

# MARS & MARS PRO SAFETY CLASS 2

Lowest energy consumption 0.6 ampere and noise level of 48dBA



## MARS & MARS PRO

The Mars & Mars Pro cabinets are setting new standards for operator and environmental safety and offer higher personal protection and comfort for your laboratory together with the lowest energy consumption, due to their innovative designs and low-carbon engineering concepts.

Certificated to TUV EN Standards and ISO 9001 Quality protocols, the Mars & Mars Pro Microbiological Safety Cabinets are the cabinets of choice for many of the world's leading research and life science laboratories.

Protect the person-Protect the procedure-Protect the environment...the concepts that are our mantra for the Mars & Mars Pro Class 2 range of cabinets.

Mars Class 2 the cabinet of choice for microbiological, tissue culture and non-pathogenic manipulations, research and sampling procedures.

Mars Pro Class 2 Plus gives ultimate protection and safety when working with cytoxics, pathogenics and viruses.

Mars & Mars Pro the cabinets for Your Ultimate Safety, Protection and Comfort.



### NOISE LEVEL LESS THAN 48 dBA



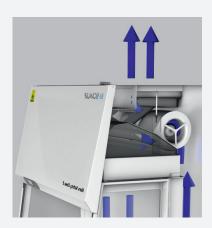
#### NOISE LEVEL

less than 48dBA according to EN12469:2000, with 3-4 low energy fans gives greater efficiency and minimal heat transference to the surroundings



#### LOWEST ENERGY

consumption of less than 0.6amp (132watts) ensures minimal operating costs, saving on air conditioning levels required and thus very low  $\mathrm{CO}_2$  emissions



## ×

#### **COMPACT HEPA FILTER**

H14 Hepa filter of only 11cm in depth gives longer lifetime, a reduced energy demand and low noise levels. At 0.28m/sec the H14 functions as an Ultra 15 Hepa

### PROFILED "V" FORMAT ANTI-VIBRATION WORK TOPS





#### SECTIONAL STAINLESS STEEL

smooth work top with support legs allowing loads of up to 50kg per 30cm. Quick and easy removal promotes easy cleaning or autoclaving





#### "V" PROFILE AIR IN-TAKE GRILLS

across the entire width of the work area ensures good air flow, prevents incorrect operating posture and precludes the use of obstructive arm rests

## **%**

#### LOWEST CABINET CONSTRUCTION...WORKS IN LOW CEILING ROOMS!

With a overall height of 2metres and a work-top height of 75cms, the Mars cabinets offer full operational performance in rooms with low ceilings, even when fitted with the electric elevation support stand

### PANORAMIC FRONT & SIDE WINDOWS FOR ULTIMATE SUPERVISION





#### **HIGH ILLUMINATION**

Light intensity with side windows and variable, shadow free lighting of 0-2000 Lux



#### **MOTORISED**

Front window for easy operation and quick positioning at correct working height



#### **HIGH ANGLED FRONT**

of 72cm height offering optimal viewing and supervision at either seated or standing positions

## SAFEST START-UP & CLOSE DOWN PROCEDURES



#### **AUTO START & AUTO STOP**

and finish times for the cabinets operation during the working week. This ensures that the cabinet is "clean" and air flows are at the optimum before work begins.

An excellent protocol to enhance the Safe

An excellent protocol to enhance the Safe Operating Procedures for your laboratory



#### **UV-LIGHT**

With timer and delay start-up allows operation of the UV light when the cabinet or your laboratory is not in use i.e. over night.

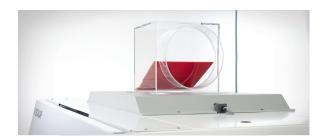
This ensures that the cabinet is always kept in a clean and ready to use condition. An alarm indication warns when the UV tube needs to be replaced

### DESIGNED & BUILT TO CLEAN ROOM SPECIFICATIONS



#### **DUCTING CONNECTION**

via an anti-back valve can be either be direct or by a thimble, allowing simultaneous air extract from the room. A third sensor, located in the extract air stream, allows for an alarm indication if air flow is below a safe limit or auto shut down if any back flow is detected





#### CERTIFICATION

TUV Certified and approval models according to EN 12469-2000, with Mars Pro models also DIN 12980 certificated to 2012 EMC requirements as to operator and product safety, tested to all alarm limits





#### **CALIBRATION**

Of down flow and exhaust air speeds can be achieved via the microprocessor controller, with read-out in m/s on the display and full documentation can also be provided





#### **USB PORT**

For PC connection, full documentation access and easy diagnostic service checks



## **EASY TO CLEAN**





#### **CLEAN ROOM DESIGN**

and construction with easy to clean surfaces, both internal and external. Contoured corners and no visible seals





#### **EASY ACCESS**

with front window fully open and damper supports, allows for complete access to all interior surfaces

## MARS PRO

Cyto Safe Triple-Filter Class 2 Cabinets



## **KEY FEATURES**

A Triple HEPA filter cabinet with double air filtration and "safe-change" configuration of the primary, under bench HEPA filter. Designed for Cytotoxic and Virus manipulation



