ZEPPELIN®
WE CREATE SOLUTIONS

Bulk material handling components

www.zeppelin-systems.com

ENGINEERING YOUR SUCCESS

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

EXCEPTIONAL

BULK MATERIAL HANDLING COMPONENTS

FOR THE BEST PLANTS

Only the best: More than 60 years of experience with premium bulk material; the expertise of one of the world's leading plant manufacturers; the assurance of fully documented quality through in-house production; passionate employees who can technically implement our customers' needs and requirements with maximum functionality and excellence.

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 KOKEISL
- 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.

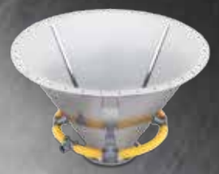
Zeppelin quality – one you can rely on

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.

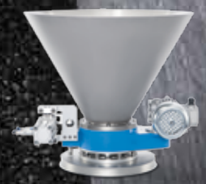
Complex Zeppelin process technology with self-made key components

Vibratory cone and bottom



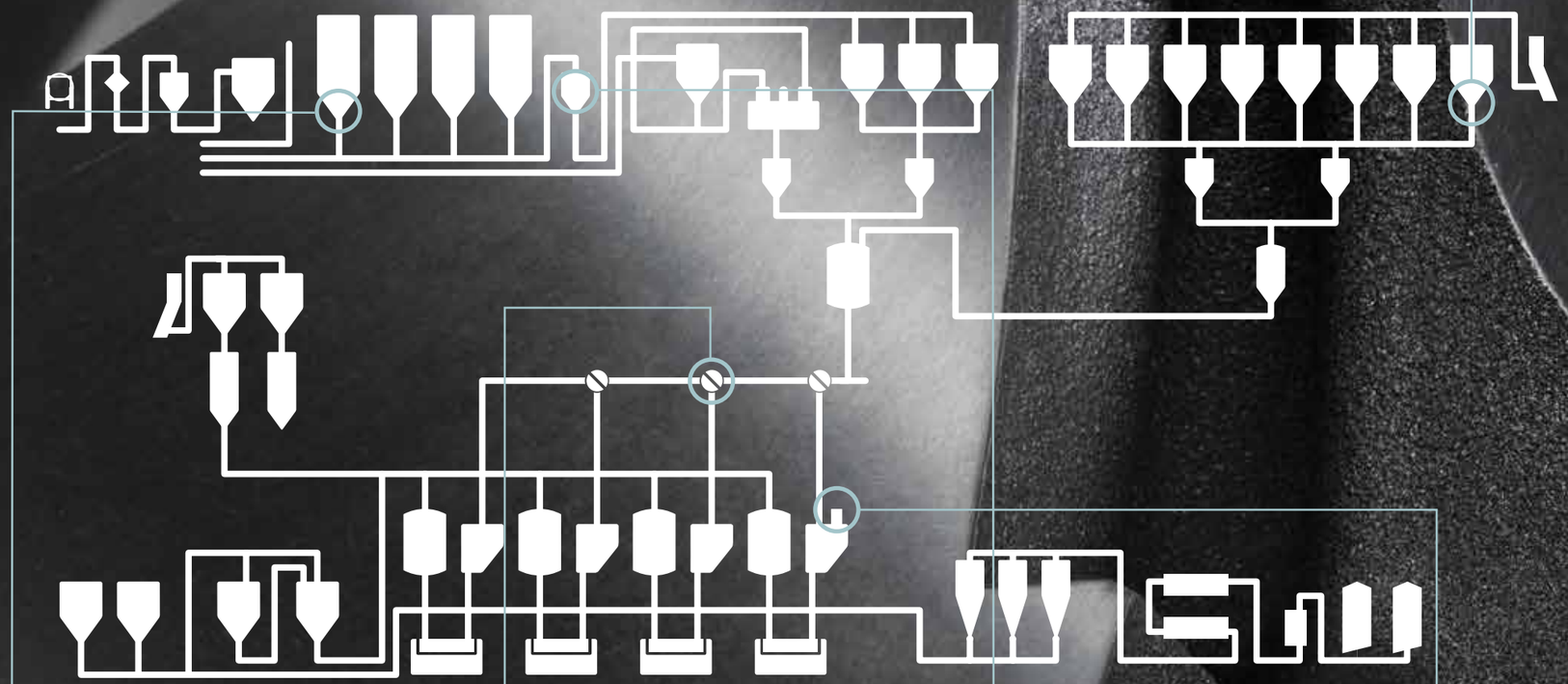
Aeration cone

Fluidizing bed



KOKEISL

Dosing and conveying screw



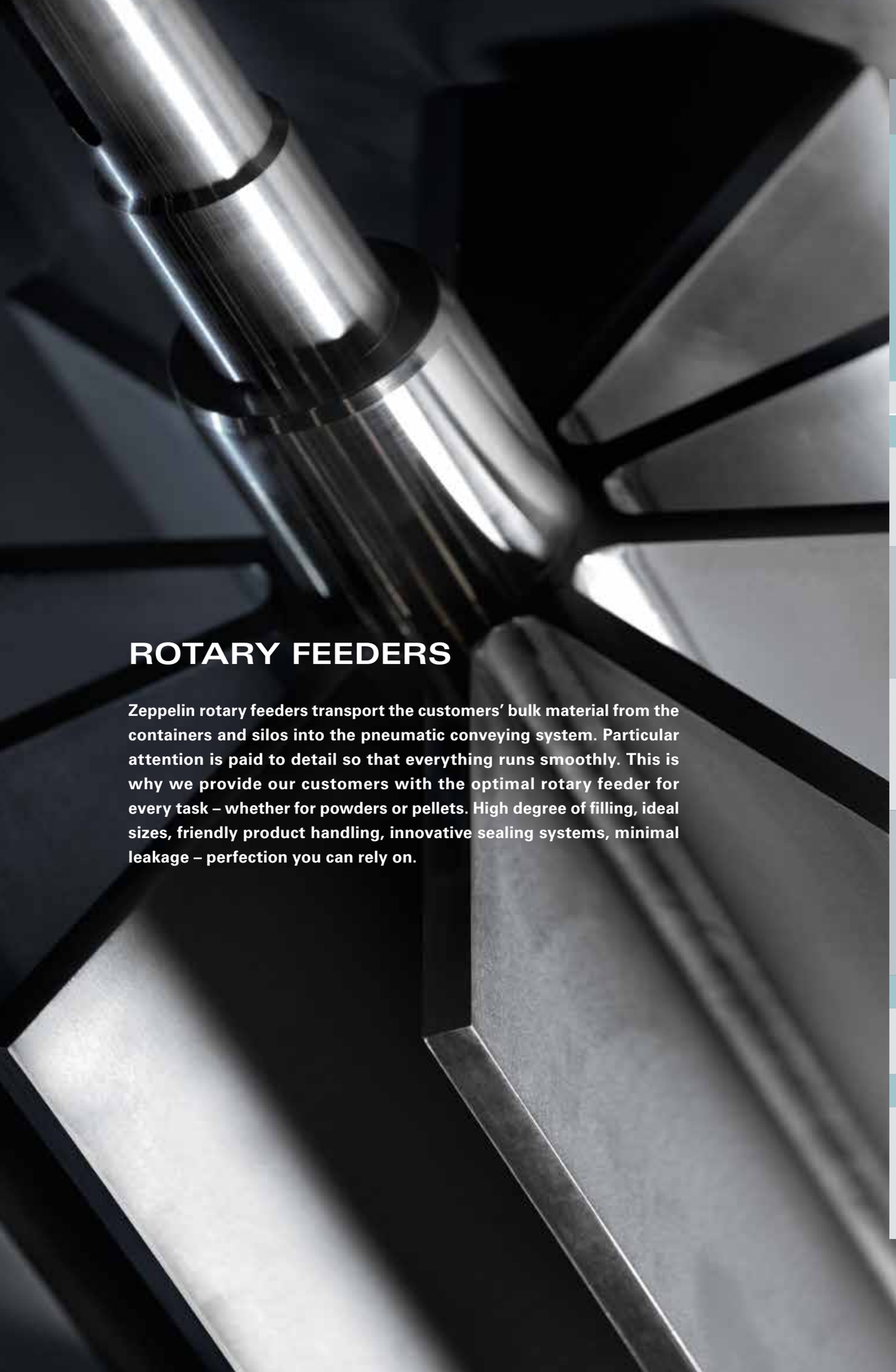
Rotary feeder

Diverter valve

Rotary sifter

Filter

Components



ROTARY FEEDERS

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.

