

we redefine

# Forgings and Castings



# We're the UK's leading experts in providing effective and efficient processes, and solutions, for the manufacturing industry.

## we redefine:

- Vibratory Finishing
- High Energy Finishing
- Consumables
- Precision Polishing
- Subcontract Services

## Why Choose Us?

We're a family run business that pride ourselves on working as a strong, unified team of specialists.

### We believe in British

Born in the United Kingdom, we are unique in our product design and the manufacture of our specialist machines and consumables.

### We're here for you

Being based in the heart of the country means we have easy access to all of our clients.

### We have experience

With five decades of experience and knowledge in the finishing industry, we know what works for you.

### We provide options

We have an impressive range of media and compounds to choose from, including one of the best polishing compounds in the market. We also provide a wide range of machinery and subcontract services to meet all of your needs.

### We go the extra mile

We'll tailor our services to your needs, not the other way round. Our service is all about you.



# What is Mass Finishing?

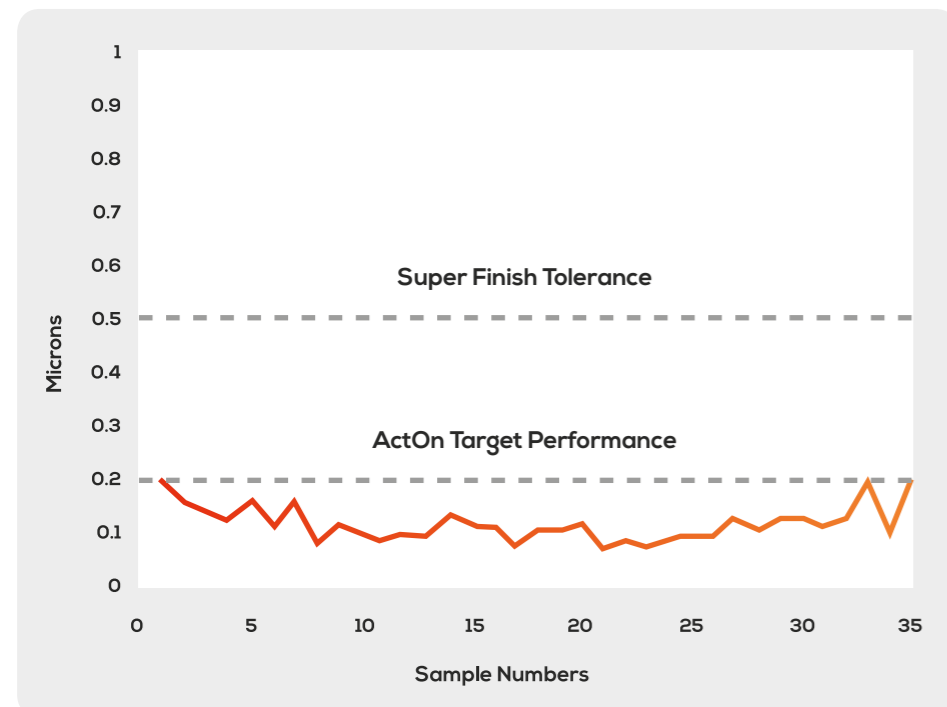
Mass finishing is a process that automates the mechanical and chemical finishing of various shaped parts. This is a stage in the manufacturing process of components, which allows large numbers of parts to be finished simultaneously.

The aim of this process can vary based on the type of application, which include:

- ✓ high stock removal
- ✓ deburring
- ✓ descaling
- ✓ removal of machining lines
- ✓ removal of surface defects
- ✓ radius formation
- ✓ super-finishing

The processes can be configured as a batch system or a continuous system. Parts that are processed using a batch system will be loaded into the machine, processed and unloaded before the next batch is ready. A continuous system is where the parts are loaded at one end, and come out at the other in the finished condition.

By combining our complete process knowledge with decades of experience, and our all-encompassing range of machinery, we can deliver the most optimum, cost-effective and environmentally friendly finishing solution for your needs.



$$\underline{\text{Man}} \times \underline{\text{Machine}} \times \underline{\text{Media}} = M^3$$

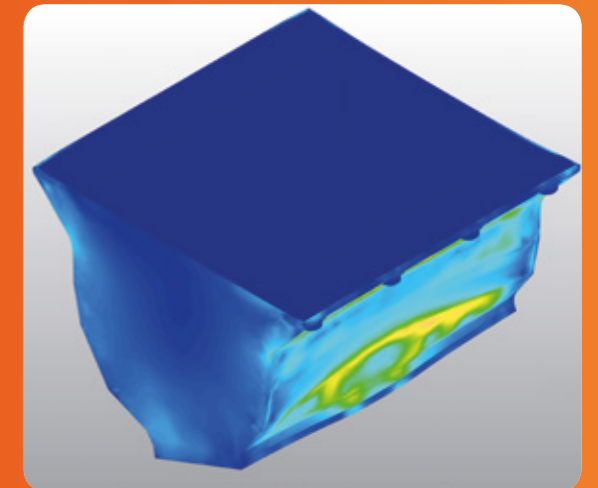
Almost all manufactured components have experienced some surface improvement, to ensure that these are in an acceptable condition for the end-user.

We understand the importance of surface finishing for forgings and castings and have worked closely with major manufacturers in different industries to adapt and develop finishing solutions that meet their stringent requirements. It has been proven that the solutions we've developed have benefited the industry by reducing processing times and producing a repeatable and quality product.

## Surface Finishing is Critical in Keeping Manufactured Components Repeatable.

Manufacturing companies usually implement mass finishing techniques in their processes for the economic advantages, and the consistent results achieved. Manual finishing processes are known to be labour intensive, with the disadvantages of rework and high rejection rates, and inconsistent results. Having identified the issues, we offer a wide range of unique solutions that improve current processes, achieving the repeatability and quality desired by manufacturers.

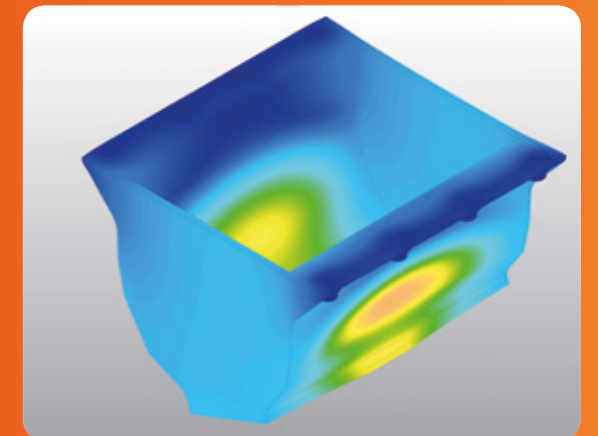
FEA Analysis



## ActOn Research and Development

We are continually evolving our processes and machines, making them more effective. We also have academic connections throughout the United Kingdom and around the world, who help facilitate our Research and Development department, where we house various metrological equipment to ensure that our customers' requirements are met and exceeded.

With projects involving modal and dynamic FEA analysis of our finishing machines, and the persistent gathering of empirical data on our various compounds, medias and machines, we strive to design and optimise everything we do to a high standard.



# Surface Finishing of Forgings & Castings

Forging and casting are manufacturing processes used across various industries to transform metal materials into a desired geometry.

Generally, forgings and castings tend to have a rough surface finish and a dull appearance. Manual finishing is time consuming and does not deliver consistent results.

ActOn engineers recommend using vibratory finishing or high energy finishing machines to achieve a smooth surface and a polished finish. Over the years, we have developed and optimised processes on various forgings and castings with different finishing specifications, such as the removal of surface defects and flash lines or achieving a surface finish of Ra 0.03 µm.

## The process benefits of ActOn machinery and consumables include:

1. Significant reduction in roughness
2. Shorter processing time than traditional methods
3. Increased part cleanliness
4. Removal of surface defects and flash lines
5. Corrosion protection
6. Non-part specific
7. No major tooling required
8. No requirement of fixturing
9. Consistent and repeatable results

## Rental and Leasing Options

We understand the importance of having the right finishing equipment to save you time and money. Often, there are many underlying costs that are not accounted for when trying to work out the true cost of finishing. For this reason we offer ActOn finishing systems for rental or leasing.

