



## Technical description

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### Anilis

Class II safety cabinet and changing station



GENERAL DESCRIPTION:

The Anilis range of biosafety cabinets and changing Stations is especially designed to strongly protect the zootechnicians and the manipulated rodents during the whole process of bedding replacement.

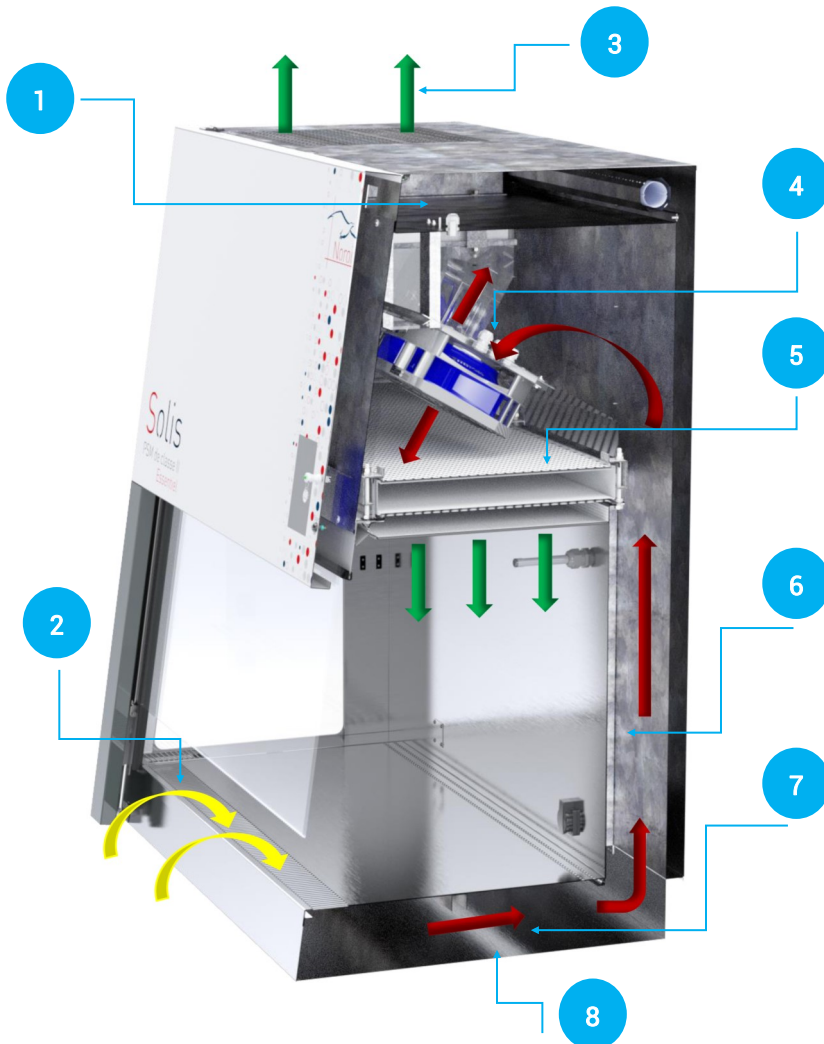
The user is fully protected against biological risks whenever contaminated rodents are manipulated.

Moreover, a strong protection is also delivered against dusty allergens and mice hair, generated by the process of soiled litter disposal and replacement. The manipulated rodents are also fully protected because the mice transfer occurs in a safe and clean ISO5 environment.



WORKING PRINCIPLE :

The ISO-5 laminar filtered airflow inside the chamber protects the manipulated animals against external particles that could contaminate them. The front air barrier protects the user against the inherent biological risks of manipulating contaminated pathogenic animals. The exhaust filters protect the environment against spreading of pathogenic particles.



1	Extraction filter HEPA H14
2	Powerful front air barrier: user protection
3	Pure air extraction > 30 %
4	Downflow fan
5	Filter chamber HEPA H14
6	Laminar filtered airflow
7	Recapture of contaminated air from handling, by filtration
8	Prefilters under the work surface

#### PROTECTION OF THE MANIPULATION:

A HEPA (High Efficiency Particle) downflow filter protects the rodents. Efficiency of the filter: 99.995% of particles are filtered (MPPS) according to EN 1822-1.

The air flow inside the chamber is efficiently filtered (ISO5 – class 100 air cleanliness in the chamber).