Application overview	Low pressure			Medium pressure	High pressure	Purge gas	Recommended material						Rotor design		
							Housing/side plates[1]				Rotor				
	Discharge rotary feeder A1	Discharge rotary feeder AG11	Blow through rotary feeder D	Medium pressure rotary feeder CFM	High pressure rotary feeder CFH		Stainless steel	Stainless steel chilled casting	Gray cast iron	Cast aluminium	Carbon steel	Stainless steel	Tips not beveled	Square tips trilaterally beveled	Square tips trilaterally beveled with stiffener
Max. differential pressure [bar (g)]	1.0	1.0	1.0	1.5	3.5										
Products															
Pellets															
ABS, EPDM, HDPE, LDPE, 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															
Flour	✓		✓	✓	✓	✓				✓		✓	✓		
Starch	✓		✓	✓	✓	✓				✓		✓		✓	
Sugar	✓		✓	✓	✓	✓			✓[3]	✓		✓		✓	✓[2]
Minerals/abrasives															
SAP (superabsorber)	✓	✓	✓	✓	✓	✓	✓					✓	✓		
Powdered limestone	✓	✓	✓			✓			✓		✓		✓		
Sawdust	✓	✓	✓			✓			✓[4]		✓		✓		
Cement	✓	✓	✓			✓			✓[4]		✓		✓		
Design															
Discharge	✓	✓		✓	✓										
Blow-through			✓												
Extras															
Heating/cooling				✓	✓										
Quick cleaning	✓	✓	✓		✓*										
Flameproof (protective organ)	✓[5]	✓[5]	✓[5]												
ATEX design	✓	✓	✓	✓	✓										

