

FP 150 ATEX



Application



Illustration similar



The FP 150 ATEX is equipped with a dedustable antistatic filter cartridge, which enables the filter to be freed from dust by compressed air blasts. The unit is therefore particularly well suited for applications in which large quantities of dry, combustible dust with a minimum ignition energy of >3mJ are extracted and achieves enormously long service lives compared to systems with saturation filters.

The system meets the requirements of the ATEX directive (EX II 2/- Dc IIIC T100°C) and is suitable for extraction from a zone 21, whereby the system must be installed outside a zone. The suitability for the respective application depends on the material to be extracted and must be considered individually. In appropriate cases, the use at minimum ignition energies of < 3mJ can also be tested. Each system comes with a special sample explosion-protection document, allowing for evaluation of the overall system consisting of the TBH extraction system and the customer environment.



Simple dust removal

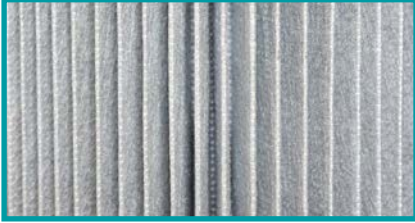


The dust generated during the process is disposed of via the removable dust container. If required, a dust

bag can be inserted for low-contamination dust removal.



Long service life due to effective filter cleaning



New filter cartridge



Filter cartridge in operation



Filter cartridge after dedusting

The FP 150 is equipped with a dedustable antistatic filter cartridge, which enables the filter to be freed from dust by compressed air blasts. Its PES (polyester) microfibre surface comes with a conductive coating and provides a robust and well protected solution against mechanical damage for a wide range of customer applications. The cartridge is thus well suitable for

applications in which large quantities of dry dust are extracted and achieves enormously long service lives compared to systems with saturation filters. In combination with precoating (application of a separating layer on the filter cartridge), it is also possible to reliably separate sticky and moist dusts.



Modular and flexible



The FP 150 ATEX is equipped with a dedustable filter cartridge of dust class M and a particle filter (H13).

A molecular filter (activated carbon/BAC) is also available for removal of odours from the process air.



Filter cartridge dedusting



Filter cartridge new

Filter cartridge, saturated

The FP 150 is equipped with a special dedusting control system, which enables the filter cartridge to be automatically freed from dust and thus increase the filter service life enormously.

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

Differential-pressure controlled dedusting (factory setting)

- The system continuously measures the current filter saturation and automatically starts the dedusting cycle when a set value is reached (factory setting: 75% filter saturation).
- Interval dedusting (parameterizable via interface)
The system automatically starts the dedusting cycle at adjustable intervals (minutes/hours).
- After-run cleaning (parameterizable via interface)
The after-run cleaning can also be activated in addition to another mode. When the system is switched to standby, a dedusting cycle starts automatically. This allows the system to clean the filters at the end of a working shift without interrupting a work process.
- Start dedusting via interface
Depending on the application, the customer can easily activate the cleaning process via the interface. This function is recommended when the customer's work process may not be unexpectedly disturbed.

Additional functions:

Control of shut-off valve, system shut-down during dedusting, cycle times, etc.



Draws off every harmful particle

Pollutants do not **stand a chance**



- . Low-contamination dust disposal
- . Molecular sieve against gaseous pollutants
- . Piping / Flexible hose / Extraction arm
- . Air-recirculation or exhaust-air pipe



Double adsorption power



Active carbon



BAC granulate



Active carbon/BAC

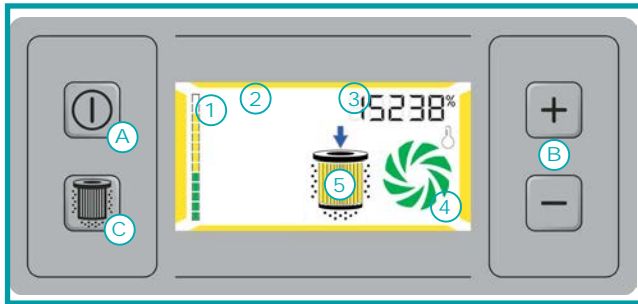
The adsorption of the gaseous substances takes place with activated carbon (physical adsorption) and BAC granulate (chemical adsorption).

