



BF Series



Assurance in occupational and health safety

Welding fumes and dusts from related processes are easily handled by this system. The Institute for Occupational Safety and Health (IFA) has specifically tested them in accordance with DIN ISO 15012-1 (2013) and 15012-4 (2016). It fulfils the protection level for safe extraction and filtering required by the TRGS 528 Directive. High safe-

ty requirements are thus met. Smoke, vapours or dusts with particles in the micrometer range are safely filtered out of the air. Awarded W3 and the DGUV seal, the system offers triple protection for humans, environment and machinery, and is accordingly listed on the "IFA positive list".



Powerful motor



BF 9 / BF 100 / BF 200 / BF 1000 / BF 1200

- Electronically-commutated motors for full power and less energy consumption
- Wide-range input 100 – 240 V
- Brushless motor; suitable for continuous operation
- Permanent magnet rotor
- Electronic control for optimum motor characteristic curve and operating point



Best value - Entry-level model

As a compact basic model, the Basic Filtration, or BF series for short, contains all the essential functions of a filter and extraction system. The systems of the BF series can be equipped with various filter concepts. Here, TBH's proven modular design, with its many advantages, is used.

The differential-pressure indicator can be used to monitor the saturation filter. All systems of the BF series are equipped with a particularly energy-saving blower, high vacuum and powerful control unit.



Double adsorption power



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.



Energy-saving and quiet

BF 5 / BF 10



- Low energy costs, environmentally friendly
- Noise-reducing blower
- Suitable for operation in noise-sensitive environments
- Energy savings to 65%

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

Modular and flexible

Individually combinable to several processes



- Various filters combinable
- Adaptable to different processes and applications
- Numerous accessories available for ideal extraction

Tool-free filter changing

Simple filter removal

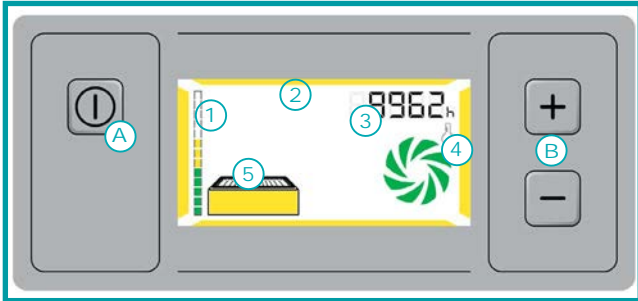


- Swift and smooth changing
- No special knowledge required
- Easy handling
- No tools required
- Time-saving

Inspiring checking



Always full control over the system



- . A - Start / Stop button
- . B - Manual power control
- . 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

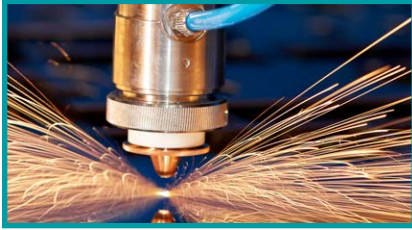


Basic control unit

- . Start / Stop button
- . "Filter full" pre-warning stage (75%)

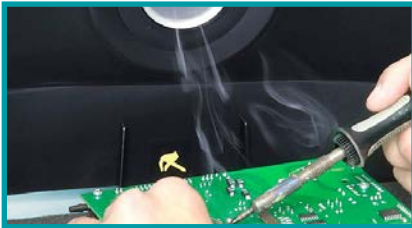
Illustration similar

Applications



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.



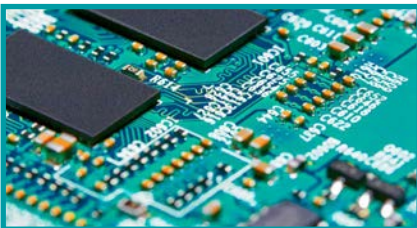
Soldering

Soldering connects two different materials by melting. Tin solder being used releases additives that have harmful effects on the respiratory organs. Depending on the soldering application (manual or automated), a suitable filter and extraction system must therefore be used.



Welding/Grinding/Cutting

Welding, grinding and cutting processes result in very fine particles from the surfaces being worked. These dangerous substances settle in the lungs and can lead to permanent inability of the respective employee to work. To prevent this from happening, welding fumes must be efficiently extracted. This is demanded by the legal authorities in TRGS528. TBH GmbH therefore offers a large number of systems with W3 / DGUV approval.