Moreover, this laminar airflow protects the rodents against cross contamination.

#### PROTECTION OF THE USER:

A HEPA (High Efficiency Particle) exhaust filter and an additional prefilter protects the environment and the users. Pure and safe air is exhausted from the unit. Efficiency of the exhaust filter: 99.995% of particles are filtered (MPPS) according to EN 1822-1.

#### PROTECTION OF THE USER AND THE MANIPULATION, FRONT AIR BARRIER:

The Anilis Safety Cabinet is especially designed to create a powerful and stable front air barrier.

The front air barrier will capture pathogenic particles, dust and mice hair from the manipulation and trap them inside the exhaust prefilters and filter, to efficiently protect the user and its environment.

It will also capture particles from the laboratory, to protect the manipulated animals, thus creating an efficient containment. The velocity of the front air barrier airflow is: 0,40 meter/sec minimum.

**CARACTERISTIQUES TECHNIQUES :**

Models		Anilis 900	Anilis 1200	Anilis 1500	Anilis 1800
<b>Dimensions - equipment</b>					
External - Closed light wing	Width (mm)	1025	1330	1635	1940
	Depth (mm)	820			
	Height (mm)	1421			
External - Open light wing	Width (mm)	1215	1520	1825	2130
	Depth (mm)	780			
	Height (mm)	1421			
	<b>Open light wing, our biosafety cabinet are designed to pass through doors of 80 cm !</b>				
Internal	Width (mm)	980	1 285	1590	1895
	Depth (mm)	570			
	Height (mm)	650			
<b>Dimensions - stand without wheels</b>					
Fixed base	Height (mm)	640			
Adjustable base (low / high position)	Height (mm)	650 / 942			
<b>Dimensions - stand with wheels</b>					
Fixed base	Height (mm)	735			
Adjustable base (low / high position)	Height (mm)	740 / 1037			
Electric base (low / high position)	Height (mm)	584 / 884			
<b>Dimensions - window</b>					
Front opening: class II safety cabinet	Height (mm)	200			
Wider front opening: cage changing	Height (mm)	300			
<b>Weight</b>					
Weight	Kg	190	215	250	280
<b>Airflow</b>					
Downflow	m <sup>3</sup> /h	770	1 000	1 240	1 480
Exhaust airflow	m <sup>3</sup> /h	> 240	> 320	> 410	> 500
Front air barrier average velocity	m/s	0,35 (± 10%)			
<b>Protection</b>					
Product	Class	ISO 5			
User		Fulfil the EN12469-2000 European standard			
<b>Filtration</b>					
Specification		HEPA H14–99,995% MPPS			
<b>Electrical data</b>					
Voltage	Volt	230V±10%			
Frequency	Hz	50			
Power consumption	W	550	600	750	800
<b>Ergonomics</b>					
Brightness	Lux	> 1 000 (adjustable)			
Electrical outlet	Quantity	2			

### STRUCTURE :

- Body made of steel, with polyester-powder coating, giving a smooth surface quality, easy to clean and to decontaminate,
- Internal chamber made of 304L brushed stainless steel,
- 10° angled and sliding front window, made of laminated glass, in accordance with the EN 12469 standard,
- Work tray made of 304L brushed stainless steel.

### ERGONOMICS:

The Anilis Safety Cabinets has been designed to offer pure comfort and absolute safety.

#### Description

The front window is 10° angled and does not feature any frame, thus giving a large and clear view of the manipulation. The transparent side windows create a bright and opened environment. The leds strip generates a bright and smooth white light, without any bothersome reflections.

The front window can be positioned for 2 different working positions:

- A 22 cm front opening, giving a strong biological protection (similar to class II Safety Cabinet).
- A 30 cm wider front opening, dedicated to cage changing, giving more comfort whilst still ensuring biological protection.

Moreover, as the work tray is bowl-shaped, the mouse can be easily caught in the cage, in a very comfortable arms position.

The unit can be easily set into one of these working mode by pressing briefly on the pedals. The window can then be closed and opened, even hands full!

The Anilis is equipped with prefilter cartridges, installed below the work tray. These prefilters will trap much of the dust and mice hair and will prevent the HEPA filter against a fast clogging.

These prefilter cartridges can be easily replaced by the user. No tools are needed.

