Superior Lab Solutions labinterior

Biological Safety Cabinets

ninoSAFE Class II *Pro*
ninoSAFE Class II *Value*
ninoSAFE Cyto
ninoSAFE B2
ninoSAFE Class I
ninoSAFE Class III
ninoSAFE XL
ninoSAFE Isotope

Open LAF Cabinets

ninoSAFE Sterile
ninoSAFE Horizontal

Fully compliant with EN12469, ANSI49,
DIN 12980, ISO 9001:2015 & ISO14001:2015

Superior Operator Protection

Superior Lab Solutions labinterior

Engineered by Experience

Compact design but still best usable inner dimensions.

Nino Labinterior manufactures intelligent engineered biological safety cabinets that provide clean air solutions for a wide range of applications, ranging from routine work with potentially hazardous samples to handling cytotoxic compounds. ninoSAFE provides the level of operator, product and environmental protection you need, and every cabinet is designed to make working safely as easy and as comfortable as possible.

ninoSAFE biological safety cabinets have been tested and validated at customers since 2015 reassuring their performance, reliability, quality and ease of use. The latest technology in combination with State-of-the art technique ninoSAFE offers advanced products yet easy to clean and simple to maintain. Scandinavian design brings ergonomics to a higher level. Dimmable LED light comes as standard feature together with remarkably low sound levels. Support stands are available in either manually or electrically adjustable, all in clean room design.

Clean room design

We work closely with our customers to create and support biological safety cabinets that offer unmatched quality, precision and reliability with highest level of cleanability.

Compact design

ninoSAFE range cabinets is by far the most compact cabinet in the market yet offering best usable tabletop space and inner dimensions. With its low depth and height, it will be easy to transport into the laboratory and low height will allow you to use elevated support stands with a working height of up to 1100 mm without limiting the possibility of ducting or jeopardizing safety due to being too close to the ceiling.

Noise

Field case studies prove that ninoSAFE biological safety cabinets measure <46 dB(A) when operating according to EN12469 at 0,45 m/s inflow and 0,28 m/s down flow. By applying the latest filter and fan technology into our products we know what can be achieved.

State of the art filter technology – superior low noise!

Superior Operator Protection

Worldwide remote support

ninoSAFE biological safety cabinets can be order with a unique remote support offering unmatched user support, trouble shooting, adjustments and update service. Furthermore the system allows up to 12 months of continuous data backup. With customer approval we access the cabinet remotely wherever it is installed, requiring only open internet access. High security and without managing firewalls.

Standard Features

All ninoSAFE biological safety cabinets come with dimmable LED lighting. Adjustable or electrical elevation support stands at your choice operated directly from the OP touch panel. UV-light is positioned with easy access and available in either fluorescent standard tube or LED offering incomparable long life. User friendly segmented 300 mm wide tabletops for easy cleaning.

User friendliness

The team behind ninoSAFE biological safety cabinets have had the operator in mind when designing the cabinets and its display interface and intuitivity. Easy-of-use and best possible ergonomics has been our guiding star.

"We don't do fancy, but we do supply superior flexibility, functionality and ergonomics".

A ninoSAFE cabinet always offer low noise levels, comfortable dimmable LED lightning and wide range of options and accessories.

Weighing

A wide range of weighing accessories are available. Since ninoSAFE is close to vibration free it offers weighing inside at 4 decimals without additional support stand and up to 6 decimals with support.

Special is our standard

Customization

Nino Labinterior's motto is "Special is our standard" meaning that all our products can be custom made and configured to meet every specific requirement within reasonable time and budget.

Microbiological Safety Cabinet ninoSAFE PP, metal free with a body made from polypropylene.
No metal parts in the work chamber or in the air stream.
Fans without any exposed metal parts and filters with wooden frames.
Manufactured according to EN 12469.

Airtightness

The window can be supplied with an optional kit securing an airtight sealing. By experience we know that designs with integrated seals will be untighten over time generating a false security. That's the reason why a sealing kit is separate.

Split filter technology

Cabinets can be supplied with split filter technology according to your needs.

VHP decontamination

We offer a wide range of solutions for VHP fumigation. Standard or customized according to your needs.
We adapt to most manufacturers of VHP systems.

Cleanability

The front window design allows to easily be folded up for cleaning the window. It is supported by gas dampers. Whenever needed, as an option, the cabinets can be delivered with a window that can be lowered below the worksurface to enable safe cleaning of the entire window area under class II-conditions.

A wide range of standard options:

- Electrically elevated support stand for optimized ergonomics
- Castors
- Prefilter grid
- G3 prefilter
- Hard duct connector with or without antiblowback valve
- Thimble connector
- Double exhaust HEPA filter
- Activated carbon exhaust filter
- Outlets for electricity, LAN, USB, etc
- UV-light
- Gas taps
- Front window that can be lowered for safe inside cleaning from above
- IV bar
- Stainless steel tube for particle counter
- Monitor in the back wall
- Stainless steel elevated armrests
- Cooling top for water cooling of exhaust air
- VHP fumigation kit
- Table top segments in different sizes
- AISI 316 table tops
- Table tops made from solid laminate
- Single piece table top with gas dampers
- Stainless steel interior AISI 304 or AISI 316
- Extra pressure sensor for duct or plenum
- Magnetic black screen for visualization of samples

Options – no limit

Whatever options you might need – we have it or it will be designed to meet your requests.
We offer a wide range of options:

UV light, integrated or standalone magnetic version allowing crossbeam functionality.

Support stands in three different versions; basic fixed, adjustable or electrically elevated.

The electrically elevated support stand is available in standard or heavy duty for high loads.

Gas valves for all type of gasses in all different qualities

Operator in mind when designing - Easy cleaning

Validation

For standard range product as well as custom design projects we offer complete validation packages (DQ/IQ/OQ) either in our standard template or customized according to user requirement specifications. Whenever you request a customized solution, we recommend a Factory Acceptance Test and Site Acceptance Test.

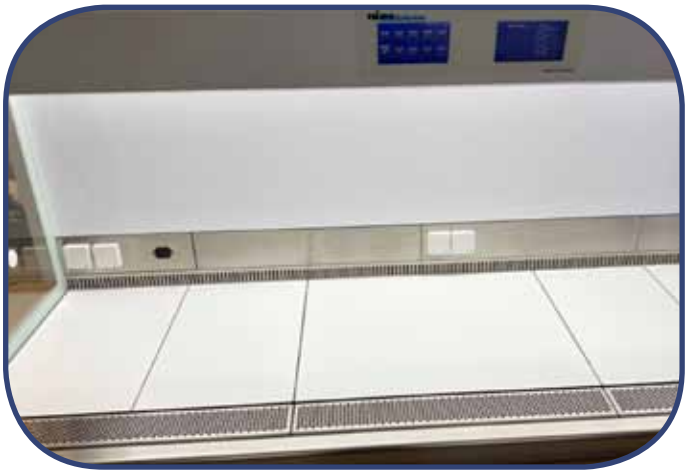


Table Top Solutions

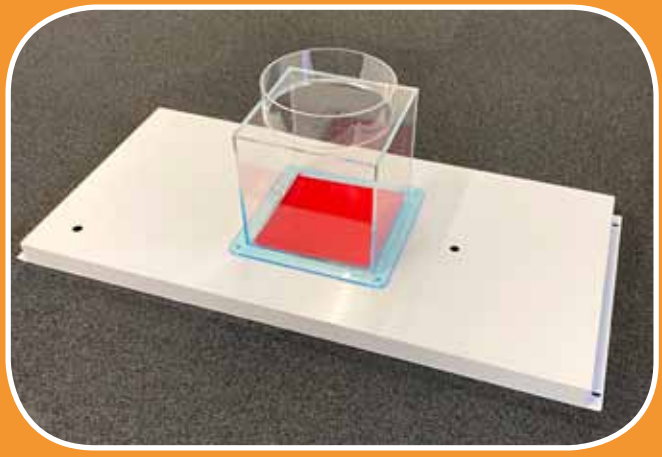
Table top solutions in single piece w/wo gas dampers.
The perforations in the ninoSAFE cabinets are engineered to an optimum. This gives a silent and safe air flow and also the best usable inner dimensions with 15% more usable table top area compared to most other brands.
ninoSAFE is designed to be comfortable and ergonomically without arm rests thanks to intelligent designed v-shaped tabletops allowing operator to work comfortably without obstructing the air vents.