[1] Different material combinations of housing and side plates only possible for CFH series

[2] For powdered sugar

[3] Durni coated

[4] Tungsten carbide coating

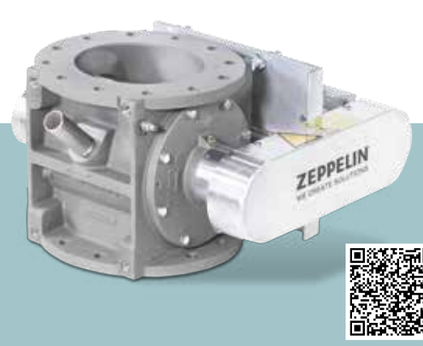
[5] Only for sizes up to 320

* Please contact our sales components department

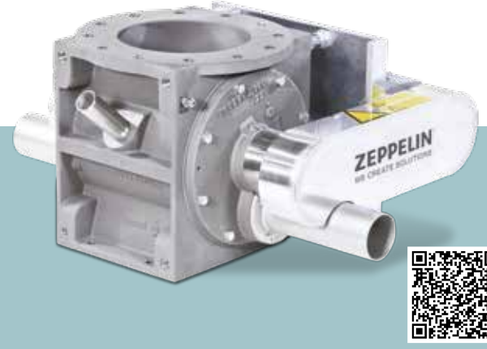
Rotary feeders animation

Low pressure rotary feeders

Discharge rotary feeder A1/AG11

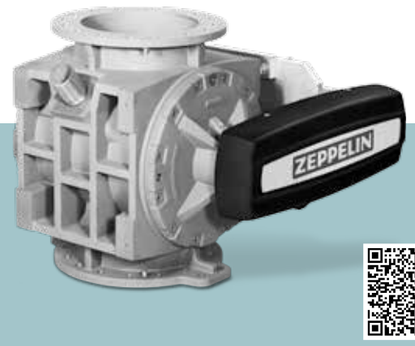


Blow through rotary feeder D



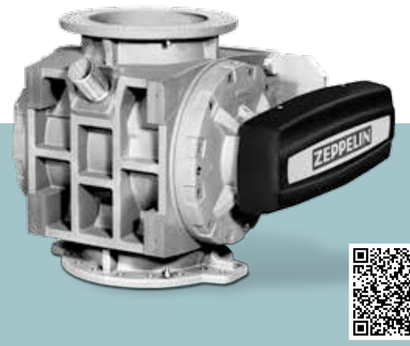
Medium pressure rotary feeders

Medium pressure rotary feeder CFM

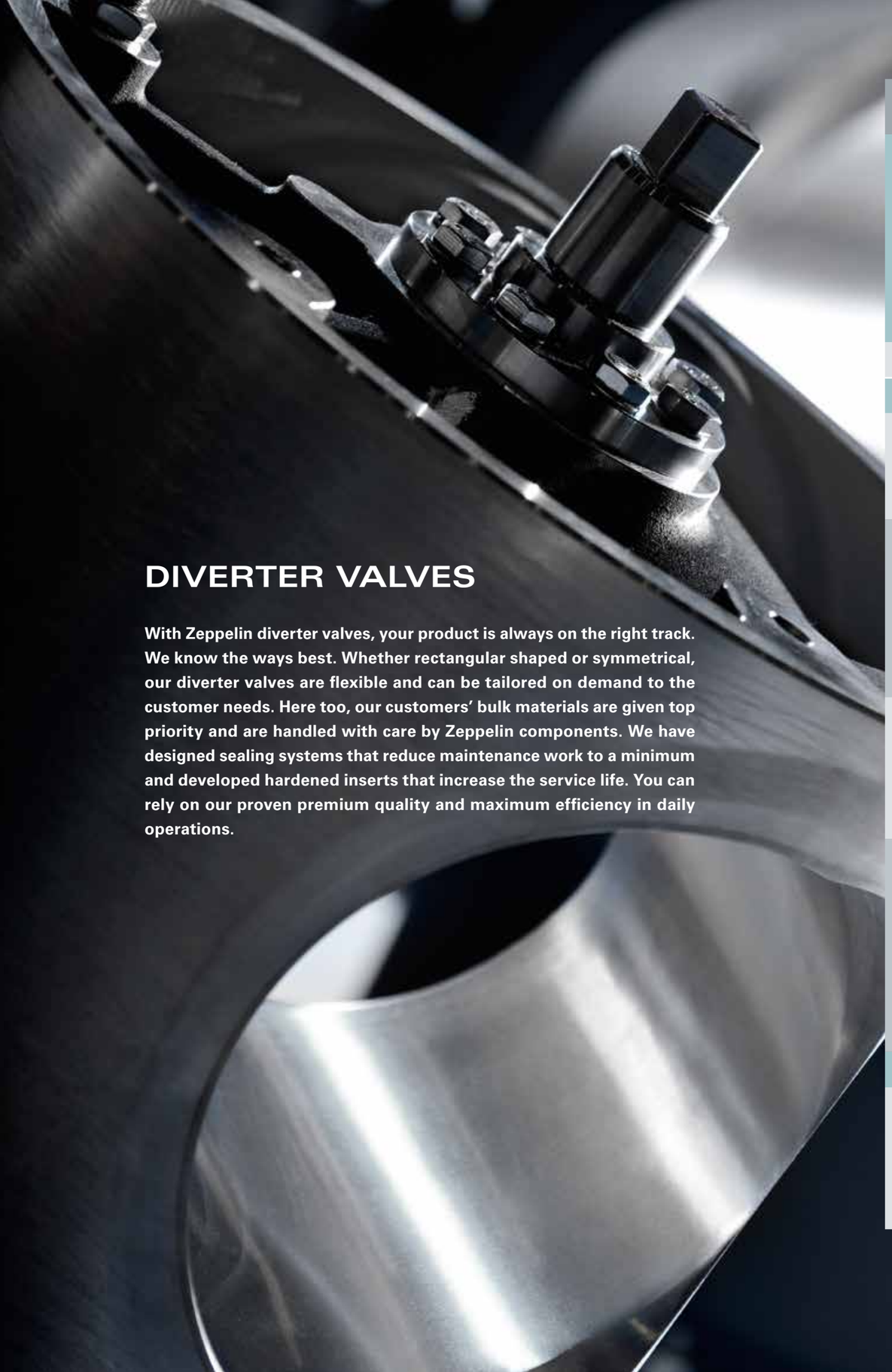


High pressure rotary feeders

High pressure rotary feeder CFH



	Discharge rotary feeder A1/AG11	Blow through rotary feeder D	Medium pressure rotary feeder CFM	High pressure rotary feeder CFH
Application	Used for dosing bulk material and as feeding device in pneumatic dilute phase conveying systems	For feeding bulk material into pneumatic dilute phase conveying systems	Used for dosing bulk material and as feeding device in pneumatic dilute phase conveying systems	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	Powder	Powder, pellets	Powder, pellets
Operating pressure	-1.0 to +1.0 bar (g)	-1.0 to +1.0 bar (g)	-1.0 to +1.5 bar (g)	-1.0 to +3.5 bar (g)
Temperature range Optional	10 to +60°C (standard) -52 to +250°C	-10 to +60°C (standard) -52 to +250°C	-10 to +60°C (standard) -52 to +250°C	-10 to +60°C (standard) -52 to +250°C
Sizes Capacities	160 to 500 mm 2.6 to 87 L	160 to 500 mm 2.6 to 87 L	200 to 750 mm (160 from 2017) 7 to 280 L	200 to 850 mm (160 from 2017) 6.5 to 400 L
