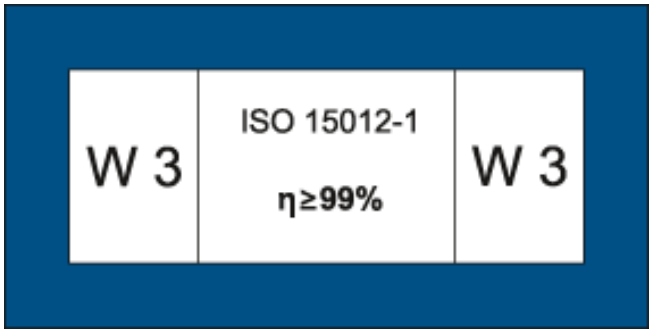
32 Dividend Streeet
Mansfield Q 4122
solutions@opira.com.au
www.opira.com.au
1300 157 969

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 safety 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

Electronically-commutated motors for full power and less energy consumption

- Wide-range input 100 – 240 V
- Brushless motor; suitable for continuous operation
- Electronic control for optimum motor characteristic curve and operating point

Modular and flexible

The compact and modular design ensures easy adaptation of the filter equipment depending on the process. By using high-performance turbines, the systems can be arranged decentrally allowing reliable extraction, even over longer distances. The LN series effectively filters vapours and gases from the air, especially for soldering work, laser processing and sticky and moist dusts.

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.

Draws off every harmful particle

Pollutants do notstand a chance

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

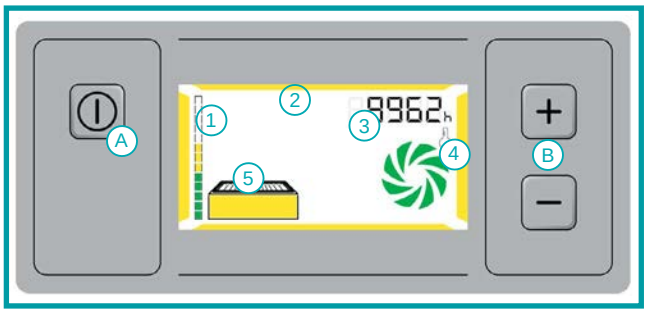
Tool-free filter changing

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-statusindication

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
- Message cache
- Digital interface (RS232)

20 YEARS OF QUALITY INDOOR AIR SERVICES

Applications

Laser technology

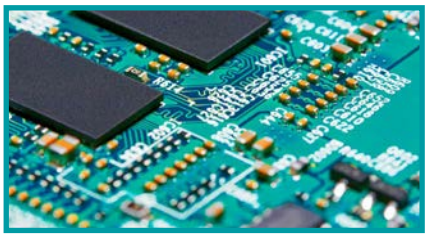
Lasers are used for processing metals, woods and plastics. Due to this versatility, companies are intensively involved in laser technology. This not only increases efficiency, but also creates unwanted by-products, regardless of type and performance. TBH systems ensure safe extraction of fine dust and 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 LN 230

Illustration similar

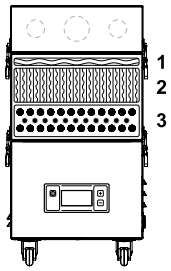
Delivery scope:

- Fully mounted (incl. individual filter equipment
- 4 castors for mobile use
- Power cord

TECHNICAL DATA	UNIT	STANDARD	A	Z	ZA
Air volume flow with free air delivery	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	100-240	100-240	100-240	100-240
Frequency	Hz	50/60	50/60	50/60	50/60
Motor output	kW	1.1	1.1	1.1	1.1
Class of protection	-	1	1	1	1
Drive type	-	Continuous running			
Sound level	db(A)	approx. 62	approx. 62	approx. 62	approx. 62
Serial interface	Sub-D	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
Intake sleeve NW 50	Quantity	2	2	2	2
Intake sleeve NW 80	Quantity	1	1	1	1
Intake sleeve NW 100	Quantity	1	1	1	1
Color	RAL	7035	7035	7035	7035

FILTER CONFIGURATION					
	Pre-filter mat M5 (ISO ePM_{10} > 50%)	✓	✓	-	-
Z^+	Z-Linepanel plus filter F7 (ISO (ISO ePM_1 50-65%, $ePM_{2.5}$ 65-80%, ePM_{10} > 85%)	-	-	✓	✓
	Particle filter H13	✓	-	✓	✓
A	activated carbon/BAC filter	10 liters	18 liters	-	18 liters

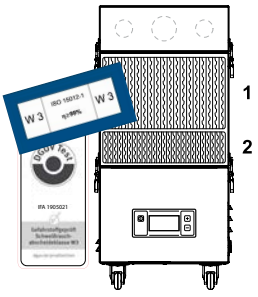
Orderring data LN 230



STANDARD

DESIGNATION	ART. NO.
LN 230 100-240V 50/60 Hz	90001

SPARE FILTER		
Pre-filter mat	10040	1
Particle filter	10013	2
activated carbon/ BAC filter	10004	3

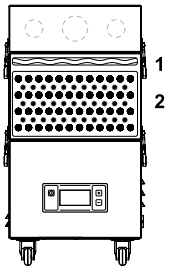


Z

DESIGNATION	ART. NO.
LN 230 100-240V 50/60 Hz	90007

* more on W3, see catalog page 2

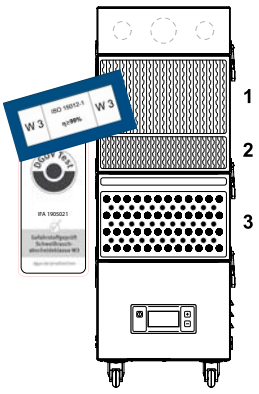
SPARE FILTER		
Z-Linepanelplus filter	16199	1
Particle filter	10013	
activated carbon/ BAC filter	-	



