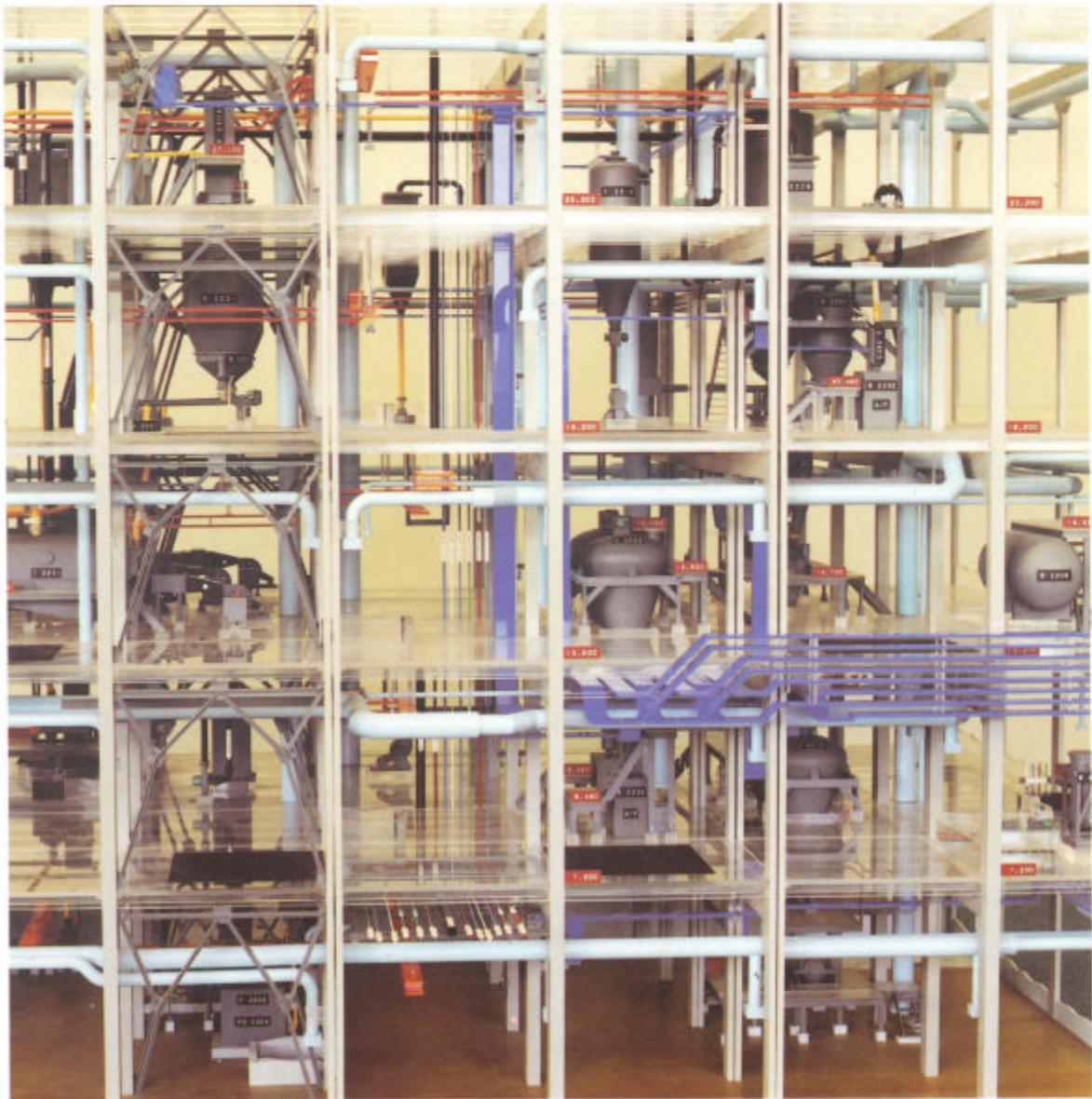


Gericke

Specialists in Bulk Handling Plant Construction



Safe, cost effective Bulk Handling Sys environment.

