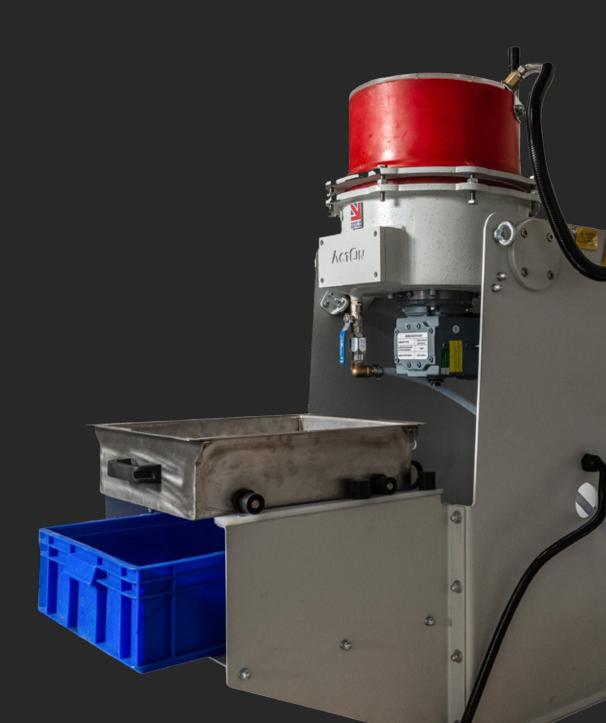


FINISHING

we redefine

Centrifugal Disc Finishing



We offer a range of Centrifugal Disc Finishing machines to help our customers achieve the surface finish they need. We can cater to all your application requirements including deburring, degreasing & oil removal, cleaning, descaling, radiusing, smoothing and polishing. We will offer you full support every step of the way.

we redefine:

- Vibratory Finishing
- High Energy Finishing
- Shot Blasting

- **C**onsumables
- 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.

Table of Contents

Centrifugal Disc Finishing Applications

Semi-automated Centrifugal Disc Finishing Machine

About ActOn Centrifugal Disc Finishing Machines

Technical Information

CDF Range of Accessories

Automation: DTB-50 Finishing System with Magnetic Separation

ActOn Technology

Consumables

Subcontract Services

Quality You Can See



pg. 6

pg. 8

pg. 11

pg.12

pg. 14

pg. 16

pg. 18 pg. 20

pg. 23





Centrifugal Disc Finishing Applications



Deburring Degreasing & Oil Removal Cleaning Descaling Radiusing Smoothing Polishing ActoGrind



Semi-automated Centrifugal Disc Finishing Machine



Control System .

To suit functionality of the machine, suitable control systems are used. These control systems could be either operated via a push button system or via a touch screen using PLC control systems.

The standard machines come with a standard control panel with variable speed and process time controls. Through the PLC settings such as disc RPM, temperature adjustment or gap area setting can be controlled.

Unloading System

Components and consumables are 100% discharged at the end of the finishing process through the tilting of the working barrel.

Separation System

Includes a large separation screen and has its independent drive system. Upon completion of the process, parts and media are fed into the vibratory separation system and are separated via the screen.

- If components are flat, water jets can be connected to ensure all parts are discharged.
- The separation screens are made out of polypropylene and the sizes of holes and slots can be manufactured depending on the geometry of the part being processed and the type of media used.
- An undersized media separation system can also be incorporated.

Click here to request your Free Trial today!

Dosing System

The system is capable of handling all types of ActOn's liquid compounds to the disc finishing machines giving a clean component, extended media life and also keeps the work bowl of the machine clean.

To comply with local Water Authority regulations the liquid compound and water are dosed separately to the equipment via a dual feed system, eliminating the need to fit expensive header tank.

- Gap Area

Specially designed gap area between the disc and the working barrel, for particular finishing applications. The geometry of the gap area is crucial for an improved life of the disc finishing machine.

Gap Area Adjustment

- During the finishing process the width of the gap area can be adjusted manually on the standard series.
- Optional automatic adjustment through the disc finishing machine controls available for certain models.

Temperature Sensor

ACTON

To stop the disc finishing machine when detecting high temperature thus protecting the gap area.

Work Chamber

- Polyurethane lined work barrel to ensure fabrication is protected and components are processed in an effective manner. ActOn has its special grade polyurethane materials formulated, which enhance the overall life of the centrifugal disc machine.
- Wedge lining available to ensure parts do not get stuck to the side walls.
- The process chamber is stress relieved to improve life.
- Stainless steel upper and lower ring for higher wear resistance.

 \mathbf{a}

ActOn's Centrifugal Disc finishing machines have been designed to be reliable and easy to operate.

The CDF (Centrifugal Disc Finishing) 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.

How it works?

The spinning motion of the disc machine is given by the disc situated at the bottom of an open barrel. The rotating disc makes the media, compound and parts to move in a rolling motion, resulting in effective finishing process in the shortest time. To achieve the desired finishing results it is important to set up the machine RPM, the compound and water mix flow and to use the correct media.

