

fraser
TECHNOLOGIES



Your expert partner

Solvent cleaning systems



- environmentally friendly
- cost effective
- precision cleaning

Component
cleaning.
Effectively.

www.frasertech.co.uk

Fraser Technologies + Crest Ultrasonics = first choice in component cleaning

Fraser Technologies

With over 50 years experience in component cleaning across all sectors of manufacturing, Fraser Technologies is uniquely qualified to:

- offer independent evaluations and make recommendations
- supply a wide range of standard and bespoke cleaning processes
- offer a range of great value after sales support packages to optimise the performance and efficiency of your process long term
- ensure fast turnaround
- provide one point of contact for all products and services.

Crest Ultrasonics

Global leaders in the design and manufacture of precision cleaning equipment has teamed up with Fraser Technologies to supply the UK with the latest range of Solvac™ cleaning systems - offering high quality, long-lasting performance and low running costs.

A photograph of three men in a workshop. The man in the center, wearing a dark blue jacket over a light-colored shirt, is speaking and gesturing with his right hand towards a piece of industrial equipment on the right. The man on the left, also in a dark blue jacket, is looking towards the center man. The man on the right, wearing a dark blue jacket, is looking at the equipment. The background shows a workshop environment with various tools and equipment.

Choosing new generation cleaning solvents

The new generation, eco-friendly chemistries offer a superior cleaning performance and a low in-use cost of running, providing a genuine alternative to the old hazardous solvents now banned or restricted. The Chemours™ range of safe, environmentally friendly solvents have become widely accepted as best in class next generation fluids and are approved for use in the Solvac range of equipment.

Solvent cleaning is a simple process that can be very effective and easy to manage. With the use of low boiling point non-flammable products, components can be cleaned to an exceptionally high standard with minimal cost and capital investment.

Choosing the Solvac range

Compact cleaning + Eco friendly technology

Reduce the footprint, operating costs and carbon emissions with a Solvac™ cleaning system

The range is designed to safely operate with the new generation non-flammable approved solvents. Sealed lids, along with the Vapotronic Electro-Pulse Modulation increases solvent retention, reduces energy consumption and emits fewer carbon emissions.

Superior clean for a wide range of industries

Effective removal of contaminants such as surface oils, grease, solder flux and wax ensures many companies across medical, automotive, aerospace, electronics and optical industries depend upon Solvac™ cleaning systems.

The cleaning power of ultrasonic energy

The process depends on alternating low and high pressure phases, during which bubbles/cavities form and subsequently implode (cavitation) – providing an intense scrubbing action that cleans quickly and consistently.

The cavitation can penetrate even microscopic crevices, ensuring consistently high levels of cleanliness. Further, the exclusive ceramically enhanced transducers create overlapping ultrasonic waves and with the options of 40 KHz or 132 KHz available, exceptionally high cleanliness levels can be achieved.

We offer a range of Solvac™ cleaning systems, with several standard and bespoke options to meet your unique needs.



The Solvac™ Advantage

- Solvac™ auto-sealing compression lid serves to retain solvent, reducing costs and emissions significantly. By interlocking the internal lifter with the lid, the hoist cannot move while the lid is open, increasing operator safety.
- Vapotronic Pulse Modulation reduces energy consumption and solvent loss by only providing heat when it is required.
- Compact PLC coupled with a high-resolution, full-colour touchscreen HMI improves operator controls and diagnostics.
- Easy remote access, data export, and firmware updates - Front-panel mounted RJ45 connection and a USB port on the PLC for stick drive.
- Upgraded refrigeration minimises solvent loss and increases efficiency.
- Distilled solvent cooler line helps reduce the process sump temperature, increasing the temperature differential between components and vapor maximising vapor rinsing for better cleaning.
- Unobtrusive LED status strip uses a combination of red, green, and blue lights to display current status of the cleaning process.



The new Micropac

Small, feature-packed, affordable

Micropac is a cleverly compact, high performance precision parts cleaning system.

It offers the ideal solution for smaller precision engineering, optics and electronics component companies.

Easy-to-use, the Micropac system tackles a wide range of soil types on precision components, but conserves valuable floor space, energy, and budgets.



