

Sabre

VERSATILE

EFFICIENT,

ECONOMICAL

STENCIL

CLEANING

TECHNOLOGY



INVICTA



* dimensions for Sabre 660

SabreMax 757 & 757 ST

Ultimate Versatility

Sabre stencil cleaners are simple in concept, robust in construction and quiet, yet highly efficient in operation. They can be used for hydrocarbon solvent,

aqueous or semi-aqueous cleaning with equally effective results. The range of three machines accommodates all common sizes of framed stencil as well as frameless foils and special stencils for printing adhesives. Special jigs allow pallets, misprinted boards or assemblies to be cleaned effectively, while a basket fitment eases cleaning of a variety of other miscellaneous items such as squeegee holders and spatulas. All types of

paste and uncured adhesive may be cleaned with board cleanliness exceeding MIL Spec standards.

Economical in Use

Sabre stencil cleaners work with ambient temperature cleaning fluids. This not only reduces power consumption but also removes the need for inactive "warm-up" periods or the necessity to leave the

machine "switched on" permanently to accommodate unforeseen use. Sabre machines operate economically from a single phase socket and workshop air. Because Sabres operate on a self cleaning principle, there is never a need to completely change the fluid; only topping up is required.



This reduces fluid costs and also removes all waste fluid disposal problems.

Better by Design

The Sabre cleaning process is a totally enclosed system, only ever open to the atmosphere for seconds as a stencil is loaded or unloaded, so fluid odour is not a problem. However, a fume extraction interface is incorporated in the design.

Microprocessor control is simple to programme and once programmed, operation

Sabre 660

is automatic with a cycle time of 8 to 16 minutes depending on the size of the stencil.

Sabre stencil cleaners offer easy unrestricted access to all working parts, electrics, pumps and filter. In the unlikely event of a plumbing leak, Sabre machines have an inbuilt bund that will hold the entire fluid content of the tank, preventing uncontrolled spillage.

Low Maintenance, Self Cleaning System

Fluid is extracted from the base of the 'V' shaped tank bottom where solids are likely to settle. The "dirty" fluid is then pumped through a high capacity polypropylene bag filter (five micron filtration as standard) and from there it is returned under pressure to the bottom of the tank through two tubes that traverse back and forth across the tank in conjunction with the cleaning jets. This ensures that any solid residues which have collected in the bottom of the tank are disturbed and propelled into suspension for subsequent filtering out.

Maintenance is reduced to periodic topping up of the fluid, lubrication of the reciprocating head bearings and filter replacement, all of which should take no longer than 20 minutes every week.





Misprinted boards are easily cleaned with the Sabre ultrasonic option.



Spider paste and green SMT adhesives are effectively cleaned from framed stencils and foils.



PumpPrint and Varidot™ adhesive stencils cleaned effectively with the sabre ultrasonic option.

Elegant in Operation

Cleaning

Two submerged 15mm low pressure, high volume (130 litres/min) jets traverse across the width of the stencil cleaning a "strip" of preprogrammed width (from 10mm to 100mm). The jets are of equal pressure and directly opposed so as not to exert undue stress on delicate stencil foils. When the jets have cleaned a "strip", the stencil is indexed up and the next strip is cleaned on the reverse pass.

Ultrasonics (optional)

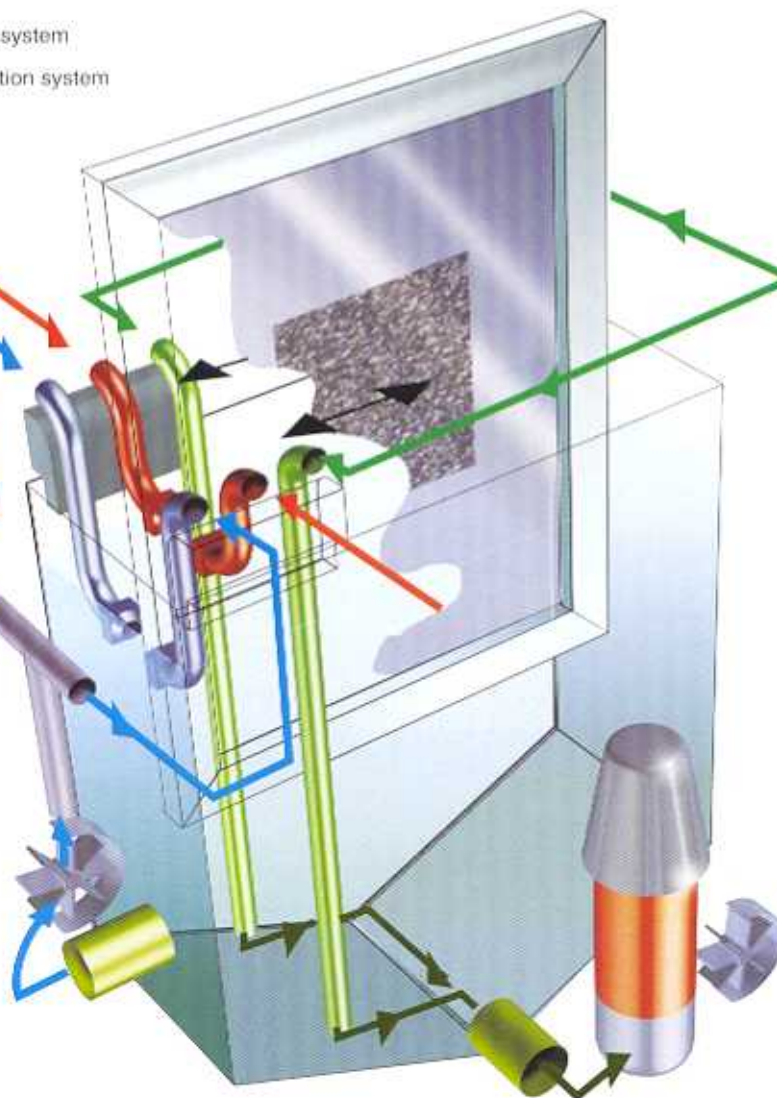
By fixing a single ultrasonic transducer to the moving head assembly of the sabre stencil cleaner, low level ultrasonic energy (less than 0.9 Watts per litre) supplements the effect of the Sabre's high volume submerged jets and effectively removes all traces of solder particles from misprinted boards and adhesives from PumpPrint / Varidot™ stencils.