### Leasing

We are delighted to announce our partnership with Kennet Equipment Leasing, a specialist finance company who can offer a range of finance options to suit your requirements. Our partnership with Kennet ensures that our customers can acquire new equipment quickly and on terms that best suits their budgets and cash flow.

### Rental

Renting a machine before purchasing can help you find the perfect solution. Renting is also effective during busy periods or while waiting for new equipment to arrive.

### Benefits

- ✓ Training for your staff
- ✓ Service available in 24 hours
- ✓ No hidden costs
- ✓ Renting ActOn finishing machines can give more flexibility as there is no capital outlay, making it tax efficient
- ✓ Ideal for use in the short term or long term
- ✓ Maintenance carried out every six months (the cost is included in the rental price)
- ✓ Rental pack includes installation and servicing
- ✓ Enables you to easily upgrade the equipment when your requirements change
- ✓ All consumables are included





Man x Machine x Media = M<sup>3</sup>
















# Products we redefine

Here are just a handful of forgings and castings products that we can help to perfect.

Click [here](#) to request your Free Trial today!

# Applications

Using both our Vibrota range and Centrifugal High Energy machines together with our bespoke media and compounds, we'll achieve a high standard finish.

Component	Output Required	Machine Type	Media Type			Compound Type		Typical Process Time	Manufacturing Method
			Deburring Media	Polishing Media	Drying Media	Deburring	Polishing		
Aluminium Latch Fitting	Improve Surface Finish From 6.1µm to 1.3 µm		<input type="checkbox"/>			<input type="checkbox"/>		240 mins	Casting
Brass Figurines	Deburring and Bright Finish		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		60 mins	Casting
Zinc Handle	Clean Prior to Plating		<input type="checkbox"/>			<input type="checkbox"/>		15 mins	Casting
Bronze Sculpture	Deburring		<input type="checkbox"/>			<input type="checkbox"/>		300 mins	Casting
Steel Land Base Turbine	Deburring		<input type="checkbox"/>			<input type="checkbox"/>		60 mins	Casting
Rocker Arm	Remove Flash		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		10 mins	Casting
Piston	Deburring and Bright Polished Finish		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	120 mins	Forging
Inconel Turbine Blade	Surface Improvement and Polishing		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	70 mins	Forging
Brass Stamping	Descaling, Removal of Graphite and Polishing			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	250 mins	Forging
Key	Deburring, Cleaning and Polishing		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	30 mins	Forging
Femur	Removal of Machining Lines		<input type="checkbox"/>			<input type="checkbox"/>		35 mins	Forging
Hip Joint	Cleaning, Degreasing, Deburring and Mirror Finish		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	90 mins	Forging
Carbon Steel Shank	Bright Finish		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	240 mins	
Stainless Steel Climbing Hardness Bracket	Burnished Finish			<input type="checkbox"/>			<input type="checkbox"/>	180 mins	
Aluminium dog tag	Deburr and Smooth Finishing		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	105 mins	

Parts can vary. This is a guideline only. If you require any other parts processing, please contact us.

# Bowls

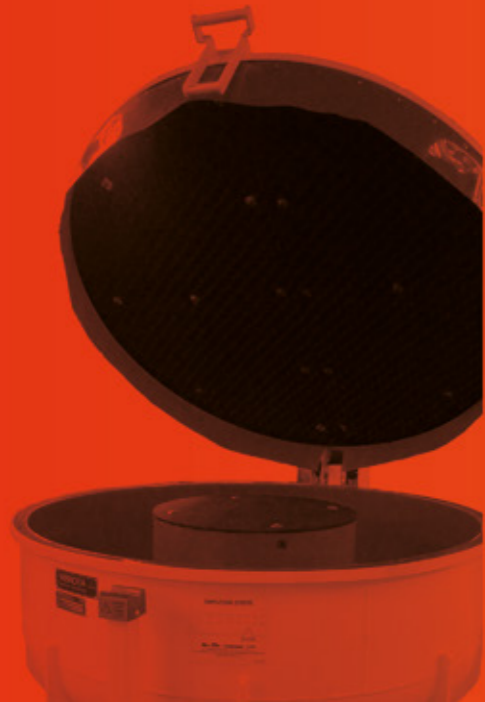
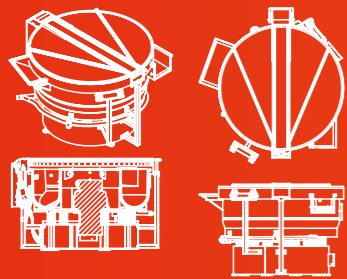
Each of our Bowls are simple to operate and highly efficient, manufactured in classic designs and sizes to meet your unique applications.

## Key Features

- ✓ Wear resistant casted hot cured polyurethane lining
- ✓ Acoustic lid for noise reduction
- ✓ Flap clearing system
- ✓ Inverse separation
- ✓ Undersized media separation
- ✓ Single and Variable speed motor
- ✓ Powerful drive system with sealed bearings for maintenance-free running
- ✓ Flyweights set for optimum action in bowl
- ✓ Bench top options available

## Key Benefits

- ✓ British high-quality product
- ✓ Durable machine due to design, good quality materials and workmanship knowledge
- ✓ Very quiet machine in operation due to the acoustic lid
- ✓ Wear-resistant lining
- ✓ Easy to operate
- ✓ Low maintenance
- ✓ Can be used as a continuous or batch system
- ✓ Suited to small and large volumes of parts
- ✓ Accessible process chamber
- ✓ Easily automated



# Troughs

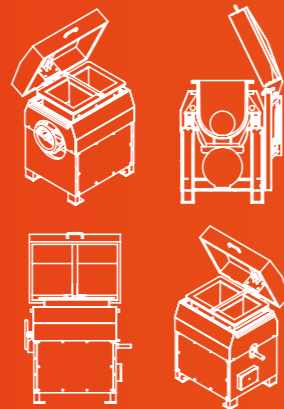
We offer Troughs in many different sizes and an infinite choice of length and width combinations, making them one of our most versatile. These are particularly useful for larger components.

## Key Features

- ✓ Wear resistant casted hot cured polyurethane lining
- ✓ Acoustic lid for noise reduction
- ✓ Single and variable speed drive
- ✓ Powerful drive system with sealed bearings for maintenance-free running
- ✓ Unload door for complete discharge of media and parts
- ✓ Compact design
- ✓ Divider plates to remove risk of impingement
- ✓ Painted or Stainless Steel side panels available
- ✓ Portable options available

## Key Benefits

- ✓ British high-quality product
- ✓ Simple to operate and highly efficient
- ✓ Durable machine due to design, good quality materials and workmanship knowledge
- ✓ Very quiet machine in operation due to the acoustic lid
- ✓ Wear-resistant lining
- ✓ Easy to operate
- ✓ Low maintenance
- ✓ Suited to small and large volumes of parts
- ✓ Accessible process chamber
- ✓ Large systems can be built for continuous operation
- ✓ Easily automated



# Duals

The orbital Dual finisher works to both deburr and dry in one single unit. This is both an excellent and economical finishing option.