### CLEANING - DECONTAMINATING:

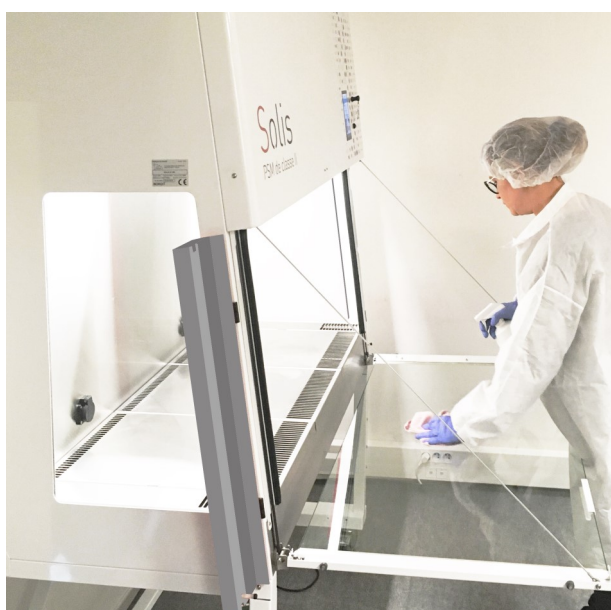
Manipulating rodents will lead to a fast dirt covering of the internal face of the front window.

A not efficient cleaning of a Safety Cabinet can lead to microbial or bacterial growth, that can contaminate the manipulation or badly affect the analysis.

Until now, the cleaning of Safety Cabinets front window was difficult and not ergonomic.

Erlab-Noroit has designed a patented system for an easy and efficient cleaning. Just twist and clean!

#### Solis « Twist & Clean© »



Very comfortable position – Safe – Complete cleaning.

PATENTED



**LAURÉAT**

*Trophée  
de l'Innovation  
2017*



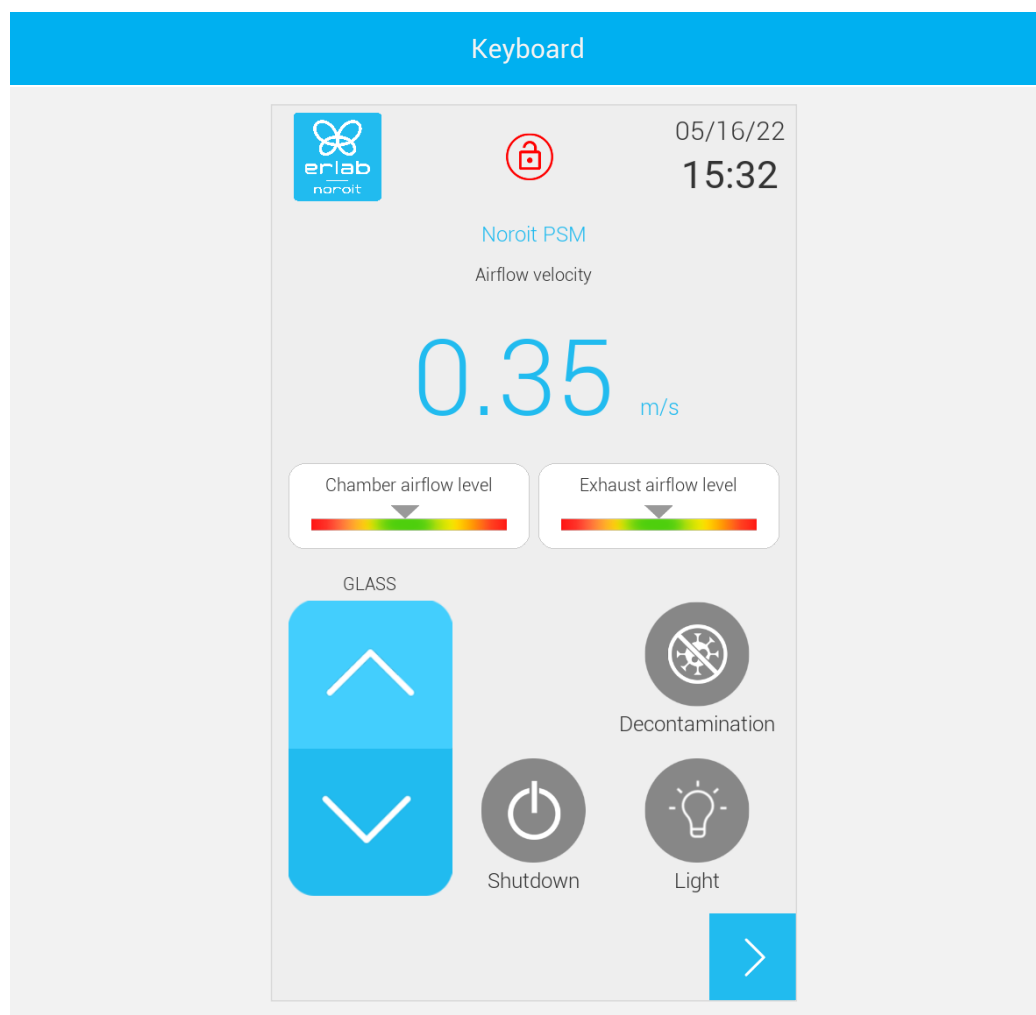
### USER INTERFACE - KEYBOARD:

