Precision Feeders

High accuracy feeding solutions for industrial processes

Volumetric Feeders for bulk materials
Feeding –  
At the centre of total process control

Proven designs with thousands of running applications.

Gericke volumetric feeders are designed for throughputs from 0.05 to 50,000 litres per hour for most dry solids and liquid applications.

Gericke’s range of feeders are based upon a robust modular design which are used in almost all processing applications including:

- Chemical
- Foods
- Pharmaceutical
- Construction Minerals
- Plastics
- Detergents

Gericke offer cost effective feeding solutions for most powders, granules, fibres, flavours, pigments and liquids.

Added Benefit:
Expert advice on correct selection and operation of the unit, prompt after sales support by specialist engineers, secure return on investment.

Gericke – Feeding of bulk material since 1894.

GLD 87 VR; Compact feeder suitable for a wide range of material characteristics

Controlled feed into a Gericke continuous mixer
Modular feeding equipment – designed for process flexibility

**Volumetric feeding**

A reliable volumetric device is essential for a high accuracy gravimetric weigh feeder.

Accurate metering of bulk solids is achieved using a spiral helix, rotary valve, rotating agitator, vibrating tray or cylindrical stator. Even in the volumetric mode, the metering rate remains constant under the condition of a repeatable fill level within of the selected feeding tool and an even bulk density of the powder.

The feed rate is measured by volume against time.

**Gravimetric Feeding**

Using a gravimetric feeder with load cells, a batch weight can be accurately dispensed or the feed rate continuously controlled. The mode is dependent on the process requirements.

The feedrate or batch weight is regulated by the process controller.

Gericke can upgrade most volumetric feeding models into Gravimetric devices.
# The right feeder for each specific application

<table>
<thead>
<tr>
<th>GPD</th>
<th>GLD</th>
<th>GDU</th>
<th>GAC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low cost, efficient feeder</strong></td>
<td><strong>Compact feeder with agitator for high accuracy feeding</strong></td>
<td><strong>Universal feeder, minimal product retention, used for poor flowing materials</strong></td>
<td><strong>Universal Feeder for highest accuracy, homogeneity and distribution of bulk materials</strong></td>
</tr>
<tr>
<td><strong>Application:</strong></td>
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</tr>
<tr>
<td>Free flowing dry materials for lower feed rates</td>
<td>Suitable for most dry solids, pilot plants, frequent product changes</td>
<td>Medium to high capacity feed rates, hygienic design, difficult products, high feeding accuracy, raisin and fruit feeders, (special applications)</td>
<td>Medium to high feed rates, very difficult materials, highest feeding accuracy batch weighing &amp; feeding station (GAC 233F)</td>
</tr>
<tr>
<td><strong>Advantages:</strong></td>
<td><strong>Advantages:</strong></td>
<td><strong>Advantages:</strong></td>
<td><strong>Advantages:</strong></td>
</tr>
<tr>
<td>Quick and simple to dismantle for wet and dry cleaning, light weight unit (9 Kg)</td>
<td>Versatile, adaptable, compact, reliable, precise</td>
<td>Versatile, adaptable, complete emptying</td>
<td>Feeding tool and homogeniser are concentrically aligned with large product entry suitable for difficult products</td>
</tr>
<tr>
<td><strong>Capacity range</strong>: 0,05–600 l/h</td>
<td><strong>Capacity range</strong>: 0,05–600 l/h</td>
<td><strong>Capacity range</strong>: 1,3–25.600 l/h (depending on model)</td>
<td><strong>Capacity range</strong>: 1,3–27.000 l/h</td>
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<tr>
<td><strong>Type:</strong> GPD 100</td>
<td><strong>Type:</strong> GLD 77 (mechanical agitator), GLD 87 (agitator with independent drive)</td>
<td><strong>Type:</strong> GDU 201, GDU 451, GDU 801 (with agitator), GDU 301, GDU 601 (without agitator)</td>
<td><strong>Type:</strong> GAC 207, GAC 232; GAC 233 F (with separate helix for coarse and trickle feeding)</td>
</tr>
</tbody>
</table>

*Approximate throughput values based on Semolina. Minimum value using smallest helix diameter at 5% of speed range and maximum value with largest helix at 100%
Technical advantages of Gericke feeders:

- Robust construction
- High reliability for long life cycle
- Hygienic design (in accordance with EHEDG)
- Large range of feed tool lengths
- No segregation
- Large entry section
- Constant bulk density
- Crevice free surfaces
- Continuous welding (option)
- Range of drive options
- +/- pressure rated options available

VIBRO

Vibro feeder for coarse and fragile products

Application: Large capacity range, fragile or abrasive products, light and coarse materials, fibres

Advantages: No rotating parts, gentle operation, easy cleaning, no component wear

Capacity range*: 1–10000 l/h

RA

Discharge and feeding device for very poor flowing products. A rotating paddle sweeps the product towards the outlet valves. An adjustable valve regulates the feed rate

Application: Discharge from silo’s or hoppers, refilling loss-in-weight feeders, component feeding

Advantages: Discharge without segregation, feed-distribution (1 – 4 outlets) and shut off valve combined into one device

Capacity range*: 0,2–40.000 l/h

Type: RA 500, RA 800, RA 1200, RAS (RAS Type for over/under pressures)

KAD

Discharge and feeding device

An agitator moves the product towards the outlet. The slide gate regulates the feed rate

Application: Filling systems, can be combined with automated batch controller

Advantages: Combined discharge and feeding, hygienic, easy to clean, high feeding accuracy

Type: KAD 90 (Outlet diameter 1–90 mm), KAD 150 (Outlet diameter 1–150 mm)

