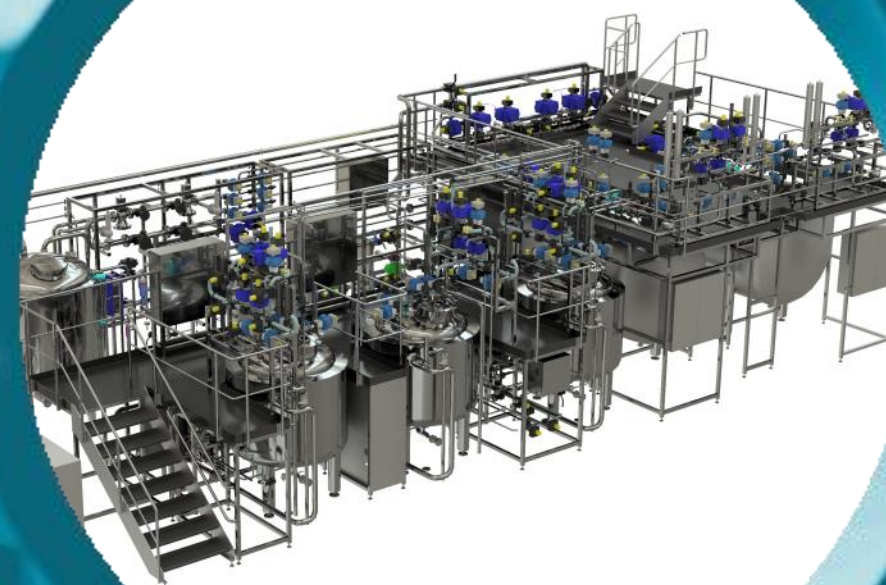




# SUNCOMBE

CIP, BIOWASTE & PROCESS SOLUTIONS

## Selection Guide for Suncombe Washer Systems



## Suncombe - the Pioneers of CIP in the 1950's

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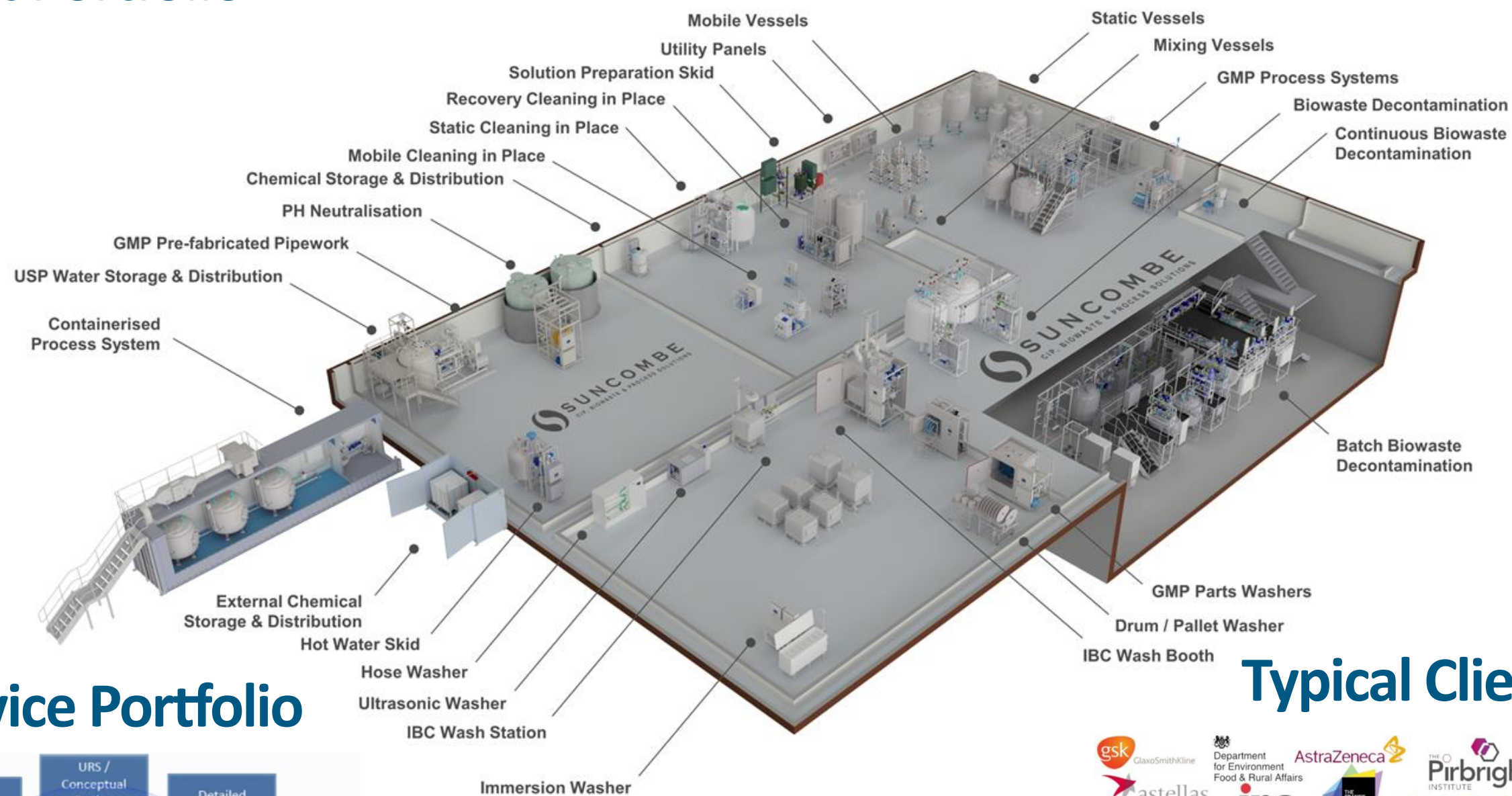




