



SUNCOMBE

CIP, BIOWASTE & PROCESS SOLUTIONS

PharmaVessel™ 39012
Single Piece Vessels



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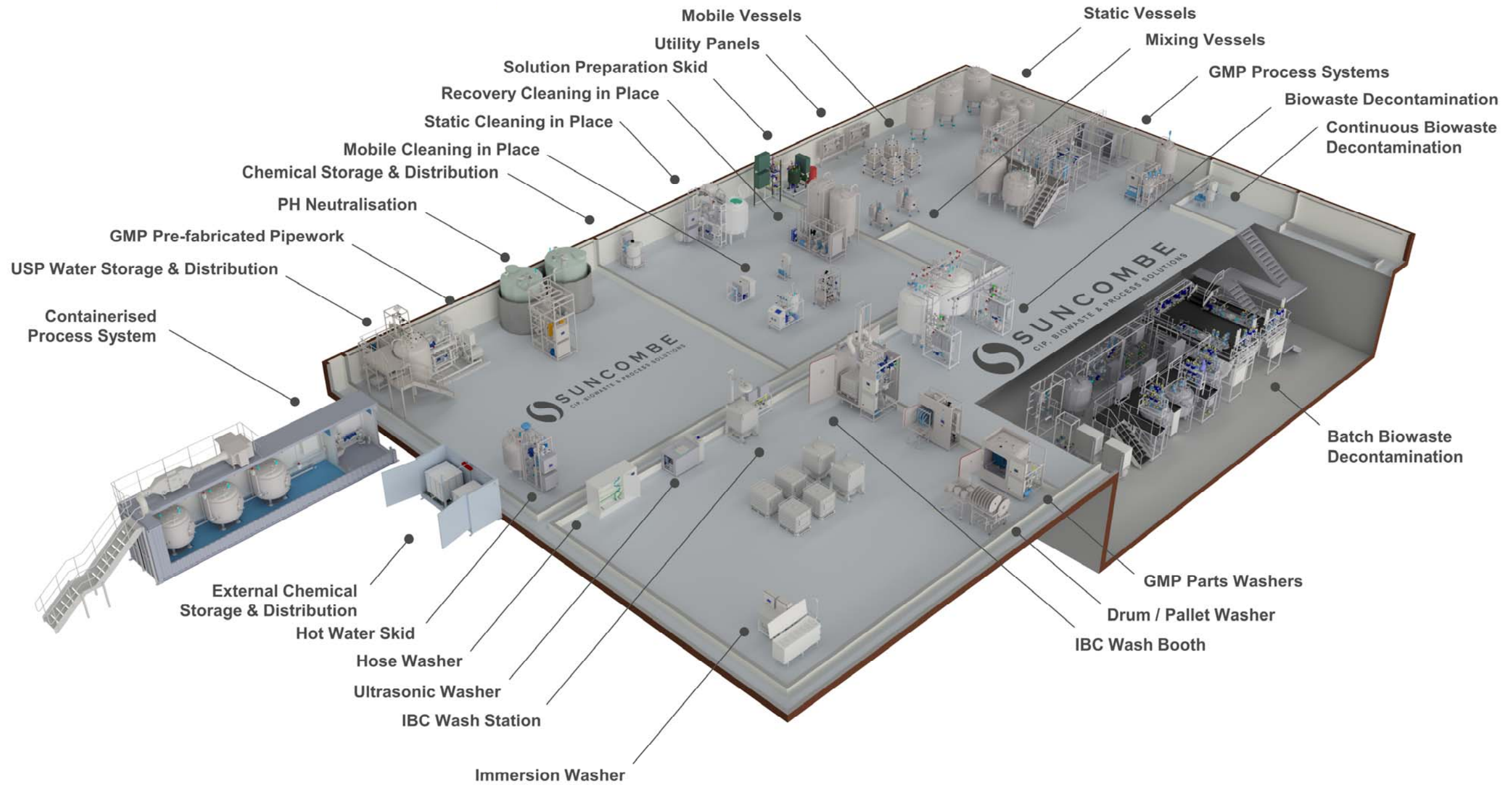
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PharmaVessel™ 39012 Single Piece Vessel 10 to 300 Litre Capacity

Introduction

Developed over the last 30 years, The Suncombe 39012 Single Piece Vessel are fully sanitary pressure vessels, from 10 to 300 Litre Capacity available with top entry or bottom mounted magnetic mixers, heating/cooling jackets, mounted on load cells, spray devices and instruments with the option of custom design and manufacture for your particular requirement. They are high specification units constructed from 316 stainless steel and of sanitary construction.

