RELIABILITY IS ESSENTIAL
100% quality for your success

Bulk material handling components

www.zeppelin-systems.com
Zeppelin Systems, the world leading plant manufacturer for high quality bulk material handling, has remarkably grown over the past 60 years. We cover the demands of a wide range of industries and supply all plant manufacturing services from one single source, whether basic engineering, in-house production of components, final assembly or comprehensive customer service. Thanks to our financial strength and our global network, we have long been a reliable partner for our customers.

Every Zeppelin plant is developed according to the clients’ specific requirements, and realized, thanks to our customized innovative processes and technologies.

The knowledge we have acquired over more than 60 years of plant manufacturing and the world’s largest network for bulk material handling is the key to providing ideal solutions, whatever the challenge; after all, your success is our goal.

Zeppelin plant engineering – business fields

Polyolefin Plants
Plants for plastics producers and forwarders

Plastics & Rubber Plants
Plants for the plastics processors and rubber industry

Food Processing Plants
Plants for the food, confectionery and baking industry

Mixing Technology
HENSCHEL-Mixers®, mixing systems

Silos
Storage silos, mixing silos, process silos

Components
Rotary feeders, diverter valves, discharge and dosing units, sifters, filters …

Service
Spare parts, customer service and consulting

Modernization/Revamping
Optimization of production lines and plant controls
The whole works for all applications

- Rotary feeders
- Diverter valves
- Rotary sifters
- Vibratory cones and bottoms
- Filters
- Vacuum hoppers
- Fluidizing beds
- Discharge and dosing module KOEISL
- Dosing and feeding screws
- Samplers

Whether for the food or rubber industries, for plastics producers or processors – high-quality components play a crucial role. We know that and this is why we supply components 100% handcrafted by Zeppelin.

Zeppelin quality – one you can rely on

We develop and manufacture all components that have an influence on the quality of your bulk material ourselves. From test series in our technology centers to design and production through to first-class service, we do what is necessary to meet your high demands in regards to functionality.

The whole knowledge of the company is applied already in the development of the components. Thanks to the close contact to our customers around the world, we are always a step ahead in technological trends. When it comes to developing new processes or optimizing current ones, one name is at the top of the list: Zeppelin.
Complex Zeppelin process technology with self-made key components

Vibratory cone and bottom
Aeration cone
Fluidizing bed
KOKEISL
Dosing and conveying screw
Rotary feeder
Diverter valve
Rotary sifter
Filter
Product overview
Zeppelin rotary feeders transport the customers’ bulk material from the containers and silos into the pneumatic conveying system. Particular attention is paid to detail so that everything runs smoothly. This is why we provide our customers with the optimal rotary feeder for every task – whether for powders or pellets. High degree of filling, ideal sizes, friendly product handling, innovative sealing systems, minimal leakage – perfection you can rely on.

## ROTARY FEEDERS

### Application overview

<table>
<thead>
<tr>
<th>Low pressure</th>
<th>Medium pressure</th>
<th>High pressure</th>
<th>Purge gas</th>
<th>Recommended material</th>
<th>Rotor design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge rotary feeder A1</td>
<td>Discharge rotary feeder A01</td>
<td>Blow-through rotary feeder G00</td>
<td>High pressure rotary feeder G01</td>
<td>Housing/side plates</td>
<td>Stainless steel, Chilled casting, Cast aluminum, Cast steel, Stainless steel-blown through Silicium, Stainless steel-blown through nonwoven fabric</td>
</tr>
</tbody>
</table>

### Max. differential pressure (bar [g])

- Low pressure: 1.0
- Medium pressure: 1.0
- High pressure: 1.0
- Purge gas: 1.5
- Recommended material: CFH
- Rotor design: Stainless steel

### Products

#### Pellets
- ABS, EPOY, HOPE, LLDPE, PA, PBT, PP, PS
- PC, PET

#### Powder
- S-PVC, E-PVC, silica, silica acid, chalk, compound PVC, PE, PP
- PTA, titanium dioxide
- Carbon black

#### Food
- Fleur
- Starch
- Sugar

#### Minerals/abrasives
- SAP (superabsorber)
- Powdered limestone
- Sawdust
- Cement

#### Design
- Discharge
- Blow-through

#### Extras
- Heating/cooling
- Quick cleaning
- Flameproof (protective organ)
- ATEX design

### Subject to modifications without notice

- Different material combinations of housing and side plates only possible for CFH series
- For powdered sugar
- Durni coated
- Tungsten carbide coating
- Only for sizes up to 320
- Please contact our sales components department

