



ENVIRO Tech
Europe, Limited



Solvac
advanced solvent cleaning

*S1 Compact single sump solvent ultrasonic
cleaning system*



Specification and Technical Data

Process Description

SOLVAC™ S1 1812 incorporating a Sealed Compression Lid, Machine Status LED Illumination, Upgraded PLC with High Pixel HMI, Increased Dual Temperature Cooling Coils

Nominal Immersion Sump Dimensions

470mm Length
300mm Width
297mm Height

Nominal Internal Basket

400mm Length
248mm Width
229mm Height

Process Specification

The SOLVAC™ S1 Series has been designed to offer quality construction, low solvent emissions, and ease of maintenance. The proposed system is configured as follows:

General System Features:

- ▶ User selectable functions PLC controlled.
- ▶ 304 stainless steel process tanks with bright annealed finish.
- ▶ 304 stainless steel support frame and counter top.
- ▶ 304 stainless steel, lift-off access panels.
- ▶ Urethane Casters for ease of placement or relocation.
- ▶ 300 series stainless steel plumbing with compression and/or welded fittings where appropriate.
- ▶ NEMA 1 electrical enclosure with single point electrical connection.
- ▶ Power requirements: 240 volts, 50 Hz, 1Ø phase, 16 amp service required.
- ▶ Air Supply requirements: 8mm push fit connection. 5 bar CDA.
- ▶ Front mounted control panel.
- ▶ Offset Boil Sump.
- ▶ Nominal Immersion Sump Dimensions: **255mm L x 255mm W x 300mm H.**

- ▶ Approximate Solvent Volume: 44 Litres.
- ▶ Work capacity is 150 pounds of steel per hour.
- ▶ Nominal System Dimensions: **967 mm L x 915mm W x 1375mm H.**
- ▶ 10 recipe capability, including vapor only operation.

Offset Boil Sump Features:

- ▶ 4000 Watts of low watt density immersion heaters
- ▶ Temperature control probe with over temp protection and solvent change out alarm feature.
- ▶ Low liquid level safety heater shut off
- ▶ Liquid level site tube.

Immersion Sump Features:

- ▶ 1000 Watts of Crests Patented Ceramically Enhanced Transducer Technology operating at 132kHz.
- ▶ 4000 Watts of low watt density immersion heater.
- ▶ 5 GPM recirculation/filtration system including pump protection strainer.
- ▶ Centrifugal pump featuring a chemically inert Ryton pump head.
- ▶ Teflon encapsulated Viton seals, gaskets and O-rings, and a TEFC motor.
- ▶ Stainless filter housing with sub-micron element capability.
- ▶ 1.0 micron filter cartridge (standard).
- ▶ Gauge to monitor filter housing pressure.
- ▶ Manual flow control valve.
- ▶ Manual isolation valves.

Freeboard Zone:

- ▶ 100% freeboard ratio to minimize solvent loss.
- ▶ Primary condenser unit with direct expansion valves.
- ▶ Stainless steel primary cooling coil.
- ▶ Independent water separation housing condenser coils.
- ▶ The water is removed manually from the system via ball valves.
- ▶ High vapour temperature sensor.
- ▶ Automated sliding cover, PLC controlled program sequence.

In-tank Lift Platform:

- ▶ Electro-operated Stainless steel lift Platform.
- ▶ Three positions stops for proper cleaning process
- ▶ 4.5kg lift capacity.
- ▶ PLC time-controlled platform position for optimal cleaning process.
- ▶ Basket Oscillation for improved cleaning.

1 General	S1 1812
1.1 Revision	V1.0
1.2 System Type	S1 1812
1.3 Voltage	415V 3 phase, 50Hz, 20Amps (Europe)
1.4 Solvent	<i>ProSolv[®]</i> or <i>ProSolv[®] 5408e</i> (non-flammable solvent)
1.4.1 Total solvent capacity	
1.5 Basket	
1.5.1 Internal Dimensions	400mm(w) x 248mm(f-b) x 229mm(d)
1.5.2 Supplied Quantity	1
1.6 Control	
1.6.1 HMI	High Resolution full colour B&R touch screen.
1.6.2 Status strip	12V tricolour LED strip showing system status.
1.6.3 Mechanical buttons	Lid Open/Close, Cycle Start, Control Reset, E-Stop.
1.6.4 PLC connection	Front panel mounted Ethernet port.
1.7 Services	
17.1 Air Inlet	8mm push fit connection. 5 bar CDA
1.7.2 Fill Point	Internal valve with inlet at front of system
1.7.3 Drains	Internal valves, with external drain ports at rear of system.
1.8 Frame	
1.8.1 Construction	Folded 304 Stainless steel sheet.
1.8.2 Castors	4 Heavy Duty locking castors
2 Vapour Generator	
2.1 Tank	
2.1.1 Tank Size	470mm(w) x 300mm(f-b) x 200mm(d)
2.1.2 Solvent Capacity	
2.2 Safety Features	
2.2.1 Low level protection	Ultra sonic level sensor
2.2.2 Temperature measurement	PT100
2.2.3 Overtemp Cutout	0-120°C Mechanical thermostat
2.3 Heat	
2.4.1 Number of heaters	8
2.4.2 Heater output (per heater)	500w low watts density cartridge heater
2.4.3 Heater Length	250mm

3 Process Sump	
3.1 Tank	
3.1.1 Tank Size	470mm(w) x 300mm(f-b) x 297mm(d)
3.1.2 Solvent Capacity	
3.1.3 Low level protection	N/A
3.1.4 Overtemp Cutout	N/A
3.2 Sealing lid	Pneumatic Sealing lid with coated polycarbonate window
3.3 Filtration	
3.3.1 Pump model	Little Giant TE3
3.3.2 Filter type	Double open-ended stainless-steel filter housing for 10" wound cartridge.
3.3.3 Filter size (micron)	25 micron cartridge
3.3.4 Filter Location	Internal
3.4 Ultrasonics	
3.4.1 Frequency	132Khz
3.4.2 Wattage	1000 watts
3.4.3 Transducer type	Bonded Transducers
4 Hoist	
4.1 Capacity	22kg
4.2 Vertical movement	Torque limited motor driven, with Proximity sensor positioning
5 Refrigeration	
5.1 Primary condensing unit	Operating down to - 0°C
5.2 Freeboard condensing unit	Operating down to -15°C
5.3 Louvres	4 sided ProLine3

Precision cleaning for a wide range of industries

This system is proven to effectively remove contaminants such as surface oils, greases, solder flux, and wax. Many companies spanning a wide range of industries depend on Solvac Ultrasonic Vapour Degreasers including medical, automotive, aerospace, electronics, and optical. From any rugged industrial to critically precise needs, Solvac Vapour Degreaser Systems can meet your company's cleaning demands.

For further information regarding this product please contact us at:
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Supplied and supported by



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