Key Benefits

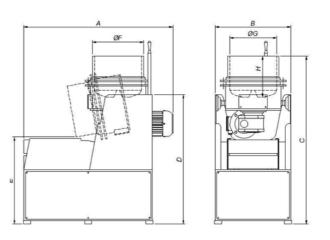
- Efficient in operation.
- Faster than vibratory finishing machines.
- Operator friendly controls. Low maintenance.
- Manual/ auto functionality.
- Good value for money as it implies a reduced capital investment.
- DTB series for heavy duty applications such as steel ball burnishing.

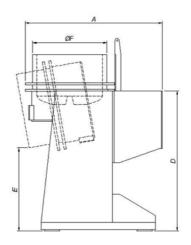


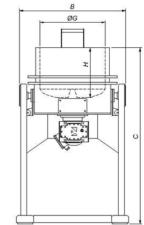




Technical Information







Series	Model	Gross Volume Litres	Net Volume Litres	Max Moto	or Power	Voltage	Machine Weight (kg)
				kW	rpm	voltage	
DTB	DTB-50	50	38	5.5	260	380/50 hz	380
	DTB-100	100	76	7.5	210	380/50 hz	650
DT	DT-20	20	16	1.1	340	380/50 hz	160
	DT-50	50	38	2.2	260	380/50 hz	300
	DT-100	100	76	4.0	210	380/50 hz	520
	DT-230	230	174	7.5	180	380/50 hz	1100

Model	DTB-50	DTB-100	DT-20	DT-50	DT-100	DT-230
A mm/inch	965/37.9	1035/40.7	1045/41.1	965/37.9	1035/40.7	1350/52.7
B mm/inch	750/29.5	990/38.9	530/20.8	750/29.5	990/38.9	1320/51.9
C mm/inch	1235/48.6	1385/54.5	1175/46.2	1235/48.6	1385/54.5	1600/62.9
D mm/inch	980/38.5	1085/42.7	900/35.4	980/38.5	1085/42.7	1370/53.9
E mm/inch	585/23.0	580/22.8	610/24.0	585/23.0	580/22.8	700/27.5
F mm/inch	520/20.4	600/23.6	360/14.1	520/20.4	600/23.6	860/33.8
G mm/inch	460/18.1	560/22.0	330/12.9	460/18.1	560/22.0	800/31.4
H mm/inch	350/13.7	420/16.5	290/11.4	350/13.7	420/16.5	480/18.8

For fully automated solutions, such as coin blank finishing systems, we recommend our CHE-DT series. Contact us for more information.

CDF Range of Accessories

	DTB Series		DT Series				
	DTB-50	DTB-100		DT-20	DT-50	DT-100	DT-230
Acoustic Lid							
Flexible Lid Cover	+	+		+	+	+	+
Tilt System							
Manual				0	0		
Central Automatic Tilt	0	0			+	0	0
Front Automatic Tilt (Majority of media is unloaded from the machine)		+				+	+
Upper/Lower Ring Set							
Stainless Steel Upper & Lower Ring Set	0	0			0	0	0
Control Panel Mounting							
Wall Mounted Control Panel	0	0		0	0	0	0
Floor Mounted Control Panel	+	+		+	+	+	+
Control Panel							
Standard Controls (Variable Speed, Timer & Speed Display)	0	0		0	0	0	0
PLC/ HMI Controls	+	+		+	+	+	+
Signal Lamp (Yellow/ Green/ Red)	+	+		+	+	+	+
Separation							
Vibratory Separator System With Grid (Variable Speed)	+	+			+	+	+
Separation Screening Deck (Non-Vibrating) With Single Screen	+			+	+		
Belt Conveyor With Magnetic Separator & Demagnetiser (Mounted Over the Separation Screen)	+	+			+	+	+
Other							
Water and Dosing System (Dosing Pump & Solenoid Valve for Water)	0	0		0	0	0	0
Dosing Unit System (Mounted Underneath Control Panel Stand) Includes Dosing Pump for Compound, Solenoid Valve, Flow-meter to Adjust Water Flow Level	+	+		+	+	+	+
Multipoint Stainless Steel Washing Pipe Unit 90 °	+	+		+	+	+	+

+ Optional





Description

This ActOn Disc Finishing system is unique in design and meets the highest standards required by industry. The design allows continuous output: while the finished batch of components are separated from media and discharged, a new batch is being processed in the disc finishing machine. The process is fully automated and controlled from the point of parts being processed to the discharge of the parts.

Due to the size of components and media being very similar, parts are separated 100% magnetically and are demagnetized prior to being discharged in the collection tray.

Parts Collection Tray

The parts collection tray enables the

components to be collected into a removable

and replaceable tray, which can then be used

to take the parts for final stages/ packing.

Advantages

- Equipments configuration results in seamless and controlled processing
- Operator intervention is minimal
- Measured throughput to avoid excessive loading & controlled process
- Repeatable process via recipe control
- Customised to user requirements
- 100% separation of parts and media

System Components

Parts Hopper

The parts hopper allows for the parts to drop into the parts collection tray without spilling.