Typical Manufacturing Standards

- ASME BPE Construction, fully drainable, crevice free.
- 316L stainless steel contact parts, 304 non-contact parts, T.I.G. Welding

See Equipment Standards Datasheet for full details

Typical Equipment

- 316 Stainless Steel pipework
- Sanitary Valves, manual and air operated
- Calibrated Instruments

See Equipment Standards Datasheet for full details

Automation System

A range of automation levels are available, starting from entry level, through mid level PLC and HMI versions, to advanced validateable systems. All levels provide a repeatable automated cycle.

See Automation Standards Datasheet for full details

Testing

All functions of the equipment would be fully wet and dry tested and test results would be documented in the '**Pre-Factory Acceptance Test**' (FAT) protocol. Following successful completion of this protocol, the client will be invited to the FAT test, where all tests can be repeated or the pre-FAT tests results can be used.

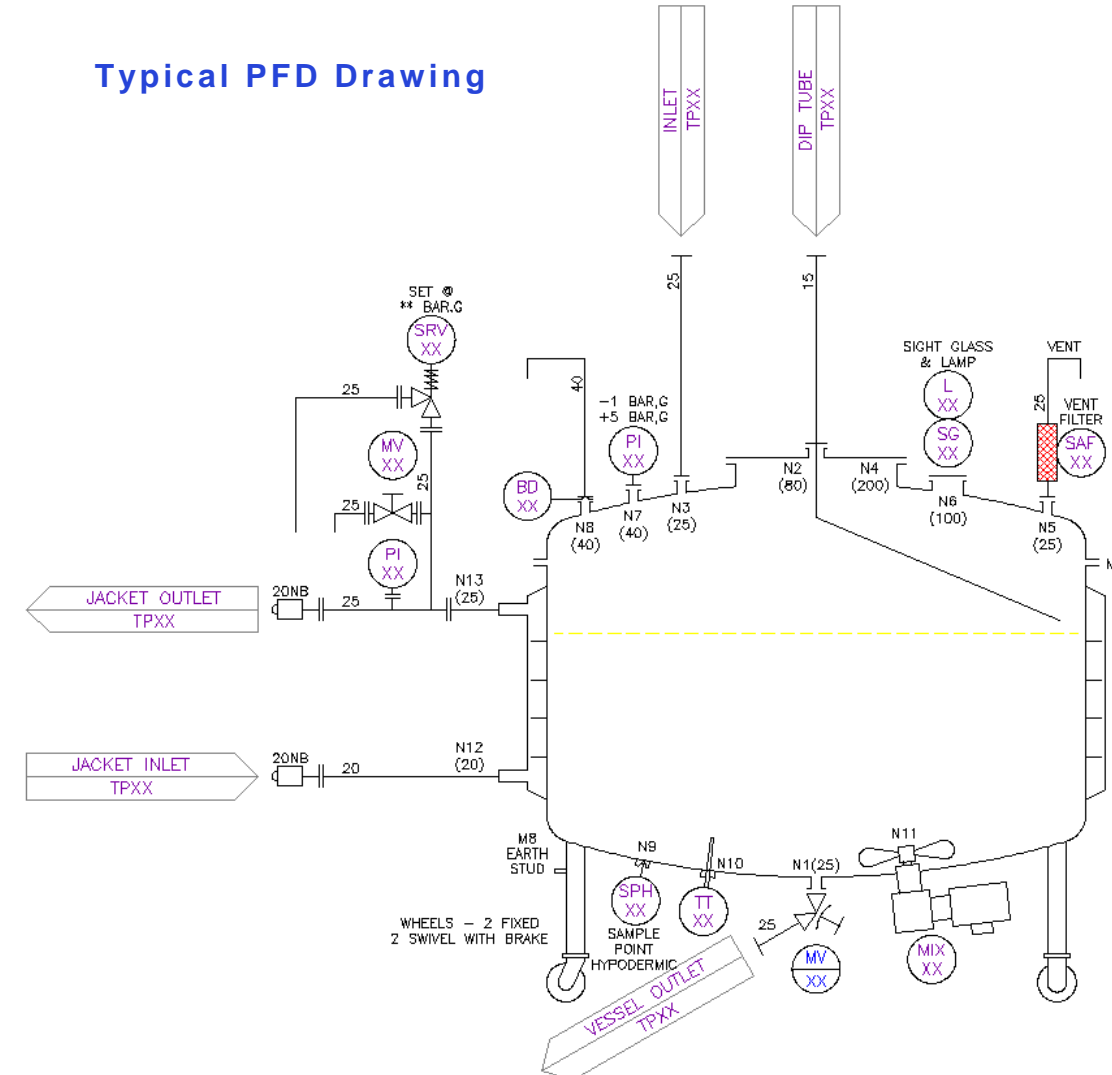
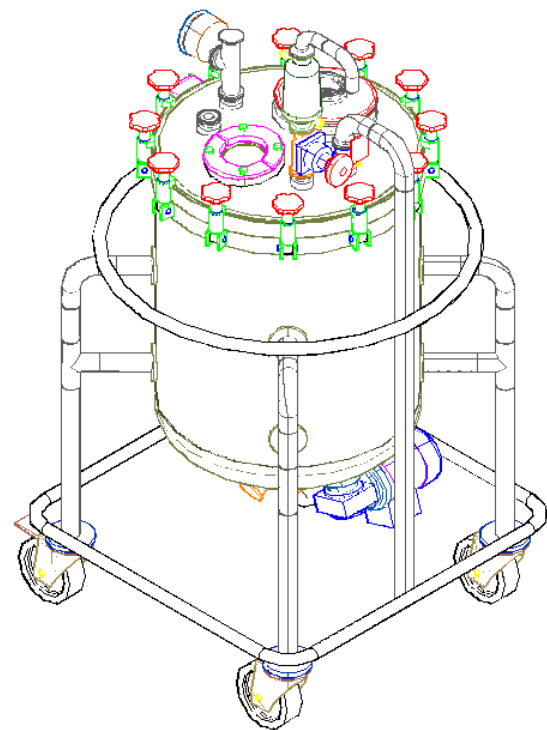
Validation/ Documentation

