

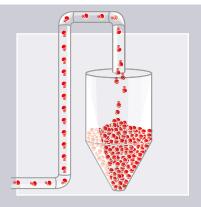
# YOUR GLOBAL PARTNER IN THE FOOD INDUSTRY

Systems and components for the bulk processing industry.



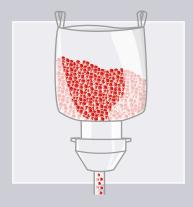
### COMPETENCE IN YOUR APPLICATION

Profit from decades of experience in the most demanding applications:



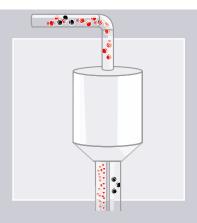
### MATERIAL RECEPTION AND STORAGE

The safe, emissions-free and efficient material receipt and the internal distribution of bulk materials are the prerequisites for economical processing and production.



### RAW MATERIAL AND INGREDIENT HANDLING

From small amounts to Bulk Bags, we offer you the right solutions to allow secure and hygienic introduction of ingredients into your processes, whether they are manual or completely automated.



### SIFTING AND SIZE REDUCTION

The removal of contaminants and delumping ensures product quality. The correctly submitted shape, particle size distribution as well as surface area and quantity of fines are all essential for optimal bulk material processes.

# COMPETENCE IN ALL SYSTEM-CRITICAL COMPONENTS

Gericke develops and manufactures all key components in-house, for example:



Rotary valves



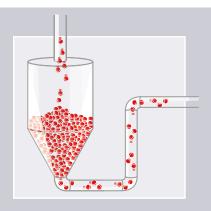
Bulk bag unloader emptying stations



Sack tipping stations

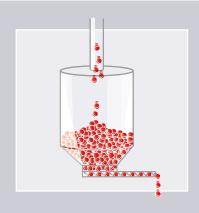


Pneumatic conveying systems



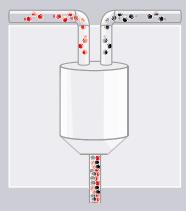
#### **CONVEYING**

The quality-preserving conveying of bulk goods is an economic factor that creates decisive competitive advantages. Our systems transport your products in a highly product-protecting and reliable manner using minimal carrier gas and reduced energy costs.



#### **FEEDING**

When feeding, value creation takes place via the precise feeding, measurement and control of the product flow, while recipe management, traceability and quality control are guaranteed at all times.



#### **DOSING AND MIXING SYSTEMS**

Our hygienic mixers work in an extremely gentle manner and produce high-quality intermediate or end products with the highest degree of homogeneity. They can be used in either continuous or batch processes. The accurate addition of liquids can also be flexibly integrated into the process.



Gravimetric dosing systems





Nibblers



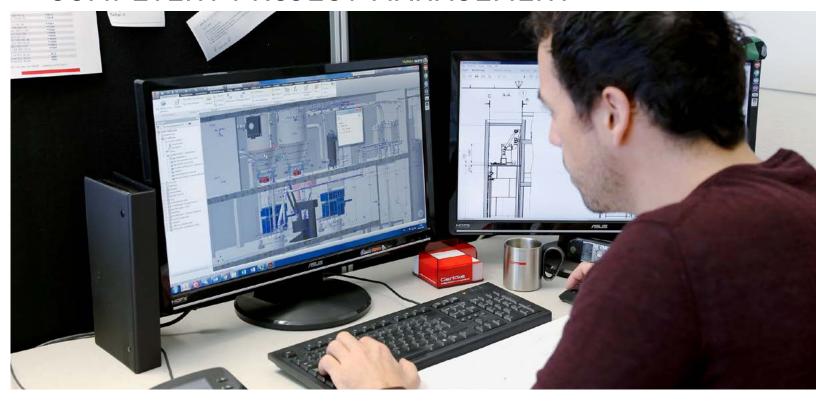
Continuous mixers Feeders





Centrifugal sifters

# SAVE TIME AND MONEY WITH COMPETENT PROJECT MANAGEMENT



#### Planning phase

During this phase the focus is on the development of the right process solution and the choice of suitable machines.

- New systems or modernization and expansion of existing facilities
- Solution search and evaluation of the possibilities
- Trials and testing in our test centers
- Determination of the process technology and performance balance
- Cost and time planning
- Determining the cost base of investment appraisals



#### **Engineering phase**

During the detailed layout planning phase, we create 3D models, including the installation and assembly drawings. Risk assessments during the planning, realization and operation phases are also an important aspect.

- Project management
- Risk analysis
- EX concept
- · Automation, control
- · Qualification, validation
- Documentation



#### Realization phase

During system commissioning, the Service Team has the lead at the construction site. Construction and assembly supervision, control of the assembly team, coordination of the logistics and enforcement of safety at the construction site are central tasks.