There are good reasons why Gericke should be your partner in all matters of conveying, mixing and dosing. For Gericke plants quickly pay off through numerous production advantages.

Protective bulk handling

Improves product quality through safe product handling and significantly increases efficiency and plant availability.

Low operating costs

Advantages of rationalisation can be found during operation. Simple operation and low manpower, easy cleaning and a high degree of cleanliness and hygiene keep operating costs low.

Safety and environmental protection

Gericke plants do not pollute the work place or the environment with noise and dust. This means more safety indicating Gericke's concern for safety.

Expert advice during planning phase

By utilising experience and know-how a better ratio of costs/profitability can be achieved.

Gericke bulk handling techniques - excellent results in all process phases

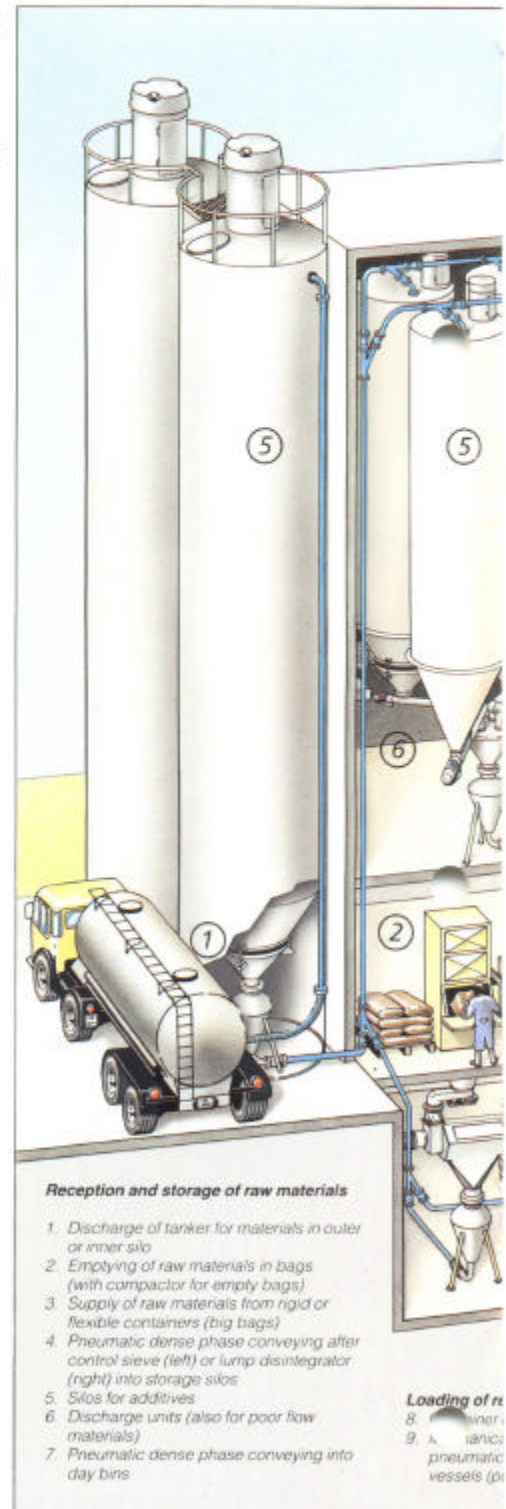
- Reception and storage of raw and intermediate products
- Automatic feeding of products into the production process
- Recipe mixing, dosing, weighing, grinding, blending, extruding etc.
- Packing/filling
- Control and surveillance during the operating process