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



Typical PFD Drawing

Isometric View



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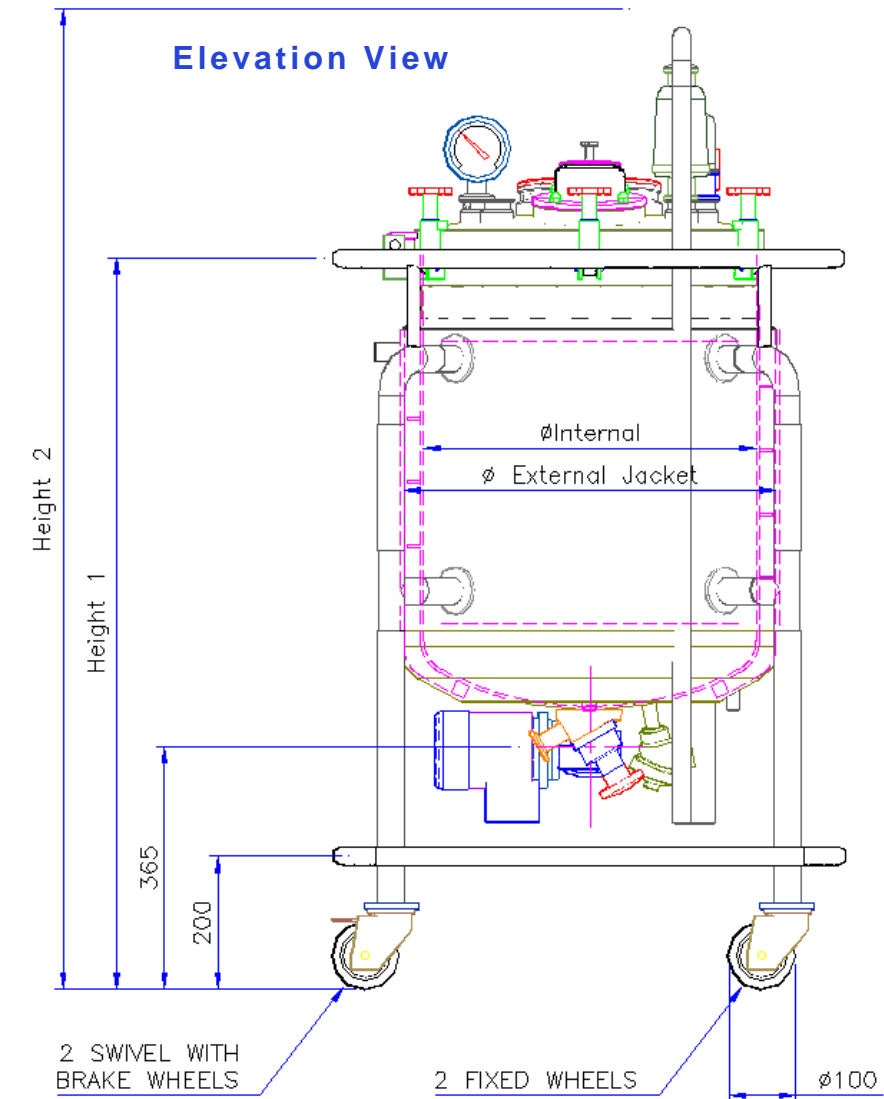
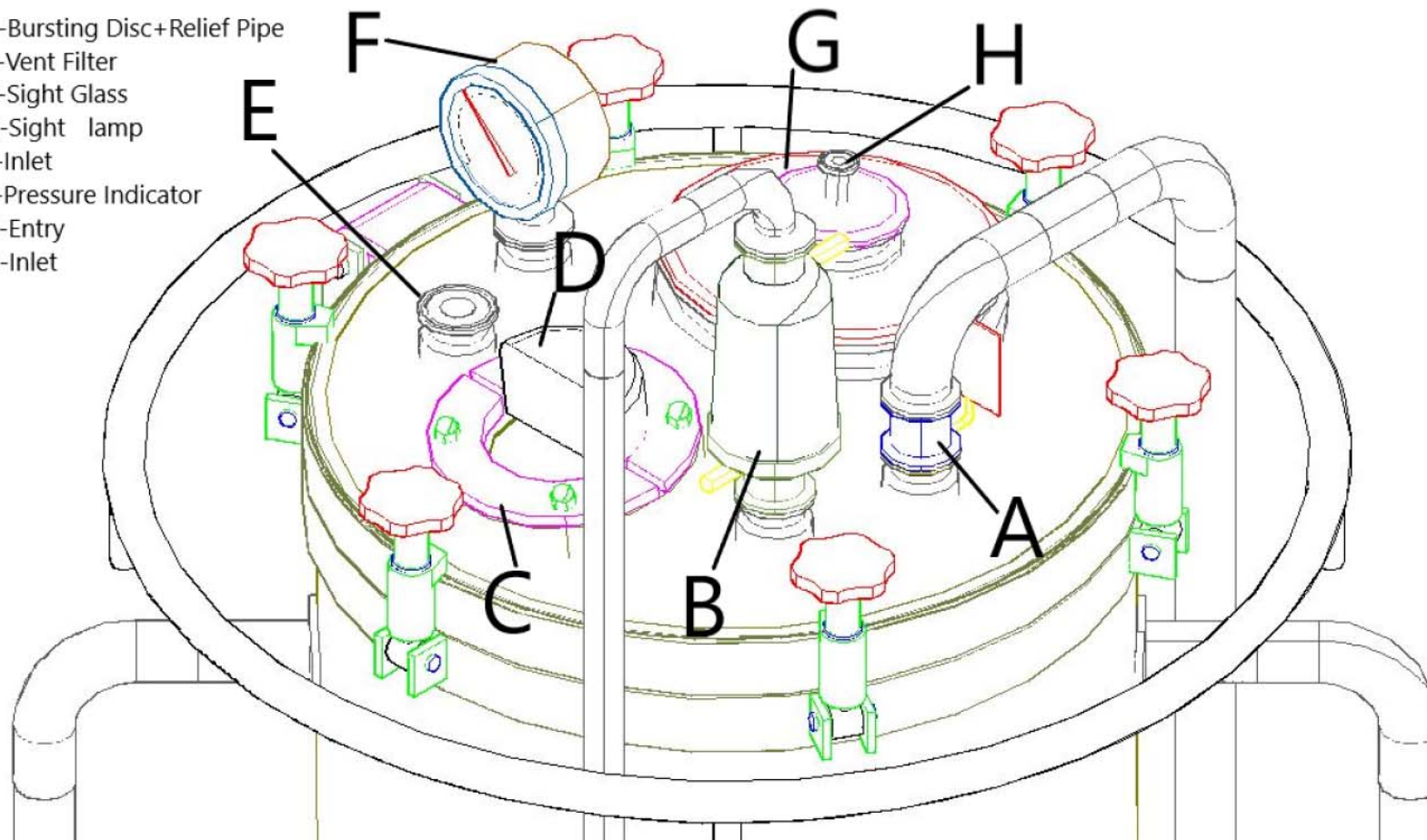
Dimensions

