



GL series 2604



Assurance in occupational and health safety

Our extraction and filter systems offer comprehensive protection thanks to high safety standards and certifications. Tested in accordance with DIN ISO 21904 (W3) and DIN EN 60335-2-69 Annex AA (dust class H), they reliably filter the finest welding and laser fume particles as well as harmful dusts from the air. The IFA confirms our systems in accordance with TRGS 528 in the "IFA positive list". They are certified accordingly with W3 and DGUV seals.



Figure 1: IFA 2405015

DIN EN 60335-2-69 Annex AA divides dusts into three dust classes, depending on the hazardousness of the dusts: L (light), M (medium) and H (high). To minimise health risks and protect people, the environment, and machinery, appropriate extraction in accordance with the respective dust class is recommended.

Our extraction systems offer protection against harmful exposure and support compliance with TRGS 900 (Germany), OSHA (USA), "Testo Unico" (Italy) and Spanish Law 31/1995. In France, Article R4412-149 of the Labour Code requires a risk assessment and preventive measures, supported by INRS recommendations on the use of appropriate extraction systems and protective equipment.

Compliance with dust class H is possible on the basis of W3 approval DIN ISO 21904 and can be ordered as an option for filter equipment Z and ZA.

The European Union has established binding occupational exposure limits for chromium(VI) and nickel compounds, with the limit for chromium(VI) compounds set at 0.005 mg/m³ (as chromium). For nickel compounds, limit values of 0.01 mg/m³ apply for the respirable fraction and 0.05 mg/m³ for the inhalable fraction. These limit values laid down in EU Directive 2004/37/EC and updated by Directive 2022/431 must be transposed into national law by all EU Member States, whereby the national limit values may not exceed these values.

High adsorption capacity



- Adsorption of gaseous substances with activated carbon granulate (physical adsorption)
- Broad spectrum of gases and odors filtered
- Customised mixtures possible - contact our TBH sales department

Energy-saving and quiet



- GL = "Green Line" for particularly environmentally friendly
- developed with environmental protection in mind
- Lower power consumption than standard extraction systems
- Energy-saving blower (approx. 55db(A))
- Energy savings of up to 65%
- Low noise for sensitive environments

Captures every harmful particle



Pollutants don't stand a chance

- Low-contamination dust disposal
- Molecular sieve against gaseous pollutants
- Pipe / flexible hose / extraction arm
- Air recirculation or exhaust air pipe

Modular and flexible



- Various modules available for specific applications
- Optimisation of filter costs through custom-fit modules
- Retrofitting the filter system in case of process changes

Tool-free filter change

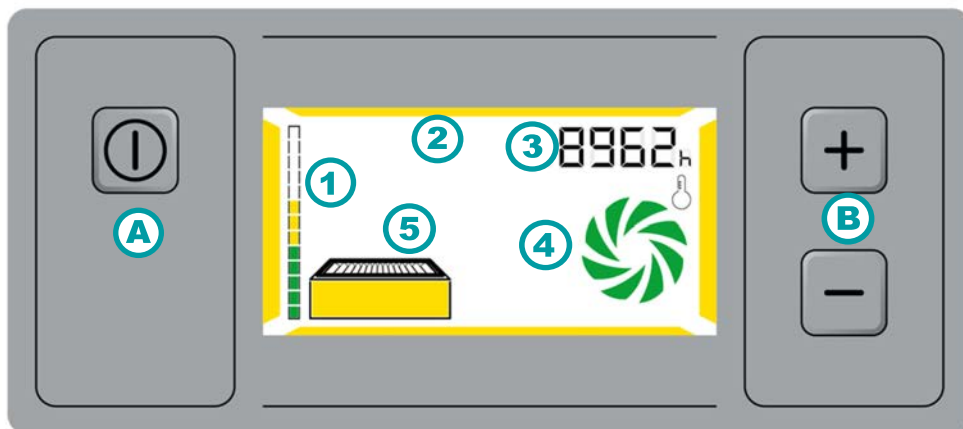


Simple filter removal

- Fast and smooth replacement
- No specialised knowledge required
- Easy handling
- No tools required
- Saves time

Intuitive operation

Always full control over the system



- A Start/Stop button
- B Manual speed rotation regulation
- 1 Saturated filter indicator
- 2 System status indicator
- 3 Speed setting indicator/operating hours counter
- 4 Temperature and turbine status indicator
- 5 Filter status indicator

