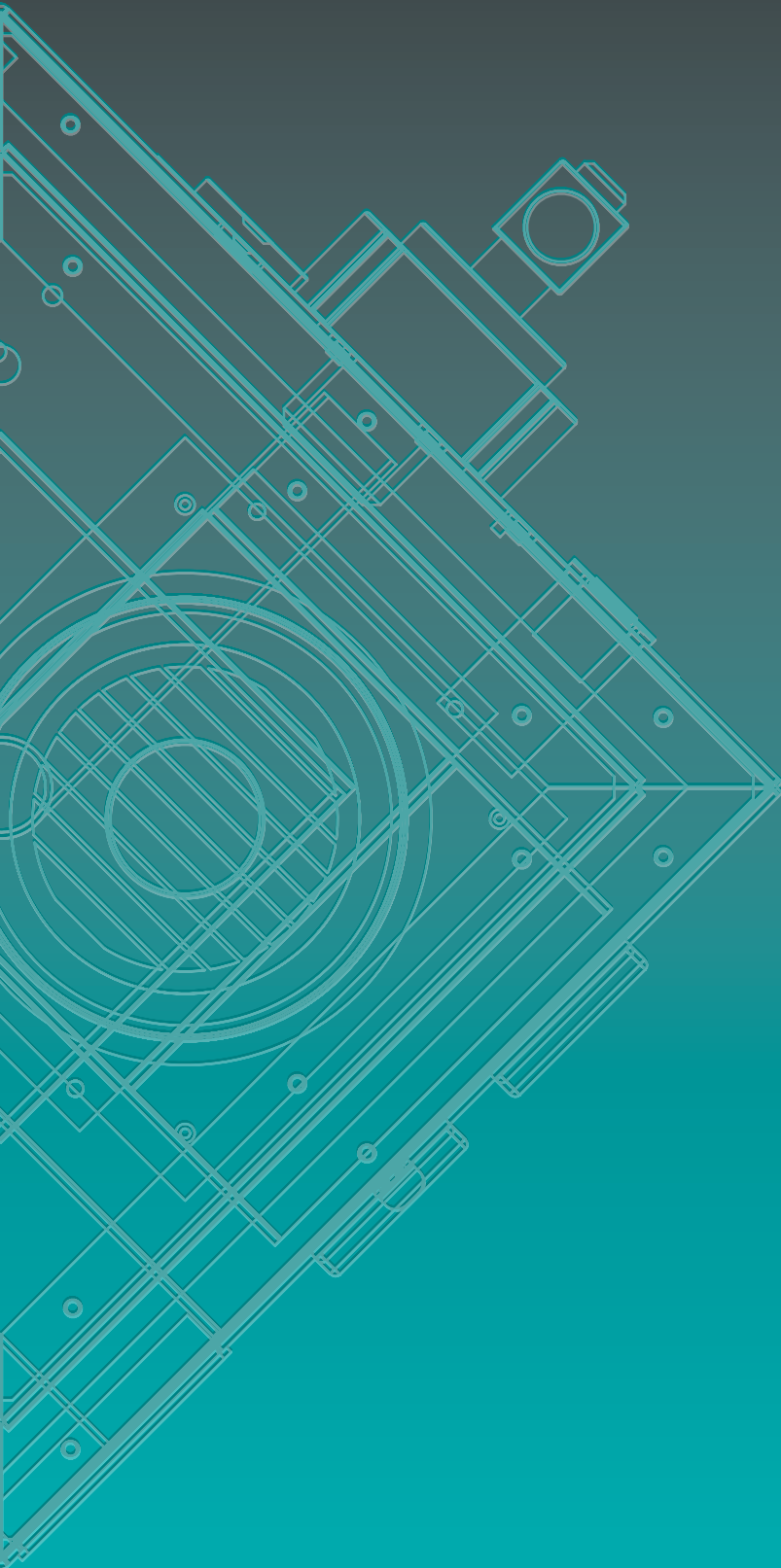




## LN 200-SERIES

EXTRACTION / FILTER / POLLUTION CONTROL // TECHNOLOGY





## LN 200-SERIES

### APPLICATION

The devices in the LN 200-series feature a compact, modular design which allows simple adjustment of the filter configuration for individual applications. Thanks to the special high-power turbine, the units can be arranged in decentralised positions and extract reliably even over long distances.

#### AREAS OF APPLICATION:

- Soldering (single/multi-site extraction)
- Laser processing (source extraction tubes, or compact laser cabinets)
- Processes for working with adhesive/moist dusts
- Processes for working with vapours/gases

#### THE SYSTEM INCLUDES NUMEROUS FEATURES:

- Modular design - upgradeable with various filter modules
- Simple filter replacement
- High negative pressure for powerful extraction
- Powerful electronics



Similar to image

### FUNCTIONAL PRINCIPLE

The contaminated air is collected by the collection unit (extractor hood, suction arm, hose, etc.) and transported into the filter unit directly or through a pipe or flexible hose. In the filter unit, the contaminant particles are filtered into different filter levels according to their size. Filter units that are equipped with a molecular sieve (for example activated carbon/BAC filters) remove the majority of gaseous contaminants. Afterwards the purified air can either be circulated back into the work area or diverted outdoors through an exhaust duct. Recirculating the air in the work area is a way to easily reduce energy costs.

## PRODUCT FEATURES

### MODULAR DESIGN - UPGRADEABLE WITH VARIOUS FILTER MODULES

The filter systems of the LN 200-series can be equipped with different filter modules depending on the application. This optimises filter costs and enables the extraction and filter systems to be adjusted to meet changing requirements.



### SIMPLE FILTER REPLACEMENT

The filter is replaced by simply removing it from above. This ensures simple, clean filter replacements for the employees or maintenance service staff.



### HIGH NEGATIVE PRESSURE FOR POWERFUL EXTRACTION

The devices in the LN 200-series generate especially high negative pressure. This makes them ideal for extracting with small collection elements or even the customer's own equipment or through long extraction ducts. This allows decentralised positioning of the extraction system for multiple extraction sites (for example manual workstations). If you need an effective design for special applications, please contact the TBH sales team.