Part #	Dimensions						
	Vessel Capacity litres	Internal Diameter mm	External Jacket Diameter mm	Height 1 mm	Height 2 mm	Width mm	Length mm
39012-30	30	450	-	900	1300	740	740
39012-30J*	30	450	510	900	1300	740	740
39012-50	50	450	-	1000	1400	740	740
39012-50J*	50	450	510	1000	1400	740	740
39012-100	100	500	-	1100	1500	790	790
39012-100J*	100	500	560	1100	1500	790	790
39012-150	150	550	-	1250	1500	825	825
39012-150J*	150	550	610	1250	1600	825	825
39012-200	200	600	-	1250	1650	890	890
39012-200J*	200	600	660	1250	1650	890	890
39012-300	300	650	-	1450	1850	940	940
39012-300J*	300	650	710	1450	1850	940	940

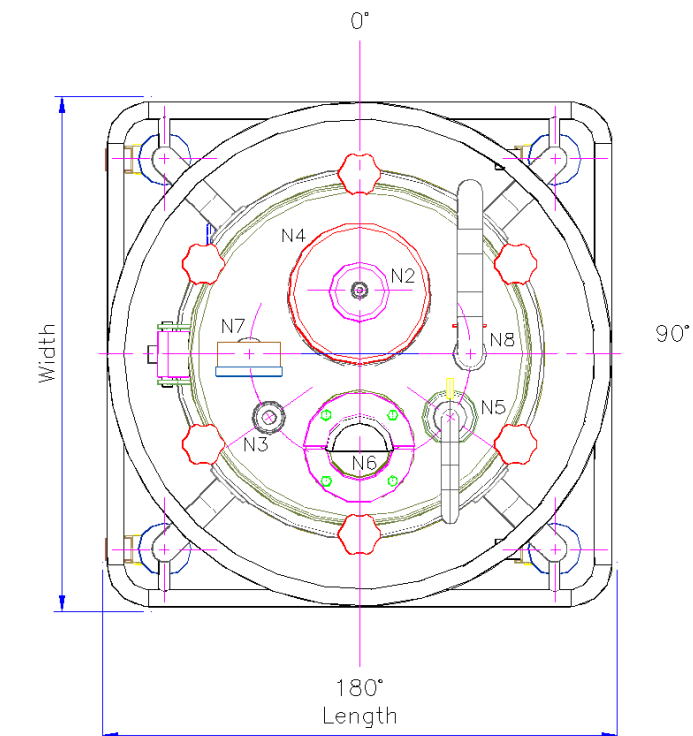
* Jacketed version

Typical Lid Layout

- A-Bursting Disc+Relief Pipe
- B-Vent Filter
- C-Sight Glass
- D-Sight lamp
- E-Inlet
- F-Pressure Indicator
- G-Entry
- H-Inlet



Plan View



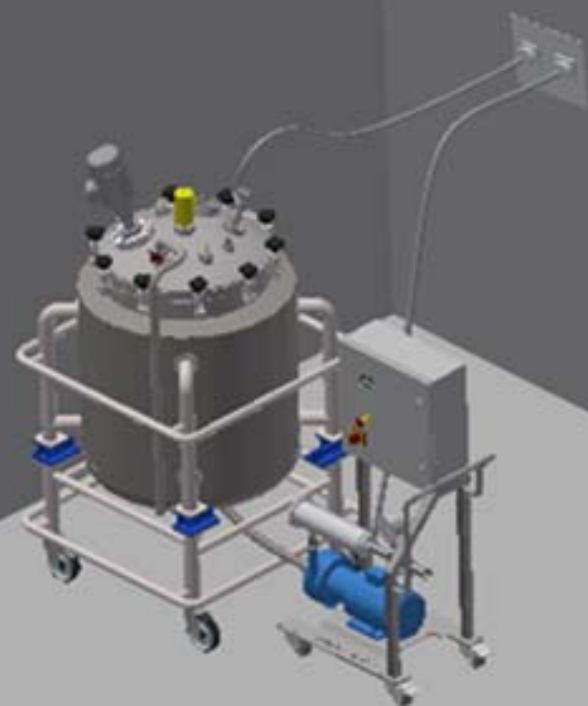
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Specification

