

**FILTER SYSTEMS FROM THE PLANT ENGINEER**  
Maximum separation and operating efficiency



**Filter technology**

## ENGINEERING YOUR SUCCESS



**Zeppelin Systems, the world leading plant manufacturer for high quality bulk material and liquids 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 are the key to providing ideal solutions whatever the challenge. After all, your success is our goal.

### **Zeppelin plant engineering – business fields**

#### **Polymer Plants**

Plants for plastics producers and forwarders

#### **Plastics Processing & Rubber Plants**

Plants for the plastics processing and rubber industry

#### **Reimelt Food Technology**

Plants for the food, confectionery and bakery industry

#### **Henschel Mixing Technology**

Mixers, mixing systems

#### **Silos & Filters**

Silo technology and filters

#### **Components**

Diverter valves, rotary feeders, separators, sifters ...

#### **Customer Service**

Assembly, maintenance, spare parts

#### **Quality Service**

Services in quality management

## Bin vent filter

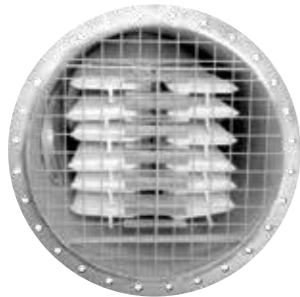
Bin vent filters are used, e.g., in silos with pneumatic conveying systems to separate dust particles from the conveying air. The raw gas inlet and the dust outlet are located in one connection. A special type of bin vent filter, the built-in filter, offers both low maintenance and a compact design thanks to the filter elements which protrude into the silo.

### Design characteristics

- Cleaning: pneumatic
- Filter elements: filter hoses/bags
- Housing: round/rectangular
- Installation of filter elements: horizontal/vertical
- Special design: built-in filter

### Performance

- Flow rate: 500 – 20000 m<sup>3</sup>/h
- Temperature: 130°C
- Pressure: -0.5 to 4 bar (g)



Filter hoses



## Dust collector

Dust collectors are filter systems with a funnel-shaped bin integrated in the raw gas chamber for storage of the product. The filter elements (mostly filter hoses or filter bags) are cleaned pneumatically. Filling level indicators are foreseen in order to avoid too high filling levels and damage to the filter elements. The product is either discharged via the conveying pipe or filled in transportable containers.

### Design characteristics

- Cleaning: pneumatic
- Filter elements: filter hoses/bags
- Housing: round/rectangular
- Installation of filter elements: horizontal/vertical
- Filtration: one-step or two-step
- Heating of the shell

### Performance

- Flow rate: 1000 – 30000 m<sup>3</sup>/h
- Temperature: max. 150°C
- Pressure: -0.5 to 10 bar (g)

Dust collector with two-step filtration



## Safety filter

Safety filters are installed in systems between the existing filter and the blowers or compressors. Filter cartridges serve as filter elements. Since safety filters only come into effect as backup in case of damage or malfunction of the main filter, cleaning is normally not required for this type of filter.

### Design characteristics

- Cleaning: pneumatic or with storage filter
- Filter elements: filter cartridges
- Housing: round
- Installation of filter elements: vertical

### Performance

- Flow rate: 200 – 24000 m<sup>3</sup>/h
- Temperature: max. 130°C
- Pressure: -0.5 to 5 bar (g)



Filter cartridge



## Suction filter

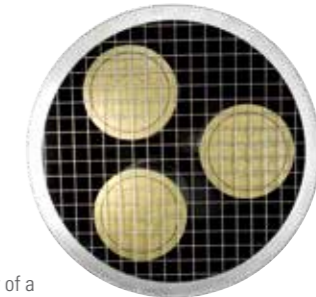
Suction filters are used for cleaning the intake air of condensers and blowers. Filters are available in various designs and sizes according to the process and stability requirements. Weather protection hoods and sound absorbers are available on request. Suction filters can be easily flange-mounted to existing connections.

### Design characteristics

- Cleaning: pneumatic
- Filter elements: filter hoses/bags
- Housing: round/rectangular
- Installation of filter elements: horizontal/vertical

### Performance

- Flow rate: 500 – 15000 m<sup>3</sup>/h
- Temperature: max. 80°C
- Pressure: 0 bar (g)



View from below of a suction filter with filter cartridges



# TECHNOLOGY LEADER IN EVERY WAY!



## De-dusting systems for dry filtration

	Bin vent filter	Dust collector	Suction filter	Safety filter	Special filter
Pulse jet cleaning	✓	✓	✓		✓
Filter hose	✓	✓	✓		✓
Flat filter hose	✓	✓			✓
Cartridges	✓		✓	✓	✓
Compact filter elements	✓	✓			✓
Filter materials	Polyester, polypropylene, aramid, PTFE, etc.				
Materials	Carbon steel, stainless steel, special steel, aluminium				
Pressure resistant filter	Up to 10 bar (g) – manufacturing according to different international regulations				
Special designs	Jacketed heaters, multistage filtration, etc.				

Subject to change

Zeppelin, the world's most successful plant manufacturer, has only one requirement for its products and filters: being at the cutting edge of technology. Thanks to the experience gathered through hundreds of manufactured plants, we know the requirements to modern filter systems best – a technology lead that will benefit our customers' success!

Whether standard filters or customized filter systems – you always get the best advice from the specialists in plant manufacturing. We will design the ideal system for you according to your specifications, without interruptions or delays but always with the unconditional Zeppelin quality standards.



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