## Key Features

- ✓ Wear resistant casted hot cured polyurethane lining
- ✓ Acoustic lid for noise reduction
- ✓ Flap clearing system
- ✓ Inverse separation
- ✓ Undersized media separation
- ✓ Single and variable speed motor
- ✓ Powerful drive system with sealed bearings for maintenance-free running
- ✓ Flyweights set for optimum action in bowl

## Key Benefits

- ✓ Option to carry out both wet and dry process in one machine
- ✓ Accessible process chamber
- ✓ British high-quality product
- ✓ Simple to operate and highly efficient
- ✓ Durable machine due to design, good quality materials and workmanship knowledge
- ✓ Low maintenance
- ✓ Suited to small and medium volumes of parts
- ✓ Can be automated if required
- ✓ Can be used as a continuous or batch system
- ✓ Space saving
- ✓ Energy efficient



# Dryers

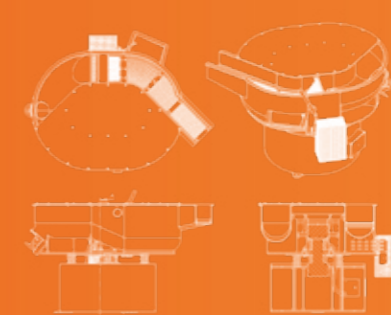
Our unique, elliptical-shaped Vibratory bowl drying machines suit a variety of finishing needs. Our machines are compact in size, and simple to operate.

## Key Features

- ✓ Vibratory dryers have an elliptical shape to produce 100% discharge of parts
- ✓ Side loading chute of parts from vibratory bowl machines
- ✓ Flap clearing system to avoid part and media entrapment
- ✓ Single and variable speed motor
- ✓ Powerful drive system with sealed bearings for maintenance-free running
- ✓ Flyweights set for optimum action in bowl
- ✓ Can also remove light grease on parts as the agro media absorbs it
- ✓ Effective as a 1 lap process
- ✓ Other dryers in our range include rotary and conveyerised ovens

## Key Benefits

- ✓ Suitable for in line or batch work
- ✓ Can be used for drying and/or fine polishing using agro media
- ✓ Takes less floor space due to the elliptical shape
- ✓ Ability to handle a wide range of parts with different shapes and sizes
- ✓ Accessible process chamber
- ✓ British high-quality product
- ✓ Simple to operate and highly efficient
- ✓ Durable machine due to design, good quality materials and workmanship knowledge
- ✓ Low maintenance
- ✓ Can be automated if required
- ✓ Energy efficient as a result of specially designed heating elements



Man x Machine x Media = M<sup>3</sup>

# Vibrota Finishing Range

We offer a range of Vibratory machines, including: Bowls, Troughs, Duals and Driers. These machines are suited for processing both small and large parts.

## Automation for Vibratory Finishing Machines

The below system was designed to deburr components with 100% separation of the media and parts. The system is PLC operated, ensuring the least amount of operator intervention and guaranteeing consistent results. The main features of the system have been highlighted below.



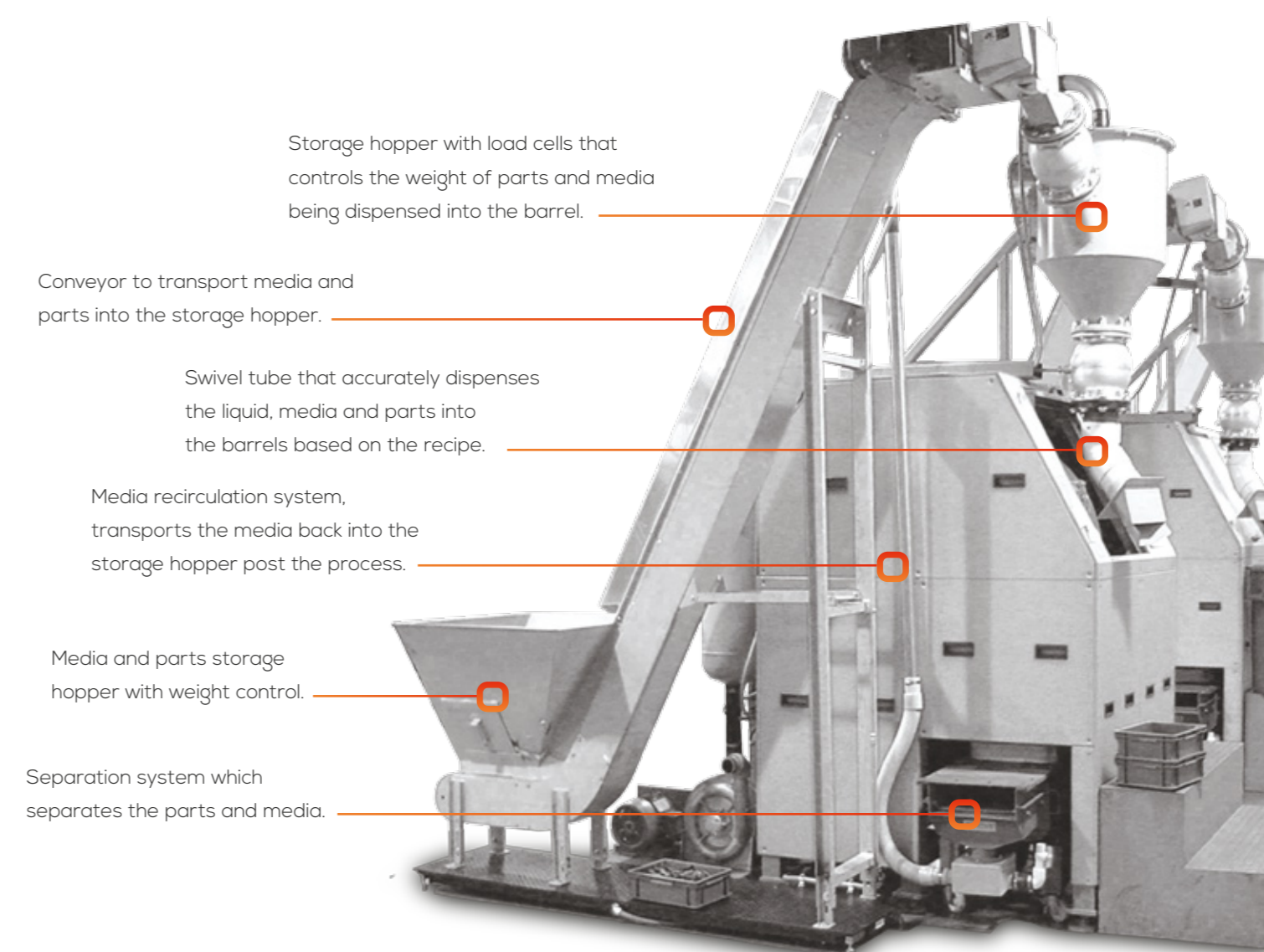
Man x Machine x Media = M<sup>3</sup>

# High Energy Finishing Range

Our Centrifugal High Energy machines are part of our High Energy (HE) series, which are made with the latest HE technology.

## Automation for High Energy Finishing Machines

The system is PLC controlled ensuring measurements of media, parts and compound are precise and accurate. The system delivers consistent results in short cycle times. The HMI allows the operator to choose the desired recipe and have access to the maintenance schedules.





