

INCREASE YOUR LAB EFFICIENCY

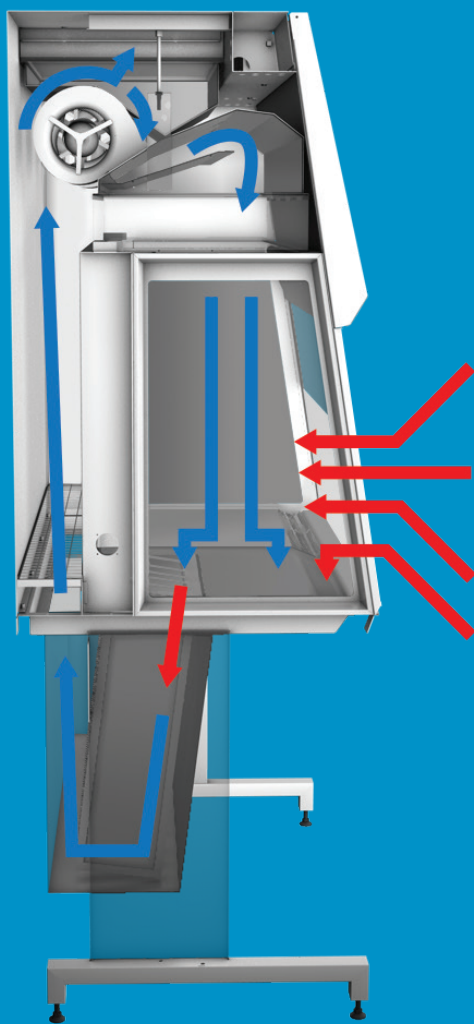
Mars Pro Class 2
Ultra-Safe Triple Filters
Microbiological Safety Cabinets

Scandinavian by Design



LABOGENE

Mars Pro, the ideal choice for your laboratory, wherever personal, environment, and/or product protection is required. Ultimate Safety and protection for tissue culture applications, virology, microbiology, and the handling of hazardous materials.



MARS PRO

The Mars Pro are a series of triple filter Class II Cabinets, which incorporate the latest in laminator technology, energy-saving designs and construction, with HEPA-filtration giving the ultimate in protection for you, your products and your laboratory.

Principle of Operation

The air flow enters the biological safety cabinet work chamber via the front aperture and continues under the worktop, and up the rear plenum where 70% is recirculated through the main HEPA filters, providing the down flow and 30 % exits out through the HEPA filter to exhaust.

The unique design of the Mars, incorporating laminator technology with digitally controlled down flow fans and a single exhaust fan, ensures true laminar and turbulent-free air flow distribution throughout the work chamber. This advancement results in lower noise levels, a vibration free work area coupled with a longer filter life and lower energy consumption.

The vertical laminar flow recirculation provides Operator Protection by means of inflow, Product Protection by means of down flow and Environmental Protection by means of the filtered exhaust.

The triple HEPA filter system ensures the elimination of any possible cross contamination as the air in the work chamber has to pass through two sets of main HEPA filters. This makes the Mars Pro the ideal choice of cabinet for working with hazardous materials such as cytostatic, virus manipulation and category 3 pathogens.

Available in four different working width sizes

- 900 mm, 1200 mm, 1500 mm or 1800 mm.

The Mars Pro cabinets are manufactured & tested in compliance with EN 12469.

All models are available with a wide range of high-quality customized options to suit your individual needs or requirements.

MARS PRO'S

FEATURES & BENEFITS

New features of
the Mars Pro cabinets!
**Lowest noise level & Lowest
energy consumption.**

Up to a 7 dB(A) noise reduction at factory
settings and up to a 50 % reduction
of the energy consumption. *

All service functions are performed
from the front of the cabinet

Compactly constructed with an
overall depth of less than 800 mm

Electrical operated front window
with fully open/ closed positions

Wide range of support stands

Latest energy-efficient EC fans

Eye level control panel

Angled front window that gives a
correct ergonomic working position
when either seated or standing

Sectional work tops for easy removal,
cleaning and decontamination

Optimal operator comfort

- New features of the range include: New innovative EC fans and optimized air flow, contributing up to an 7 dB(A) reduction in the noise level.

For the Mars Pro 1200 that means a <49 dB(A) noise level at factory settings and <38 dB(A) in Eco-save mode. **

- V-shaped, angled inflow grills, allowing a comfortable working position whilst preventing restriction of the airflow.
- Panoramic front & side windows for ultimate supervision and glare-free lighting which gives a comfortable stress-free working environment.
- Diffused laminator allows shadow-free, variable light distribution within the chamber.
- The integrated control panel with LCD display is conveniently positioned for ease of viewing and operation, ensuring optimal performance and safety characteristics at all times.

