

# Global Leaders In Surface Finishing Solutions

A comprehensive range of industrial finishing products for aerospace aviation OEM and MRO companies worldwide.





With over 85 years of expertise, Guyson International stands at the forefront of innovation, design and manufacturing of cutting-edge surface finishing machines tailored to the needs of the Aviation Industry. Trusted by leading original equipment manufacturers (OEMs) and maintenance, repair, and overhaul (MRO) providers, Guyson delivers solutions that set industry benchmarks.

Guyson's premium blast finishing and ultrasonic cleaning systems, meticulously engineered to meet AMS standards, are the preferred choice of many renowned aircraft and engine manufacturers, and MRO support companies worldwide.

With unmatched precision, quality, and operational efficiency, Guyson ensures that customers stay ahead, through innovation, in an ever-evolving industry.

## CIVIL AVIATION | DEFENCE & MILITARY PROPULSION | AIRFRAME | COMPOSITE | ADDITIVE

## Guyson Provide Finishing Equipment For A Range of Aviation Applications



**LANDING GEAR** 



**TURBINES** 



AIRCRAFT SEATS



**AVIONICS** 



AIRCRAFT WINGS



**ACTUATORS** 

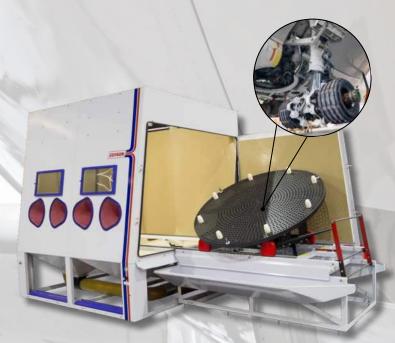
## **Applications In Practice Electronic PCBs Ultrasonic Solvent Cleaning** Airframe Components **Shot Peening Etching before painting** Cabinet Interior & Seating **Cosmetic Bead Blasting** Window Frames **Composite Grit Blasting** Composite Wings **Grit Etching Turbine Engine Components Grit Etching Shot Peening** Airframe Ribs **Shot Peening** Landing Gear **Shot Peening Paint Stripping**

## **Blast Machines**

### Manual

Guyson offers a wide range of manual blast machines, customisable for diverse applications and output requirements.

The tailor-made Euroblast 2.5M square cabinet, featuring an angled turntable and additional arm holes, delivers uniform blast etching of large, circular aluminium rings, prior to bonding, for a leading supplier of satellite seals.



#### Euroblast® 2.5M

2.5M Wide Blast Pressure Feed Machine
Application in focus: Custom designs available suited to
landing gear components

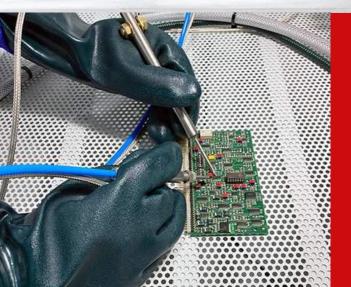


Guyson's comprehensive range of manual blast cabinets also includes the Ex range ATEX certified units, for when reactive dusts are present. Typically used in additive manufacturing where fine powders create potentially explosive atmospheres.

Guyson's Ex range systems feature conductive internal surfaces, full earth bonding, and ATEX-rated equipment, with timed interlocks, for safe operations.

#### Euroblast® 8SF Ex

Euroblast Ex ATEX Certified Blast Suction Feed System
Application in focus: paint stripping alloy wheels



- Localised conformal coating removal from faulty PCBs
- Bead blasting alloy aircraft seating and composite window frames
- Manually blast etching sections of aluminium rings, prior to bonding
- Surface finishing additive manufactured components
- Grit blast surface preparation for removal of investment casting material, prior to coating





#### **Tumbleblast T50**

Automated Rotary Basket Blast System Application in focus: tumbleblasting connectors

The Guyson Multiblast® systems are designed to provide the highest level of reliability and operation quality.

The Multiblast® RXS900 is a six-spindle indexing blast system. Fixtured components rotate in front of blast nozzles for precise grit etching, cosmetic finishing, or shot peening.

Components can be manually placed or robotically loaded, depending on the volume, handling complexity and subsequent operations.

## **Blast Machines**

**Automated** 

Guyson offers a versatile selection of automatic blasting machines for applications where precision and efficiency demands are stringent.

The Tumbleblast T50 delivers fast and consistent batch processing of small components, such as aerospace fasteners, for cleaning, deburring, descaling, cosmetic finishing, and light etching before coating, plating, anodising, or painting.



#### Multiblast® RXS900

Automated Six Station Blast System Application in focus: grit etching turbine blades

- Grit etching turbine engine blades
- Tumbleblasting connectors
- Surface preparation of composite components
- Surface preparation of connectors
- Blast etching composite wing leading edges
- Shot peening precision gears
- Shot peening springs
- Surface preparation of fasteners



## **Blast Machines**

### **Automated**

The Guyson Multiblast RSB rotary spindle, or rotary table blast systems, are used to process component geometries that can be rotated around a central axis.

Due to customisable design capabilities, the RSB machine offers versatility for diverse surface finishing needs.

The Multiblast® RSB is used for glass bead cosmetic finishing, shot peening, grit blasting or paint stripping a wide variety of components.



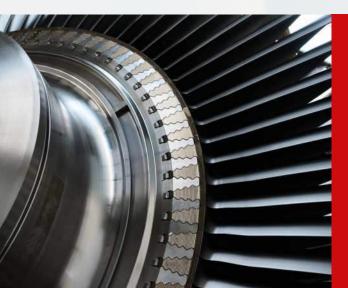
Multiblast® TR
In-Line Blast Systems
Application in focus: shot peening wing spars



Multiblast® RSB PF
Rotary Blast Pressure Feed System
Application in focus: shaft blaster

The TR through feed conveyor is used for blasting flat or profile long aero frame components, or high-volume small items that require an in-line pass through blast process.

