



## WHITEPAPERS

# Resolving Your Powder Handling Issues

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Matcon specialise in solving powder handling problems. With over 35 years of experience it is highly probable that we have solved your particular issue for another company within your industry.



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THE POWDER HANDLING EXPERTS

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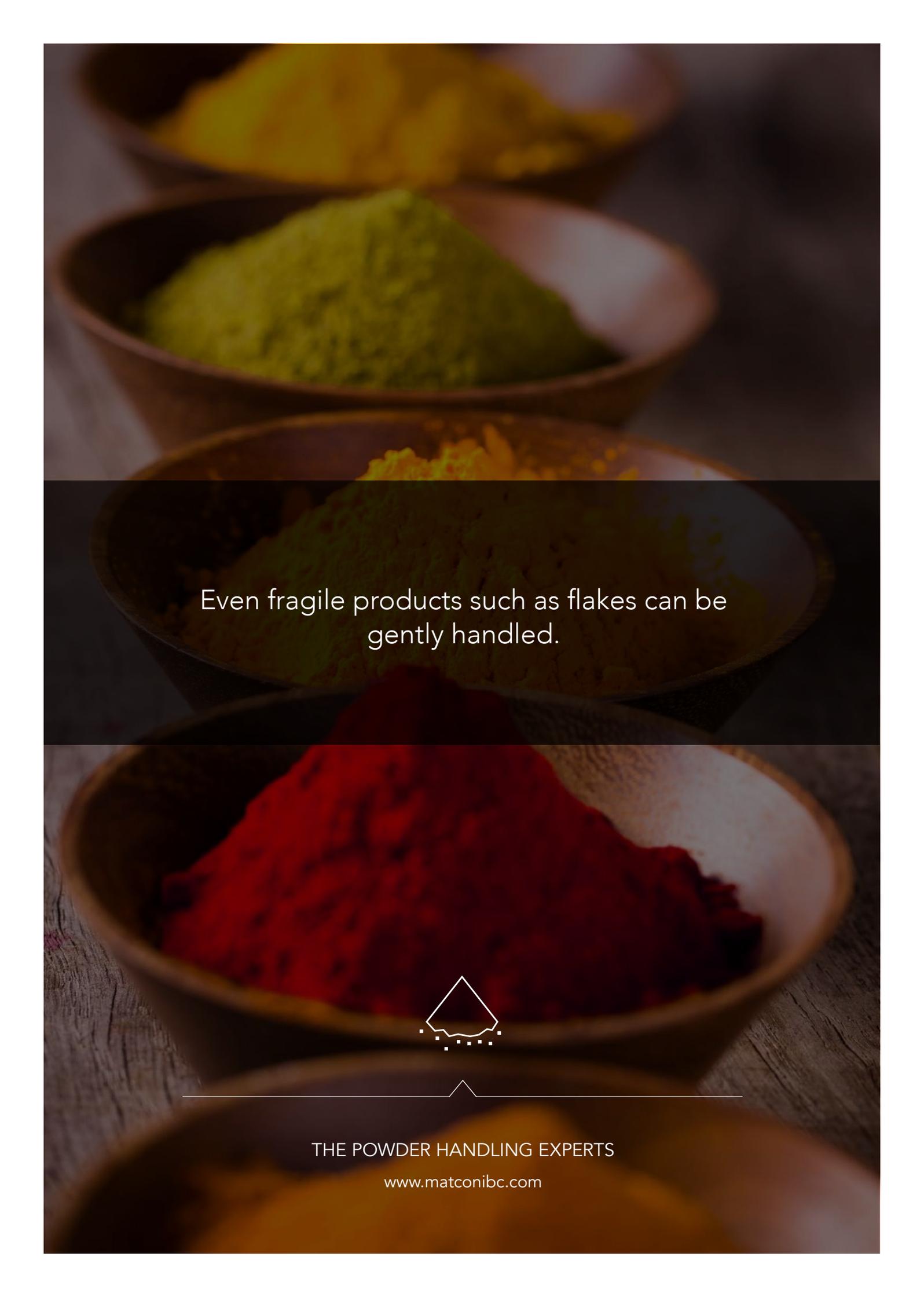
## Introduction

- 1 Do you have difficulty discharging some of your mixtures?
- 2 Do you suffer yield losses?
- 3 Do you experience segregation (de-mixing) on some recipes?

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We would be surprised if you didn't say 'yes' to at least one of the above questions. Why? Because we review and solve these issues for Food companies every week of the year.





