



SAS BIO ionHP+
Bio-Decontamination System



Telstar SAS BIO ionHP+

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The Telstar BioSAS Pass-Through Hatch is a floor-standing, air-tight transfer chamber with an integrated ionHP+ (Ionised Hydrogen Peroxide) bio decontamination system. The unit is used for the sanitisation of materials when passing them into an aseptic production facility.

The BioSAS has its own on-board fans and filtration system and works independently of the facility's HVAC system. The system proves its efficacy by inactivating a resistant spore (*C. steartothermophilus*) inoculated into a ISO 11138 manufactured bioindicator. The population of such an artificial contamination is 10^6 , and a multipoint validation is carried out. This way, the ionHP+ reaches the expected results in a pharmaceutical environment.

No preconditioning phase is required when standard indoor temperature and relative humidity are maintained. Therefore, no control such parameters is needed.

Operating Principle

This unique system provides rapid and effective sterilisation of the enclosure, destroying proteins, carbohydrates and lipids on contact and kills biological agents including viruses, bacteria and microbial spores.

The system produces a fine mist of ionised hydrogen peroxide and compressed air through a specially designed nozzle. The dimension of the generated particles ($<10\text{ }\mu\text{m}$) is a key factor in the excellent distribution. Telstar has not just focused its R&D efforts in the technological aspect of the ionHP+, but also, has integrated a sterilant with high biocidal activity that allows the binomio (equipment + sterilant) to achieve the mentioned decontamination target. The ionHP+ system is controlled via the SCADA of the unit and includes among other features complete data acquisition.



ionHP+ Bio-decontamination process

- Aeration Stand-Alone cycle mode
- IonHP+ Bio-decontamination cycle mode
- Leak test Stand-Alone cycle mode



Standard Features

- Available in 304L / 316L stainless steel or a combination of both
- Doors with inflatable gaskets to guarantee the air tightness
- Doors with 25mm PMMA windows provide a safe and clear view of the internals of the chamber
- Interlock system guarantees that entry and exit doors cannot be opened at the same time
- HMI touch panel (12") with an user-friendly interface and the following main features,
 - System access controlled by different authorization levels.
 - Audit trails to record operator entries and actions.
 - Current and historical alarms
 - Recipe management
 - Real time and historical data trends
 - Cycle reports
- Secondary HMI (4,3") with basic functionalities
- Visual and audible alarm with three colours (green, yellow, and red)
- SCADA Control System
- Humidity and Temperature sensor for monitoring
- H₂O₂ high concentration sensor for process monitoring
- H₂O₂ low concentration sensor for process control
- Low noise level
- Emergency Stop accessible from each side of the pass box
- EC fans

Advantages of ionHP+

- Superior efficacy
- Rapid response and reduced cycle times
- Reduced Sterilant quantities
- No temperature increase during decontamination
- Temperature & Humidity at room conditions to perform the cycle
- Excellent materials compatibility
- Minimized downtime
- Environmentally-friendly (*GreenTech*)
- Cost-effective
- RFID technology
- IonHP+ integrated in a pre-engineered kit



TECHNICAL SPECIFICATION	SAS BIO ionHP +
Air Classification:	ISO Class 5 (EUGMP Grade B)
Airflow Pattern:	Single pass airflow (not unidirectional)
Operating Pressure:	Positive pressure
Noise Levels:	<65dBA
Temperature & Humidity:	Uncontrolled (Monitored only)
Room required conditions:	Temperature: 20°C-30°C Humidity: 30%-70%RH
Inlet & Exhaust Filtration:	HEPA H14 grade filter
Bio-decontamination:	A minimum of 6 log reduction in spore forming micro-organisms validated using <i>G. stearothersophilus</i> biological indicators

Available *Dimensions*

PASS THROUGH SAS						
MODEL	INTERNAL DIMENSIONS			EXTERNAL DIMENSIONS		
	DEPTH	WIDTH	HEIGHT	DEPTH	WIDTH	HEIGHT
	mm	mm	mm	mm	mm	mm
SAS BIO ionHP+ 700	700	700	800	700	1.900	2.100
SAS BIO ionHP+ 900	900	900	900	900	2.000	1.700
SAS BIO ionHP+ 1200	1.200	1.200	1.200	1.200	2.300	2.000

The Telstar BioSAS Pass-Through Hatches are available in a series sizes of standard however the design of these equipment enables them to be customised to suit almost any footprint.

Options and *accessories*

- Set of catalytic decomposition device
- H₂O₂ Sensors Room Monitoring
- Trolley
- Transfer Trolley
- Sterilant
- IQ/OQ documentation
- Bio-Decontamination Cycle Development

Check for the nearest Telstar office at
<https://www.telstar.com/international/>

Headquarters

Av. Font i Sagué, 55 T +34 937 361 600
08227 Terrassa (Spain) F +34 937 861 380

www.telstar.com
sales.laboratory@telstar.com



ISO 9001: Certified Company

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Telstar reserves the right to improvements and specifications changes without notice.