Sub-D 25 interface

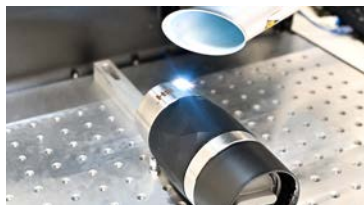
External control of the system



Powerful control electronics

- Switch Start/Stop
- "Filter full" early warning level (75 %)
- Collective error output (rotation speed, temperature, "filter full" 100%)
- External speed control
- Parameterization access for activating special functions
- Message cache
- Digital interface (RS232)

Applications



Laser Technology

Laser use in material processing—such as marking, engraving, cutting, or welding—releases ultrafine particles in the micrometer and nanometer range. Efficient extraction and filter systems are essential to ensure occupational safety. The W3-certified TBH extraction systems offer DGUV- approved protection in accordance with DIN EN ISO 21904-1/-2 and TRGS 528.



Soldering Fumes

Not only in soldering processes, but also generally in the electronics and semiconductor industries, various applications release fine particles and gases composed of numerous hazardous substances. To comply with occupational exposure limits—such as those defined in the German TRGS 900 standard—these emissions must be efficiently extracted and filtered.



Automated Welding

Automated welding, for example in battery cell production, releases extremely fine, sometimes carcinogenic particles. Extraction systems with W3 label and DGUV certification, tested in accordance with DIN EN ISO 21904-1/-2, offer effective protection in accordance with the requirements of TRGS528.



Work processes involving vapors and gases

Various work processes—such as gluing, cleaning, transferring, injection molding, and 3D printing—release vapors and gases that can be captured using specialised activated carbon filters. Efficient extraction and filtration are essential to prevent environmental contamination and to safeguard occupational health. (DE: TRGS910)



Surface Treatment

Surface pretreatment plays a crucial role in many processes and ensures process quality for subsequent operations such as painting, coating, welding, etc. To this end, surfaces are cleaned of release agents and/or roughened using laser, plasma beam, blasting media, etc. The resulting gases and fine dust must be extracted. (DE: TRGS910)



Dry Dusts in Metalworking

Dry dust is generated in many industrial processes. In metalworking, chips and particles are produced that must be extracted and filtered to protect employees and keep the work area clean. TBH extraction and filter systems are ideally suited for this purpose, offering various designs and filter configurations.

Technical Data

GL230



Figure 2: Fig. similar

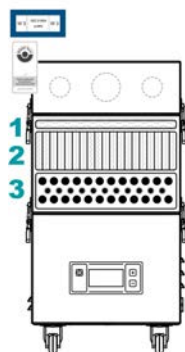
Delivery scope

- fully assembled (incl. the selected 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. 350	Max. 350	Max. 350	Max. 350
Effective air volume flow	m³/h	100-300	100-300	100-300	100-300
Max. static pressure	Pa	6000	6000	6000	6000
Voltage	V	100-240	100-240	100-240	100-240
Frequency	Hz	50/60	50/60	50/60	50/60
Motor output	kW	0.6	0.6	0.6	0.6
Protection class	-	1	1	1	1
Drive type	-	Brushless motor	Brushless motor	Brushless motor	Brushless motor
Noise level	db(A)	Approx. 53	Approx. 53	Approx. 53	Approx. 53
Serial interface	SUB-D 25-pin	✓	✓	✓	✓
Weight	kg	Approx. 45	Approx. 45	Approx. 45	Approx. 60
Dimensions (HxWxD)	mm	700x350x440	700x350x440	785x350x440	1025x350x440
Filter mat (M5)		✓	✓	-	-
Z-LinepanelPLUS F7		-	-	✓	✓
H13 particle filter		✓	-	✓	✓
Activated carbon filter	l	10	18	-	18
Intake socket, DN 50	Quantity	2	2	2	2
Intake socket, DN 80	Quantity	1	1	1	1
Intake socket, DN 100	Quantity	1	1	1	1
Colour	RAL	7035	7035	7035	7035