IV-Bars

IV Bars are available for all sizes. For maximal flexibility the height of the bar is adjustable, and hooks comes in two different lengths for usability.

The design of the bar is oval so the hooks will stay in place!

ninoSAFE can be delivered with several different ducting option - thimble connections or ducting plate with or without antiblowback valve.



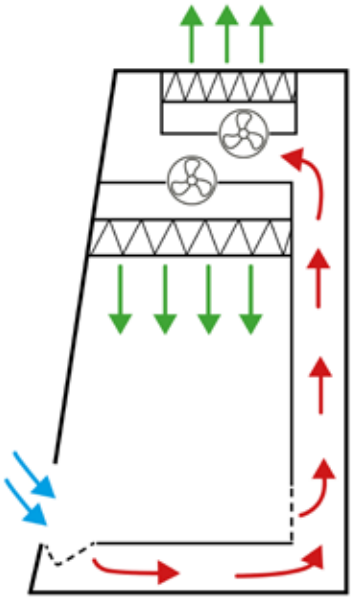
ninoSAFE Class II *Pro*

Superior Operator and Product Protection

Intuitive controller with large double touch displays equipped with MODBUS interface for reading and controlling. Optional remote support via ethernet allowing technical support on distance wherever in the world the cabinet is installed.
ninoSAFE *Pro* can be delivered with a long list of options and can be customized to fulfil any requirement.
The control panel has integrated control of optional electrically elevated support which means that everything is controlled from one spot.
Excellent energy saving dimmable LED light gives up to 2000 Lux evenly and shadow free distributed over the whole working area. The back wall is powder coated in white colour for best lumination and to reduce illumination.
Latest fan and filter technology together with excellent engineering of the body gives superior noise levels of all sizes – from 46 dB(A).

Product protection
Operator protection
Environmental protection

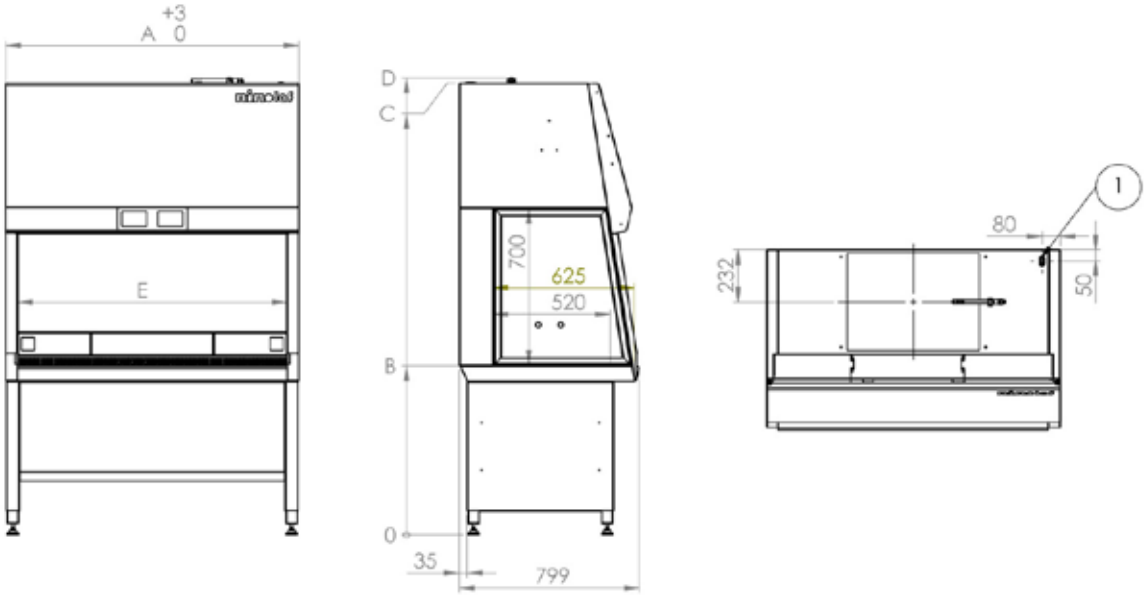
Contaminated air Filtered air Ambient air



Technical Specifications

TECHNICAL SPECIFICATIONS ninoSAFE Pro Class II					
Size		900	1200	1500	1800
Dimensions					
External dimensions excl support, WxDxH	mm	1003x799x1329	1303x799x1329	1603x799x1329	1907x799x1329
External dimensions incl support, table top at 800 mm, WxDxH	mm	1003x799x2053	1303x799x2053	1603x799x2053	1907x799x2053
Internal dimensions, WxDxH	mm	900x520(625)x700	1200x520(625)x700	1500x520(625)x700	1800x520(625)x700
Front window opening	mm	200 (adjustable 160 - 330)			
Work height, basic support stand	mm	800 or 900 (±25)			
Work height, adjustable support stand	mm	700-1050			
Work height, electrically elevated support stand	mm	750-1050			
Minimum door way	mm	800			
Weight					
Equipment	kg	190	220	250	280
Air velocity					
Vertical flow	m/s	0,28 (adjustable 0,25 - 0,53)			
Inflow	m/s	0.45 (adjustable 0.45 - 0.55)			
Deviation	±%	< 8			
Noise					
Noise level, measured according to EN12469	dB(A)	46	46	47	47
Ventilation					
Down flow rate	m3/h	510	680	840	1010
Exhaust flow rate	m3/h	290	390	480	580
Filter technology					
Main/Exhaust	type	HEPA H14 EN1822, 99,999% at 0,3 µm particle size			
Light					
LED	Lux	0-2000, dimmable			
Electrical data					
Voltage frequency	V/Hz	220-240/50-60 or 110-120/50-60			
Power consumption, from	W	90	100	130	140

Our models are built and tested according to national and international standards, including EN 12469, NSF/ANSI 49, EN61010-1



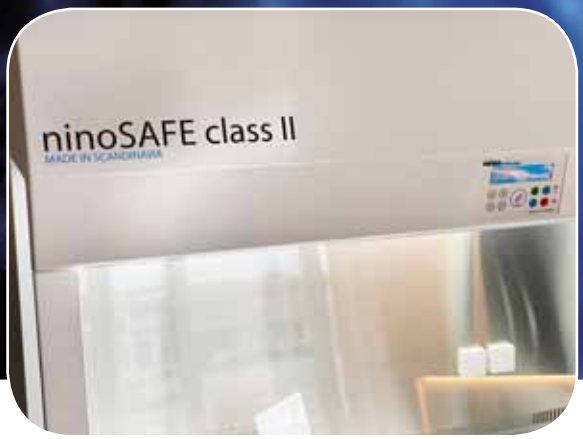
ninoSAFE PRO Class II Specifications						
Cabinet	A - Length	B - Work height	C - Top cabinet	D - Highest point	E - Work opening	W - Weight
nino SAFE 900	1003 mm	700-1050 mm	1953-2303 mm	1978-2328 mm	900 mm	190 Kilo
nino SAFE 1200	1303 mm	700-1050 mm	1953-2303 mm	1978-2328 mm	1200 mm	220 kilo
nino SAFE 1500	1603 mm	700-1050 mm	1953-2303 mm	1978-2328 mm	1500 mm	250 kilo
nino SAFE 1800	1907 mm	700-1050 mm	1953-2303 mm	1978-2328 mm	1804 mm	280 kilo

Notes	
POS.	Description
1	Power Supply Point

ninoSAFE Class II *Value*

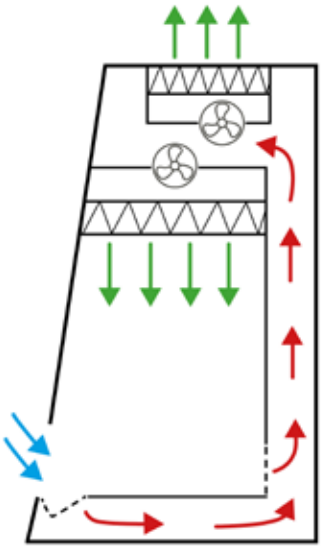
Superior Good Value

The ninoSAFE *Value* is probably the most affordable safety cabinet on the market – more value for money is difficult to find! Fulfilling most laboratories' requirements and comes standard equipped with easy-to-operate controller, stainless steel interior, two electrical outlets and easy-to-clean segmented table tops. Fully compliant with EN 12469 and with the same high level of quality and ergonomics as the rest of the ninoSAFE products but with a limited selection of options.