A

DESIGNATION	ART. NO.
LN 230 100-240V 50/60 Hz	90003

SPARE FILTER		
Pre-filter mat	10040	1
Particle filter	-	
activated carbon/ BAC filter	10007	2



ZA

DESIGNATION	ART. NO.
LN 230 100-240V 50/60 Hz	90009

* more on W3, see catalog page 2

SPARE FILTER		
Z-Linepanelplus filter	16199	1
Particle filter	10013	2
activated carbon/ BAC filter	10007	3

Technical data LN 260

Illustration similar

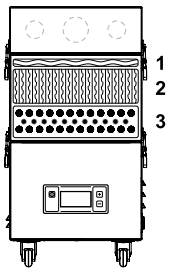
Delivery scope:

- Fully mounted (incl. individual filter equipment
- 4 castors for mobile use
- Power cord

TECHNICAL DATA	UNIT	STANDARD	A	Z	ZA
Air volume flow with free air delivery	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	100-240	100-240	100-240	100-240
Frequency	Hz	50/60	50/60	50/60	50/60
Motor output	kW	1.1	1.1	1.1	1.1
Class of protection	-	1	1	1	1
Drive type	-	Continuous running			
Sound level	db(A)	approx. 60	approx. 60	approx. 60	approx. 60
Serial interface	Sub-D	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
Intake sleeve NW 50	Quantity	3	3	3	3
Intake sleeve NW 100	Quantity	2	2	2	2
Intake sleeve NW 125	Quantity	1	1	1	1
Color	RAL	7035	7035	7035	7035

FILTER CONFIGURATION					
	Pre-filter mat M5 (ISO ePM_{10} > 50%)	✓	✓	-	-
Z^+	Z-Linepanel plus filter F7 (ISO (ePM_1 50-65%, $ePM_{2,5}$ 65-80%, ePM_{10} > 85%)	-	-	✓	✓
	Particle filter H13	✓	-	✓	✓
A	activated carbon/BAC filter	26 liters	45 liters	-	45 liters

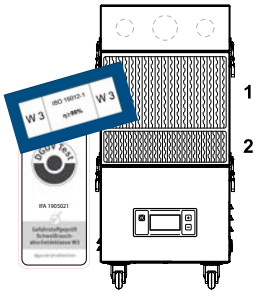
Orderring data LN 260



STANDARD

DESIGNATION	ART. NO.
LN 260 100-240V 50/60 Hz	90034

SPARE FILTER		
Pre-filter mat	10001	1
Particle filter	10009	2
activated carbon/ BAC filter	10046	3

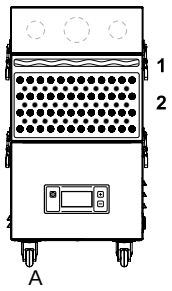


Z

DESIGNATION	ART. NO.
LN 260 100-240V 50/60 Hz	90038

* more on W3, see catalog page 2

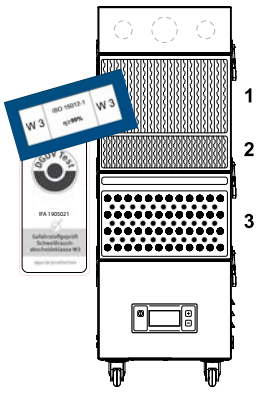
SPARE FILTER		
Z-Linepanelplus filter	16360	1
Particle filter	10009	2
activated carbon/ BAC filter	-	



A

DESIGNATION	ART. NO.
LN 260 100-240V 50/60 Hz	90036

SPARE FILTER		
Pre-filter mat	10001	1
Particle filter	-	
activated carbon/ BAC filter	12052	2



ZA

DESIGNATION	ART. NO.
LN 260 100-240V 50/60 Hz	90040

* more on W3, see catalog page 2

SPARE FILTER		
Z-Linepanelplus filter	16360	1
Particle filter	10009	2
activated carbon/ BAC filter	12052	3

Technical data LN 265

Illustration similar

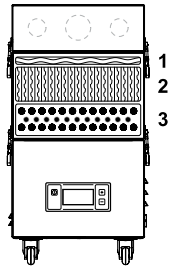
Delivery scope:

- Fully mounted (incl. individual filter equipment
- 4 castors for mobile use
- Power cord

TECHNICAL DATA	UNIT	STANDARD	A	Z	ZA
Air volume flow with free air delivery	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
Motor output	kW	1.8	1.8	1.8	1.8
Class of protection	-	1	1	1	1
Drive type	-	Continuous running			
Sound level	db(A)	approx. 65	approx. 65	approx. 65	approx. 65
Serial interface	Sub-D	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
Intake sleeve NW 50	Quantity	3	3	3	3
Intake sleeve NW 100	Quantity	2	2	2	2
Intake sleeve NW 125	Quantity	1	1	1	1
Color	RAL	7035	7035	7035	7035

FILTER CONFIGURATION					
	Pre-filter mat M5 (ISO ePM_{10} > 50%)	✓	✓	-	-
Z^+	Z-Linepanel plus filter F7 (ISO (ISO ePM_1 50-65%, $ePM_{2.5}$ 65-80%, ePM_{10} > 85%)	-	-	✓	✓
	Particle filter H13	✓	-	✓	✓
A	activated carbon/BAC filter	26 liters	45 liters	-	45 liters

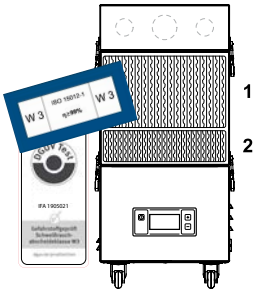
Orderring data LN 265



STANDARD

DESIGNATION	ART. NO.
LN 265 230V 50/60 Hz	90013
LN 265 120V 50/60 Hz	90014

SPARE FILTER		
Pre-filter mat	10001	1
Particle filter	10009	2
activated carbon/ BAC filter	10046	3

