

# CLIO

DISPENSING SYSTEM FOR SYRINGES AND VIALS



FLEXIBILITY | SPEED | PRECISION



RADIOPHARMA



**COMECER**

an  company

# CLIO | DISPENSING SYSTEM FOR SYRINGES AND VIALS

**Comecer offers a wide range of dispensing systems ideal for the preparation of single dose syringes and vials in nuclear medicine as well as radio-pharmacy.**

They can be installed inside the Comecer shielded cells so as to ensure high safety levels for the operator and precision of the dispensed dose.



Dispensing kit



Support for vial/syringe



- Dispensing in open and closed vials and in 5 ml syringes
- Automatic dispensing process
- Innovative aerodynamic profile for the dispensing area to be effectively covered with a laminar flow
- cGMP compliant
- Disposable sterile box
- Illuminate™ MI Ready

**illuminate**<sup>™</sup>  
MANUFACTURING INTELLIGENCE  
Ready



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Sterilising filter



Crimping unit

The CLIO dispenser is designed for the automatic fractionation of radiopharmaceuticals (PET, SPECT and radio-treatments) in vials and syringes.

CLIO is a dispensing system compliant with cGMP guidelines for filling open and closed vials or single-dose syringes. Functional and validated to dispense FDG, upon technical approval, it can be used for different isotopes and molecules.

CLIO can receive radiopharmaceuticals from a multidose vial or a synthesis module.

Its particular aerodynamic shape allows the interaction with the laminar flow to be optimised.

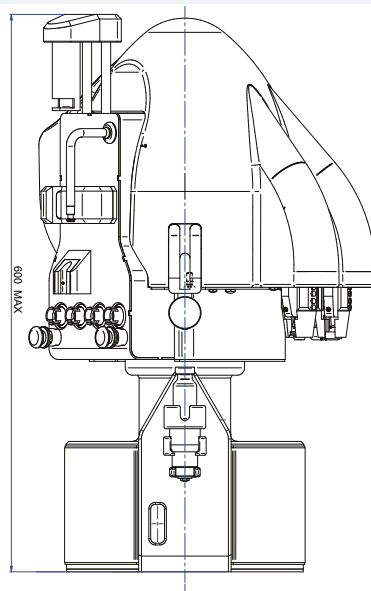
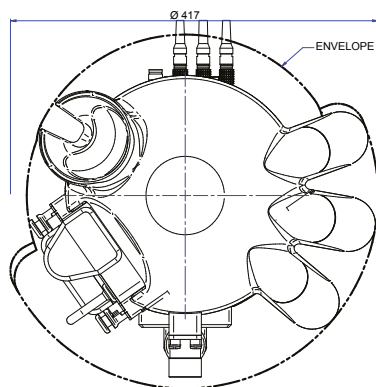
## Main technical features

- Pre-assembled single-use sterile disposable
- Can be installed in isolator and shielded cells equipped with a dose calibrator and laminar flow
- Compact dimensions and lightweight and Highly ergonomic to facilitate loading and unloading vials or syringes
- Illuminate™ MI: Illuminate™ Manufacturing Intelligence is a production management system that provides critical information on the essential processes of production activity.
- The radiopharmaceutical can be loaded from a synthesis module or a multi-dose vial
- Ventilated sterilising 0.22µm filter
- Automatic processes in the formulation stage: predilution in bulk, concentration calculation, automatic adjustment of the optimum concentration, dilution in bulk with flushing for bubbling the solution and making it homogeneous
- Automatic procedures for cleaning the consumable kit at the end of production
- Dilution in pumping syringe or final vial
- Automatic processes in the dispensing phase: remove / add lock-nut, remove / add rubber cap, volume filling or calculated activity, automatic crimping
- Complete management of the workflow by means of operator interface developed in accordance with the GAMP regulation and CFR21 Part 11 requirements.

## Technical data

Support frame material		AISI 316L - Mirror-Bright
External casing material		Polyurethane - AISI 316L*
Classification		IIA
External dimensions (Ø x h)	mm	417 x 600
Weight	kg	30
Angle of rotation		110°
Vertical axis stroke	mm	45
Technical gas supply (He / N)	bar	2 - 5
Max. operating pressure	bar	6
Compressed air consumption	NL/min	10
Bulk capacity	ml	125
Volume of the saline solution	ml	250÷500
Type of containers to be filled		Open vials Closed vials Syringes
Dispensing method		Sealed vials with rubber stop punching Syringes with septal perforators Open vials with automatic closing
Volumetric dispensing accuracy	ml	0.3±2 ± 0.08 2±10 ± 5%
Minimum volume dispensed	ml	0.3
Dispensing speed		TBA
Power supply	Vcc	24
Max. power consumption	A	4
Max. power	W	100
Electrical protection rating		IP54
Operating temperature	°C	5÷25
Operating humidity	%	40÷70

\*Material compatible with Vapour Phase Hydrogen Peroxide (VPHP)



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