* Compared to previous Mars Pro models.

** According to EN 11201.

MARS PRO'S

FEATURES & BENEFITS

Ultra clean enviroment – Safety first

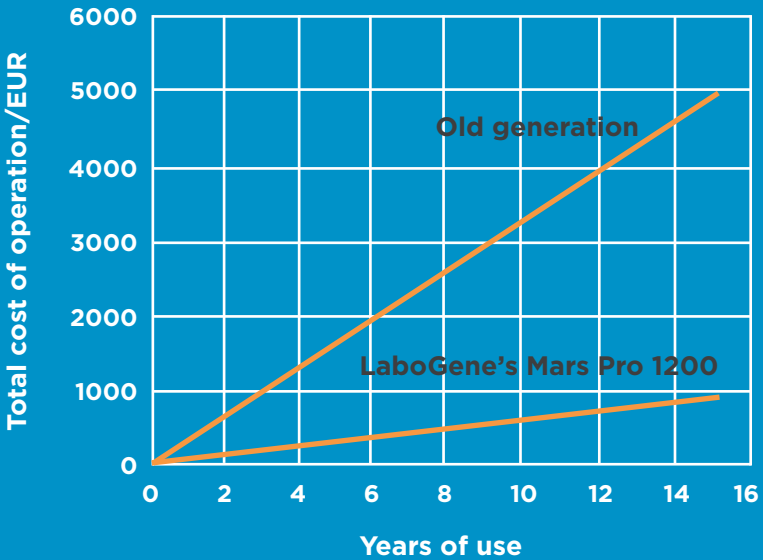
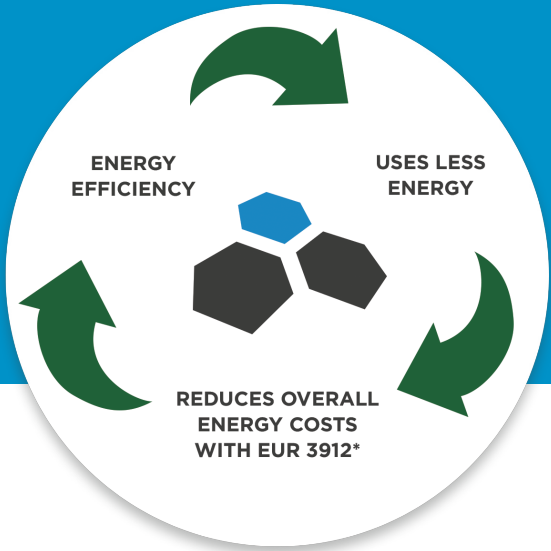
- The cabinet design with a 3-filter system allows a safe change and disposal of filters whilst the cabinet is operating, thus protecting the operator during this procedure, with no prior decontamination being required.
- Sectional 300 mm work tops allowing loads up to 50 kg. per 300 mm, easy removal & cleaning of all surfaces.
- 110 mm HEPA filters with efficiency at 99,9999999997 % against 0,3 µm particles, ensuring a clean sterile work chamber environment better than with ULPA filters.
- Angled pre-filter for easy inspection and filter exchange.
- Down flow & exhaust fans are constantly monitored via the down flow sensors to ensure that safe operating conditions are maintained.
- Alarms, both acoustic and visual for unsafe airflow conditions or any interruption.
- Air pathways and channels, filters and fans remain contamination-free. If the cabinet is shut-down all contaminates are retained and prevented from escaping.
- Easy to maintain as all service functions are performed from the front of the cabinet, including changing of the HEPA filters, pcb's and sensors, and adjustments/monitoring of alarms and fan speed.



Energy saving benefits

- New Features of the range: Now available with the new innovative EC fan motors and optimized air flow.

For a Mars Pro 1200 this equates to an energy consumption of 122* Watt at factory settings and 35 Watts in ECO mode. This incremental innovation makes the Mars Pro cabinet range some of the lowest energy consuming cabinets on the market!
- The innovation of using several low energy EC fans in the Mars Pro allows for a less restricted construction and a reduction of annual operating costs, whilst at the same time allowing for the use of the 110 mm HEPA filter, equating to a 50 % longer filter life.
- Low energy consumption results in less heat transmission to the work chamber and to the laboratory environment, thereby contributing significantly to a reduction of overall energy costs.



Annual energy savings when comparing Mars Pro 1200 to old equivalent cabinets in the industry

	Power consumption/W	Energy consumption/kWh**	Costs in EUR/year***	Costs/15 years****
Old generation	600	1.056	327	4.910
Mars Pro 1200	122	215	67	998
Reduction of overall energy costs			80 % saving EUR 3.912	

* When equipped with LED light

** When in use 8 hours per day, 220 days of year.

*** Based on the Danish average kWh price of EUR 0,31 / kWh. Source: <http://www.vivaenergi.dk>.

**** Comparison based on 15 years' life as it is the standard average lifetime for BSC.

LET US PUT NUMBERS ON IT!

