WÖLFLE
CLEVER. EFFICIENT. CREATIVE

OPERATING MANUAL

for the Wölfle
Dust Filter System SF120

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1 PROPERTIES

The Wölfle dust filter system is an effective and low-cost solution for retrofitting your machines such as excavators, wheel loaders, lift trucks, telescoping loaders, and trucks for dusty activities, e.g. demolition work, road and tunnel construction, agriculture, etc. The system removes airborne substances like dust particles, oil vapours, soot, asbestos, spores, fungus, bacteria, and radioactive dusts via the class H13 airborne dust filter according to EN1822-2009. Our system also supports your air conditioning system and generally ensures the preservation of your machine's value.

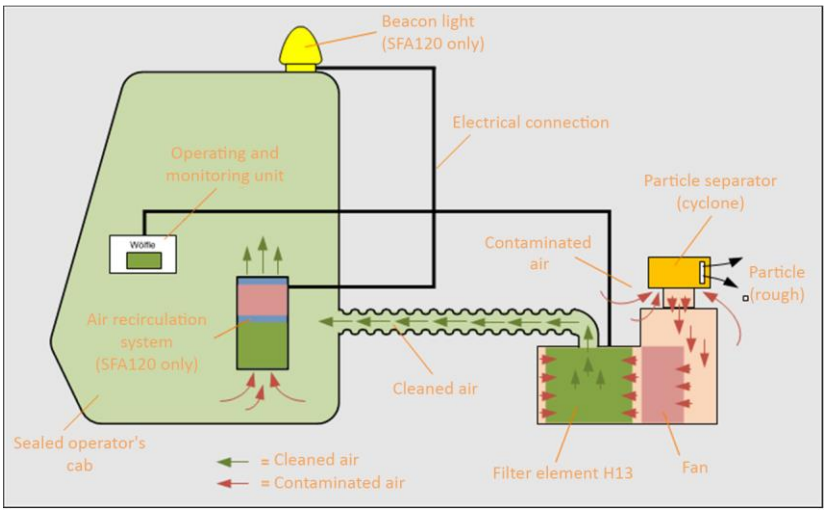
2 TECHNICAL SPECIFICATIONS

Fan	Three-level high-power fan
Voltage	24 V DC or 12 V DC, depending on the version
Filter stage 1	Cyclone - pre-separator air filter
Filter stage 2	Minipleat HEPA filter class H13 as per EN1822-2009
Dimensions in mm	(W x H x D) 465 x 490 x 270, hose connections 50 mm
Pressure indicator	Green LEDs 100 to 300 Pa = cabin overpressure OK Red LEDs = cabin overpressure too high or too low
Max air quantity	120 m^3/h
Max. current consumption	5 A at 24 V, 10 A at 12 V with interested filter
Housing construction	Painted metal housing with KTL anti-corrosion protection

3 FUNCTION DESCRIPTION

Fouled air is extracted externally via a multi-cyclone pre-separator, which removes rough particles from the air. A fine particulate filter (class H13) filters fine airborne substances from the air, and the clean air is blown into the cabin via an air hose and through the existing heating/air conditioning system as much as possible.

A high-power fan produces a constant overpressure between 100 and 300 Pa in the cabin, which ideally prevents the penetration of fouled air. In case of changes to the cabin overpressure, the machine operator is automatically warned visually and acoustically.

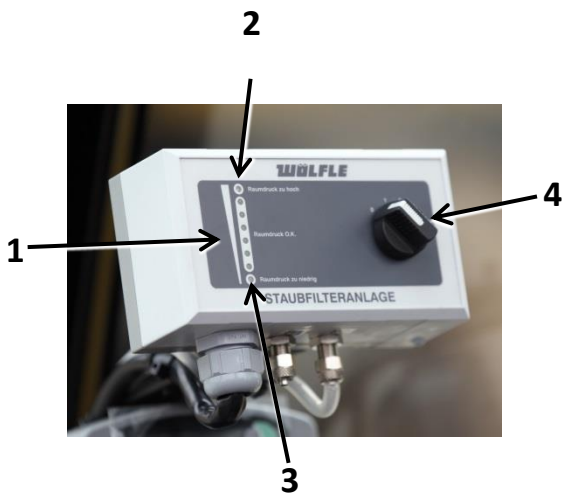


The SF120 may also be equipped with a circulating air filter system and a warning lamp upon request. This in turn increases the operating reliability of the systems, as well. The system is then designated SFA120 and is based on the BGI581 and DGUV information 201-004.
SF120 also approximately corresponds with the requirements of EN15695-1 categories 1 to 3.