Electronics

Manufacturers of electronic products work with small or tiny elements. Highly-toxic materials such as arsenic or phosphorus are often used to modify the properties of semiconducting substances. Solvents are used for removing contaminants on microchips; these pollute the environment and are harmful for employees.



Work processes with vapours/gases

Gases are much more difficult to separate than solid particles. Due to their chemical structure, they can pass through most filters without any problems. Special filters are required to extract gases correctly and reliably.



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 glass

Glass production results in great heat. The high temperatures required for melting glass cause gases containing large quantities of environmentally-hazardous substances to rise. In the course of the acid polishing, the hot or cold final layer releases tin or titanium chlorides, such as hydrofluoric acid and sulphuric acid. These substances must be drawn off, as they are harmful to one's health.



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.



Textile processing

Clothing can lose small lint and thread particles. These are so light that they can hover in the air of enclosures, and any motion continuously whirls them up. A high concentration of these airborne fibres is present particularly in the processing of textiles. There are also chemicals used for dyeing clothing, which are usually harmful to health and therefore need to be extracted.

Technical data BF 5



Illustration similar

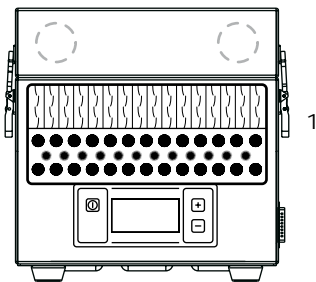
Delivery scope:

- Fully mounted (incl. filter-system legs)
- Filter equipment
- Power cord

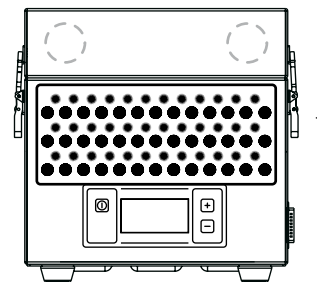
TECHNICAL DATA	UNIT	STANDARD	A
Air volume flow with free air delivery	m ³ /h	max. 130	max. 130
Effective air flow rate	m ³ /h	20-100	20-100
Max. static pressure	Pa	1900	1900
Voltage	V	100-260	100-260
Frequency	Hz	50/60	50/60
Motor output	kW	0.04	0.04
Class of protection	-	1	1
Drive type	-	Continuous running	Continuous running
Sound level	db(A)	approx. 58	approx. 58
Serial interface	Sub-D	25-pin	25-pin
Weight	kg	17	17
Dimensions (HxWxD)	mm	315x300x300	315x300x300
Intake sleeve NW 50	Quantity	2	2
Color (housing)	RAL	7035	7035
Color (of lid)	RAL	7037	7037

FILTER CONFIGURATION			
	2-stage filter (particle filter H13 + activated carbon filter)	✓	-
A	Activated carbon filter	-	5.5 liters

Ordering data BF 5



STANDARD



A

DESIGNATION	ART. NO.
BF 5 100-260V 50/60 Hz	90344

DESIGNATION	ART. NO.
BF 5 100-260V 50/60Hz	90421

SPARE FILTER	
2-stage filter (particle filter + activated carbon filter)	15119 1
Activated carbon filter	-

SPARE FILTER	
2-stage filter (particle filter + activated carbon filter)	-
Activated carbon filter	15715 1

COVER UNITS	
Cover with extraction arm - System 50 (850 mm length, 3 joints)	15357*
Cover with extraction arm - Flex system 50 (900 mm length, 2 joints)	15354*
Cover with extraction arm - Flex system 50 (600 mm length, without joints)	15355*
System cover with center socket, NW 80	15356*

* factory-side

Technical data BF 9



Illustration similar

Delivery scope:

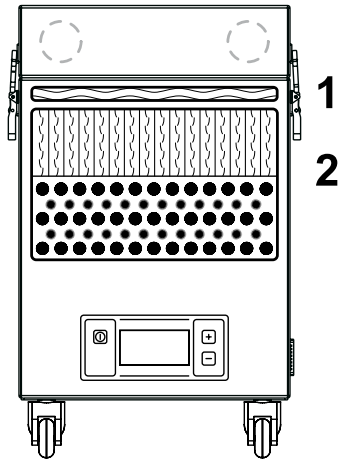
- BASIC control unit*
- Fully mounted (incl. casters for mobile use)
- Filter equipment
- Power cord

* Entry level unit, has functions as other systems of the BF series, but without motor monitoring.

