

# MicroEDS®

## Effluent Decontamination System

The Validatable Effluent  
Decontamination System for Low  
Volume Level BSL1, 2 and 3  
Biowaste



### Overview

The MicroEDS® is 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. A buffer vessel is used to provide a centralised collection facility and a set volume batch heat treatment facility is used, to treat the effluent in batches at variable temperature, time and f0 lethality settings.

The MicroEDS® has been specifically developed to fit into new facilities or to be retrofitted into existing facilities. Designed to operate from a single 13 amp 230 Vac plug (150 and 300 versions), the MicroEDS® uses established electrical heating technology.

Using robust, proven design principles, the systems decontaminate BioWaste 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



# MicroEDS® DATASHEET

VERSION 1.9



## 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.

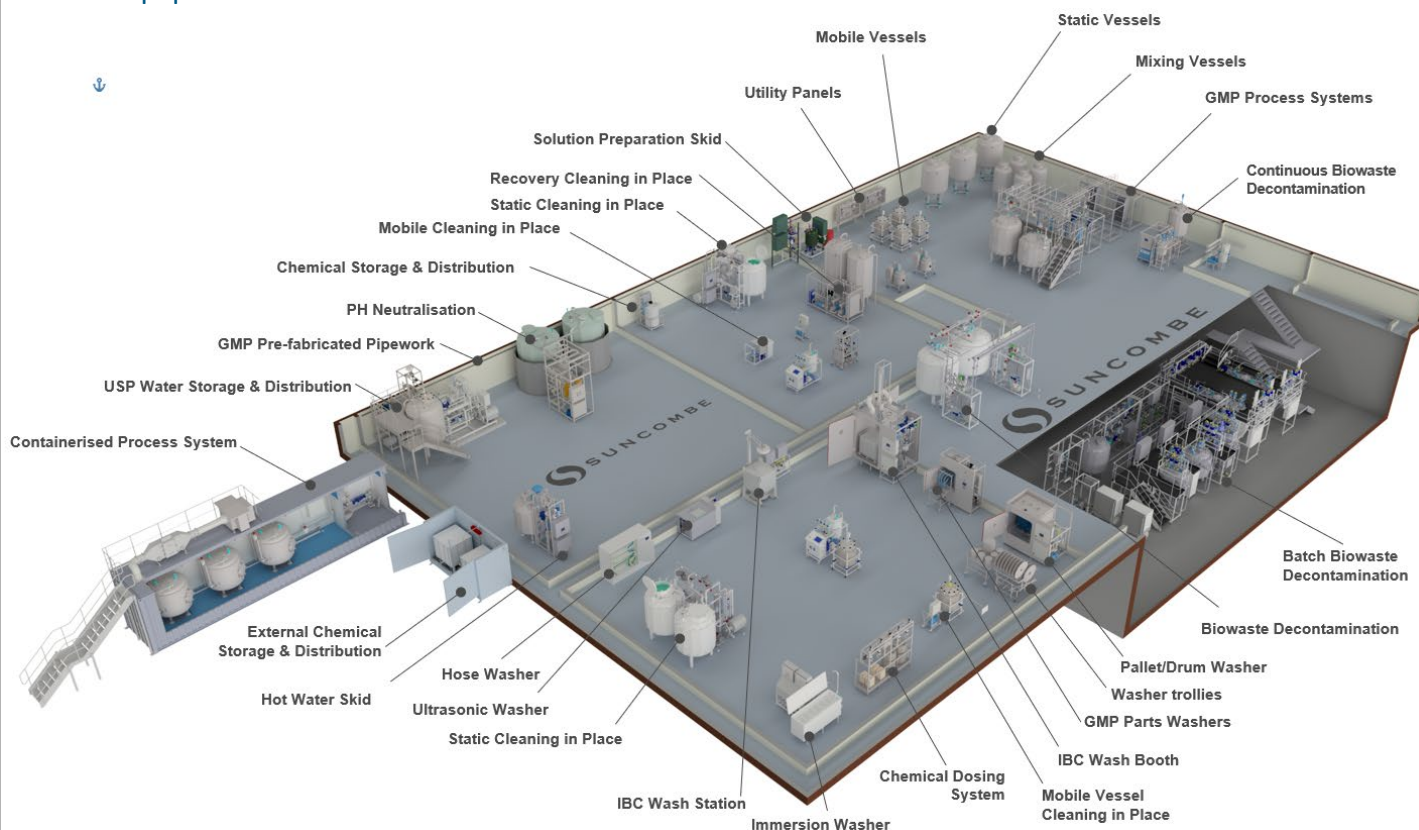
The team employ the very latest techniques, standards and best in class solutions. Having such a strong team allows us to offer the ability to carry out all of our work in-house, under our direct control

