

Bulk Solids Components from the System Supplier
Field-tested – Innovative – Reliable





A century of experience gained through your tasks

The industry sector of the Zeppelin Group is among the leading manufacturers of plants for storing, conveying, blending, and dosing of premium bulk solids. Thanks to our world-wide activities and locations in all important industrial centers we can always provide our clients with the latest, most innovative and reliable technology to ensure maximum economic success.

As the direct successor of Count Ferdinand von Zeppelin who turned the human dream of flying into reality by building his legendary airships over a century ago, 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 technology leader for handling premium bulk solids.



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





Zeppelin has been the leader in the international market of silo construction for decades. Thanks to our own modern manufacturing 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 its various divisions are focused on the requirements of their customer groups. All activities have, however, one thing in common: the economic handling of premium bulk solids.

Silo plants for the plastic, food, and chemical industries integrated in one logistics concept: from consultation and design 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. Zeppelin is 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 world's largest Technology Center for pellets and powders, tests are carried out on an industrial scale. The test results are available to all subsidiaries, therefore allowing our clients to always be 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, Zeppelin started long ago with the development, design and production of it's own components. 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 capacities, high pressure or medium pressure rotary feeders, Zeppelin offers an appropriate, technically mature and economical solution.

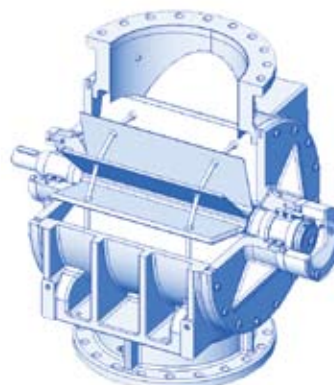


Efficient – innovative – economical

The Zeppelin program for rotary feeders

Advantages, you can count on

Zeppelin rotary feeders are designed to ensure both: quick and easy mounting as well as your success in daily operation due 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 throughput. Product damage e. g. chopping and squeezing effects on granular products can be reduced to negligible levels. 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, 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.

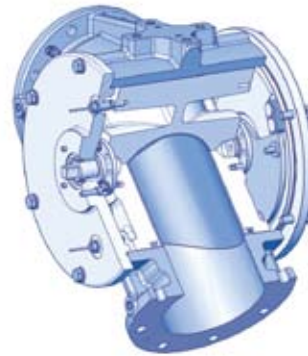
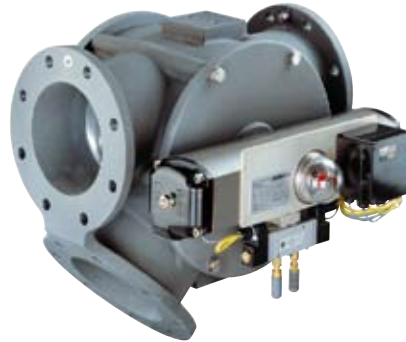
Designs

Type	Pressure difference	Dimensions*	Capacities	* rotor diameter in mm
HDS/AGSY	< 3.5 bar	200 / 250 / 320 / 400 / 500 / 630	7.5 up to 350 m ³ /h	For detailed information please refer to our product data sheets.
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	

The advantages of the Zeppelin program for diverter valves at a glance

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 due to the patented geometric design of inlet and outlet, and of the conveying channel in the plug respectively.

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 premium long-lasting 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 over 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 systems. Your advantage: you 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 together 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 pipe requirements
- controlled cleaning speed for pipe diameters ranging from DN 50 – DN 250

The GTS counterflow pellet cleaner

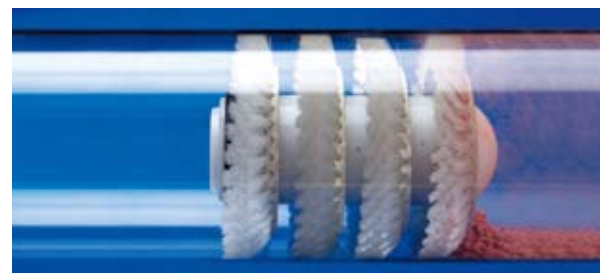
- capacity 1 – 60 t/h*
- separation of superfine dust particles and long streamers from the plastic pellets – resulting in maximum product cleanness
- high reliability as no moving parts
- high degree of separation due to high relative velocity
- there's practically no tear – therefore, the separating 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 center to the production facilities: 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 so we are always a reliable partner for our demanding customers.

Only highly qualified personnel works in our manufacturing and assembling centers. We 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 in premium quality.

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



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 Technology Center Research and Development for your success

With our testing facilities – world-wide unique in 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 start mass manufacturing.

Our Technology Center is built on an industrial scale to meet the wide range of demands of our customers. At present, two separate test plants are available: one for pellets and one for powders, 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 Technology 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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