



Competitive advantage thanks
to the Gericke GMS Multiflux[®]
batch mixer C/ ECD



Gericke

Powder Processing Equipment and Systems

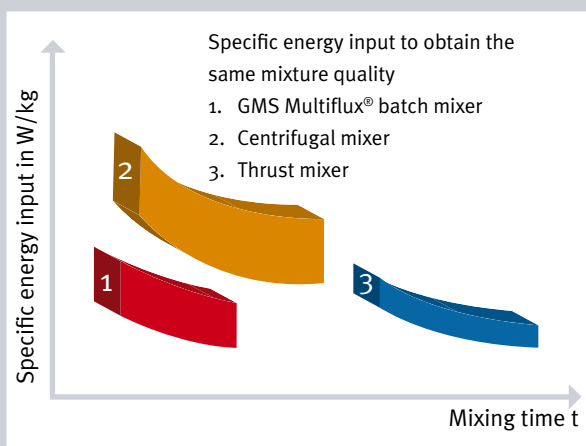


Batch mixing ...

Mixing is a key industrial process. Mixing systems can be designed to operate either continuously or in batches.

Our mixers generate high quality intermediate and end-products with maximum homogeneity. Gericke is also the expert when it comes to related processes such as agglomeration, granulation or coating, which are all essential for creating innovative products.

Mixing is a transportation process in which the combination of dispersion (random particle exchange) and convection (specific dividing and mixing) results in a homogeneous mixture. Both the mixing time and the required levels of energy are essential criteria when it comes to achieve economical mixing processes.





Wide-ranging mixing processes ...

The Gericke Multiflux® batch mixers achieve a maximum degree of homogeneity and preserve the high-quality ingredients during the mixing process.



Food industry

- Cereals
- Milk powder and milk products
- Coffee mixtures
- Instant soups
- Sugar mixtures
- Muesli
- Dietary food
- Iced tea
- Spices
- Dessert mixtures
- Infant formula

Environmental industry

- Catalytic converters
- Filters

Animal nutrition

- Dry feed for dogs and cats
- Feed mixtures for small animals
- Concentrated feed
- Fish feed

Plastics industry

- Masterbatch
- Pigments

Chemistry

- Plant protection products
- Fertilizers
- Chemical intermediates
- Flame retardants
- Powder coatings
- Premixes for construction chemicals

Pharmaceutical industry

- Dental products
- Vitamin products



Benefits of the GMS Multiflux® batch mixer ...

Highest mixing quality:

Scientifically demonstrated mixing homogeneity – even for micro ingredients (<0,1%) and different degrees of filling.

Very gentle blending:

Minimum abrasion and preservation of the particle and agglomerate structures. Avoidance of unwanted product warming.

Hygienic performance:

The design and manufacturing quality focusing on hygienic processes and rapid cleaning. Both the mixing chamber and the housing are easily accessible and free of dead space, all radii are rounded and metal welding seams are pore-free and polished.

The GMS C mixing rotors are cantilevered. Additionally the GMS ECD can be fully extracted on the drive side. Furthermore the ability to open the front side in its entirety provides the ideal conditions to clean the components in no time at all.

High mixing capacity

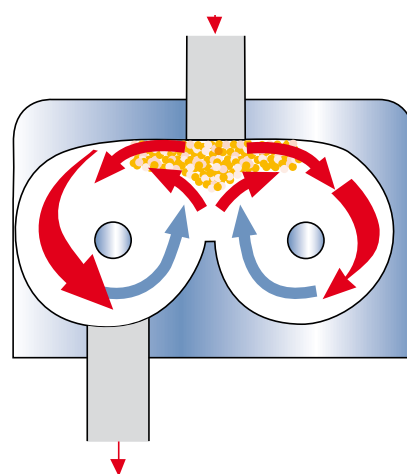
Thanks to the short mixing and emptying times, Gericke GMS mixers are able to mix more batches than other mixers on the market in the same amount of time. As a result, a small, space-saving and more cost-effective mixer can be used to achieve the same output.

Energy-saving production:

With its horizontal mixing chamber, double rotors and fluidised bed, the GMS mixing concept facilitates a particularly energy-efficient operation.

Special features of the GMS Multiflux® batch mixer

The Gericke Multiflux® batch mixer is designed to mix in the range of Froude number 1.1. The counter-rotating, horizontal mixing rotors generate a fluidised bed, while the mixing tools create optimal product flow throughout the mixing chamber. Excellent particle exchange values result in perfect blending. The intermingling of the product streams in the suspension area and the continuous separation of the streams ensure rapid and intensive distribution of the product in only 30 seconds.