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* ROTARY FEEDERS animation

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Subject to modifications without notice
### Rotary feeders

#### Low pressure rotary feeders

**Discharge rotary feeder A1/AG11**

For feeding bulk material into pneumatic dilute phase conveying systems

- **Bulk materials:** Powder, pellets
- **Operating pressure:** -1.0 to +1.0 bar (g)
- **Temperature range:** Optional, 10 to +60°C (standard)
- **Sizes:** 160 to 500 mm
- **Materials:** Aluminium/stainless steel/gray cast iron
- **Accessories:** Chain drive, Optional: Direct drive, leakage gas collector, feeding chutes, support frame, quick cleaning version, support frame, flame-proof (sizes 160 – 320), additional accessories upon request

#### Medium pressure rotary feeders

**Medium pressure rotary feeder CFM**

For feeding into pneumatic dilute and dense phase conveying systems or for feeding and discharge of bulk material in processing plants

- **Bulk materials:** Powder, pellets
- **Operating pressure:** -1.0 to +1.5 bar (g)
- **Temperature range:** Optional, -52 to +250°C
- **Sizes:** 200 to 750 mm (160 from 2017)
- **Materials:** Aluminium/stainless steel
- **Accessories:** Chain drive, Optional: Direct drive, leakage gas collector, feeding chutes, support frame, ATEX design, additional accessories upon request

#### High pressure rotary feeders

**High pressure rotary feeder CFH**

For feeding into pneumatic dense phase conveying systems or for feeding and discharge of bulk material in processing plants

- **Bulk materials:** Powder, pellets
- **Operating pressure:** -1.0 to +3.5 bar (g)
- **Temperature range:** Optional, -10 to +60°C (standard)
- **Sizes:** 200 to 850 mm (160 from 2017)
- **Materials:** Aluminium/stainless steel
- **Accessories:** Chain drive, Optional: Direct drive, leakage gas collector, feeding chutes, support frame, ATEX design, additional accessories upon request

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Subject to modifications without notice.
DIVERTER VALVES