To facilitate the user's daily tasks, the Anilis Safety Cabinet has been designed to offer a very user-friendly keyboard:

- The setting in stand-by mode of the apparatus is automatic when the front window is slid down in closed position.
- No adjustment of the apparatus is needed.

The down flow and exhaust flow are directly measured by anemometers to provide a very reliable and accurate value to the microprocessor. The airflows are continuously monitored, and the electronics auto-compensate the clogging of the filters. No adjustment needed.

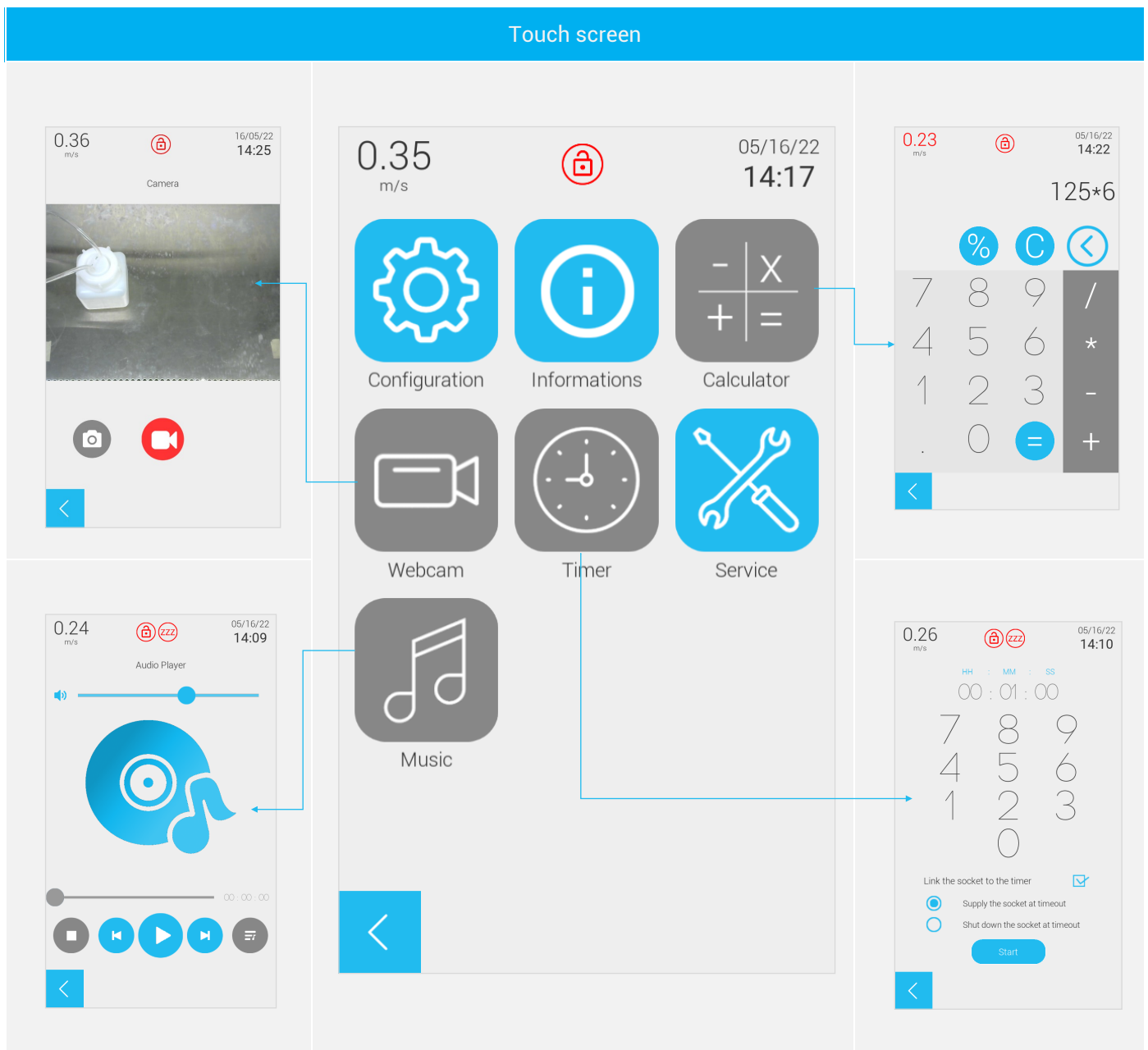
In case of incorrect airflow or incorrect position of the front window, visual and audible alarms are triggered.