Materials	Aluminium/stainless steel/gray cast iron	Aluminium/stainless steel/gray cast iron	Aluminium/stainless steel	Aluminium/stainless steel
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	Chain drive Optional: Direct drive, leakage gas collector, support frame, quick cleaning version, ATEX design, flame-proof (sizes 160 – 320), additional accessories upon request	Chain drive Optional: Direct drive, leakage gas collector, feeding chutes, support frame, ATEX design, additional accessories upon request	Chain drive Optional: Direct drive, leakage gas collector, feeding chutes, support frame, ATEX design, additional accessories upon request



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.

Application overview	Low pressure	High and medium pressure			Medium pressure		Inflatable Seal	Recommended material			
	Diverter valve ZWV	Diverter valve TST	Diverter valve VST	Two-way diverter valve ZWR	Two-way hose-type diverter valve ZWS	Three-way hose-type diverter valve DWS		Housing: Cast aluminium	Rotary plug: Cast aluminium	Insert rotary plug: Stainless steel 1.4301	Insert flange: Stainless steel 1.4571
Maximum operating pressure [bar (g)]**	1.5	6.0	6.0	6.0	4.0	4.0					
Products											
Pellets											
ABS, EPDM, HDPE, LDPE, 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											
Flour	✓	✓	✓	✓			✓	✓	✓	✓	
Starch	✓	✓	✓	✓			✓	✓	✓	✓	
Sugar	✓	✓	✓				✓	✓	✓	✓	
Minerals/abrasives											
SAP (superabsorber)				✓			✓	✓	✓	✓	✓
Powdered limestone				✓	✓	✓	✓	✓	✓	✓	✓
Sawdust				✓			✓	✓	✓	✓	✓
Cement					✓	✓	✓	✓	✓	✓	✓
Coal dust				✓			✓	✓	✓	✓	✓
Design											
Directing valve	✓	✓	✓	✓	✓	✓					
Collecting valve	✓	✓	✓	✓	✓	✓					
Hose valve					✓	✓					
Wear resistant				✓	✓	✓					