While the system is being commissioned, the test runs of the individual components and the controller are performed, initially as a sequential test of the automation, then with the product, and finally as a complete process.

- Construction site supervision
- Assembly
- Commissioning
- Maintenance concepts
- Training of local staff



- Chocolate
- Confectionery
- Biscuits



- Sugar
- Preserving sugar
- Spices
- Salt



- Coffee
- Beverages
- Tea
- Instant drinks



- Milk powder
- Infant food



- Bars
- Sport nutrition
- Snacks



- Grain
- Pasta
- Flour
- Bakery products

# MATERIAL RECEIPT AND STORAGE



#### **Applications**

- Delivery of raw materials using tankers
- Quality sifting and product calibration
- Silo storage
- Inventory control

- Automatic plant management
- Surface protection with inert gas overlay
- Safe operation thanks to EX conformity
- Low maintenance costs
- High operational reliability and system availability



Delivery with trucks



Conveyor belt for sensitive products



Temporary storage of raw material

# RAW MATERIAL AND INGREDIENT HANDLING



#### **Applications**

- Bulk bag unloader handling
- Minor ingredient handling
- Sack emptying devices
- Material introduction

- Low-emission introduction
- Complete emptying
- High flexibility
- Safe operation thanks to EX conformity
- Low maintenance costs
- High operational reliability and system availability



Low-dust sack tipping



Bulk bag unloader emptying



Rotary valve discharge

## SIFTING AND CALIBRATION



#### **Applications**

- Grain size reduction after bulk bag unloaders, dryers, spray agglomeration or mixers
- Recycling
- Control sifting
- Dust removal
- Processing of recycled material
- Crushing filter cakes
- Size reduction before grinding or milling processes
- Surface area increase of the product prior to heating, cooling and melting processes

- High throughput
- Energy-saving and low-noise operation
- Gentle to the material as there is no product temperature increase
- Minimal dust formation
- Simple maintenance by easy replacement of the grater sieves
- Flexible thanks to different hole sizes
- · Space-saving thanks to the low height
- · Adjustable paddle spacing for optimal process adjustment



Foreign-body removal



Maceration of agglomerates



Safety sieving

# ECONOMICAL AND GENTLE CONVEYING



#### **Applications**

- Material removal
- In-line sifting
- Conveying of weighed batches
- Vacuum scales
- · Internal supply of raw materials
- Forwarding of semi-finished and finished products
- · Airlock and flame barriers
- · Material management

- Minimal increase in bulk density and fine fraction
- Surface protection with inert gas overlay
- Increased plant safety with EX conformity
- Space-saving installation of the piping using Gericke pipe elbows
- Lower maintenance expense
- High operational reliability and system availability



Sender for process feeding



Lean phase conveying



Wear-resistant, space-saving elbows

# FEEDING OF ADDITIVES



#### **Applications**

- · Feeding of additives
- · Continuous gravimetric dosing
- Batch weighing
- Filling of vessels
- Multi-component dosing
- Dosing of liquids

- · High product quality due to more accurate dosing
- · Traceability of batches
- Simple integration into the control system
- Very low sensitivity to external interference
- Flexible use due to dynamic range



Dosing of liquids



Highly precise and traceable



Integrated control of weighing and dosing processes

# DOSING AND MIXING SYSTEMS



#### **Applications**

- Continuous mixing processes
- Batch processes
- Extruder feeding
- Addition of liquids
- Suspension mixing
- Pre-mixing

- Even for the highest hygiene standards
- · Space-saving thanks to compact design
- Seamless integration through a few interfaces
- Maximum throughput saving time and energy
- Modular design for maximum flexibility in use, rapid recipe changes are possible
- Homogeneous mixing even of micro-components
- Optimized introduction and removal processes, reduced rejections
- Continuous traceability of the process parameters



Hygienic mixing in batch processes



Continuous mixing



Trial setup for adding liquids in a Gericke Test Center



### **TEST CENTER**

### Tests on an industrial scale reduce planning time and increase process safety!

Test centers in Switzerland, France, England, Brazil, USA and Singapore are available for customer tests under near-production conditions. The test centers are equipped with original machines. Experienced specialists design the test layout according to your wishes and perform the tests.

- Testing of machines and prototypes with original products
- Checking of performance ranges and accuracies
- Testing of the interaction of multiple machines
- Gaining of experience for product processing
- Sampling for laboratory tests and market response
- Customer training

### **SERVICE**

Worldwide support for commissioning, maintenance and service.

We highly value punctual delivery, reliable assembly and thorough assembly monitoring. With well-planned commissioning and intensive on-site training we create the prerequisites for a smooth production start-up. Our service team and the global spare parts service combine to ensure long service life and high availability of systems with consistent product quality.

### YOUR PARTNER WORLDWIDE

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