

# BioWasteSink™ and NanoEDS™

## Effluent Decontamination System



BioWasteSink™

The Validatable Effluent  
Decontamination System for Low  
Volume Level BSL 1, 2 and 3 Biowaste

### Overview

The BioWasteSink™ and NanoEDS™ are a Low Volume BioWaste Decontamination system for treating BSL 1, 2 & 3 waste using an innovative batch process allowing positive release of all of your waste. The BioWasteSink™ model has one or two sinks and the NanoEDS™ has no sink but connections to accept waste from other sinks, eyewashes, pumping stations, sump pumps etc. A buffer vessel is used to provide a continuous collection facility and a set volume batch heat treatment facility is used, to treat the effluent in batches at variable f0 lethality settings.

The units has been specifically developed units of laboratory furniture and typically placed against the service spine or a wall, to fit into new facilities or to be retrofitted into existing facilities. Designed to operate from a single 13 amp 230 Vac plug (European versions), the units uses established electrical heating technology.

Using robust, proven design principles, the systems treats Bio Waste and takes into account two main areas of concern. Firstly, the systems effectively sterilise or inactivate any harmful pathogens in the waste stream and secondly, that total containment is maintained at all times. The unit can be fully thermally and chemical decontaminated for maintenance.

### Applications

- Hospitals
- Research Institutions
- Animal Labs
- Research Labs
- Clinics
- Mobile Operations
- Biotech



# BioWasteSink™ and NanoEDS™ DATASHEET



VERSION 1.1

## Welcome

Since our foundation in 1961, Suncombe has pioneered the development of innovative solutions for cleaning in place, bio-waste decontamination, GMP Washers, sanitary skids and vessel skids. The business continues to be privately owned and managed day to day by Dave Adams and Steve Overton.

Supporting Dave and Steve is a close-knit, dedicated, highly motivated and long-standing team encompassing a wealth of technical experience and knowledge in all relevant disciplines, including design, manufacture, testing, installation, validation, documentation and after-sales support. All of our work is carried out across our own facilities, just off the M25 in north London.

