

APPLICATION

The FPV 202 filter cartridge pre-separator was specially designed to significantly extend the service life of a downstream extraction and filter system of the LN/GL/TFS-series. The system is equipped with cleanable filter cartridges which allow dust build-up to be removed from the filter using bursts of compressed air. The device is therefore particularly suitable for applications in which large amounts of dry dust are extracted. Compared to solutions with pure saturation filters, the FPV 202 system and downstream extraction and filter system have very long service lives. The **INSPIRE** electronics also allows the system to be flexibly integrated into the overall system.

A precoating of the filter cartridges with Precofix 200 allows even glutinous substances to be extracted, such as those produced during laser processing of plastics, wood and rubber.



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AREAS OF APPLICATION:

- Laser processing (in some cases combined with precoating)
- Mechanical processing (grinding, deburring, milling, drilling, cutting)
- Transferring materials, packaging processes, transporting/ conveying processes
- Decentralised set-up for multiple workstations

THE SYSTEM INCLUDES NUMEROUS FEATURES:

- Designed for larger amounts of dust
- Cleanable filter cartridge
- Simple dust removal
- Filter cleaning control

FUNCTIONAL PRINCIPLE

The contaminated air is collected by the collection unit (extractor hood, suction arm, hose, etc.) and transported into the filter cartridge pre-separator directly or through a pipe or flexible hose. The dust particles are filtered out by cleanable filter cartridges in the filter cartridge pre-separator. The filter cartridges are cleaned by bursts of compressed air which are directed into the filter cartridges by the (differential pressure controlled) automatic cleaning system. The filtered-out dust particles are collected in a dust collector for easy disposal. If necessary, a dust bag can also be inserted for low-contamination disposal. The pretreated air is then transported into an appropriately dimensioned extraction and filter system from the LN/GL/TFS-series.

PRODUCT FEATURES

DESIGNED FOR LARGER AMOUNTS OF DUST

This device acts solely as a passive pre-filter and is operated in combination with a downstream extraction system. It prevents larger amounts of coarser dust from reaching the downstream extraction system and collects them in a separate dust collector, reducing the strain on the downstream filter and increasing the filter service life of the entire filter system.

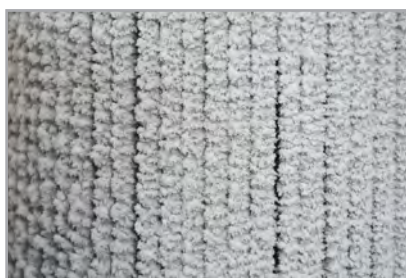
CLEANABLE FILTER CARTRIDGES

The FPV 202 is equipped with six cleanable filter cartridges of dust class M. The filter cartridges are made of BGIA (Institute for Occupational Safety and Health of the German Social Accident Insurance)/USGC tested filter material and conductive coated. A special fold allows optimal cleaning of the cartridges.

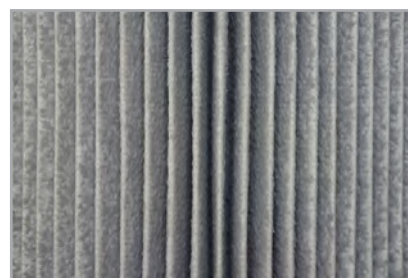
Depending on the application, special coated versions can be used. Please contact the TBH sales team for more information.



new filter cartridge



filter cartridge in use



filter cartridge after cleaning

SIMPLE DUST REMOVAL

The dust collected in the process can be disposed of using the removable dust collector. If necessary, an anti-static dust bag can also be inserted for low-contamination disposal.



POWERFUL CONTROL ELECTRONICS

The FPV 202 is equipped with **INSPIRE** control electronics and a comprehensive interface. This allows controlling and monitoring the following functions:

- Filter-saturation indicator of the filter cartridge pre-separator
- Visual and acoustic display of the filter saturation
- Fault display and notification
- Pushbutton Start cleaning cycle
- Display Filter cleaning status

INTERFACE:

- Warning at a filter saturation of 75% (notification, e.g. for external control of the cleaning process)
- Visual and acoustic signals when filter is saturated
- Collective fault output (filter full 100%)
- External start of the cleaning process
- Error memory improves the coordination between the customer and the TBH service
- Parameterization access for the activation of custom functions

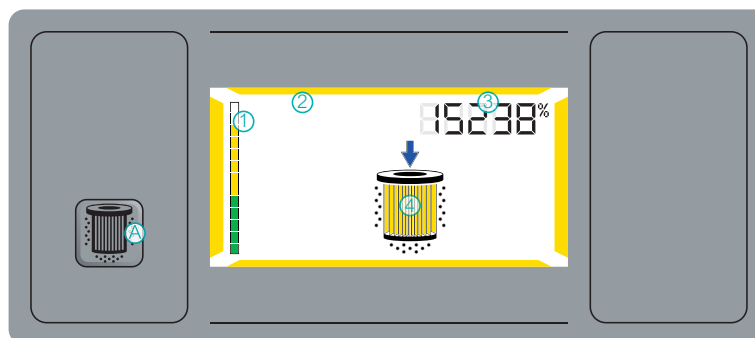


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OPERATING ELEMENTS:

A) Manual start of the filter-cartridge cleaning

- 1) Filter-saturation indicator
- 2) System status indicator
- 3) Operating-hours meter
- 4) Cleaning-in-progress indicator



FILTER-CARTRIDGE CLEANING:

The FPV 202 is equipped with a special cleaning control allowing the automatic removal of dust covering the filter cartridge thus significantly increasing the filter service life.

Depending on the specific case of application, different options can be parameterized by the customer:

- Differential-pressure-controlled cleaning (factory setting)

The system constantly monitors the actual filter saturation and automatically starts the cleaning cycle once a set value has been reached (factory setting: filter saturation of 75%)

- Interval cleaning (can be parameterized via interface)

The system automatically starts the cleaning cycle in accordance with individually adjustable periods of time (minutes/hours)

- Start cleaning via interface

Depending on the individual case of application, the customer can activate the cleaning by means of the interface. Using this function is recommended whenever the customer's work process must not be interrupted in an unforeseen manner.

ADDITIONAL FUNCTIONS:

Slide-valve control, cycle times and much more.

THE PRECOATING PROCESS

The FPV 202 can be manually precoated with Precofix 200 precoating powder. The precoating powder creates a thin layer separating the filter medium from the extracted particles of dirt. This protects the surface of the filter cartridge and makes it easier to filter out even sticky and moist particles (Figure 1), significantly expanding the range of applications for cartridge filter systems of the FPV and FP-series and greatly increasing filter service life under difficult conditions.

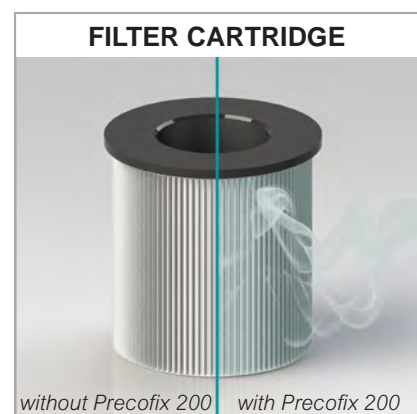


Figure 1