Benefits:

- Exceptional cleaning at a low price
- Suitable for multiple chemical processes including co-solvent
- Suitable for multiple chemical processes
- Environmentally friendly
- Ease of use
- Portable
- Compact dimensions for small footprint
- Low cost of ownership
- No rinse water, no waste water drainage
- Parts come out clean, dry and ready to use

Applications:

- Small batch precision components
- Removal of organic residues, grease, fingerprints, oils, films, mould release, PCB solder fluxes etc.

Solvac S1

Compact, technologically advanced, efficient

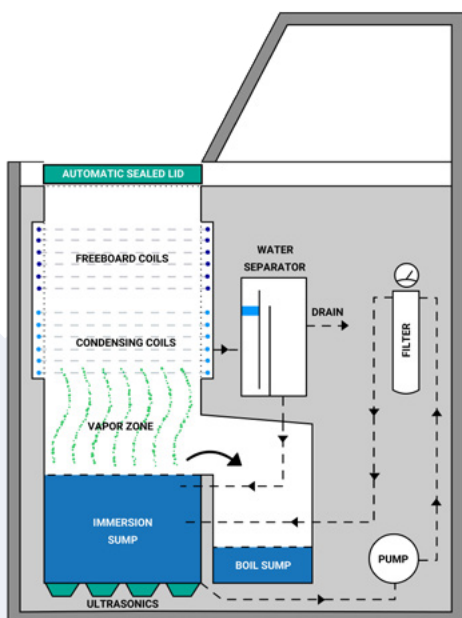
The Solvac S1 offers leading edge technology in a compact size.

The cost-efficient Solvac™ S1 provides automated solvent washing, rinsing, cooling and drying all in a single compact unit. The S1 offers premium standard features at a budget-friendly cost.

Solvent consumption is reduced by lowering freeboard area temperature - with an increase in the freeboard coil zone.



Image of 1812 Model



S1 available in 3 basket sizes

Model	Basket Size mm
1010	200 x 200 x220
1812	385 x 235 x 220
6020	1500 x 500 x 500

Benefits:

In addition to Micropac:

- Semi-automated system allowing full control over the process with high quality repeatable results
- High throughput of up to 70kg of steel per hour
- Extremely flexible - 10 user defined programmes
- Easy to maintain due to digital gauges and warnings
- Extremely precise cleaning due to range of ultrasonic frequency options
- Costs controlled by pneumatic sealed compression lid and 100% freeboard ratio which limits solvent consumption.

Applications:

- Small batch precision components
- Removal of organic residues, grease, fingerprints, oils, films, mould release, etc.
- Can facilitate mixed metals



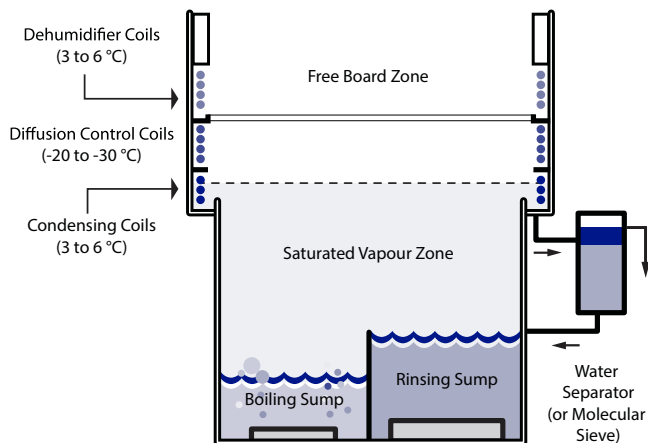
Solvac S2

Eco friendly, co-solvent applications

The Solvac™ S2 – is designed for co-solvent applications.

This eco friendly model offers the line's premium features, with it's twin sump design. The S2 comes as standard with semi automation, however full automation can be added as an option.

- Automatic low-line transfer, using an internal lifter that keeps its lid closed and sealed throughout helps reduce operator labour, cycle times and overall running costs
- Twin refrigeration units ensure that vapour heat load doesn't affect freeboard cooling so that it can achieve highly efficient component drying with maximum solvent distillation.



