



RADIO
PHARMA
SOLUTIONS



NEPTIS[®] DB

The Reference for Routine
Production



NEPTIS® DB is a multi-purpose synthesizer for [¹⁸F] fluoride-based radiotracers via nucleophilic synthesis, optimized for applications that do not require HPLC purification. It enables the production of an extensive range of [¹⁸F] radiotracers, offering a versatile solution for routine and clinical applications.

HPLC-FREE ROUTINE PRODUCTION

By eliminating HPLC steps, NEPTIS® DB streamlines production, reduces complexity, and shortens synthesis times. Its cassette-based workflow, guided by the software, ensures straightforward setup and reproducible procedures, delivering consistent results across operators and production cycles.

COMPACT FOOTPRINT AND HIGH THROUGHPUT

NEPTIS® DB is designed for high-performance routine production. The system supports dual [¹⁸F]FDG runs with yields above 70%, ensuring efficient and reliable output.

Two modules can be stacked in a single mini-cell to increase capacity and enable consecutive runs without operator intervention, including automated cleaning.

ROBUST DESIGN

NEPTIS® DB is equipped with the WNE® technology, a three-position pneumatic actuator system that provides precise and repeatable control of all in-cell operations. To protect radiation-sensitive electronics, the CPU is installed outside the hot cell. These design choices reduce failure points and maximize system uptime.

NON-PROPRIETARY CONSUMABLES

The use of non-proprietary commercial consumables ensures flexibility and cost efficiency compared to proprietary systems. Manifolds are available in polysulfone or polypropylene, compatible with demanding solvents such as dimethyl sulfoxide and dimethylformamide. NEPTIS® DB is also fully compatible with TracerLab MX cassette and chemicals.

AVAILABLE RADIOTRACERS (non-exhaustive)

[¹⁸ F] Compounds	Diagnostic	Therapeutics
[¹⁸ F]F-Acetate [¹⁸ F]FDG [¹⁸ F]FES [¹⁸ F]F-L-DOPA [¹⁸ F]FMISO [¹⁸ F]PSMA-1007 [¹⁸ F]F-Choline [¹⁸ F]FDGal [¹⁸ F]FET [¹⁸ F]FLT [¹⁸ F]NaF	[⁶⁸ Ga]Ga-DOTA-NOC [⁶⁸ Ga]Ga-DOTA-TATE [⁶⁸ Ga]Ga-DOTA-TOC [⁶⁸ Ga]Ga-HBED-PSMA	Specific process capability: [¹⁷⁷ Lu]-coumpounds

ON-THE-GO DEVELOPMENT

The synthesizer is delivered with a complete software suite:

- NEPTIS® Control provides real-time visualization of synthesis data.
- NEPTIS® Designer is a stand-alone software for molecule development or modification.
- NEPTIS® Trending supports production data analysis and key parameter monitoring (e.g. calibration, maintenance logs).

GMP COMPLIANCE

ORA is ISO13485 certified since 2014. NEPTIS® documentation meets strict GMP regulations and requirements. The software is 21CFR Part 11 compliant and all NEPTIS® products follow and apply GAMP5 guidelines.

SPECIFICATIONS

- 3 ramps of 5 pneumatic actuators (3 positions each)
- 3 rad detectors (+1 optional)
- 3 syringe drivers (30 ml and 10/3 ml)
- 1 reactor oven (+1 optional)
- 4 pneumatic pinch valves
- Sensors for vacuum, flow and pressure

REQUIREMENTS

- Power supply: 100/240V AC, 50-60 Hz
- Compressed air: 6 to 8 bars
- Nitrogen: 3 to 8 bars

DIMENSIONS

560 x 240 x 400 mm | 22.0 x 9.4 x 15.7 in (w x h x d)
28 kg | 61 lbs