## POWERFUL CONTROL ELECTRONICS

All LN 200-series systems are equipped with **INSPIRE** control electronics and a comprehensive interface. This allows controlling and monitoring the following functions:

- Switching between run/standby
- Manual adjustment of the rotation speed
- Filter-saturation indicator of the extraction system
- Visual and acoustic display of the filter saturation
- Fault display and notification

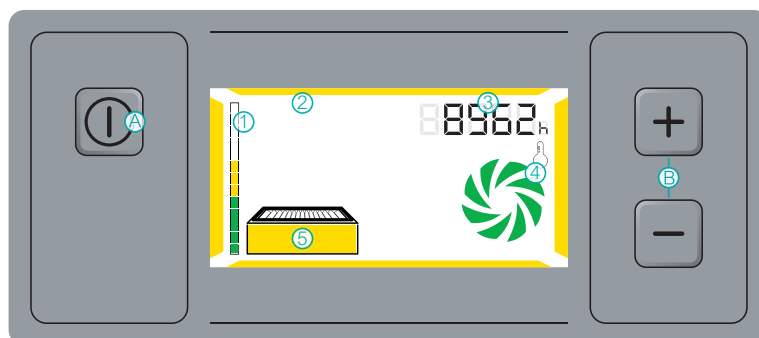
### INTERFACE:

- System start/stop
- Warning at a filter saturation of 75%
- Visual and acoustic display of the filter saturation
- Collective fault output (rotation speed, temperature, filter full 100%)
- External adjustment of the rotation speed
- Error memory improves the coordination between the customer and the TBH service
- Parameterization access for the activation of custom functions



### OPERATING ELEMENTS:

- A) Switching between run/standby
- B) Manual adjustment of the rotation speed
- 1) Filter-saturation indicator
- 2) System status indicator
- 3) Performance-setting indicator/ operating-hours meter
- 4) Temperature and turbine-malfunction indicator
- 5) Filter status indicator



## INDUSTRIAL SAFETY AND HEALTH PROTECTION

In order to meet our customers' safety requirements even better, TBH has complemented its product range by different extraction and filter systems specifically tested by the German Institut für Arbeitsschutz (IFA) [Institute for Occupational Safety and Health] in accordance with DIN ISO 15012-1 (2013).

W 3	ISO 15012-1 $\eta \geq 99\%$	W 3
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## ADSORPTION OF GASEOUS SUBSTANCES

Two complimentary filter materials are used for the adsorption of gaseous substances. The activated carbon facilitates the physical adsorption process while the BAC granules facilitate a chemical adsorption process. Neutralisation of specific gaseous substances is achieved through chemical binding with the reaction substance that is deposited on the carrier material. Because the physical and chemical adsorption processes are complementary, an extremely wide range of gases and odours can be collected.

Activated carbon



BAC granules



Activated carbon/BAC





## TECHNICAL DATA LN 230



Similar to image

### AREAS OF APPLICATION:

- Soldering (single/multi-site extraction)
- Laser processing (source extraction tubes, or compact laser cabinets)
- Processes for working with adhesive/moist dusts
- Processes for working with vapours/gases

### INCLUDES:

- Fully assembled (incl. the filter configuration of your choice)
- 4 wheels for mobile use
- Power cable

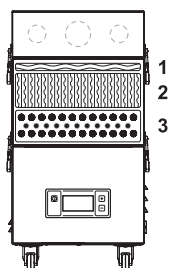
TECHNICAL SPECIFICATIONS	UNIT	STANDARD	A	Z	ZA
Unimpeded air flow rate	m³/h	max. 320	max. 320	max. 320	max. 320
Effective air flow rate	m³/h	50-250	50-250	50-250	50-250
Max. static pressure	Pa	20000	20000	20000	20000
Voltage	V	230/120	230/120	230/120	230/120
Frequency	Hz	50/60	50/60	50/60	50/60
Power input	kW	1.1	1.1	1.1	1.1
Protection class	-	1	1	1	1
Motor and drive system	-	brushless motor			
Noise level	db(A)	approx. 62	approx. 62	approx. 62	approx. 62
Serial interface	D-sub	25-pin	25-pin	25-pin	25-pin
Weight	kg	approx. 40	approx. 40	approx. 40	approx. 55
Dimensions (HxWxD)	mm	700x350x350	700x350x350	785x350x350	1025x350x350
DN 50 intake socket	number	2	2	2	2
DN 80 intake socket	number	1	1	1	1
DN 100 intake socket	number	1	1	1	1
Colour	RAL	7035	7035	7035	7035

### FILTER CONFIGURATION

	Pre-filter mat (F5)	✓	✓	-	-
<b>Z+</b>	Z-LinepanelPlus filter (F7)	-	-	✓	✓
	Particle filter (H13)	✓	-	✓	✓
<b>A</b>	Activated carbon/BAC filter	10 liter	18 liter	-	18 liter



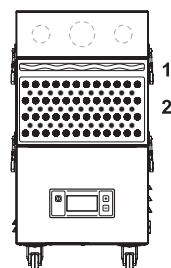
## ORDER DATA LN 230



STANDARD

DESCRIPTION	ART.-NO.
<b>LN 230</b> 230V 50/60Hz	90001
<b>LN 230</b> 120V 50/60Hz	90002

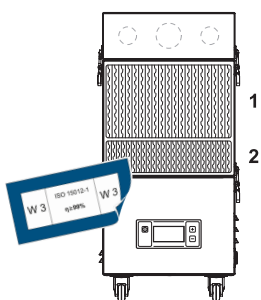
SPARE FILTERS		
Pre-filter mat	10040	1
Particle filter	10013	2
Activated carbon/BAC	10004	3



A

DESCRIPTION	ART.-NO.
<b>LN 230</b> 230V 50/60Hz	90003
<b>LN 230</b> 120V 50/60Hz	90006

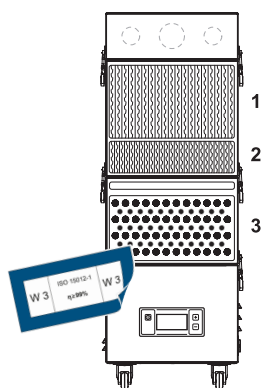
SPARE FILTERS		
Pre-filter mat	10040	1
Particle filter	-	
Activated carbon/BAC	10007	2