- Rotation of the mixing tools
- Product streams in the mixing chamber
- Fluidised bed



Gentle, quick and energy-saving ...



Free access to the mixing chamber by large front door.



GMS 140 C in ATEX execution.

Mixing functions

- Mixing of solids and solids with liquids
- Addition of liquids: one or multiple nozzles spray liquid into the product's suspension zone
- Granulation: formation of granulation through gentle rolling of the components and spraying on binding agents

Mixing cycles

- Up to 16 batches per hour

Type	Capacity/litres	Useful volume/litres	kW
GMS 140 C	140	100	3,0
GMS 350 C	350	250	5,5
GMS 700 C / ECD	700	500	7,5
GMS 1400 C / ECD	1400	1000	15,0
GMS 2800 C / ECD	2800	2000	37,0

Mixing technology

- Multiflux® mixing paddles for gentle and rapid mixing processes
- Various options of discharge flaps (one or two, standard or hygienic model)
- ATEX for zones 20 inside, 22 outside

Hygiene

- All components in contact with the product are made of stainless steel
- Hollow-free construction
- All weld seams consistently grinded
- Cantilevered mixing rotors

Cleaning

- Excellent access thanks to the large front door
- Side openings for cleaning
- Cleaning doors and discharge flaps with quickly removable seals
- Rapid inspection of the shaft seal

Seal types

- Shaft seal with compression gland and sealing air
- Hygienic labyrinth seal with removable plastic half-shells for quick cleaning



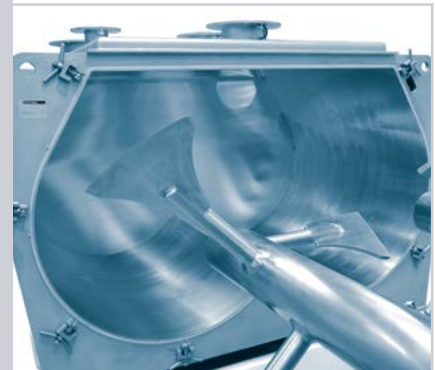
GMS ECD for even shorter cleaning times ...

ECD stands for “extractable cantilevered drive”. Compared to the basic GMS C version, ECD mixers offer even better access to the mixing chamber and mixing tools.

The GMS C version features cantilevered, freewheeling mixing tools and a large front door. Additionally the GMS ECD version features a completely extractable drive and mixing unit, which allows the mixing rotors to be completely pulled out of the mixing chamber with ease. This provides the optimal access for cleaning the entire mixing chamber.

Equipment (in addition to the basic GMS C version)

- Rails and trolleys are hollow-free and facilitate a thorough inspection
- Safety systems for risk-free working
- Energy chain for easy connection of the pull-out unit's electric components



GMS mixers are designed according to GMP and EHEDG guidelines



GMS ECD with open front door





Economic processes ...



Product infeed

- Gericke sack tipping and big bag discharge stations enable an easy and dust-free infeed of products into the systems.



Product preparation

- The Gericke Nibbler and Cone Mill grinding devices break up agglomerates and lumps before the product is fed into the mixing process.
- Gericke sifters control particle size and remove foreign bodies.



Product dosing

- Gericke feeders dose the components into the mixer by weight (gravimetric feeder) or volume (volumetric feeder).
- Gericke feeders are suitable for use in various industries and are designed for throughputs from 0.2 to 50,000 litres per hour.



Product conveying

- The pneumatic conveying systems transport the individual components to the mixer.
- Due to their segregation-free, dense phase flow design, Gericke conveying systems are also suitable for transporting ready-mixed products to subsequent process units.
- The range of products includes pressure and suction conveying systems for short distances of up to several hundred meters.



From the test centre to the perfect mixer ...

Tests

Tests carried out in the Gericke Test Centre are the basis for choosing the right mixer, as it is here that the client's product is tested under real conditions. The knowledge gained as a result of this process reduces the duration of the planning phase and increases the security of the investment.

Other components eligible for the process, such as feeders and pneumatic conveying systems, can also be tested at the same time.

Rental units

If you would like to test the performance of a Gericke mixer in connection with your existing system, it is possible to integrate a rental unit directly into your on-site production processes.

Service

Our experienced service engineers are on hand worldwide, allowing you to achieve the highest possible cost-effectiveness of your processes.

Continuous Mixing

This brochure contains an overview of the batch mixing technology brought to you by Gericke. If you are interested in learning more about continuous mixing systems, then please consult our brochure number 636 to discover what Gericke has to offer.

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