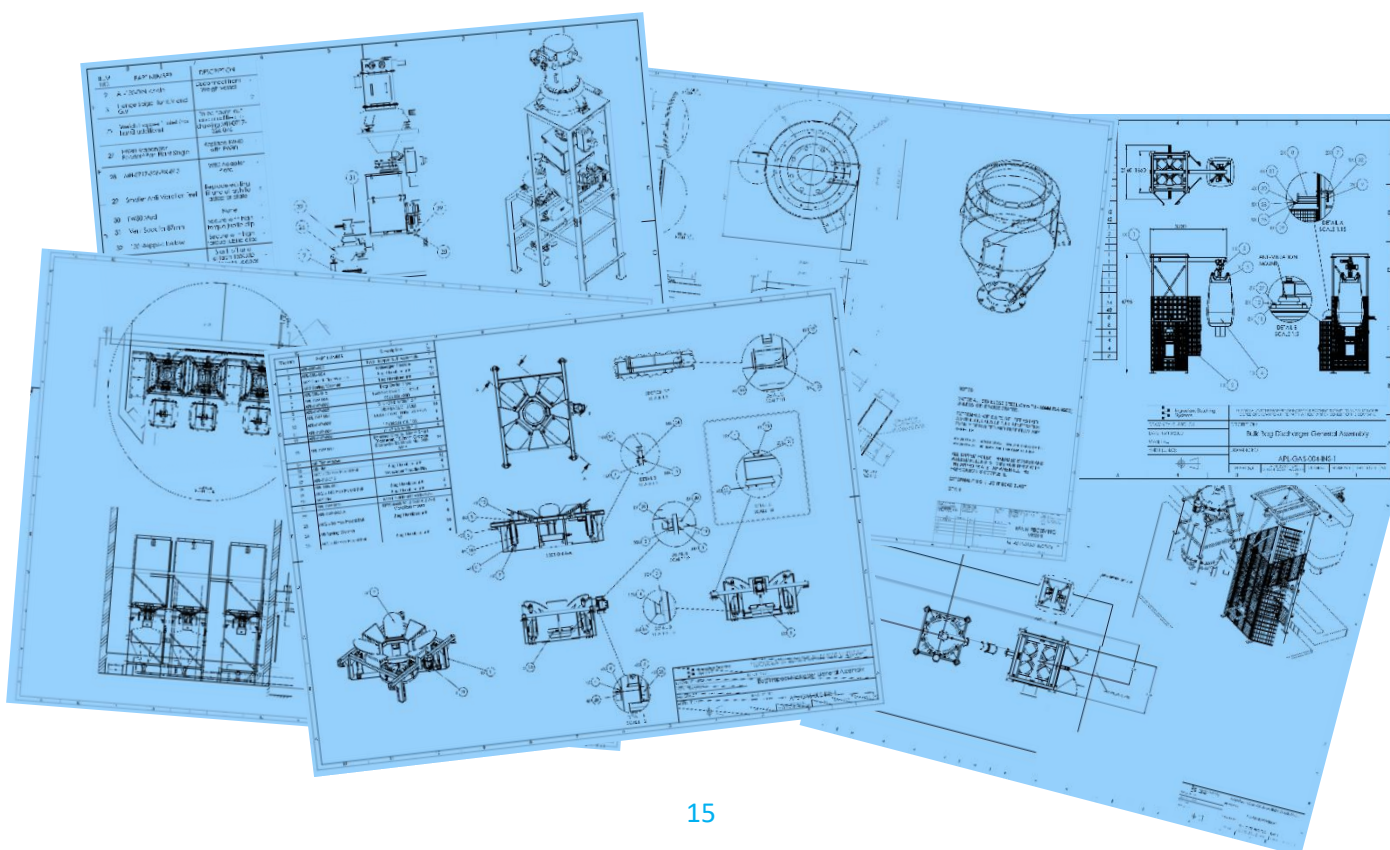
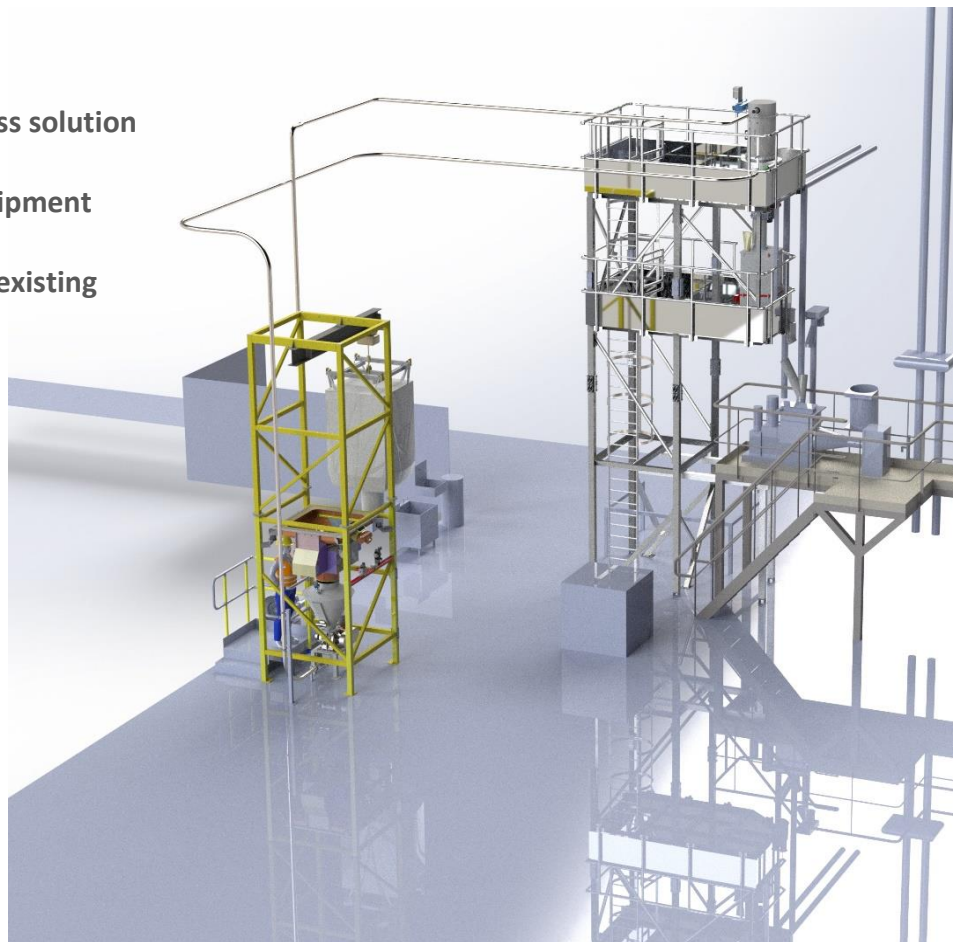
- **Project management**
- **Risk analysis**
- **Automation and control**
- **Qualification and validation**
- **Documentation**
- **Integration, modernisation, and expansion of existing systems**
- **New systems**
- **Cost and time planning**
- **Process technology determination**
- **Performance and balance**





# IN HOUSE UK DESIGN & ENGINEERING TEAM

- Development of the right process solution
- Right choice of appropriate equipment
- Modernisation or expansion of existing facilities
- Custom platforms for access
- Bespoke vessels
- Turn-key facility design
- Qualified structural design
- Installation guides
- Maintenance manuals





SOME OF THE NAMES WE  
HAVE WORKED WITH...



Ingredient  
Batching  
Systems

Unit 8, i-Worx Commercial Park, Innovation Way,  
Wootton, Bedfordshire, MK43 9SP

Tel: 01234 481008

Email: [sales@ingredientbatchingsystems.com](mailto:sales@ingredientbatchingsystems.com)

Web: [www.ingredientbatchingsystems.com](http://www.ingredientbatchingsystems.com)