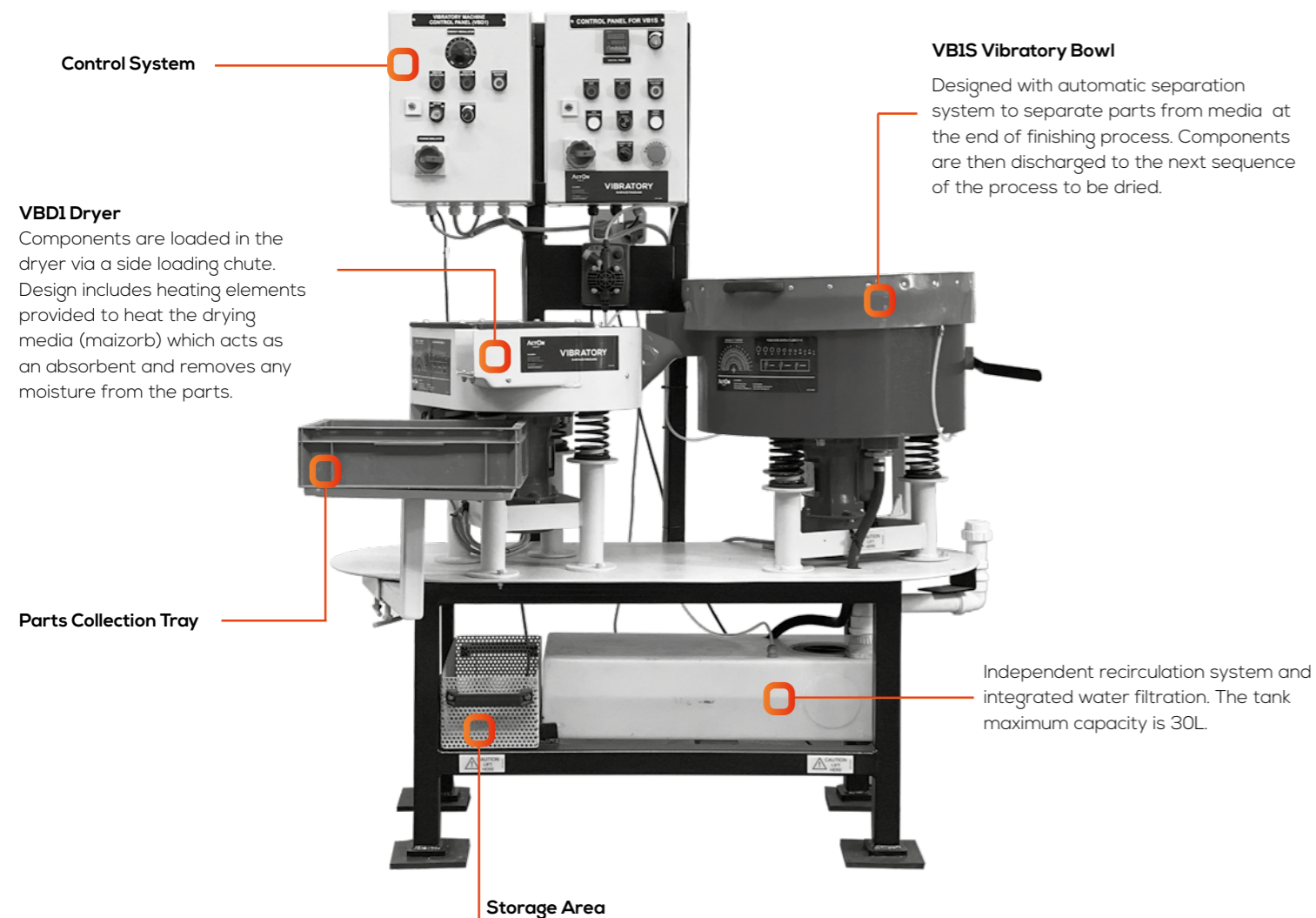
# SPU-1 Vibratory Finishing System

A Single Portable Unit ideally suited for small batch works and delicate components, which can be used as either a batch or a continuous system.

This vibratory finishing system is perfect for deburring, descaling, degreasing, cleaning, smoothing, radiusing, polishing and drying. This is both an excellent and economical finishing option.

### System Benefits and Features

- ✓ Portable unit.
- ✓ Built in compound recirculation system.
- ✓ Water/compound can be filled from the side of the machine.
- ✓ Available in 3 phase and 1 phase.
- ✓ Compact design
- ✓ British built high-quality product
- ✓ Efficient in operation
- ✓ Quiet in operation
- ✓ Operator friendly controls



# VB10P Vibratory Finishing System

This Vibratory Finishing System has been designed to ensure 100% unload of media and components from the finishing machine, while reducing manual handling and achieving a consistent finish every time.

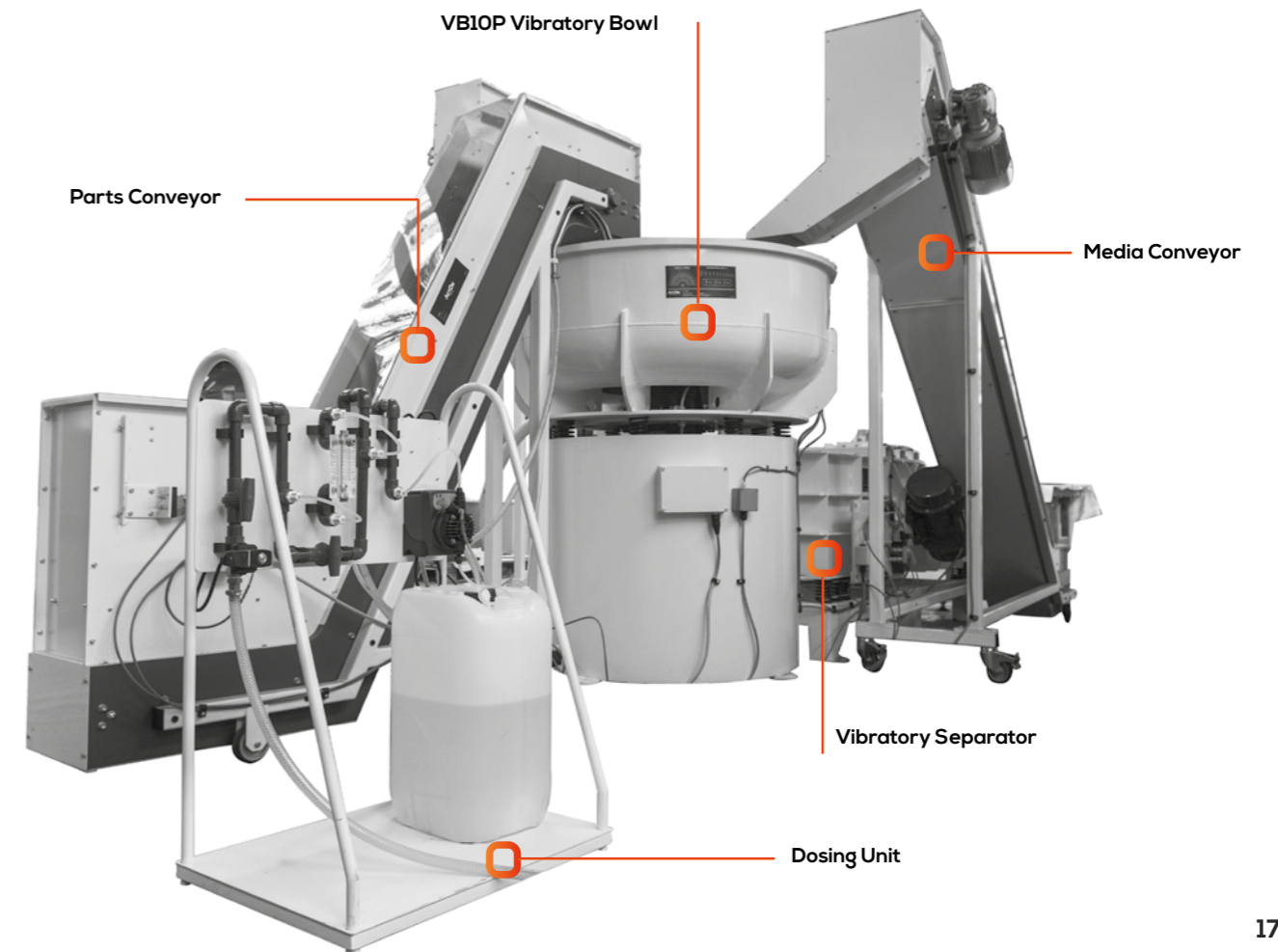
### System Description

This vibratory system allows the operator to set up the process parameters and easily control the process. Once the process starts, a set batch of parts are loaded into the vibratory finishing bowl via a conveyor.

At the end of the process the bowl's pneumatic media door opens allowing the parts and media to be discharged in a storage hopper. This stage ensures 100% unload of media and parts from the finishing machine. After the parts and media

have been unload the pneumatic door closes to allow a new finishing process to begin.

The system also includes a vibratory separator which enables the separation of parts from media. The undersized media falls through a separation grid and is filtered from the system, while the rest of the media returns into the vibratory bowl through a conveyor. The finished components are transferred from the vibratory separator to a conveyor and discharged in the packing area.