In addition, they take up a very broad spectrum of gases and odours.

-> Neutralization through chemical bonding with the reaction substance applied to the substrate material.

Inspiring control

Continuous full control over
the system



- . A - Start / Stop button
- . B - Manual power control
- . C - Manual start of filter-cartridge dedusting
- . 1 - Saturated filter notification
- . 2 - System status indication
- . 3 - Power-setting indication/
Hour meter
- . 4 - Temperature and turbine-status indication
- . 5 - Filter-status indication

SUB-D 25 interface

External control of the system



Powerful control unit

- . Start / Stop button
- . "Filter full" pre-warning stage (75%)
- . Group-error output
(speed, temperature, "filter full" 100%)
- . External power control
- . Parameterization access for activating
special functions and dedusting mode
- . Message cache
- . Digital interface (RS232)

Illustration similar

Applications



Refilling work, packaging processes, feeding and conveying processes

When materials are moved from one place to another, such as during packaging or transportation, this process can cause particles to be released. Especially since they are not visible to the human eye, the risk should not be underestimated. Particles can develop from turbulences. TBH filter and extraction systems safely remove these particles from the ambient air.



Mechanical processing (grinding, deburring, milling, drilling, cutting)

Processes such as grinding, deburring, milling, drilling or cutting generate dust, vapours and gases. These by-products must be extracted before their tiny particles are inhaled and can cause serious harm to the human body.



Laser technology

Lasers are used for processing metals, woods and plastics. Due to this versatility, companies are intensively involved in laser technology. This not only increases efficiency, but also creates unwanted by-products, regardless of type and performance. TBH systems ensure safe extraction of fine dust and laser fumes.



Plastics processing

Almost every industry today processes plastics. TBH systems are exactly the right solution for the safe extraction and filtration of grinding dusts and vapours that occur during the processing of plastics. Be convinced by our quality.

Technical data FP 150 ATEX



Illustration similar



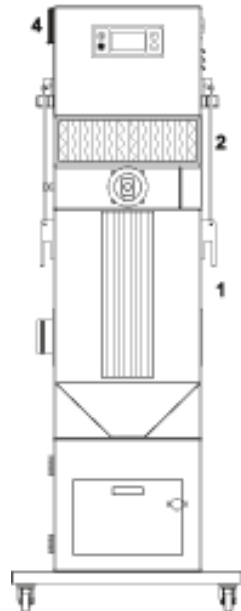
Delivery scope:

- . Completely assembled (incl. the selected filter equipment)
- . Machine base and 4 castors for mobile use
- . Power cord

TECHNICAL DATA	UNIT	STANDARD
Air volume flow with free air delivery	m ³ /h	max. 280
Effective air flow rate	m ³ /h	50-250
Max. static pressure	Pa	20000
Voltage	V	100-240
Frequency	Hz	50/60
Motor output	kW	1.1
Class of protection	-	1
Drive type	-	Continuous running
Sound level	db(A)	approx. 64
Serial interface	Sub-D	25-pin
Weight	kg	approx. 75
Dimensions (HxWxD)	mm	1470x550x550
Intake sleeve NW 80	Quantity	1
Automatic dedusting by means of compressed air	-	✓
Filter Surface	m ²	4
Dust container	Liters	15
Color	RAL	7035

FILTER CONFIGURATION	
Filter cartridge, anti-static (dust category M)	✓
Particle filter H13	✓
Activated carbon/BAC filter	optional (10 liters)

Ordering data FP 150 ATEX

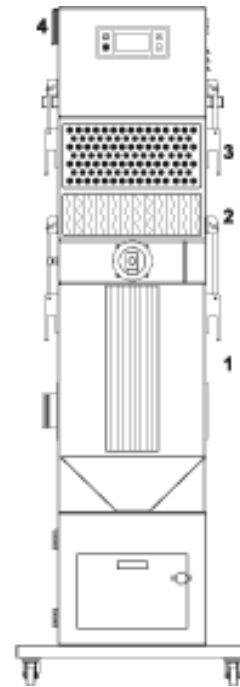


AS BASE MODELL

DESIGNATION	ART. NO.
FP 150 ATEX 100-240V 50/60Hz	90356

SPARE FILTER		
Filter cartridge antistatic	13403	1
Particle filter ATEX	15363	2
Activated carbon/ BAC filter ATEX	15386	3
Filter mats for bypass cooling	14372	4