Z

DESCRIPTION	ART.-NO.
<b>LN 230</b> 230V 50/60Hz	90007
<b>LN 230</b> 120V 50/60Hz	90008

SPARE FILTERS		
Z-LinepanelPlus filter	16199	1
Particle filter	10013	2
Activated carbon/BAC	-	



ZA

DESCRIPTION	ART.-NO.
<b>LN 230</b> 230V 50/60Hz	90009
<b>LN 230</b> 120V 50/60Hz	90010

SPARE FILTERS		
Z-LinepanelPlus filter	16199	1
Particle filter	10013	2
Activated carbon/BAC	10007	3

## TECHNICAL DATA LN 260



Similar to image

### AREAS OF APPLICATION:

- Soldering (single/multi-site extraction)
- Laser processing (source extraction tubes, or compact laser cabinets)
- Processes for working with adhesive/moist dusts
- Processes for working with vapours/gases

### INCLUDES:

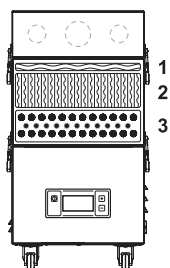
- Fully assembled (incl. the filter configuration of your choice)
- 4 wheels for mobile use
- Power cable

TECHNICAL SPECIFICATIONS	UNIT	STANDARD	A	Z	ZA
Unimpeded air flow rate	m³/h	max. 320	max. 320	max. 320	max. 320
Effective air flow rate	m³/h	50-250	50-250	50-250	50-250
Max. static pressure	Pa	20000	20000	20000	20000
Voltage	V	230/120	230/120	230/120	230/120
Frequency	Hz	50/60	50/60	50/60	50/60
Power input	kW	1.1	1.1	1.1	1.1
Protection class	-	1	1	1	1
Motor and drive system	-	brushless motor			
Noise level	db(A)	approx. 60	approx. 60	approx. 60	approx. 60
Serial interface	D-sub	25-pin	25-pin	25-pin	25-pin
Weight	kg	approx. 70	approx. 70	approx. 70	approx. 90
Dimensions (HxWxD)	mm	750x350x655	750x350x655	835x350x655	1105x350x655
DN 50 intake socket	number	3	3	3	3
DN 100 intake socket	number	2	2	2	2
DN 125 intake socket	number	1	1	1	1
Colour	RAL	7035	7035	7035	7035

### FILTER CONFIGURATION

	Pre-filter mat (F5)	✓	✓	-	-
<b>Z+</b>	Z-LinepanelPlus filter (F7)	-	-	✓	✓
	Particle filter (H13)	✓	-	✓	✓
<b>A</b>	Activated carbon/BAC filter	26 liter	45 liter	-	45 liter

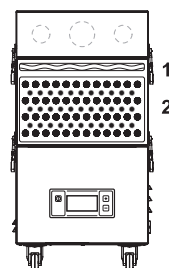
## ORDER DATA LN 260



STANDARD

DESCRIPTION	ART.-NO.
LN 260 230V 50/60Hz	90034
LN 260 120V 50/60Hz	90035

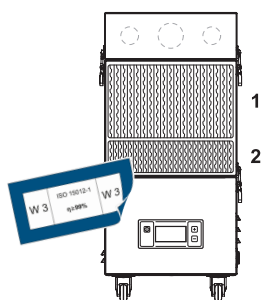
SPARE FILTERS		
Pre-filter mat	10001	1
Particle filter	10009	2
Activated carbon/BAC	10046	3



A

DESCRIPTION	ART.-NO.
LN 260 230V 50/60Hz	90036
LN 260 120V 50/60Hz	90037

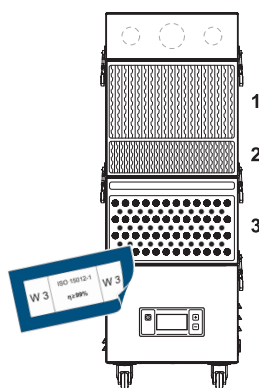
SPARE FILTERS		
Pre-filter mat	10001	1
Particle filter	-	
Activated carbon/BAC	12052	2



Z

DESCRIPTION	ART.-NO.
LN 260 230V 50/60Hz	90038
LN 260 120V 50/60Hz	90039

SPARE FILTERS		
Z-LinepanelPlus filter	16360	1
Particle filter	10009	2
Activated carbon/BAC	-	



ZA

DESCRIPTION	ART.-NO.
LN 260 230V 50/60Hz	90040
LN 260 120V 50/60Hz	90041

SPARE FILTERS		
Z-LinepanelPlus filter	16360	1
Particle filter	10009	2
Activated carbon/BAC	12052	3

## TECHNICAL DATA LN 265



Similar to image

### AREAS OF APPLICATION:

- Soldering (single/multi-site extraction)
- Laser processing (source extraction tubes, or compact laser cabinets)
- Processes for working with adhesive/moist dusts
- Processes for working with vapours/gases

### INCLUDES:

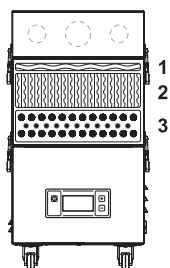
- Fully assembled (incl. the filter configuration of your choice)
- 4 wheels for mobile use
- Power cable

TECHNICAL SPECIFICATIONS	UNIT	STANDARD	A	Z	ZA
Unimpeded air flow rate	m³/h	max. 700	max. 700	max. 700	max. 700
Effective air flow rate	m³/h	50-540	50-540	50-540	50-540
Max. static pressure	Pa	15000	15000	15000	15000
Voltage	V	230/120	230/120	230/120	230/120
Frequency	Hz	50/60	50/60	50/60	50/60
Power input	kW	1.8	1.8	1.8	1.8
Protection class	-	1	1	1	1
Motor and drive system	-	brushless motor			
Noise level	db(A)	approx. 65	approx. 65	approx. 65	approx. 65
Serial interface	D-sub	25-pin	25-pin	25-pin	25-pin
Weight	kg	approx. 70	approx. 70	approx. 70	approx. 90
Dimensions (HxWxD)	mm	750x350x655	750x350x655	835x350x655	1105x350x655
DN 50 intake socket	number	3	3	3	3
DN 100 intake socket	number	2	2	2	2
DN 125 intake socket	number	1	1	1	1
Colour	RAL	7035	7035	7035	7035

