ACTON®
FINISHING

Surface Finishing Applications

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:

- Surface Finishing
- Shot Blasting
- Ultrasonic Cleaning
- 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.

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Our Customers

Centrifugal Disc Finishing Applications

Deburring
Degreasing & Oil Removal
Cleaning
Descaling

Radiusing
Smoothing
Polishing
ActoGrind

Visit our website to check our Case Studies

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.

DT-50 Disc Finishing Machine

DT-20 Disc Finishing Machine

DT-230 Disc Finishing Machine

More Key Benefits of the Disc Finishing Machine

Consistent and Uniform Finishing: the high-speed rotational action ensures that all parts are evenly processed.

Improved Surface Quality: delivers superior surface finishes, effectively removing burrs, sharp edges, and surface imperfections.

Customisable Parameters: the operator can adjust parameters such as cycle time, speed, and media type to fine-tune the finishing process.

Improved Component Performance: can enhance the performance and longevity of components by reducing friction, improving corrosion resistance, and preparing surfaces

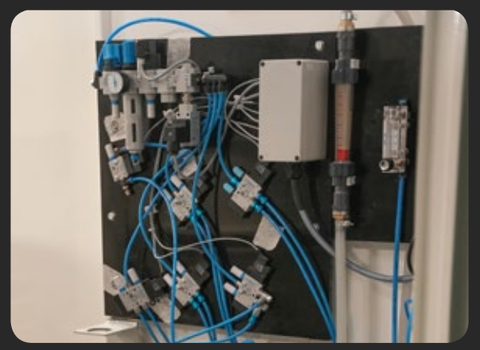
Efficient Deburring: the aggressive action of the centrifugal disc ensures efficient deburring of complex parts with intricate geometries.

High Throughput: due to their high processing speeds, centrifugal disc finishing machines can handle large volumes of components in a shorter time frame.

Minimal Maintenance: built for durability and typically require minimal maintenance, which helps in reducing downtime and maintenance costs.

Improved Safety: these machines typically come with safety features, reducing the risk of accidents and ensuring a safer working environment.

Reduced Manual Labor: by automating the finishing process, centrifugal disc machines significantly reduce the need for manual labor



Energy Efficiency: designed to be energy-efficient, often consuming less power than other finishing methods.

Compact Design: some of our models, like DT Series, take up less floor space compared to other types of finishing equipment.

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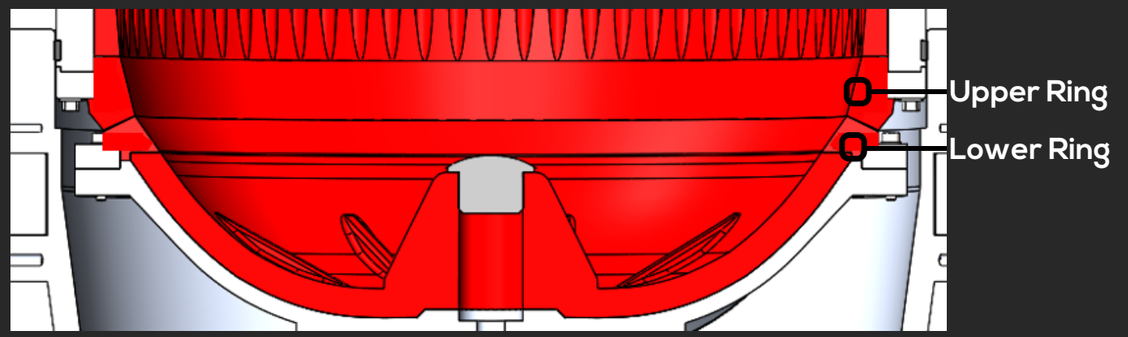
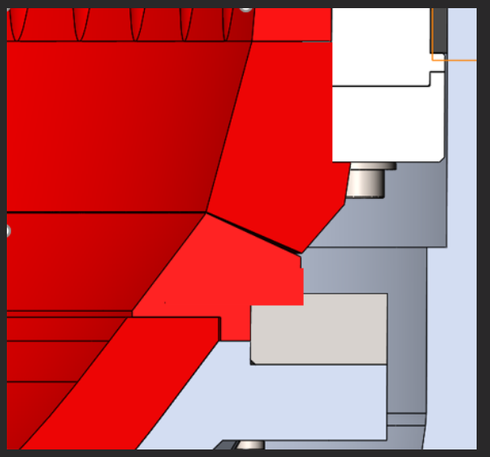
ActOn's Configuration of the Upper and Lower Ring Sets

In ActOn's centrifugal disc finishing machine, the upper and lower ring sets play crucial roles in the operation and control of the finishing process. These sets consist of concentric rings positioned within the processing bowl. The upper ring set typically includes adjustable rings that can be raised or lowered to control the gap between the disc(s) and the bowl's inner wall. This adjustment influences the intensity of the finishing action and the flow of media and workpieces within the bowl. The lower ring set helps to maintain proper alignment of the disc(s) and provides support for the workpieces during the finishing process. Together, these ring sets contribute to achieving consistent and desired finishing results while ensuring efficient operation of the machine.