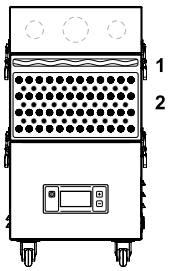


Z

DESIGNATION	ART. NO.
LN 265 230V 50/60 Hz	90017
LN 265 120V 50/60 Hz	90018

* more on W3, see catalog page 2

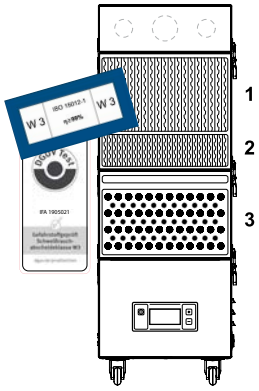
SPARE FILTER		
Z-Linepanelplus filter	16360	1
Particle filter	10009	2
activated carbon/ BAC filter	-	



A

DESIGNATION	ART. NO.
LN 265 230V 50/60 Hz	90015
LN 265 120V 50/60 Hz	90016

SPARE FILTER		
Pre-filter mat	10001	1
Particle filter	-	
activated carbon/ BAC filter	12052	2



ZA

DESIGNATION	ART. NO.
LN 265 230V 50/60 Hz	90019
LN 265 120V 50/60 Hz	90020

* more on W3, see catalog page 2

SPARE FILTER		
Z-Linepanelplus filter	16360	1
Particle filter	10009	2
activated carbon/ BAC filter	12052	3

Electronic control system

FUNCTION	LN 230	LN 260	LN 265
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			
Interface	Sub-D	Sub-D	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 power control	✓	✓	✓
Message cache	✓	✓	✓
Parameterization access for activating special functions	✓	✓	✓

Accessories

USB CONNECTION

USE	DESIGNATION	CABLE LENGTH	ART. NO.
LN 230 / 260 / 265	USB connection cable	1.5 meters	16455

DELIVERY SCOPE: Connection cable (incl. software)

CABLE REMOTE CONTROL

USE	DESIGNATION	CABLE LENGTH	ART. NO.
LN 230 / 260 / 265	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)

Harting option

HARTING MAINS CONNECTION

USE	DESIGNATION	ART. NO.
LN 230 / 260 / 265	Mains connection Harting option	17036*

* LN 265: except for 120V version".

INTERFACE HARTING

USE	DESIGNATION	ART. NO.
LN 230 / 260 / 265	Interface Harting option	15719

USB CONNECTION CABLE

USE	DESIGNATION	CABLE LENGTH	ART. NO.
LN 230 / 260 / 265	USB connection cable Harting	1.5 meters	16466

DELIVERY SCOPE: Connection cable (incl. software)

ELECTRIC FOOT SWITCH

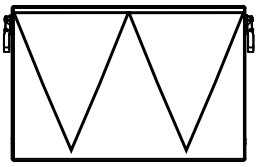
USE	DESIGNATION	CABLE LENGTH	ART. NO.
LN 230 / 260 / 265	Electric foot switch	2 meters	16369

FUNKTIONS:

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

DELIVERY SCOPE: Foot switch (incl. cable)

Accessories



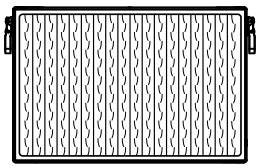
Pocket filter M5/M6

FILTER-HOUSING MODULE*T as upgrade kit- pocket filter

To expand the filter surface / service life of the system for coarse dusts.

USE	FILTER CLASS	UPGRADE KIT	SPARE FILTER
LN 230	Pocket filter M5/M6	12938*	12738
LN 260 / LN 265	Pocket filter M5/M6	12739**	12740

* additional height 300 mm ** additional height 300 mm



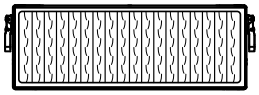
Z-LinepanelPlus-Filter F7

FILTER-HOUSING MODULEZ+ as upgrade kit - z-Linepanel/plus filter

To expand the filter surface / service life of the system for medium/fine dusts.

USE	FILTER CLASS	UPGRADE KIT	SPARE FILTER
LN 230	Z-Linepanel plus filter F7	16367*	16199
LN 260 / LN 265	Z-Linepanel plus filter F7	16368**	16360

* Raises the system by approx. 230 mm ** Raises the system by approx. 260 mm

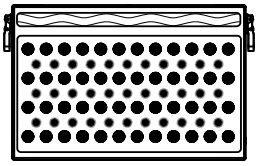


Particle filter H13

FILTER-HOUSING MODULE* as upgrade kit - Particle filter

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

* additional height 85 mm

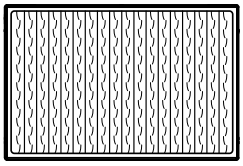


Pre-filter mat M5
activated carbon/BAC filter

FILTER-HOUSING MODULE as upgrade kit - Activated carbon/BAC filter

USE	SIZE	UPGRADE KIT	SPARE FILTER
LN 230	18 liters	12114*	10007
LN 260 / LN 265	45 liters	12112**	12052

* additional height 235 mm ** additional height 265 mm



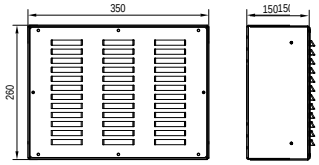
Police filter H14

FILTER-HOUSING MODULE - Police filter

Police-filter function, e.g. in the event of filter rupture or in environments with high safety requirements (is strapped to the outlet of the system*)

