

Technical Bulletin

Subject	Gelaire BH-EN Class II biological safety cabinets: Specification
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1. General requirements

Cabinets shall comply fully with all clauses of this specification.

2. Compliance with standards

Cabinets shall comply fully with Australian standard AS 2252.2:2004 and EU standard EN 12469:2000.

3. Description

3.1 General

Cabinets shall be suitable for installation on standard laboratory benches; or on optional floor stands that shall be available from the cabinet supplier. Width options shall be nominally 900 mm, 1200 mm and 1800 mm; with the option of exhaust discharge at the top or right hand side. Left hand exhaust shall be available to special order.

3.2 Special safety & operational features

- a) Fans shall automatically adjust to maintain air velocities set by the service technician during testing - regardless of gradual filter dust loading or power fluctuations.
- b) Continuous monitoring & display of laminar flow & air barrier velocities; and alarm operation shall be provided by vane anemometers. Pressure switches shall not be used for alarm operation.
- c) 'Blackout reporting' shall indicate if power supply to the cabinet has failed while the user is absent.
- d) A speed-reduction mode shall allow continuous operation with power saving.
- e) The control panel shall provide constant monitoring & reporting of all operating functions.

4. Construction

- a) Cabinets shall have a robust, gastight housing with durable, corrosion-resistant epoxy finish.
- b) The work zone shall be of unitary 304 stainless steel (SS) without vertical joins or crevices; or sealant used to fill panel joints.
- c) The work tray shall be of 316 SS for increased resistance to corrosion
- d) HEPA filters shall be H14 minipleat type with hydrophobic protective membrane on the work zone filter.

5. Ergonomics

- a) Cabinets shall be designed and manufactured according to the directions on ergonomics in ISO standard 14738. The air barrier grille shall be flat and integrated into the work tray.
- b) The window shall be easily opened and closed by gas springs without clips or fasteners.
- c) Control panel functions shall be operated by touch controls.

6. Standard equipment in work zone

- a) A solenoid-controlled gas tap shall be provided on the RHS.
- b) A vacuum tap shall be provided on the RHS.
- c) A splashproof power outlet shall be provided on the RHS.
- d) A germicidal UV lamp with two (2) programmable timer modes shall be fitted.
- e) A metal closure panel for the work opening shall be provided.

7. Installation

Cabinets shall be installed in accordance with AS 2647; with particular attention to selection of locations away from sources of air turbulence such as doorways, passageways and air diffusers that could influence cabinet airflows.

8. Independent testing and certification

Cabinets shall be tested and certified, prior to delivery and on-site prior to use. Testing shall be in accordance with Australian standards AS 2252.2 and AS 1807; and be provided by an independent NATA-registered testing laboratory. 'Independent' means that the testing and certification provider shall be a separate company from the cabinet supplier.

9. Assured supply and delivery

The supplier shall have a demonstrated capability to deliver cabinets to the nominated installation site within ten (10) working days from order placement. If required, a representative of the purchasing entity shall inspect the supplier's storage or manufacturing facility to verify that equipment offered is available for delivery within the specified delivery period.