# Centrifugal Barrel Machines

Built with the latest high energy technology, the drive mechanism is designed to produce high g-forces resulting in shorter process times.

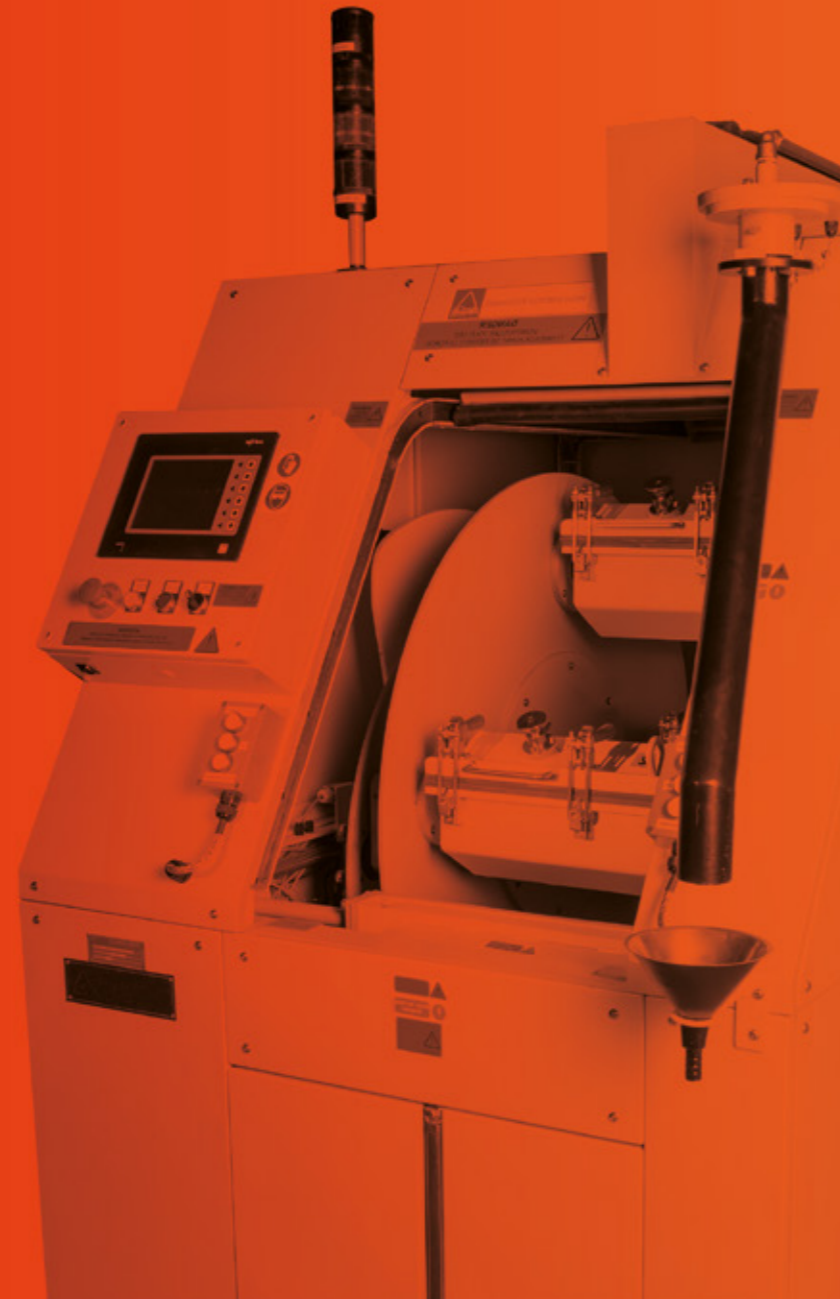
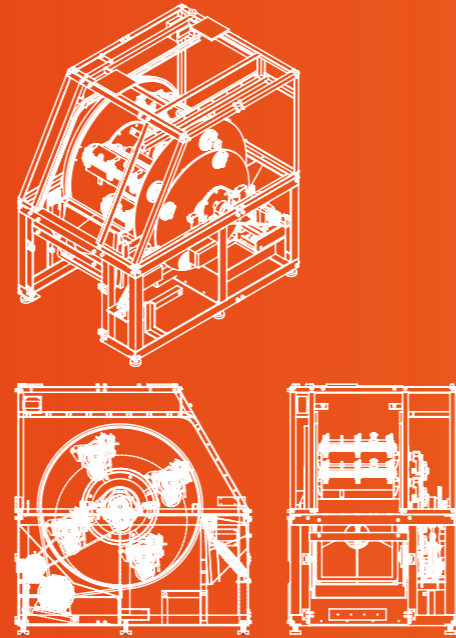
## Key Features

- ✓ Automation capable
- ✓ Control through HMI or control panel
- ✓ Media recirculation
- ✓ Media separation system
- ✓ Compound and water dosing
- ✓ Over temperature detection
- ✓ Unbalanced weight detection
- ✓ Pressure release valves
- ✓ Reinforced liners
- ✓ Hinged lids
- ✓ Removable barrels
- ✓ Removable liners
- ✓ Programmable recipes
- ✓ Heavy duty steel frame
- ✓ Variable speed
- ✓ Heat treated components
- ✓ Maintenance alerts

## Key Benefits

- ✓ High polishing efficiency
- ✓ High or low rate of stock removal
- ✓ Gentle action on parts
- ✓ Greater control of the process
- ✓ No need for fixturing or tooling
- ✓ Fast processing times
- ✓ No impingement
- ✓ Easy to maintain

Click [here](#) to request a Quotation today!



# Centrifugal Polishing Machines

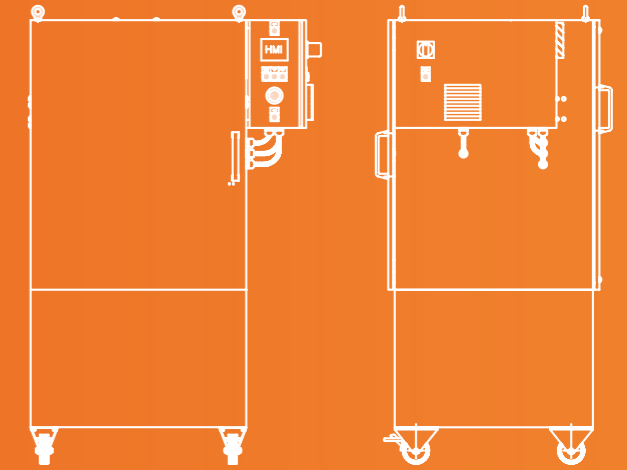
Built with the latest high energy technology, it has a direct drive system with counter rotating turrets and barrels. Typically used for small components, it can be aggressive enough to handle your toughest burr yet precise enough to process the most delicate piece.

## Key Features

- ✓ Removable barrels
- ✓ Removable liners
- ✓ Stainless steel barrels
- ✓ Circular or hexagonal barrels
- ✓ PLC operated with HMI
- ✓ Single Phase
- ✓ Portable
- ✓ Storage for additional barrels
- ✓ Variable speed

## Key Benefits

- ✓ High polishing efficiency
- ✓ High or low rate of stock removal
- ✓ Gentle action on parts
- ✓ Greater control of the process
- ✓ No need for fixturing or tooling
- ✓ Fast processing times
- ✓ No impingement
- ✓ Space saving
- ✓ Operator friendly
- ✓ Easy to maintain



# Centrifugal Disc Finishing Machine

The Centrifugal Disc machine is perfect for processing small and thin components as well as larger parts with a length of 150mm. These machines are recommended for processing small to medium batches of parts. One of the main advantages of Centrifugal Disc machines is the reduced processing times for most applications.

