Colo Science
Laboratory & Scientific Equipment

COLO.SCIENCE · TECHNICAL SPECIFICATION

CLASS II TYPE A2 BIOSAFETY CABINET

BSCAB2

Biological Safety Cabinet Class II A2 · Two H14 HEPA filters · 70 % recirculation / 30 % exhaust · motorized front window · 4 sizes

BSCAB2 Biological Safety Cabinet Class II A2 protects the operator, the sample and the laboratory. Front inflow keeps aerosols inside, H14 HEPA downflow protects the sample and exhaust air leaves only through a second H14 filter. Four sizes, from a single-operator cabinet to a two-operator workplace.

Class II A2 · 2 × H14 HEPA · 70 / 30 airflow · 8 airflow levels · Downflow ≤ 0.33 m/s · Motorized window · UV 253.7 nm · ≤ 58 dB

Document type: **Technical Specification Sheet**
Product: **BSCAB2 Biological Safety Cabinet Class II A2**
Order codes (SKU): **PRO3375 · PRO3002 · PRO3505 · PRO5096**
Format: Print layout · A4 landscape

BSCAB2 product page | Safety Cabinets & Air Protection — overview | Safety Cabinets & Air Protection catalogue | Request quote



BSCAB2 · Class II A2 biological safety cabinet on base stand

PROTECTION Operator · sample · environment	FILTRATION 2 × H14 HEPA · 99.9995 % @ 0.3 µm
COMFORT ≤ 58 dB · ≥ 1000 lx · foot switch	SIZES 940 · 1150 · 1350 · 1625 mm working width

SERIES
BSCAB2 · 4 sizes

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BSCAB2 · product overview

Class II A2 protection for microbiology, cell culture and clinical laboratories

HOW THE CABINET PROTECTS

Operator protection — room air enters through the 200 mm front opening at up to 0.53 m/s and forms an air barrier that keeps aerosols inside.

Sample protection — H14 HEPA-filtered vertical downflow of up to 0.33 m/s keeps the work zone clean and prevents cross-contamination.

Environment protection — 30 % of the air leaves the cabinet only through the exhaust HEPA filter; 70 % is recirculated. On request, the exhaust air is led into the building exhaust duct.

Adjustable airflow — 8 fan speed levels; the working level is set at commissioning to the user's required inflow and downflow, both shown on the display.

Backlit LCD and remote control — temperature, humidity, filter pressure, filter and UV life, fan level and air velocities at a glance.

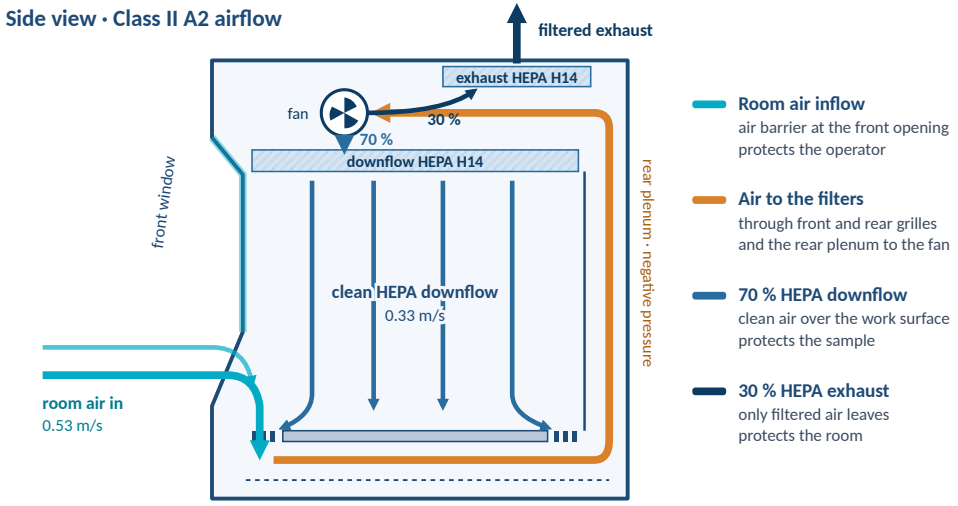
Filter monitoring — pressure sensors on both HEPA filters; an alarm warns when a filter is saturated or the cabinet does not work properly.