* Please contact our sales components department

** In the active leg

Diverter valves animation

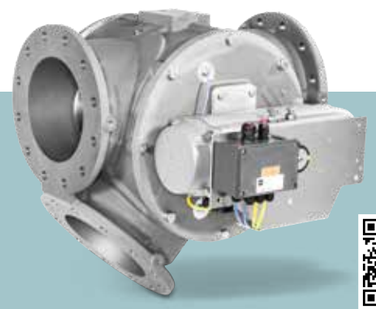
Low pressure diverter valves

Two-channel diverter valve
Diverter valve ZWV

High and medium pressure diverter valves

Single channel diverter valve
Diverter valve TST

Single channel diverter valve
Diverter valve VST



Application	Diverter valve for directing or converging the product flow in pneumatic conveying systems and gravity pipes	Diverter valve for directing or converging the product flow in pneumatic conveying systems and gravity pipes	Diverter valve for directing or converging the product flow in pneumatic conveying systems and gravity pipes
Bulk materials	Powder, pellets	Powder, pellets, specifically for silo feeding	Powder, pellets
Operating pressure	-1.0 to +1.5 bar (g) (to 4.0 bar (g) from 2017)	-1.0 to +6.0 bar (g)	-1.0 to +6.0 bar (g)
Temperature range Option with heating system	-20 to +120°C (standard) –	-20 to +120°C (standard) -52 to +180°C	-20 to +120°C (standard) -52 to +180°C
Diverting angle	35°	90°	45°
Sizes (diameters)	56 to 163 mm	100 to 350 mm	100 to 350 mm
Materials	Housing aluminium, parts in contact with product stainless steel/ rotary plug cast aluminium with stainless steel pipe	Housing aluminium/rotary plug with stainless steel insert Housing with stainless steel insert (from 2017) (150/188/200)	Housing aluminium/rotary plug with stainless steel insert Housing with stainless steel insert (from 2017) (150/188/200)
Accessories	ATEX design, additional accessories upon request	Optional: ATEX design, inflatable seal, additional accessories upon request	Optional: ATEX design, inflatable seal, additional accessories upon request

High and medium pressure diverter valves

Single channel diverter valve, wear resistant
Diverter valve ZWR

Medium pressure diverter valves

Two-way hose-type diverter valve ZWS

Three-way hose-type diverter valve DWS

Application	Diverter valve for directing or converging the product flow in pneumatic conveying systems and gravity pipes	Diverter valve for directing or converging the product flow in pneumatic conveying systems and gravity pipes	Diverter valve for directing or converging the product flow in pneumatic conveying systems and gravity pipes
Bulk materials	Powder, pellets, abrasive products	Powder, pellets, adhesive powders with poor flowability	Powder, pellets, adhesive powders with poor flowability
Operating pressure	-1.0 to +6.0 bar (g)	-1.0 to +4.0 bar (g)	-1.0 to +4.0 bar (g)
Temperature range Optional	-10 to +80°C (standard) -52 to +180°C	-10 to +80°C (standard) –	-10 to +80°C (standard) –
Diverting angle	35°	2 outputs	3 outputs
Sizes (diameter)	50 to 250 mm	50 to 225 mm	50 to 225 mm
Materials	Housing aluminium/parts in contact with product stainless steel	Housing aluminium/stainless steel inserts	Housing aluminium/stainless steel inserts
Accessories	Inflatable seal, Optional: ATEX design, wear protected stainless steel insert, additional accessories upon request	Optional: ATEX design, additional accessories upon request	Optional: ATEX design, additional accessories upon request

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!

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!