With Zeppelin diverter valves, your product is always on the right track. We know the ways best. Whether rectangular shaped or symmetrical, our diverter valves are flexible and can be tailored on demand to the customer needs. Here too, our customers' bulk materials are given top priority and are handled with care by Zeppelin components. We have designed sealing systems that reduce maintenance work to a minimum and developed hardened inserts that increase the service life. You can rely on our proven premium quality and maximum efficiency in daily operations.
<table>
<thead>
<tr>
<th><strong>Low pressure diverter valves</strong></th>
<th><strong>High and medium pressure diverter valves</strong></th>
<th><strong>Subject to modifications without notice</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Two-channel diverter valve</strong></td>
<td><strong>Single channel diverter valve</strong></td>
<td><strong>Diverter valves</strong></td>
</tr>
<tr>
<td>Diverter valve ZWV</td>
<td>Diverter valve TST</td>
<td></td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td><strong>Operation pressure</strong></td>
<td></td>
</tr>
<tr>
<td>Diverter valve for directing or converging the product flow in pneumatic conveying systems and gravity pipes</td>
<td>-1.0 to +1.5 bar (g) (to 4.0 bar (g) from 2017)</td>
<td>Divertor valve for directing or converging the product flow in pneumatic conveying systems and gravity pipes</td>
</tr>
<tr>
<td><strong>Bulk materials</strong></td>
<td><strong>Temperature range</strong></td>
<td></td>
</tr>
<tr>
<td>Powder, pellets</td>
<td>-20 to +120°C (standard)</td>
<td>-20 to +120°C (standard)</td>
</tr>
<tr>
<td><strong>Operating pressure</strong></td>
<td>-20 to +130°C (standard)</td>
<td>-20 to +130°C (standard)</td>
</tr>
<tr>
<td>-1.0 to +6.0 bar (g)</td>
<td>-52 to +180°C</td>
<td>-52 to +180°C</td>
</tr>
<tr>
<td><strong>Temperature range</strong></td>
<td><strong>Option with heating system</strong></td>
<td></td>
</tr>
<tr>
<td>-20 to +130°C (standard)</td>
<td>-1.0 to +6.0 bar (g)</td>
<td></td>
</tr>
<tr>
<td><strong>Diverting angle</strong></td>
<td><strong>Option with heating system</strong></td>
<td></td>
</tr>
<tr>
<td>35°</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sizes (diameters)</strong></td>
<td><strong>Materials</strong></td>
<td></td>
</tr>
<tr>
<td>56 to 163 mm</td>
<td>Housing aluminium, parts in contact with product stainless steel/rotary plug cast aluminium with stainless steel pipe</td>
<td>Housing aluminium/rotary plug with stainless steel insert</td>
</tr>
<tr>
<td>100 to 350 mm</td>
<td>Housing aluminium/rotary plug with stainless steel insert (from 2017) (150/188/200)</td>
<td>Housing aluminium/rotary plug with stainless steel insert (from 2017) (150/188/200)</td>
</tr>
<tr>
<td><strong>Materials</strong></td>
<td><strong>Accessories</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Accessories</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATEX design, additional accessories upon request</td>
<td>Optional ATEX design, inflatable seal, additional accessories upon request</td>
<td>Optional ATEX design, inflatable seal, additional accessories upon request</td>
</tr>
<tr>
<td>Application</td>
<td>Single channel diverter valve, wear resistant Diverter valve ZWR</td>
<td>Medium pressure diverter valves</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Diverting angle</td>
<td>35°</td>
<td>2 outputs</td>
</tr>
<tr>
<td>Sizes (diameter)</td>
<td>50 to 250 mm</td>
<td>50 to 225 mm</td>
</tr>
<tr>
<td>Materials</td>
<td>Housing aluminium/parts in contact with product stainless steel</td>
<td>Housing aluminium/stainless steel inserts</td>
</tr>
<tr>
<td>Accessories</td>
<td>Inflatable seal, Optional: ATEX design, wear protected stainless steel insert, additional accessories upon request</td>
<td>Optional: ATEX design, additional accessories upon request</td>
</tr>
<tr>
<td>Bulk materials</td>
<td>Powder, pellets, abrasive products</td>
<td>Powder, pellets, adhesive powders with poor flowability</td>
</tr>
<tr>
<td>Operating pressure</td>
<td>-1.0 to +6.0 bar (g)</td>
<td>-1.0 to +4.0 bar (g)</td>
</tr>
<tr>
<td>Temperature range</td>
<td>Optional: -10 to +80°C (standard) -52 to +180°C</td>
<td>Optional: -10 to +80°C (standard)  --</td>
</tr>
<tr>
<td>Materials</td>
<td>Housing aluminium/parts in contact with product stainless steel</td>
<td>Housing aluminium/stainless steel inserts</td>
</tr>
<tr>
<td>Accessories</td>
<td>Inflatable seal, Optional: ATEX design, wear protected stainless steel insert, additional accessories upon request</td>
<td>Optional: ATEX design, additional accessories upon request</td>
</tr>
</tbody>
</table>
**DISCHARGE AND DOSING**

**Fluidizing beds, aeration cones and vibratory cones/bottoms**

Trouble-free is best – and this is achieved by providing our customers’ products with the right assistance. Reliable, tried and tested – perfect!

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**Application overview**

<table>
<thead>
<tr>
<th>Discharge hoppers</th>
<th>Discharge modules</th>
<th>Conveying screws</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeration cone BTS</td>
<td>Aeration cone BTS</td>
<td>Application overview</td>
</tr>
<tr>
<td>Aeration cone BTS</td>
<td>Aeration cone BTS</td>
<td>Application overview</td>
</tr>
<tr>
<td>Aeration cone BTS</td>
<td>Aeration cone BTS</td>
<td>Application overview</td>
</tr>
<tr>
<td>Aeration cone BTS</td>
<td>Aeration cone BTS</td>
<td>Application overview</td>
</tr>
<tr>
<td>Fluidizing bed FB</td>
<td>Fluidizing bed FB</td>
<td>Application overview</td>
</tr>
</tbody>
</table>

