

Process Chemical Decanting Systems

The Ultrasafe, robust, reliable Process Chemical Decanting System for critical sectors for internal and external use



Overview

Suncombe Process Chemical Decanting Systems provide a robust and repeatable method of transferring process chemicals from the transit container, typically an IBC, drum or carboy, known as the source container, into a static or permanent container, referred to as the target vessel.

Process chemical decanting requires robust adherence to safety protocols and guidelines and proper handling techniques. By employing decanting techniques, the users can relatively quickly dispose of or return the transit containers and transfer the chemical to static or permanent container, which are designed to take into account the COSHH and safety regimes detailed by risk assessments and HAZOPs.

The Skids comprise all the necessary connections, lances, pumps, valves, pipework and related components and instrumentation to deliver the required decanting operation in a safe and controlled manner. Type, quantity and physical sizes of components are determined during the design phase of each project to suit the required application.

Systems include a user-configurable recipe based control system and are pre-assembled and fully tested with operating utility supplies in our works to minimise risk and optimise installation and validation time on-site.

Systems comply with all applicable regulatory standards and are accompanied by a comprehensive suite of documentation covering all aspects of installation, operation and maintenance.

Applications

Decanting from:

- ✓ Intermediate Bulk Containers (IBCs and Totes)
- ✓ Chemical Drums
- ✓ Chemical Carboys
- ✓ And other chemical transit and supply containers

Decanting to:

- ✓ Chemical Bulk Tanks
- ✓ Chemical Day Tanks
- ✓ Chemical Intermediate Storage Tanks
- ✓ Chemical mobile tanks
- ✓ And other chemical static or permanent containers

Construction

- ✓ 316L stainless steel, minimal dead legs, fully drainable, material & weld traceability and chemically resistant thermoplastics, generally FDA approved components
- ✓ Control and instrumentation to GAMP5
- ✓ Robust, reliable, Safe, Repeatable Operation

Process Chemical Decanting DATASHEET

Version 3.11



Welcome

Since our foundation in 1961, Suncombe Ltd and the **CIPProcess Niche product Division**, has pioneered the development of innovative solutions for Cleaning In Place, BioWaste decontamination, GMP Washers, GMP skids, Sanitary Tanks and Vessels. The business continues to be privately owned and managed day to day by Dave Adams and Steve Overton.

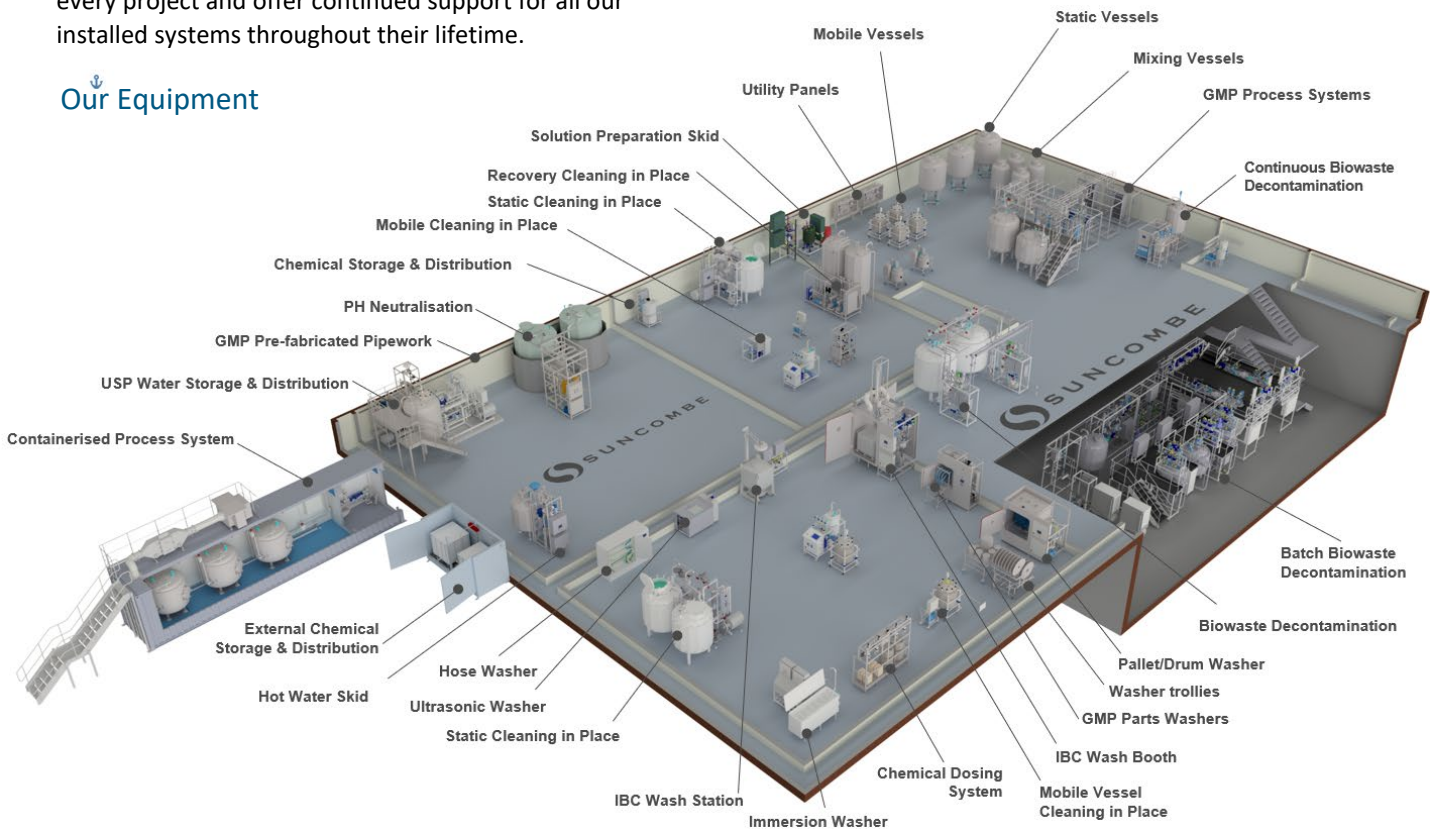
Supporting Dave and Steve is a close-knit, dedicated, highly motivated and long-standing team encompassing a wealth of technical experience and knowledge in all relevant disciplines, including design, manufacture, testing, installation, validation, documentation and after-sales support. All of our work 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 systems, ensuring that we own and preserve all the knowledge and experience gained with every project and offer continued support for all our installed systems throughout their lifetime.