# SUNCOMBE

CIP, BIOWASTE & PROCESS SOLUTIONS

## Product Portfolio



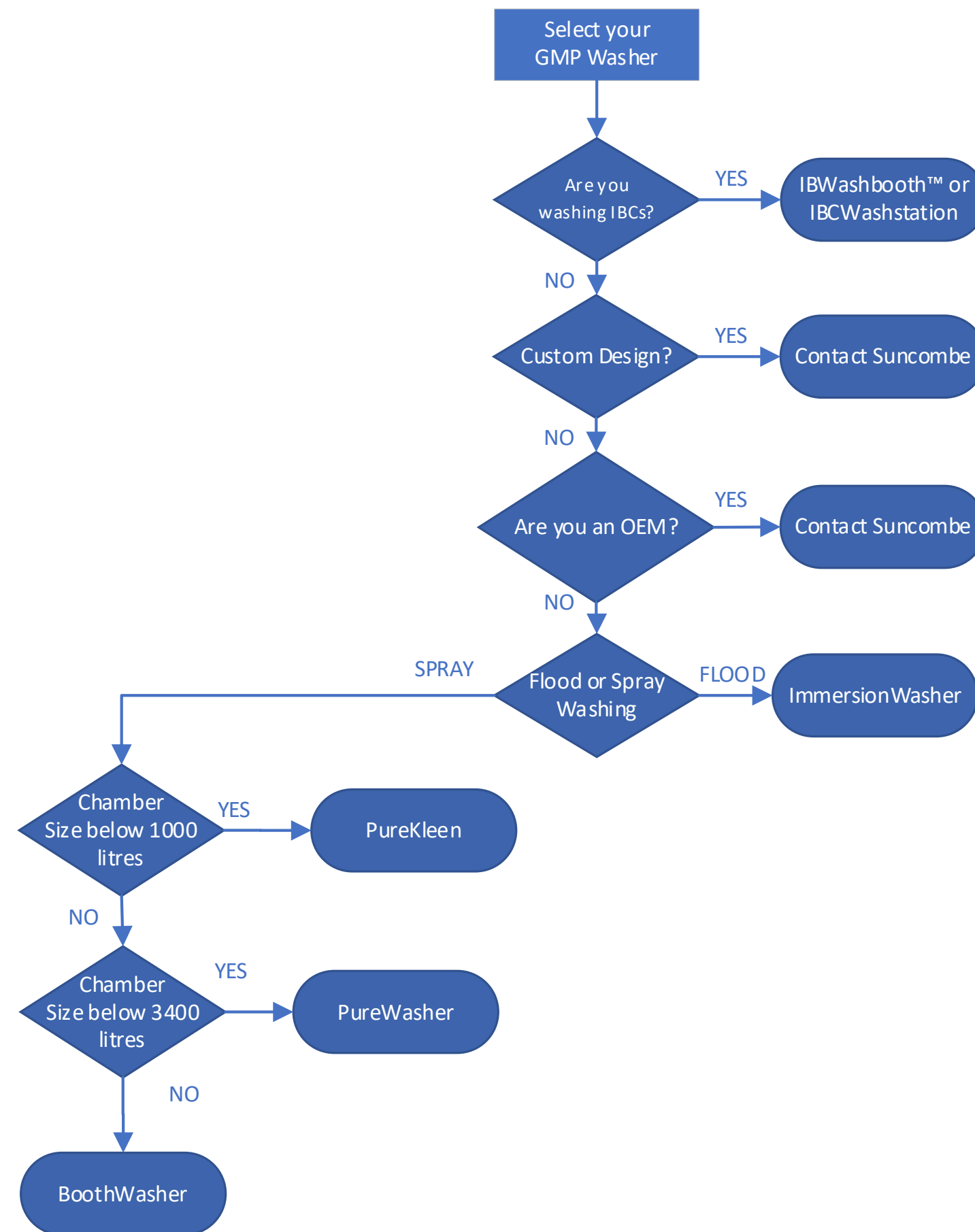
## Service Portfolio



## Typical Clientele



# Select Your GMP Washer





# GMP Washer Range

RANGE	Comments	Ideal for	Sectors	Validation	Documentation	Automation	Typical Image
PureKleen™	THE GMP PARTS WASHER FOR SMALLER ITEMS The Biotech, Pharma and Critical Application cGMP Validatable Small Cabinet Parts Washer	Fully automatic Washing of Small to medium sized parts, Dosing pumps, Small IBCs and Vats, Short Hoses, Swing bends, Valves, Clamps and fittings, Utensils, Solid dose equipment, Sieves, Pipework Flexibles, Filters housings, Pumps	GMP Sectors	Advanced	Comprehensive	Fully Automatic, recipe driven options for interfacing, remote control, 21CFR11 compliance etc.	
PureWasher™	THE GMP PARTS WASHER FOR LARGER ITEMS The Biotech, Pharma and Critical Application cGMP Validatable Medium Cabinet Parts Washer	Fully automatic Washing of Carboy, drums, Pallets, Kegs, Parts, Small IBCs and Vats, Hoses, Small Tanks and Vessels, Solid dose equipment, Sieves, Pipework Flexibles, Filters housings, Pumps	GMP Sectors	Advanced	Comprehensive	Fully Automatic, recipe driven options for interfacing, remote control, 21CFR11 compliance etc.	
BoothWasher™	THE WALK IN LARGE GMP PARTS WASHER The Biotech, Pharma and Critical Application cGMP Validatable Walk In Parts Washer	Fully automatic Washing of Carboy, drums, Pallets, Kegs, , IBCs and Vats, Hoses, Tanks and Vessels, Solid dose equipment, Sieves, Pipework Flexibles, Filters housings, Pumps	GMP Sectors	Advanced	Comprehensive	Fully Automatic, recipe driven options for interfacing, remote control, 21CFR11 compliance etc.	
IBCWashbooth™	THE GMP INTERMEDIATE BULK CONTAINER WASHER The Biotech, Pharma and Critical Application cGMP Validatable IBC Washer	Fully automatic Washing of Intermediate Bulk Containers	GMP Sectors	Advanced	Comprehensive	Fully Automatic, recipe driven options for interfacing, remote control, 21CFR11 compliance etc.	
IBCWashstation™	THE GMP INTERMEDIATE BULK CONTAINER WASHER FOR IBC INTERNALS ONLY The Critical Application IBC Internals Washer	Fully automatic Washing of Intermediate Bulk Container Internals	All	Custom	Comprehensive optionally Suitable for Validation	Fully Automatic, recipe driven options for interfacing, remote control, 21CFR11 compliance etc.	
