



Solvac
advanced solvent cleaning



S1 Compact single sump solvent ultrasonic cleaning system

Specification and Technical Data

Process Description

SOLVAC™ S1 1010 incorporating a Sealed Compression Lid, Machine Status LED Illumination, Upgraded PLC with High Pixel HMI, Increased Dual Temperature Cooling Coils

Nominal Immersion Sump Dimensions

255mm Length
255mm Width
300mm Height

Nominal Internal Basket

196mm Length
196mm Front to Back
222mm 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

- 1200 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

- 375 Watts of Ultrasonic Power
- 2 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 vapor 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 1010
1.1 Revision	V1.5
1.2 System Type	S1 1010
1.3 Voltage	240V 1 phase, 50Hz, 18Amps (Europe)
1.4 Solvent	Vapourwash 701-12 (non-flammable solvent)
1.4.1 Total solvent capacity	44 litres
1.5 Basket	
1.5.1 Internal Dimensions	196mm(w) x 196mm(f-b) x 222mm(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 Drains	1/2" internal valves, with external drain ports at rear.
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	255mm(w) x 255mm(f-b) x 250mm(d)
2.1.2 Solvent Capacity	16 litres
2.2 Safety Features	
2.2.1 Low level protection	Ultra sonic level sensor
2.2.2 Temperature measurement	'K' Type Thermocouples
2.2.3 Overtemp Cutout	0-120°C Mechanical thermostat
2.3 Heat	
2.4.1 Number of heaters	3
2.4.2 Heater output (per heater)	400w low watts density cartridge heater
2.4.3 Heater Length	250mm

3 Process Sump	
3.1 Tank	
3.1.1 Tank Size	255mm(w) x 255mm(f-b) x 300mm(d)
3.1.2 Solvent Capacity	20 litres
3.1.3 Low level protection	Ultrasonic level sensor
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	Stainless steel housing for 10" wound cartridge
3.3.3 Filter size (micron)	10 micron cartridge
3.3.4 Filter Location	Internal
3.4 Ultrasonics	
3.4.1 Frequency	132Khz
3.4.2 Wattage	375 watts
3.4.3 Transducer type	Bonded Transducers
4 Hoist	
4.1 Capacity	4.5kg
4.2 Vertical movement	Motor driven with Proximity sensor positioning
5 Refrigeration	
5.1 Combined primary/freeboard coil temperature	Operating down to -15°C

For further information regarding this product please contact us at:



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