TECHNICAL DATA	UNIT	BF 9
Air volume flow with free air delivery	m ³ /h	max. 220
Effective air flow rate	m ³ /h	20-200
Max. static pressure	Pa	14000
Voltage	V	230/120
Frequency	Hz	50/60
Motor output	kW	0.7
Class of protection	-	1
Drive type	-	Carbon running
Sound level	db(A)	approx. 64
Serial interface	Sub-D	25-pin
Weight	kg	24
Dimensions (HxWxD)	mm	510x300x300
Intake sleeve NW 50	Quantity	2
Color (housing)	RAL	7035
Color (of lid)	RAL	7037

FILTER CONFIGURATION		
Pre-filter mat M5 (ISO ePM ₁₀ > 50%)		✓
2-stage filter (particle filter H13 + activated carbon filter)		✓

Order data BF 9



BF 9

DESIGNATION	ART. NO.
BF 9 230V 50/60 Hz	90385
BF 9 120V 50/60 Hz	90386

SPARE FILTER	
Pre-filter mat	11141 1
2-stage filter (particle filter + activated carbon filter)	11140 2

COVER UNITS	
Cover with extraction arm - System 50 (850 mm length, 3 joints)	15357*
Cover with extraction arm - Flex system 50 (900 mm length, 2 joints)	15354*
Cover with extraction arm - Flex system 50 (600 mm length, without joints)	15355*
System cover with center socket, NW 80	15356*

* factory-side

Technical data BF 10



Illustration similar

Delivery scope:

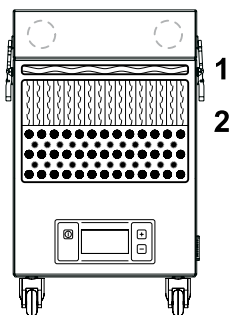
- Fully mounted (incl. casters for mobile use)
- Filter equipment
- Power cord

TECHNICAL DATA	UNIT	STANDARD	A	ZA
Air volume flow with free air delivery	m ³ /h	max. 250	max. 250	max. 250
Effective air flow rate	m ³ /h	20-200	20-200	20-200
Max. static pressure	Pa	6000	6000	6000
Voltage	V	100-240	100-240	100-240
Frequency	Hz	50/60	50/60	50/60
Motor output	kW	0.6	0.6	0.6
Class of protection	-	1	1	1
Drive type	-	Continuous running	Continuous running	Continuous running
Sound level	db(A)	approx. 62	approx. 62	approx. 62
Serial interface	Sub-D	25-pin	25-pin	25-pin
Weight	kg	24	24	24
Dimensions (HxWxD)	mm	510x300x300	510x300x300	510x300x300
Intake sleeve NW 50	Quantity	2	2	2
Color (housing)	RAL	7035	7035	7035
Color (of lid)	RAL	7037	7037	7037

FILTER CONFIGURATION				
	Pre-filter mat M5 (ISO ePM ₁₀ > 50%)	✓	-	-
Z	Z-line filter M6 (ISO ePM _{2.5} 50-65%, ePM ₁₀ > 60%)	-	-	✓
	2-stage filter (particle filter H13 + activated carbon filter)	✓	-	✓
A	Activated carbon filter	-	12 liters	-

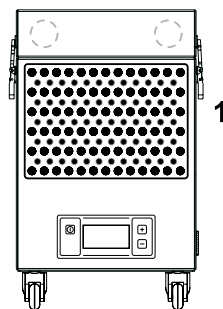
* slightly reduced particle filter/activated carbon filter compared to standard version due to additional Z-line filter