Product protection
Operator protection
Environmental protection

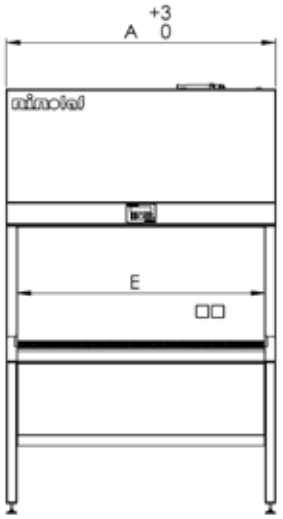
Contaminated air Filtered air Ambient air

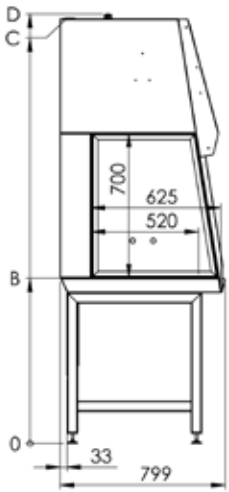


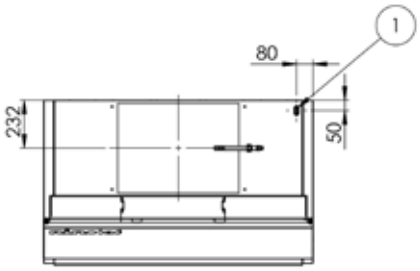
Technical Specifications

TECHNICAL SPECIFICATIONS ninoSAFE Value Class II						
Size		600	900	1200	1500	1800
Dimensions						
External dimensions excl support, WxDxH	mm	600x778x1375	1003x799x1329	1303x799x1329	1603x799x1329	1907x799x1329
External dimensions incl support, table top at 800 mm, WxDxH	mm	600x778x2078	1003x799x2053	1303x799x2053	1603x799x2053	1907x799x2053
Internal dimensions, WxDxH	mm	540(597)x530(640)x700	900x520(625)x700	1200x520(625)x700	1500x520(625)x700	1800x520(625)x700
Front window opening	mm	200 (adjustable 160 - 330)				
Work height, basic support stand	mm	800 or 900 (±25)				
Work height, adjustable support stand	mm	700-1050				
Work height, electrically elevated support stand	mm	750-1050				
Minimum door way	mm	730	800	800	800	800
Weight						
Equipment	kg	145	190	220	250	280
Air velocity						
Vertical flow	m/s	0,28 (adjustable 0,25 - 0,53)				
Inflow	m/s	0.45 (adjustable 0.45 - 0.55)				
Deviation	±%	< 8				
Noise						
Noise level, measured according to EN12469	dB(A)	48	48	48	49	49
Ventilation						
Down flow rate	m3/h	340	510	680	840	1010
Exhaust flow rate	m3/h	180	290	390	480	580
Filter technology						
Main/Exhaust	type	HEPA H14 EN1822, 99,999% at 0,3 µm particle size				
Light						
LED	Lux	0-2000, dimmable				
Electrical data						
Voltage frequency	V/Hz	220-240/50-60 or 110-120/50-60				
Power consumption, from	W	60	90	100	130	140

Our models are tested according to national and international standards including: EN 12469, NSF/ANSI 49, EN 61010-1







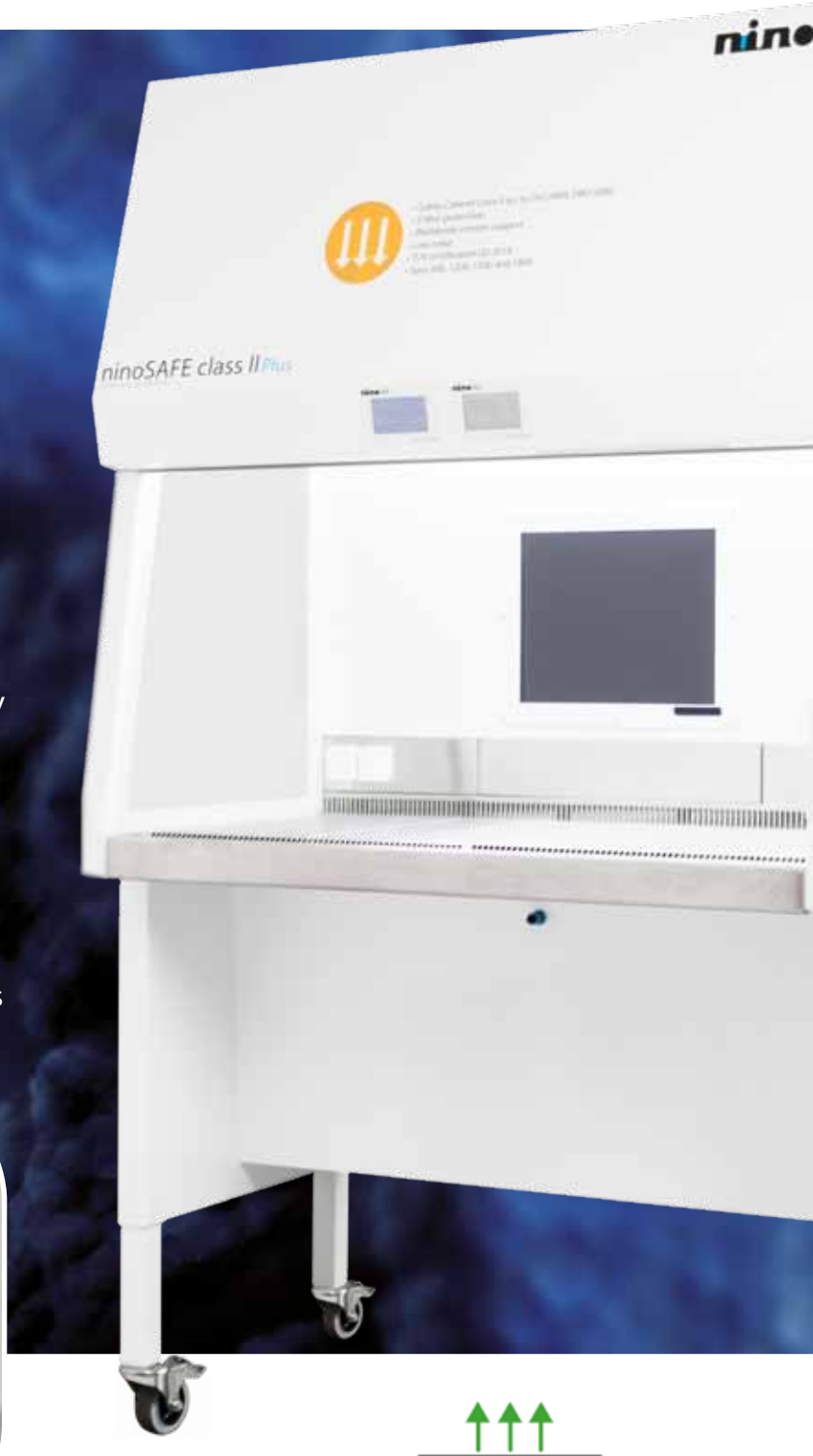
ninoSAFE Value Class II specifications						
Cabinet	**A** - Length	**B** - Work height	**C** - Top cabinet	**D** - Highest point	**E** - Work opening	**W** - Weight
nino SAFE 900	1003 mm	800 mm ±25	2058 mm ±25	2077 mm ±25	900 mm	175 kilo
nino SAFE 1200	1303 mm	800 mm ±25	2058 mm ±25	2077 mm ±25	1200 mm	205 kilo
nino SAFE 1500	1603 mm	800 mm ±25	2058 mm ±25	2077 mm ±25	1500 mm	235 kilo
nino SAFE 1800	1907 mm	800 mm ±25	2058 mm ±25	2077 mm ±25	1804 mm	265 kilo