GL230

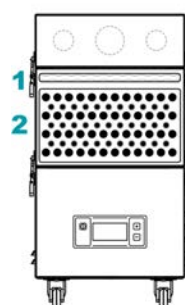
Ordering data GL230



STANDARD

DESIGNATION	ART. NO.
GL230100-240V 50/60Hz	90140

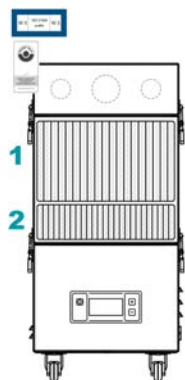
	REPLACEMENT FILTER	
1	Pre-filter mat	10040
2	Particle filter	10013
3	Activated carbon filter	10004



A

DESIGNATION	ART. NO.
GL230100-240V 50/60Hz	90142

	REPLACEMENT FILTER	
1	Pre-filter mat	10040
	Particle filter	-
2	Activated carbon filter	10007

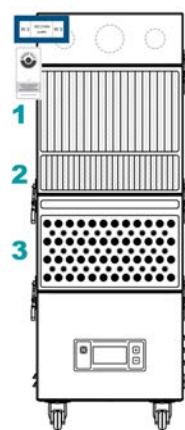


Z

DESIGNATION	ART. NO.
GL230100-240V 50/60Hz	90144
Surcharge dust class H*	20546

*For more on W3 and dust class H, see catalogue page 2

	REPLACEMENT FILTER	
1	Z-LinepanelPlus filter	16199
2	Particle filter	10013
	Activated carbon filter	-



ZA

DESIGNATION	ART. NO.
GL230100-240V 50/60Hz	90146
Surcharge dust class H*	20547

*For more on W3 and dust class H, see catalogue page 2

	REPLACEMENT FILTER	
1	Z-LinepanelPlus filter	16199
2	Particle filter	10013
3	Activated carbon filter	10007

Technical data

GL265



Figure 3: Fig. similar

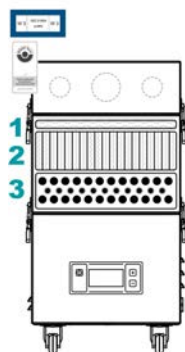
Delivery scope

- fully assembled (incl. the selected 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. 350	Max. 350	Max. 350	Max. 350
Effective air volume flow	m³/h	100-300	100-300	100-300	100-300
Max. static pressure	Pa	6000	6000	6000	6000
Voltage	V	100-240	100-240	100-240	100-240
Frequency	Hz	50/60	50/60	50/60	50/60
Motor output	kW	0.6	0.6	0.6	0.6
Protection class	-	1	1	1	1
Drive type	-	Brushless motor	Brushless motor	Brushless motor	Brushless motor
Noise level	db(A)	Approx. 53	Approx. 53	Approx. 53	Approx. 53
Serial interface	SUB-D 25-pin	✓	✓	✓	✓
Weight	kg	Approx. 45	Approx. 45	Approx. 45	Approx. 60
Dimensions (HxWxD)	mm	750x350x655	750x350x655	835x350x655	1025x350x655
Filter mat (M5)		✓	✓	-	-
Z-LinepanelPLUS F7		-	-	✓	✓
H13 particle filter		✓	-	✓	✓
Activated carbon filter	l	26	46	-	46
Intake socket, DN 50	Quantity	3	3	3	3
Intake socket, DN 100	Quantity	2	2	2	2
Intake socket, DN 125	Quantity	1	1	1	1
Colour	RAL	7035	7035	7035	7035

GL265

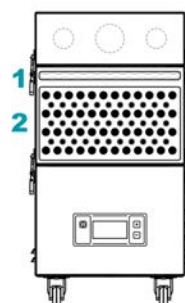
Ordering data GL265



STANDARD

DESIGNATION	ART. NO.
GL265100-240V 50/60Hz	90136

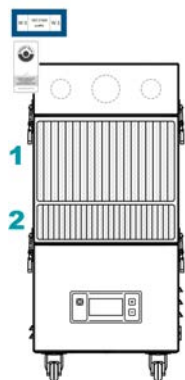
	REPLACEMENT FILTER	
1	Pre-filter mat	10001
2	Particle filter	10009
3	Activated carbon filter	10046



A

DESIGNATION	ART. NO.
GL265100-240V 50/60Hz	90151

	REPLACEMENT FILTER	
1	Pre-filter mat	10001
	Particle filter	-
2	Activated carbon filter	12052