Ordering data BF 10



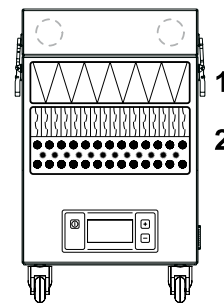
STANDARD

DESIGNATION	ART. NO.
BF 10 100-240V 50/60 Hz	90362



A

DESIGNATION	ART. NO.
BF 10 100-240V 50/60 Hz	90420



ZA

DESIGNATION	ART. NO.
BF 10 100-240V 50/60 Hz	90396

SPARE FILTER	
Pre-filter mat	11141 1
Z-line filter	-
2-stage filter (particle filter + activated carbon filter)	11140 2
Activated carbon filter	-

SPARE FILTER	
Pre-filter mat	-
Z-line filter	-
2-stage filter (particle filter + activated carbon filter)	-
Activated carbon filter	11143 1

SPARE FILTER	
Pre-filter mat	-
Z-line filter	15976 1
2-stage filter (particle filter + activated carbon filter)	15119 2
Activated carbon filter	-

COVER UNITS	
Cover with extraction arm - System 50 (850 mm length, 3 joints)	15357*
Cover with extraction arm - Flex system 50 (900 mm length, 2 joints)	15354*
Cover with extraction arm - Flex system 50 (600 mm length, without joints)	15355*
System cover with center socket, NW 80	15356*

* factory-side

Technical data BF 100R/ BF 200R



Illustration similar

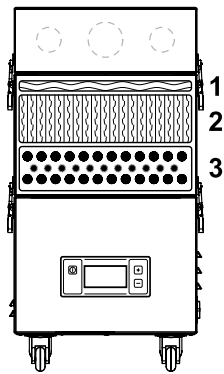
Delivery scope:

- Fully mounted (incl. casters for mobile use)
- Filter equipment
- Power cord

TECHNICAL DATA	UNIT	BF 100R	BF 200R
Air volume flow with free air delivery	m ³ /h	max. 280	max. 280
Effective air flow rate	m ³ /h	30-230	30-230
Max. static pressure	Pa	11000	11000
Voltage	V	230/120	230/120
Frequency	Hz	50/60	50/60
Motor output	kW	1.1	1.1
Class of protection	-	1	1
Drive type	-	Continuous running	Continuous running
Sound level	db(A)	approx. 62	approx. 62
Serial interface	Sub-D	25-pin	25-pin
Weight	kg	approx. 40	approx. 55
Dimensions (HxWxD)	mm	700x350xx350	1025x350x350
Intake sleeve NW 50	Quantity	2	2
Intake sleeve NW 80	Quantity	1	1
Color (housing)	RAL	7035	7035
Color (of lid)	RAL	7037	7037

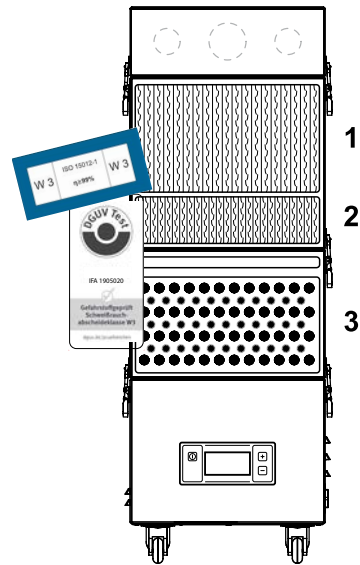
FILTER CONFIGURATION		
Pre-filter mat M5 (ISO ePM ₁₀ > 50%)	✓	-
Z-LinepanelPlus-Filter F7 (ISO ePM, 50-65%, ePM _{2.5} 65-80%, ePM ₁₀ > 85%)	-	✓
Particle filter H13	✓	✓
Activated carbon/BAC filter	10 liters	18 liters

Ordering data BF 100R/ BF 200R



BF 100R

DESIGNATION	ART. NO.
BF 100R 100-240V 50/60 Hz	90302



BF 200R

DESIGNATION	ART. NO.
BF 200R 100-240V 50/60 Hz	90306*

* more on W3, see catalog page 2

SPARE FILTER		
Pre-filter mat	10040	1
Z-LinepanelPlus-Filter	-	
Particle filter	10013	2
Activated carbon/ BAC filter	10004	3