According to the Danish National Institute of Occupational Health, noise effects efficiency by reducing concentration levels and increasing absenteeism. Extraneous noise in laboratories is much higher than in the average working environment.

To help counteract this, we at LaboGene work hard in developing low-noise, highly efficient biosafety cabinets, where we take full advantage of the latest innovative energy-efficient fans and optimized air flows.

Do you have an old biological safety cabinet, which maybe needs to be replaced?

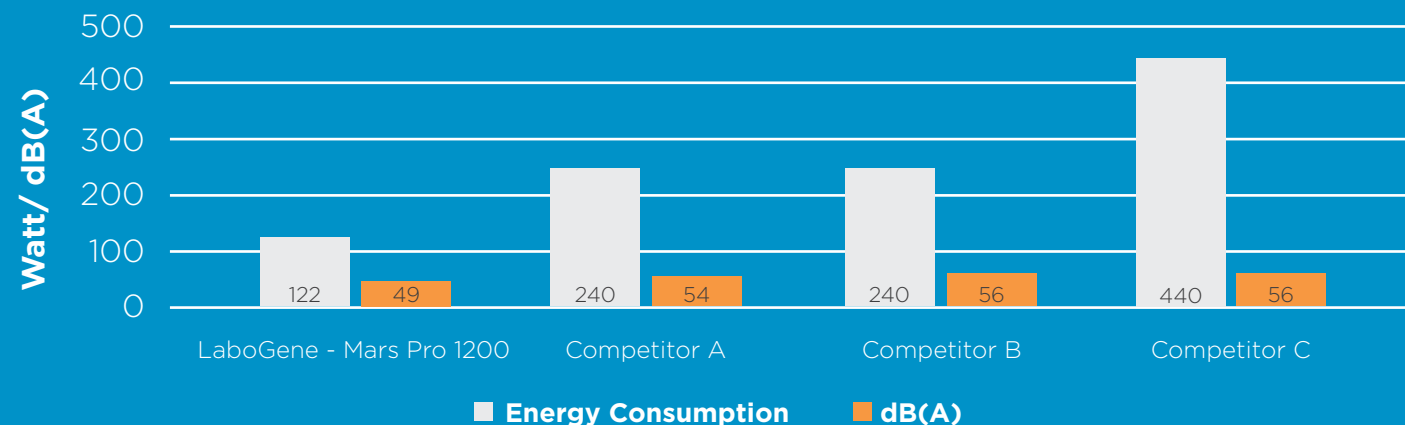
The new generation reduces the operating costs up to 80 % compared to equivalent old cabinets in the industry. (see the table on the previous page)

Do you need a new biological safety cabinet but is in doubt of which to choose?

Saving up to 72 % in operating costs when comparing LaboGene's new Mars Pro 1200 to the new biological safety cabinets from competitor A, B and C.

Power consumption & noise level at factory settings according to EN 12469 / EN 11201

Power consumption and noise levels for various equivalent cabinets compared to the LaboGene Class 2 Mars Pro Cabinet 1200 mm.



At LaboGene we focus on four benefits that are built-in as standard features of the Mars Pro family of Class 2 Safety Cabinets:

- Operator & Environment Safety.
- Ergonomic Design.
- Energy Efficiency.
- Noise Reduction.

By concentrating on all these aspects, we have created optimal solutions for customers that strive to create the best working environment for their employees, whilst increasing efficiency, improving safety and leaving a “greener- footprint”.



APPLICATIONS

The Mars Pro Class 2 cabinet's versatility of design, construction and range of options allows for wide adaptability of usage and are the ideal choice for many applications and procedures, whilst ensuring Ultimate product-, environment- and operator protection.

Examples include:

- Cytotoxic work i.e. production of/working with Cyto-Toxins for cancer, Herpes Labialis etc.
- Working with prions e.g. Creutzfeldt-Jakob disease (Mad Cow disease) etc.
- Hazardous powders & fibres e.g. asbestos, glass fibres etc.
- Stem Cell procedures where a dual down flow filter is required.

- For Category 3 laboratories where a Class III cabinet is not required.
- Weighting applications with an anti-vibration plate inserted into the tabletop (a balance weighing up to 6 decimals can be used.)

Other applications for the Mars Pro cabinet include many microbiology applications e.g. viruses, pathogens, research & sampling procedures, tissue cultures etc.

If you are in doubt with regards to the compatibility of the Mars Pro Class 2 cabinets for your specific application, then please contact the distributor in your specific country.