**Products**

**Pellets**
- ABS, EPDM, HDPE, LDPE, LLDPE, PA, PET, PP, PS
- PC, PET

**Powder**
- S-PVC, E-PVC, silica, silica acid, chalk, compound PVC, PE, PP
- PTA, titanium dioxide*
- Carbon black

**Food**
- Flour
- Starch
- Sugar

**Minerals/abrasives**
- SAP (superabsorber)
- Powdered limestone
- Sawdust
- Cement
- Coal dust

* Please contact our sales components department

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**Discharge and dosing module KOKEISL**

The exact amount is key – mostly in the food and plastics industries. The KOKEISL technology: innovative and ideal for a reliable discharge and precise dosing of bulk material with poor flowability. Don’t go for less – after all, your product’s formula is your capital!

**Dosing and conveying screws**

Perfectly in motion – the Zeppelin dosing and conveying screws are the ideal components for dosing and transporting your bulk material. They can be used in conveying systems as well as for precise scale dosing. 100% stainless steel, easy to clean, precise conveying and dosing – 100% Zeppelin!

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Subject to modifications without notice
## Application

Cone with discharge aid for non-free flowing bulk material by fluidization. Combined with mechanical movement of the fluidizing cloth. Activating the product flow and conveying bulk material with poor fluidity. Pneumatic fluidization system for a gentle discharge of well fluidizable bulk material. Filling and dosing various bulk materials out of silos and containers to other containers. Dosing and conveying of dry, powdery and pelletized bulk material and feeding of scales.

## Bulk materials

<table>
<thead>
<tr>
<th></th>
<th>Powder, pellets</th>
<th>Powder, pellets</th>
<th>Powder, pellets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating pressure</td>
<td>-5 to +45 mbar</td>
<td>1.6 bar</td>
<td>1.6 bar</td>
</tr>
<tr>
<td>Temperature range</td>
<td>-10 to +80°C</td>
<td>-10 to +80°C</td>
<td>-10 to +80°C</td>
</tr>
<tr>
<td>Hopper inclination angle</td>
<td>60°</td>
<td>60°</td>
<td>110°</td>
</tr>
<tr>
<td>Sizes (diameter)</td>
<td>600 to 1400 mm</td>
<td>600 to 1800 mm</td>
<td>640 to 1276 mm</td>
</tr>
<tr>
<td>Outlet diameter</td>
<td>150 to 500 mm</td>
<td>180 and 250 mm</td>
<td>230 mm</td>
</tr>
<tr>
<td>Materials</td>
<td>Aluminium</td>
<td>Stainless steel</td>
<td>Stainless steel</td>
</tr>
<tr>
<td>Accessories</td>
<td>Pressure tank, valves, Optional: ATEX design</td>
<td>Optional: shock-pressure resistant design, ATEX design, shut-off valve</td>
<td>Optional: ATEX design</td>
</tr>
</tbody>
</table>

## Features

Fluidizing bed FB: Dosing and conveying screw DS: Discharge and dosing module KOKEISL KA/KAD: Vibratory cone/ vibratory bottom VT/VB: Aeration cone BTS: Discharge and dosing units

Subject to modifications without notice.
ROTARY SIFTERS

Everything under control. Zeppelin rotary sifters are the ideal tool for processing bulk material. They can be used as preliminary sieve before silos, as final sieve underneath bag filling stations and containers or as inline sifter for pressure-tight operations up to 0.8 bar (g) in pneumatic conveying systems. Our rotary sifters ensure reliable removal of foreign matter and precise particle size verification.

### Application overview

<table>
<thead>
<tr>
<th></th>
<th>Rotary sifter RS</th>
<th>Drum screen TS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Products</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pellets</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>PC, PET</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Powder</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-PVC, E-PVC, silica, silica acid, chalk, compound PVC, PE, PP</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>PTA, titanium dioxide*</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Carbon black</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>Food</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flour</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Starch</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Sugar</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>Minerals/abrasives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAP (superabsorber)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>Special equipment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sifter drum purge system</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sifter drum monitoring Screen-D-Tect</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

* Please contact our sales components department

### Application

As preliminary sieve before silos or bag filling stations, as final sieve underneath containers or as inline sifter for pressure-tight operations in pneumatic conveying systems.

For continuous separation of streamers (angels hair) and agglomerates from plastic pellets.