SPARE FILTER		
Pre-filter mat	-	
Z-LinepanelPlus-Filter	16199	1
Particle filter	10013	2
Activated carbon/ BAC filter	10007	3

Technical data BF 1000R/BF 1200R



Illustration similar

Delivery scope:

- Fully mounted (incl. casters for mobile use)
- Filter equipment
- Power cord

TECHNICAL DATA	UNIT	BF 1000R	BF 1200R
Air volume flow with free air delivery	m³/h	max. 280	max. 280
Effective air flow rate	m³/h	30-230	30-230
Max. static pressure	Pa	11000	11000
Voltage	V	100-240	100-240
Frequency	Hz	50/60	50/60
Motor output	kW	1.1	1.1
Class of protection	-	1	1
Drive type	-	Continuous running	Continuous running
Sound level	db(A)	approx. 60	approx. 60
Serial interface	Sub-D	25-pin	25-pin
Weight	kg	approx. 70	approx. 90
Dimensions (HxWxD)	mm	750x350x655	1105x350x655
Intake sleeve NW 50	Quantity	2	2
Intake sleeve NW 80	Quantity	1	1
Color (housing)	RAL	7035	7035
Color (of lid)	RAL	7037	7037

FILTER CONFIGURATION		
Pre-filter mat M5 (ISO ePM ₁₀ > 50%)	✓	-
Z-LinepanelPlus-Filter F7 (ISO ePM ₁ , 50-65%, ePM _{2.5} 65-80%, ePM ₁₀ > 85%)	-	✓
Particle filter H13	✓	✓
Activated carbon/BAC filter	25 liters	45 liters

CONTACT OPIRA NOW
1300 157 969
SOLUTIONS@OPIRA.COM.AU

OPIRA BRISBANE
32 DIVIDEND ST
MANSFIELD, QLD 4122

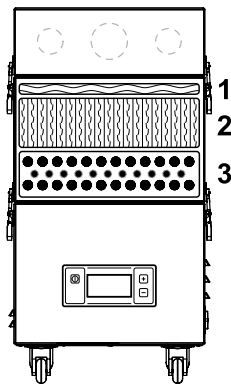
OPIRA MELBOURNE
25 GRAHAM RD
CLAYTON SOUTH, VIC 3169

OPIRA PERTH
9 EARLSTON PLACE
BOORAGOON WA 6154

OPIRA SYDNEY
20 DUKE ST
FORESTVILLE, NSW 2087

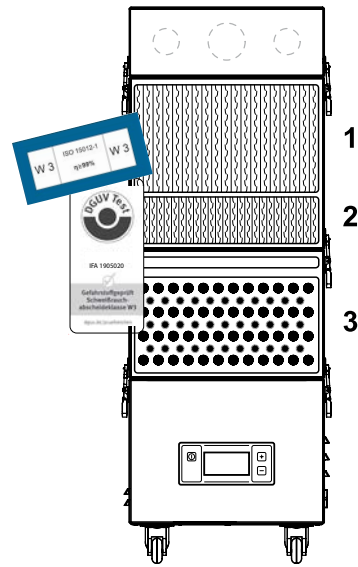


Ordering data BF 1000R/ BF 1200R



BF 1000R

DESIGNATION	ART. NO.
BF 1000R 100-240V 50/60Hz	90310



BF 1200R

DESIGNATION	ART. NO.
BF 1200R 100-240V 50/60Hz	90314

* more on W3, see catalog page 2

SPARE FILTER		
Pre-filter mat	10001	1
Z-LinepanelPlus-Filter	-	
Particle filter	10009	2
Activated carbon/ BAC filter	10046	3

SPARE FILTER		
Pre-filter mat	-	
Z-LinepanelPlus-Filter	16360	1
Particle filter	10009	2
Activated carbon/ BAC filter	12052	3

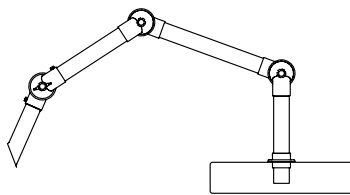
Electronic control system



FUNCTION	BF 5	BF 9 / BF 10	BF 100R / BF 200R	BF 1000R / BF 1200R
Start / Stop button	✓	✓ / ✓	✓	✓
Manual output control	✓	✓ / ✓	✓	✓
Saturated filter notification (complete system)	✓	✓ / ✓	✓	✓
Indication of filter status	✓	✓ / ✓	✓	✓
Indication of system status	✓	✓ / ✓	✓	✓
Indication of power setting/hour meter	✓	✓ / ✓	✓	✓
Indication of temperature and turbine error	✓	- / ✓	✓	✓