### FILTER CONFIGURATION

	Pre-filter mat (F5)	✓	✓	-	-
<b>Z+</b>	Z-LinepanelPlus filter (F7)	-	-	✓	✓
	Particle filter (H13)	✓	-	✓	✓
<b>A</b>	Activated carbon/BAC filter	26 liter	45 liter	-	45 liter

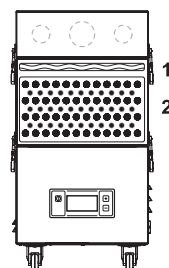
## ORDER DATA LN 265



STANDARD

DESCRIPTION	ART.-NO.
<b>LN 265</b> 230V 50/60Hz	90013
<b>LN 265</b> 120V 50/60Hz	90014

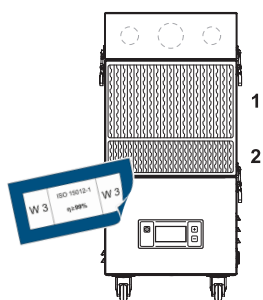
SPARE FILTERS		
Pre-filter mat	10001	1
Particle filter	10009	2
Activated carbon/BAC	10046	3



A

DESCRIPTION	ART.-NO.
<b>LN 265</b> 230V 50/60Hz	90015
<b>LN 265</b> 120V 50/60Hz	90016

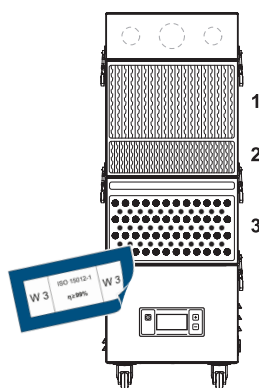
SPARE FILTERS		
Pre-filter mat	10001	1
Particle filter	-	
Activated carbon/BAC	12052	2



Z

DESCRIPTION	ART.-NO.
<b>LN 265</b> 230V 50/60Hz	90017
<b>LN 265</b> 120V 50/60Hz	90018

SPARE FILTERS		
Z-LinepanelPlus filter	16360	1
Particle filter	10009	2
Activated carbon/BAC	-	

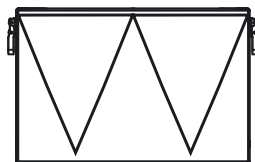


ZA

DESCRIPTION	ART.-NO.
<b>LN 265</b> 230V 50/60Hz	90019
<b>LN 265</b> 120V 50/60Hz	90020

SPARE FILTERS		
Z-LinepanelPlus filter	16360	1
Particle filter	10009	2
Activated carbon/BAC	12052	3

## ACCESSORIES



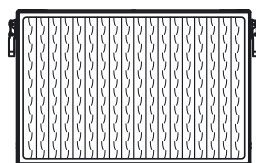
Pocket filter (F5/F6)

**FILTER HOUSING MODULE T** UPGRADE KIT - Pocket filter

For increased filter surface / system service life in case of coarse dusts.

USE	FILTER CLASS	UPGRADE KIT	SPARE FILTERS
LN 230*	Pocket filter (F5/F6)	12938*	12738
LN 260 / LN 265**	Pocket filter (F5/F6)	12739**	12740

\*Adds 240 mm to height \*\*Adds 265 mm to height



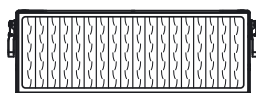
Z-LinepanelPlus filter (F7)

**FILTER HOUSING MODULE Z<sup>+</sup>** UPGRADE KIT - Z-LinepanelPlus filter

For increased filter surface / system service life in case of medium / fine dusts.

USE	FILTER CLASS	UPGRADE KIT	SPARE FILTERS
LN 230	Z-LinepanelPlus filter (F7)	16367*	16199
LN 260 / LN 265	Z-LinepanelPlus filter (F7)	16368**	16360

\*Adds approx. 225mm to the height of the system \*\* Adds approx. 265mm to the height of the system

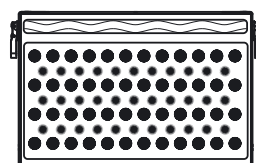


Particle filter (H13)

**FILTER HOUSING MODULE** UPGRADE KIT - Particle filter

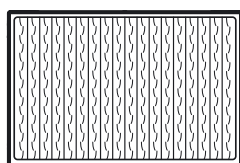
USE	FILTER CLASS	UPGRADE KIT	SPARE FILTERS
LN 230	Particle filter (H13)	14728*	10013
LN 260 / LN 265	Particle filter (H13)	14729*	10009

\*Adds 85 mm to height

Pre-filter mat (F5)  
Activated carbon/BAC filter**FILTER HOUSING MODULE A** UPGRADE KIT - Activated carbon/BAC filter

USE	FILTER CLASS	UPGRADE KIT	SPARE FILTERS
LN 230	18 liter	12114*	10007
LN 260 / LN 265	45 liter	12112**	12052

\*Adds 235 mm to height \*\*Adds 265 mm to height



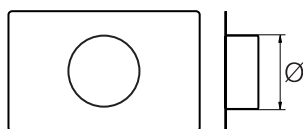
Police filter (H13)

**FILTER HOUSING MODULE** - Police filter

- Police filter functions, for example if the filter breaks or in environments with strict safety requirements
- Should be attached to the system's exhaust\*

USE	FILTER CLASS	UPGRADE KIT	SPARE FILTERS
LN 230 / 260 / 265	Police filter (H13)	14553	13829

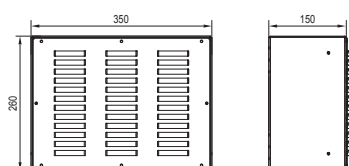
\*No filter monitoring available



### EXHAUST PLATE

USE	DN (mm)	ART.-NO.
LN 230 / 260 / 265	80	11709
LN 230 / 260 / 265	100	12839
LN 230 / 260 / 265	125	12232

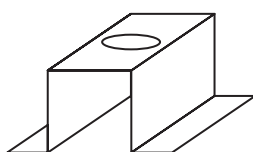
Connection plate with connection pieces for targeted air removal through the hose