USE	FILTER CLASS	UPGRADE KIT	SPARE FILTER
LN 230 / 260 / 265	Police filter H14	15634	14179

* no filter monitoring available

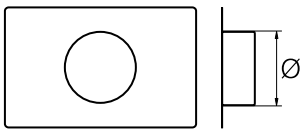


Sound-insulation module

SOUND-INSULATION MODULE

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

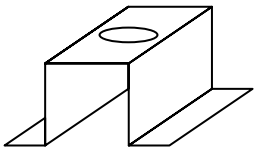
Accessories



AIR OUTLET PLATE

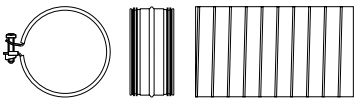
USE	NW (mm)	ART. NO.
LN 230 / 260 / 265	80	11709
LN 230 / 260 / 265	100	12839
LN 230 / 260 / 265	125	12232

* Connection plate with socket for specific air discharge via hose



BRACKET for extraction arm

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



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*
		2.5	13729**
		5.0	13180*
		5.0	14600**
		10.0	13197
	100	2.5	13181
		5.0	13182
		10.0	13198
	125	2.5	13183
		5.0	13184
		10.0	13199

* for LN 230
** for LN 260, LN 265 (with reduction from NW 100 to NW 80)

Accessories

SPARK EXTINGUISHER (Use in piping)

USE	AIR VOLUME	Ø d (mm)	ART. NO.
LN 230/260	150-300 m³/h	63	16649
LN 265	300-600 m³/h	80	16766

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).

Illustration similar

SPARK EXTINGUISHER (mounted on system cover)

USE	AIR VOLUME	Ø d (mm)	ART. NO.
LN 230	150-300 m³/h	63	16647
LN 260	150-300 m³/h	63	16648
LN 265*	150-300 m³/h	63	16648

* Performance loss with LN 265 approx. 20 %

Illustration similar

SPARK EXTINGUISHER (mounted on system cover - extraction arm)

USE	AIR VOLUME	EXTRACTION ARM	ART. NO.
LN 230	150-300 m³/h	System 50	16699*
LN 260	150-300 m³/h	System 50	16715*
LN 265	150-300 m³/h	System 75	16704*

* Extraction arm and base tube not included in delivery, please order separately. (See accessories catalog)

ATEX approval to EN1834

Installation: Spark extinguisher incl. base box for Alsident extraction arm is supplied mounted on system lid.
The base tube of the separately ordered extraction arm can be screwed on directly.

Accessories

FILTER-RUPTURE MONITORING DEVICE

USE	Ø d (mm)	ART. NO.
LN 230 / 260 / 265	100	16651

SIGNAL MODULE

USE	ART. NO.
LN 230 / 260 / 265	16621

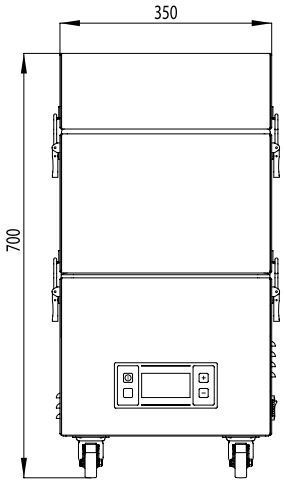
MACHINE BASE

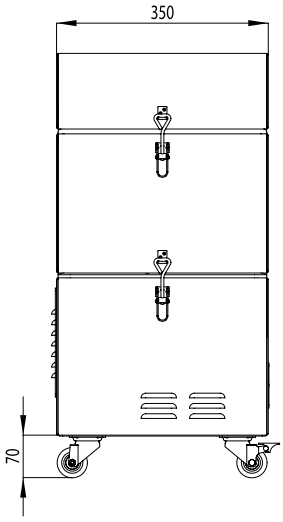
USE	DIMENSIONS (HXWXD) mm	ART. NO.
LN 230	30x550x550	16353
LN 260 / 265	30x550x700	16721