Even fragile products such as flakes can be  
gently handled.



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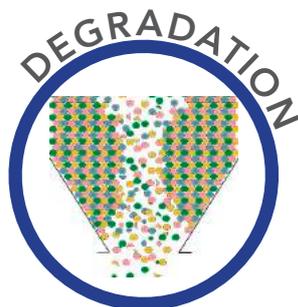
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### The Lean benefits

Previously we have looked at the benefits of decoupling the manufacturing process steps using IBCs (Intermediate Bulk Containers). This offers great Lean benefits along with the flexibility to make to order and save considerable amounts of money on Inventory and factory space.

Many companies have understood the conceptual advantages of using a decoupled IBC-system, but have invested in conventional butterfly or slide-valve IBC technology. Consequently they have been hugely disappointed with the performance achieved. The end result being that many recipes must be handled the same as before, direct coupled.

Other issues include:



### Not all IBCs are the same

There are some very significant performance differences between different types of IBC system. Here are just a few examples of the issues that can be caused by inadequate technology, which will negate any Lean benefits of decoupling the system:

- X Product won't flow out of the IBC into packing, so constant operator intervention is required
- X Lack of flow control, flooding the packing machine
- X The recipe segregates as it discharges out of the IBC and into the packing machine resulting in poor quality final product
- X Product losses as the product sticks to the IBC walls resulting in a poor yield
- X Powder leakage resulting in risk of contamination and need for cleaning
- X Lengthy or totally unsuccessful cleaning of IBCs due to excessive and sticky residuals

## What can be done?

Matcon specialise in solving these problems. With over 35 years of experience it is highly probable that we have solved your particular issue for another company within your industry.

Each Matcon IBC contains the unique Cone Valve which lies at the heart of the Matcon technology. It can be configured in various ways to overcome these powder handling issues.

Cohesive materials can be stimulated to flow by virtue of the integral cone vibration.

Free-flowing powders can be controlled, without the need for additional feeders, even discharging to a specified weight, by use of the variable lift height of the Cone Valve.

Segregation is overcome as the cone 'holds back' the powder in the centre of the IBC and promotes flow from the sides, thus creating mass-flow and avoiding any rolling effects which cause segregation.

Even fragile products such as flakes can be gently handled. Flow can be shut off during discharge without damage to the material.

## Further benefits of the Cone Valve

Because feed to the downstream processes, via the Matcon Discharge Station, is both controlled and automatic it allows them to work to their optimum efficiency. In addition it is possible to use the Cone Valve to dose directly from the IBC without the need for secondary feeders, reducing changeover times, maintenance and cleaning demands.



## Key Benefits of Cone Valve Technology

- Guaranteed powder flow
- Control of the flow
- Prevent segregation
- Automated discharging procedure
- Complete discharge

## So what does this mean for you?

As with any successful technology, there are other companies producing Cone Valve IBCs. However these are varied in both quality and cost, and all produce a wide range of results.

Whilst investment savings can be made by buying cheaper copies, you should be aware that the secret is in the detail. A relatively small short term saving has been shown to cost ten-times (or more) increase in running cost and lost production.

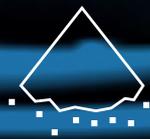
If you are tempted by the alternatives, do study them in great detail before committing one way or the other. Additionally, these 'solutions' may not eliminate allergen risk. There's a risk that equipment could still hold residual contaminants from missed areas or inadequate drying time which in itself harbors contamination.

Over and above technology, the most important aspect to achieve a successful installation of an IBC System lies with the experience of how to apply the technology into the various related processes. This is where the Matcon team offers the greatest value – we're not happy until we have installed a system that brings you maximum profitability when compared to all the alternatives!

We offer full-scale Test Centre facilities, using your own powders, which means you can be sure the system will work before going ahead and making the commitment.

*"We chose Matcon Ltd due their expertise and competitive pricing but also appreciate their support during installation and later during the operation of their systems. Close monitoring by their staff after start-up has ensured optimum performance from all sites to date, which we are obviously delighted about. Matcon Ltd is a very reliable partner for us and we look forward to continue our excellent cooperation in our current operation and for our new developments together with them."*

Peter Suess, Chief Engineer Germany, Benelux & Nordics - Nestlé



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# **MATCON**<sup>®</sup>

POWDERS, HANDLED.

## **Why Choose Matcon?**

Working with a broad range of manufacturers to deliver flexible manufacturing systems for some of the world's largest brands since the 1980's means we not only understand the challenges faced by manufacturers but solve them on a daily basis.



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