Telstar BIO II A

Class II Biological Safety Cabinet

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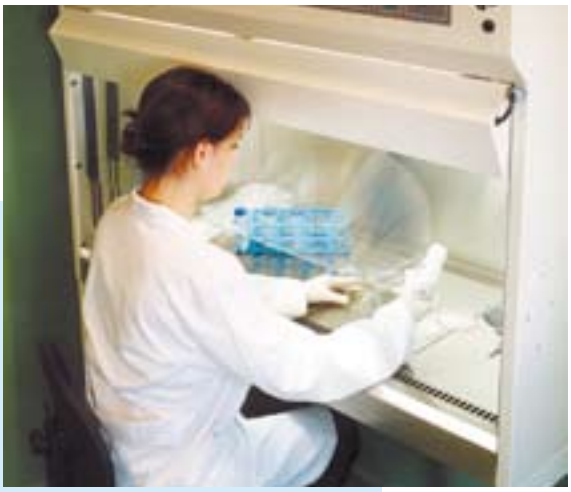


Certified by TUV according to Safety Cabinets European standard EN 12469, Class II Telstar **BIO II A** provides a high level of protection to operator, environment and products. It is suitable for the manipulation of pathogenes of categories 1, 2 and 3 as stated in the standard but is also the ideal equipment to protect fragile samples from direct or cross contamination.

Taking advantage of the long experience of Telstar in design of equipment for pharmaceutical production, **BIO II A** offers safety features, options and accessories beyond the standard requirements, to fulfill virtually all needs.

Each cabinet is factory-certified by TÜV-GS registered laboratory to meet the specified performance requirements.

Control System

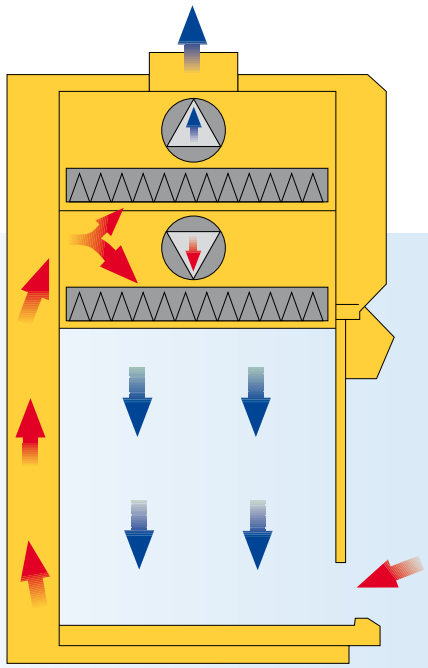
- A clear, simple and intuitive microprocessor driven system provides full control over all functions of the cabinet with user and maintenance menus.
- Alphanumeric LCD screen displays clear information on:
  - Chamber downflow air speed.
  - Inlet/Exhaust air flow.
  - Chamber temperature.
  - Total running hours.
  - U.V. lamp running hours.
  - HEPA filters replacement date.
- Visual and audible alarms shown on the display:
  - Low exhaust flow.
  - Low downflow air velocity.
  - Exhaust and downflow fan malfunction.
  - Front window opened.
- Air flow and lighting interlock when U.V. lamp is on.
- Impulsion and exhaust fans provide a double safety system: In case of eventual stop of the exhaust fan, the impulsion one is automatically stopped. In case of eventual stop of the impulsion fan, the exhaust one increases its speed in order to maintain under pressure conditions in the working space.
- Automatic exhaust and downflow filters clogging compensation.

General Features

- The **BIO II A** Class II cabinet recirculates 70% of the total flow through a HEPA/ULPA filter H14 providing a class 10 laminar flow in the chamber (99.999% efficiency for particles > 0.3 µm) and expels the other 30% at top of the unit through a second H14 HEPA/ULPA filter to protect the environment.
- High downflow air speed (0.4 m/s) and high air inlet speed at front (0.5 to 0.7 m/s) provide both reinforced protection for operator and samples, beyond the regular cabinet design, thanks to a stronger air barrier and to a reduced risk of cross contamination.
- Chamber flow and exhaust flow are controlled by interactive but independent plenums, blowers and sensors. It provides an automatic compensation of any cause of flow variation and permits the connexion of accessories at exhaust duct withouth disturbance of the flows.
- One piece stainless steel chamber, round corners for easy cleaning and decontamination.
- Partitioned stainless steel work bench, easy removable for cleaning and autoclavable.
- Stainless steel armrest resisting to frequent cleaning/disinfection.
- High lighting level of 1100 lux.
- Tempered window glass of safety grade, counterbalanced with gas springs to stand in open position for introduction of large items and easy access for cleaning.
- Cabinet frame of epoxy/polyester painted steel.
- UV light as standard feature with safety interlock with front window.
- All maintenance and filter replacement is easily done from the front of the unit.
- Vacuum tap, gas tap with solenoid valve, electrical socket as standard.
- Possibility to connect an output relay for external fan activation (ducted cabinets).
- Special model with lead protection for radioisotopes preparation.

Front door in laminated glass with gas springs

Standard delivery includes U.V. lamp, electrical socket and 2 stopcocks



Fan

HEPA/ULPA H14 filters

Clean Air

Non filtrated air

Technical Data

FEATURES	UNIT	BIO II A/P	BIO II A	BIO II A/M	BIO II A/G
External dimensions (WxDxH)	mm	852x760x1410	1310x760x1410	1615x760x1410	1920x760x1410
Internal dimensions (WxDxH)	mm	732x580x700	1190x580x700	1495x580x700	1800x580x700
Downflow	m^3/h	605	995	1100	1500
Laminar downflow velocity	m/s	0.40	0.40	0.35	0.40
Weight	kg	160	200	235	270
Power	kW/A	1.2 / 5.2	1.8 / 7.8	1.8 / 7.8	2.9 / 12.6
Light intensity	lux	>760	>930	>1100	>1100
Noise level	dB(A)	59			
Filters HEPA/ULPA H14	%	Efficiency >99.999% (DOP) / >99.995% (MPPS EN 1822)			

Standard configuration: Stainless steel chamber and bench, UV-light, vacuum tap, gas tap with safety solenoid valve, electrical socket in working area.

Options and Accessories

A wide set of options and accessories make **BIO II A** adaptable to your needs. Quotation for any special adaptation is available upon request.

- Support stand: Saves lab bench space and ensure stability (1).
- Gas burner with foot pedal and flame monitor.
- Double boiler with timer for formaldehyde and neutralization by NH_3 (2).
- Transparent anti blow-back valve (according BS 5726) (3).
- Second HEPA/ULPA filtration at exhaust (according BS 5726).
- Activated charcoal filter box at exhaust to catch vapours and smell (4).
- Safe canopy connexion to ducting.
- Spare extraction fan for long exhaust ducting.

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