Cost reduction

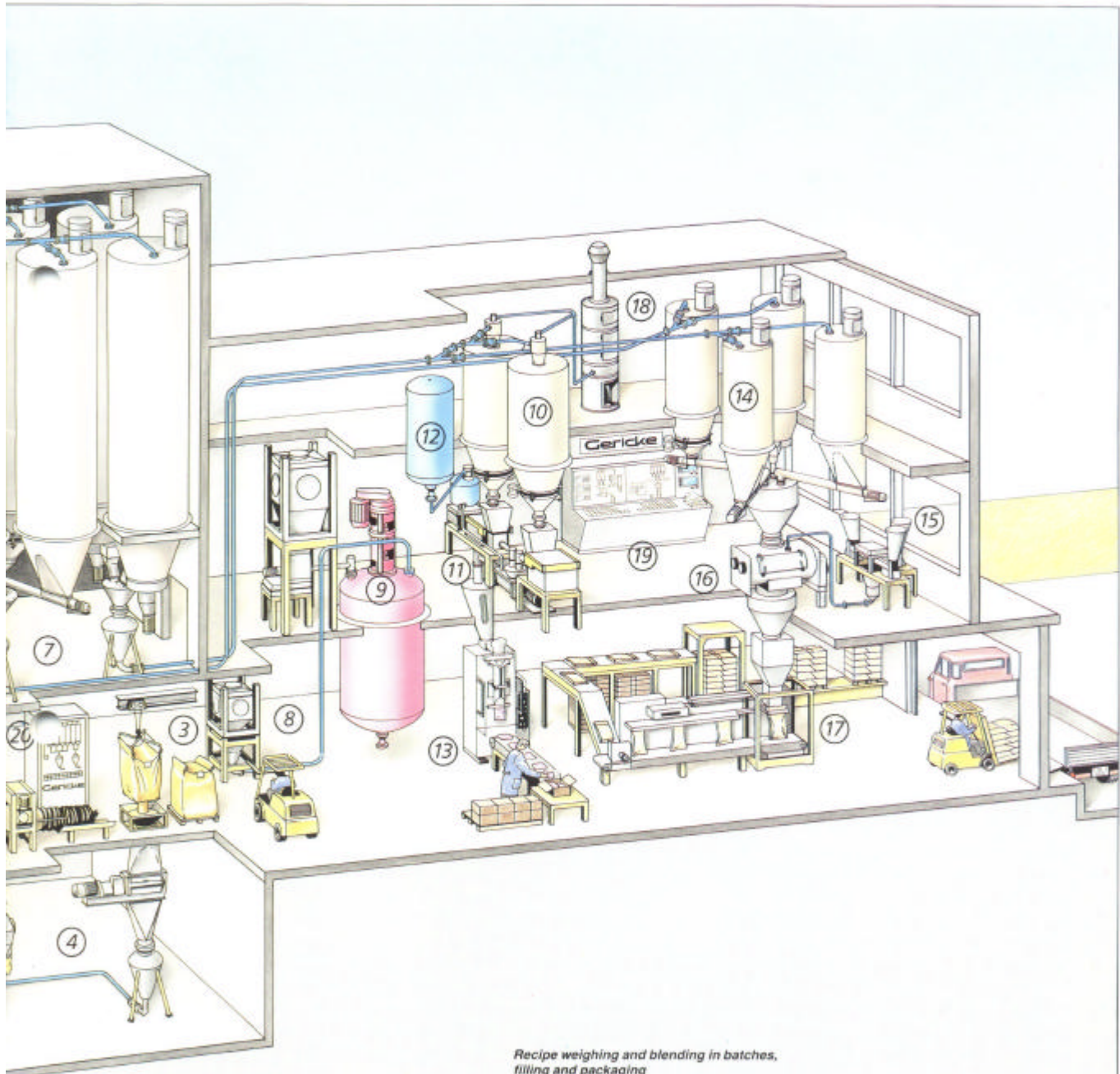
- Less personnel required for the operation (handling etc)
- Less maintenance and service
- Less production losses, especially when using costly components.
- Lower energy costs
- Less low quality goods (rejects)

Rationalisation Gains

- Best achievable production per unit cost
- Higher production with improved product quality
- Savings in batch costs
- Savings in operating personnel



tems, protecting product and



Reactor vessels
 Reactor vessels (dust proof weighed) or conveying into reactor (possibly under protective gas)

