



Rapid Biodecontamination with Nitrogen Dioxide

NOXILIZER NOX 50™ MOBILE RAPID BIODECONTAMINATION SYSTEM

For Applications in Bio-Pharmaceutical Manufacturing

The Noxilizer NOX 50™ Rapid Biodecontamination System provides a means of biodecontamination of a wide range of equipment used in bio-pharmaceutical manufacturing. It is a compact, mobile generator designed for biodecontamination of isolators, lock chambers or any other sealed chamber or enclosure. The primary advantage of the system is the rapid process time compared with other chemical sterilants such as hydrogen peroxide vapor. A secondary advantage, which may be beneficial in some applications, is that the chemical sterilant employed, Nitrogen Dioxide (NO₂), is also an effective depyrogenation agent.

Key Features:

- Self-contained, mobile generator for biodecontamination of sealed enclosures up to 50 cu.m. (1,765 cu.ft.)
- Rapid Process: Up to 65% reduction in process time compared with HPV due to reduced aeration time
- Sterilant is a true gas, not a vapor – allows rapid aeration to very low levels, needed when handling chemically-sensitive materials
- Connects to enclosure to be decontaminated via quick-connect hoses
- Aeration by ventilation or optional external scrubber (abator) module
- Variety of sensors for process monitoring and safety
- User-friendly color touchscreen HMI
- Chemical and biological indicators available

About Noxilizer, Inc.

Noxilizer is a Baltimore headquartered company, founded in 2004, with sales and service offices in California, Japan and the United Kingdom.

Understanding that NO₂ sterilization is a non-traditional method, Noxilizer provides expert resources to lead and assist our clients in their evaluation of the technology prior to its deployment.

Our responsive and experienced staff include highly qualified materials scientists and microbiologists based at our Baltimore, MD facility.

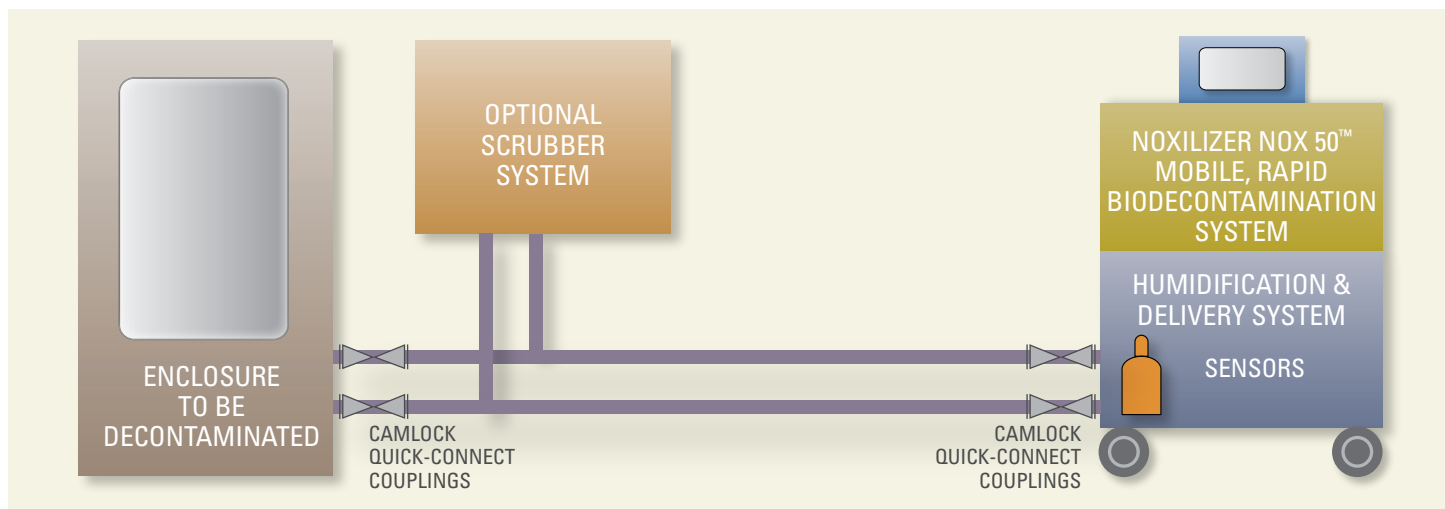


Advantages of NO₂ Technology

- Room/ambient temperature process
- Effective against a wide range of organisms
- Safe and simple to use
- Rapid process times compared with other methods
- Effective at low humidity levels: allows decontamination in moisture-sensitive environments
- Compatible with a wide range of materials including sensitive electronic devices
- Low residuals: typically not measurable – ideal when manipulating chemically-sensitive materials

CONSULT NOXILIZER FOR MORE INFORMATION BEFORE USING DATA

NOXILIZER NOX 50™ SYSTEM COMPONENTS



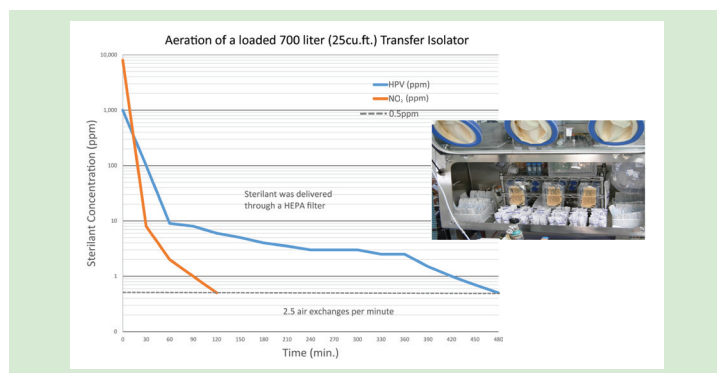
Stand-Alone Mobile System

- System contains all components needed to generate gas, control and monitor the process in one single, mobile cabinet. Connects to enclosure with Camlock quick-connect fittings
- Secure adjustment of process parameters
- Gas concentration sensors (high range for process control, low range for operator safety) are included in the generator
- Humidity sensor for process control is included
- Separate optional scrubber module

Potential Applications

- Barrier isolator biodecontamination
- Filling line plenum biodecontamination
- Biodecontamination of lock chambers
- Freeze dryer sterilization (at room temperature)
- Low temperature sterilization in an autoclave

COMPARATIVE AERATION PROFILE: NO₂ versus HPV



Study demonstrated a 75% reduction in aeration time, 105 v. 460 minutes resulting in overall quicker process time

Equipment Data (Noxilizer NOX 50™)

Sterilant Gas Source	Liquid NO ₂ in 454g (1lb.) bottles			
Sterilant Bottles (x2)	DOT approved steel bottles			
Unit Dimensions and Weight	Width	Depth	Height	Weight
	mm (in)	mm (in)	mm (in)	kg (lb)
	700 (27)	900 (35)	1250 (49)	180 (400)
Power (North America)	120 VAC single phase, 60Hz, 15A			
Power (Europe)	230 VAC single phase, 50Hz, 15A			

Consumables

Biological Indicators	<i>G. stearothermophilus</i>
Chemical Indicators	Color change indicator
Scrubber (if used)	Spent material is landfill safe

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