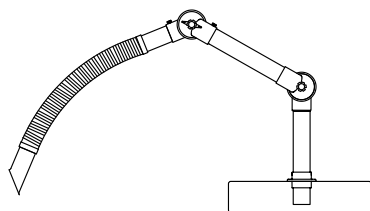
INTERFACE FUNCTION	BF 5	BF 9 / BF 10	BF 100R / BF 200R	BF 1000R / BF 1200R
Interface	Sub-D	Sub-D	Sub-D	Sub-D
Start / Stop button	✓	✓	✓	✓
Pre-warning, filter saturated to 75 %	✓	✓	✓	✓
Pre-selection Start/Stop at system start	✓	✓	✓	✓

Accessories



USE	DESIGNATION	ART. NO.
BF 5 / BF 9 / BF 10	Cover with extraction arm - System 50 850 mm length, 3 joints	15392*

* Retrofitting to existing system

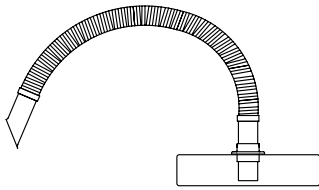


USE	DESIGNATION	ART. NO.
BF 5 / BF 9 / BF 10	Cover with extraction arm - Flex system 50 900 mm length, 2 joints	15393*

* Retrofitting to existing system

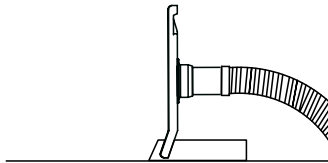
HUMANS / ENVIRONMENT / MACHINERY

Accessories

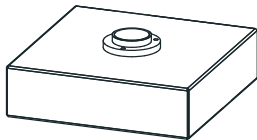


USE	DESIGNATION	ART. NO.
BF 5 / BF 9 / BF 10	Cover with extraction arm - Flex system 50 600 mm length, without joints	15394*

* Retrofitting to existing system



USE	DESIGNATION	ART. NO.
BF 5 / BF 9 / BF 10	Flat screen Kit SYSTEM 50, with extraction hose, length 1.25 m	15397

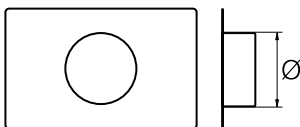


USE	DESIGNATION	ART. NO.
BF 9 / BF 10	System cover with center socket, NW 80	15395*

* Retrofitting to existing system



USE	DESIGNATION	ART. NO.
BF 5 / BF 9 / BF 10	Electric foot switch	16369
BF 100R / BF 200R		
BF 1000R / BF 1200R		

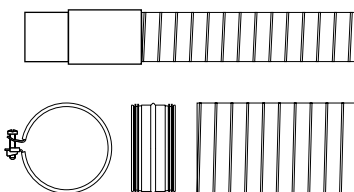


AIR OUTLET PLATE*

USE	NW (mm)	ART. NO.
BF 100R / BF 200R	80	11709
BF 1000R / BF 1200R		
BF 100R / BF 200R	100	12839
BF 1000R / BF 1200R		
BF 100R / BF 200R	125	12232
BF 1000R / BF 1200R		

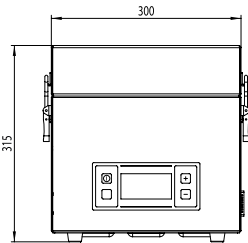
* Connection plate with socket for specific air discharge via hose

AIR INLET - flexible connection hoses

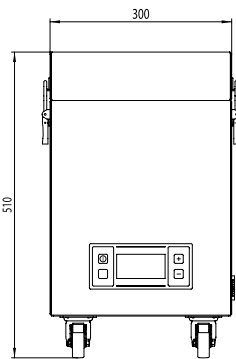
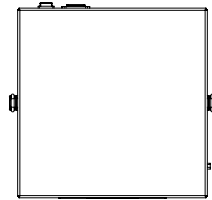
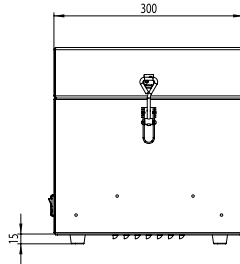