Acoustic insulation module

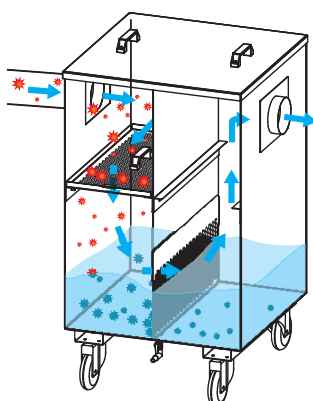
### ACOUSTIC INSULATION MODULE

USE	DIMENSIONS (HXWXD) mm	ART.-NO.
LN 230 / 260 / 265	260x350x150	12670



### BRACKET for suction arm

USE	DN (mm)	ART.-NO.
LN 230	50	13191
	63	14128
	75	13192
LN 260 / LN 265	50	13194
	63	14129
	75	13195



Water pre-separator

### WATER PRE-SEPARATOR

DESCRIPTION	USE	ART.-NO.
WBA 30*	DN 160 inlet/outlet opening	13263

\*The system removes smoldering particles from the incoming air current before the air is filtered.

**AIR INLET** - Flexible connection hoses

DESCRIPTION	DN (mm)	LENGTH (m)	ART.-NO.
Hose set with connection coupling	50	2.5	10008
		5.0	10010
Hose set with nipple and hose clip	80	2.5	13179*
		2.5	13729**
		5.0	13180*
		5.0	14600**
		10.0	13197
		10.0	13197
	100	2.5	13181
		5.0	13182
		10.0	13198
	125	2.5	13183
		5.0	13184
		10.0	13199
	160	2.5	13185
		5.0	13186
		10.0	13200

\* for the LN 230

\*\* for the LN 260, LN 265 (with a reduction from DN 100 to DN 80)





### CABLE REMOTE CONTROL UNIT

#### FUNCTIONS:

- Display "filter blocked"
- Switch Run/Stand-by
- Infinitely adjustable speed controller
- Start position of the extraction system: stand-by-mode

USE	DESCRIPTION	CABLE LENGTH	ART.-NO.
LN 230 / 260 / 265	Cable remote control unit	7m	16477

#### INCLUDES:

- Remote control unit (with cable)



### ELECTRICAL FOOT SWITCH

#### FUNCTIONS:

- Switch Run/Stand-by
- Start position of the extraction system: stand-by-mode

USE	DESCRIPTION	CABLE LENGTH	ART.-NO.
LN 230 / 260 / 265	Electrical foot switch	2m	16369

#### INCLUDES:

- Foot switch (with cable)



### CONNECTION CABLE USB

USE	DESCRIPTION	CABLE LENGTH	ART.-NO.
LN 230 / 260 / 265	Connection cable USB	1.5m	16455

#### INCLUDES:

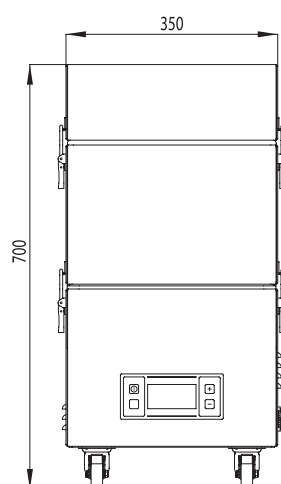
- Connection cable (incl. software)

## ELECTRONIC CONTROLS

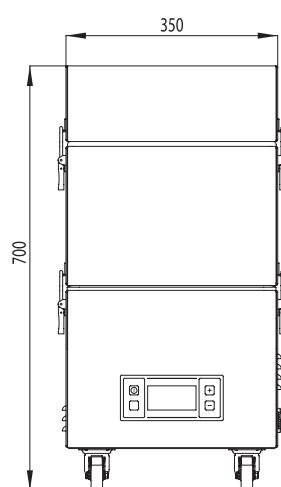
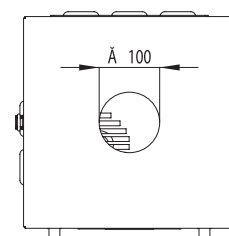
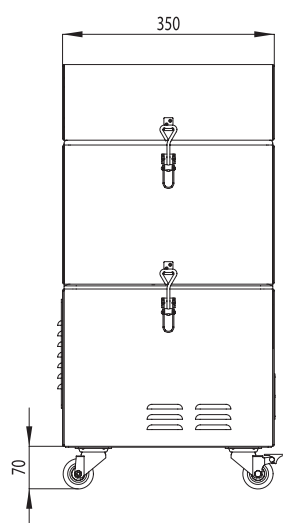
FUNCTION	LN 230	LN 260	LN 265
Switching between run/standby	✓	✓	✓
Manual adjustment of the rotation speed	✓	✓	✓
Filter-saturation indicator (complete system)	✓	✓	✓
Filter status indicator	✓	✓	✓
System status indicator	✓	✓	✓
Performance-setting indicator/operating-hours meter	✓	✓	✓
Temperature and turbine-malfunction indicator	✓	✓	✓

INTERFACE FUNCTIONS			
Interface	D-sub	D-sub	D-sub
System start/stop	✓	✓	✓
Warning at a filter saturation of 75%	✓	✓	✓
Visual and acoustic signals when filter is saturated	✓	✓	✓
Collective fault output (rotation speed, temperature, filter full 100%)	✓	✓	✓
External adjustment of the rotation speed	✓	✓	✓
Notification memory	✓	✓	✓
Parameterization access for the activation of custom functions	✓	✓	✓

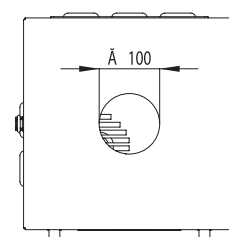
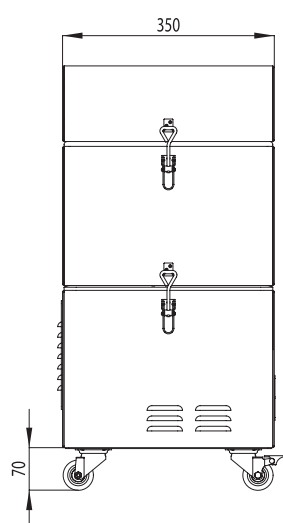
## TECHNICAL DRAWINGS

