

# ALPHASONICS

ADVANCED ULTRASONIC CLEANING SYSTEMS

## GOOD REASONS

Your Guide to Alphasonics  
& Anilox Cleaning

 **MADE IN BRITAIN**

 **ALPHASOUND**  
a world of difference

*Beta*Sound  
Ultrasonics, Advanced.

*active*  
CAVITATION



# 6 Good Reasons...

## why Alphasound/Betasound offers more than other **Ultrasonic cleaning systems**

### **The first system offering a dual frequency option for cleaning a wider range of anilox screen counts**

Dual Frequency and Alphasound technology was developed in house in 2000 and to this day, countless flexo printers worldwide have reaped the rewards of utilising this breakthrough technology. Aniloxes of any screen count can be cleaned as often as required with zero risk to the roll. This delivers the very best print quality available and greatly reduces make ready, reduces waste and rejects as well as increasing available run hours. As the anilox inventory develops and expands, the system will continue to perform whichever future screen counts may be used. An Alphasonics system will grow with the business to continually deliver a return on investment.

### **Automated operation - easy to use**

There is a maximum of four buttons on a Alphasonics system and every aspect of the system is factory set. All settings are handled automatically through sophisticated electronic controls, meaning the operator can press a button and the job will proceed without further manual intervention. All Alphasonics units have LCD displays which give the operator full information on the cycle taking place which also enables diagnostic information for maintenance purposes.

### **The only system offering enhanced 'supersweeping' generators for roll safety**

SuperSweep ensures that the ultrasound is distributed incredibly evenly for consistent and effective cleaning across the roll. In turn, the 'Hot and Cold Spots' that can cause damage in an ultrasonic system without this technology are eradicated instantly.

### **Active Cavitation for faster cleaning**

As another in house development, Active Cavitation (pat) enhances the chemical reactions in the anilox cleaning process to give a much faster cycle. This technology further assists with the even distribution of sound and anilox safety.

### **The only system guaranteed not to damage anilox rolls**

With several patented technologies and continual development since 1993, Alphasonics have the experience, technology and confidence in the equipment to issue a guarantee of roll safety, no matter what the screen count, anilox manufacturer or regularity of cleaning.

### **Recommended by Press and Roll manufacturers**

We have long standing and fruitful relationships with a number of press and anilox manufacturers across the globe. There is a good reason why Alphasonics are the only ultrasonic supplier that can say this.

“Advanced ultrasonics is the only ultrasound based system guaranteed not to damage cell walls and is recommended by most press and anilox manufacturers.”

# 7 Good Reasons...

## why Alphasound/Betasound is favourable to **Laser cleaning**

### **Cheaper to buy**

Laser cleaning is a considerably expensive capital outlay if a customer wishes to buy the equipment. When contract cleaning is employed, cleaning is less frequent and the customer loses control over the process.

### **No skill level required**

Laser cleaning requires a skilled operator to carry out this task. With Alphasonics, training is minimal. Any skill level is capable of operating Alphasonics equipment. Also, the operator does not need constant supervision with an Alphasonics system – they can press a button and walk away.

### **Takes up less factory floor space (like for like systems)**

Alphasonics systems have a lower overall footprint by comparison, allowing for increased space and manoeuvrability for staff. The system can be easily moved if relocation is required.

### **Multi-roll systems available (quicker cleaning)**

Laser cleaning is only capable of cleaning one roll at a time. By comparison, Alphasonics bespoke systems can clean as many rolls as the customer requires simultaneously and it is worth noting that multi roll cleaning saves time as well as money. This is of great benefit for printers with large anilox inventories.