Drying

Two air knives are attached to the liquid jet mechanism 100mm above the fluid level and are activated after the cleaning cycle has finished, but for faster cycle time both washing and drying can be carried out simultaneously. The air knives simply "wipe" the stencil dry as it is indexed out of the tank. Heated air is available as an option and is recommended to improve drying efficiency when the Sabre is used for aqueous or semi-aqueous cleaning.

- ▶ Recirculating cleaning system
- ▶ Recirculating fluid filtration system
- ▶ Air knife drying with heating option

- Simple, rugged, low maintenance design
- Long solvent life with no need for complete tank changes
- Self cleaning tank... no maintenance required
- Ambient temperature operation... no warm up time
- Single phase, low power requirement... plug in and switch on.
- Suitable for solvent, aqueous or semi-aqueous cleaning
- Quiet in operation
- Small floor footprint
- Economical to run... no expensive carbon filters and DI columns
- Balanced wash and dry jets prevent foil damage
- Cleans all pastes and uncured adhesives to MIL Spec standards



Sabre Cleaning Fluids

Two new cleaning fluids have been developed specifically for the Sabre Ultraclean 2001. A solvent type, low VOC cleaner, also available in trigger sprays and aerosols
 Aquaclean 2001. An aqueous based, environmentally friendly, VOC free cleaner.



PLAN VIEW
SHOWING SPACE FOOTPRINT

* dimensions for Sabre 757

Sabre

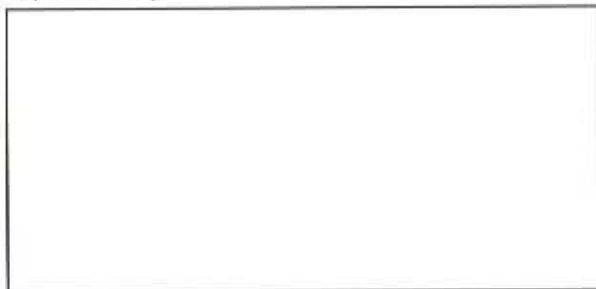
Sabre **660**

SabreMax **757**

SabreMax **757 ST**

Max stencil size	610 x 610mm	750 x 750mm	750 x 920mm
Operation:			
Wash system	High volume (130 litres/min) spray under immersion jets - reciprocating - horizontally opposed. Optional single ultrasonic transducer.		
Dry system	Compressed air jets - reciprocating - horizontally opposed. Optional heated air.		
Filtration	Continuous at 130 litres/min through 5 micron filter bag.		
Maintenance	Minimal - filter change, lubrication & fluid top up only.		
Dimensions:			
Footprint	1140 x 780mm	1310 x 780mm	1490 x 780mm
Height	2050mm	2380mm	2380mm
Liquid volume	170 litres	240 litres	280 litres
Services:			
Power	230volt 50Hz 13 amp single phase - 6 amp running typical. 115 volt 60 Hz option.		
Air	Clean and filtered 170 l/min (6 cfm)@ 5 bar - 2 bar running typical.		
Exhaust	Variable to 8,500 l/min (300 cfm) from 150mm (6") diameter duct.		

Represented by:



Invicta maintains a constant programme of product improvement. We reserve the right to make changes without prior notice or liability.

INVICTA UK

Tyland Corner Sandling Maidstone Kent ME14 3BH
Telephone +44 (0) 1622 755585 Facsimile +44 (0) 1622 757221
e-mail: mail@invictauk.com www.invictauk.com