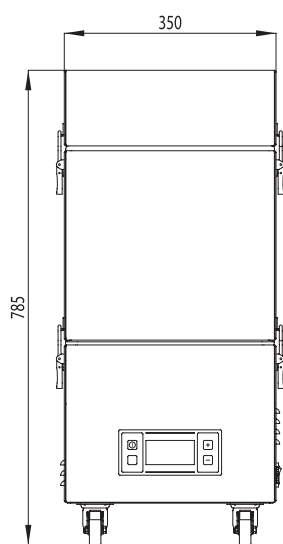


**LN 230 STANDARD**

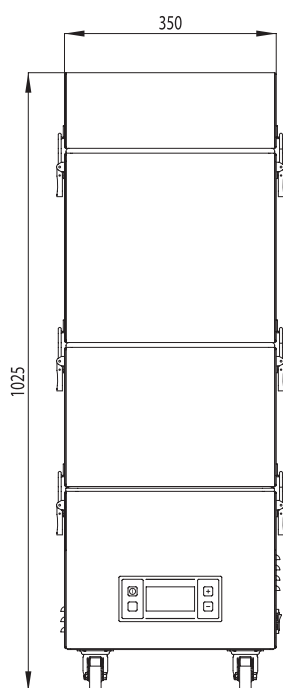
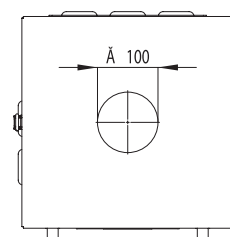
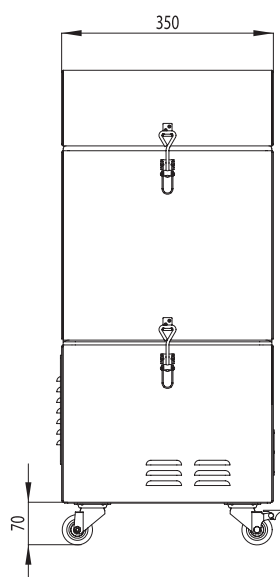


**LN 230A**

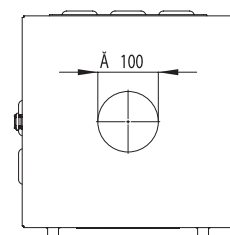
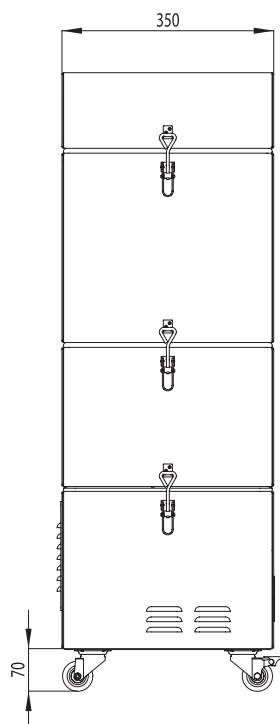


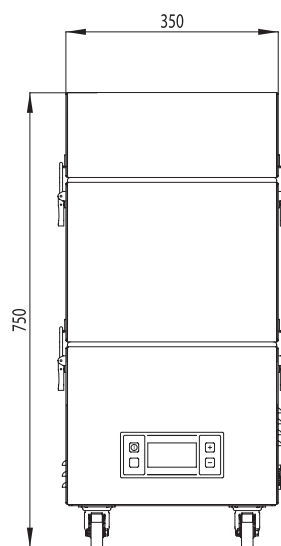


LN 230Z

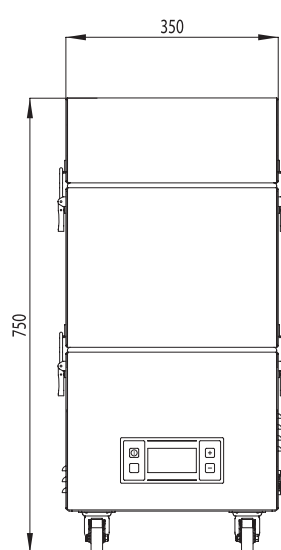
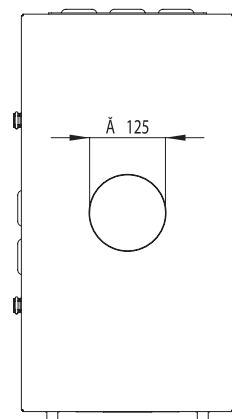
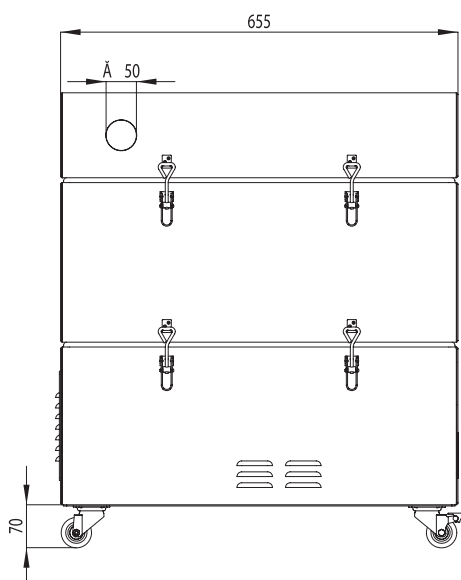


LN 230ZA

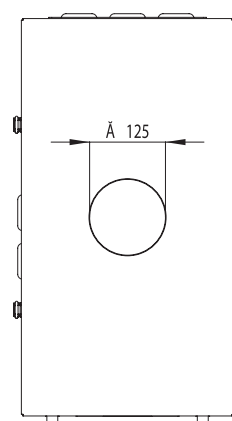
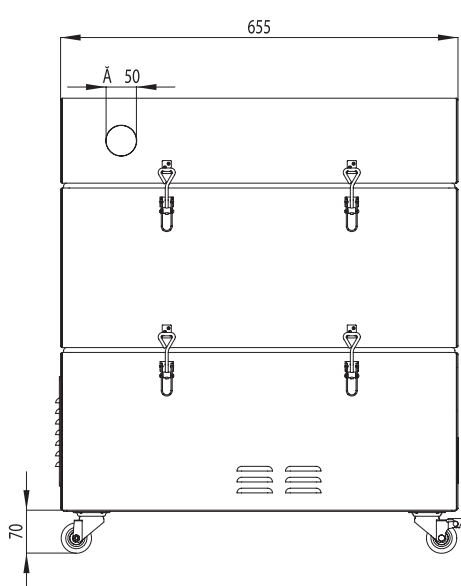