### **Effective across all ink types**

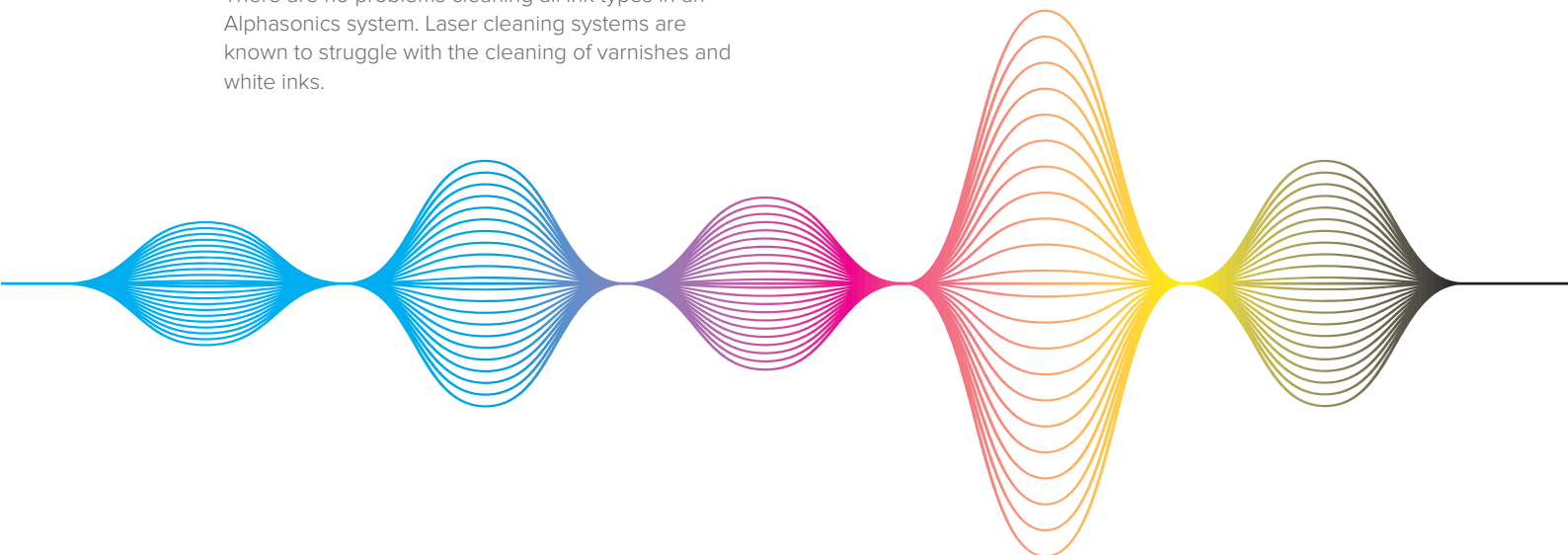
There are no problems cleaning all ink types in an Alphasonics system. Laser cleaning systems are known to struggle with the cleaning of varnishes and white inks.

### **Health and safety concerns**

There are concerns within academic circles with regards to this method of cleaning and the nano-particles produced, leading to a serious carcinogenic health risk for operators. There are also reports of onsite cleaning taking place without any ventilation at all, putting all employees at risk. The carcinogenic risks cannot be stressed highly enough. When the ink is vaporised in the cells, dangerous toxins are released within the smoke produced that are extremely difficult to filter and the primary selling point claimed by the manufacturers and distributors of this equipment that there is no waste is completely false. There is waste, but it cannot be seen. However, if these toxins are breathed in, it may potentially cause long term health issues. Nano-particles can sit in the lungs for decades before problems occur.

### **Better cleaning**

In addition, independent trials carried out by a major press manufacturer in early 2020 showed conclusively that an Alphasonics unit will deliver a superior clean to a laser system in a much shorter timeframe. Therefore, this confirms that there is no aspect of a laser device that is as good as an Alphasonics system.



# 7 Good Reasons...

## Alphasound/Betasound will outperform **Blasting**

### **Cheaper to buy (like for like system)**

Alphasonics systems are cheaper when like for like systems are considered. Where we find that there is a difference, we will endeavour to accommodate the customer to ensure they receive the very best specification on offer.

### **Cleaner process**

Due to the beads and powder involved, blasting can produce large amounts of dust, which can affect the print of the customer as this powder can settle on the press. Even around a system itself there is a lot in terms of mess and dust, at a huge inconvenience to the customer. Alphasonics equipment is contained process as it as overall cleaning station encompassed in one machine.

### **No skill level required**

Blasting requires an operator to carry out this task – with a certain skill level in some cases. With Alphasonics, training is minimal. Any skill level is capable of operating Alphasonics equipment. Also, the operator does not need constant supervision with an Alphasonics system – they can press a button and walk away.

### **Multi roll systems available (quicker cleaning)**

Blasting is limited in terms of the number of rolls that can be cleaned at one time. By comparison, Alphasonics can clean as many rolls as the customer requires simultaneously. Each machine is custom built to the customer's requirements. Multi roll cleaning saves time and money and therefore, this is prevalent for printer with large anilox inventories.

### **Deeper cleaning over a much wider screen count range**

There are limitations in terms of the screen counts that blasting can clean to. This was well noted towards the late 1990's and customers across the world report that they simply cannot clean rolls over certain screens, especially when UV ink is concerned as this absorbs the kinetic energy the blasting process relies on. However, with Alphasonics proven Dual Frequency technology, any screen count can be cleaned. This means a system can grow with a business as their capabilities increase in terms of presses, aniloxes and plates.