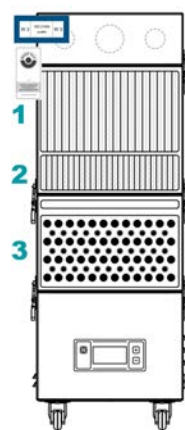


Z

DESIGNATION	ART. NO.
GL265100-240V 50/60Hz	90153
Surcharge dust class H*	20548

*For more on W3 and dust class H, see catalogue page 2

	REPLACEMENT FILTER	
1	Z-LinepanelPlus filter	16360
2	Particle filter	10009
	Activated carbon filter	-



ZA

DESIGNATION	ART. NO.
GL265100-240V 50/60Hz	90155
Surcharge dust class H*	20549

*For more on W3 and dust class H, see catalogue page 2

	REPLACEMENT FILTER	
1	Z-LinepanelPlus filter	16360
2	Particle filter	10009
3	Activated carbon filter	12052

Electronic control

FUNCTION	GL230	GL265
Switch between Run/Standby	✓	✓
Manual speed rotation regulation	✓	✓
Saturated filter indicator (complete system)	✓	✓
Filter status indicator	✓	✓
System status indicator	✓	✓
Speed setting indicator/operating hours counter	✓	✓
Temperature and turbine error indicator	✓	✓

INTERFACE FUNCTION		
Interface	Sub-D	Sub-D
System Start/Stop	✓	✓
Early warning: Filter 75% saturated	✓	✓
Optical and acoustic saturated filter notification	✓	✓
Collective error output (rotation speed, temperature, "filter full" 100%)	✓	✓
ExternalRotation speed control	✓	✓
Message cache	✓	✓
Parameterization access for activating special functions	✓	✓

ACCESSORIES

USB CONNECTION



APPLICATION	DESIGNATION	CABLE LENGTH	ART. NO.
GL230 / GL265	USB connection cable	1.5 metres	16455

DELIVERY SCOPE:Connection cable (incl. software)

CABLE REMOTE CONTROL



Figure 4: Remote control

APPLICATION	DESIGNATION	CABLE LENGTH	ART. NO.
GL230 / GL265	Cable remote control	7 metres	16477

FUNCTIONS:

- "Filter full" notification
- Start/Stop button
- Rotation speed control
- Switch-on status of the system: Standby operation

DELIVERY SCOPE:Remote control (incl. cable)

ELECTRIC FOOT SWITCH



Figure 5: Foot switch

APPLICATION	DESIGNATION	CABLE LENGTH	ART. NO.
GL230 / GL265	Electric foot switch	2 metres	16369

FUNCTIONS:

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

DELIVERY SCOPE:Foot switch (incl. cable)

POWER CONNECTION HARTING



APPLICATION	DESIGNATION	ART. NO.
GL230/ GL265	Power connection Harting option	17036

HARTING INTERFACE



APPLICATION	DESIGNATION	ART. NO.
GL230/ GL265	Interface Harting option	15719

CONNECTION CABLE USB HARTING



APPLICATION	DESIGNATION	CABLE LENGTH	ART. NO.
GL230 / GL265	Connection cable USB Harting	1.5 metres	16466

DELIVERY SCOPE: Connection cable (incl. software)

FILTER CASE MODULE T

as upgrade kit - bag filter

To extend the filter surface area/lifetime of the system for coarse dusts.



APPLICATION	FILTER CLASS	UPGRADE KIT	REPLACE-MENT FILTER
GL230	Bag filter M5/M6	12938*	12738
GL265	Bag filter M5/M6	12739**	12740

* additional height 300mm
** additional height 300mm

FILTER CASE MODULE Z+

as upgrade kit - Z-LinepanelPlus filter

To extend the filter surface area/lifetime of the system for medium/fine dusts.



APPLICATION	FILTER CLASS	UPGRADE KIT	REPLACE-MENT FILTER
GL230	Z-LinepanelPlus filter F7	16367 ¹	16199
GL265	Z-LinepanelPlus filter F7	16368 ²	16360

FILTER CASE MODULE A

as upgrade kit - Activated carbon filter



APPLICATION	FILTER CLASS	UPGRADE KIT	REPLACE-MENT FILTER
GL230	18 litres	12114 ³	10007
GL265	45 litres	12112 ⁴	12052

FILTER CASE MODULE AS UPGRADE KIT - Particle filter

as upgrade kit - Particle filter



APPLICATION	FILTER CLASS	UPGRADE KIT	REPLACE-MENT FILTER
GL230	H13 particle filter	21451	10013
GL265	H13 particle filter	14729*	10009