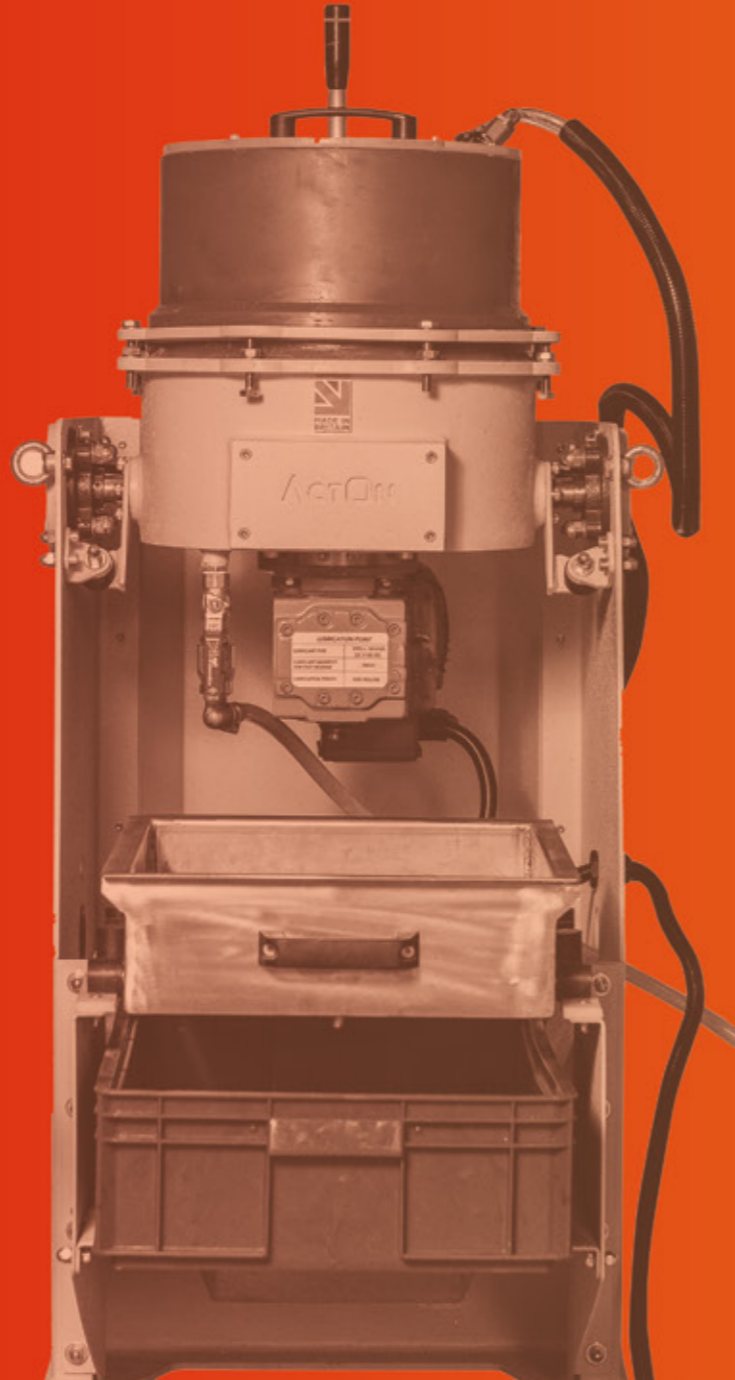
## Key Features

- ✓ Manual and auto gap area adjustment functionality
- ✓ Temperature sensor to detect high temperature and protect the gap area
- ✓ Stainless steel upper and lower ring for higher wear resistance
- ✓ Manual/ auto functionality

## Key Benefits

- ✓ Efficient in operation
- ✓ Faster than vibratory finishing machines
- ✓ Operator friendly controls
- ✓ Low maintenance
- ✓ Good value for money as it implies a reduced capital investment
- ✓ Proudly manufactured in Great Britain

Click [here](#) to request your Free Trial today!



# DLyte Polishing Machines

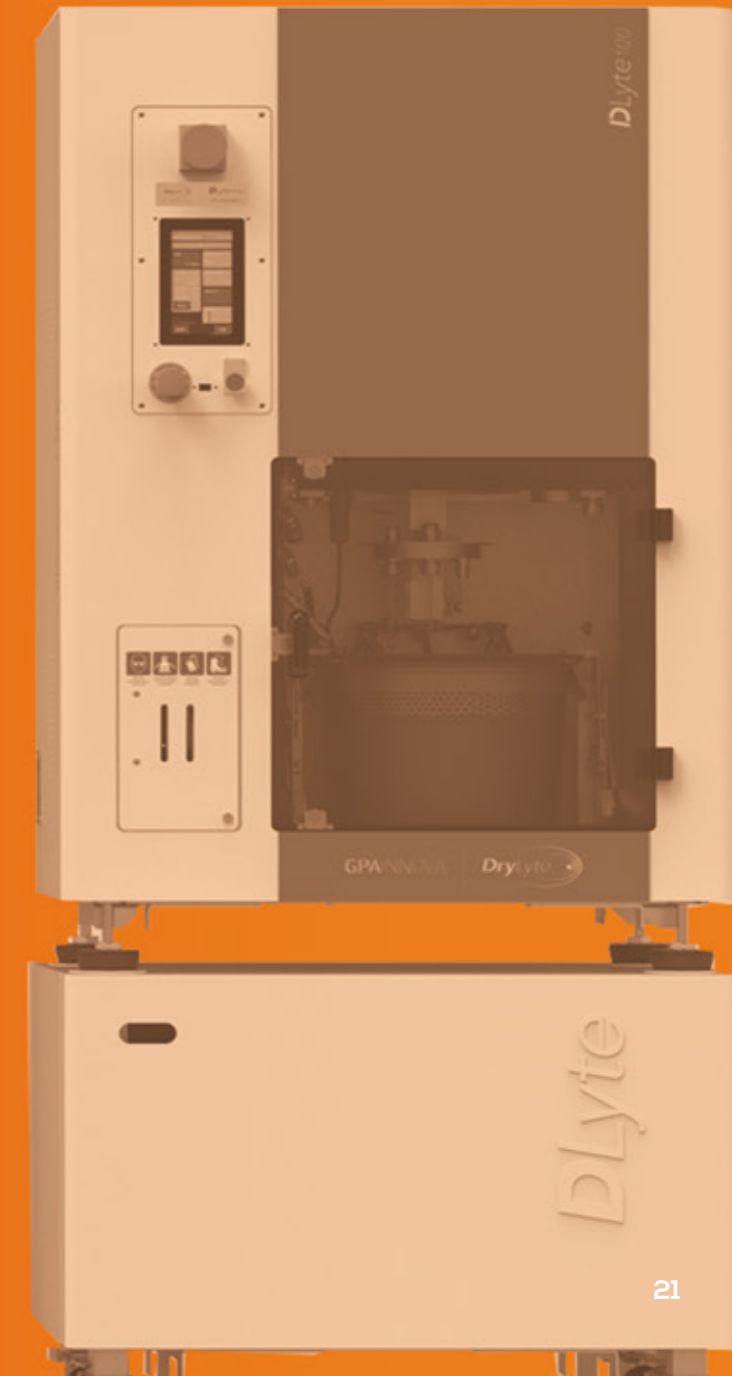
The DLyte® machine achieves high quality finishing for machined, sintered and casting parts, obtaining a mirror finish result. The polishing action reaches every corner of the piece, so it can process inner cavities which can not be accessed mechanically.

## Key Features

- ✓ Fully automatic polishing to a mirror finish in one step.
- ✓ Homogeneous polishing across the entire surface of the piece is the main advantage compared to mechanical polishing.
- ✓ Respect of tolerances and preservation of initial shape, even cutting edges.
- ✓ Increases resistance to corrosion.
- ✓ No contamination on the surface and no traces of hydrogen on the surface.
- ✓ Achieves negative surface skewness (rsk) which increases the surface bearing contact area (allowing uniform lubricant film distribution).
- ✓ Controlled costs and predictable lead times.
- ✓ Doesn't generate grinding texture patterns, improving resistance to part wear and fracture resistance, improving the bearing ratio, an improving fatigue resistance.
- ✓ The ability to process complex geometries
- ✓ Ra under 0,09 micrometers (For additive manufactured parts).
- ✓ Allows for easy processing of channels and cavities.

