Multiblast®
repeatable quality

Automated blast finishing

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where quality comes to the surface

Surface finishing expertise

Suction or pressure feed

Guyson blast finishing uses compressed air to propel blast media directly at the component through a blast gun or nozzle. These clean and safe operations are housed in an illuminated cabinet from which dust is constantly removed and the blast media recycled to provide a continuous and reliable cleaning and finishing system.

There are two types of Guyson blast finishing installations, both capable of using a wide selection of blast media at alternative pressures ... pressures low enough to blast delicate parts and high enough to handle the most demanding cleaning and finishing operations.

Suction Feed
Suction feed or venturi systems are generally selected for light-to-medium production.

Pressure Feed
Pressure feed systems, capable of cleaning up to four times faster than suction feed, are recommended for removal of tough coatings and surface deposits, or whenever high productivity must be maintained. Options include the G27 and G55 (litres) pressure pots. The larger capacity pressure vessel with integrated cyclone minimises refill time and increases blast duration.

Guyson Model 900 Suction Gun

Guyson Multiblast® machine range

Consistent finish delivered by a repeatable process

Inside the blast chamber of a Guyson Multiblast® automated blast finishing system, component surfaces are treated by the impact of media (angular or spherical particles) fired through precisely positioned adjustable air operated blast guns and nozzles.

The Guyson range of Tumbleblast®, Rotary Spindle Blast (RSB) and Rotary Indexing Spindle (RXS) Multiblast® machines provide continuous, selective or overall surface treatment or finishing of components produced in volume. Rotating components in front of fixed or moving blast guns delivers a consistent quality surface with high productivity that cannot be achieved in manual blast systems.

A suction or pressure feed media delivery system, media separator and dust extraction system make up a complete free standing installation which is specified to match each application.

Typical applications include:

- deburring
- shot peening
- glass etching
- cosmetic finishing
- deflashing
- surface preparation

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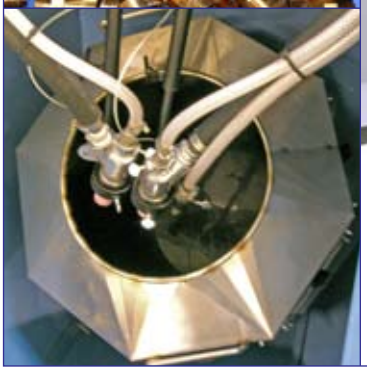
Basket or endless belt for small parts blasting

Guyson's T40 and T50 Tumbleblast® and EB1 Endless Belt systems offer effective blast finishing for batch processing. Ideal for cleaning, deburring, deflashing, cosmetic finishing or surface treatment of small metal components such as screws, bolts, nuts, washers, circlips, fasteners etc.

The EB1 can be used with hard, fast cutting abrasives such as aluminium oxide, 'soft plastic' media or low density glass bead. Ideal for saturation treatment of small components in bulk which are gently tumbled at constant speed under an air powered blast stream on a perforated endless belt made in abrasion resistant rubber.

All Guyson Tumbleblast® machines offer:

- Fast cycle times
- Ability to operate with a wide range of abrasive and finishing media.
- Repeatable process quality
- Safe and easy operation



Rotary single spindle

Rotation of individual components for increased coverage and high productivity

Guyson offers the rotary spindle blast (RSB) as a first step on the automation ladder. Rotating components in front of fixed or moving blast guns and nozzles produces a quality of surface finish coupled with high productivity, which cannot be achieved in manual blast systems. The Guyson RSB machine delivers consistent, cost effective finishing results adding value to your components.

The component sits on a rotating spindle (though it can be static if that suits the component) and the blast guns are arranged to produce the precise coverage required. Options are available for both vertical and/or horizontally traversing guns and turntable.

The automated blast cycle can be controlled by an optional PLC/HMI control system. This gives full operational control over virtually all machine variables and enables through a simple menu system for a 'recipe' to be set-up with differing process requirements such as traverse, oscillation and airwash speed, start and finish gun positions etc. These 'recipes' can be recalled and used to speedily reset-up the machine so as to enable a range of varied components to be processed in a repeatable fashion.

Compact in size and easily adapted for robot loading.

Rotary indexing spindle

High throughput of individual components giving consistent and uniform finish

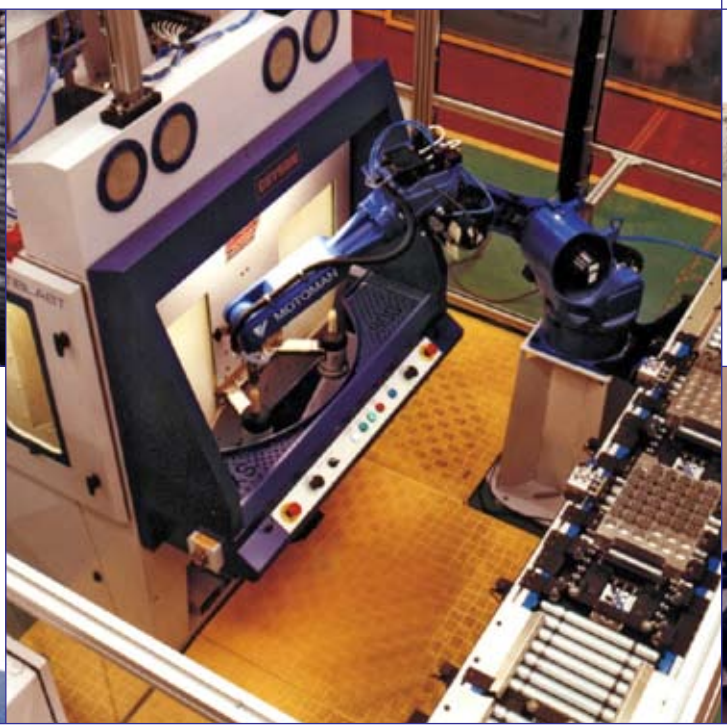
The highly versatile Rotating Indexing Spindle (RXS) Multiblast® blast cleaning system allows continuous, selective or overall surface treatment or finishing of individual components produced in volume.