Gap Configuration for ActOn Disc Machines

- Standard PU/PU with steel reinforcement: both upper and lower ring are made out of polyurethane with steel reinforcement.
- Optional SS/SS: both upper and lower ring are made out of stainless steel.
- Optional: special ring set for zero gap processing.



DT Standard Series

The CDF (Centrifugal Disc Finishing) machine, DT Series, 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 & Benefits

- Precise manual gap adjustment system reduces down time
- Inner profile and spinner produces effective vortex which reduces the process time and make process more efficient
- Stainless steel upper body and AL lower bowl which withstand for high load and longer period for aggressive processes and compounds
- Simple change parts at gap area which can avoid relining of entire bowl and spinner
- Processing unit can be tilted either manually or mechanically drive like pneumatic, geared and hydraulic
- 0° to 130° process bowl front or centre tilting optional available
- Modular system enables equipment to be customized
- Speed control with different recipe selection via HMI and PLC
- Dosing unit (Optional)
- Water level control options like manual adjusted syphon or automatic level control are available
- Operator friendly controls
- Low maintenance

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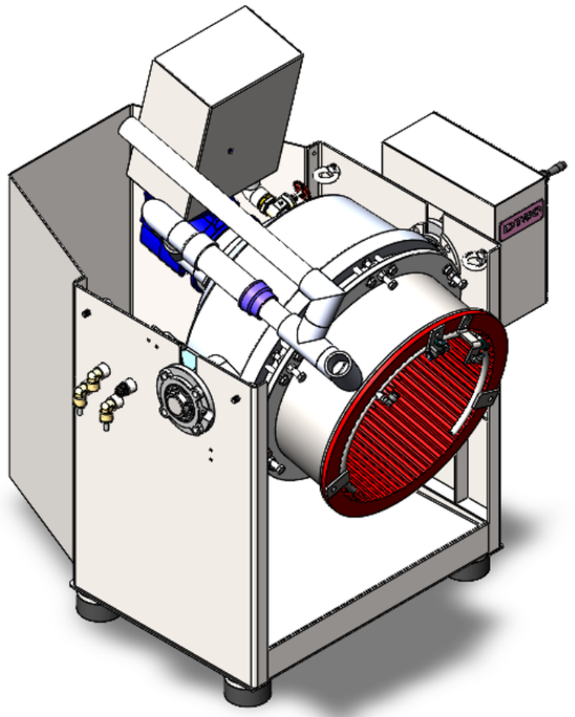
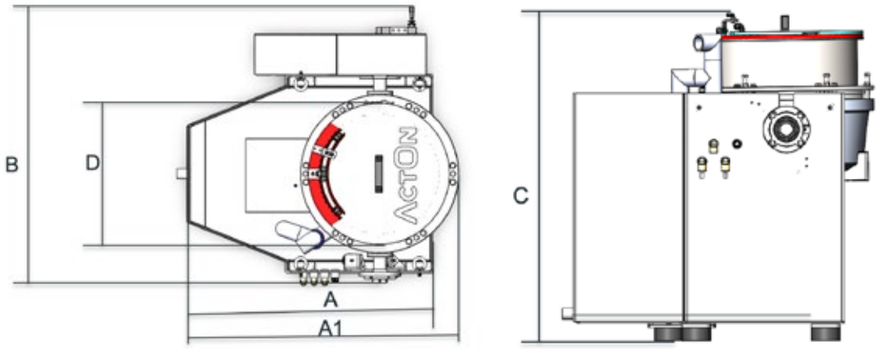


Technical Information



Model	DT-20	DT-50	DT-100	DT230
Gross Operating Volume (in Litres / Cu. Ft.)	20 / 0.70	50 / 1.76	100 / 3.53	230 / 8.12
A – Length (in mm/ inch)	650 / 25.60	931 / 36.65	1150 / 45.27	1250 / 49.21
A1 – Length Including Bowl (in mm/ inch)	710 / 27.95	1028 / 40.47	1300 / 51.18	1500 / 59.1
B* – Width (in mm/ inch)	800 / 31.50	1053 / 41.45	1250 / 49.21	1400 / 55.11
C – Height (in mm/ inch)	1100 / 43.30	1116 / 43.93	1280 / 50.39	1350 / 53.15
D – Diameter of Work Bowl (in mm/ inch)	330 / 13	450 / 17.71	560 / 22.05	800 / 31.50
Drive Power Rotary Spinner (in kW)	1.1 (1.5)	2.2 (4)	4 (7.5)	7.5 (11)
Power supply	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz

*** Dimension B is with pneumatic operated tilt. The dimensions will change based on other tilt drive system options.**
Sizes indicated above are standard. Custom sizes can be manufactured to suit specific applications.
Dimensions are subject to change due to design improvements.