EXHAUST SLEEVE	
Exhaust grid	Standard
NW 80	11709
NW 100	12839
NW 125	12232



WITH ACTIVATED CARBON
FILTER MODULE

ADDITIONAL MODULES	ART. NO.
Activated carbon filter ATEX*	15383

* when ordering ex works

DESIGNATION	
Pressure regulator	11783

INTAKE SLEEVE	
LeftNW 80*	15379
Right NW 80*	15382

* Version collar + flange, possibly necessary
reduction included in the hose set (see acces-
sories)

Electronic control system



FUNCTION	FP 150
Start / Stop button	✓
Manual output control	✓
Saturated filter notification (complete system)	✓
Visual and audible indication of filter saturation	✓
Display & notification of malfunctions	✓
Manual start of filter-cartridge dedusting*	✓
Indication of filter cleaning status *	✓

* in conjunction with automatic dedusting

INTERFACE FUNCTION	
Interface	Sub-D
Start / Stop button	✓
Pre-warning, filter saturated to 75 %*	✓
Visual and audible indication of filter saturated	✓
Group-error output (speed, temperature, "filter full" 100%)	✓
External speed control	✓
External dedusting start*	✓
Message cache	✓
Parameterization access for activating special functions	✓

* Message, e.g. to control the dedusting from an external source

** in conjunction with automatic dedusting

Accessories



ELECTRIC FOOT SWITCH

USE	DESIGNATION	CABLE LENGTH	ART. NO.
FP 150 ATEX	Electric foot switch	2 meters	16369

FUNKTIONS:

- Start / Stop button
- Switch-on status of the system: Standby operation

DELIVERY SCOPE: Foot switch (incl. cable)



CABLE REMOTE CONTROL

USE	DESIGNATION	CABLE LENGTH	ART. NO.
FP 150 ATEX	Cable remote control	7 meters	16477

FUNKTIONS:

- Indication „Filter saturated“
- Start / Stop button
- Speed control
- Switch-on status of the system: Standby operation

DELIVERY SCOPE: Remote control (incl. cable)

Accessories



USB CONNECTION

USE	DESIGNATION	CABLE LENGTH	ART. NO.
FP 150 ATEX	USB connection cable	1.5 meters	16455

DELIVERY SCOPE: Connection cable (incl. software)

Harting option



MAINS CONNECTION HARTING OPTION

USE	DESIGNATION	ART. NO.
FP 150 ATEX	Mains connection Harting option	17036



INTERFACE HARTING

USE	DESIGNATION	ART. NO.
FP 150 ATEX	Interface Harting option	15719

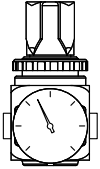


USB CONNECTION HARTING

USE	DESIGNATION	CABLE LENGTH	ART. NO.
FP 150 ATEX	USB connection cable Harting	1.5 meters	16466

DELIVERY SCOPE: Connection cable (incl. software)

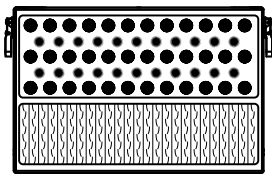
Accessories



Pressure regulator

PRESSURE REGULATOR - autom. dedusting

USE	DESIGNATION	ART. NO.
FP 150 ATEX	preset to 2 bar operating pressure	11783



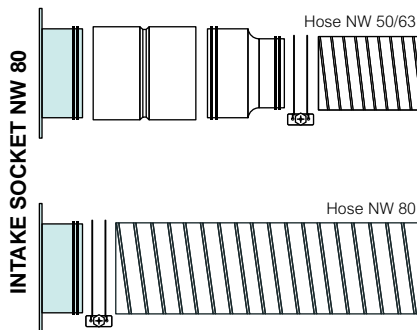
Particle filter H13 +
Activated carbon/BAC filter

FILTER-HOUSING MODULE* AS UPGRADE KIT - Particle filter + activated carbon/BAC filter

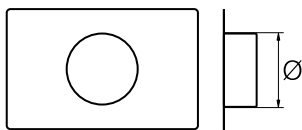
USE	FILTER CLASS	ART. NO.
FP 150 ATEX	H13	15388