## Key Benefits

- ✓ Maximum size per piece permitted for each model: 180 Ø x 80mm
- ✓ Programmable cycle time.
- ✓ Automatic parameter adjustment.
- ✓ Automatic media conductivity adjustment
- ✓ Storage capacity for X process configurations.
- ✓ Variable motors speed & movement.
- ✓ Digital interface.
- ✓ Customizable settings.
- ✓ Process data can be loaded/ unloaded onto external USB storage drive.
- ✓ Ergonomic loading and unloading of holder.
- ✓ Quick and easy change of media.
- ✓ Anti-vibratory support with wheels for easy handling.
- ✓ Easy and low maintenance costs.
- ✓ Very low noise emissions thanks to the acoustic insulation system.
- ✓ No dust emission.
- ✓ Very low gas emissions.
- ✓ CE certificate.



# Shot Blasting Range

We offer a wide range of shot blasting machines to help our customers achieve the surface finish they need every time.

Whether you require to descale, remove corrosion, mill scale, paint or rust, achieve a smooth finish, deflash, polish or strengthen the metal we will offer you full support every step of the way. Our machinery range includes:

## Portable Abrasive Blasting Series

These high quality, robust, user friendly and economical shot blasting machines are hydraulic tested to 250 PSI. The Portable Abrasive Blasting machine can be supplied with or without remote control and dead man handle.

### Key Features

- ✓ Automatic filling valve (pop-up valve)
- ✓ Venturi nozzle manufactured out of tungsten carbide
- ✓ High quality blast hose
- ✓ Abrasive flow control valve
- ✓ Air filter and pressure gauge
- ✓ Ball valve

- ✓ Aluminium sand grit valve
- ✓ Includes mixing tube, sieve & moisture separator
- ✓ Hopper made out of MS plate rolled construction
- ✓ Easy to move around as it is mounted on wheels
- ✓ Hydraulic tested to 250 psi



## Wet Blast Cabinets

The wet pressure jet exerted by the Wet Blast Cabinet can be used for deburring, cleaning and polishing and offers the same results one would get when using abrasive shot blasting media.

One of the main advantages of these blasting systems is the reduced time in which parts are blasted. This is due to the high volume conveying flow. To clean components in a quick manner, glass beads can be used as blasting media. This will not damage the part's surface, edges and fits.

### Key Features

- ✓ Blast nozzle (Tungsten Carbide)
- ✓ Y-2A blast gun
- ✓ 100 Watt light
- ✓ 2 side doors
- ✓ Air filter regulator, pressure gauge
- ✓ Slurry pump and tank
- ✓ Cyclone for mist extraction
- ✓ 1.5 HP motor with fan for mist extraction
- ✓ Electrical and pneumatic controls
- ✓ Mechanical agitator (Anti C104)
- ✓ Tumble basket with gear motor
- ✓ Manual / motorised turn table
- ✓ Work car, turn table and track extension (manual / auto functionality)
- ✓ Nozzle reciprocation inside the cabinet
- ✓ Dust bag housing with manual shaker
- ✓ A/c drives can be fitted for speed variation
- ✓ PLC control system to suit functionality of the machine
- ✓ Separate slurry tank with mechanical agitator



## Suction Blast Cabinets

ActOn Suction Blast Cabinets have been designed as a compact and affordable alternative to pressure cabinets. None the less the finishing results that can be achieved using these machines are usually comparable to those produced by pressure systems. ActOn Suction Blast Cabinets can be automated to ensure the ease of operation, reduce maintenance and increase productivity.

These machines can shot blast continuously without the need to stop the process for refilling with media. Moreover the Suction Blast Cabinets have been manufactured to offer a simpler way to use the multiple nozzles. If these machines are used continuously for more than 2 hours per day, we recommend using a dust collector with a dust bag, to ensure better efficiency and cleanliness.

### Key Features

- ✓ Blast cabinet made out of MS Sheet folded construction
- ✓ Blast nozzle (Tungsten Carbide)
- ✓ Y-2A blast gun
- ✓ 100 Watt light
- ✓ 2 side doors
- ✓ Air filter regulator, pressure gauge
- ✓ Wide viewing window glass
- ✓ Built in dust extraction
- ✓ 1.5 HP motor with fan dust extractor
- ✓ Dust bags
- ✓ Blast hose
- ✓ Electrical and pneumatic control
- ✓ Hand gloves



## Pressure Blast Cabinets

ActOn Pressure Blast Cabinets are manufactured out of thick gauge sheet metal, folded and welded to perfection.

These machines have been designed to deliver abrasives at higher velocities than suction systems, being ideal to maximise production rates. In comparison with suction systems, Pressure Blast Cabinets can be 4 times faster, for most of the applications. Moreover, these machines make more efficient use of air and provide more efficient control of abrasive flow required. ActOn Pressure Blast Cabinets are typically used for more demanding processes such as removing tight mill scale or finishing hard-to-reach surfaces.

### Key Features

- ✓ Blast cabinet made out of MS Sheet folded construction
- ✓ Wide viewing window glass
- ✓ 100 watt light
- ✓ 2 side doors
- ✓ Air filter regulator & pressure gauge
- ✓ Pressure pot with all pneumatic and mixing valves & controls including blast hose and high quality tungsten carbide blast nozzle
- ✓ In blast extraction
- ✓ Motor 1.5 HP with fan for dust extraction
- ✓ Dust bags
- ✓ Operator platform
- ✓ Two hand gloves
- ✓ Electrical & pneumatic control



**Man x Machine x Media = M<sup>3</sup>**

# Consumables

Over the years, we have been at the forefront of the industry, developing a range of specially formulated consumables approved by the manufacturing industry.

Working closely with highly skilled manufacturers, our engineers have understood the numerous challenges faced in the industry and developed suitable consumables.

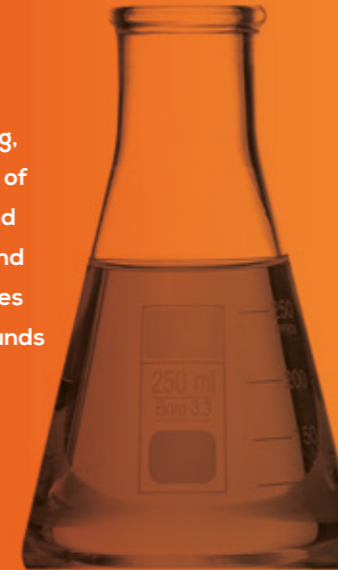
Choosing the right consumables is crucial in achieving your desired finish, and we endeavour to help you to select the correct media and compounds for your components.

Please refer to our consumables brochure for more information.



## Liquid Compounds

Compounds are very important to the mass finishing process. An extensive range of specially formulated compounds is manufactured on site, which suit almost any application. Compounds accomplish cleaning, inhibiting for rust and corrosion of parts, brightening, descaling and degreasing. Often, the compound reduces media costs and reduces process time. All of our compounds are biodegradable too.



## Powder & Pastes

A full range of powders and pastes are available, all of which complement the media and contribute to the grinding, cleaning and polishing of ferrous and non-ferrous materials. These products are suitable in freshwater operations.



## Plastic Media

Our range of plastic media comes in various grades, shapes and sizes and is specially designed for smoothing processes and removing light burrs. This media also reduces the risk of part damage, and gives us a consistent, bright, and matte finish.



## Ceramic Media

Our ceramic media comes in a variety of abrasive grades, starting from low abrasive to super finishing. This type of media is suitable for various deburring, radiusing and polishing processes, and is specially formulated to go hand-in-hand with ActOn's compounds.



