



AGTOS Cartridge Filter Units

- Blast machines
- Second-hand machines
- Conveyor systems
- Service and spare parts



When developing our cartridge filter units, we set ourselves the goal of dedusting the blasting process **efficiently and sustainably.**

All legal requirements are strictly adhered to or undercut and practical suitability is guaranteed.

Highly efficient cleaning system solution for shot blast plants

The cartridge filter system solutions from **AGTOS** have a modular design and are flexibly adapted to the required extraction volume flows of the individual.

Like the **AGTOS** shot blast plants, the robust **AGTOS** cartridge filter units are designed for 24/7 use.

They are used for the following blasting tasks, among others:

- Desanding
- Descaling
- Cleaning
- Optical blasting
- Roughening
- Hardening blasting

Cost-saving and efficient

The special **AGTOS** filter cartridges, differential pressure-dependent cleaning and efficient fans ensure that the **AGTOS** cartridge filter unit has a low energy consumption.

The **AGTOS** filter cartridges are conical in shape and have a coarse pleating. This makes it possible to achieve a good flow speed in the raw gas chamber even with relatively small element spacings.



AGTOS Drum shot blast plant with filter unit



Open filter unit: The pushers with the filter cartridges can be seen.

The cleaning process

With pressure surge cleaning, which takes place depending on the differential pressure measurement, a significantly better realisation of the cleaning process is achieved. The compressed air pulse reaches the inside of the dust-covered side walls more directly.

These measures and properties result in a long service life for the cartridges with lower compressed air consumption.

The fans are selected according to the latest energy efficiency classes.

Filter process with protection

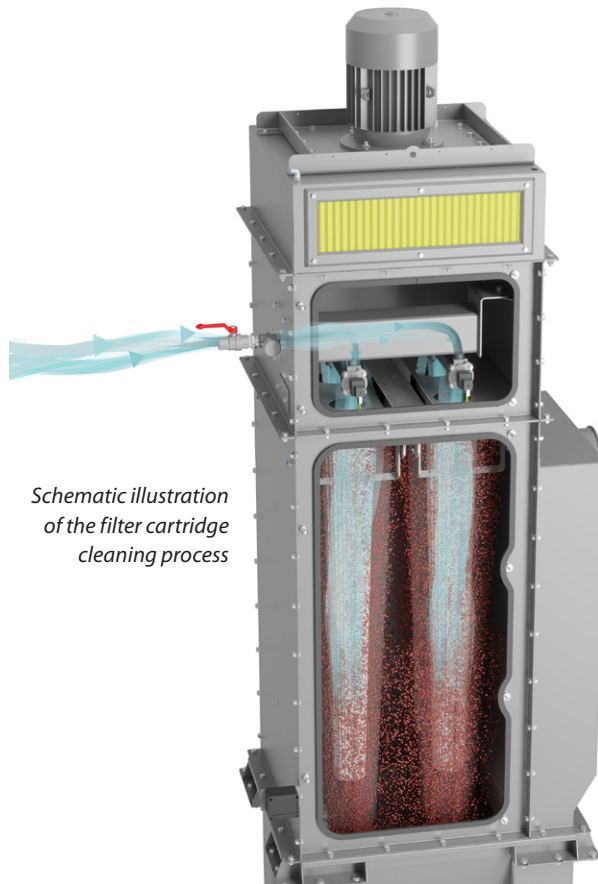
The dust is extracted by means of negative pressure and flows through the integrated impact separator, where heavy dust particles are already separated.

The dusty air (raw gas) then enters the raw gas chamber of the filter chamber. The dust is removed from the air as it flows through the filter cartridges.