Designed and engineered to ensure a high level of process and machine control, the Multiblast® RXS ensures an accurate, consistent and uniform finish to every part. Component quality, cost control and productivity can be dramatically increased by eliminating the variations inherent in hand processing.

The components are presented to the blast nozzle on a rotary spindle which can be fitted with special fixtures and dedicated component holding facilities. Options are available for vertically traversing guns.

Guyson offers the RXS range in 4 standard sizes, twin spindle RXS 400 and four, six or twelve spindle RXS 900, 1200 and 1400 models for increasing production volumes and component dimensions.

Compact in size and easily adapted for robot loading.



In-line blast systems

Through and reciprocating blast systems, suitable for linear production lines

Long or unwieldy components can often be best treated in an in-line blast system. These units have the components loaded at one end and pass through the blast chamber on a conveyor, chain or belt mechanism and emerge either at the other end to exit the system or return back to the start point, often through an air wash chamber.

Aerospace and automotive components, machete blades, domestic appliance facias and mobile phones cases are just some of the many parts that have successfully been blasted with Guyson through blast systems.

Some of these systems have also been designed incorporating an integrated wash module, either prior to or post blasting. This allows the finishing unit to be incorporated into larger production lines and provides full automation to the finishing process.

All of these larger blast systems are customised builds and as such tend to be designed specifically to match the component profile or to meet production throughput. Though consideration is made where possible to allow for future changes in product profiles or production rates.

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A complete media recycling system

Cyclones, dust collectors, classifiers and sieves

The quality of the surface finish produced on components is influenced by the condition of the recirculating media. All blast media changes its size, weight and shape after repeated impacts on the components and a consistent mix of particle size is required to maintain uniform results. This is achieved by specifying an appropriate cyclone reclamator. This allows heavier re-useable media to continuously recirculate to the blast guns whilst removing the under size particles and dust.

By using high efficiency cartridge filters the latest generation of Guyson dust collectors provide good visibility in the blast chamber and a clean operating environment in the workshop. The extracted airflow drawn by the dust collector is carefully balanced with either the media reclamator or directly with the cabinet to ensure that a minimum of reusable blast media is removed.

A vibrating screen classifier can be added to enhance control over particle size when tighter standards of consistency of component surface or cleanliness apply. Whilst for shot peening, media shape must be controlled by including a precisely engineered roundness classifier. When large flows of dense media have to be circulated a bucket elevator is often used as an alternative media recovery system.

Flexibility through options

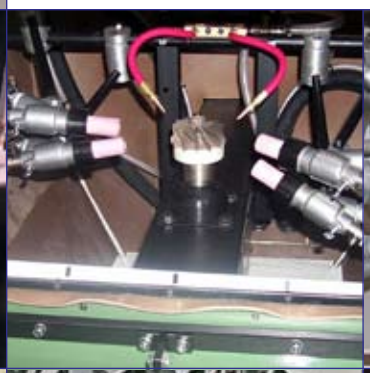
Standard units with customer driven variations

The versatility of the Guyson Multiblast® systems ensures that they can be specified, manufactured, installed and be operational quickly, without specialised structural changes to buildings and can deliver consistent, cost effective finishing results adding value to your components.

Based on the customer's individual process requirements, numerous optional features can be added to the standard specification, creating a customised system which meets their needs.

Variations can include use of stainless steel and rubberised wear protection at all critical points within the blast system to prevent ferrous contamination for medical usage. Specialised fixturing to enable handling or masking of irregular shaped components. A variety of turntable and spindle options in automated rotary RSB and RXS systems. Shot bolt positioning on spindles to enable accurate location and transfer of parts during robot load and unload. Additionally there are a wide variety of media handling and quality assurance products to maintain blasting at optimum levels of efficiency.

Choose Multiblast® for repeatable quality.



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Guyson International

Guyson International Limited is the largest independent manufacturer of blast finishing, spray washing and ultrasonic cleaning equipment in Europe and supplies a worldwide customer base. Guyson offer automated handling solutions, where suitable, including both robot load & unload and also pick & place options.

Comprehensive ranges of automatic and manual blast cabinet systems are available to suit all production situations. Specialist applications include surface treatment of medical implants, shot peening of turbine blades and surface preparation of components such as cutting tools, to improve coating adhesion, prior to PVD coating.

Ultrasonic equipment includes bench top baths for laboratory, medical and light industrial use and ultrasonic cleaning tanks for industrial use. Microsolve systems for precision cleaning in wide range of sectors including electronics, optics, aerospace and defence, as well as multi-stage aqueous ultrasonic systems for specialised cleaning of components such as medical implants, hard disk drives, diamonds, optics etc.

Also available are a range of aqueous spray wash equipment including conveyorised tunnel washers, rotary basket washers, rotary drum washer for small parts, a PCB stencil cleaner and a compact high impact hot aqueous spray washer designed for the workshop. Full product and application information for all equipment is available on the Guyson website.

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