Each in-line machine is custom built to suit the desired application, volume of components and blasting dimension requirements.



- Grit etching turbine engine blades
- Tumbleblasting connectors
- Surface preparation of composite components
- Surface preparation of connectors
- Blast etching composite wing leading edges
- Shot peening precision gears
- Shot peening springs
- Surface preparation of fasteners



## **Blast Machines**

Robotic

For complex precision components and conformance to 'AMS 2432 Computer Controlled Shot Peening'; a robotically held nozzle process ensures the optimum consistency of impact angles and surface coverage, whilst minimising the number of blasting nozzles and reducing compressed air costs.

Guyson's fully automated robotically controlled blasting systems advantageously reduce operating costs, enhance quality and consistency, and boost production flexibility efficiently.

These advanced blasting systems offer real-time customisation, multi-axis coverage of diverse shape geometries, pin-point control of process parameters, and flexible component or blast gun manipulation.

The Guyson RB10 PF has been optimised for keying the surface of aerospace seal rings, prior to plasma spraying, and preparing turbine blades and nozzle guide vanes for thermal spray coating.



## RB10 PF

Robotic Blast Pressure Feed System
Application in focus: blisks and aerofoils

- Shot peening aerospace turbine blades
- Shot peening seal rings & turbine blade tips
- Robotic shot peening turbine disks
- Robotic shot peening turbine fan blades
- Ceramic shot peening static guide vane
- Steel shot peening turbine blade root
- Blast etching turbine blades prior to PVD, Plasma or HVOF coating



**Ultrasonic Cleaning Systems** 

Manual

Guyson offers a wide range of precision ultrasonic equipment, from laboratory baths to large multistage production lines.

The GUK Benchtop Baths, the smallest of Guyson's precision cleaning equipment, offers powerful cleaning in a reliable and affordable package.

Available in seven sizes, the GUK Benchtop Baths are regularly used to clean fluorescent penetrant from Tam panel test pieces, used in NDT Operations.



#### **GUK Benchtop Baths**

Benchtop Ultrasonic Baths
Application in focus: TAM panel cleaning



CRD 450 Tank

Ultrasonic Clean, Rinse & Dry Tank
Application in focus: precision cleaning glass tube moulds

Guyson's ultrasonic tanks are utilised for robust, quality cleaning diverse applications in aviation MRO, with spray rinse options available, for the Guyson ultrasonic wash and rinse line.

The CRD 450 Tank, most suitable for applications such as PCB defluxing, metal finishing and maintenance cleaning, operates a three-stage aqueous clean, rinse, and dry process.



- Tam panel cleaning after a dye penetrant - NDT
- Precision cleaning hydraulics
- Variable inlet guide vanes actuator cleaning
- Removal of oil, grease and carbon from hydraulic/pneumatic systems



## **Ultrasonic Cleaning Systems Automated**

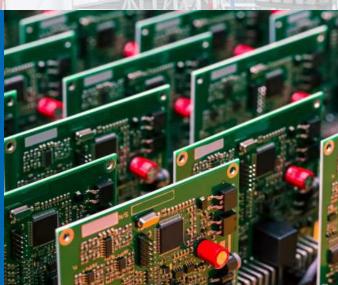
Guyson's larger, automated ultrasonic cleaning equipment includes both aqueous and solvent systems, for meticulous precision cleaning and degreasing.

The Microclean 450 aqueous nine-stage cleaning process combines degreasing, precision rinsing, vacuum drying, dye penetrant ink immersion, rinse, and powder fluffing process, to enhance efficiencies in NDT testing of aerospace components.



#### Microsolve 450C

Co-Solvent Ultrasonic Cleaning System Application in focus: co-solvent cleaning of propeller component



## **Guyson Specials**

## **Custom Designed Machines**



**Dual Robotic Blast Carousel Table** ID Special Purpose Lance Blasting



**Dual Shot & Glass Bead Peening** 



**RB80 Twin Shuttle Table** Robotic Grit Blasting Castings



Supercleaner
Multi-Stage Aqueous Ultrasonic Cleaning System



**Multiblast RXS1400** AMS 2432 Shot Peening Turbine Blade Roots & Gears



**Guyson International** accommodate projects of all sizes, scales and complexities.

By leveraging 85 year's of extensive engineering and design expertise, Guyson provide custom-made solutions to meet the specific needs of each customer's operation.

## **Guyson Services**

Test & Evaluation, After Sales

#### **Test & Evaluation**

As Europe's leading blast & ultrasonic test centre, Guyson excels in process qualification, operator training, and tailored recommendations. The free sample evaluation service ensures valuable advice on media, equipment selection, and process considerations, to support critical decision-making.



## **After Sales**

Guyson's comprehensive after-sales support includes a 12-month warranty, operator training, and specialist field engineer support. Service packages cover preventative maintenance, breakdown repairs, and refurbishment, enabling numerous aviation OEM and MRO professionals worldwide to maximize productivity and reliability.

Furthermore, Guyson's instruction manuals and after-sales team offer seamless identification of spare parts. Guyson maintain an extensive stock of wear parts, blast media and liquid consumables, to support all Guyson manufactured equipment.





To learn more about Guyson's unparalleled test facilities and after-sales support, please get in touch with Guyson's Customer Service team today.

www.guyson.co.uk/contact

Please see contact information on the back of the brochure to find your local Guyson representative.





A privately-owned family company with a world-wide reputation for excellence in design and manufacturing since 1938.





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