### Bulk materials

- Powder, pellets
- Pellets

### Operating pressure

-0.5 to +0.8 bar (g)

### Temperature range

-20 to +40°C

### Sizes

<table>
<thead>
<tr>
<th>(L x W x H)</th>
<th>3</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1686 x 435 x 483</td>
<td>2044 x 680 x 980</td>
</tr>
<tr>
<td></td>
<td>3000 x 1400 x 2700</td>
<td>4150 x 1800 x 2750</td>
</tr>
<tr>
<td></td>
<td>4800 x 2500 x 3560</td>
<td>5950 x 3200 x 5230</td>
</tr>
</tbody>
</table>

### Inlet connection

- square 250 x 250 mm

### Mesh size

- Wedge wire: 0.6 to 1.0
- Plastic mesh: 0.6 to 4.0
- Perforated sheet: 2.5 to 14 mm

### Materials

- Machine housing and parts in contact with product: stainless steel/inlet housing and lid aluminium/screen cloth plastic, wedge wire screen or perforated sheet stainless steel
- Housing aluminium/drum screen stainless steel 1.4001, sandblasted or electropolished

### Accessories

- Inspection lid right or left side for RS 7
- Optional: sifter drum purge system, sifter drum monitoring Screen-D-Tect, fine material collecting cone, cyclone, coarse material outlet with shut-off valve, double valve, support frame, ATEX design
FILTERS

The aim of our filter systems: exceed our customers’ expectations. Whether with our conventional filter product range or with jet venting filters – pure air is sustainable. We know this and we can do it. You tell us your parameters and we will provide you with the matching system.

<table>
<thead>
<tr>
<th>Application overview</th>
<th>Jet filter</th>
<th>Filter element finish</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>Jet silo venting filter AE</td>
<td>AE, DEB, UEB</td>
</tr>
<tr>
<td></td>
<td>Jet venting filter JEB/JS</td>
<td>JS, DEB</td>
</tr>
<tr>
<td></td>
<td>Jet vacuum filter UEB/US</td>
<td>UEB, US</td>
</tr>
<tr>
<td></td>
<td>Shock pressure resistant jet venting filter DEB/DS</td>
<td>DEB, DS</td>
</tr>
<tr>
<td></td>
<td>Aluminium coating, PTFE membrane or PTFE coating</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pellets</td>
</tr>
<tr>
<td>ABS, EPDM, HDPE, LDPE, PA, PBT, PP, PS</td>
</tr>
<tr>
<td>PC, PET</td>
</tr>
<tr>
<td>Food</td>
</tr>
<tr>
<td>Flour</td>
</tr>
<tr>
<td>Starch</td>
</tr>
<tr>
<td>Salt</td>
</tr>
<tr>
<td>Sugar</td>
</tr>
<tr>
<td>Minerals/abrasives</td>
</tr>
<tr>
<td>SAP (superabsorber)</td>
</tr>
<tr>
<td>Powdered limestone</td>
</tr>
<tr>
<td>Sawdust</td>
</tr>
<tr>
<td>Cement</td>
</tr>
<tr>
<td>Coal dust</td>
</tr>
<tr>
<td>Filter elements</td>
</tr>
<tr>
<td>Pleated cartridges</td>
</tr>
<tr>
<td>Filter bags</td>
</tr>
<tr>
<td>Replacement on raw gas side</td>
</tr>
<tr>
<td>Replacement on clean gas side</td>
</tr>
<tr>
<td>Extras</td>
</tr>
<tr>
<td>Automatic jet cleaning</td>
</tr>
<tr>
<td>Differ. pressure measurement</td>
</tr>
<tr>
<td>Shock-pressure resistant up to 1 bar</td>
</tr>
<tr>
<td>Vacuum operation</td>
</tr>
</tbody>
</table>

Subject to modifications without notice

2 For powdered sugar
### Application
- For the continuous filtering of pneumatic conveying air from continuously operating hoppers and silos.