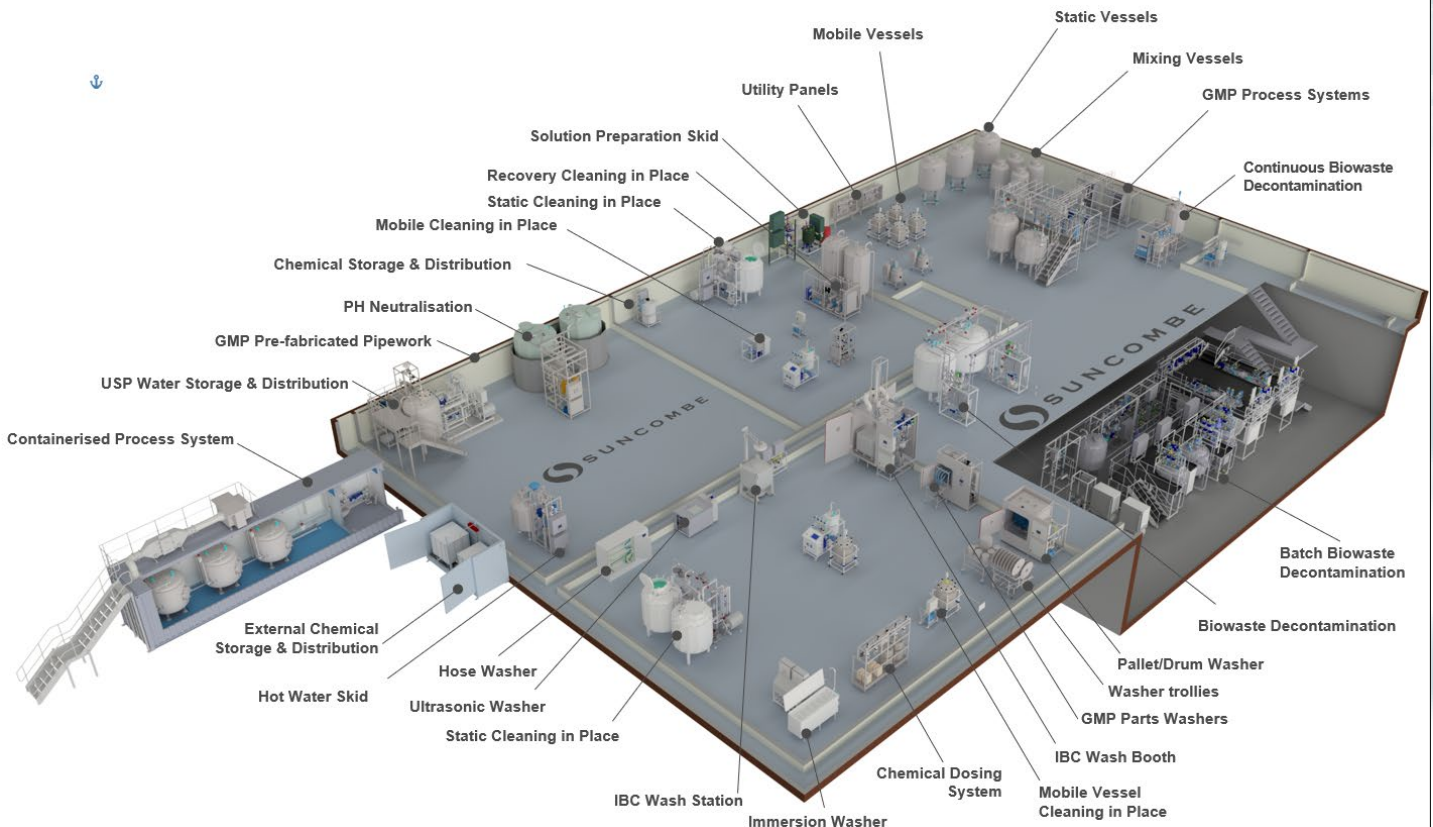
The team employ the very latest techniques, standards and best in class solutions. Having such a strong team allows us to offer the ability to carry out all of our work in-house, under our direct control

and quality management system. It also ensures that we own and preserve all the knowledge and experience gained with every project and allows us to offer continued support for all our installed systems throughout their lifetime.

## Our Clientele



## Our Equipment



# BioWasteSink™ and NanoEDS™ DATASHEET



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## Key Features

- Robust and reliable
- Pre-tested at Suncombe
- Plug n Play after delivery
- Only requires water and electricity
- Can be plugged into a standard 13 amp 230 Vac plug (European versions)
- Gravity flow from collection to treatment tanks
- Adjustable kill temperature and time
- Under bench location

Containment Level	BSL1, BSL2, BSL3
Treatment Vessels	1
Collection Vessels	1
System Capacity (litres)	80L per day
Treatment Parameters	Variable and preset to 121C for up to 30 minutes
System Cooling	43C without cooling utility required
Material of Construction	316 Stainless Steel
Operating Voltage	230VAC 13A
Automation	BioSuite Level 2000 standalone control system with touch panel display.



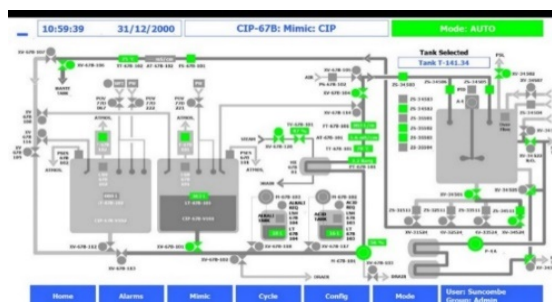
BioWasteSink™ - with two Bowls



NanoEDS™

## Options

Material of Construction	SAF 2205 duplex or Hastelloy for chlorine resistance
Operating Voltage	Various
Automation	Biosuite Level 3000 with 21CFR 11 reports, records and networking
Safety	Failsafe versions available for SIL 2 and SIL 3
Covers	Thermoplastic or stainless steel covers
CIP	Chemical CIP for system cleaning
Pump Feed	Discharge pump to transfer waste
Remote Control	Remote start and remote HMIs