* for retrofitting of existing systems (for easier filter changing: Activated carbon/BAC filter and particle filter in one filter housing)

AIR INLET - flexible connection hoses



DESIGNATION	NW (mm)	LENGTH (m)	ART. NO.
Hose set with reduction, hose clamps and socket NW 80	50	2.5	15372
		5.0	15373
	63	2.5	15374
		5.0	15375
		10.0	15376
Hose set with hose clamps	80	2.5	15087
		5.0	15094
		10.0	15377



AIR OUTLET PLATE*

USE	NW (mm)	ART. NO.
FP 150 ATEX	80	11709
FP 150 ATEX	100	12839
FP 150 ATEX	125	12232

* Connection plate with socket for specific air discharge via hose

Accessories



SIGNAL MODULE

USE	ART. NO.
FP 150 ATEX	16621



SPARK EXTINGUISHER (Use in piping)

USE	AIR VOLUME	Ø d (mm)	ART. NO.
FP 150 ATEX	150-300 m³/h	63	16649

ATEX approval to EN1834

Installation: Depending on the application and size, the spark extinguishers can be installed on the wall or on a worktable using a special holder (incl. magnets, included in delivery scope) or with pipe clamps (please order separately).



DUST BAG

Dust bag for low-contamination disposal of the dedusted filtrate

USE	DESIGNATION	ART. NO.
FP 150 ATEX	Dust bag	16711



FLOW-RATE MONITORING DEVICE

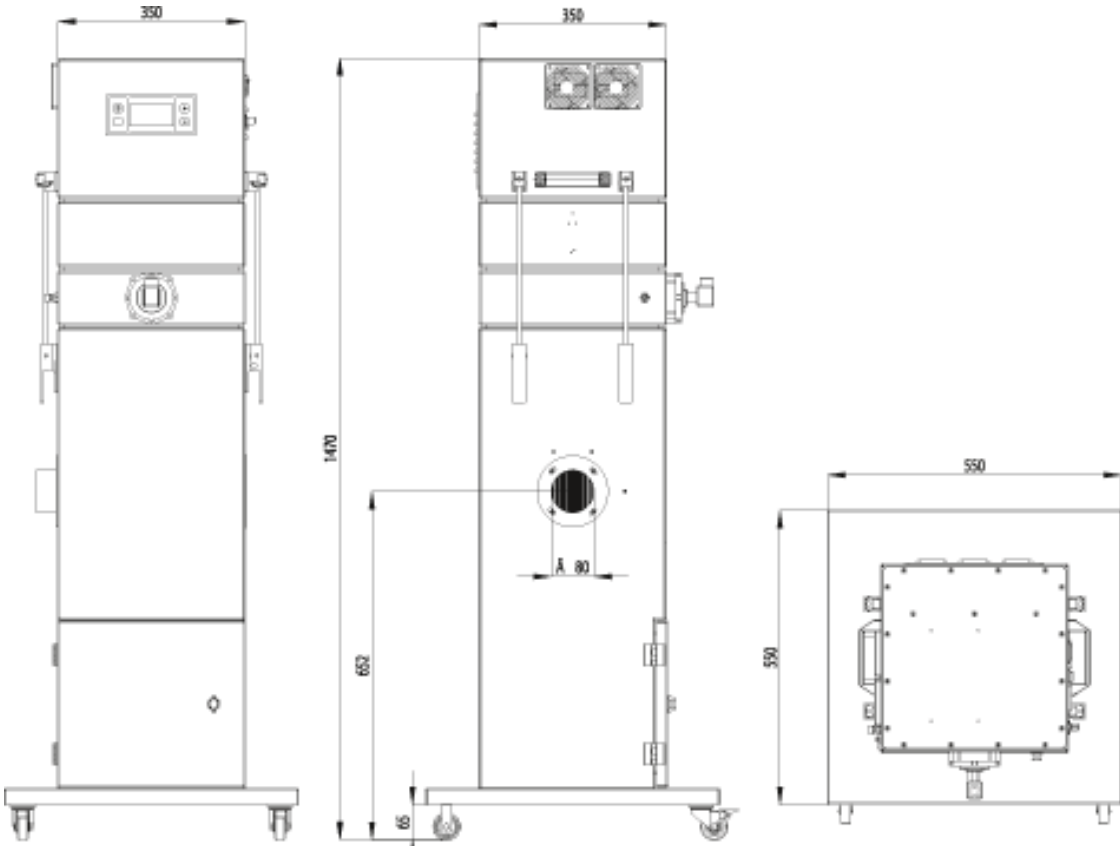
USE	Ø d (mm)	ART. NO.
FP 150 ATEX	80	16642



