SUNCOMBE

CIP & PROCESS ENGINEERS

SonoKleen™ Parts Washer

Suncombe Ltd, Jade House, Lockfield Avenue, Brimsdown, Enfield, Middlesex, EN37JY, United Kingdom

T +44(0)20-8443-3454 **F** +44(0)20-8443-3969 **E** info@suncombe.com **W** www.suncombe.com

www.suncombe.com

About Us

Suncombe Ltd supply Cleaning and hygienic processing technology for the BioPharma, Medical, Food and other critical hygiene industries. From CIP to PartsWashers, we are uniquely capable of offering you a complete washing and processing solution.

Formed in 1961, we have a tremendous amount of experience in-house and provide a high level of technical and engineering expertise. Our completed projects range from stand-alone systems to complete processing solutions. Our products are built to a high quality and encompass all relevant legislation, guidelines, testing, documentation, quality assurance and traceability requirements.

SonoKleen™ Introduction

Employing a combination of ultrasonic, immersion, turbulation, recirculation and spray cleaning, the SonoKleen™ range of PartsWashers are top loading washer/ disinfectors, which are designed for the hardest cleaning tasks. They provide an environmentally friendly, low water and energy usage washing facility for parts washing. Used for many different cleaning applications including change parts, compression tooling and many other components.

Lean Technology

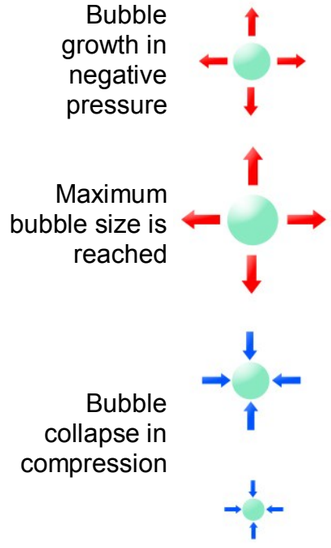
Adopting LEAN principles, all Suncombe products are developed to ensure they minimise utilities and time, whilst ensuring the safety of the operators and the efficiency of the cleaning. Utilising innovative fluid handling techniques, they incorporate a combination of traditional and new technologies to provide an environmentally friendly, low water and energy usage washing facility that is safe and ergonomic for the operators.

SonoKleen™

SonoKleen™ with covers removed

SonoKleen™ chemical storage

Ultrasonic Cavitation Cycle



Washing Chamber

316L Stainless steel radius-corners, sloping design and smooth, crevice-free with a certified surface finish. Single basket loading with media delivery points, the chamber includes a high power electrical liquid heater for fast heatup times and an adjustable frequency UltraSonic facility for high energy cleaning.

Detergent Dosing

One to four liquid dosing systems, which can be incorporated within any recipe step at any concentration, complete with dosing safeguards including low detergent confirmation and detergent dosed volume confirmation, as well as pump priming facilities.

Door

The washer is fitted with a hinged top lockable stainless steel loading door. Options are available for observation windows, interior lights and door sealing provided by an inflatable seal ensuring full containment and air tight closing

Validation/ Documentation

The lifecycle approach is adopted (DQ, FAT, SAT, IQ & OQ) with validation being key to every stage of the development process, including Factory Acceptance Testing (FAT), SAT and Qualification.

Loading Accessories

Standard and Bespoke racks, carriers, injectors and baskets. Using a modular approach gives total flexibility allowing multiple use and thereby reducing the need for multiple accessories, saving costs and space. 3D modelling and riboflavin testing to guarantee full coverage.

Optional Printer/Chart recorder

Providing a real time record of the washer operation, the panel printer prints out a comprehensive record of the clean including the critical process parameters, providing a positive sign off area on completion.

Cleaning Basket

Standard or bespoke cleaning baskets for component storage for cleaning.

Key Features

- Cleaning recipe can be developed to include any combination of ultrasonic, immersion, turbulation, recirculation and spray cleaning to provide optimum cleaning power
- Fully Automatic Control
- Safety Interlocks and Controls
- 316L Stainless steel wetted parts including radius-cornered chamber, distribution pipework and racks.
- Sloping design and smooth, crevice-free construction
- EPDM, PTFE FDA-approved elastomers and tri-clamp connections
- Enclosed head orbital welding to EN287/15614
- 316/304 stainless steel non-wetted parts
- BioPharma Diaphragm valves
- Certified surface finishes to 0.4 ra and optionally electropolished
- Large hygienic variable speed washing pump
- BioPharma instrumentation
- Fully self-draining including pump housing
- High power electrical liquid heating for fast heatup times
- High power ultrasonic
- One to four liquid dosing systems including dosing confirmation
- Top hinged lockable stainless steel door for ergonomic loading optionally fitted with an observation window and interior light.
- Storage for up to 4x detergent containers
- Double wall insulated construction to reduce electricity consumption and heat loss.
- Side entry maintenance
- Final rinse recirculated or non-recirculated to eliminate possibility of cross-contamination between rinses.

