

Synthra FDGtwo (Catalog No. 001)

Synthra FDGtwo is a flexible and completely automated radio synthesis system for routine production of [^{18}F]FDG as well as [^{18}F]fluorine labeled compounds like [^{18}F]FMISO, [^{18}F]FLT or [^{18}F]FCh by nucleophilic substitution. The hereby used Synthra FDG Set IV and Synthra FDG Set V cartridges have been utilized more than 500,000 times worldwide in more than 20 years. Automating the synthesis is simple with the easy-to-use configuration software SynthraView. The Synthra FDGtwo module offers both, fully automatic and manual modes of operation.

[^{18}F]Labeling Possibilities

- ✓ Synthesis of [^{18}F]FDG:
 - Two independent sets of a single synthesis unit enables two [^{18}F]FDG productions with one setup.
 - Allows up to four FDG synthesis a day
- ✓ The radio synthesis unit has a dedicated sub system for the recovery and collection of [^{18}O]H $_2$ O for the purification of the cyclotron produced [^{18}F]fluoride.
- ✓ The target activity is measured with a separate detector.

General Features

- ✓ **Heating and cooling capabilities**
 - Two heating zones with cooling capabilities
 - Temperature range: RT °C – 200 °C
- ✓ **Detectors and controllers**
 - Six shielded radiation detectors
 - Two Pressure sensors
- ✓ **Build-in vacuum pump** (< 5 mbar)
- ✓ **Liquid nitrogen trap** for protecting the vacuum pump from radioactive volatiles
- ✓ **Dispensers and valves**
 - HR-dispenser (up to 50.000 steps, 5 mL) for operating of the self-cleaning system
 - Chemically inert valves with small dead volume < 35 μL , 5 bar rated
- ✓ **Self-cleaning system**
- ✓ **Dimensions** (w x d x h): 42 x 50 x 48 cm
- ✓ **Weight:** approx. 25 kg



Synthesis Features

- ✓ Two glassy carbon reaction vessels (11 mL)
- ✓ Two independent [^{18}F]fluoride separation cartridge
- ✓ Two independent [^{18}F]FDG purification cartridge
- ✓ **Twelve reagent vials**
 - Eight small (1 – 3 mL) and four large (10 – 15 mL) volume glass vials for reagents

Additional Synthesis Options

- ➔ **Product solvent evaporator**
(Catalog No. 000pse)

GMP Features

- ✓ Synthesis files for [^{18}F]FDG
- ✓ **GMP compliant.** Electronic control and data collection (27/18 channels)
- ✓ **21CFRpart11** & **LIMS** compatible

Synthra F-18 Family

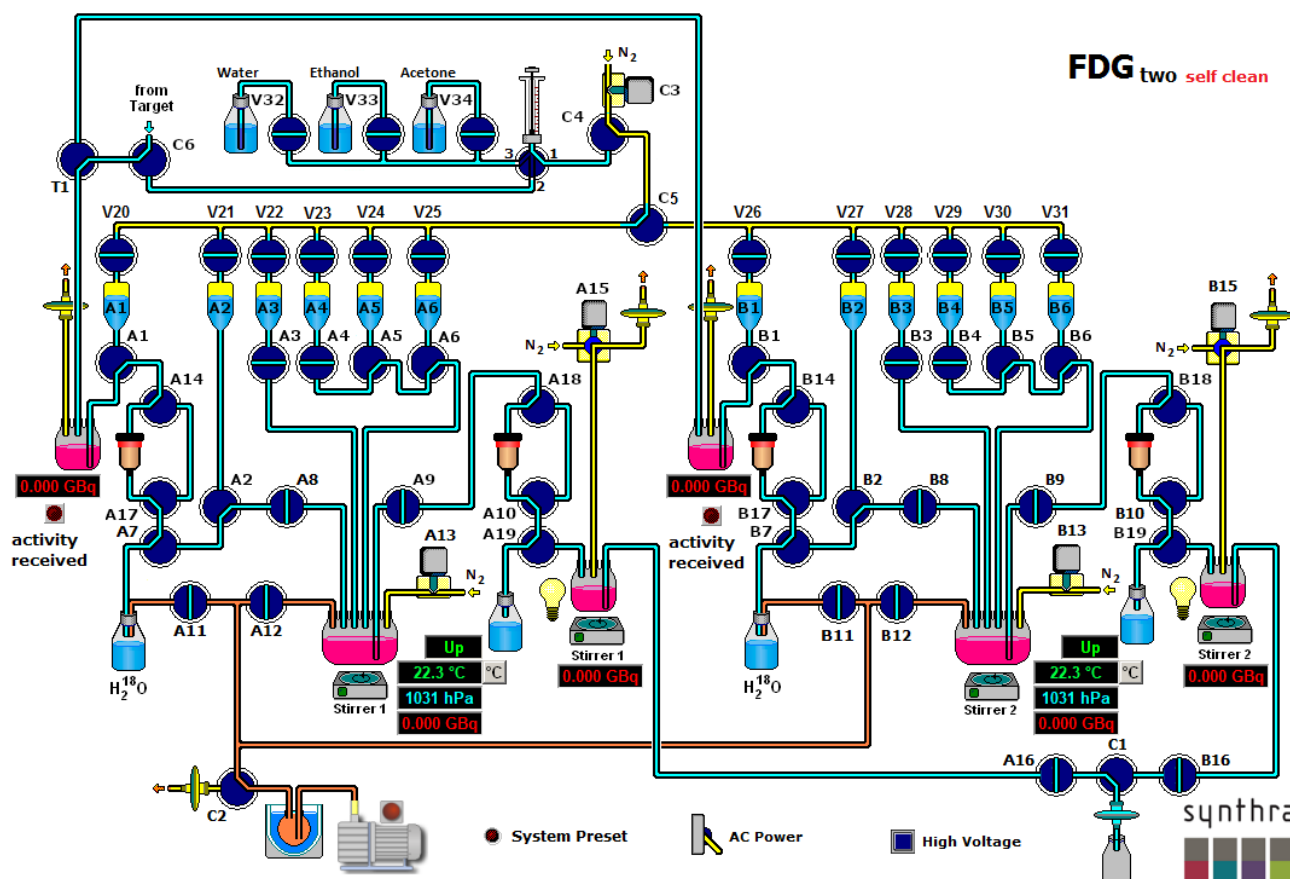
Product Description and Technical Specifications

synthra



Terminal Control

- ✓ A laptop (Win 10 Pro) with preinstalled controlling software SynthraView is included
- ✓ Four digital inputs for communication with external devices upon request



The Graphical User Interface (GUI) of the SynthraView software.