Visit our YouTube Channel to get a visual overview on this finishing machine

DT Series Finishing Process

- The operator places the parts into the work chamber manually.
- The operator turns the machine on and the process is started.
- 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.
- Once the operation is completed parts are unloaded manually or via a vibratory separation system

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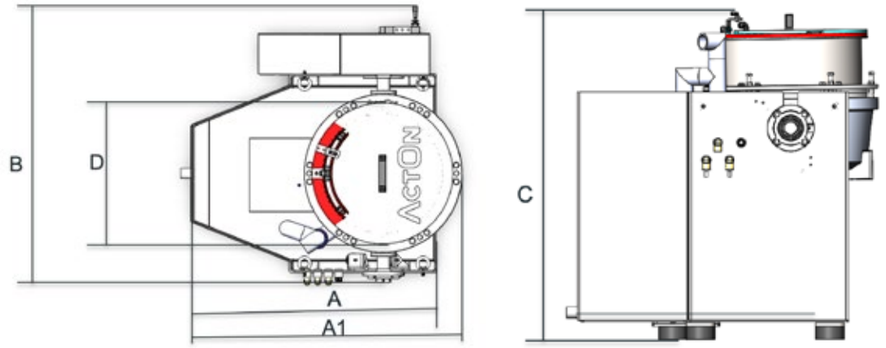
DTB Series

The DTB series has been meticulously engineered for heavy-duty applications like steel ball burnishing. Its robust design and precision mechanics ensure optimal performance in demanding industrial environments. With unparalleled efficiency, the DTB series effortlessly achieves impeccable surface finishes, enhancing the quality and durability of metal components.



Model	DTB-50	DTB-100
Gross Operating Volume (in Litres / Cu. Ft.)	50 / 1.76	100 / 3.53
A – Length (in mm/ inch)	931 / 36.65	1150 / 45.27
A1 – Length Including Bowl (in mm/ inch)	1028 / 40.47	1300 / 51.18
B* – Width (in mm/ inch)	1053 / 41.45	1250 / 49.21
C – Height (in mm/ inch)	1116 / 43.93	1280 / 50.39
D – Diameter of Work Bowl (in mm/ inch)	450 / 17.71	560 / 22.05
Drive Power Rotary Spinner (in kW)	4	7.5
Power supply	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz

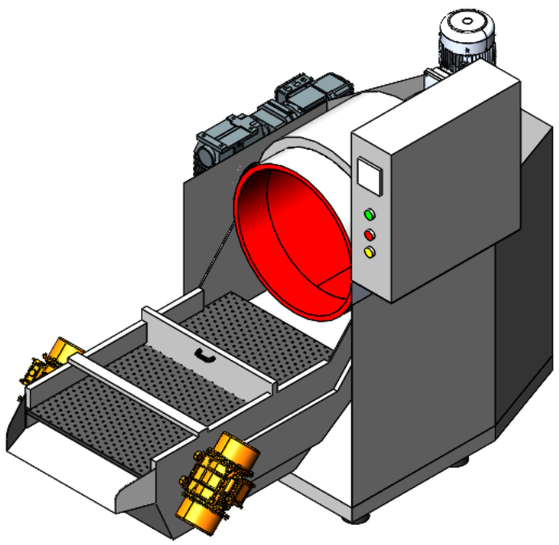
* Dimension B is with pneumatic operated tilt. The dimensions will change based on other tilt drive system options.
Sizes indicated above are standard. Custom sizes can be manufactured to suit specific applications.
Dimensions are subject to change due to design improvements.