Continuous dosing, mixing and bagging

- 10. Day bins for solid components
- 11. Continuous dosing scales (microprocessor controlled) and continuous blenders
- 12. Liquid components, sprayed into the continuous blender
- 13. Automatic bagging and packaging

Recipe weighing and blending in batches, filling and packaging

- 14. Day bins with dosing units and weighing containers for additives
- 15. Dosing of small components and weighing in pneumatic sender with conveying into blender
- 16. Gentle blending in multiflux blender
- 17. Automatic bagging equipment with empty bag supply, bagging, closing, palletising, shrink wrapping (or packaging)

Dust removal

- 18. Centralised or decentralised filter

Automatic process control

- 19. Centralised instrument panel with rvmc panel, programmable control, data input and data retrieval via monitor and printer
- 20. Remote control stations

Raw materials handling and storage

More economical supply and discharge

Rational measures can be carried out even on the supply and reception of raw materials. Semi or fully automatic discharge units not only reduce the personnel required for operation, but also reduce the production loss. They are used for bags, barrels, containers, even on big bags and tanker vehicles or bulk transport.



Large batches are more economical

Changing to large batches makes buying more economical. During the discharge process, the saving of time is of great importance.



Outdoor silos



Pneumatic conveying with weighing of the supplied material

Dust proof conveying

Conveying into the storage silos occurs without any product losses. The planning and layout of silos and co-ordination with silo manufacturers is handled by Gericke on your behalf. Utilise the area under the silo for removing foreign particles from the raw material; Safety combs/ Nibblers enable the material to be easily stored and conveyed.

Product conveying in the production process

First discharge, then convey

Even before the bulk material is conveyed in the production process, discharge from the silo is of the utmost importance.

In our bulk material laboratory experiments are made with your products, unless this experience is already available from previous tests.

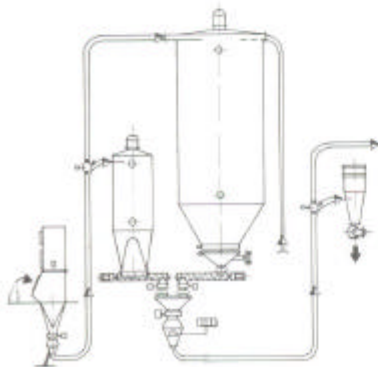


*Conveying from mixer
(explosion proofed)*



Silos with discharge units

Selection of pneumatic conveying (also under protective gas) or mechanical transport depends on the individual problem. Discharge from containers, big bags and sacks, can be carried out dust free and mechanically.



Dosing into reaction vessel



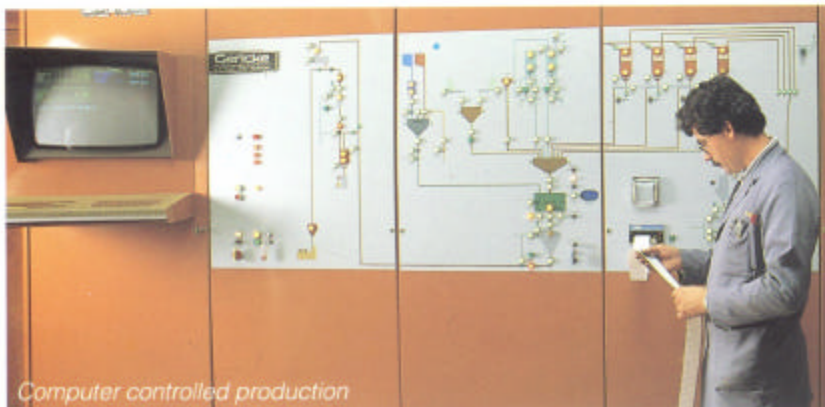
Preparing formulation in batches



Blending and processing plant

Exact weighing and dosing of additives and small components is an important condition for 'successful' formulations. Computer formulation controls and surveys the mixing results.

The computer can balance, regulate the process and give important information to the material buyer or production manager.