4 CONTROL UNIT

Cabin overpressure indicator
(1) green LEDs = cabin overpressure OK 100-300 Pa
(2) red LEDs = cabin overpressure too high < 300 Pa
(3) red LEDs = cabin overpressure too low > 100 Pa
If the pressure is too low or too high, an acoustic warning signal also sounds.

On and off switch, selecting the fan levels
(4) Rotary knob for setting the fan levels 1 to 3 and for switching off the system = 0.



5 OPERATION

The fresh air supply system must be operating when the cabin is closed!

In other words, the dust filter system SF120 must always be in operation when the cab is closed in order to ensure an adequate supply of fresh air to the operator. Otherwise there is a risk of oxygen deficiency!

1. Close windows, doors and roof hatches. -> To allow overpressure in the cabin to increase, all openings in the cabin must be closed.
2. To switch on the dust filter system SF120, turn the rotary knob (4) on the control unit clockwise to the desired fan level. -> Overpressure increased in the cabin, which is indicated by the LEDs on the control unit. For details, see item “4 control unit”.
3. To switch off the dust filter system SF120, turn the rotary knob (4) on the control unit anticlockwise to level 0. -> The cabin overpressure drops rapidly and the fresh air supply is interrupted. Observe the warning notice!

Notes:

- The system is normally connected via the ignition (terminal 15). Once the system has been switched, it is switched automatically when the motor is started to the selected fan level and switched off when the motor is shut off.
- The air conditioner may be operated as usual. See vehicle manufacturer’s operating manual.
- In case of increasing pressure loss due to a fouled filter or smaller leaks in the cabin sealing, increasing the fan level can increase the cabin pressure to reach the prescribed range of 100 – 300 Pa again.

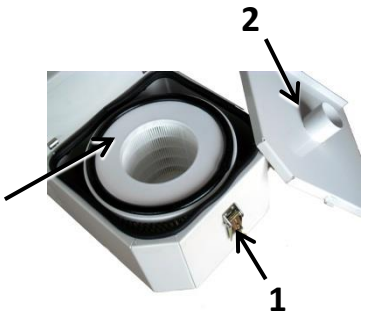
6 FILTER

070143 Cyclone pre-separator air filter 	The cyclone pre-separator air filter features a continuous dust ejector and is therefore mainly maintenance. In case of clogging, e.g. due to large pieces of lint or wood fibres, please clean this manually. Cleaning with compressed air is possible if required.
313524 HEPA filter class H13 	Filter in the basic device - This filter cannot be cleaned! The filter material is very sensitive. Do not reach inside the filter! If the filter is loaded (loaded), then insert a new filter. Opening upwards as indicated in the figure. Complete a visual inspection at regular intervals to check if the filter is damaged or overloaded.

7 MAINTENANCE AND FILTER CHANGE

- As described above, increasing fouling in the H 13 HEPA filter or a pressure loss, the cabin pressure may be increased again by raising the fan level of the dust filter system. If the cabin overpressure in the third fan level is still too low, then the cause is either a leak in the cabin or a H 13 HEPA filter that is severely overloaded (fouled). Troubleshooting: Change the filter or restore cabin sealing again correctly!
- The class H13 HEPA filter should be restored after 500 operating hours or 6 months at the latest. Please complete regular visual inspections of the filter.

Approach for changing H13 filter:



ATTENTION: When changing the filter, wear a suitable protective mask and gloves if the system has been used in contaminated areas.