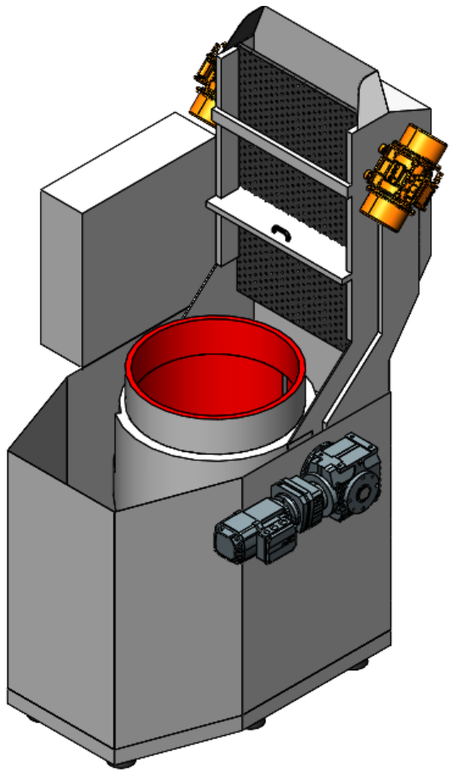
DTIS Series

The DTIS Series is a compact disc machine which includes a workpiece separation system. Once the finishing process is complete, the bowl tilts forward, directing the finished workpieces onto a vibratory screening unit for safe separation from the media. Upon tilting the unit back into its processing position, the media is automatically reintroduced into the bowl, primed for the next cycle. This design characteristic ensures exceptional efficiency and user-friendly operation, distinguishing these machines as prime choices for industrial applications.

Key Features & Benefits

- Precise manual gap adjustment system reduces down time.
- Inner profile and spinner produces effective vortex which reduces the process time and make process more efficient.
- Integrated vibratory separator for media and part separation with large screening area.
- Media collection bin below the separation screen with opening for easy media change.
- No tools required for exchange of separation screens.
- Return of the media into the processing bowl.
- Speed control with different recipe selection via HMI and PLC.
- Dosing unit (Optional).
- Water level control options like manual adjusted syphon or automatic level control are available.
- Operator friendly controls.
- Low maintenance.
- Compact equipment design.





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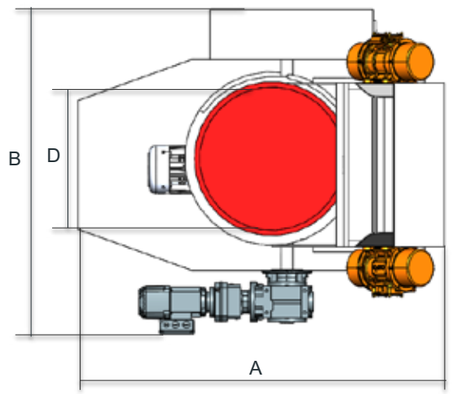

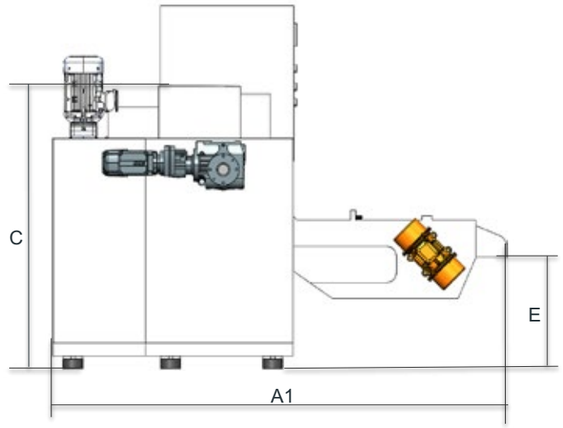

Model	DTIS-20	DTIS-50	DTIS-100	DTIS-230
Gross Operating Volume (in Litres)	20 / 0.70	50 / 1.76	100 / 3.53	230 / 8.12
A – Length After Media Loading Position (in mm/ inch)	900 / 35.43	1200 / 47.24	1600 / 63	1800 / 70.86
A1 – Length Including Screening Unit (in mm/ inch)	1200 / 47.24	1800 / 70.86	2300 / 90.55	3000 / 118.11
B – Width (in mm/ inch)	1000 / 39.37	1300 / 51.18	1500 / 59.05	2000 / 78.74
C – Height (in mm/ inch)	950 / 37.40	1100 / 43.30	1300 / 51.18	1450 / 57.08
D – Diameter of Work Bowl (in mm/ inch)	330 / 13	450 / 17.71	560 / 22.05	800 / 31.50
E - Discharge Height Screening Unit (in mm/ inch)	500 / 19.68	650 / 25.60	800 / 31.50	1050 / 41.33
Drive Power Rotary Spinner (in kW)	1.1 (1.5)	2.2 (4)	4 (7.5)	7.5 (11)
Power supply	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz

Sizes indicated above are standard. Custom sizes can be manufactured to suit specific applications. Dimensions are subject to change due to design improvements.