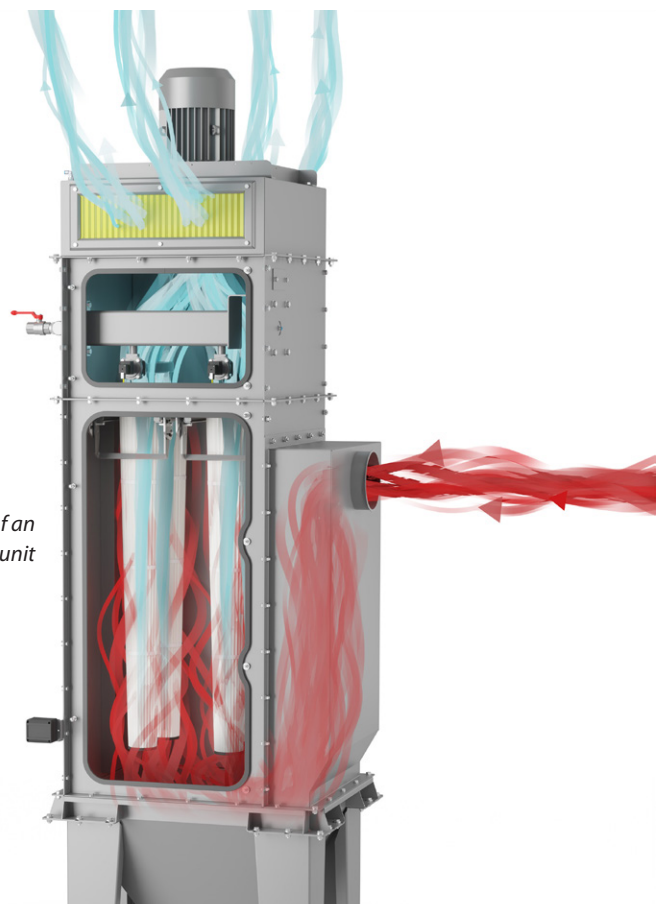
The cleaned air (clean gas) exits the appliance. It is then possible to return the air to the work area or to the outside.

To increase the efficiency of the exhaust air, mixed operation is also possible using change-over flaps for summer/winter.

The dust particles are collected underneath the unit.



Schematic illustration of the filter cartridge cleaning process



Flow diagram of an AGTOS cartridge filter unit

Automatic cleaning

Our filter cartridges are cleaned using compressed air pulses during the operating time of the shot blast plant. The control of the cleaning intervals is fully integrated in the **AGTOS** software.

The filter cartridges are cleaned automatically by means of a limit value analysis (differential pressure measurement). In addition, manual cleaning can be carried out in the manual mode of the control unit.

Special filter cartridges

Our filter cartridges consist of two parts:

1. body with flow material
2. reusable stainless steel support basket

The material of the filter cartridges is selected for the individual purpose of the dust produced (in terms of separation performance).

The **AGTOS** secondary filter makes it possible to further reduce the residual dust content of the clean air. This means it can be returned to the work area. At the same time, it offers additional protection in the event of damage to filter cartridges.



Conical filter cartridges with separate support basket



AGTOS cartridge filter unit with external secondary filter

AGTOS standard cartridge filter unit with integrated secondary filter



Individual disposal

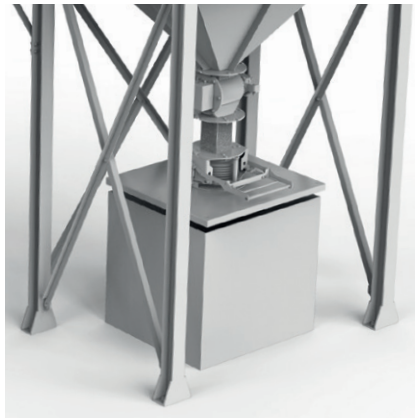
There is a hopper underneath the filter, under which there are easy-to-change disposal containers. The following variants are available as standard (see below):



Dust discharge into big-bag, ...

Special solutions

Alternative versions, such as a pneumatic conveyor system for returning the dust particles to the customer's collection container, are of course available as an option.



Disposal in a collection container provided by the customer.

Safe location

The filters are designed for indoor installation, preferably close to the shot blast plant. Outdoor installation of the filters requires weather protection measures.



...into dust barrel,...



...into dust bag.



Example of a customised solution: Filter unit with screw, cellular wheel sluice and container provided by the customer.

