

Components for Bulk Solids From the System Supplier:
Track-proven – Innovative – Reliable.





100 years of meeting your tasks has helped us gain strength – through experience.

The industry sector of the Zeppelin group is among the leading manufacturers of plants for the storage, conveying, blending, and proportioning of high-quality bulk solids. Thanks to our world-wide activities and locations in all important industrial centres we can always provide our clients with the latest, most innovative and secure process technology – to ensure maximum economic success.

As the direct successor of Earl Ferdinand von Zeppelin who, more than 100 years ago, turned the human dream of flying into reality by building his legendary air ships we are used to looking ahead. Constantly innovating, striving for perfection and maximum functionality in our products has turned us into the company that Zeppelin is known as today: the technological leader for handling high-quality bulk solids.



On site world-wide – always near our customers. Production plants in Germany, Belgium, Brazil, and China as well as partners and representations all over the world enable Zeppelin to serve our customers with speed, flexibility and the utmost closeness to our customers. More than 200 engineers – including specialists in chemical engineering – guarantee innovative and economic design of plants.





As far as construction of silos is concerned Zeppelin has been the leader in the international market for decades. Thanks to our own modern manufacturing plant and the international experience of our assembly staff and service engineers we guarantee quality of the highest level.

Competence in bulk solids handling – you can rely on Zeppelin.

The industrial Zeppelin group and the number of divisions belonging to it orient themselves strictly to the requirements of their different groups of clients – all activities have, however, one thing in common: the economic handling of high-quality bulk solids.

Silo plants for the plastic, food, and chemical industry integrated in the general logistics concept – starting with consultation and design up to manufacture, assembly, and after-sales service.

Turn-key plants for the plastics processing and chemical industry as well as for rubber producers and tiremakers.

Conveying components for any application: for powders or pellets, for high or low pressures, for products with good or poor flowability, for standard or special applications.

Silogistic: turn-key plants for plastics producers, engineering companies, and forwarders from the world-wide leader in the planning and construction of logistic centers and manufacturing plants.



Pulling all the strings: the central office for the industry sector is located in Friedrichshafen, Germany. Here, in the largest Test Center in the world for pellets and powders tests are carried out on an industrial scale – the results of which are available to the subsidiaries. On this basis our clients are always on the safe side – no matter where their plant is located.



Trouble-free work flow
for optimized processes.

The reliability of a complete system depends on the quality of its individual components. Therefore, we at Zeppelin started long ago to develop, design, and produce the components ourselves. Finally you as our customer expect highest functionality and reliable Zeppelin quality.

A particularly clever feature of Zeppelin's new program of diverter valves: the modular system allows individual adjustment of the diverter valve to your special requirements.





You obtain reliable products as well as components which are designed to fit perfectly into the overall system.

Your advantage: When it comes to defining the right product and design you can rely on the sound advice given by the internationally leading system supplier. And also on the speed and flexibility of a strong industrial group of companies.

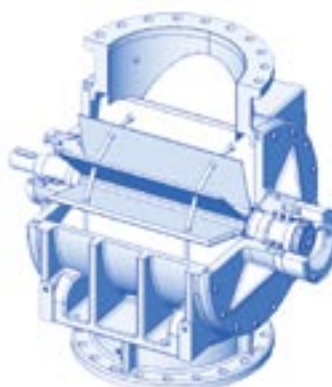
Pellets or powder, plastic material, rubber, carbon black or food stuff, high or low conveying outputs, high pressure or medium pressure rotary feeder – Zeppelin offers an appropriate technically perfected and economical solution.



Efficient – innovative – economical: The Zeppelin program for rotary feeders.

Advantages on which you can count.

Zeppelin rotary feeders are designed to ensure both: quick and easy mounting and your success in the daily operation thanks to minimum downtimes. Thanks to the intelligent feeder design you can benefit from the highest efficiency so that often smaller sizes can be foreseen for achieving the same output. Product damage e. g. chopping and squeezing effects are reduced to negligible levels for granular products. A particularly clever feature is the modular design: you will receive a product matching exactly with your application, assuring fast supply with spare parts and an unproblematic adjustment to changed operating conditions.



Easy and rapid installation because of integrated cast flanges – special screws or stud bolts are no longer necessary.

Modular systems – quick adaption to changed operating conditions – rapid delivery of spare parts – fair prices.