Typical HMI Display

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**Designers, manufacturers & installers of quality, hygienic processing and cleaning systems and Equipment**

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Key Features	Benefits
Sanitary 316L stainless steel construction and components	Systems are constructed to the highest sanitary standards with 3.1/2.2 material traceability and welding dossier. This ensures a fully validatable and cleanable treatment environment.
Vent Filter	Sterile, HEPA Vent Filter included
Treatment Parameters	Variable configuration to provide Temperature/Time, f0 or log kill requirements. Temperatures up to 136°C.
Siemens PLC and 9" colour HMI with options for larger HMIs	Control hardware is industry standard and supported worldwide by Siemens. Ethernet interface included for transfer of critical operating variables to other systems. Designed to enable integration to third party equipment or higher level control system.
Suncombe BioSuite software	Control software specification has been developed and proven over many years for EDS applications and includes a wide range of user or administrator configurable parameters to enable customised decontamination profiles. User passwords, Active Directory, Audit Trails, Electronic batch reports for local or network storage are possible. User interface screens and process visualisation is simple, intuitive, clear and comprehensive. Remote access options are possible if required. Software complies with FDA 21CFR and EU GMP regulations.
Fully automated continuous batch processing	The Buffer vessel allows the system to provide continuous collection facilities and Suncombe's BioSuite software enables fully automated treatment of waste and safe release to drain.
Fully automated batch report	Electronic pdf reporting included – printed report optional
Automatic Operation	Automatic Waste Inlet Automatic Waste treatment Automatic Waste Discharge Automatic Alarms and Warnings
Simplified Utility Requirements	Systems only require water and electrical utility connections.
Coolant Utility	No coolant is required.
Drainage	Under gravity at <43°C
Containment Level	Systems suitable for the treatment of BSL 1, 2 and 3 Waste.
Continuous monitoring of key parameters	Decontamination process is highly repeatable and validatable.
Safety	Alarms, interlocks and fail-safe design prevent waste discharge in the event of an unsuccessful treatment. This encompasses scenarios such as power loss and under-temperature events.
Plug 'n' Play	Comprehensive in-house testing to ensure fast start up on site.
Covers	The systems are also available with stainless steel or thermoplastic covers
Compact design	Designed to fit into new facilities or to be retrofitted into existing facilities under bench or with limited available space.
Configurable	Based on standard modules, we can supply individual units custom designed for your specific requirement.
Cleaning In Place	Prepared for CIP with optional Automatic or Manual Cleaning In Place System
Waste Distribution	Optional sump pumps, discharge Stations available to pump waste to units

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## Capacity Table

Part #	Daily Capacity Litres	BioWaste Levels	Max Treatment Temperature	Storage Capacity Litres	Electrical Supply or Steam	With 24 hour Collection Availability		With 18 hour Collection Availability	
						Collection litres per day*	Treatment litres per day*	Collection litres per day*	Treatment litres per day*
BioWasteSink™ —High Temperature	0 - 80	BSL1, 2, 3	136°C	30	230 VAC, 13 Amps	80	80	80	80
BioWasteSink™ —Low Temperature	0 - 80	BSL1 & 2	95°C	30	230 VAC, 13 Amps	80	80	80	80
NanoEDS™ Treatment System—High Temperature	0 - 80	BSL1, 2, 3	136°C	30	230 VAC, 13 Amps	80	80	80	80
NanoEDS™ Treatment System—Low Temperature	0 - 80	BSL1 & 2	95°C	30	230 VAC, 13 Amps	80	80	80	80
BioWasteSink™ with Twin Sink—High Temperature	0 - 160	BSL1, 2, 3	136°C	60	2 x 230 VAC, 13 Amps	160	160	160	160
BioWasteSink™ with Twin Sink—Low Temperature	0 - 160	BSL1 & 2	95°C	60	2 x 230 VAC, 13 Amps	160	160	160	160