Our Equipment

Our policy is to re-invest much of our profits into continuous development of our staff and our facilities, together with Research and Development to provide the optimum technical solutions for our clients requirements.

Our Clientele



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Key Features

Benefits

Various Decanting Technologies	<ol style="list-style-type: none">Gravity-Fed Decanting System:<ul style="list-style-type: none">Suitable for low-viscosity liquids with container or drum elevated above the target vessel.Pump-Based Decanting System:<ul style="list-style-type: none">Low or high viscosity and longer distances, utilises a pump to transfer the liquid from the source container to the destination vessel. Allows for adjustable flow rates and precise control over the decanting process.IBC/Drum Decanting Station:<ul style="list-style-type: none">Specifically designed for safe decanting of liquids from drums or intermediate bulk containers (IBCs). Consists of a dedicated workstation with integrated safety features, including spill containment, splash guards, and may incorporate pumps, instrumentations and valves for efficient and controlled decanting.Automated Decanting Systems:<ul style="list-style-type: none">Utilises PLC systems to automate the decanting operation, and can be customized to include self deploying suction lances, automatic container changeover, integrated alarms, interfaces to POU's, batch reports and records.Metered Decanting System:<ul style="list-style-type: none">Designed for applications where precise measurement of volume is critical. Can be combined with other systems such as pump-based or gravity-fed for controlled and precise dispensing.
316L stainless steel and thermoplastic construction and components	Chemicals are maintained at the highest standards with full material traceability, weld maps and tables and welding dossier.
Siemens PLC and 12" colour HMI with options for additional 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. Versions also available with remote I/O for control by clients control system.
Suncombe SmartDose™ software	Control software specification has been developed and proven over many years for dosing applications and includes a wide range of user or administrator configurable parameters to enable customised dosing, including water flow, pressure, time, temperature, chemical concentration and many more. User passwords, Active Directory, Audit Trails, Electronic CIP 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.
Plug 'n' Play	Fully integrated with comprehensive in-house testing to ensure fast start up on site
Instruments	Sanitary instruments of Endress and Hauser/Mettler Toledo or equivalent with full material and calibration certification.

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External Versions

Suncombe External versions of Process Chemical Decanting Systems provide weatherproof containers or enclosures, which are weatherproofed and include connection, transfer, pumping, control, heating, lightning, self-bunding and other safety and operational features.