Computer controlled production

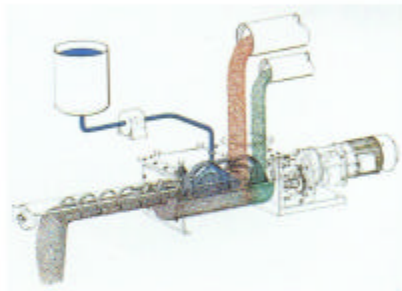


Mixing and pneumatic conveying

Continuous dosing and blending

Pioneer work in developing the continuous blending process

Gericke has done important pioneer work in the development of continuous blending systems. New dosing procedures (gravimetric and volumetric) and new controls for continuous dosing and mixing as well as process control systems were developed.



Best possible homogeneity

The advantages of the continuous mixing system are:

- very good homogeneity of the mixed material
- very short mixing times
- maximisation of production



Continuous weigh feeding and blending



Continuous weigh dosing of components



Process control by microprocessor controlled continuous weigh feeders and mixer.

Continuous mixing systems are increasingly used in food, chemical and plastic industries.

Grinding and blending lines

We have the solution

Gericke's grinding and blending plants solve your manufacturing problems from initial storage to final packaging. Gericke guarantee an optimal lay out of the whole plant and a perfect combination of individual components. In the project phase the component parts of the plant are often tested with customer's products, in the customer's presence.



Gericke's grinding and blending plants operate dust free and are easy to clean; if required they can be supplied in an explosion proof design and/or for inert gas suppression and if necessary with cooling.



Packing Plants

Dosing, weighing and filling of bulk products in a Gericke plant requires a minimum of personnel. Our programme includes the supply and discharge of material, removal and palletising with shrink wrapping.

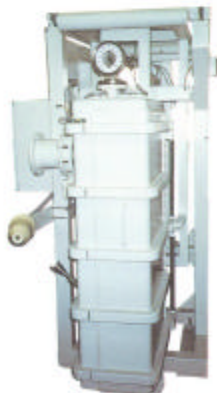


Automatic high capacity bagging station

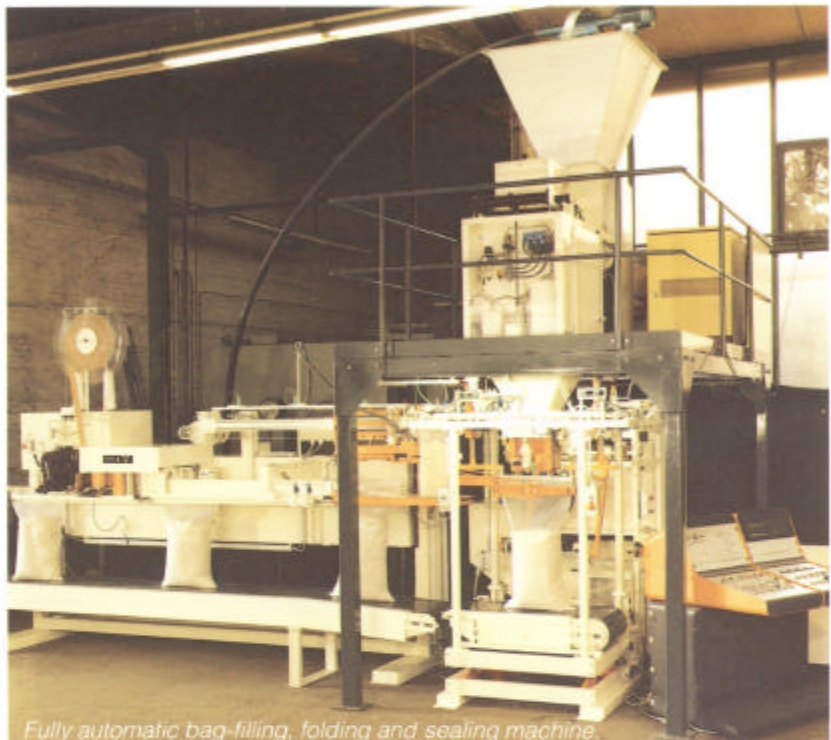
Environmentally safe and economical

Gross and nett discharge systems for open top and valve sacks, big bags drums and containers are equipped with peripheral equipment, for an automatic and dust free performance.