Wide range of options

Fire detection

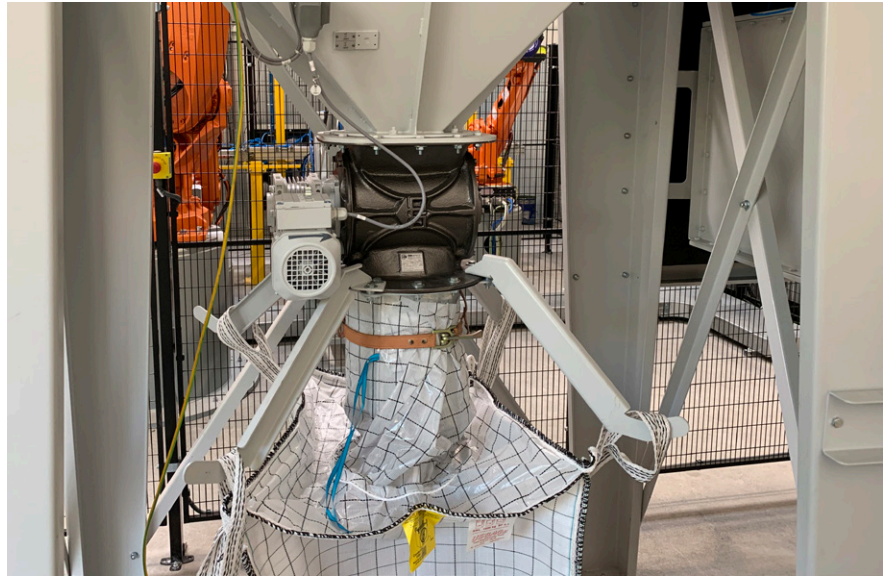
Depending on the intended use and load of the system solution on site, it is possible to monitor the filter unit using a fire detection system. The temperature and flying sparks are monitored. In addition, an acoustic and visual warning is given.

Pipe shut-off claps

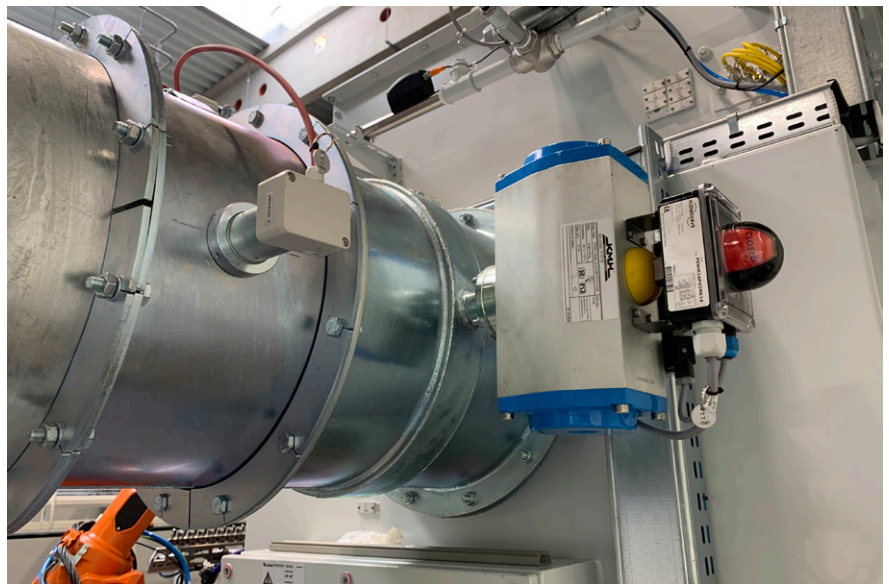
It is also possible to supplement the air ducts with pipe shut-off claps. These are closed automatically when necessary and ensure separation of the raw gas and clean gas ducts to the filter.

Cellular wheel sluice

For large quantities of dust and continuous use (24/7), the cellular wheel sluice makes it possible to change the dust collection container during operation.



Cellular wheel sluice and sensor temperature monitoring in the filter hopper



Pipe shut-off clap and sensor monitoring of the air pipework



Filter unit with a CO₂ compact fire extinguishing device

CO₂ compact fire extinguishing device

The automatic CO₂ extinguishing device ensures safe firefighting by displacing the oxygen in the air.

Noise abatement

It is possible to further reduce noise emissions by installing noise abatement on the fan.

User-friendly maintenance

The filters are equipped with large, maintenance-friendly doors. The filter cartridges are clamped mechanically and centred in slots using quick-release fasteners. This ensures correct positioning and correct contact pressure.