Notes	
POS.	Description
1	Power Supply Point

ninoSAFE Cyto

No limit – Superior Low Noise

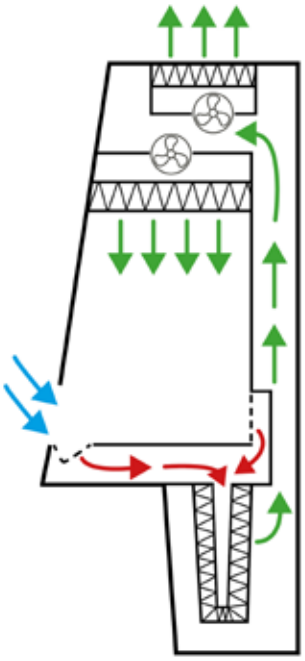
ninoSAFE Cyto – A very sophisticated 3-filter cabinet.
Equipped with circular, easy to change H14-prefilters with exceptionally low pressure drop. This means low service costs, very low noise level as well as very low energy consumption and accordingly very low CO_2 footprint. The circular design makes the H14-prefilters very compact which enable an excellent sitting position with good leg space. ninoSAFE Cyto is manufactured and tested according to EN12469 as well as DIN12980. ninoSAFE Cyto offers the same standard features and customization opportunities as ninoSAFE Class II range.



Circular H14 prefilters

Product protection
Operator protection
Environmental protection

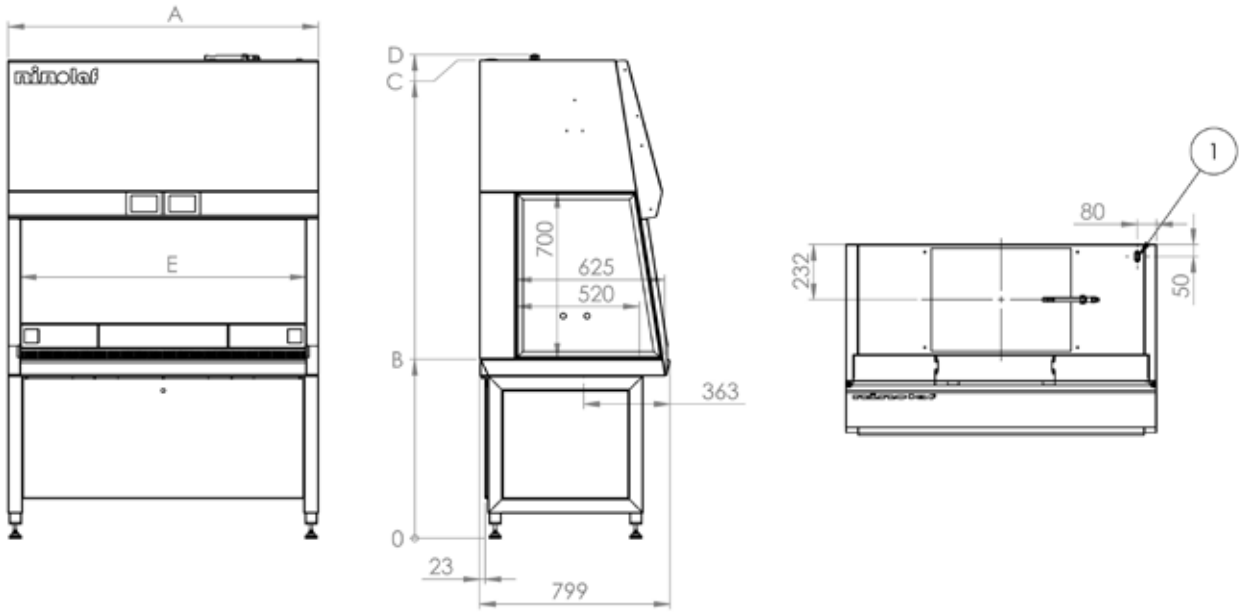
All air double HEPA-filtered



Contaminated air Filtered air Ambient air

Technical Specifications

TECHNICAL SPECIFICATIONS ninoSAFE Cyto					
Size		900	1200	1500	1800
Dimensions					
External dimensions excl support, WxDxH	mm	1003x799x1843	1303x799x1843	1603x799x1843	1907x799x1843
External dimensions incl support, table top at 800 mm, WxDxH	mm	1003x799x2053	1303x799x2053	1603x799x2053	1907x799x2053
Internal dimensions, WxDxH	mm	900x520(625)x700	1200x520(625)x700	1500x520(625)x700	1800x520(625)x700
Front window opening	mm	200 (adjustable 160 - 330)			
Work height, adjustable support stand	mm	700-1050			
Work height, electrically elevated support stand	mm	750-1050			
Minimum door way	mm	800			
Weight					
Equipment	kg	210	240	270	300
Air velocity					
Vertical flow	m/s	0,28 (adjustable 0,25 - 0,53)			
Inflow	m/s	0.45 (adjustable 0.45 - 0.55)			
Deviation	±%	<8			
Noise					
Noise level, measured according to EN12469	dB(A)	48	48	49	49
Ventilation					
Down flow rate	m3/h	510	680	840	1010
Exhaust flow rate	m3/h	290	390	480	580
Filter technology					
Main/Exhaust/Prefilter	type	HEPA H14 EN1822, 99,999% at 0,3 µm particle size			
Light					
LED	Lux	0-2000, dimmable			
Electrical data					
Voltage frequency	V/Hz	220-240/50-60 or 110-120/50-60			
Power consumption, from	W	90	100	130	140



ninoSAFE Cyto specifications						
Cabinet	**A** - Length	**B** - Work height	**C** - Top cabinet	**D** - Highest point	**E** - Work opening	**W** - Weight
nino SAFE PLUS 900	1003 mm	700-1050 mm	1953-2303 mm	1978-2328 mm	900 mm	210 Kilo
nino SAFE PLUS 1200	1303 mm	700-1050 mm	1953-2303 mm	1978-2328 mm	1200 mm	240 Kilo
nino SAFE PLUS 1500	1603 mm	700-1050 mm	1953-2303 mm	1978-2328 mm	1500 mm	270 Kilo
nino SAFE PLUS 1800	1907 mm	700-1050 mm	1953-2303 mm	1978-2328 mm	1804 mm	300 Kilo

Notes	
POS.	Description
1	Power Supply Point

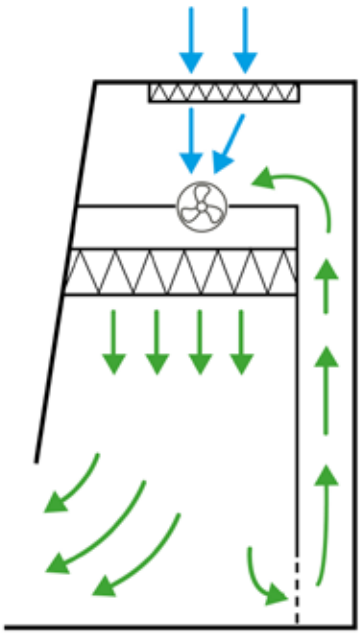
ninoSAFE Sterile

Superior Product Protection

ninoSAFE Sterile is an Open Laminar Flow cabinet providing a controlled environment inside the cabinet protecting the products that are handled from contamination.
ninoSAFE Sterile recirculates parts of the air which gives the HEPA-filter up to 30% longer life.
Easy-to-clean one piece stainless steel table top.
ninoSAFE Sterile offers a wide range of options as well as customization opportunities.