Triple HEPA filter system



Filtration to 99.999999% of particles of 0.3 micron



Low Noise level of 52dBa



No Decontamination required due to "safe change" filter



## MARS

Class 2 Microbiological Safety Cabinets



## **KEY FEATURES**

A Double HEPA filter cabinet designed for all biological, microbiological, tissue culture materials for research and routine applications



Double HEPA filter system



Filtration to 99.999% of particles of 0.3 micron



Low Noise level of 48dBa



Decontamination program option



## TECHNICAL SPECIFICATIONS

MODEL	UNIT	M900 PRO	M1200 PRO	M1500 PRO	M1800 PRO		
CATALOGUE NO.		9.002.023.000	9.002.020.000	9.002.022.000	9.002.021.000		
EXTERNAL DIMENSIONS (DXWXH)	mm	798x1003x1998	798x1303x1998	798x1603x1998	798x1903x1998		
WORKING CHAMBER, DIMENSIONS (DXWXH)	mm	650x900x720	650x1200x720	650x1500x720	650x1800x720		
WORKING HEIGHT		« Work height off 0.75-1.10 in 2.50 rooms »					
FRONT OPENING	mm	« 200 optional 300 »					
AIR VELOCITY, VERTICAL FLOW	m/s	« 0,28 (adjustable 0,25-0,55) »					
AIR VELOCITY, DEVIATION	±%	10	10	10	10		
DOWN FLOW RATE	m³/h	500	650	810	975		
EXHAUST FLOW RATE	m³/h	260	350	440	520		
NOISE LEVEL, ISO 6081	dB(A)	<52	<52	<53	<53		
LIGHT INTENSITY VARIABLE	Lux	0-2000	0-2000	0-2000	0-2000		
TOTAL HEPA FILTER INTEGRITY		« Efficiency 99.9999999% against 0.3 μm particle H-14 size 99.9999975% in MPPS »					
V-SHAPED TABLE TOPS		Yes	Yes	Yes	Yes		
CLEAN ROOM DESIGN		Yes	Yes	Yes	Yes		
EXCELLENT LIGHT DISTRIBUTION		Yes	Yes	Yes	Yes		
ELECTRIC SLIDING WINDOWS		Yes	Yes	Yes	Yes		
COMPLETE CABINET PRESSURE TEST		Yes	Yes	Yes	Yes		
WINDOW CLEANABLE ON BOTH SIDES		« Yes (side windows only if space around allows cleaning) »					
VOLTAGE/FREQUENCY	V/Hz	« 220-240/50-60 or 110-120/50-60 »					
POWER CONSUMPTION WITH LIGHT ON		200	225	250	275		
FUSES			10	10	10		
NET WEIGHT	kg	225	250	275	300		
SHIPPING VOLUME	m3	2.2	2.9	3.2	4.1		
WINDOW MATERIAL		« Hardened/laminated safety glass »					
CABINET MATERIAL		« Polyester coated steel/AISI 304 Stainless steel »					

MODEL	UNIT	M900	M1200	M1500	M1800		
CATALOGUE NO.		9.001.023.000	9.001.020.000	9.001.022.000	9.001.021.000		
EXTERNAL DIMENSIONS (DxWxH)		798x1003x1248	798x1303x1248	798x1603x1248	798x1903x1248		
WORKING CHAMBER, DIMENSIONS (DxWxH)	mm	650x900x720	650x1200x720	650x1500x720	650x1800x720		
WORKING HEIGHT		« Work height off 0.75-1.10 in 2.50 rooms »					
FRONT OPENING	mm	« 200 optional 300 »					
AIR VELOCITY, VERTICAL FLOW		« 0,28 (adjustable 0,25-0,55) »					
AIR VELOCITY, DEVIATION	±%						
DOWN FLOW RATE			650		975		
EXHAUST FLOW RATE	m³/h	260	350	440	520		
NOISE LEVEL, ISO 6081	dB(A)		<48		<49		
LIGHT INTENSITY VARIABLE		0-2000	0-2000	0-2000	0-2000		
HEPA FILTERS, EN 1822		« Efficiency is 99.999 % against 0.3 μm particle H-14 size 99.995 % in MPPS »					
V-SHAPED TABLE TOPS		Yes	Yes	Yes	Yes		
CLEAN ROOM DESIGN			Yes		Yes		
EXCELLENT LIGHT DISTRIBUTION		Yes	Yes	Yes	Yes		
ELECTRIC SLIDING WINDOWS			Yes		Yes		
WINDOW CLEANABLE ON BOTH SIDES		« Yes (side windows only if space around allows cleaning) »					
VOLTAGE/FREQUENCY	V/Hz		220-240/50-60 or 110-120/50-60 »				
POWER CONSUMPTION		150	175	200	225		
FUSES			10		10		
NET WEIGHT	kg	225	250	275	300		
SHIPPING VOLUME		2.2	2.9	3.2	4.1		
WINDOW MATERIAL		« Hardened/laminated safety glass »					
CABINET MATERIAL	1	« Polyester coated steel/AISI 304 Stainless steel »					



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