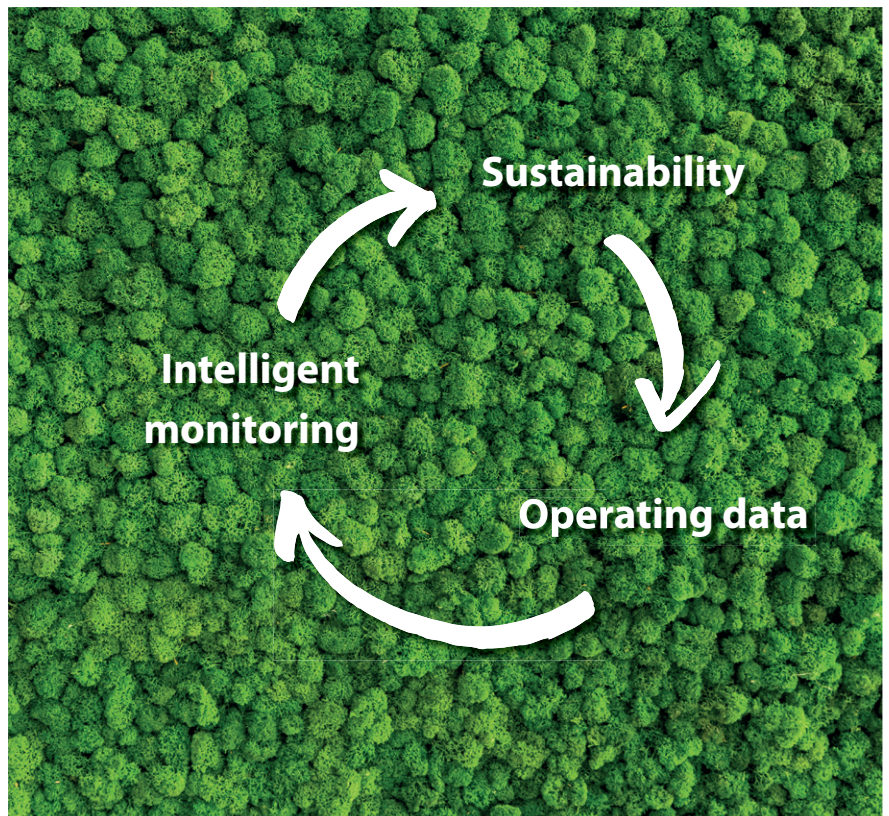
After unlocking the slide-in units, the cartridges are pulled out of the filter unit and replaced.



Filter system with quick-release fastener

Environmentally friendly and sustainable

- Our cartridge filter units are designed for long-term use (24/7 > 20 years).
- Efficient motors and low compressed air consumption reduce the basic requirements of the systems technology.
- Long filter service life reduces maintenance requirements.
- The smaller filter surfaces mean we use less consumables.
- Our two-part filter cartridges are environmentally friendly due to their material separation and reuse of the supporting metal body and are characterised by a low amount of waste.
- Reduced noise thanks to robust construction
- The modular design makes it possible to adapt the filter to the current state of the art.



We will be pleased to advise you in detail about the possibilities of using dry filter units in combination with shot blast plants.

AGTOS cartridge filter units are available in the following standard sizes:

CARTRIDGE Ø 160 x 1200	DIMENSIONS Filter surface m ²	FAN		PRESSURISED AIR		SECONDARY Number of mats Piece
		m ³ /h	kW	Connection Ø	Consumption m ³ /h	
PF 4-04	16	1,250	3.0	1"	2.0	2
PF 4b-06	24	2,000	2.2	1"	3.0	3
PF 4b-09	36	2,600	3.0	1"	4.5	4
PF 4b-12	48	4,500	4.0	1"	6.0	6
PF 4b-16	64	5,500	5.5	1"	8.0	8
PF 4b-20	80	7,500	7.5	1"	10.0	10
PF 4b-28	112	10,000	11.0	1"	14.0	14
PF 4b-32	128	12,000	15.0	1"	16.0	16
PF 4b-40	160	15,000	15.0	1"	20.0	20

Higher air volumes are achieved by a combination of the components listed above.

You can find more information about our innovative filter technology here:
www.agtos.com/technologie/cartridge-filter-systems-for-blast-machines



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