The benefits:

- Easy cleaning
- High feeding accuracy
- Guaranteed recipe reliability
- Versatile applications
- Low maintenance costs
- Simple to control
- Adaptable (easily adaptable)

ISO 9001:2000

ISO 9001-2000 quality guarantee
Gericke is a member of EHEDG
Selecting the correct feeding tool

**Product Characteristics**
- free flowing (salt, corn, sugar)
- flushing (carbonates, fly ash, gypsum)
- fluidisable (cocoa)
- cohesive (TiO₂, stearates)
- adhesive (carbon black, pigments)
- abrasive (quartz sand, silicon carbide)
- compressible (chalk)
- fragile (flakes, instant coffee)

**Installation**
- Mounting (supported or hinged)
- Number of feeders
- Headroom
- Feed distance

**Process**
- Capacity
- Operation mode (batch/continuous)
- Pressure rating
- Accuracy
- Level of automation

**Feeding tool selection**
- Round spiral
- Square helix
- Helix with centre shaft and end bearing
- Variable pitch
- Full flight screw
- Vibro feeder
- Extended feed tool
- Fluidisation
- Rotating bin discharger

**Accessories for high feed accuracy**
- Agitator → consistent product flow
- Homogeniser → repeatable bulk density for optimum feed accuracy
- Bridge breakers → Ensure difficult products discharge for the surge hopper into the feed chamber
Ancillary process equipment

Gericke feeders are designed using a modular system customised to the specific requirements of the application. The flexibility of the Gericke equipment range offers simplified system design and greater added value.

- Special designs for agitators and homogenisers
- Surface finish and coatings; EGPDFE, Bead blast, electro-polished
- Variable feed tool lengths
- Shaft seals: stuffing box, PTFE lip seals, air purge glands
- AR outlet for vertical discharge
- ARFE outlet, flanged with end bearing
- ARFG outlet with “Granuflow” flow control
- AGP shut off valve with position indicator
- Hinged bottom door with safety switch
- FDA approved seals

- Drive options
- Variable speed integrated frequency inverter
- Pressure tight design
- High temperature applications
- ATEX zones: 1, 2, 22, 21
- Special feeders for raisins and fruits.
- Pneumatic conveying feeder refill systems
### World-wide Service Support

**Material reference chart:**
The stated values are for indicative purposes only and are subject to confirmation after receipt of all application data. Planning graphics are available in dxf format from the Gerike web-site www.gericke.net.

**Feeding and sifting station for pharmaceutical powders**

For further information about gravimetric feeders and controllers please request the Gerike leaflets No 624 Easydos and No 625 Gravimetric feeders.

We will be pleased to forward copies or alternatively they can be downloaded for our website www.gericke.net.

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**Selection of reference products**

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<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
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**World-wide Service Support**

Gerike feeders are used in a vast variety of production applications including: ice tea, syrups, spices, mustard, milk powder, cereal bars, pizza toppings, gypsum boards, salt, ceramics, metal coatings, PVC powder and many more.

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**Powder Processing Equipment and Systems**

<table>
<thead>
<tr>
<th>Type</th>
<th>Feed capacity range</th>
<th>Drive kW</th>
<th>Weight kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPD 100</td>
<td>0.05 – 0.60</td>
<td>12</td>
<td>270</td>
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<tr>
<td>GLD 77</td>
<td>0.05 – 0.60</td>
<td>12</td>
<td>350</td>
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<td>GLD 87</td>
<td>0.05 – 0.60</td>
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<tr>
<td>GAC 207</td>
<td>1.0 – 3.00</td>
<td>55</td>
<td>100</td>
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<tr>
<td>GAC 232</td>
<td>1.0 – 3.00</td>
<td>55</td>
<td>90</td>
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<tr>
<td>GAC 233 F</td>
<td>batch operation</td>
<td>55</td>
<td>140</td>
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<tr>
<td>GDU 201</td>
<td>1.3 – 800</td>
<td>55</td>
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<td>GDU 301</td>
<td>1.3 – 11.200</td>
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<td>GDU 451</td>
<td>1.3 – 11.200</td>
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<td>680</td>
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<tr>
<td>GDU 601</td>
<td>1.3 – 25.000</td>
<td>55</td>
<td>390</td>
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<tr>
<td>GDU 801</td>
<td>500 – 50.000</td>
<td>3.0</td>
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<tr>
<td>GDU 1200</td>
<td>400 – 100.000</td>
<td>200</td>
<td>1300</td>
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*Approximate throughput values based on Semolina. Minimum value using smallest helix diameter at 5% of speed range and maximum value with largest helix at 100% speed range.

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**Petrochemical feeders**

<table>
<thead>
<tr>
<th>Type</th>
<th>Feed capacity range</th>
<th>Drive kW</th>
<th>Height Width, Length</th>
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<tbody>
<tr>
<td>Vibr</td>
<td>0.5 – 10.000</td>
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<tr>
<td>KAD150</td>
<td>batch operation</td>
<td>0.37</td>
<td>90</td>
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<tr>
<td>RA 500</td>
<td>400 – 40.000</td>
<td>3.0</td>
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<tr>
<td>RA 800</td>
<td>500 – 50.000</td>
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<tr>
<td>RA1200</td>
<td>400 – 100.000</td>
<td>200</td>
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</table>

**Specials**

- No agitation
- Mechanical agitation
- with independent drive
- homogenising
- minimal product retention
- without agitation
- sacking
- difficult powder
- 1–4 outlets
- 1–4 outlets
- 1–4 outlets
- 1–4 outlets
- 1–4 outlets
- 1–4 outlets
- 1–4 outlets
- 1–4 outlets

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