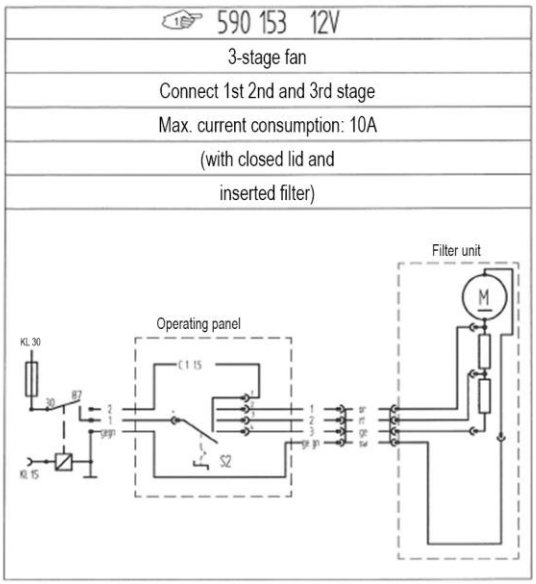
1. Opening the clamp fastener (1) on the filter lid.
2. Disengage the filter cover (2) and remove it.
3. Remove the loaded, fouled class H13 HEPA filter (3).
4. Clean the inside of the filter compartment as required.
5. Insert the new class H13 HEPA filter (3) with the opening facing upwards.
6. Engage the filter lid (2) in the centre of both closure hooks and close it.
7. Lock the clamping closure (1).

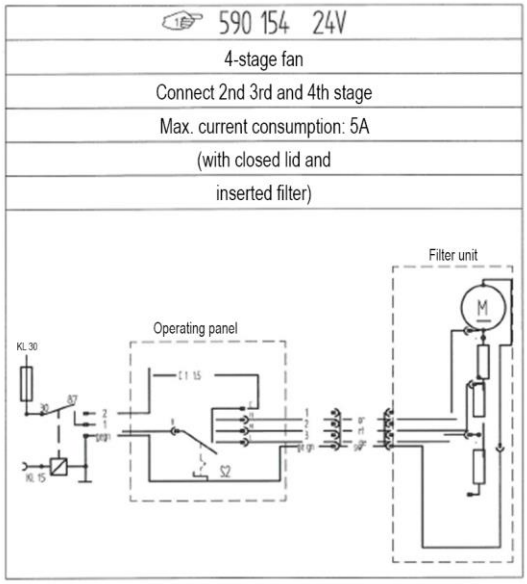
- Check the cyclone pre-separator air filter regularly. The fan wheel on the interior must move easily. Clogging due to lint or fibrous materials must be removed. Using compressed air for cleaning is permissible.
- Operator cabs with systems for respiratory air supply (SFA120) must be tested by a qualified expert before the initial commissioning, after each start-up, and at least once per year according to BGI581. The result of the test must be entered in a test log or a test report. The next testing date is featured on a sticker in the cabin or on the basic device of the system.

8 SPARE PARTS

Name	Article
Basic device 24 V	590154
Basic device 12V	590153
Operating panel	810100-01
Fan 24 V (basic device)	323047
Fan 12V (basic device)	323139
Filter H13 basic device	313524
Cyclone - pre-separator air filter	070143
Air hose 50 mm	295729
Hose clamp 50 mm	437617

9 CIRCUIT DIAGRAM





ATTENTION:

This operating manual provides information about the intended use of the product and prevention of danger in accordance with Article 3 of the German Law on Technical Work Materials. It must be read and observed by all persons who use, service, maintain and inspect this product.

This product can only fulfil the tasks for which it is intended if it is used, serviced, maintained and inspected according to the specifications of Wölfle Ind. - & KFZ-Teile Vertriebs GmbH.

The guarantee provided by Wölfle Ind. - & KFZ-Teile Vertriebs GmbH for this product is rendered void if it is not used, serviced, maintained and inspected according to the specifications of Wölfle Vertriebs GmbH.

Prior to selection and use of the product, an evaluation must take place to determine whether the system is suitable for the intended use.

Wölfle Ind. - & KFZ-Teile Vertriebs GmbH has no influence over the - & KFZ-Teile Vertriebs GmbH. Therefore, our liability only extends to the consistent quality of the product.

The statements above do not change the specifications for the warranty and liability in the terms of sale and delivery conditions of Wölfle Ind. - & KFZ-Teile Vertriebs GmbH. Please feel free to contact us for further information.