DESIGNATION	NW (mm)	LENGTH (m)	ART. NO.
Hose set with connecting sleeve	50	2.5	10008
		5.0	10010
Hose set with nipple and hose clamps	80	2.5	13179
		5.0	13180
		10.0	13197

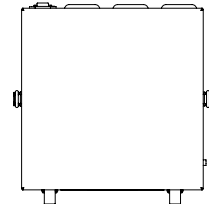
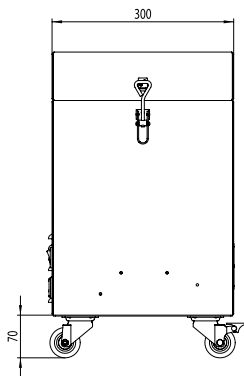
Technical drawings



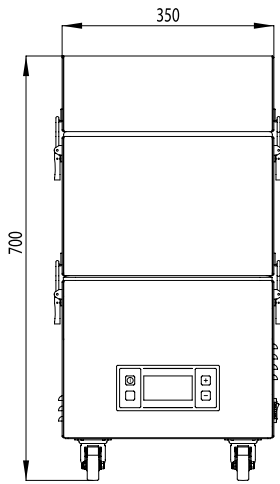
BF 5



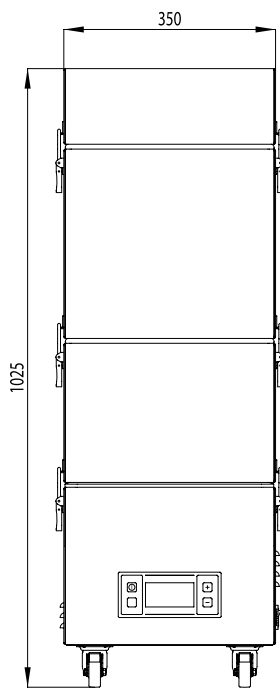
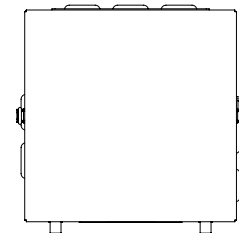
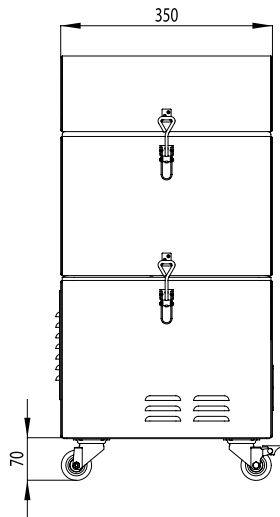
BF 9 / BF 10



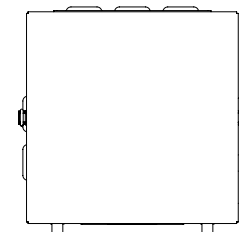
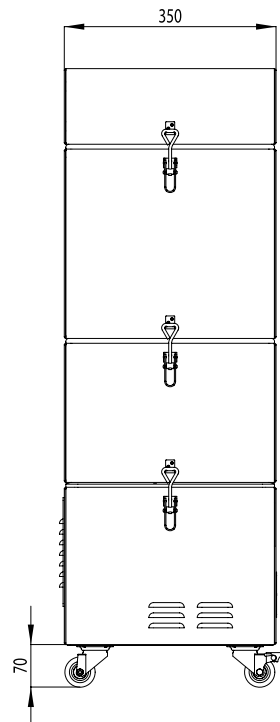
Technical drawings