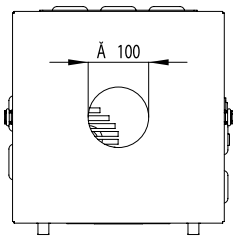
FLOW-RATE MONITORING DEVICE

USE	Ø d (mm)	ART. NO.
LN 230 / 260 / 265	80	16642
LN 230 / 260 / 265	100	16643

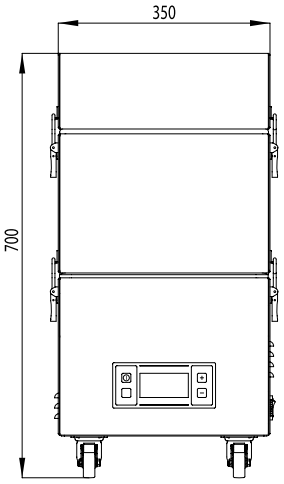
Technical drawings

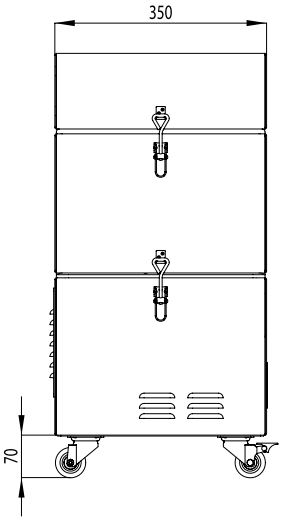


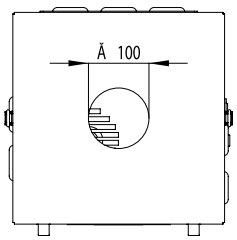