To find your local distributor visit www.labogene.com



Meeting your **SPECIFIC NEEDS**

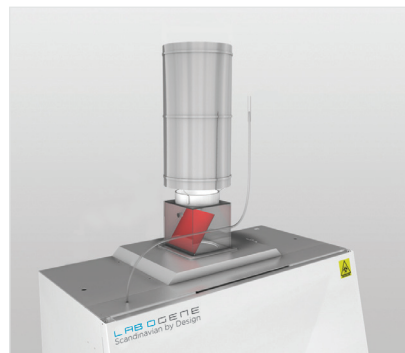
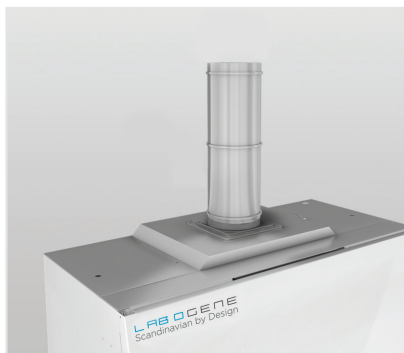
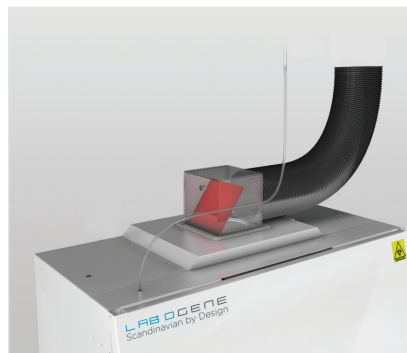
MARS PRO RANGE OF OPTIONS

We offer a range of options to tailor the Mars Pro cabinet to your specific requirements!

- The series of Mars Pro cabinets are only available as free standing units, complete with a 750 + 50 mm support stand, to accommodate the under bench filter module. A wide range of different support stands can be supplied, including an electrical operated elevation stand. With an overall height of just above 2 metres. The cabinet offers full operational performance in rooms with low ceilings, even when fitted with the electrical elevation support stand.

Connection of the Mars Pro cabinet to an external ducting system

- HEPA filters do not trap gases and toxic chemicals that may be used as an adjunct to microbiological studies. In these applications it is important to select an exhaust ducting route to lead the exhausted air safely out of the laboratory via an external ventilation system.
- It is possible to connect the cabinet to an external ducting system via an Anti-Blow back Valve. The extract connection is referred to as a "Hard Duct" or a "Thimble Duct" connection, where the latter is also extracting air from the laboratory environment.
- The compact construction of the Mars Pro Class 2 cabinet makes it possible for it to be used - ducted either way - with a working height of up to 1000 mm in a laboratory with a ceiling height of 2,5 meters.



Looking for something else?

Numerous other options are available, ranging from different valve types fitted sink with/without drain connection, the interior in AISI 316 instead of AISI 304, heat plate zone system, PIR sensor, Bunsen burner, LED light, mounting of microscope etc.



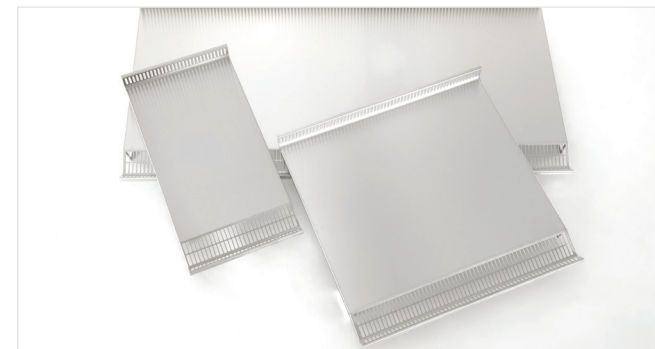
- Built-in LAF-LCD screen mounted on the rear wall or alternatively magnetically attached, for easy removal or positioning to suit the operator's convenience and comfort.



- A marble stone can be inserted to the work top section for weighing application to 6 decimals.



- A UV light for decontamination of the work surfaces or for deactivating DNA, can be fitted in the interior of the work chamber.



- Sectional work tops can be provided in different sizes from 300 mm to 1800 mm and also in AISI 316 to enable the Mars Pro to be configured suitable for your exact practical requirements.

**Make your own
configuration...**

Try the online configurator!

Check it at
www.LaboGene.com

40

YEARS OF EXPERIENCE

LaboGene are experts in the fields of Clean Air & Laminar Flow, Centrifugation, Vacuum & Cooling. We provide both standard and perfectly customised solutions. Designing, developing, manufacturing and marketing in laboratory and industrial equipment is our speciality.

Leading supplier in:

Microbiological safety cabinets
Freeze dryers
Freezers
Centrifuges

Learn more at www.labogene.com



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001