Demagnetisier -

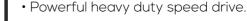
Once the parts have been magnetically separated, they need to pass through a demagnetiser to remove the magnetic field created through them.

Air Knife •

This aids in drying the parts coming out of the wet process, thereby preventing them from sticking to the conveyor due to the surface tension of the water.

Parts Conveyour

Conveys the parts from the vibratory separator to the parts collection tray through the demagnetiser.



Gap Area

DTB-50 Work Chamber

Specially designed gap area between the disc and the working barrel, for particular finishing applications. The geometry of the gap area is crucial for an improved life of the disc finishing machine.

• Polyurethane lined barrel to ensure fabrication is protected

and components are processed in an effective manner.

· Stress relieved work chamber to improve life.

Disc can be adjusted manually or automatically

Gap Area Adjustment

During the finishing process the width of the gap area can be adjusted automatically through the disc finishing machine controls.

Magnetiser

Allows separation of parts from the media after the finishing process. While media & compound mix go through the vibratory separator, parts are carried through the parts conveyour. The process of separation and demagnetisation is automated giving the required control of process .

Vibratory Separator

Allows for the separation of media and compound and water mix. The vibratory separator also enables the separation of undersize media, before the media can be collected into the collection tray for further use.



The reusable media discharged after the finishing processed and separated in the vibratory separator, is then collected in the media collection tray for easy transfer back into the machine for the next finishing process.



14 15

we manufacture









Bowls

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



Centrifugal High Energy

Engineered with the latest technology, the drive mechanism is designed to produce high g-forces, resulting in shorter process times. This technology can be used for both wet and dry processes.



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.



Shot Blasting Cabinets

We offer a range of Shot Blast Systems 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.



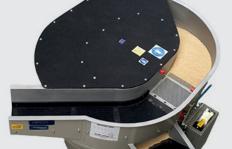
Duals

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



Wheel Blasting Systems

At ActOn we now offer a range of Wheel Blast Systems to help you achieve the surface finish you need. We can cater to all your application requirements including descaling, removal of corrosion or rust, paint stripping, de-flashing, achieving a smooth finish, shot peening, polishing and surface preparation prior to coating.



Dryers

Our unique, elliptical-shaped Vibratory bowl drying machines are compact in size, and simple to operate. The design provides the flexibility to use it as an effective 1 lap drying process or a multi lap process. We also offer centrifugal dryers, conveyorised ovens and rotary dryers.



DLyte Technology

DLyte Finishing Technology is a fully automatic finishing system which enables you to deburr, grind, surface finish & mirror polish in one step. It is used for metal parts which require high performance or superior finishes, including steel and stainless-steel, cobalt chrome, titanium, nickel and other common metal alloys.



Wheel Polisher

Suitable for achieving a highly polished finish on wheels with different sizes (up to 610 mm), the AWP188 machine has been designed to be simple to operate and to produce excellent results. The wheel polisher is great for grinding, smoothing and polishing processes.



Waste Water Treatment

During the finishing operation, the effluent can be polluted with oil, media and metal fines. Our customers trust us to help select a waste water treatment system that complies with the industry's growing regulations. Once processed, the effluent is treated in the ActOn centrifuge system before being discharged to the drain or recycled.

Man x Machine x Media = M^3

Consumables

Over the years, we have been at the forefront of the industry, developing a range of consumables with the aim of achieving the desired finish on various components.

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

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



Liquid Compounds

An extensive range of 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, they reduces media costs and 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.





Subcontract Service

On top of our state-of-the-art machinery and media, we also supply a range of support & training services. Moreover, we'll tailor our services & products to your needs, not the other way around. Our finishing service is all about you.

We suit our Finishing Technology and Subcontract Services to cover your needs. From a proved surface finishing technology we will adapt it according to your requirement. Just <u>contact us</u>. We will do the rest.

Custom project development:

1. Finishing needs:
concept and goals

2. Assessment: we
will carry out free
trials using ActOn
technology

3. Customized
engineering
development

4. Production phase

Don't just think about it. It's now time to ActOn it.



CHEF, CLM, CDF, Shot Blasting & Vibratory Finishing Subcontract



Inspection Services



Installation, Training, Maintenance Services



Equipment Refurbishment & Spare Parts Service

What Our Customers Say

"Professional, knowledgable, on-time, good value and friendly. You couldn't want for more. ActOn are always the first place on our list for part finishing."

Samuel Nottage-McNeice, MAVEN Technology

"ActOn were quick to develop a solution for the shell cleaning system. The disc finishing machine has improved our throughput significantly and we are pleased with the quality of machine that they have manufactured and installed. We look forward to working with ActOn on future collaborative projects."

Henry Illsley (Shell Process Engineer), Rolls Royce Bristol



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:









"The bitterness of poor quality remains long after the sweetness of low price is forgotten."

Benjamin Franklin

we redefine

ActOn Finishing Limited
213 Torrington Avenue
Tile Hill, Coventry, CV4 9HN.
United Kingdom.

+44 (0) 24 7646 6914

enquiries@acton-finishing.co.uk

www.acton-finishing.co.uk