* additional height 85 mm

FILTER CASE MODULE

- Police filter
- Police-filter function e.g. in case of filter rupture or in environments with high safety requirements
- Is attached to the exhaust of the system⁵



APPLICATION	FILTER CLASS	UPGRADE KIT	REPLACE-MENT FILTER
GL230/GL265	H14 police filter	15634	14179

AIR EXHAUST LOUVER*

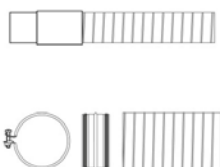


APPLICATION	DN (MM)	ART. NO.
GL230 / GL265	100	12839
GL230 / GL265	125	12232
GL230 / GL265	160	13325

*Connection plate with nozzle for targeted air discharge using a hose

AIR INLET

flexible connecting hoses



APPLICATION	DN (MM)	LENGTH (M)	ART. NO.
Hose set with nipple and tube clamps	80	2.5	13179
		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 GL230

** for GL265 (with reduction from DN 100 to DN 80)

CONSOLE

for extraction arm



APPLICATION	DN (MM)	ART. NO.
GL230 / GL265	50	20297
	63	20298
	75	20299

SIGNAL MODULE



APPLICATION	ART. NO.
GL230 / GL265	16621

SPARK QUENCHER (mounted on system cover)



APPLICATION	AIR VOLUME	Ø D (MM)	ART. NO.
GL230	150-300 m³/h	63	16647
GL265	150-300 m³/h	63	16648

SPARK QUENCHER

(Use in piping)



APPLICATION	AIR VOLUME	Ø D (MM)	ART. NO.
GL230/265	150-300 m³/h	63	16649

ATEX approval to EN1834

Installation: Depending on the application and size, the spark quencher can be mounted on the wall or a worktable using a special holder (including magnets, supplied) or with pipe clamps (please order separately).

(Mounted on system cover + extraction arm)



APPLICATION	AIR VOLUME	EXTRACTION ARM	ART. NO.
GL230	150-300 m³/h	System 50	16699*
GL265	150-300 m³/h	System 50	16715*
GL265	150-300 m³/h	System 75	16704*

* Extraction arm and socket pipe not included, please order separately (see accessories catalogue)

ATEX approval to EN1834 Installation: Spark quencher incl. base box for Alsident extraction arm is supplied mounted on the system cover. The base tube of the separately ordered extraction arm can be screwed on directly.