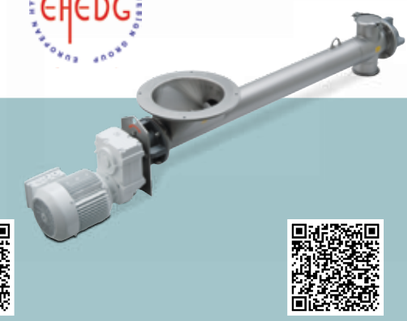
Dosing and conveying screws

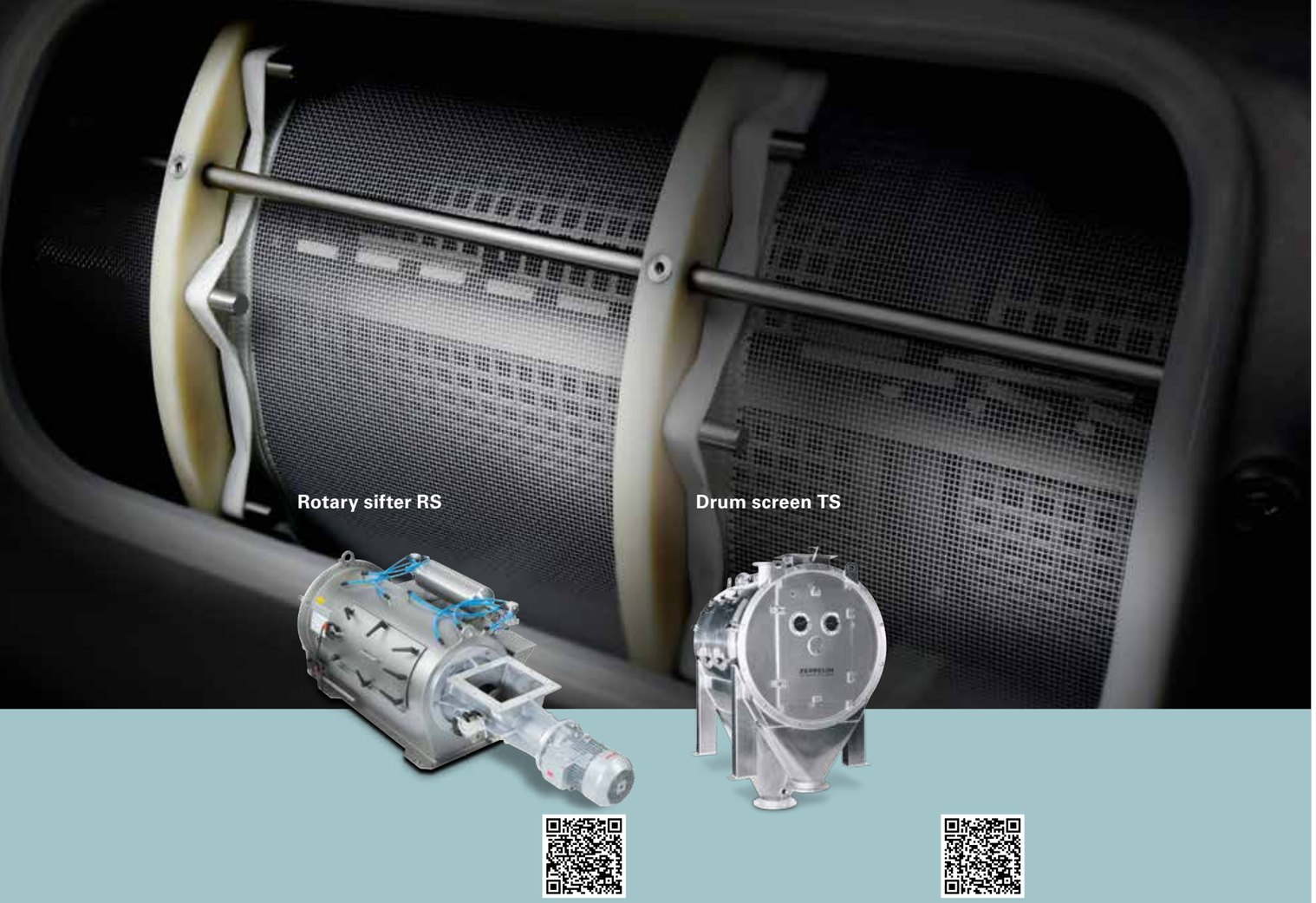
Perfectly in motion – the Zeppelin dosing and conveying screws are the ideal components for dosing and transporting your bulk material. They can be used in conveying systems as well as for precise scale dosing. 100% stainless steel, easy to clean, precise conveying and dosing – 100% Zeppelin!

Application overview	Discharge hoppers			Discharge modules		Conveying screws
	Aeration cone BTS	Vibratory cone VT/ vibratory bottom VB	Fluidizing bed FB	Discharge module KOKEISL KA	Discharge and dosing module KOKEISL KAD	Dosing and conveying screw DS
Products						
Pellets						
ABS, EPDM, HDPE, LDPE, 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						
Flour		✓	✓	✓	✓	✓
Starch		✓	✓	✓	✓	✓
Sugar		✓	✓	✓	✓	✓
Minerals/abrasives						
SAP (superabsorber)		✓				✓
Powdered limestone		✓		✓	✓	
Sawdust		✓		✓	✓	✓
Cement		✓		✓	✓	
Coal dust		✓		✓	✓	