FILTER-RUPTURE MONITORING DEVICE

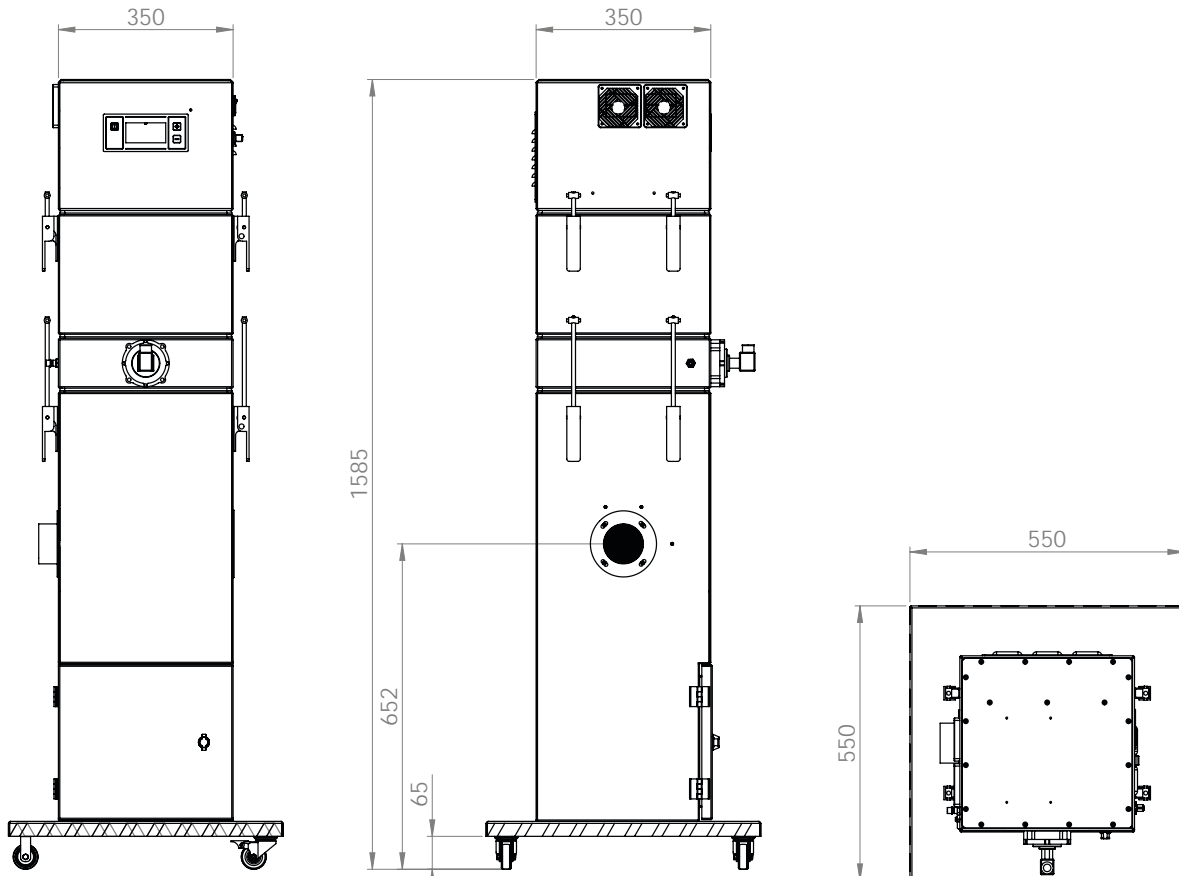
USE	Ø d (mm)	ART. NO.
FP 150 ATEX	100	16651

Technical drawings



FP 150 ATEX basic model

Technical drawings



FP 150 ATEX (with activated carbon module)

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