Description	Standard	Option
Materials of Construction - Wetted Parts	316L Stainless Steel	C22 Hastelloy
Materials of Construction - Non-wetted Parts	304 Stainless Steel	304 Stainless Steel
Capacity (litres)	30, 50, 100, 150, 200, 300	Other capacities available
Fittings	Triclamp	Other connections available
PED Cat	As required	-
Third party	As required	-
Mobile/Static	Mobile	Static
Jacketed (Spiral)	Available	-
Insulation and clad	Available	-
Vessel pressure design	3bar/FV	Other pressures available
Jacket Pressure design	3bar/FV	Other pressures available
Vessel pressure working	As required	-
Jacket Pressure working	As required	-
Vessel temperature design	0/150	Other temperatures available
Vessel temperature working	As required	-
Jacket temperature design	0/150	Other temperatures available
Jacket temperature working	As required	-
Internal finish	0.5µmRa	Other finishes available
External finish	1.2µmRa	Other finishes available
100% visual NDT external	Yes	-
100% Dye Penetrant NDT	Yes	-
PD 5500	Yes	Other codes available
Hydraulic test Pressure	Yes	To Code
Tag method	Stainless Steel Dsic	Other methods available
Passivation	Available	-
Electropolishing	Available	-
ASME BPE Design	Y	Other standards available
Steam sterilisable	Y	-
Mixer		
Magnetic Mixer	Available	-
Top Entry Mixer	Available	-
Mixer Speed Monitor	Available	-
Instruments		
Top Entry Temperature transmitter	Available	-
Bottom Entry Temperature transmitter in Thermowell	Available	-
Pressure	Indicator	Transmitter
Load cells	Available	-
Burst Disc Diameter	40	-
Burst Disc Rating	4 Bar	Other pressures available
Burst disc sensors	Available	-
Valves		
Flush Mount Outlet Valves Manual	25	Other sizes available

Description	Standard	Option
Flush Mount Outlet Valves Automatic	25	Other sizes available
Sample point - Hypodermic	Available	-
Nozzles and Ancillaries		
Inlet 1 Size with/without dip tube	25 on 80 nozzle	Other sizes available
Inlet 2 Size	25	Other sizes available
Inlet 3 Size	N/A	Other sizes available
Spray Head assembly	Available	-
Spray ball nozzle size	80 in lid Typical	-
Vessel Spray head type	Rotating	Fixed
Vent Diameter	25	Other sizes available
Vessel Vent Filter Heated	Available	-
Vessel Vent Filter Non-Heated Disposable	Available	-
Sightglass	Available	-
Sight Lamp	Available	-
Vessel earth stud	Y	-
Vessel name plate	Y	-
Jacket Ancillaries		
Manual jacket air vent	Available	-
Jacket pressure relief	Available	-
QR jacket connections	Available	-
Jacket Pressure indicator	Available	-
Documentation		
FAT Document	Y	-
SAT Document	Available	-
FDS document	Available	-
P&ID	Y	-
GA	Y	-
Equipment list	Y	-
Weld map	Available	-
Weld table	Available	-
Electrical drawings	Available	-
Vessel calculations	Y	-
Training documents	Available	-
IQ documentation	Available	-
OQ documentation	Available	-
Site commissioning	Available	-
Maintenance contract	Available	-
Spares List	Y	-
Data Books	Y	-
Automation		
Chart recorder	Available	-
Junction box	Available	-
Control panel	Available	-
Panel mounting	Local on vessel	Remote
Testing		
FAT at Suncombe	Y	-
SAT on site	Available	-

Mobile Vessel Example Methods for Cleaning and Washing In Place



Mobile Process Vessel fed from remote CIP Through Wall Plate with mobile Scavenge Pump



Mobile Process Vessel with integrated WIP System for semi-automatic Wash In Place



Mobile Process Vessel connected to MobileCIP