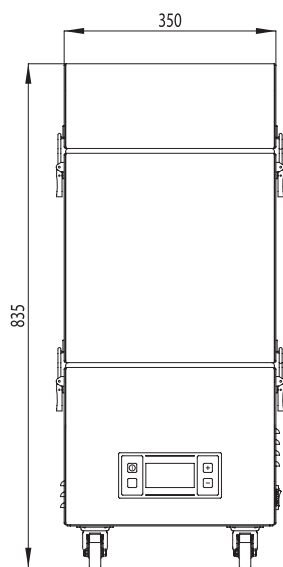


**LN 260 STANDARD**

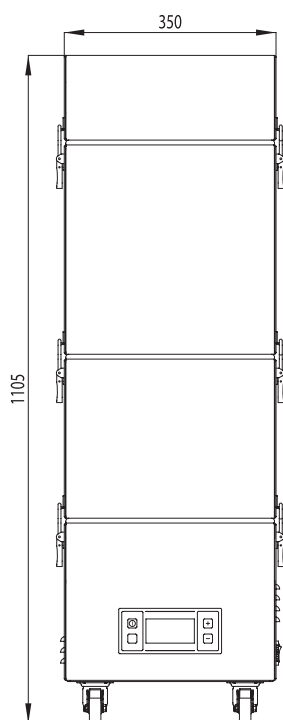
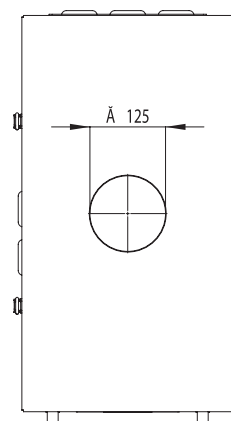
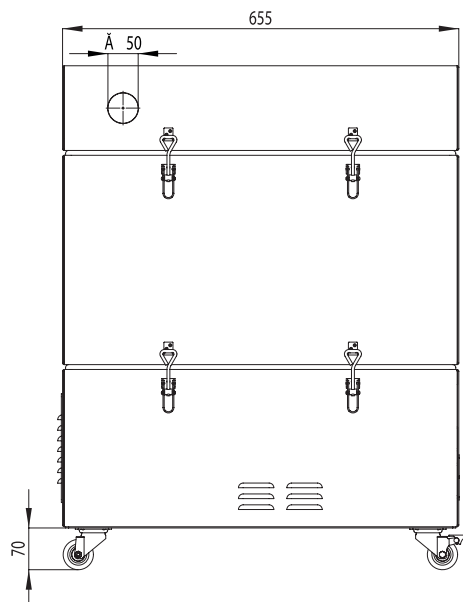


**LN 260A**

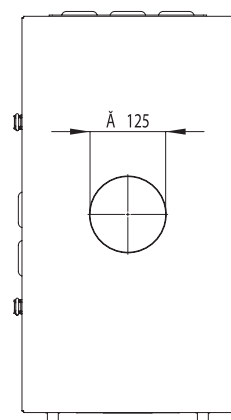
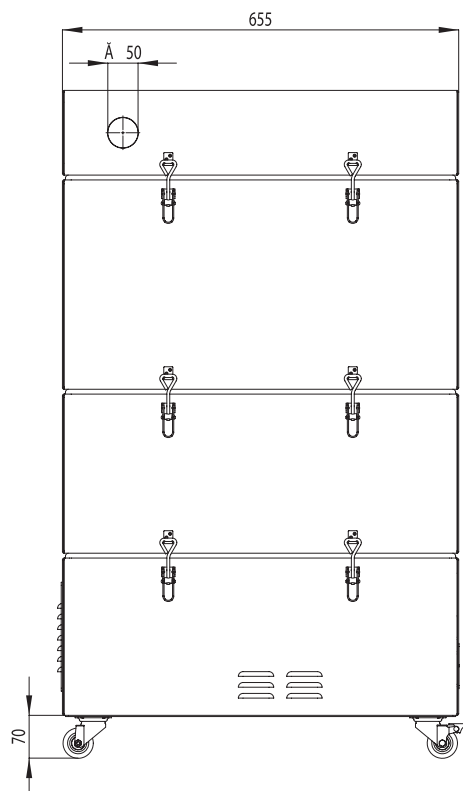


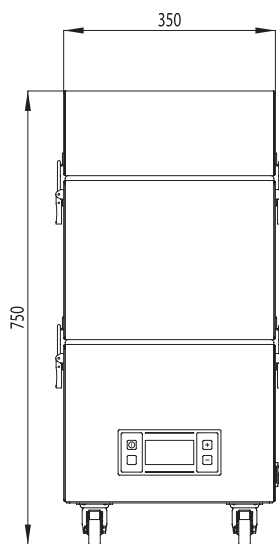


LN 260Z

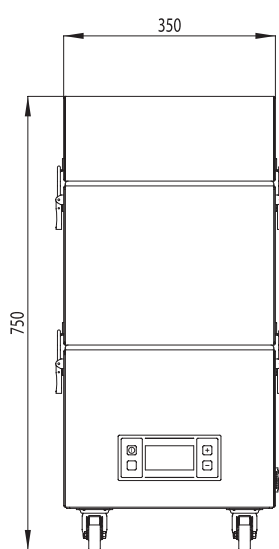
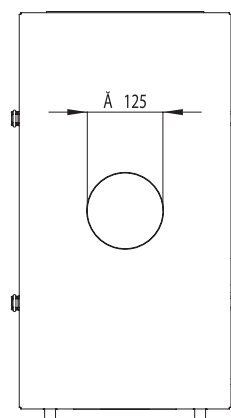
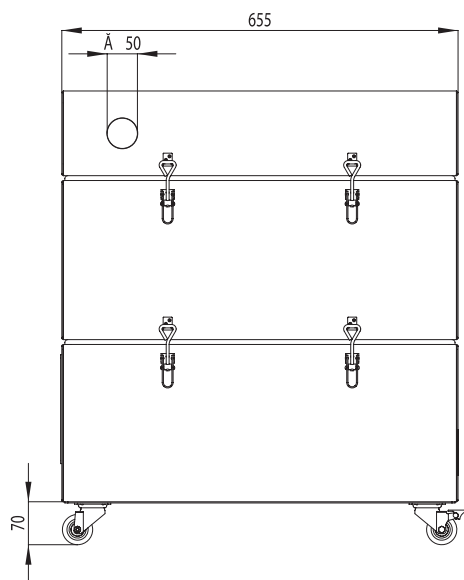