LN 230 STANDARD

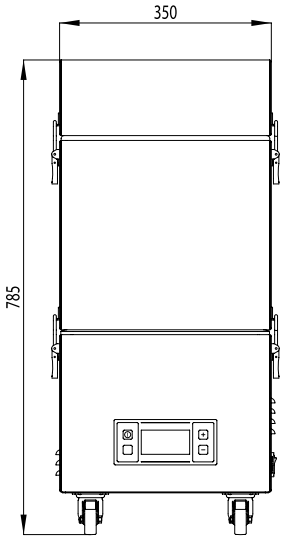


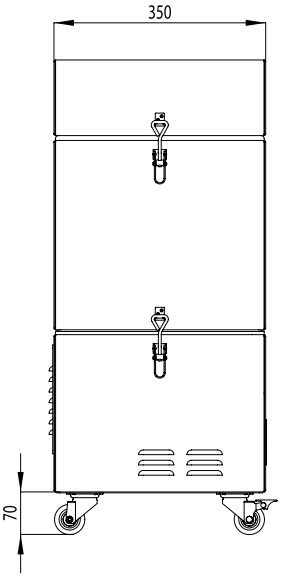


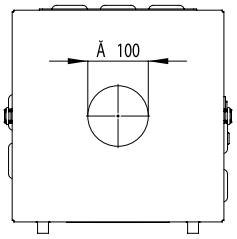


LN 230 A

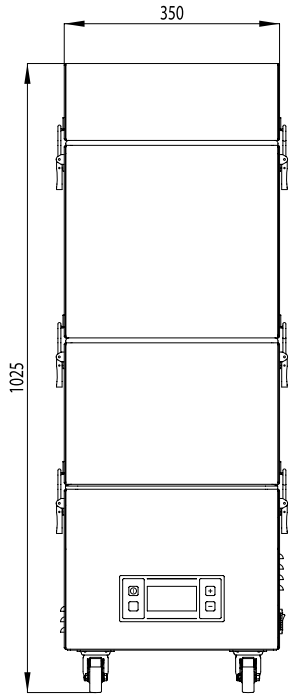
Technical drawings

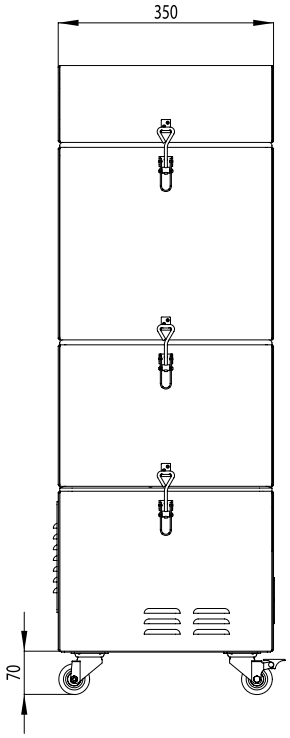


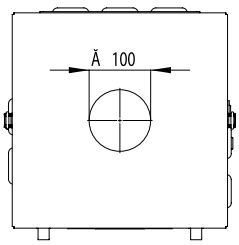