Aerated material is compacted during the batch process or before. This results in a saving on batch storage, and transport costs.



Valve sack filling and compacting unit for dust free filling.



Fully automatic bag-filling, folding and sealing machine.



Automatic open sack suspension, filling and sealing machine

Special requirements such as hygiene and explosion protection



Clients special requirements are taken into consideration when planning and constructing Gericke plants. Here are two examples:

Hygiene design

Avoiding bacterial growth, contamination from outside or 'cross contamination' when changing product residue. Easy cleaning, either without (CIP) or with dismantling of machinery enhance the right concepts with regard to process and construction, both for parts coming into contact with product and those not.

Explosion protection

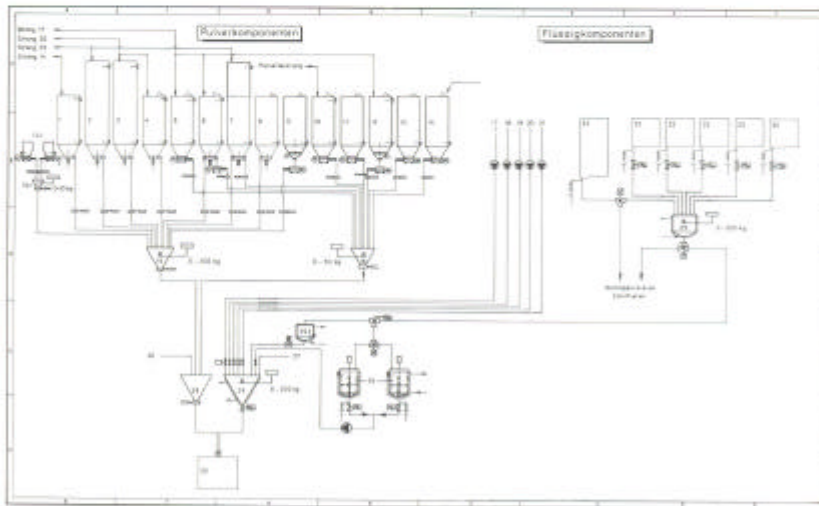
Protective measures against arisal or effect of explosions. This involves too high velocities of movable parts (elimination of ignition points), providing inert atmospheres, pressure proof construction, explosion pressure relief and explosion relief often combined with control.



Optimum plant lay-out

Determination of process flow, costs and area requirement

Our engineers conduct process studies with various aspects working out area requirements and costs. These will give the customer a reliable basis of profitability calculations and investment decisions.



Behaviour of bulk material
Experiments in the Gericke bulk material laboratory give evidence of the behaviour of bulk materials (solids).

Optimum equipment selection

We include in our planning equipment from our own production and others, in order to be able to guarantee the best solution for each case. It requires the know-how of an experienced and competent manufacturer to design correct plant layout.

The Gericke technical center provides the testing requirements of the optimum layout. In the presence of our customers our staff will test varied solutions in large scale plant under working conditions.



Gericke Specialists for nearly a century

Planning, delivery, installation and commissioning by Gericke. To all our customers this means maintaining schedules and costs, also low operating costs through safe plants.

However, it also means that each plant can be 'tailor made' for each customer and his requirements.

For nearly a century Gericke plants have been operating successfully. A fact which proves that these plants represent an investment which pays off quickly and brings long term benefit. Reliable service, efficient spare parts supply and competent advice give, from your choice of a Gericke plant, not only an easy to operate system but also a productive partnership.



Gericke headquarters in Regensdorf/Zürich (CH)



Gericke GmbH in Rielasingen (D)



Gericke Pte Ltd. Singapore



Gericke SA, Argenteuil/Paris (F)



Gericke Ltd. Ashton-under-Lyne (GB)



Gericke BV Hoevelaken (NL)

Gericke

*A member of the Gericke Group of Companies
Powder Handling Equipment Specialists since 1894.*

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