IMPULS COMPACT

RELIABLE AND COMPACT

scheuch
TECHNOLOGY FOR CLEAN AIR

IMPULS Compact Filter
The Sum of All Advantages

In the case of so-called auxiliary equipment – as used in the crushing and grinding of raw materials, and also in transport, packaging and storage – significant quantities of dust are produced and filtration equipment to process this dust should be selected and coordinated just as carefully as in other applications. The trend here is towards decentralized, compact dedusting solutions installed directly at the emission source.

Simple assembly

For applications like these, Scheuch offers a complete, proven and carefully coordinated filter program for volume flows ranging from 200 to 20,000 Am³/h. Filters from the IMPULS Compact series are pre-assembled in the factory, equipped with filter bags or filter cartridges, and then delivered with all pneumatic and electrical components ready for connection.

Reliable and energy efficient

Because of their large-volume valves and patented IMPULS cleaning system, these units stand out with their low operating and maintenance costs. In addition, the compressed air cleaning system, the filter bag geometry and the robust industrial design guarantee the highest levels of operating reliability.

Compact design

An extremely compact design is made possible for airflows up to 10,000 Am³/h by the use of circular filter bags with a diameter of 100 mm or the use of filter cartridges and the direct mounting of fan units and exhaust silencers. In contrast to pocket filters, the filters of this series can also be operated with a higher air-to-cloth ratio, which in turn results in a reduction in the construction volume.

We use the same components in all models of the IMPULS Compact filter series as well as large-scale IMPULS filtration plants, including diaphragm and pilot valves, cleaning control systems and filter regulators. This makes it possible to significantly reduce the cost of stocking spare parts.

Circular Bag Filter

The IMPULS Compact skd filter series uses circular filter bags with a diameter of 100 mm. On the one hand, this makes possible a significantly more compact layout than is possible with filter bags having a larger diameter. On the other hand, when compared to pocket filters, the increased spacing between the filter bags guarantees a higher level of operating reliability because it eliminates caking.

Depending on the application and volume flow, the filter design can be implemented as a bin vent filter with a hopper or trough, with two different bag lengths and with up to three units.

In the standard version, the filter bags are installed vertically. However, in the case of low construction heights, the bags can also be installed horizontally. A special installation tool is supplied to make the process of replacing bags easier and faster.

Special Bypass Control System for Pressure Compensation

Variations in the crude gas volume flow cause fluctuating negative pressure levels in the silo. This is especially the case in silos that are filled pneumatically and supplied using trucks or lorries. This is caused by the so-called “end surge” occurring near the end of the material feed process, which significantly increases the crude gas volume flow and causes overpressure in the silo. This usually results in the activation of the silo’s overpressure protection system. It also frequently results in the escape of dust from the silo’s roof area.

In order to exclude these effects, Scheuch uses a special solution to provide for automatic pressure compensation. Our experts will be pleased to respond to your inquiry with detailed technical information about our bypass control system.

Application

Dry dust types with dust loads up to 100 g/m³

Volume flow

600 to 20,000 m³/h

Cartridge Filter

In the case of fine, free flowing and extremely dry dust types and low levels of dust loading, we use filter cartridges as the filter medium. In comparison to models using circular filter bags, it is possible to achieve a three–fold increase in the filter surface area with the same construction volume. This results in a clear reduction in investment and operating costs.

Typical applications for cartridge filters include the dedusting of sand blasting machines and the extraction of welding fumes. They are also used as suction filters in compressed air centers and for bagging and packaging equip–ment used, for example, in the manufacture of ready–mixed mortar and dry mixed mortar.

In this design, the fan unit with an exhaust silencer can be mounted directly on the filter for volume flows up to 10,000 m³/h.

Application

Fine, free flowing and extremely dry dust types

Volume flow

1,000 to 20,000 m³/h

Tube Cartridge Filter

This special design is an extremely efficient and cost–effective variant for applications with low volume flows and low dust loads. It is used primarily for dedusting silos that store process additives and for dedusting bagging and manual loading stations.

As a special model engineered to be pressure shock resistant (10 bar), the tube cartridge filter is the ideal solution for dedusting storage containers in pneumatic conveyor systems.

Application

Fine, free flowing and extremely dry dust types

Volume flow

200 to 500 m³/h

Safety Filter

The type frp cartridge filter is installed as a safety filter downstream from a main filtration system and is used to protect downstream components such as, for example, a com–pressor. These components are thus protected when large quantities of dust enter the clean gas stream in the main filter, for example, as the result of a damaged filter bag.

Because only residual dust from the main filter is introduced into the safety filter during normal operation, automatic cleaning is not required for technical and economic reasons. The filter cartridges need only be cleaned manually at sporadic intervals. A differential pressure switch is used to monitor the differential pressure.

Complete Range of Accessories

A comprehensive and complete program of accessories and design options ensures high levels of operating reliability as well as best accessibility for easy maintenance and inspection work.

- Heated pneumatic cabinet
- U–tube manometer
- Ladder, work platform and handrail
- Auxiliary heating system in hopper and insulated
- Gas spring for inspection cover

Special models

- Gas temperature up to 250°C
- Up to 10,000 Pa
- Weatherproof to –40°C
- Structural steel and stainless steel

Special Designs of the Filter Program

IMPULS Filter

This basic program with its efficient IMPULS cleaning system and large selection of variants is used in many types of industrial dedusting applications.

EMC Filter

The patented Energy–Minimizing–Concept guarantees the lowest operating costs in applications with high dust loading and fine dust types. When used as a process filter, EMC technology is the only system to offer a constant and low filter differential pressure.

LIGNO Filter

Scheuch developed the LIGNO series for the wood processing industry as well as for filtering related dust types like paper, rubber, and recycling and plastic materials.

Filters for Cleaning Flue Gases

Scheuch offers a proven lineup of dry electrostatic precipitators and special bag filter designs for cleaning the exhaust gases generated by combustion processes. These are optionally available with sorption technology.

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