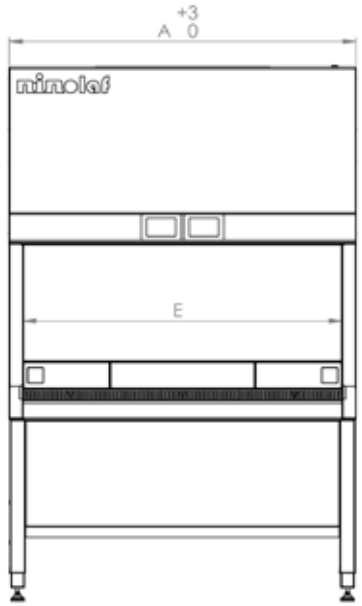
Product protection

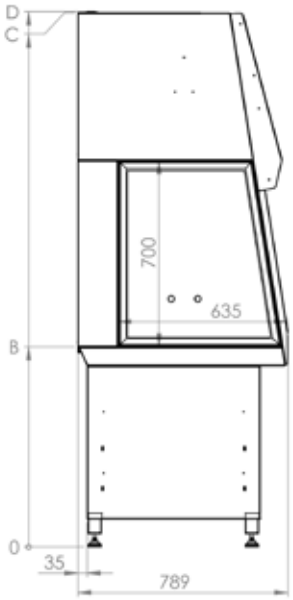
Filtered air Ambient air

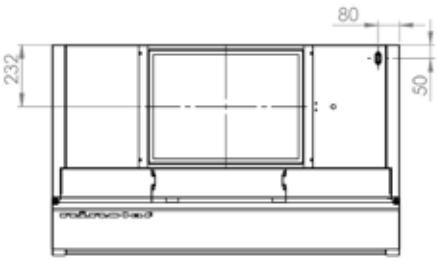


Technical Specifications

TECHNICAL SPECIFICATIONS ninoSAFE Sterile					
Size		900	1200	1500	1800
Dimensions					
External dimensions excl support, WxDxH	mm	1003x799x1329	1303x799x1329	1603x799x1329	1907x799x1329
External dimensions incl support, table top at 800 mm, WxDxH	mm	1003x799x2053	1303x799x2053	1603x799x2053	1907x799x2053
Internal dimensions, WxDxH	mm	900x520(625)x700	1200x520(625)x700	1500x520(625)x700	1800x520(625)x700
Front window opening	mm	300 (adjustable 200-500)			
Work height, basic support stand	mm	800 or 900 (±25)			
Work height, adjustable support stand	mm	700-1050			
Work height, electrically elevated support stand	mm	750-1050			
Minimum door way	mm	800			
Weight					
Equipment	kg	180	220	240	270
Air velocity					
Vertical flow	m/s	0,28 (adjustable 0,25 - 0,53)			
Deviation	±%	< 8			
Noise					
Noise level, measured according to EN12469	dB(A)	46	46	47	47
Ventilation					
Down flow rate	m3/h	510	680	840	1010
Filter technology					
Main	type	HEPA H14 EN1822, 99,999% at 0,3 µm particle size			
Prefilter	type	G4			
Light					
LED	Lux	0-2000, dimmable			
Electrical data					
Voltage frequency	V/Hz	220-240/50-60 or 110-120/50-60			
Power consumption, from	W	90	100	130	140







ninoSAFE Sterile specifications						
Cabinet	**A** - Length	**B** - Work height	**C** - Top Cabinet	**D** - Highest point	**E**- Work opening	**W** - Weight
nino SAFE 900 Sterile	1003 mm	700-1050 mm	1953-2303 mm	1958-2308 mm	900 mm	180 kilo
nino SAFE 1200 Sterile	1303 mm	700-1050 mm	1953-2303 mm	1958-2308 mm	1200 mm	220 kilo
nino SAFE 1500 Sterile	1603 mm	700-1050 mm	1953-2303 mm	1958-2308 mm	1500 mm	240 kilo
nino SAFE 1800 Sterile	1907 mm	700-1050 mm	1953-2303 mm	1958-2308 mm	1804 mm	270 kilo

Notes	
POS.	Description
1	Power Supply Point

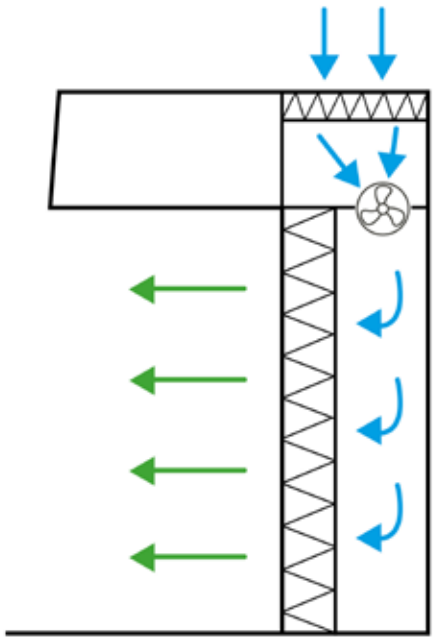
ninoSAFE Horizontal –

Superior Accessible Work Area

ninoSAFE Horizontal is an Open Laminar Flow cabinet providing a controlled environment inside the cabinet protecting the products handled from being contaminated.
It has a generous work height of 995 mm and easy-to-clean one piece stainless steel or high pressure laminate table top.

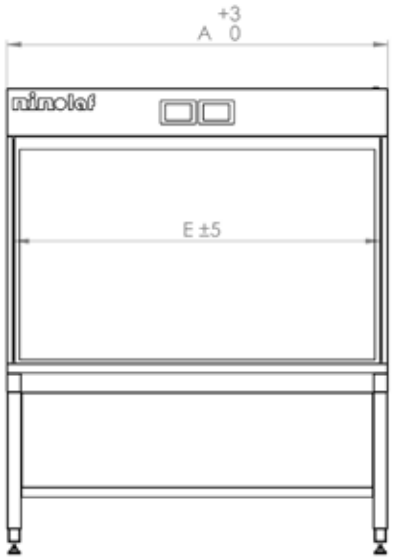
Product protection

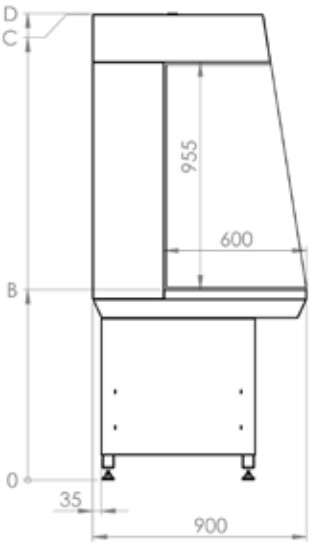
Filtered air Ambient air

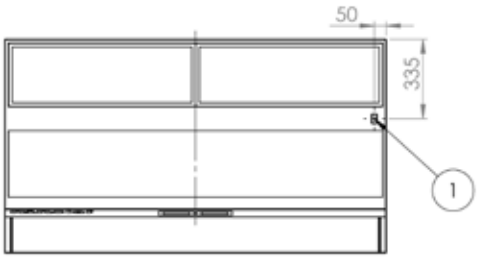


Technical Specifications

TECHNICAL SPECIFICATIONS ninoSAFE Horizontal				
Size		1200	1500	1800
Dimensions				
External dimensions excl support, WxDxH	mm	1303x900x1250	1603x900x1250	1907x900x1250
External dimensions incl support, table top at 800 mm, WxDxH	mm	1303x799x1955	1603x799x1955	1907x799x1955
Internal dimensions, WxDxH	mm	1200x600x995	1500x600x995	1800x600x995
Front opening	mm	995		
Work height, basic support stand	mm	800 or 900 (±25)		
Work height, adjustable support stand	mm	700-1050		
Work height, electrically elevated support stand	mm	750-1050		
Minimum door way	mm	910		
Weight				
Equipment	kg	225	255	285
Air velocity				
Horizontal flow	m/s	0,35 (adjustable 0,25 - 0,53)		
Deviation	±%	< 8		
Noise				
Noise level, measured according to EN12469	dB(A)	< 56	< 58	< 59
Ventilation				
Down flow rate	m3/h	680	840	1010
Filter technology				
Main	type	HEPA H14 EN1822, 99,999% at 0,3 µm particle size		
Prefilter	type	G4		
Light				
LED	Lux	0-2000, dimmable		
Electrical data				
Voltage frequency	V/Hz	220-240/50-60 or 110-120/50-60		
Power consumption, from	W	110	140	150







ninoSAFE Horizontal specifications						
Cabinet	**A** - Lenght	**B** - Work height	**C** - Top cabinet	**D** - Highest point	**E** - Work opening	**W** - Weight
NHS 900	1003 mm	750 - 1100 mm	1905-2255 mm	1910-2260 mm	938 mm	195 kilo
NHS 1200	1303 mm	750 - 1100 mm	1905-2255 mm	1910-2260 mm	1238 mm	225 kilo
NHS 1500	1603 mm	750 - 1100 mm	1905-2255 mm	1910-2260 mm	1538 mm	255 kilo
NHS 1800	1907 mm	750 - 1100 mm	1905-2255 mm	1910-2260 mm	1842 mm	285 kilo