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



## Suncombe Ltd

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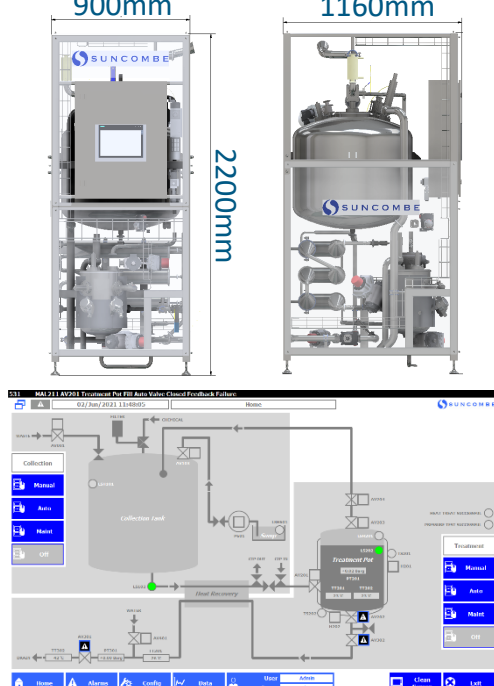
## Key Features

- Robust and reliable
- Pre-tested at Suncombe
- Plug n Play after delivery
- Only requires water, electricity and compressed air
- Electrical supply standard 13 amp 230 Vac or equivalent (150 and 300 versions)
- Gravity flow from collection to treatment tanks
- Adjustable kill temperature and time
- Gravity or pressurised discharge to sewers

Containment Level	BSL1, BSL2, optionally BSL3
Treatment Vessels	1
Collection Vessels	1
System Capacity (litres)	150 to 1,000 per day
Treatment Parameters	Preset at 121°C for 30 minutes and variable from 100°C to 136°C
System Cooling	Available for <40°C
Material of Construction	316 Stainless Steel
Operating Voltage	230VAC 13A on 150 and 300 versions
Automation	BioSuite Level 2000 standalone control system with touch panel display.



## Dimensions (150 and 300 version)



## Typical HMI Display

## 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
Heating	Steam Heated
Containment Level	Optionally BSL3

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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	Preset at 121°C for 30 minutes and 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 compressed air, water and electrical utility connections.
Coolant Utility	Integrated cooling, no additional Coolant Utility required
Drainage	Under gravity at <55°C
Containment Level	Suitable for the treatment of BSL 1, 2 and optionally 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 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 CIP System
Waste Distribution	Optional sump pumps, discharge Stations available to pump waste to Micro EDS

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## Capacity Table

Part #	Daily Capacity Litres	BioWaste Levels	Treatment Temperature/Time	Storage Capacity Litres	Electrical Supply 230 VAC	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
MicroEDS 150	0 - 150	BSL1, 2, 3	121°C for 30 minutes	150	13 Amps	150	150	150	150
MicroEDS 300	0 - 300	BSL1, 2, 3	121°C for 30 minutes	300	13 Amps	300	300	300	300
MicroEDS 300/750*	0 - 300	BSL1, 2, 3	121°C for 30 minutes	750	13 Amps	750	300	750	300
MicroEDS 500*	0 - 500	BSL1, 2, 3	121°C for 30 minutes	500	25 Amps	500	500	500	500
MicroEDS 500/1000*	0 - 500	BSL1, 2, 3	121°C for 30 minutes	1000	25 Amps	1000	500	1000	500
MicroEDS 500/1500*	0 - 500	BSL1, 2, 3	121°C for 30 minutes	1500	25 Amps	1500	500	1500	500
MicroEDS 1000*	0 - 1000	BSL1, 2, 3	121°C for 30 minutes	1000	32 Amps	1000	1000	1000	1000

\*Please enquire for equipment dimensions