### **Takes up much less factory floor space**

Alphasonics systems have a lower overall footprint by comparison, allowing for increased space and manoeuvrability to staff. The system can be also be easily moved if relocation is required.

### **Future proof technology**

Alphasound, Betasound and Active Cavitation are all features that have been initiated around the core Supersweep technology which is under continual development. Blasting technology cannot develop beyond its current limits.

“Each machine  
is custom  
built to the  
customer's  
requirements.”

# 10 Good Reasons...

## why Alphasound / Betasound is favourable to **Jetwash**

### **Cheaper to buy (like for like systems)**

Alphasound systems are cheaper when like for like systems are considered. Where we find that there is a difference, we will endeavour to accommodate the customer to ensure they receive the very best specification on offer.

### **Up to five times cheaper to run**

The Alphasound system relies on a mechanical process, not the strength of a solution. Only 10% of chemistry is required against 90% mains water and the consumable costs are also favourable by comparison in like for like quantities of 25 litre drums. Furthermore, cleaning in a system using sprayed chemicals requires a 50% dilution.

### **No exposure of ceramic porosity**

As Jetwash systems use high concentrations of chemistry, they can strip out the sealant from the aniloxes, generally over the first 6 months of use. This makes the anilox more difficult to clean and creates the potential for erosion of the substrate due to increased exposure of the porosity of the ceramic. Due to the much lower chemical requirement, Alphasound equipment will not cause this issue.

### **Better consistency of cleaning for much longer periods (No fall off in performance due to chemical deterioration)**

In a Jetwash system, the cleaning capability is totally reliant of the condition of the chemical. As it becomes blinded, performance will drop off quite quickly. With an Alphasound system, the performance will not fall away so quickly which is again due to the mechanical process utilised. This assures that the consistency of the cleaning is guaranteed for much longer periods, without the need for a chemistry change.

### **Faster cleaning times**

The Alphasound system has a 15-minute cycle and with the new Active Cavitation technology, the likelihood is that this cycle time will not be fully required. With regular cleaning, rolls are generally cleaned within only a few minutes. This technology is patent pending and therefore is only offered by Alphasound. In many cases the roll will be cleaned in only a few minutes, unlike the closed system employed by a Jetwash system that has a 20- 30-minute cycle. This has potentially a real impact on make ready times.

### **Less environmental impact**

Alphasound equipment uses only 20% of the volume of cleaning fluid in comparison to a Jetwash system. This means that overall water usage and waste is reduced by 80% when the two systems are compared. There are further implications when the heating of the fluid in both systems is considered and therefore, this means that reduced energy costs is a benefit of the Alphasound unit. Manufacturers of both system types will offer low pH/ aluminium-friendly chemistries and chemistry from either supplier however cannot be put to drain following cleaning of rolls or parts contaminated with UV ink.

### **Takes up less factory floor space (like for like systems)**

Alphasound systems have a lower overall footprint by comparison, allowing for increased space and manoeuvrability for staff. The system can also be easily moved if relocation is required.

### **Safer for the operator**

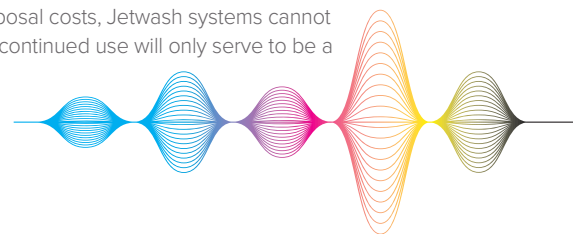
As Jetwash systems use chemistry that is diluted by 50%, there is a much higher risk of injury to the operator should his skin come into contact with the tank fluid. By comparison, the vast majority of Alphasound's systems utilise chemistry that is added at only 10% and while contact with the skin is not recommended, it is not harmful and at worst, will render the skin dry.

### **Developing technology**

Alphasound, Betasound and Active Cavitation are all features that have been initiated around the core Supersweep technology which is under continual development. Jetwash technology cannot develop beyond its current limits of pumping chemistry through spray nozzles.

### **Return on Investment**

An Alphasound system will render the anilox 100% clean, 100% of the time, thus helping to deliver greater process control. This leads to a much quicker ROI through faster make-ready, reduced waste plus higher and more consistent print quality. Due to inconsistent cleaning results leading to inconsistent print quality, as well as high running and disposal costs, Jetwash systems cannot deliver this and their continued use will only serve to be a drain on resources.



At the forefront of  
anilox cleaning **since 1993**

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