FILTER RUPTURE MONITORING



APPLICATION	Ø D (MM)	ART. NO.
GL230 / GL265	100	16651

MACHINE BASE



APPLICATION	DIMENSIONS (HXWxD) MM	ART. NO.
GL230	30x550x550	16353
GL265	30x550x700	16721

VOLUME FLOW MONITORING



APPLICATION	Ø D (MM)	ART. NO.
GL230 / GL265	80	16642
GL230 / GL265	100	16643

Technical drawings

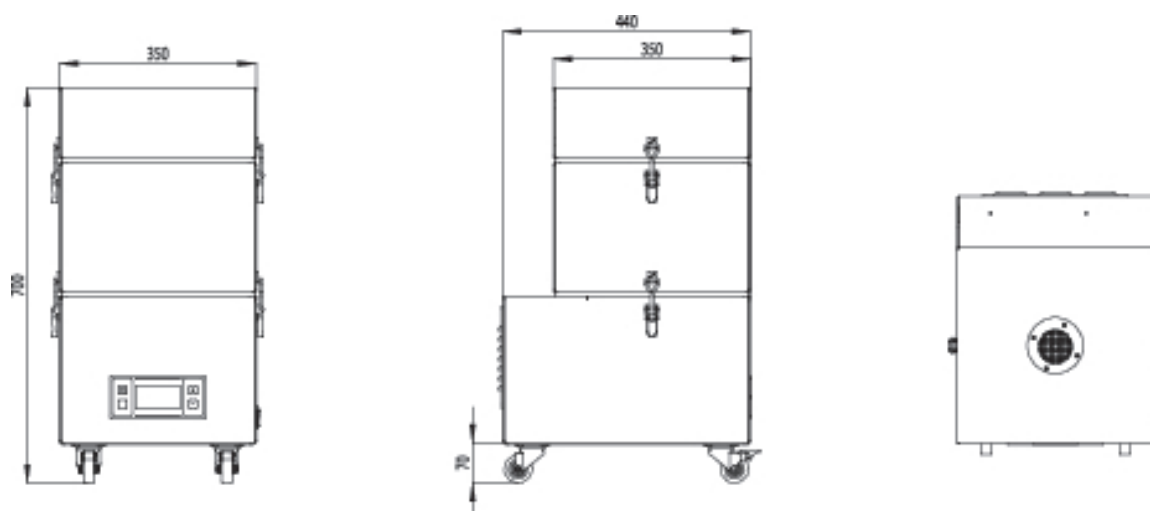


Figure 6: Dimensions GL230 Standard + GL230A

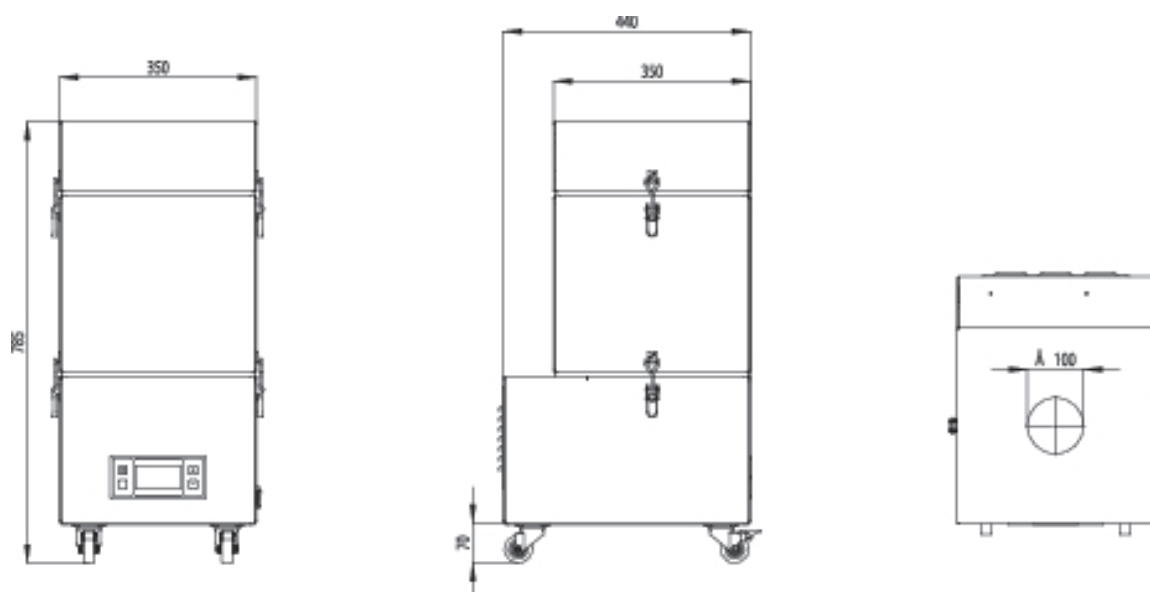


Figure 7: Dimensions GL230Z

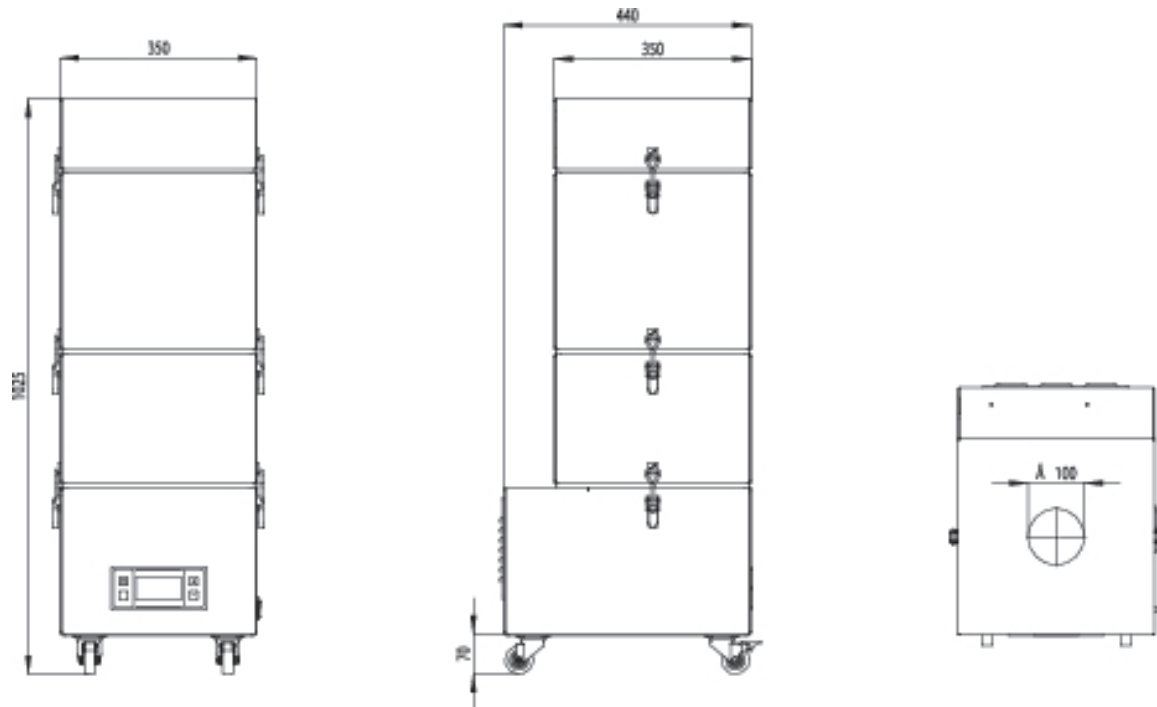


Figure 8: Dimensions GL230ZA

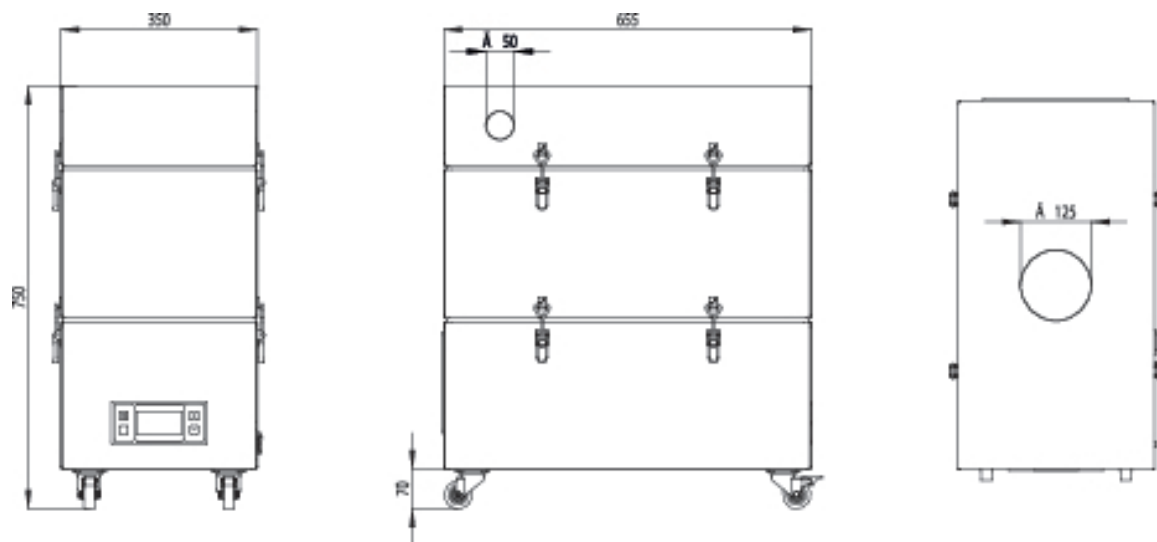