Little maintenance work required because of automatic chain adjusters for example.

All parts are made from high-quality materials such as bolts in special steel.

Standard leakage air channel integrated into the housing, thus, allowing maximum filling level and utmost profitability.

Deflector baffles integrated into the housing do not obstruct product feeding.

Maximum product purity thanks to the steep geometric design of the casing – avoiding product deposits.



High pressure rotary feeder type HDS/AGSY

Reliably metered discharge of pellets and powders in pneumatic conveying systems.



Medium pressure rotary feeder type MDS/APN

Reliably metered discharge of pellets and powders in pneumatic conveying systems.



Rotary feeders in accordance with Zeppelin standard (company standard).

Operationally reliable solution for the gravimetric discharge as well as for conveying.

Designs

Type	Pressure difference	Dimensions*	Capacities
HDS/AGSY	< 3.5 bar	200 / 250 / 320 / 400 / 500 / 630	7.5 up to 350 m ³ /h
MDS/APN	< 1.5 bar	200 / 250 / 320 / 400 / 500 / 630	7.5 up to 340 m ³ /h
Zeppelin standard	< 1.0 bar	160 / 200 / 250 / 320 / 400 / 500	0.5 up to 160 m ³ /h

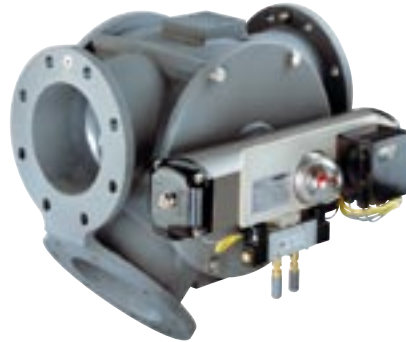
* rotor diameter in mm

For detailed information please refer to our product data sheets.

The advantages of the Zeppelin program for diverter valves in an overview:

Maximum profitability in everyday use

The full range of Zeppelin diverter valves offers appropriate solutions for any application. The principle of the new generation of diverter valves is especially intelligent: by retrofitting the valves can be modified from the most simple standard application to complicated special diverter valves. Thus, you will always receive a component which is perfectly geared to your requirements – assuring utmost process reliability and economic operation every day.



No product destruction or deposits thanks to the patented geometric design of inlet and outlet, respectively of the conveying channel in the plug.

Pressure tightness of conveying direction resulting in practically no leakage and no product contamination.

Practically maintenance-free operation – due to life time lubrication of bearings and drive unit.

No additional safety devices are required.

Inflatable sealing allows conveying lines to be washed without much effort and with few downtimes.

Materials can be combined to suit any application as they are fabricated in high long-time quality (we use exclusively stainless steel elements and bolts made from special steel).

Maximum reliability through well visible direction indicator.



The Y-diverter valve

The Y-diverter valve can be used no matter if bulk solids from two conveying lines are to be converged into one or for directing the flow from one pipe to two outlets.

Application:
Directing the flow of bulk solids in pneumatic dense-phase and dilute-phase conveying systems.

Dimensions:
DN 150 / 200 / 250 / 300 / 350
(Further dimensions on request.)

The T-diverter valve

With a 90° branch. The T-diverter valve can be mounted directly on the silo – without any additional fastening elements and supports.

Application:
Several silos are charged via one common pneumatic conveying line.

Dimensions:
DN 80 / 100 / 125 / 150 / 185 / 200 / 230 / 250 / 300 / 350
(Further dimensions on request.)

The V-diverter valve

The universal diverter valve for conveying. Designed to branch conveying lines in pneumatic conveying systems.

Application:
Directing the flow of bulk solids in pneumatic dense-phase and dilute-phase conveying systems.

Dimensions:
DN 80 / 100 / 125 / 150 / 185 / 200 / 230 / 250 / 300
(Further dimensions on request.)

The M-diverter valve

Multi-way diverter valve with 4 outlets.

Application:
e. g. several tanks can be charged through one separator.

Dimensions:
DN 150 / 250 / 300
(Further dimensions on request.)

The hose diverter station

Two-way or three-way diverter valve.

Application:
The ideal solution for adhesive products with poor flowability.