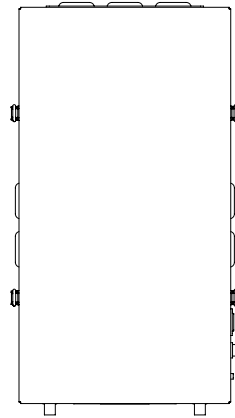
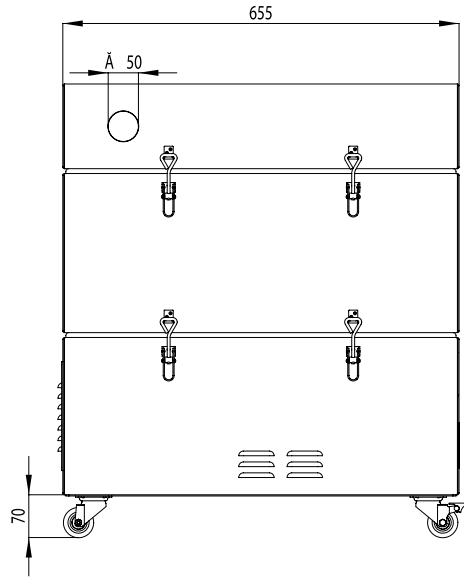
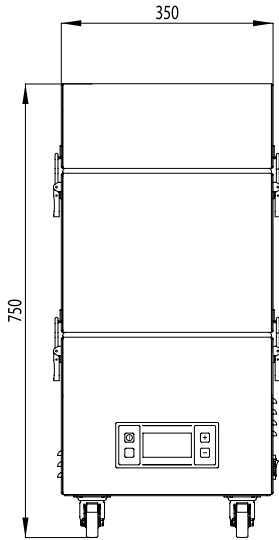
BF 100 R



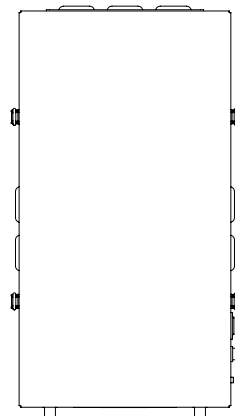
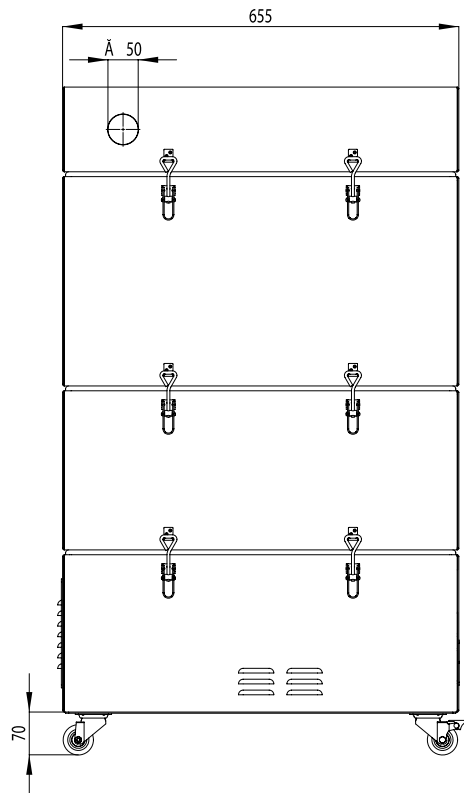
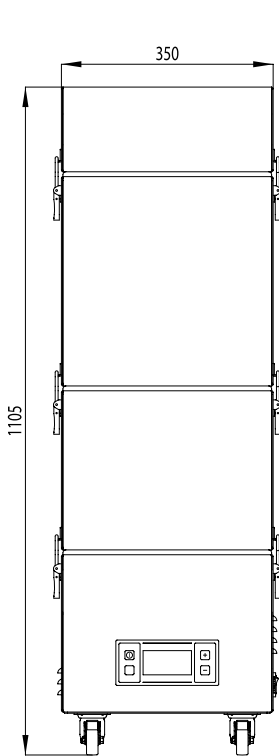
BF 200 R



Technical drawings



BF 1000 R



BF 1200 R

HUMANS / ENVIRONMENT / MACHINERY



FILTER / EXTRACTION / ENVIRONMENTAL // TECHNOLOGY

TBH GmbH

Heinrich-Hertz-Str. 8
D-75334 Straubenhardt
Tel. +49 (0) 7082 / 9473 0
Fax +49 (0) 7082 / 9473 20

www.tbh.eu



Further information on the series