Standard specification

- Spray under immersion
- Twin compressor cooling
- Low level automation
- Filtration
- Water separator
- PLC - multi programmable

Equipment options

- 40 or 132 kHz ultrasonics
- Full conveyor to conveyor automation
- Basket flagging - variable process
- Inline secondary distillation

Benefits:

In addition to S1:

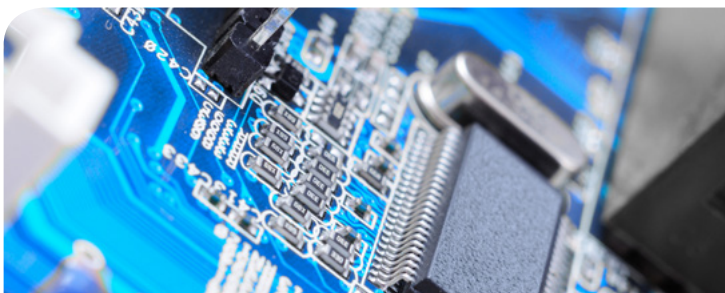
- Twin tank process allowing for co-solvent processes or primary wash in the boil sump for heavily contaminated applications with a mono-solvent.
- Twin access internal automation for hands free basket processing insuring process control and reduced operator input.

Applications:

- Aerospace components
- Turned and pressed parts
- Machines components
- Optics
- Electronic components and PCB's
- Medical devices

Typical soils removed:

- Light and heavy oils
- Polishing components
- Solder fluxes
- Drawing oils
- Fluorinated lubricants
- Light and heavy grease



Bespoke Solutions

Tailored to your needs

We also offer fully bespoke cleaning systems should your requirements be more complex.

Expert analysts will conduct a site visit, and evaluate your cleaning needs and current processes before making detailed recommendations for both equipment and chemistries. We have two trial facilities in the UK which allow us to demonstrate the effectiveness of our proposed solutions before your purchase.



Solvac TA (Total Automation)

The Solvac TA is the top of the range fully automated process designed for high volume production environments.

With all the usual features of the Solvac range the TA system allows for full automation, single and multi-tank options and is fully customisable to the user's needs.

With options including basket rotation, internal and external automation, auto fill and drain, additional inline distillation to name a few these systems are fully customizable, offer low maintenance and repeatable results every batch. The inclusion of a full system enclosure isolates the cleaning process from the work environment allowing for exceptionally high levels of cleanliness to be achieved even in less than ideal working environments.

Key Benefits:

In addition to those of Micropac, S1 and S2:

- Fully automated , conveyor to conveyor operation for high throughput applications
- Fully enclosed system isolating the process from the working environment

Tailored Support Packages

For long-term efficiency of your cleaning process we are the only UK supplier able to offer the complete package – evaluate, supply and support. There is a range of support options available to best suit your needs and offer reassurance that help is at hand when required.



Standard Range Specifications

Unit/feature	Micropac	S1 1010	S1 1812	S1 6020	S2 1812
Dimensions mm (LWH)	915x915x1060	970x920x1080	1730x1300x1080	1950x1765x2135	1570x1440x1450
Basket size mm (LWH)	250x200x250	200x200x220	385x235x220	1500x500x500	400x250x280
Capacity					
Initial fill	45 litres	44 litres	97 litres	675 litres	160 litres
Boil sump	19 litres	16 litres	29 litres	100 litres	74 litres
Rinse sump	21 litres	20 litres	55 litres	555 litres	77 litres
Ultrasonics					
Power	375 watts	375 watts	1000 watts	2000 watts	750 watts
Watts/litre	18	19	18	4	10
Frequency	40 khz	132 khz	132 khz	40/132 khz	132 khz
Electrical supply					
Voltage (V)	240	3 phase	3 phase	3 phase	3 phase
Amps (A)	10	18	20	50	50
Work handling system					
Semi automated	n-a	Yes	Yes	Yes	Yes
PLC Control unit	Yes	Yes	Yes	Yes	Yes
Process					
Mono-solvent	Yes	Yes	Yes	Yes	Yes
Co-solvent	Yes	No	No	No	Yes
Bi-solvent*	Yes	Yes	Yes	Yes	Yes
Additional Features					
Basket Rotation	No	Yes	Yes	No	No

* requires additional unit



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