* Please contact our sales components department

Discharge and dosing module KOKEISL KA/KAD
Animation

	Aeration cone BTS	Vibratory cone/ vibratory bottom VT/VB	Fluidizing bed FB	Discharge and dosing module KOKEISL KA/KAD	Dosing and conveying screw DS
			 FB		
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 flowability	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	Powder, pellets	Powder, pellets	Powder	Powder, pellets	Powder, pellets
Operating pressure	-5 to +45 mbar	–	Max. 0.6 bar with side channel blower and membrane flaps Fluidizing valves: control pressure 1.6 bar	Atmospheric pressure, others upon request	Atmospheric pressure
Temperature range	-10 to +80°C	-10 to +80°C	-20 to +60°C	-10 to +40°C	-20 to +40°C
Hopper inclination angle	60°	90°	60° 110°	Throughput: 0 to 10 0 to 25 0 to 45 m³/h	Lengths: 500 to 8000 mm, longer upon request
Sizes (diameter)	600 to 1400 mm	600 to 1800 mm (VT up to 1500 mm)	640 to 1276 960 to 2220 mm	90 150 200 mm	80 to 300 mm, optionally with 1 or 2 outlets
Outlet diameter	150 to 500 mm	180 and 250 mm	230 mm	Motor power: 0.25 0.37 0.55 kW	80 to 500 mm
Materials	Aluminium	Stainless steel	Steel painted, sinter plates made of PE or stainless steel	Housing aluminium, parts in contact with product stainless steel or electropolished	Stainless steel
Accessories	Pressure tank, valves Optional: ATEX design	Optional: shock-presssure resistant design, ATEX design, shut-off valve	Optional: ATEX design	Inlet cone, outlet cone Optional: dosing control, FDA approved seal, ATEX design	Optional: cleaning flap starting from DS 100, bearing purge gas, speed control, ATEX design



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 (angel 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 (L x W x H)	3 1686 x 430 x 480		7 2044 x 600 x 690 mm	1000 3300 x 1400 x 2100	1400 4100 x 1800 x 2750	2000 4800 x 2500 x 3550	2800 5500 x 3200 x 5200 mm
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 1.4301, sanded 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			Throughput up to 120 t/h, flange drill pattern according to DIN 2501, PN 10, ANSI 150# or client's standard			

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	Rotary sifter RS	Drum screen TS
Products		
Pellets		
ABS, EPDM, HDPE, LDPE, 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		
Flour	✓	
Starch	✓	
Sugar	✓	
Minerals/abrasives		
SAP (superabsorber)	✓	
Special equipment		
Sifter drum purge system	✓	✓
Sifter drum monitoring Screen-D-Tect	✓	

* Please contact our sales components department

Rotary sifters animation

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.

Application overview	Jet filter				Filter element finish	
	Jet silo venting filter AE	Jet venting filter JEB/JS	Jet vacuum filter UEB/US	Shock pressure resistant jet venting filter DEB/DS	Aluminium coating	PTFE membrane or PTFE coating
Products						
Pellets						
ABS, EPDM, HDPE, LDPE, LLDPE, PA, PBT, PP, PS	✓	✓	✓	✓	✓	✓
PC, PET	✓	✓	✓	✓	✓	✓
Food						
Flour	✓	✓	✓	✓	✓	✓
Starch	✓	✓	✓	✓	✓	✓
Salt	✓	✓	✓	✓	✓	✓
Sugar	✓	✓	✓	✓	✓	✓[2]
Minerals/abrasives						
SAP (superabsorber)				✓	✓	✓
Powdered limestone				✓	✓	✓
Sawdust				✓	✓	✓
Cement				✓	✓	✓
Coal dust				✓	✓	✓
Filter elements						
Pleated cartridges	✓	✓	✓	✓		
Filter bags		✓	✓	✓		
Replacement on raw gas side		✓	✓	✓		
Replacement on clean gas side	✓					
Extras						
Automatic jet cleaning	✓	✓	✓	✓		
Differ. pressure measurement	✓	✓	✓	✓		
Shock-pressure resist. up to 1 bar	✓			✓		
Vaccum operation			✓			

[2] For powdered sugar

	Jet silo venting filter AE	Jet venting filter JEB/JS	Jet vacuum filter UEB/US	Jet venting filter DEB/DS (shock pressure resistant)
				