Alarms and interlocks — visual and audible alarms for filter replacement, unsafe window height and abnormal airflow; interlocks between UV lamp, window, fan and lighting.

Easy cleaning and sterilisation — smooth SUS304 stainless steel interior with rounded edges and one-piece side and rear walls; cold-rolled steel body with antibacterial powder coating.

Motorized front window — moved by foot switch; two waterproof sockets (500 W) inside the work zone.

AIRFLOW



Typical applications

Microbiology — work with bacteria, fungi and other agents of risk groups 1–3.

Cell and tissue culture — aseptic handling of cultures and media.

Clinical and veterinary diagnostics — sample preparation and inoculation.

Food and water laboratories — pathogen testing and sample preparation.

Pharmaceutical QC — sterility testing preparation and non-volatile reagents.

INFLOW	DOWNFLOW	LIGHTING	NOISE
max. 0.53 m/s · adjustable	max. 0.33 m/s · adjustable	≥ 1000 lx	≤ 58 dB (EN 12469)

BSCAB2 · technical parameters

Values common to all sizes · size-dependent values on page 4

TECHNICAL PARAMETERS

Classification	Biological safety cabinet Class II, Type A2
Protection	Operator, sample and environment
Airflow	70 % recirculated, 30 % exhausted through HEPA
Inflow velocity	Max. 0.53 ± 0.025 m/s, adjustable to lower values
Downflow velocity	Max. 0.33 ± 0.025 m/s, adjustable to lower values
Airflow adjustment	Fan speed selector with 8 levels on the control panel. The working level is set at commissioning according to the user's requirements; on request, downflow and inflow are set to lower values within the maximum range. Automatic compensation as the filter loads.
HEPA filters	2 × H14 (downflow and exhaust), 99.9995 % at 0.3 µm, filter-life indicator
Filter monitoring	Differential pressure sensors on the downflow and exhaust filters; pressure shown on the display; alarm when a filter is saturated or the airflow is abnormal
Air cleanliness	ISO Class 5 in the work zone (ISO 14644-1)
Work zone	Surrounded by negative-pressure plenum
Exhaust connection	Option: on the user's request, the HEPA-filtered exhaust air is led into the building exhaust duct
Noise	≤ 58 dB (EN 12469) / ≤ 61 dB (NSF 49)
Illumination	≥ 1000 lx, LED
UV sterilisation	UV lamp 253.7 nm with timer and UV-life indicator
Tested safe opening	200 mm

Front window	Motorized, two-layer laminated toughened glass ≥ 5 mm, anti-UV
Foot switch	Adjusts front window height by foot
Display	Backlit LCD: temperature, humidity, total work time, filter pressure, filter life, UV life, fan level, inflow and downflow velocity
Alarms	Visual and audible: filter saturation / replacement, window over safe height, abnormal airflow velocity
Power-failure alarm	Option: audible and visual alarm on mains power failure, with backup battery
Interlocks	UV lamp, front window, fan and lighting
Remote control	All functions
Sockets	2 waterproof sockets, total 500 W
Interior	Smooth SUS304 stainless steel work zone with rounded edges; side and rear walls in one piece; easy cleaning and sterilisation
Materials	Work zone SUS304 stainless steel; body cold-rolled steel with antibacterial powder coating
Work surface height	750 mm (adjustable with optional electric base stand)
Control system	Microprocessor
Power supply	AC 220 V ± 10 %, 50/60 Hz; 110 V ± 10 %, 60 Hz

BSCAB2 · models and dimensions

Four working widths from a single-operator cabinet to a two-operator workplace

MODELS

	BSCAB2110	BSCAB2130	BSCAB2150	BSCAB2180T
Order code (SKU)	PRO3375	PRO3002	PRO3505	PRO5096
Internal W × D × H (mm)	940 × 600 × 660	1150 × 600 × 660	1350 × 600 × 660	1625 × 600 × 660
External W × D × H (mm)	1100 × 755 × 2200	1300 × 755 × 2200	1500 × 755 × 2200	1800 × 755 × 2200
Operators	1	1	1–2	2
Max. front window opening	480 mm	480 mm	480 mm	480 mm
LED lighting	2 × 12 W	2 × 14 W	2 × 16 W	2 × 16 W
UV lamp	30 W	30 W	40 W	40 W
Power consumption	600 W	800 W	1300 W	1300 W
Gross weight	270 kg	310 kg	335 kg	395 kg

Installation

Check door width and ceiling height against the external dimensions; allow free space above the exhaust.