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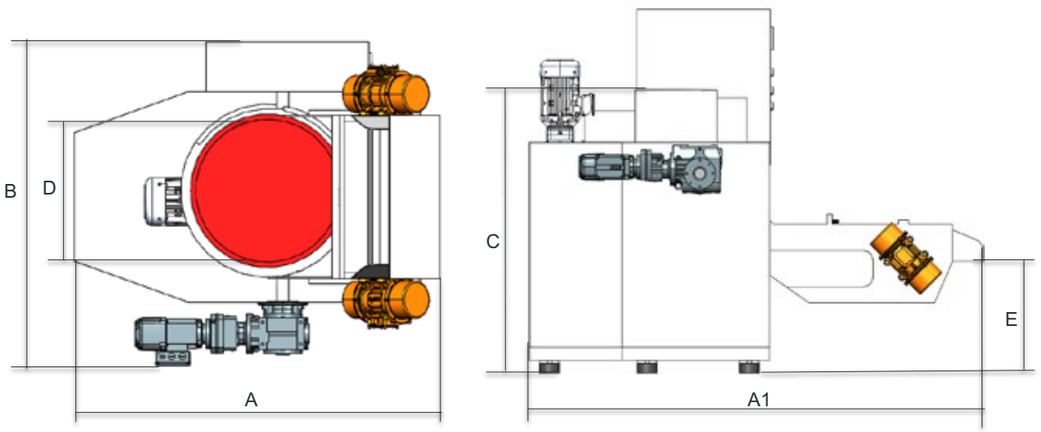
DTISB Series

Technical Information



Model	DTISB-50	DTISB-100
Gross Operating Volume (in Litres)	50 / 1.76	100 / 3.53
A – Length After Media Loading Position (in mm/ inch)	1200 / 47.24	1600 / 63
A1 – Length Including Screening Unit (in mm/ inch)	1800 / 70.86	2300 / 90.55
B – Width (in mm/ inch)	1300 / 51.18	1500 / 59.05
C – Height (in mm/ inch)	1100 / 43.30	1300 / 51.18
D – Diameter of Work Bowl (in mm/ inch)	450 / 17.71	560 / 22.05
E - Discharge Height Screening Unit (in mm/ inch)	650 / 25.60	800 / 31.50
Drive Power Rotary Spinner (in kW)	4	7.5
Power supply	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz

Sizes indicated above are standard. Custom sizes can be manufactured to suit specific applications. Dimensions are subject to change due to design improvements.

DTVS Series

The DTVS disc machine has been built with a vibratory separation system. The vibratory separator allows for the separation of media and components at the end of the process. The vibratory separator also enables the separation of undersize media, before the media can be collected into the collection tray for further use.

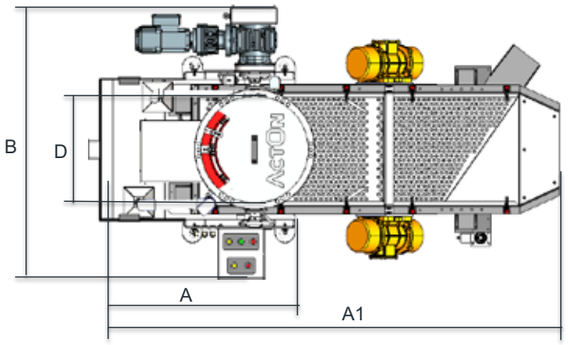
Once the finishing process is complete, the bowl tilts manually or mechanically forward, directing the finished workpieces onto a vibratory screening unit for safe separation from the media. This design characteristic ensures exceptional efficiency and user-friendly operation, distinguishing these machines as prime choices for industrial applications.

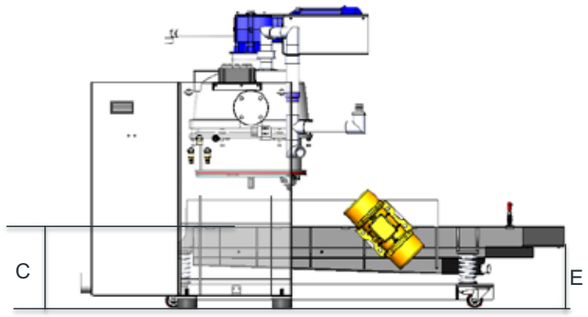
Key Features & Benefits

- Precise manual gap adjustment system reduces down time.
- Inner profile and spinner produces effective vortex which reduces the process time and make process more efficient.
- Stainless steel upper body and AL lower bowl which withstand for high load and longer period for aggressive processes and compounds.
- Simple change parts at gap area which can avoid relining of entire bowl and spinner.
- Processing unit can be tilted either manually or mechanically drive like pneumatic, geared and hydraulic.
- 0° to 180° process bowl front or centre tilting optional available.
- Processing unit can be configured with different separation solutions like non vibrating separation deck, vibratory separator and belt conveyor with magnetiser and demagnetiser.
- Modular system enables equipment to be customized.
- Speed control with different recipe selection via HMI and PLC
- Dosing unit (Optional).
- Water level control options like manual adjusted syphon or automatic level control are available.
- Operator friendly controls.
- Low maintenance.