Dimensions:
DN 65 / 80 / 100 / 125 / 150 / 200

Further basic components

Zeppelin offers complete systems as well as individual components for all applications in conveying. Your advantage: you will receive the components directly from a system supplier – thus, ensuring dependable operation and the utmost process reliability for the daily use.

The Granucheck GC used in pneumatic conveying lines

- continuous taking of samples from the conveying line, equipped with pressure sealed flange connections DN 50 / 100
- When non-operated the extraction probe is flush with the pipeline, i. e. no parts will protrude into the conveying line.

The product sampler MPN for use in gravimetric filling lines and vessels

- simple, robust and reliable taking of product samples, pressure sealed and product-tight to the exterior
- discontinuous sampling, automatically adjustable by an independent control system or by the PLC (if integrated).

Universal vacuum hopper loader

- for outputs ranging from 100 up to 2.000 kg/h
- operationally reliable for powders and pellets
- low-maintenance thanks to large filter surfaces complete with jet-type cleaning
- standardized types and small size – facilitating and accelerating maintenance
- for use as an independent unit solving all logistics tasks or integrated into the PLC as a partial system
- outlet cross-sections and plugs designed to allow optimum throughput combined with minimum discharge times



Product purity means operational success.

The RotoScreen drum sieve

- capacity up to 60 t/h*
- for reliable and continuous separation of streamers from plastic pellets
- automatic cleaning of the sieve – therefore suited for permanent operation
- different operating modes (operation with pressure, aspiration, and circulation)

The streamer separator BNC

- requiring limited space, flexible installation, therefore also suitable for retrofitting existing plants
- cleaning of the product is possible during the conveying process
- separation of streamers without interruption of the conveying process
- highly reliable operation of the following separator, free from plugging: separation of even very small clusters and streamers
- degree of cleaning 85 – 95 %
- available for capacities of 3 – 30 t/h, dimensions: DN 250 – DN 500

The Turbo Pig

- perfect dry cleaning of the conveying system
- suitable for powder and pellets
- thanks to the modular design adjustable to different product and pipeline requirements
- controlled cleaning speed for pipe diameters ranging from DN 50 – DN 250

The GTS counterflow pellet cleaner

- capacity 1 – 60 t/h*
- separation of superfine dust particles and long streamers from the plastic pellets – resulting in maximum product cleanness
- high reliability as no moving parts
- high degree of separation due to high relative velocity
- there's practically no tear – therefore, the separating capacity is maintained during the whole service life

The cyclone separator

- for the separation of gases and solid matters
- individual calculation and design on the criteria of air quantity

* others according to individual technical requirements

Special cellular wheel of the feeder pertaining to the streamer separator



All specialists under one roof...

From product development through our own research facilities up to the production center: We at Zeppelin rely exclusively on our own skills. Finally the success of our customers depends on the quality of our systems and components. Therefore, we avoid making compromises – and are, thus, always a reliable partner for our demanding customers.

Only highly-qualified personnel works in our manufacturing and assembling centers. We, thus, assure the necessary flexibility required for the international construction of plants and give you the certainty that you will receive your product quickly, reliably and with the highest quality.

When it comes to satisfied customers we leave nothing to chance. The quality assurance of the individual components is also carried out in our works.



Assembly of the components as well as the test runs before delivery are carried out by specialists which have been trained especially to this effect. This is one of the multitude of reasons for the proverbial Zeppelin quality.



It goes without saying that also with component production we rely on our own know-how and the skills of our highly qualified personnel. Here again we apply our principle: Those who control the production processes are in the position to supply rapidly, flexible, and with a continuously high quality. That is what you can count on!



The Zeppelin Test Center: Research and development for your success.

With our combine of Test Centers – which is world-wide unique in its size, possibilities, and productivity – we offer another element to contribute to your success, ensuring that you obtain sound information on your product and, therefore, the best possible component design before you will start mass manufacturing.

Our Test Centers are built on an industrial scale to meet the wide range of demands of our customers. At present two separate Test Centers are available: one for pellets and one for powder so that we are able to provide tailored answers to your individual questions, with trials on an industrial scale and special configurations that can be quickly installed.

The Zeppelin Test Center is the heart piece of the global technological concern. New products are developed, existing ones are tested in relation to their functionality under defined operating conditions and current processes are optimized. This takes you always one step closer to the future.



The Zeppelin group of companies: All specialists under one roof.

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