Notes	
POS.	Description
1	Power Supply Point

ninoSAFE B2

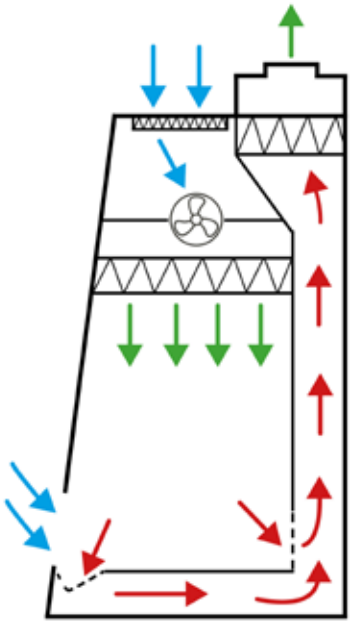
Superior Product and Operator Protection

ninoSAFE B2 is a microbiological safety cabinet Class II B2 as described in NSF/ANSI 49. It protects the product as well as the operator and has 100% exhaust which means no recirculating air. Needs to be ducted as it does not have any biult in exhaust fans.
Product and operator protection according to EN 12469.

Product protection
Operator protection
Environmental protection

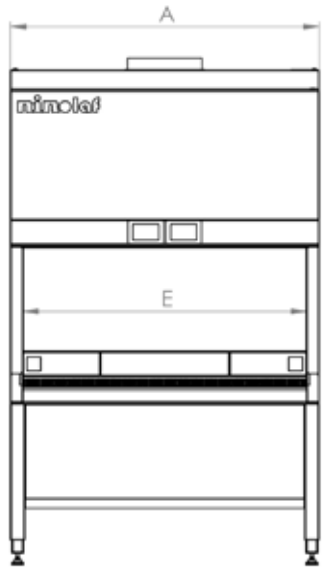
100% exhaust

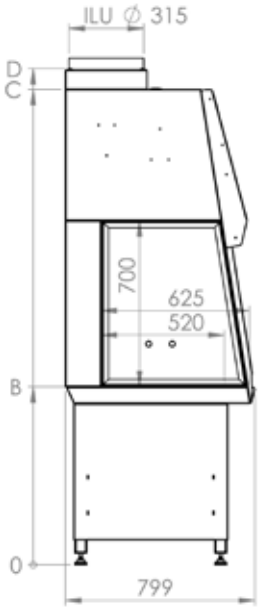
Contaminated air Filtered air Ambient air

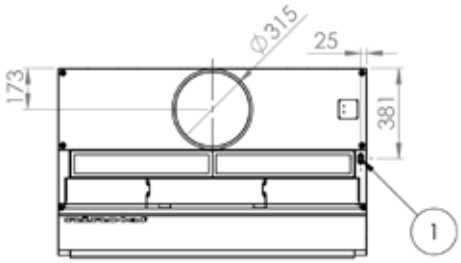


Technical Specifications

TECHNICAL SPECIFICATIONS ninoSAFE B2				
Size		1200	1500	1800
Dimensions				
External dimensions excl support, WxDxH	mm	1303x799x1405	1603x799x1405	1907x799x1405
External dimensions incl support, table top at 800 mm, WxDxH	mm	1303x799x2135	1603x799x2135	1907x799x2135
Internal dimensions, WxDxH	mm	1200x520(625)x700	1500x520(625)x700	1800x520(625)x700
Front window opening	mm	200 (adjustable 160 - 250)		
Work height, basic support stand	mm	800 or 900 (±25)		
Work height, adjustable support stand	mm	700-1050		
Work height, electrically elevated support stand	mm	750-1050		
Minimum door way	mm	800		
Weight				
Equipment	kg	235	265	295
Air velocity				
Vertical flow	m/s	0,28 (adjustable 0,25 - 0,53)		
Inflow	m/s	0.45 (adjustable 0.45 - 0.55)		
Deviation	±%	< 8		
Noise				
Noise level, measured according to EN12469	dB(A)	46	47	47
Ventilation				
Down flow rate	m3/h	680	840	1010
Exhaust flow rate (passive - needs ducting)	m3/h	1070	1320	1590
Filter technology				
Main/Exhaust	type	HEPA H14 EN1822, 99,999% at 0,3 µm particle size		
Prefilter	type	G4		
Light				
LED	Lux	0-2000, dimmable		
Electrical data				
Voltage frequency	V/Hz	220-240/50-60 or 110-120/50-60		
Power consumption, from	W	100	130	140







ninoSAFE B2 specifikations						
Cabinet	**A** - Length	**B** - Work height	**C** - Top cabinet	**D** - Highest point	**E** - Work opening	**W** - Weight
nino SAFE 1200B2	1303 mm	700 - 1050 mm	1953-2303 mm	2042-2392 mm	1200 mm	235 kilo
nino SAFE 1500B2	1603 mm	700 - 1050 mm	1953-2303 mm	2042-2392 mm	1500 mm	265 kilo
nino SAFE 1800B2	1907 mm	700 - 1050 mm	1953-2303 mm	2042-2392 mm	1804 mm	295 kilo

Notes	
POS.	Description
1	Power Supply Point

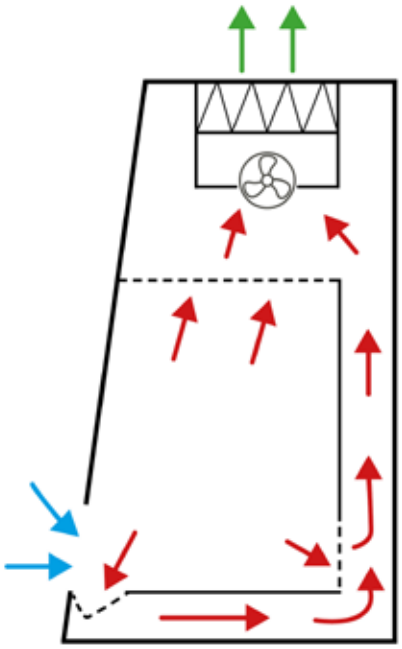
ninoSAFE Class I

Superior Operator Protection

ninoSAFE Class I is a microbiological safety cabinet class I according to EN12469. Protects the operator from what is handled inside the cabinet. It has an inflow of 0,7 m/s and has H14 exhaust filter which can be be combined with an optional additional activated carbon filter.