DTVS Series

Technical Information





Model	DTVS-20	DTVS-50	DTVS-100	DTVS-230
Gross Operating Volume (in Litres)	20 / 0.70	50 / 1.76	100 / 3.53	230 / 8.12
A – Length (in mm/ inch)	650 / 25.60	975 / 34.43	1150 / 40.61	1250 / 44.14
A1 – Length Including Screening Unit (in mm/ inch)	1500 / 59.05	2300 / 90.55	2500 / 88.28	2700 / 95.34
B – Width (in mm/ inch)	800 / 31.50	1352 / 47.74	1750 / 61.80	2100 / 74.16
C – Height (in mm/ inch)	380 / 13.42	410 / 14.48	460 / 16.24	500 / 17.65
D – Diameter of Work Bowl (in mm/ inch)	330 / 13	450 / 17.71	560 / 22.05	800 / 31.50
E - Discharge Height Screening Unit (in mm/ inch)	280 / 9.88	310 / 10.94	360 / 12.71	400 / 14.12
Drive Power Rotary Spinner (in kW)	1.1 (1.5)	2.2 (4)	4 (7.5)	7.5 (11)
Power supply	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz

Dimension A1,B, C and E is with geared tilt system for 180° centre tilt and with suitable vibratory separator. The dimensions will change based on other options of tilt drive system and vibratory screen like for front tilt and centre tilt along with the vibrating or non vibratory separation screens options.
Sizes indicated above are standard. Custom sizes can be manufactured to suit specific applications.
Dimensions are subject to change due to design improvements.

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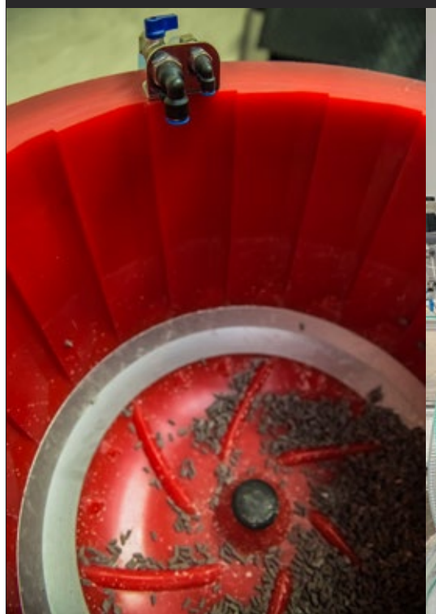
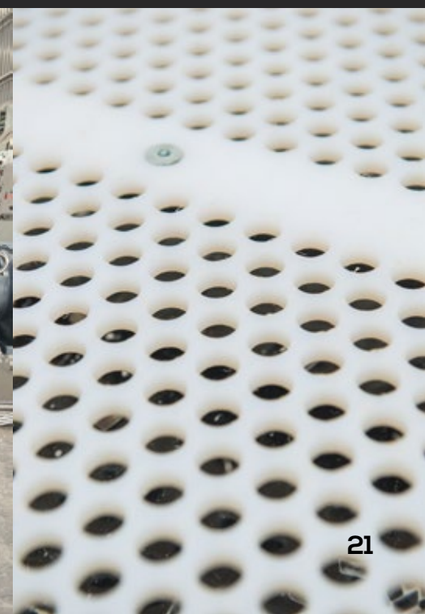
DTVS B Series

Technical Information

Model	DTVSB-50	DTVSB-100
Gross Operating Volume (in Litres)	50 / 1.76	100 / 3.53
A – Length (in mm/ inch)	975 / 34.43	1150 / 40.61
A1 – Length Including Screening Unit (in mm/ inch)	2300 / 90.55	2500 / 88.28
B – Width (in mm/ inch)	1352 / 47.74	1750 / 61.80
C – Height (in mm/ inch)	410 / 14.48	460 / 16.24
D – Diameter of Work Bowl (in mm/ inch)	450 / 17.71	560 / 22.05
E - Discharge Height Screening Unit (in mm/ inch)	310 / 10.94	360 / 12.71
Drive Power Rotary Spinner (in kW)	4	7.5
Power supply	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz

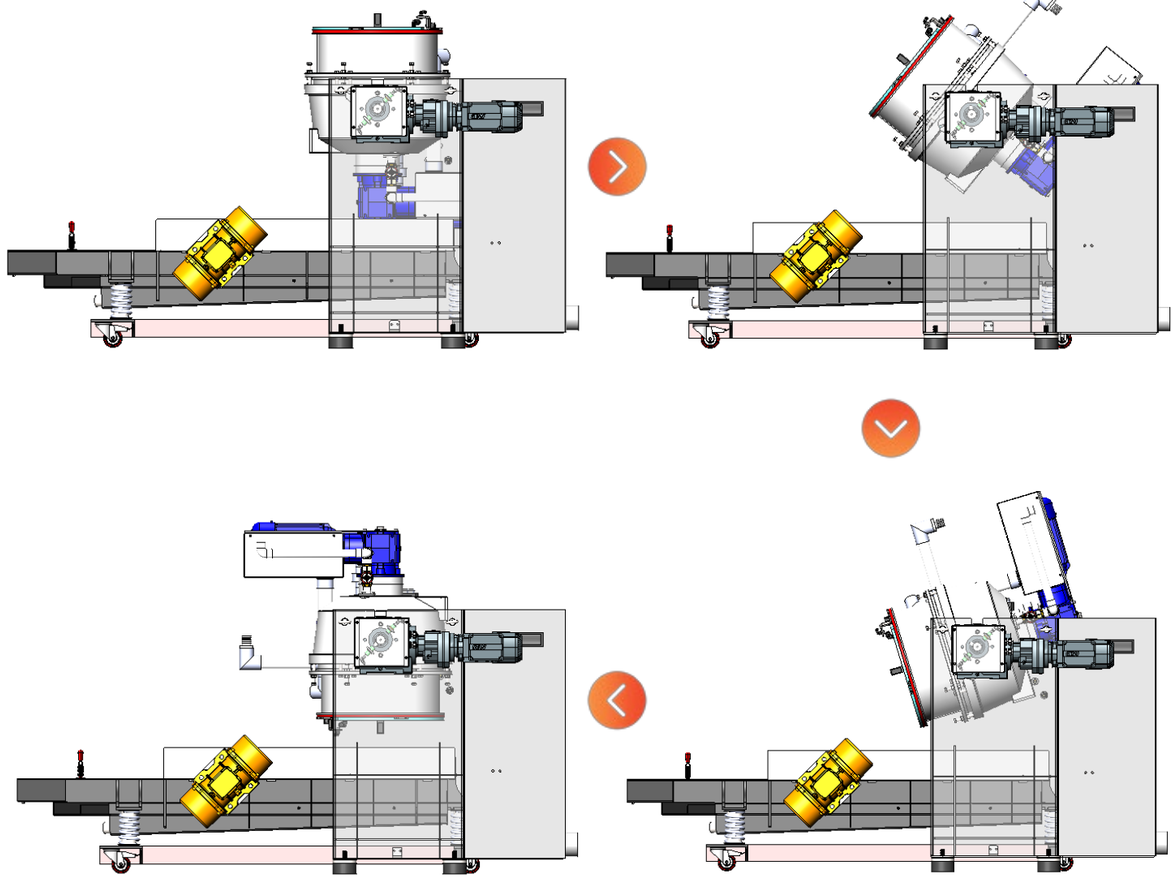
Sizes indicated above are standard. Custom sizes can be manufactured to suit specific applications.
Dimensions are subject to change due to design improvements.