Place the cabinet away from doors, air-conditioning outlets and walkways that disturb the air barrier.

Power supply 220 V / 50–60 Hz; consumption per model in the table.

Options: exhaust duct connection (filtered exhaust air led into the building exhaust duct), power-failure alarm (audible and visual, with backup battery), electric height-adjustable base stand, castors with brake and levelling feet, custom-made service connections on request (see table), IQ/OQ and airflow certificate, on-site test according to EN 12469 after installation (airflow, HEPA filter integrity, operator protection) and particle count according to ISO 14644-1, with test report.

Service connections — options

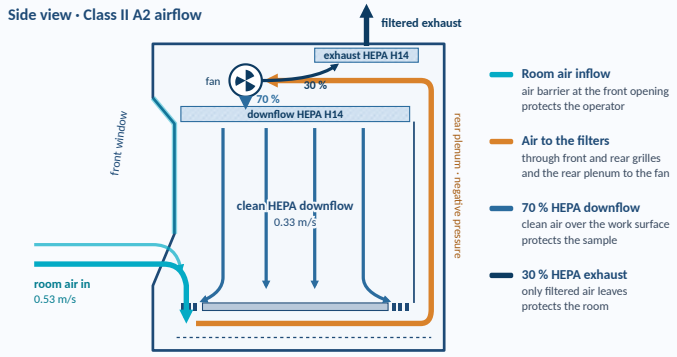
Custom made on the user's request. All connections except the standard sockets are optional; type, number and position are agreed with the order.

Electrical sockets	2 waterproof sockets, total 500 W — standard; additional sockets optional pipettors, mixers, small instruments
Vacuum	Stainless vacuum valve, hose connection for an external pump or central vacuum aspiration of media and supernatant, filtration
Water	Stainless water tap rinsing, preparation of solutions
Gas	Stainless gas tap gas burner; an electric micro-incinerator is recommended, as an open flame disturbs the airflow
Compressed air / N_2 / CO_2	Stainless valve for technical gases cell culture, drying, inert atmosphere
Drain valve	Drain from the spill tray under the work surface removal of spilled liquids during cleaning
Pass-through ports	Sealable ports in the side walls cables and tubes of instruments inside the cabinet

BSCAB2 · configuration and support

Ordering information, configuration checklist and contact

CONFIGURATION AND SUPPORT



BSCAB2 · Class II A2 airflow: inflow, HEPA downflow and HEPA exhaust

Ordering information

Series	BSCAB2 Biological Safety Cabinet Class II A2
BSCAB2110	SKU PRO3375
BSCAB2130	SKU PRO3002
BSCAB2150	SKU PRO3505
BSCAB2180T	SKU PRO5096
Standard delivery	Cabinet, base stand, LED and UV lamps, remote control, 2 waterproof sockets, foot switch, CE Declaration of Conformity
Options	Exhaust duct connection · power-failure alarm · custom-made service connections (page 4) · on-site EN 12469 and ISO 14644-1 test with report

Configuration checklist

Work: organisms and risk group, number of operators, equipment used inside the cabinet.

Room: door width, ceiling height and position of the cabinet in the room.

Documentation: required tests and certificates on installation.

SALES AND SUPPORT

COLO Lab Experts
Polje ob Sotli 4, SI-3255, Slovenia

Selection guidance: send the type of work, the number of operators and the room dimensions — we confirm the size, configuration and delivery time with the quotation.

QUICK CONTACT

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COLO.SCIENCE · BIOSAFETY SUPPORT

Need help choosing the right cabinet size and configuration?

Tell us what you work with, how many operators use the cabinet and where it will stand — we propose the size and configuration and confirm it with the quotation.

Request quotation | sales@colo.si | +386 70 713 437

Design and specifications may be changed without prior notice. Values refer to standard laboratory conditions.