Common Options

- Inflatable door seal ensuring full containment and air tight closing every time including a high temperature locking mechanism.
- Fully adjustable cycle parameters including temperatures up to 120ºC, pressures and times
- Available with Conductivity controllers for detergent concentration and pure water.
- CIPSuite™ Control Systems with a colour graphic operator interface for visualisation
- Password control
- Up to 100 Fully configurable recipes
- In built troubleshooting and diagnostic ability
- USB port for connections to desktop printer
- Optional Inbuilt Panel printer for printouts of operation
- Integrated HEPA drying system, variable drying temperature control up to 120ºC, providing fast and efficient drying
- Filter Magnehelic gauge to provide constant performance integrity
- Optional Storage tanks for water supply buffering and reuse

Cleaning Technologies

A typical SonoKleen™ includes 6—100 recipes, each which can be built up of a combination of the different cleaning technologies, detailed below.

Ultrasonic Cleaning

Ultrasonic cleaning uses high-frequency sound waves to form and collapse minute bubbles within the solution (called cavitation). This cavitation leads to a gentle, highly effective scrubbing action concentrated at the interface between the cleaning solution and the contaminant being removed.

Immersion, Turbulation & Recirculation Cleaning

Immersion cleaning loosens soilage to prepare it for other cleaning methods. Turbulation and recirculation cleaning provide targeted low and high velocity jet action within the immersed fluid.

Spray Cleaning

A highly effective, low energy method of applying a targeted liquid spray onto parts surfaces.

Recipe Configuration

A typical SonoKleen™ recipe can be built up of a combination of the following:

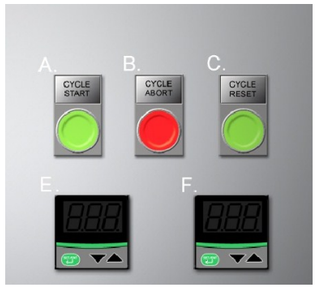
- *Ultrasonic Step*
- *Immersion Step*
- *Turbulation Step*
- *Recirculation Step*
- *Spray Cleaning Step*
- *Drying Step*
- *Drain Step*

Support

The Suncombe Technical Support and Customer Care departments' obligation is to provide total customer support. This support starts at the proposal stage, continues throughout the contract and thereafter. A personal customer care agent will be assigned to you at quotation stage and will support you throughout. The department currently supports all of our clients over the last 50 years. Support includes advise and surveys, installation and commissioning, User training, call-out repairs and service contracts for preventative maintenance.

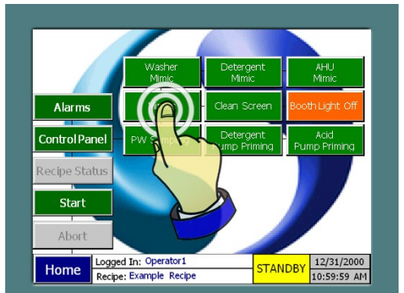
Automation

CIPSuite#1™ - Simple versatile automatic control system with 6 time changeable recipes.

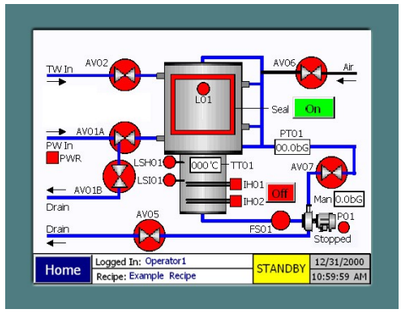


CIPSuite#2™ - Automatic control system with 100 fully configurable recipes, time changeable recipes, I/O faceplates, Mimic diagrams, Printer, Profibus Communications Protocol, Repeatable automatic cycles, User control with passwords, In built troubleshooting and diagnostic ability.

Control Panel



Mimic



Recipe Setup