LN 260ZA

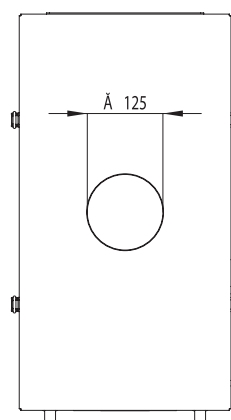
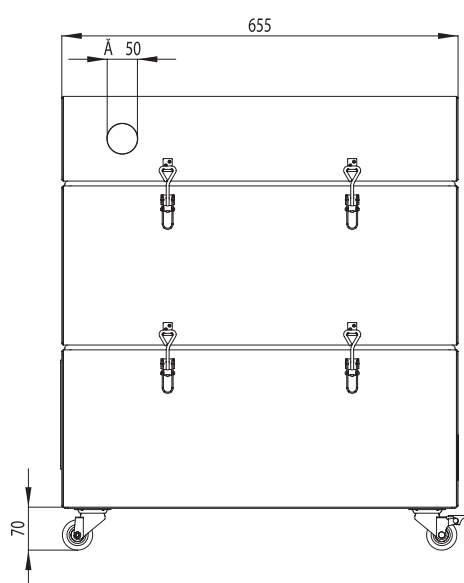


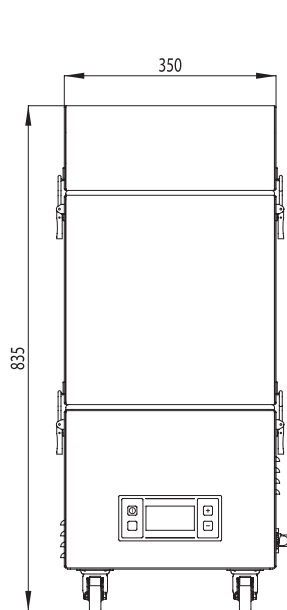


**LN 265 STANDARD**

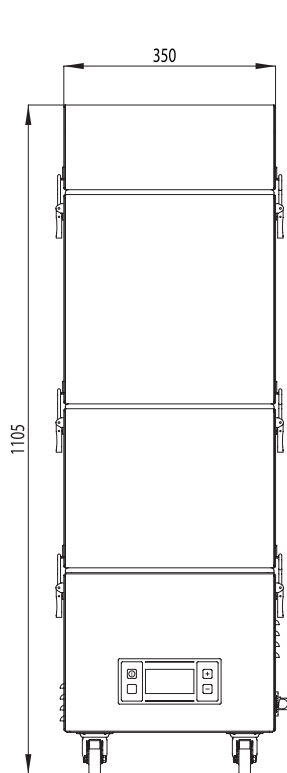
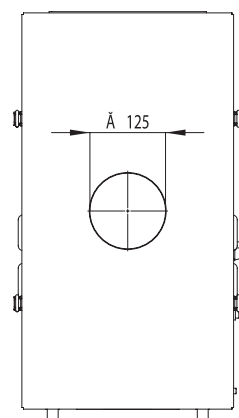
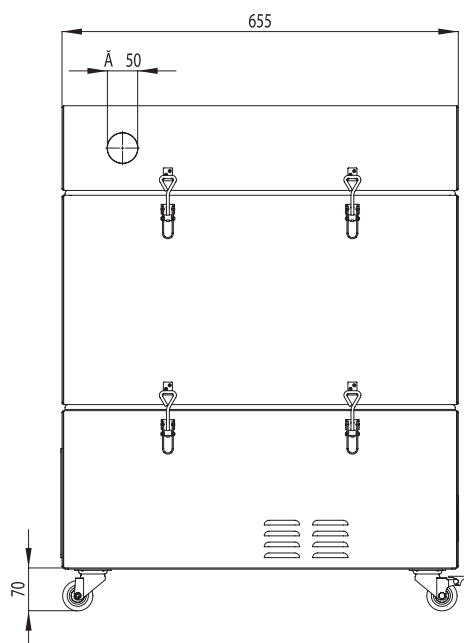


**LN 265A**

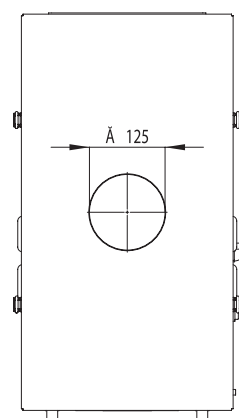
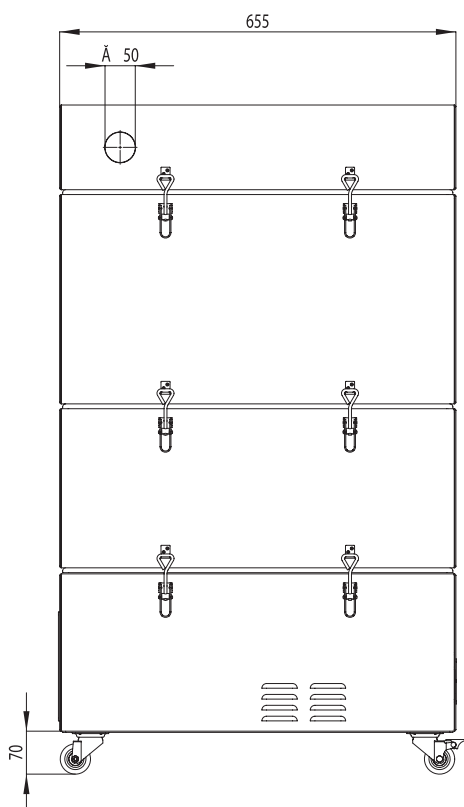




LN 265Z



LN 265ZA





## NOTES

## NOTES

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## **TBH GmbH**

EXHAUST- AND FILTRATION TECHNOLOGY

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