LN 230 Z

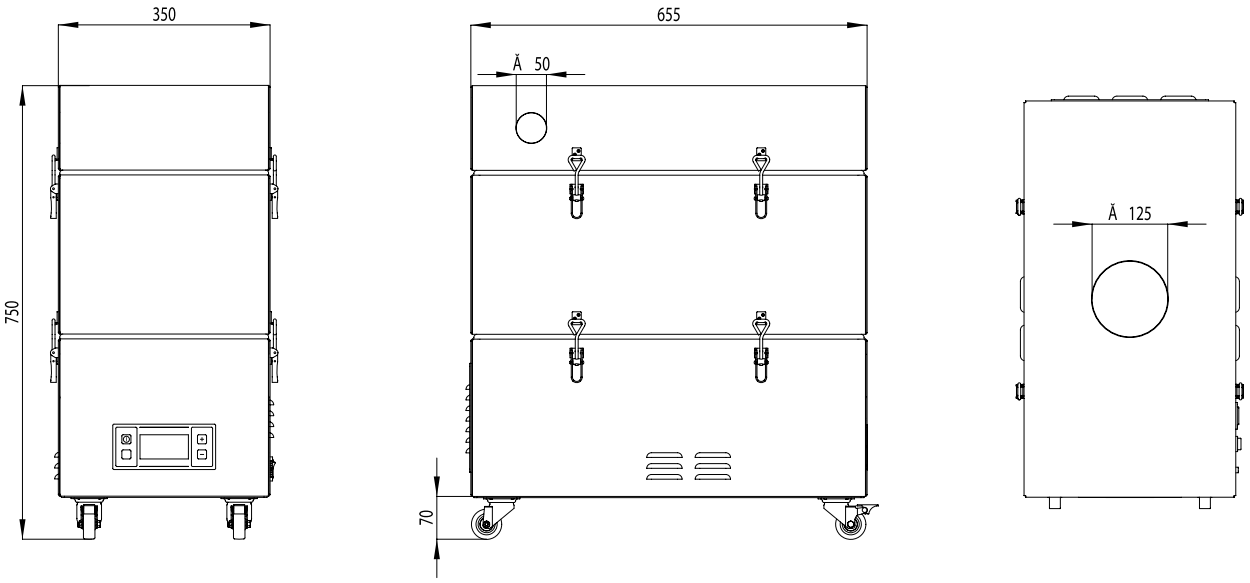




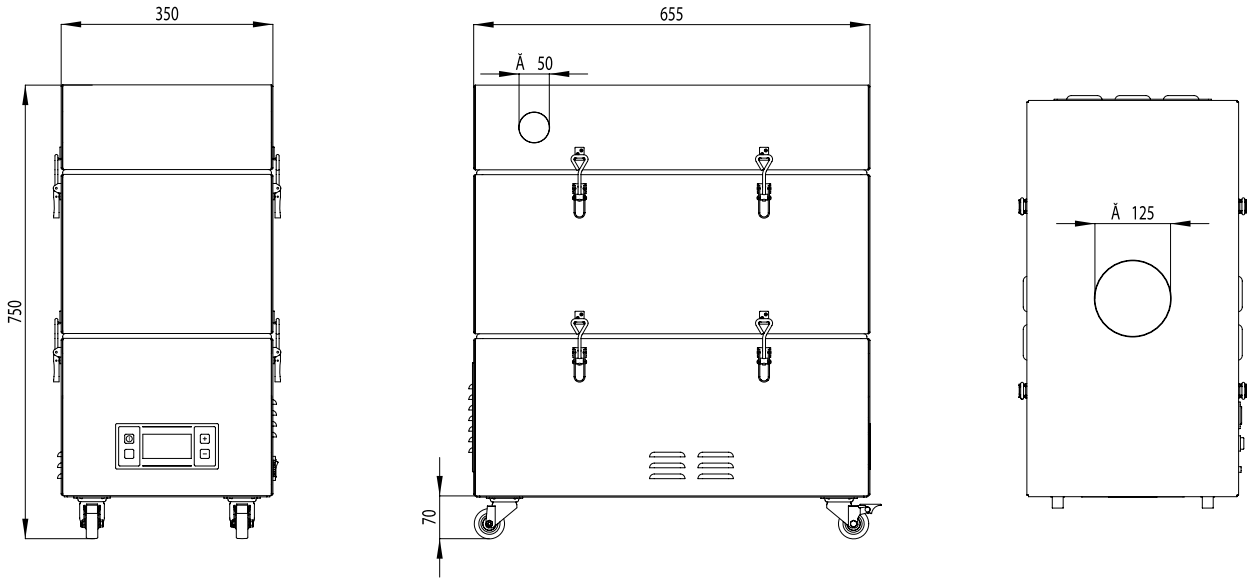


LN 230 ZA

Technical drawings

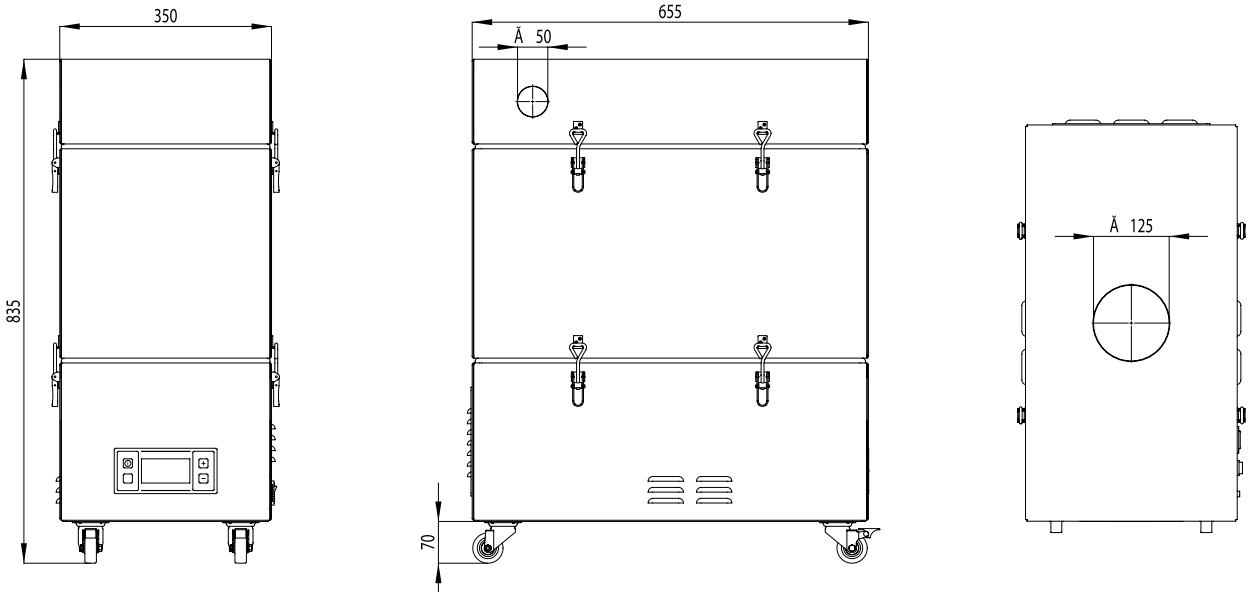


LN 260 STANDARD

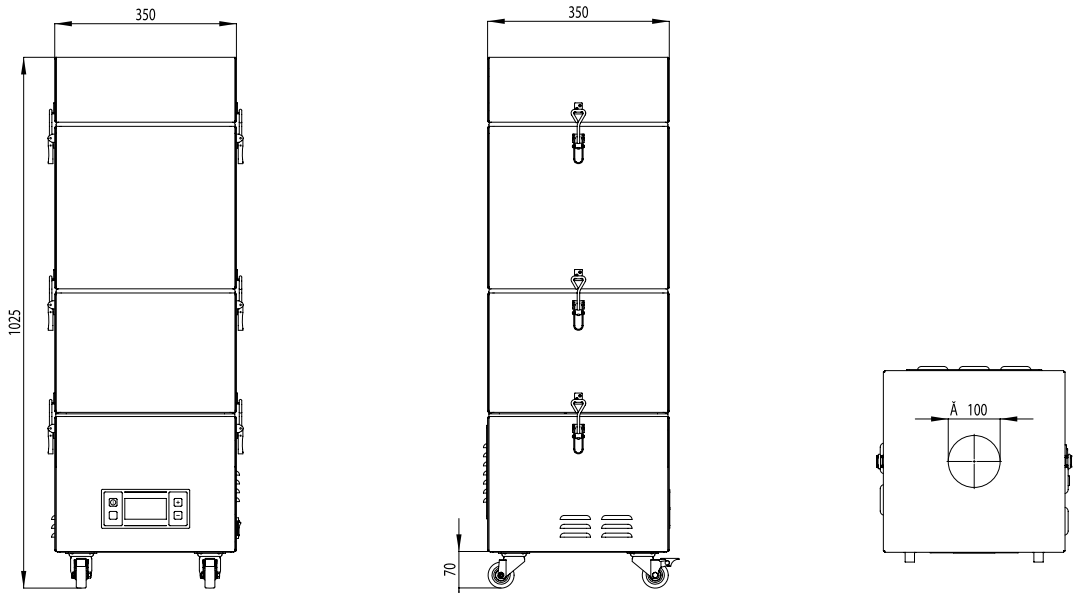


LN 260 A

Technical drawings

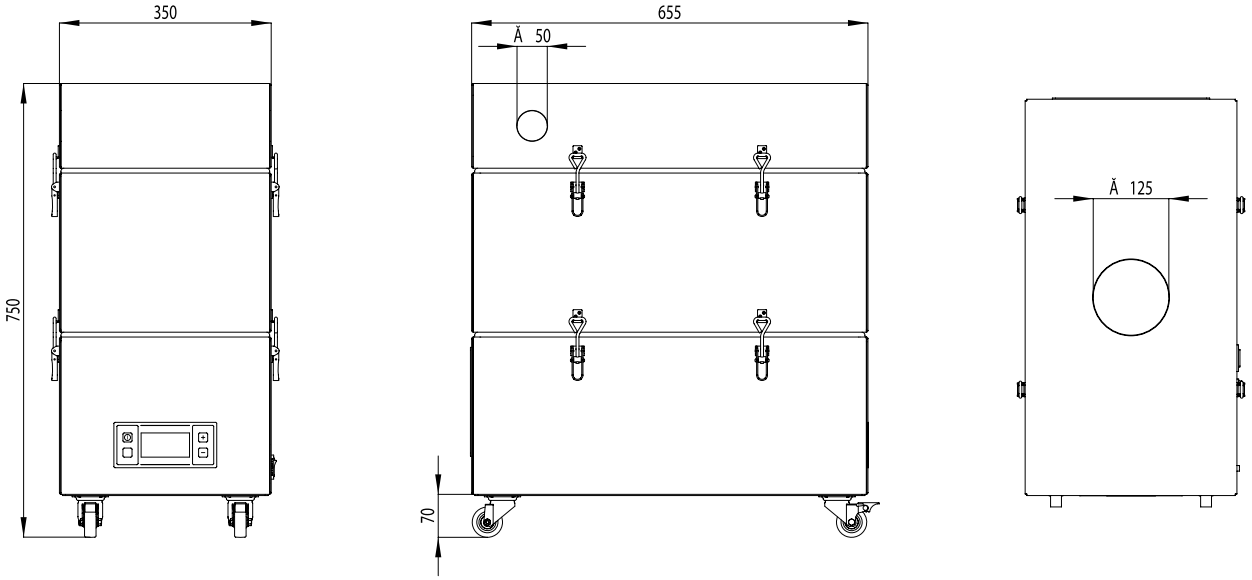