## Agro Media

Part of our agro media range is corncob and walnut shell. Both products come in various grain sizes, which are carefully chosen to suit the specific parts. The corncob grains are known to have high abrasion resistance, good moisture absorption, low specific gravity and are employed mainly for drying in the Rotary Dryers and Vibratory Dryers. Walnut shell is a hard and fibrous material of medium abrasiveness, and is used in both the polishing and deburring processes as it leaves no scratches or pitting.

## Pre-treated Media

All of our agro media comes in a treated, bovine-free form, which is particularly suitable for high lustre or mirror finishes.



## Special Media

Our special media includes steel media, a separation ball media that keeps flat parts separate, ensuring they don't stick together.



# Value Added Service

On top of our state-of-the-art machinery and media, we also supply a range of support and training services.

Learn more on how you'll benefit:

## Subcontract Services

### High Energy and Vibratory Finishing Services

Our factory is well equipped with High Energy (HE) and Vibratory machines, which are designed and manufactured by our Engineers. The HE machines provide a speedy finishing solution, as well as a high quality finish to the parts, eliminating any need of fixturing and preventing their impingement. Along with the HE machines we also have Vibrota finishing equipment, which processes parts of variable sizes and batch quantities.



### Shot Blasting and Peening Services

We offer shot blasting service from our Coventry facility to our customers in the Architectural, Automotive, Defence, Design, Food Manufacturing, Health and Safety, Marine, Steel Manufacturing and Profiling industries. Our service can achieve the desired Sa standards to ensure that the part's surface is cleaned to the specification. our applications include descaling, removing corrosion, mill scale, paint or rust, achieving a smooth finish, deflashing, polishing, strengthen the metal and more.



### Precision Polishing

In order to provide you with complete surface finishing solutions, we offer a precision polishing service for components from various industry sectors. In combination with our barrelling capability, you'll benefit in terms of cost, delivery and quality. Our applications include removal of manufacturing defects on femurs and aerofoils, which are inherent in the casting and forging process.

### Inspection

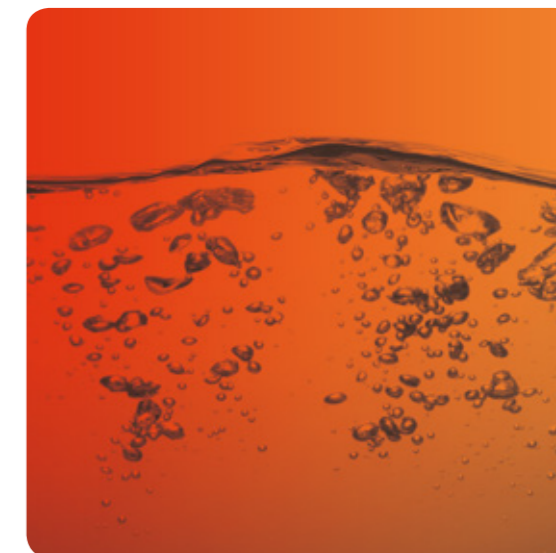
Our trained inspectors ensure every component is inspected to the required specification prior to delivery. The inspections can include visual, dimensional and surface finish measurements. Our document controls ensure that all inspections are recorded for traceability purposes.

## Waste Water Treatment

During the finishing operation, the effluent can be polluted with oil, media and metal fines. It is critical that the effluent must be treated before going to drain, or if it is being recycled back into the system. Each area or district has its own discharge consent, hence the effluent must be analysed against this.

The effluent can be recycled, however there are certain applications where it is not possible. In that case, the treated effluent can be transferred directly to the drain. Recycling can save on the significant amount of water and compounds (greater than 90%) used.

We offer a range of flocculants (powder and liquid) coupled with our Centrifugal technology. Please refer to our waste water treatment brochure for more details.



## After-sales, Training and Installation

We hire a number of highly trained staff, including engineers, who are on-call for all of your after-sales requirements. From installation and training, to maintenance and prompt professional advice, our finishing specialists are here for you every step of the way.

[Click here to request your Free Trial today!](#)

## Results

# Brass Stampings

### Remove graphite scale and burnish finish

#### The Aim

To remove the graphite scale and achieve a burnished finish.

#### What we did

We achieved this with our two-stage process:

✓ First we processed the stampings in ActOn vibratory finishing bowl, with a mix of porcelain media and an acidic compound. This stage helped in removing the scale and brightening the surface.

✓ The second stage was carried out in our vibratory finishing dryer, where parts are dried and polished in ActOn maizorb media. This stage ensures that the parts are free of stains.

#### Result

The total process time took approx. 30 minutes which was less than what the customer expected. The process delivered a superior bright polished finish while the dimensional integrity of the part was maintained.



# Aluminium Pistons

### Remove machining marks and polish finish

#### The Aim

Remove machining marks and achieve a highly polish finish.

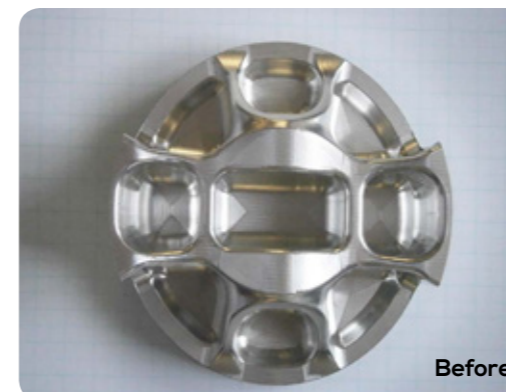
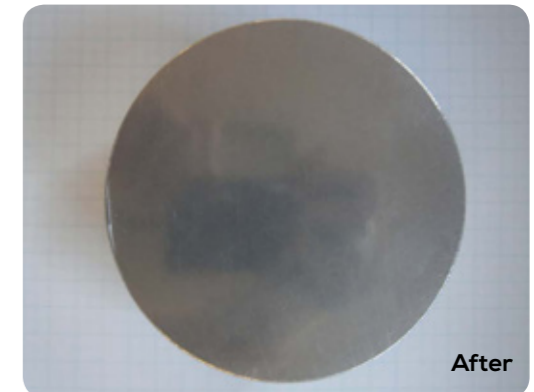
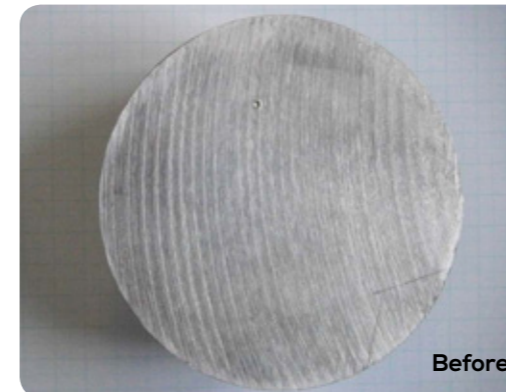
#### What we did

We achieved this with our two-stage process, using the ActOn vibratory finishing bowl machine, which combines smoothing and polishing the pistons. To remove the machining lines we processed the components with a mix of abrasive plastic media, a concentrated liquid finishing compound with good polishing properties, for non-ferrous metals, and water.

The second stage was carried out using a ceramic polishing media and a finishing compound, which is a good cleaner, and polisher. Careful consideration to the media shape and size was given to ensure all areas of the component were processed.

#### Result

The final finish was achieved in approx. 5 hours which was less than what the customer expected. The process delivered a smooth and bright polished finish while the dimensional integrity of the part was maintained.



## What Our Customers Say

**“ Whilst working with ActOn, we’ve consistently received a service that’s excellent, prompt and attentive. ”**

**“ ActOn are incredibly skilled, and are very good at designing specialist equipment. ”**

**“ Regardless of day or time, their response to all technical enquiries is excellent. ”**

## Quality You Can See

We pride ourselves on our excellence, and over the years we have successfully demonstrated an ongoing compliance with ISO quality and environmental standards. We’re also an approved supplier for many of our industries, including medical and aerospace.

For ISO, we currently hold:



We're proud members of the 'Made in Britain' campaign.

**“ The bitterness of poor quality remains long after the sweetness of low price is forgotten. ”**

Benjamin Franklin



# we redefine

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