

EuroFlow Nuclear Series

Class II Microbiological Safety Cabinet



Lead-shielded radiopharmaceutical microbiological safety cabinet designed to ensure the safety of the operator, product, and environment. Ideal for microbiological research involving radioactive materials for use in nuclear medicine and theranostics applications.

The EF Nuclear Series is a range of high-quality Class II biological safety cabinets designed in accordance with EN 12469:2000. The EF-N unit is configured with additional features, such as internal lead shielding to provide protection against radiation when working with substances within biosafety levels 1, 2, and 3 as well as radioactive substances.



Lead shield in the partition walls and a leaded glass pane.

The lead glass pane can be moved over the full front and provides radiation protection for the user during preparations.

Work surface waste openings into shielded waste containers, closed via sliding lids, providing GMP compliant removal of radioactive waste generated in the bench.

The generator chamber is placed below the work surface including the necessary lead shielding to protect the user against built-in external radiation.

FEATURES

- Easy maintenance with durable components
- Simple cleaning and disinfection
- Ergonomic working position
- Safe and easy filter replacement
- Integrated low-noise fan
- Front safety screen can be fully opened
- Adjustable fan speed
- Easily accessible electrical components
- User-friendly operation

APPLICATION FIELDS

- Nuclear Medicine
- Theranostics
- Radiopharmacy

AVAILABLE SIZES

- EF-N 4"- 120 cm
- EF-N 5"- 150 cm
- EF-N 6"- 180 cm

EXAMPLES OF ADDITIONAL EQUIPMENT

- Front shielding
- Keyboard holder
- Activated carbon filter for air exhaust



Ionization chamber



Generator safe



The functionality of this workbench is identical to microbiological safety workbenches of type Class II A. However, the LAF safety workbench EF-N is additionally equipped with lead shielding in the side walls and a lead glass screen. The lead glass screen is movable across the full front and provides radiation protection for the user during preparations. The dose calibrator is installed in a box beneath the work surface, including necessary lead shielding to protect both the user (from internal radiation) and the calibrator (from external radiation). The work surface also contains sliding cover waste openings for GMP-compliant disposal of radioactive waste into shielded waste containers.

Optionally available with surface coating for operations with 68-Ga.



TECHNICAL CHARACTERISTICS

- Side, back, and bottom walls are lead-shielded and customizable
- Lead glass window movable across the full front
- All surfaces and corners are manufactured according to GMP, GLP standard
- Monitoring of operational and safety functions via a microprocessor (alarm limits)
- Complete filtration of exhaust and circulating air filter quality H14-EN1822: 2010
- Installation provision in the back panel for a 21.5" TFT monitor
- Powder-coated steel frame in RAL 9010
- Work area and segments made of high-quality stainless steel, allowing for easy cleaning and autoclaving
- Work area lighting (> 1000 Lux)
- The 8° inclined front enables comfortable working in a seated position

Technical Specifications – EuroFlow N

TECHNICAL DATA AND OPTIONS	LAF EF-N 4	LAF EF-N 5	LAF EF-N 6
Exterior dimensions including canopy (W x D x H) (mm)	1333 x 863 x 2602	1638 x 863 x 2602	1943 x 863 x 2602
Working space (W x D x H) (mm)	1190 x 614 x 725	1495 x 614 x 725	1800 x 614 x 725
Weight without lead (kg)	260	310	380
Total weight (kg)	Depending on lead shielding	Depending on lead shielding	Depending on lead shielding
Exhaust air rate in m³/h	325 +/- 25	400 +/- 25	475 +/- 25
Filter H14 according EN 1822	2	2	2
Airspeed in m/s (GMP speed optional)	0,36 +/- 0,05	0,36 +/- 0,05	0,36 +/- 0,05
Electricity in V/Hz	230/50	230/50	230/50
Shielding side wall, back wall, ground with lead (mm)	10, 20, 50. We can include 10mm lead shielding inside the cabinet. If additional protection is needed this will be mounted on the outside	10, 20, 50. We can include 10mm lead shielding inside the cabinet. If additional protection is needed this will be mounted on the outside	10, 20, 50. We can include 10mm lead shielding inside the cabinet. If additional protection is needed this will be mounted on the outside
Powder-coated steel frame in RAL 9010	RAL 9010 (other colors optional)	RAL 9010 (other colors optional)	RAL 9010 (other colors optional)
Lead glass moveable (W x H) (mm)	350 x 550 (Standard 10mm and 30mm lead equivalent) other thickness optional	350 x 550 (Standard 10mm and 30mm lead equivalent) other thickness optional	350 x 550 (Standard 10mm and 30mm lead equivalent) other thickness optional
Shielding for dose calibrator	Optional	Optional	Optional
Shielded dose calibrator (mm)	20, 50	20, 50	20, 50
Waste safe inside dimensions (W x D x H) (mm), with 1 or 2 waste openings	200 x 304 x 300, optional	200 x 304 x 300, optional	200 x 304 x 300, optional
Shielding waste safe with lead (mm)	10, 30	10, 30	10, 30
Double generatorsafe with 50 mm or 80 mm lead shielding	Optional	Optional	Optional
Potential-free connection for connection external ventilator / alarms etc	Yes	Yes	Yes
Particle counter feed through	Optional	Optional	Optional
21.5" Monitor in back wall	Optional	Optional	Optional
Gas connections (He, N, Compressed Air)	Optional	Optional	Optional
Double socket inside	Optional	Optional	Optional
2 x USB-Connection and 1 x HDMI-Connection; inside and bottom	Optional	Optional	Optional
Activated carbon filter with filter cell in air outlet	Optional	Optional	Optional
Bracket for PC	Optional	Optional	Optional
Bracket for Label Printer	Optional	Optional	Optional
Drawer for Keyboard	Optional	Optional	Optional