KEYBOARD - AVAILABLE APPLICATIONS:

Most of the time, the workspace inside a Microbiological Safety Cabinet is congested by small devices. The Solis enables to discard these small apparatuses with a bunch of applications like:

- A calculator,
- A timer,
- A webcam (option), to film, record and send your manipulations to your PC,
- A MP3 player, to discretely listen to your playlist...





**OPTIONS :**

Options	Comments
<b>Stand with or without castors</b>	Stand made of steel with polyester powder coating. The stand's height is 74 cm, giving a work tray's height of 87 cm. Castors. The 2 front ones feature a brake.
<b>Adjustable stand with or without castors</b>	Stand made of steel with polyester powder coating. The height of the work tray can be configured, at the installation: 12 working positions are available, every 2.5cm. Castors. The 2 front ones feature a brake.
<b>Electrical stand with castors</b>	The working height position can be electrically adjusted, to reach a comfortable standing or sitting work position. The maximum stroke is 35 cm, 3 work positions may be programmed. The stand is equipped with castors. The 2 front ones feature a brake.
<b>Electrical outlets</b>	Additional electrical outlets can be installed in the cabinet (maximum 4 outlets).
<b>Cable port</b>	The port is designed in 2 separated parts, that squeeze the cable. Thus, any cable can be installed, even those featuring a large connector. Ø7mm x3, Ø12mm x1, Ø9mm x3.
<b>UV germicide tubes</b>	The unit is equipped with 2 UV germicide tubes. The UV cycle cannot be launched if the window is not completely closed. The UV radiation is also automatically switched off when the window is open. The duration of the UV cycle can be set from 5 to 30 minutes, Because the efficiency of the UV tubes is undetectable by a naked eye the application displays the overall UV working time.
<b>Gas and vacuum taps</b>	Vacuum or gas taps can be installed in the working volume.
<b>Front window operated by foot pedals</b>	The front window is electrically motor driven. The positions of the window are automatically reached by pressing briefly on the pedals. The window can then be closed and opened, even hands full!
<b>Webcam</b>	The manipulation can be filmed by a webcam. The recorded file can be transferred to a USB key, to be shared with your colleagues. The immediate and secure sharing of your scientific and technical information is now possible!
<b>Double door transfer port Ø 270mm</b>	The Anilis can be equipped with double door transfer port Ø 270mm, male or female. To be installed on the right or left of the biosafety cabinet. To be confirmed when ordering.

### FACTORY TESTING:

Noroit performs the following tests:

- Airflow mapping, using an electronic calibrated anemometer,
- Alarms triggering. The alarm thresholds are programmed and checked,
- The airflow cleanliness is checked, using an optical particle counter,
- The airflow barrier is checked, using a smoke generator,
- The lightness in the internal volume is measured, using a lux meter,
- Dielectric tests are performed.

### EASY MAINTENANCE:

For a maximum accuracy and reliability in the control of the airflow, the flow is not calculated following not efficient pressure measurement methods or fan speed interpretation, but directly. Noroit uses state of the art anemometers for a direct airflow measurement. The used sensors can be easily checked and replaced, no tools are even needed.

The unit is designed to enable a quick and simple « DOP » test (IE. Checking of the 99.999% efficiency of the filters). The « quick connect » socket is installed in the front panel of the cabinet. The test can then be performed without moving the unit.

The filters can be replaced by front.

The electronic board is installed in the side wing, giving a direct access for diagnostic.