

# Modular-Lab PharmTracer

## Product Information



Modular-Lab PharmTracer is a fully automated click'n'start cassette-based synthesis system for the daily routine production of radiopharmaceuticals.

### ■ Description

The laboratory equipment Modular-Lab PharmTracer has been specifically designed to allow versatile radiopharmaceutical routine production and to a certain extent the development of new radiopharmaceuticals. The system has the same unique features like Modular-Lab, but was designed to meet producers' demands when labelling tracers on a daily routine basis – making the production time and cost efficient. The use of one-way sterile cassettes ensures easy handling through click'n'start technology. Modular-Lab PharmTracer modules

are available in 3 different sizes accommodating the complexity of different synthesis processes. Cassettes with 1, 2, 4 and 6 manifolds - 3 stopcocks each - are available. An intuitive graphical interface is used to control the synthesis process.

### ■ Advantages

Modular-Lab PharmTracer is based on a unique, modular approach combining the speed and safety of a remote, fully-automated system with the option to configure syntheses for novel PET tracers. The GMP-manufactured one-way sterile cassettes avoid intense cleaning and sanitation routines. By changing the cassette multiple syntheses also of various tracers can be performed with one Modular-Lab PharmTracer system. Synthesis process is programmed by Eckert & Ziegler Eurotope making additional programming unnecessary. Modular-Lab PharmTracer's multifunctionality

supports routine production of numerous radiopharmaceuticals, like  $[^{18}\text{F}]\text{FDG}$ ,  $^{68}\text{Ga}$ -DOTA peptides,  $^{177}\text{Lu}$ -DOTA peptides,  $^{90}\text{Y}$ -DOTA peptides,  $[^{11}\text{C}]\text{Methionine}$ ,  $[^{11}\text{C}]\text{Choline}$  etc.

### ■ Versatility

Modular-Lab PharmTracer can be combined with existing modules (HPLC, PRM, HRM, SYM) as well as with an analytical HPLC and TLC. The intuitive user interface is easy to program by drag and drop of graphical symbols and is compliant with GMP, cGMP, GLP and GAMP 5 requirements. Parameters such as temperature, activity, UV detector readings, flow rates, or valve settings can be monitored easily in one window. Reports containing all relevant data and information are created automatically after each run.

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## ■ One-Way Sterile Cassettes

Cassettes are assembled under GMP-compliant clean room conditions, sterilized with gamma-radiation and vacuum-packed. All consumables used are chemical resistant and have been tested for their suitability with the specific syntheses. A shelf life of 12 months can be guaranteed. Due to the cassettes one-time use no reconditioning and cleaning or sanitation routines are necessary.

## ■ Safety Functions

Reliable, automated synthesis, with remote monitoring provided as necessary through the graphical computer interface, eliminates the need for hands-on operation and can significantly reduce radiation exposure to lab personnel.

## ■ Application Examples

<sup>68</sup>Ga-DOTA-peptides, <sup>111</sup>In-DOTA-peptides, <sup>177</sup>Lu-DOTA-peptides, <sup>90</sup>Y-DOTA-peptides, [<sup>18</sup>F]FEC, [<sup>18</sup>F]FDG, [<sup>18</sup>F]FMISO, [<sup>11</sup>C]Choline, [<sup>11</sup>C]Methionine

## ■ Technical Data

Module Characteristics	
Dimensions (W x D x H) of the 1-fold system	130 x 130 x 78 mm
Dimensions (W x D x H) of the 2-fold system	130 x 167 x 191 mm
Dimensions (W x D x H) of the 4-fold system	262 x 198 x 191 mm
Dimensions (W x D x H) of the 6-fold system	394 x 198 x 191 mm
Cooling/Heating	via peltier elements (PRM: -40°C to +150°) or heating foil (HRM: +220°C)
Pressure	max. 2 bar
Liquid transport	via Syringe Dispensing Module (SYM) and stopcock modules
Main Unit	
Power supply (electrical cabinet)	115 V ~ 60 Hz or 230 V ~ 50 Hz
Power consumption (electrical cabinet)	standard 480W, 2 x bus 1050W, extension to 2100W possible
Environment temperature	+10°C – +40°C
Environment humidity	max. 70% rel.
Unit Control	
Software	Modular-Lab Software (cGMP, GAMP 5, 21 CFR part 11 compliant)
Interfaces	Ethernet

Before delivery all components are being tested and validated in-house. If requested, a performance qualification of the complete system will be provided on-site. Extensive documentation will be generally provided with the delivery of the system.

### Eckert & Ziegler Eurotope GmbH

Robert-Rössle-Strasse 10  
13125 Berlin  
Germany  
www.eurotope.com

Phone: +49 (0) 30 94 10 84-197  
Fax: +49 (0) 30 94 10 84-470  
E-Mail: eurotope@ezag.de

USA & Canada:

### Eckert & Ziegler Eurotope GmbH

63 South Street, Suite #140  
Hopkinton, MA 01748  
USA  
www.eurotope.com

Phone: +1 508 497 0060  
Fax: +1 508 497 0061  
E-Mail: eurotope@ezag.com