



CASE STUDY

# HOW TO MEET SHORT LEAD TIMES for food ingredient mixes

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"We now have an ideal factory for our flexible manufacturing needs"

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THE POWDER HANDLING EXPERTS

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Discover how this spice mix manufacturer is able to produce to order on short deadlines, whilst producing hundreds of different recipes using thousands of ingredients.



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## CASE STUDY

# HOW TO MEET SHORT LEAD TIMES for food ingredient mixes

## The Need

**Improved efficiency and a consistent 3 day 'make to order' regime were achieved on thousands of food ingredient recipes, without creating costly inventory. All whilst adhering to strict Hygiene standards.**

Our customer is a leading supplier of food ingredients & a food consultant specialist. They have transformed themselves from being simply a supplier of raw materials to a genuine partner who provides expertise to promote their customers' success.

Their product range includes a variety of products that are individually packaged according to customer requirements.

The solutions offered serve the following product categories:

- Sausage and whole meat products
- Marinated and surface-seasoned products
- Breaded products
- Ready meals
- Ground meat products
- Ingredients
- Additives



They have a global customer base of food producers, so they manufacture 1,000s of different flavouring mixes each year, using over 500 different ingredients, many of which are allergens.

Prior to the involvement of Matcon, they were using 8 conical mixers coupled directly to auger fillers. This was a very cumbersome system and time-consuming to change recipes on, with cleaning taking 4-6 hours each change.

Consequently, they ran 'campaign' production and used 'white to black' wherever possible, with large amounts of inventory produced as an outcome. With the need to reduce this costly part of the business and improve response times, they looked for a more agile system.



## The right solution

The Matcon system design enables full traceability and batch integrity throughout the process. The system remains closed at all times ensuring the strict hygiene standards are met throughout the process.

The system supplied by Matcon still incorporates 3 of the conical mixers for the high-running recipes as they are large volume with lesser need for changeover. But IBCs are used to transport the blended product to the packing lines as this enables quicker turnaround for the blenders.

For all other recipes the IBC Blender is used, allowing a fast turnaround of recipe changes.

An SRS (Storage & Retrieval system) is used to supply raw material to the Sack Tip unit for filling IBCs. At this stage the IBC can either feed directly to the fixed mixers or go to the IBC Blender. The final product is packed off into

bags using an Auger filler, which has an in-line sifter and metal checker for further quality assurance, or is discharged to a FFS (fill, form, seal) machine.

The IBCs are cleaned off-line, whilst the packing and sack tip units are designed for quick and easy cleaning, with specific change-out parts speeding up the process further.

The IBC Blender does not require any cleaning as there is no product contact.

## The benefits

### SHORTEN THE LEAD TIMES

Because all the manufacturing stages are decoupled, it means that at each process step the OEE rate (Overall Equipment Effectiveness) can be optimised.

In-bin blending removes the mixer cleaning time and the packing line now only takes 1 hour to clean, so several recipe changes can be accommodated in one day. This has allowed our customer to achieve a rapid turnaround on orders, which now take days to deliver instead of weeks.

As throughput is maximised and waste minimised, the cost/kg of manufactured product is significantly lowered, improving the business profitability.

### RELIABLE ALLERGEN HANDLING

The increasing use of allergens in recipes challenges the traditional sequence coupled manufacturing processes, preventing them being used efficiently as each recipe change requires a full clean-down with validation.

By using the Matcon IBC system, each batch is fully contained, including during transfer, so there is no risk of cross-contamination. This enables 'any recipe, at any time' to be run in a fully controlled environment, to fulfil the make to order objective.

### HYGIENE STANDARDS

With the increased challenge to adhere to external audits, compliances and hygiene standards, it is vital to use technology which complies. Matcon places hygiene as

a high priority and has been proven to comply at the highest levels.

With the new system in place, audits have been passed with the highest ratings and further business has been secured thanks to the much improved appearance of the installation.

### TESTING IT ALL OUT FIRST

Full-scale testing in the UK Test Centre was possible using their own ingredients. This rigorous testing ensured that the Blender met with the strict blend requirements of their most challenging recipes.

THE RESULTS  
at a glance

Fast response

Lower inventory

Quick changeovers

Lower manpower costs

Safe Allergen handling

High hygiene

Manufacturing flexibility

Low cost/kg production

## The results - Faster response times

Increased versatility and the enhanced capability to manufacture to order without building inventory.

The unique Cone Valve technology within each Matcon IBC has been proven to control the flow of the vast array of powders that our spice blending customer handles, even for the more cohesive materials and those containing a liquid addition. This has helped them to reduce waste and reduce the amount of operator time spent in managing these more difficult powders. It has also future-proofed their manufacturing capabilities as they will be able to handle any type of powder.

The Matcon IBC system has provided our customer with a fully flexible, agile production facility that is able to produce the right quantity & quality of recipe at the right time, coping with

many recipe changes each day. With the contained nature of the IBC powder handling system, they have the peace of mind that allergens are handled safely and within strict quality and hygiene standards.





“The Matcon IBC Blending system is far more versatile than our previous mixers. We have had superb support dealing with initial teething problems and now have an ideal factory for our flexible manufacturing needs”



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## WHY CHOOSE MATCON

We understand the challenges faced by manufacturers of food ingredients.

## YOUR CHALLENGES

Recipes often contain powders with very different bulk densities & particle sizes, causing segregation of the mix on transfer.

Some powder mixes can become cohesive & poor flowing, which slow the line whilst blockages are cleared.

Dusty environments create cross-contamination risks and pose health risks to staff.

## HOW WE CAN HELP

A system designed to optimise production flow is what we do. All process steps occur simultaneously for maximum efficiency.

The Cone Valve in each IBC handles all powder types & protects the blend during transfer, for great product quality every time.

A closed system design gives full dust containment for a cleaner environment and operator safety.

