

GLOVE BOX SGS4030: for containment of the AT-211 radiopharmaceutical synthesis module

STRUCTURE

The glove box is composed of a monolithic structure made of stainless steel AISI 316L.

Glove box support made of AISI 304 stainless steel square tube, satin finish with anti-vibration feet and wheels with lock brake. Under the Glove box support are positioned:

- electric cabinet with emergency switching-off switch, power presence lamp.
- pneumatic cabinet and pneumatic line.

Front wall in safety glass, equipped with three flanges and butyl gloves mounted by double O-ring safety gasket. The wall is hinged and can be raised upwards; it is also balanced by gas springs and equipped with quick-closing devices. External LED lighting system with AISI 304 stainless steel protection.

Interior rear wall featuring two height-adjustable shelves and two sealing sockets.

Left wall equipped with 4-module cable passage (Roxtec type) and two fluid passages complete with ball valve and rubber hose connector.

Upper wall equipped with:

- H14 absolute filter for inlet air with ball valve for flow regulation.
- Differential pressure gauge for operating pressure control.
- Double H14 absolute filter for outlet air (indoor/outdoor) with ball valve and safety valve against overpressure.
- Activated carbon external filter.
- Electric fan (aspirator).

Worktop: well for housing the dose calibrator (200 × 200 × 450 mm), positioned on the left side of the work area.

Electrical panel: PLC touch screen control panel for displaying all process, service and alarm parameters, with remote support via VPN.



UL COMPLIANCE

Electric power supply 120 Vac - Frequency 60 Hz
Maximum absorbed current 28 A
Residual current circuit breaker with overcurrent protection 35-40A
Internal Socket 120 V - 8A - (U.S.A. Type)
Pollution degree 2 - Overvoltage category III
Main supply Voltage fluctuations ±10%



Moreover the System provides:

- Lubricated rotary vane vacuum pump 4 mc/h nominal capacity
- Humidity Transmitter % RH



The glove box can operate under both negative pressure, via an electric fan, and positive pressure, thanks to the controlled introduction of inert gas.

Work area inertization can be managed automatically using a dedicated system consisting of:

- stainless steel gas supply lines with manual shut-off valves;
- automatic solenoid valves for gas inlet and outlet;
- regulating needle valve;
- regulating gate valve;
- process gas pressure regulation unit, powered by standard cylinders or the laboratory gas line.

The system can be installed on the left wall and the top wall of the glove box.

AIR-LOCK

Right wall is equipped with AISI 316L stainless steel Air-Lock, square in shape, with double door equipped with static gaskets. The front door is hinged to allow the material to be introduced.

The Air-Lock is equipped with a pneumatic interlocking device that prevents the two doors from opening simultaneously.

Airlock configured for controlled atmosphere/inert gas, complete with:

- pressure gauge
- gas inlet with AISI 316 stainless steel valve, 1/4" connection and Ø 8 mm pipe holder
- AISI 316 stainless steel valve vacuum pump connection from 1/4"
- overpressure safety device.

Is also available the version with an Air-Lock integrated under the worktop, equipped with pneumatic lifting.

The prechamber has useful dimensions of 200 × 200 × 200 mm.

The access is through two doors, one external and one internal to the working chamber, both equipped with a safety interlock. The doors are assisted by a manual opening/closing system and a mobile platform that facilitates their use.



Useful Dimensions			
	Width (mm)	Depth (mm)	Height (mm)
Glove Box	1400	750	900
Air Lock	300	300	460
Support	1300	700	850
Overall	2005	1000	2010

Electric power supply: 230VAC Frequency: 50-60Hz

Plug to a 230VAC - 2P+T 16 A S17

Internal power socket 230 V -4A

CONFORMITY **CE**

ISO 10648-1 Containment enclosures - Part 1: Design principles

ISO 10648-2 Containment enclosures - Part 2: Classification according to leak tightness

ISO 14644-7 Separative devices (gloveboxes, isolators and minienvironments)



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