Figure 9: Dimensions GL265 + GL265A

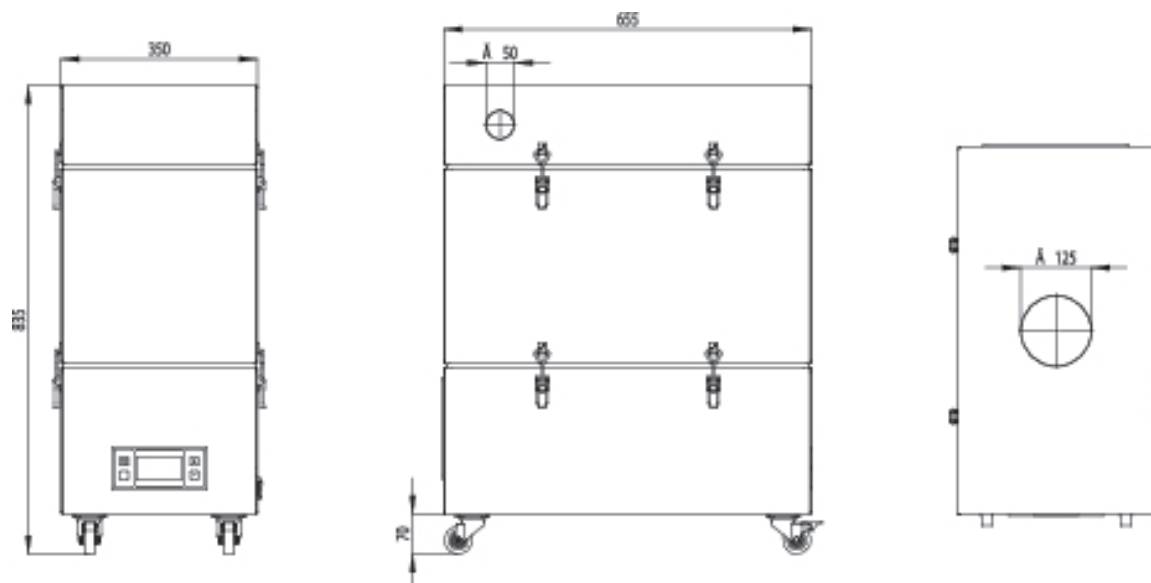


Figure 10: Dimensions GL265Z

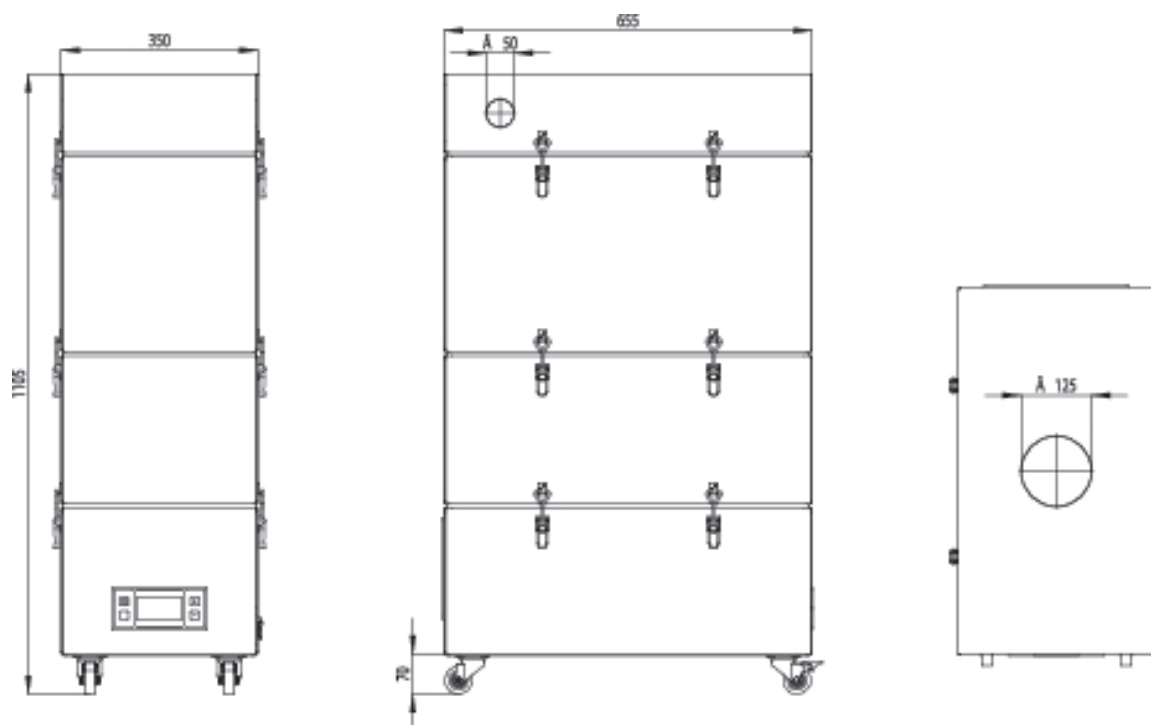


Figure 11: Dimensions GL265ZA



Opira Pty Ltd

T: 1300 157 969 // sales@opira.com.au
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