Application	For the continuous filtering of pneumatic conveying air from continuously operating hoppers and silos	For the continuous filtering of pneumatic conveying air from continuously operating hoppers and silos	For the continuous filtering of pneumatic conveying air from continuously operating hoppers and silos	For the continuous filtering of pneumatic conveying air from continuously operating hoppers and silos
Bulk materials	Powder, pellets	Powder, pellets	Powder, pellets	Powder, pellets
Operating pressure	0 to +0.1 bar (g)	0 to +0.1 bar (g)	-0.5 to +0.03 bar (g)	-0.5 to + 1.0 bar/1.2 bar upon request
Temperature range	-20 to +60°C	-20 to +60°C	-20 to +60°C	-20 to +60°C
Sizes (housing diameter)	795 955 mm	JEB 400 650 800 950 mm JS – 650 800 950 mm	UEB 400 650 800 950 mm US – 650 800 950 mm	DEB 404 636 795 955 1272 mm DS 404 636 795 955 1272 mm
Filter surface	22.5 30.0 m²	JEB 4.0/6.4 9.8/16.8 14/24 21/35 m² JS – 2.3/3.2/4 3.5/4.9/6.2 5.6/7.6/9.6 m²	UEB 4.0/6.4 10.5/17.5 15/25 21/35 m² US – 2.3/3.2/4 3.5/4.9/6.2 5.6/7.6/9.6 m²	DEB 6.4 14.4 22.4 35.2 64 m² DS 1.0/1.4 2.3/3.2/4 4.9/6.2/7.5 7.6/9.6/11.8 13.9/17.6/21.4 m²
Cartridges	Cartridges with clamping fixture 9 12 Filter bags with clamping fixture 9 12	Cartridges with bayonet joint JEB 4 7 10 14 Filter bags with bayonet joint JS – 9 14 22	Cartridges with bayonet joint UEB 4 7 10 14 Filter bags with bayonet joint US – 9 14 22	Cartridges with bayonet joint DEB 4 9 14 22 40 Filter bags with bayonet joint DS 4 9 14 22 40
Materials	Housing stainless steel, pleated cartridges antistatic polyester felt with or without PTFE coating	Housing stainless steel JEB Pleated cartridges antistatic polyester felt with aluminium or PTFE coating JS Filter hoses antistatic polyester felt with or without PTFE coating	Housing stainless steel UEB Pleated cartridges antistatic polyester fabric with aluminium or PTFE coating US Filter hoses antistatic polyester felt with or without PTFE coating	Housing stainless steel DEB Pleated cartridges antistatic polyester fabric with aluminium or PTFE coating DS Filter hoses 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	ATEX design, automatic jet cleaning Optional: differential pressure measurement, fan on filter head, weather hood	ATEX design, automatic jet cleaning Optional: differential pressure measurement	ATEX design, automatic jet cleaning Optional: differential pressure measurement

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

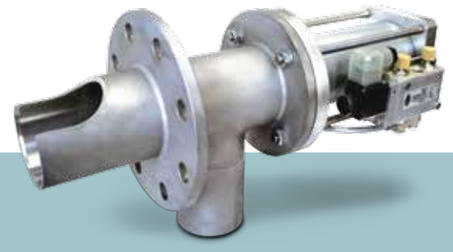
Particularly suitable for powdery products: the driving force in your system. Thanks to its large filter surface, the vacuum hopper loader ensures reliable product flow.

Application overview	Sampler		
	Sampler GC	Sampler MPN	Universal vacuum hopper loader SFG
Products			
Pellets			
ABS, EPDM, HDPE, LDPE, 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			
Flour		✓	✓
Starch		✓	✓
Salt	✓	✓	✓
Sugar	✓	✓	✓
Minerals/abrasives			
SAP (superabsorber)		✓	✓
Powdered limestone		✓	✓
Sawdust		✓	✓
Cement		✓	✓
Coal dust		✓	✓
Extras			
ATEX design	✓	✓	

Sampler GC

Application	Sampling from conveying pipes
Bulk materials	Pellets
Operating pressure	to +1.0 bar (g)
Temperature range Max. temperature version	-20 to +80°C 100 to 180°C
Sizes (diameter) Stroke length	50 100 mm
Performance	Max. throughput for free-flowing pellets 0.2 5 m³/h
Materials	Parts in contact with product stainless steel
Accessories	Pneumatic operation Optional: ATEX design, 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 Max. temperature version	-20 to +80°C
Sizes (diameter) Stroke length	50 80 mm 105 140/ 220/ 385 mm
Performance	Volume per stroke 50 200 cm³
Materials	Stainless steel
Accessories	Pneumatic or manual operation Optional: ATEX design, 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 Filter surface cartridge Filter surface hose	2 2.2 0.6	3 4.4 1.3	6 8.8 m² 2.7 m²
Performance (bulk density 600 kg/m³)	approx. to 1000	to 1300	to 2500 kg/h
Bulk materials	Stainless steel		
Accessories	Optional: ATEX design, controls, vacuum pump, additional accessories upon request		

ALWAYS IN GOOD HAND

Zeppelin offers you a comprehensive carefree package that has no equal in the industry. From product development and production to specialist advice through to our on-site teams and first-class range of services – you are always on the safe side with Zeppelin.

This promise is valid worldwide, since an outstanding technology alone does not make you successful internationally. For that, you also need excellent employees that are able to meet the local requirements and make use of our worldwide expertise.

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MAINTAIN THE ADVANTAGE

Technological leadership is associated with a lot of research and development work. That is why we have the world's largest network for bulk materials. Our customers can test their formulas or carry out various plant optimization tests in four different technology centers. There, new products are developed, plant layouts are verified and processes are optimized. This is what ensures our – and your – technological lead.

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One technology center for pellets, one for powder. This is where the future of the plastics, chemicals, rubber and tire industries is shaped.

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.

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