ImmersionWasher™	The Biotech, Pharma and Critical Application cGMP Validatable Total Loss Cleaning In Place System	Validatable Fully automatic Immersion Washing of small to large equipment	All	Basic	Comprehensive optionally Suitable for Validation	Fully Automatic, recipe driven options for interfacing, remote control, 21CFR11 compliance etc.	
Custom Washer	Systems can be produced to client specifications using our proven robust design and construction techniques are leveraged to provide a guaranteed solution to custom problems	Any requirement	All	Custom	Custom	Custom	
OEM Washer	Specially designed system can be supplied to original equipment manufacturers for integration into their equipment. Standard OEM ranges of standard systems can be developed.	Any requirement	All	Custom	Custom	Custom	

Basic validation on request on any product

## What is Washing?

The definition of washing is “to clean with water and, typically, soap or detergent and clean as free from dirt, marks, or stains.

## What is the Result of Washing?

Washing results in the equipment being chemically clean. This is defined as

"the removal of all residues of soil and all washing agents so that contact with the cleaned surface does not result in physical contamination".

If the equipment being cleaned needs to be micro-biologically clean then an additional process can be carried out. This process is called SIP.



### Temperature

*Effect on cleaning operation:*

<u>Soil</u>	<u>Effect</u>
Proteins	medium
Fats	good
Sugars	good
Salts	good



### Chemical (Detergent)

*Effect on cleaning operation:*

<u>Soil</u>	<u>Water</u>	<u>Alkali</u>	<u>Acid</u>
Proteins	poor	good	medium
Fats	poor	good	medium
Sugars	good	--	--
Salts	medium	medium	good

**Note:** Generally a 10°C temperature increase will improve cleaning efficiency by 50% (above 30°C)

**Note:** required concentrations depend on soil level, processes used, working time, temperature, ....

## How Washing Works?

The science of washing is based on applying the required amount of energy to the equipment to ensure that it is cleaned. The energy is primarily provided by the solution temperature (thermal energy), the use of detergent or solvent (chemical energy) and the application of kinetic energy for a defined time period.

### Washing Energy Sources