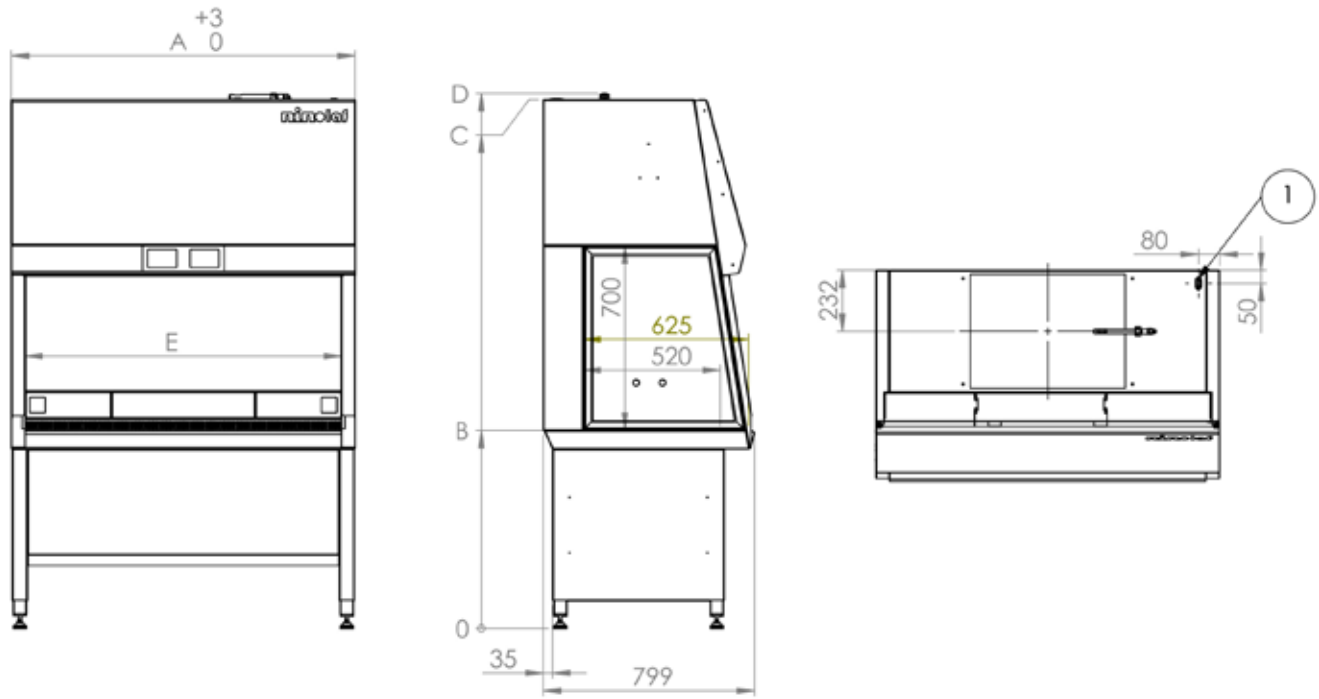
Operator protection
Environmental protection

Contaminated air Filtered air Ambient air



Technical Specifications

TECHNICAL SPECIFICATIONS ninoSAFE Class I					
Size		900	1200	1500	1800
Dimensions					
External dimensions excl support, WxDxH	mm	1003x799x1329	1303x799x1329	1603x799x1329	1907x799x1329
External dimensions incl support, table top at 800 mm, WxDxH	mm	1003x799x2053	1303x799x2053	1603x799x2053	1907x799x2053
Internal dimensions, WxDxH	mm	900x520(625)x700	1200x520(625)x700	1500x520(625)x700	1800x520(625)x700
Front window opening	mm	200 (adjustable 160 - 330)			
Work height, basic support stand	mm	800 or 900 (±25)			
Work height, adjustable support stand	mm	700-1050			
Work height, electrically elevated support stand	mm	750-1050			
Minimum door way	mm	800			
Weight					
Equipment	kg	190	220	250	280
Air velocity					
Inflow	m/s	0,7 (adjustable 0,7 - 1,0)			
Noise					
Noise level, measured according to EN12469	dB(A)	53	53	54	54
Ventilation					
Exhaust flow rate	m3/h	460	610	760	910
Filter technology					
Exhaust	type	HEPA H14 EN1822, 99,999% at 0,3 µm particle size			
Light					
LED	Lux	0-2000, dimmable			
Electrical data					
Voltage frequency	V/Hz	220-240/50-60 or 110-120/50-60			
Power consumption, from	W	90	100	130	140



ninoSAFE Class I specifications						
Cabinet	**A** - Length	**B** - Work height	**C** - Top cabinet	**D** - Highest point	**E** - Work opening	**W** - Weight
nino SAFE 900	1003 mm	700-1050 mm	1953-2303 mm	1978-2328 mm	900 mm	190 Kilo
nino SAFE 1200	1303 mm	700-1050 mm	1953-2303 mm	1978-2328 mm	1200 mm	220 kilo
nino SAFE 1500	1603 mm	700-1050 mm	1953-2303 mm	1978-2328 mm	1500 mm	250 kilo
nino SAFE 1800	1907 mm	700-1050 mm	1953-2303 mm	1978-2328 mm	1804 mm	280 kilo

Notes	
POS.	Description
1	Power Supply Point

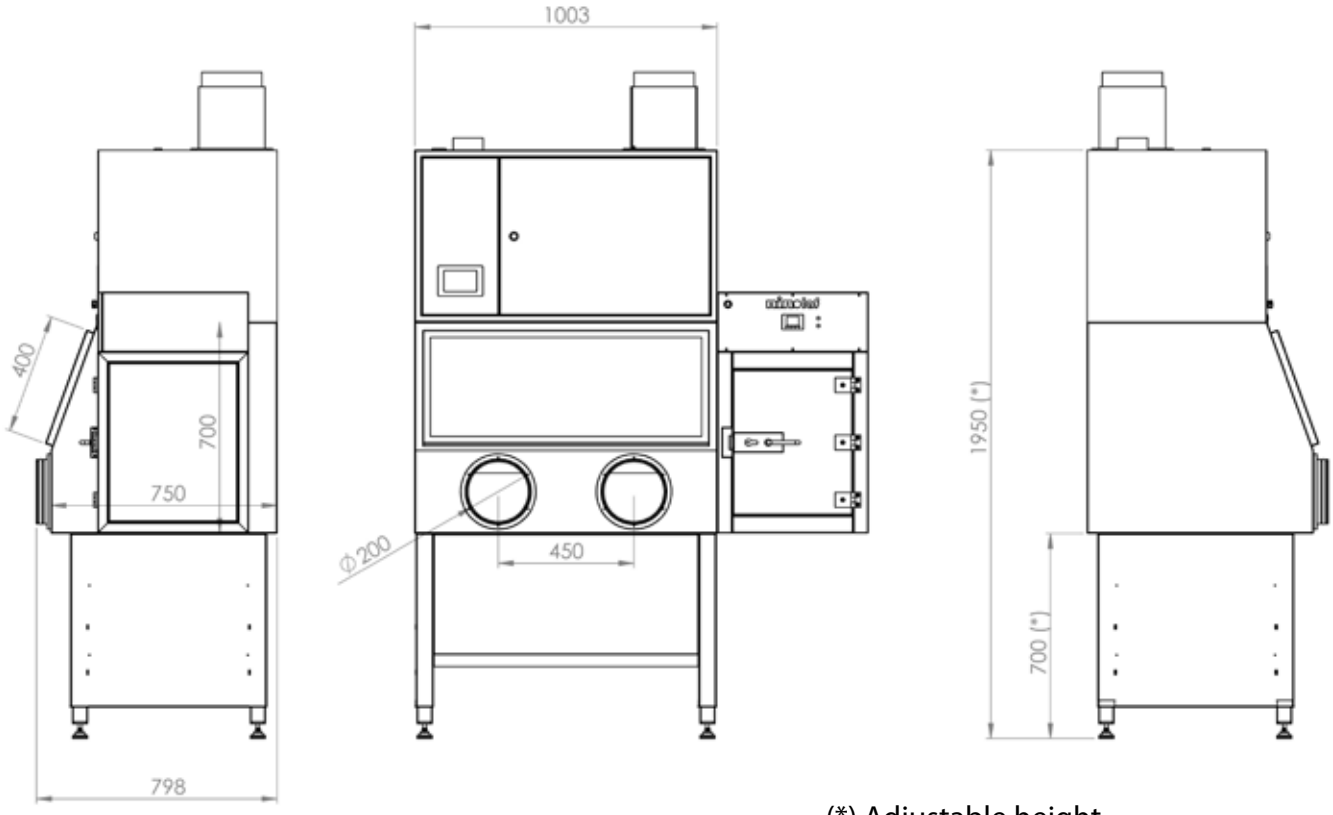
ninoSAFE Class III

Superior Operator Protection – Glove box

A proper MSC Class III cabinet designed and manufactured according to EN 12469. Stainless steel chamber with large glove holes for best ergonomics. HEPA H14-filters on both supply and exhaust air with double exhaust HEPA as an option. Can be equipped with gas tight valves for both supply and exhaust. Easy access to all technical parts from the front.
Optional transfer hatch on one or two sides makes it possible to transfer samples or products in a secure way. Can also be linked to a MSC Class II cabinet.