### Bulk materials
- Powder, pellets

### Operating pressure
- 0 to +0.1 bar (g)

### Temperature range
- -20 to +60°C

### Sizes (housing diameter)
- 795 955 mm

### Filter surface
- 22.5 30.0 m²

### Cartridges
- Cartridges with clamping fixture
- 9 12

### Materials
- Housing stainless steel, pleated cartridges antistatic polyester felt with or without PTFE coating

### Accessories
- ATEX design, automatic jet cleaning
- Optional: differential pressure measurement, shock pressure resistant up to 1.0 bar, sound insulation

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### Jet silo venting filter AE
- For the continuous filtering of pneumatic conveying air from continuously operating hoppers and silos.

### Jet venting filter JEB/JS
- For the continuous filtering of pneumatic conveying air from continuously operating hoppers and silos.

### Jet vacuum filter UEB/US
- For the continuous filtering of pneumatic conveying air from continuously operating hoppers and silos.

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### Jet venting filter DEB/DS (shock pressure resistant)
- For the continuous filtering of pneumatic conveying air from continuously operating hoppers and silos.

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**Subject to modifications without notice**
OTHER COMPONENTS

Samplers

Make an example out of the sample – no problem with our samplers. Reliable results and quality control from the product stream or the hopper.

Vacuum hopper loaders

Particularly suitable for powdery products: the driving force in your system. Thanks to its large filter surface, the vacuum hopper loader ensures reliable product flow.

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### Application overview

<table>
<thead>
<tr>
<th>Products</th>
<th>Sampler</th>
<th>ATEX design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pellets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABS, EPDM, HDPE, LDPE, PA, PBT, PP, PS</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>PC, PET</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Powder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-PVC, E-PVC, silica, silica acid, chalk, compound PVC, PE, PP</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>PTA, titanium dioxide</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Carbon black</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flour</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Starch</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Salt</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Sugar</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Minerals/ abrasives</td>
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<td></td>
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<tr>
<td>SAP (superabsorber)</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Powd. limestone</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Sawdust</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Cement</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Coal dust</td>
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<td>✔</td>
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<tr>
<td>Extras</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATEX design</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

Subject to modifications without notice 29
### Sampler GC

- **Application**: Sampling from conveying pipes
- **Bulk materials**: Pellets
- **Operating pressure**: to +1.0 bar (g)
- **Temperature range**: -20 to +80°C
- **Sizes (diameter)**: 50 mm, 100 mm
- **Performance**: Max. throughput for free-flowing pellets: 0.2 m³/h, 5 m³/h
- **Materials**: Parts in contact with product - stainless steel
- **Accessories**: Pneumatic operation, high-temperature version, controls, additional accessories upon request

### Sampler MPN

- **Application**: Sampling from the product stream, hoppers and gravity pipes
- **Bulk materials**: Powder, pellets
- **Operating pressure**: to +1.0 bar (g)
- **Temperature range**: 10 to +180°C
- **Sizes (diameter)**: 50 mm, 105 mm, 140/220/385 mm
- **Performance**: Volume per stroke: 50 cm³, 200 cm³
- **Materials**: Parts in contact with product - stainless steel
- **Accessories**: Pneumatic or manual operation, high-temperature version, controls, additional accessories upon request

### Universal vacuum hopper loader SFG

- **Application**: For automatic feeding of extruders, processing machines, hoppers and storage silos
- **Bulk materials**: Powder, pellets/flakes with high powder content
- **Operating pressure**: -0.5 to +0.05 bar (g)
- **Temperature range**: -10 to +80°C
- **Sizes (diameter)**: 2, 3, 6 m²
- **Performance**: (bulk density 800 kg/m³) approx. 1000 to 1300 to 2500 kg/h
- **Materials**: Parts in contact with product - stainless steel
- **Accessories**: Optional: ATEX design, controls, vacuum pump, additional accessories upon request

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Rödermark, Germany
Technology center built on an industrial scale specifically for the needs of the food industry.

Kassel, Germany
Technology center specialized in mixing. There, comprehensive tests are carried out with the HENSCHEL®-products to cover all mixing issues.

São Paulo, Brazil
The focus of tests carried out in our São Paulo technology center is set on the plastics and cement industries.
Presented by:

Zeppelin Systems GmbH
Graf-Zeppelin-Platz 1
88045 Friedrichshafen
Germany
Tel.: +49 7541 202-02
Fax: +49 7541 202-1491
zentral.fn@zeppelin.com
www.zeppelin.com

For the complete Zeppelin Systems range please visit our website at www.zeppelin-systems.com

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