Typical IBC External Decant Station



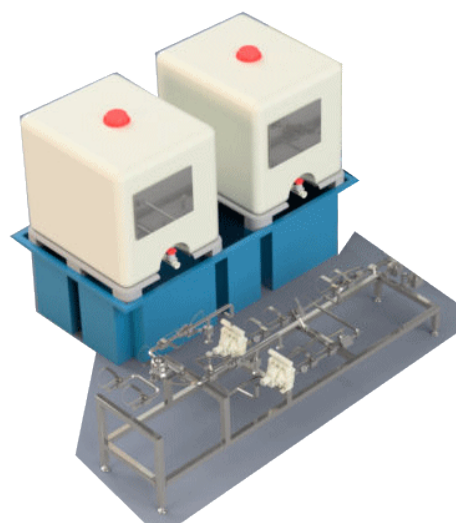
Typical Drum External Decant Station

Internal Versions

Suncombe Internal versions of Process Chemical Decanting Systems are designed for decanting from chemical containers within a building and include connection, transfer, pumping, control, self-bunding and other safety and operational features.



Typical IBC and Drum Internal Decant Station



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Control and Automation System

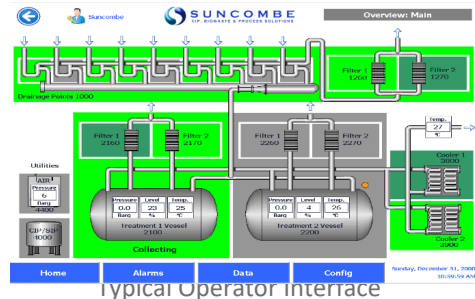
Renowned for their ease of operation and versatility, Suncombe systems are designed and manufactured for reliability, repeatability and longevity, whilst complying with the highest international regulatory standards. With dedicated in-house automation personnel for control design and software, Suncombe engineers have tremendous experience in incorporating a broad range of control solutions to suit your specific control requirements.

Developed to the GAMP 'V' model (Verification and Validation), system life cycle approach, which links the three main qualification activities (installation, operation and performance) back to the design process, the system software is produced in house by qualified software engineers, encompassing software development standards, quality control systems and change control during and post development.



Standards and Guidelines

- ✓ GAMP Guidelines
- ✓ FDA 21CFR11 Compliance
- ✓ ASME BPE
- ✓ EU Machinery Directive
- ✓ EU Low Voltage Directive
- ✓ EU cGMP Guidelines
- ✓ EU EMC Electromagnetic Compatibility Directive
- ✓ IEC 61131 for PLCs
- ✓ EN 60204 Safety of machinery
- ✓ EN 60439 Low Voltage Switchgear
- ✓ CE and UKCA Marks



Our Sustainability Operations



Here are some of the ways we achieve this:

Sustainability of Suncombe Equipment

As a company, we recognise the importance of sustainability and the need to minimise our environmental impact. All Suncombe equipment has been re-developed for sustainability purposes and incorporates techniques and methodologies to minimise impact on the environment, including technologies that reduce energy consumption, emissions, and waste, as well as adopting practices that promote sustainability and reduce the environmental impact of operations.

Social Responsibility

Our company philosophy is one of Social Responsibility and under this banner we are fully committed to the need to balance economic growth with environmental stewardship and social responsibility.

Overall, Suncombe demonstrates a commitment to sustainability and environmental responsibility in our operations and products. For further details Suncombe have produced Sustainability and Lifecycle White Papers available **on request**

- ✓ Efficient use of resources: Suncombe uses energy-efficient technologies in our equipment, which helps to reduce energy consumption and carbon emissions.
- ✓ Waste reduction: Suncombe strives to reduce waste throughout our operations, from manufacturing to product disposal. We use sustainable materials and designs that minimise waste and maximise product lifespan.
- ✓ Recycling: Suncombe promotes recycling and reusing of materials to reduce waste. We also recycle our own equipment where possible.
- ✓ Compliance with regulations: Suncombe adheres to environmental regulations and standards set by governing bodies, ensuring that our operations do not harm the environment.
- ✓ Green initiatives: Suncombe invests in research and development of new, sustainable technologies and processes to further reduce our environmental impact.
- ✓ Lifecycle Considerations: The company emphasizes the entire lifecycle of our equipment, from design and manufacturing to use and disposal. We strive to select materials and components that are environmentally friendly and can be recycled or disposed of responsibly. Featuring design with margin, upgrading and future-proofing extends the equipment lifecycle.