Technical Specifications

TECHNICAL SPECIFICATIONS ninoSAFE Class III		
Size		1000
Dimensions		
External dimensions excl support, WxDxH	mm	1003x798x1290
External dimensions incl support, table top at 800 mm, WxDxH	mm	1003x799x2050
Internal dimensions, WxDxH	mm	1000x750x700
Front window door	mm	950x400
Work height, basic support stand	mm	800 or 900 (±25)
Work height, adjustable support stand	mm	700-1050
Work height, electrically elevated support stand	mm	750-1050
Minimum door way	mm	800
Weight		
Equipment	kg	210
Air velocity		
Inflow (without gloves)	m/s	> 0,7
Noise		
Noise level, measured according to EN12469	dB(A)	<49
Ventilation		
Exhaust flow rate	m3/h	460
Filter technology		
Supply/Exhaust	type	HEPA H14 EN1822, 99,999% at 0,3 µm particle size
Light		
LED	Lux	0-2000, dimmable
Electrical data		
Voltage frequency	V/Hz	220-240/50-60 or 110-120/50-60
Power consumption, from	W	90



(*) Adjustable height

ninoSAFE XL

Superior Inner Dimensions

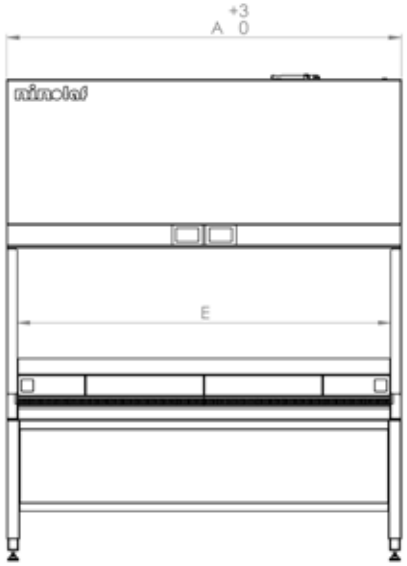
EN 12469 and optionally DIN 12980

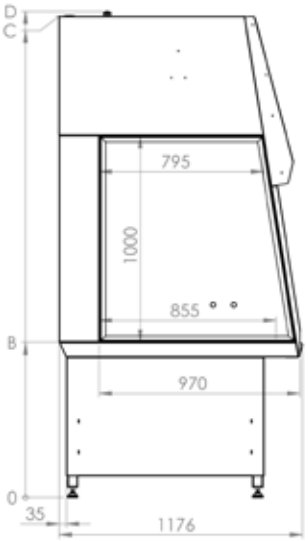
ninoSAFE XL Safety Cabinet has extraordinary inner dimensions for use where a normal MSC not has sufficient inside space. Interior height is 1000 mm and interior depth is 900 mm. The complete front can be opened to easily fit in large devices, e.g. a pipetting robot. ninoSAFE XL is manufactured accordning to EN 12469 and can optionally be delivered as a three-filter cabinet with H14 prefilters according to DIN12980.
ninoSAFE XL has large internal dimensions and therefore of course also large external dimensions. However, due to the smart design it is possible to finally assemble the unit on site in case of narrow doorways.
ninoSAFE XL can also be delivered as ninoSAFE Class II B2 XL cabinet with 100% exhaust or as ninoSAFE Sterile XL for product protection.

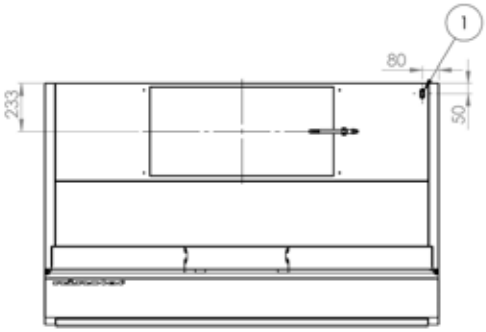
Optional H14 pre filters according to DIN12980

Technical Specifications

TECHNICAL SPECIFICATIONS ninoSAFE XL				
Size		1200	1500	1800
Dimensions				
External dimensions excl support, WxDxH	mm	1303x1176x1652	1603x1176x1652	1907x1176x1652
External dimensions incl support, table top at 800 mm, WxDxH	mm	1303x1176x2380	1603x1176x2380	1907x1176x2380
Internal dimensions, WxDxH	mm	1200x855(970)x1000	1500x855(970)x1000	1800x855(970)x1000
Front window opening	mm	200 (adjustable 160 - 330)		
Work height, adjustable support stand	mm	700-1050		
Work height, electrically elevated support stand	mm	750-1050		
Minimum door way	mm	1180, but can be finally assembled on site		
Weight				
Equipment	kg	310	350	390
Air velocity				
Vertical flow	m/s	0,28 (adjustable 0,25 - 0,53)		
Inflow	m/s	0.45 (adjustable 0.45 - 0.55)		
Deviation	±%	< 8		
Noise				
Noise level, measured according to EN12469	dB(A)	56	57	57
Ventilation				
Down flow rate	m3/h	960	1200	1440
Exhaust flow rate	m3/h	390	480	580
Filter technology				
Main/Exhaust	type	HEPA H14 EN1822, 99,999% at 0,3 µm particle size		
Light				
LED	Lux	0-2000, dimmable		
Electrical data				
Voltage frequency	V/Hz	220-240/50-60 or 110-120/50-60		
Power consumption, from	W	140	180	190







ninoSAFE XL specifications						
Cabinet	**A** - Length	**B** - Work height	**C** - Top cabinet	**D** - Highest point	**E** - Work opening	**W** - Weight
nino SAFE 1200 XL	1303 mm	700-1050 mm	2280-2630 mm	2300-2650 mm	1200 mm	310 kilo
nino SAFE 1500 XL	1603 mm	700-1050 mm	2280-2630 mm	2300-2650 mm	1500 mm	350 kilo
nino SAFE 1800 XL	1907 mm	700-1050 mm	2280-2630 mm	2300-2650 mm	1804 mm	390 kilo

Notes	
POS.	Description
1	Power Supply Point

Radiation shielded Microbiological Safety Cabinet Class II for isotope handling, ninoSAFE Isotope EN 12469

ninoSAFE Isotope Safety Cabinet Class II comes with a lead shielding 1-50 mm Pb depending on the customer's requirements. Bottom, sides and back covered with 1-50 mm lead plate encapsulated in stainless steel. Slidable front on ball bearings with 1-50 mm Pb-equavilent lead glass. For more than 30 mm Pb-equivalent the front can be split in two for best possible ergonomics.
Optional integrated single or double waste chamber with lead shielding 1-50 mm Pb. Dose calibrator can be integrated in the table top with extra lead shielding 1-50 mm together with 19" computer monitor in the back wall.
Generator storage with 50 mm Pb all around, for two Tc-99 generators with integrated elevator available as an option. Can be fitted in left or right side of the table top. Fitting all the most common generators in the market.
ninoSAFE Isotope is available in 1200, 1500 and 1800 sizes and is configurated according to each customer's specific needs.

State of the art generator storage for two Tc-99 generators. Fits all common generator brands. Generators can easily be exchanged without lifting high. Capacity for two generators.

Slidable radiation shield with 1-50 mm Pb equivalent lead glass

Radiation shielded Microbiological Safety Cabinet combined for both PET and Tc-99 with 50 mm Pb around the cabinet and 30+20 mm Pb equavilent slidable lead glass in front. Integrated generator storage, waste and dose calibrator – all with 50 mm Pb.

Radiation shielded slidable fronts for best possible ergonomics. Split in 30 plus 20 mm Pb-equavilent lead glass which can be used separately or together for 50 mm Pb-equavilent.

50 mm Pb-shielded waste compartment with door for easy emptying to the left and 50 mm lead shielding for dose calibrator to the right.

Questions? For more information contact us at **info@ninosafe.com**

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