# BBS SERIES

## SHIELDED CELLS FOR SYNTHESIS MODULES



FLEXIBLE / VERSATILE / SAFE

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RADIOPHARMA

COMECER an ATS company

# BBS SERIES

SHIELDED CELLS FOR SYNTHESIS MODULES

The BBS series of hot cells for synthesis modules is specially designed to host specific automatic synthesis modules for the production of **radiopharmaceuticals for experimental use or for daily production in cGMP radiopharmacies.**

The BBS hot cell, single or double (lined horizontally or vertically), triple and also quadruple, can have different configurations for the overall dimensions, shielding and various accessories.

- Working chamber air quality up to Class B
- Modular design and flexible configuration
- Shielded chambers under constant negative pressure
- Chamber tightness ensured by inflatable gasket system
- Touch-screen operator panel
- Removable tray for synthesis module



The series is presented as a family of configurable machines, according to various parameters, such as:
- the number of chamber
- the thickness of the shield
- doors with or without lead glass
- the presence of lower or side technical compartments designed to hold accessory components
- the power supply dedicated to the geographical area of installation
- the possibility to accommodate different types of synthesis modules.

The family of cells BBS is particularly suited to host ALCEO integrated systems for the production of radioisotopes obtained by irradiation of an isotope deposited in a solid target.

In particular, ALCEO system versions for which the cells BBS are designed, are:
- ALCEO METAL
- ALCEO HALOGEN
- ALCEO FULL (Metal + Halogen)

**Main features**

- Available in Pb 75 or 100 mm shielding
- 316L AISI stainless steel work chambers with Mirror-Bright internal surface finish, TIG continuous welds, and widely rounded corners
- Shielded and hinged front doors
- 304 AISI stainless steel front coverings, easy to decontaminate, separates the laboratory area (front) from the technical cabinet (rear)
- Shielding elements realised from primary ingots with Pb 98% + Sb 2% purity.
- Air inlet filtration system made with HEPA absolute filtering cartridge with 99.995% efficiency
- Air outlet filtration system made with active carbon filtering cartridge
- Work chambers air quality complies with Class B “At rest” (EEC-cGMP)
- Possibility of connecting the hot cell to the contaminated Air Compressing Station (ACS)*













- Possibility of installing a system for automatic leak tests*
- 7" touch-screen operator panel to check and trace the critical parameters of the machine both in "at rest" or "in operation" mode
- 1/8" technical gas supply lines with shut-off valves, which can be controlled from the outside
- 6 mm technical gas supply line with shut-off valves, which can be controlled from the outside
- Shielded entry for radioactive fluids
- Cable inlet via multi-diameter seal system
- Protected power supply sockets controlled from the operator panel
- Removable tray for synthesis module
- Possibility of installing a Geiger-Muller probe to detect radioactivity inside the cell and door interlock management*

** On customer request*

The machine is available in different equipment lines to fulfil any requirement.

| Main equipment / Models | BBS1 75 | BBS2 75 VERTICAL | BBS2 75 HORIZONTAL | BBS2 75 VERTICAL w/COLUMN | BBS1 100 | BBS2 100 VERTICAL | BBS2 100 VERTICAL w/COLUMN | BBS2 VERTICAL ALCEO METAL | BBS2 100 VERTICAL ALCEO HALOGEN | BBS3 100 ALCEO METAL | BBS3 100 ALCEO FULL | BBS4 100 ALCEO FULL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of screened housings | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 4 |
| Shielding (mm Pb) | 75 | 75 | 75 | 75 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Chambers provided (V=Vertical - H=Horizontal) | / | V | H | V | / | V | V | V | V | 2V +1 | 2V +1 | 2V + 2V |
| Shielded glass window | R | R | R | R | R | R | R | R | R | R | R | R |
| Technical column (2 technical cabinets + shielded cabinet for bulk radiofluid) | | | | | | | | | | | | |
| *Side column* | - | - | - | S | - | - | S | S | S | - | - | - |
| *Central column* | - | - | - | - | - | - | - | - | - | - | S | S |
| Solid target processing system set-up | | | | | | | | | | | | |
| *ALCEO METAL set-up* | - | - | - | - | - | - | - | S | - | S | - | - |
| *ALCEO HALOGEN set-up* | - | - | - | - | - | - | - | - | S | - | - | - |
| *ALCEO FULL (METAL + HALOGEN) set-up* | - | - | - | - | - | - | - | - | - | - | S | S |
| Antacid protective coating for work chambers | - | - | - | - | - | - | - | S | - | S | S* | S* |
| Removable tray for synthesis module | S | S | S | S | S | S | S | - | - | - | - | - |
| Internal camera + external monitor (only if not available in shielded glass window) | S | S | S | S | S | S | S | S | S | S | S | S |
| Shielded cabinet for bulk radiofluid | S | - | S | - | S | - | - | - | - | S | S | - |
| Lower technical cabinet | S | - | S | - | S | - | - | - | - | S | S | - |
| Smart Geiger (internal environmental monitoring system) | O | O | O | O | O | O | O | O | O | O | O | O |
| Light column signalling machine status | S | S | S | S | S | S | S | S | S | S | S | S |
| Shielded channel radio fluid inlet | S | S | S | S | S | S | S | S | S | S | S | S |

*S= Standard; O= Option; R= On customer request*

## Technical Data

| | | |
|---|---|---|
| External casing material | | AISI 304 - Scotch-Brite™ |
| Working chamber material | | AISI 316L - Mirror-Bright |
| Working chamber internal dimensions | mm | 634 x 735 x 674 (w x d x h) |
| Shielding (Pb) | mm | 75 ÷ 100 |
| Weight | kg | 5500 ÷ 7000 |
| External dimensions* | mm | 1088 x 1170 x 2400 (w x d x h) |

**Overall dimensions and weight refer to the model BBS1*

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