

nexus

REDEFINE YOUR DECONTAMINATION PROCESS

The Nexus Decontamination Chamber is designed to secure aseptic material transfers. The system delivers automatic, repeatable, validated and FAST bio-decontamination cycles, minimizing downtime and maximizing process safety.

Developed by IWT, leveraging decades of experience in isolator technology, aseptic processing, and bio-decontamination systems, Nexus addresses the needs of a wide spectrum of critical applications. From sterile component transfer to advanced therapy manufacturing and biosafety driven processes, Nexus supports multiple operational scenarios within pharmaceutical, biotech, and ATMP facilities.

Its design is driven by the stringent requirements of pharmaceutical manufacturing, ensuring consistent performance, validated processes, and full alignment with GMP.



Contamination Control Excellence



Decontamination Chamber

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IWT reserves the right to change or modify product and/or specifications without notice or obligation.

NEW

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► QUALITY & PERFORMANCE

- Validated 6-log microbial reduction in less than 1 hour
- Fully welded AISI 316L stainless steel chamber with continuous TIG welds, polished and passivated
- Automatic Leak Test compliant with ISO 10648-2 Class III tightness
- Integrated ventilation with inlet & outlet HEPA filters and H₂O₂ catalyzers
- Fast and repeatable decontamination cycles with advanced humidity control

► FLEXIBILITY & PLUG & PLAY INSTALLATION

- Modular design adaptable to various room configurations
- Free-standing unit with independent ventilation system, no HVAC connection required
- Minimal utilities: Electrical + Compressed Air
- Floor-flush installation with only a 30 mm pit
- Plug & Play design for fast setup and commissioning

Engineered for performance, designed for compliance

The Nexus combines high decontamination performance, robust construction, and advanced process control in a single, fully integrated solution. Designed to meet stringent EU GMP requirements, it ensures consistent contamination control and operator safety. Its modular, plug & play architecture adapts to different facility layouts and process needs, reducing installation time and simplifying integration into new or existing pharmaceutical environments. From hygienic design to process monitoring, every element supports reliability, compliance, and long-term performance.



► SMART CONSTRUCTION

- Full welded chamber in AISI 316L with <0.5 µm vibrated finish, minimum 20 mm radii
- External frames and covers in AISI 304/316L with Scotch-Brite finish
- Double-layer safety glass doors (15 mm), FDA-compliant inflatable gaskets
- Technical area with wide access for maintenance to the decontamination system and to filter replacement

► ADVANCED CONTROL & SAFETY

- Dedicated H₂O₂ loading hatch for safe and easy peroxide replacement
- Real-time monitoring and control of temperature, humidity, pressure, and H₂O₂ concentration
- Automatic cycle management for consistency and safety
- Fast aeration and enhanced energy efficiency with integrated H₂O₂ catalyzers
- Environmental and process safety sensors



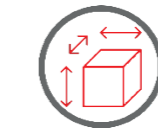
QUALITY

- Manufactured in compliance with pharmaceutical hygienic design principles, Nexus features fully welded construction and controlled surface finishes to support effective cleaning, contamination control, and long-term operational reliability.



REGULATIONS

- Designed in full alignment with Annex 1 principles, Nexus supports a risk-based contamination control strategy, ensuring repeatability, traceability, and validated bio-decontamination processes.



DIMENSIONS

Walk-in *	
Outer dimensions LxWxH (mm)	2400 x 2497 x 2803
Chamber Inner dimensions LxWxH (mm)	2300 x 1350 x 1800

*Custom sizes available upon request (subject to engineering feasibility).



SAFETY

- Nexus ensures a safe environment with controlled H₂O₂ handling, continuous monitoring, and exhaust with integrated catalyzer, minimizing risks to operators and products during bio-decontamination.



CONNECTIVITY

- Embedded SCADA for GxP environments, compliant with 21 CFR Part 11 and EU GMP Annex 11 and developed according to GAMP 5. It supports secure data integrity and enables scalable MES integration.

Pass-Box	
SMALL Outer dimensions LxWxH (mm)	1655 x 1000 x 2500
SMALL Chamber Inner dimensions LxWxH (mm)	2300 x 1350 x 1800
LARGE Outer dimensions LxWxH (mm)	1655 x 1300 x 2500
LARGE Chamber Inner dimensions LxWxH (mm)	900 x 1200 x 1200