LN 260 Z

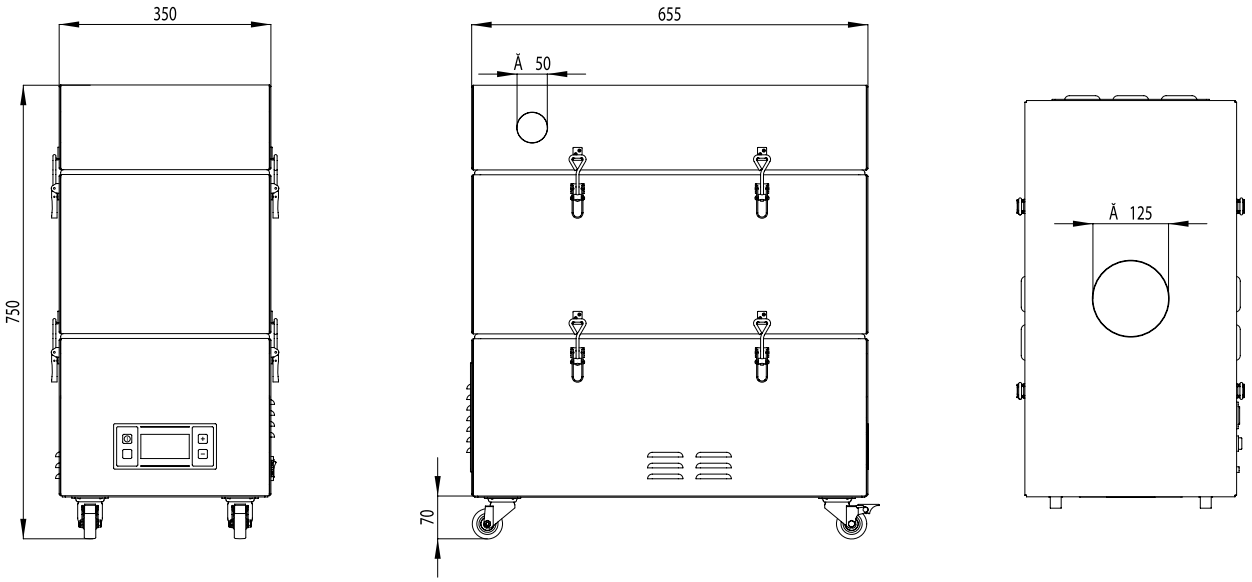


LN 260 ZA

Technical drawings

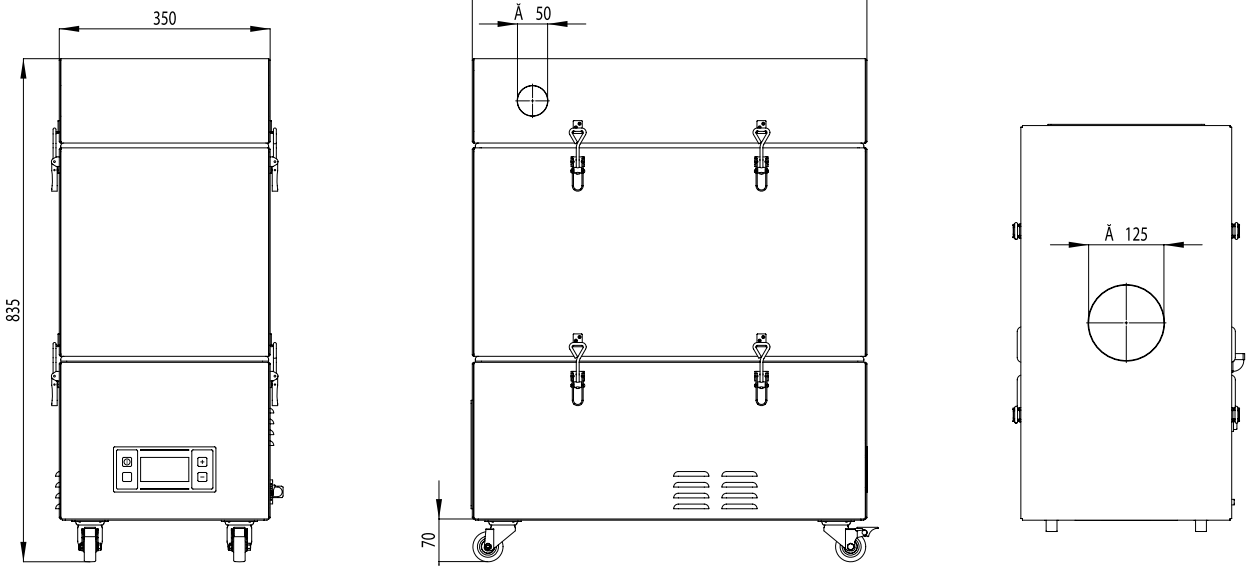


LN 265 STANDARD

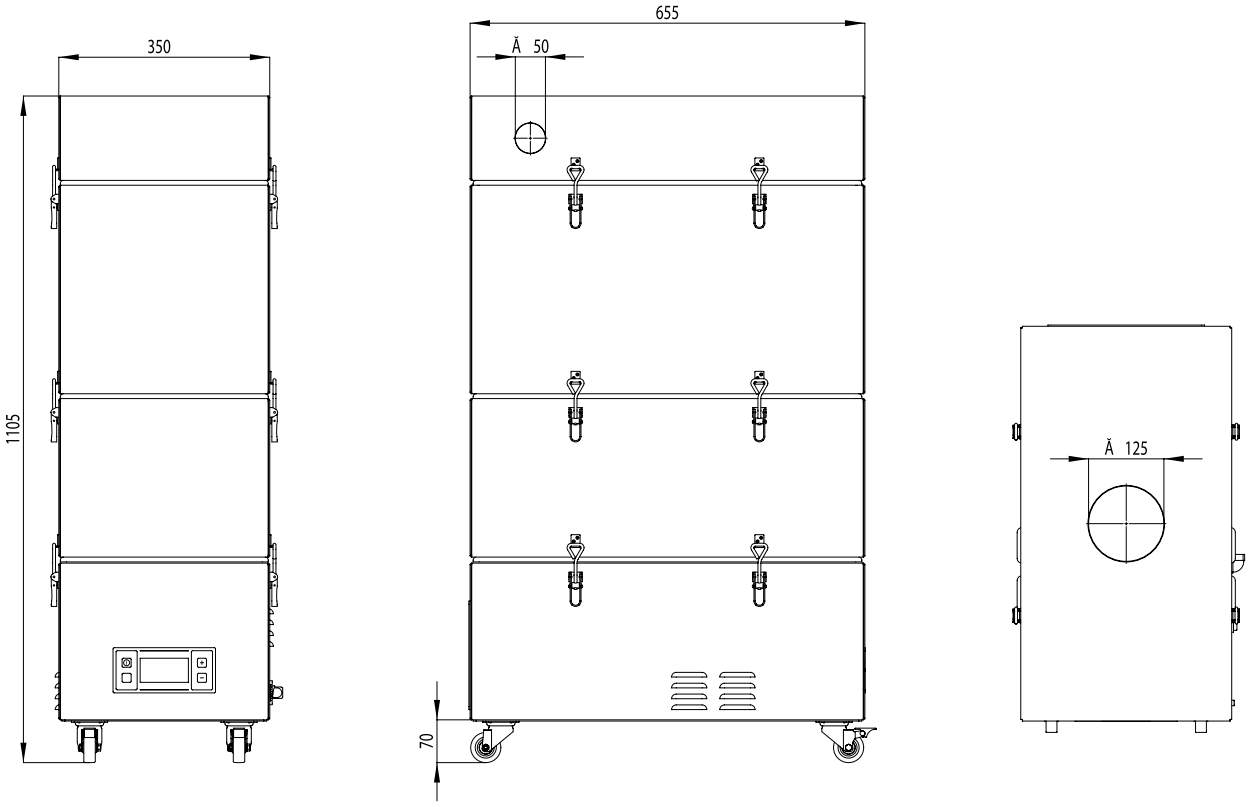


LN 265 A

Technical drawings



LN 265 Z



LN 265 ZA

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