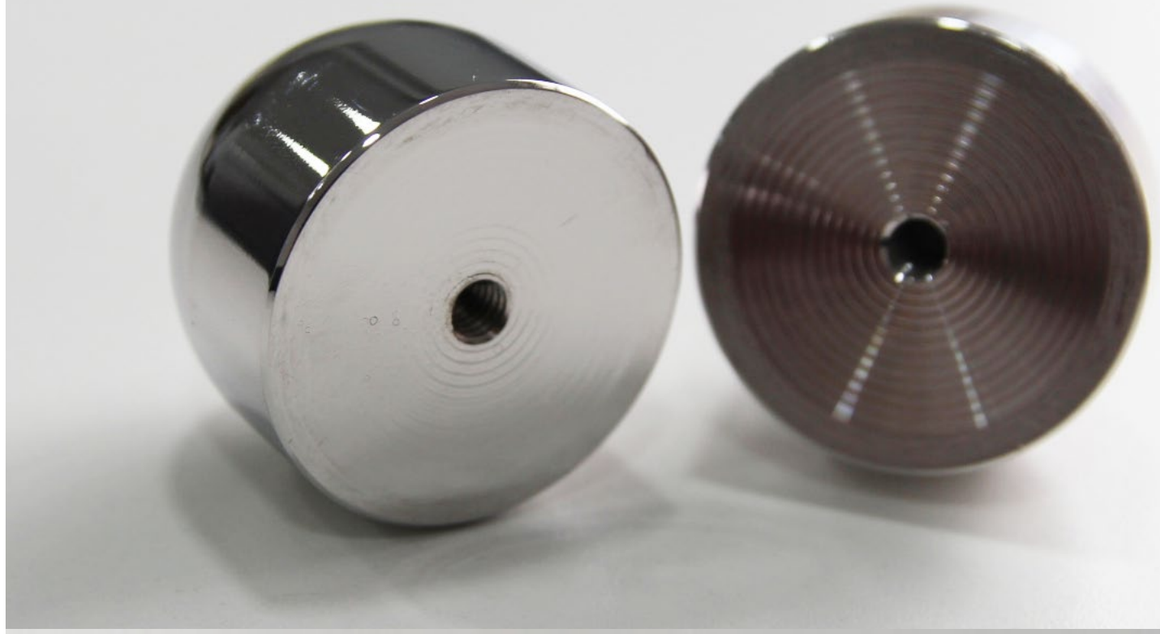




DTVS Series Finishing Process

- The operator places the media and parts into the work chamber manually.
- The operator turns the machine on and the process is started.
- 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.
- Once the operation is completed the work bowl is tilted manually or automatically and parts are discharged ont a vibratory separation system.
- Parts and media are separated on the screen. While the parts are discharged into a container, media is placed back manually into the working chamber.





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DTVS 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.

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.

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.

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.

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.

Unloading System

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

Temperature Sensor

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

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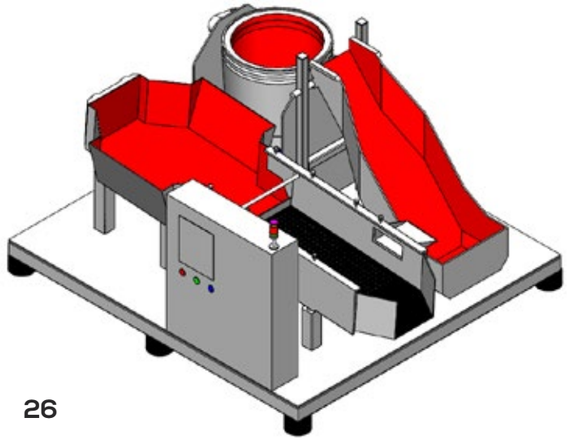
DTA Series

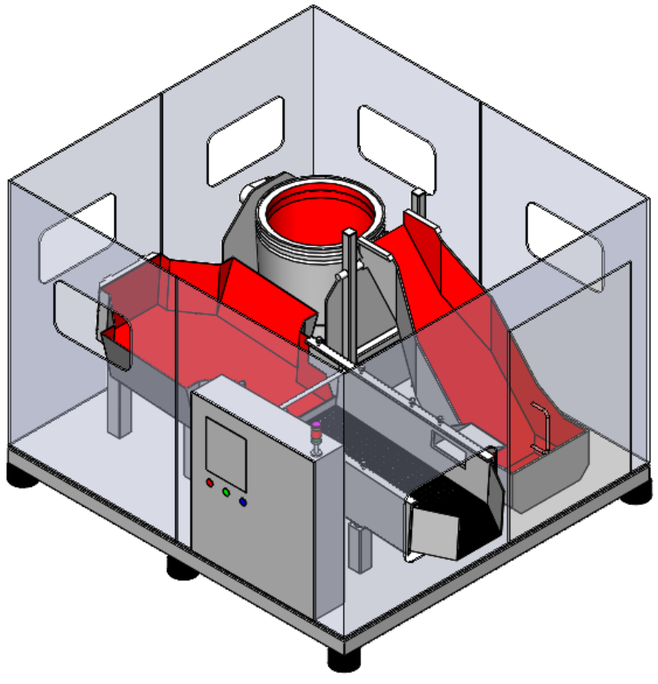
The DTA series epitomises efficiency in centrifugal disc finishing automated systems, specifically engineered for processing large work batches with precision and speed. Designed with customer needs at the forefront, these systems represent the pinnacle of fully automatic, high-energy disk technology.

By seamlessly integrating simultaneous processing and separation of workpiece batches, they significantly reduce machine idle time, optimizing productivity in industrial settings. With a diverse range of machine sizes available, customers can tailor their selection to meet specific finishing requirements, ensuring impeccable results across various applications.

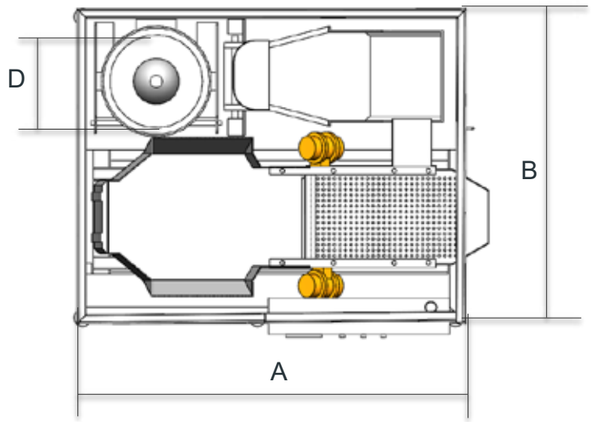
Key Features & Benefits

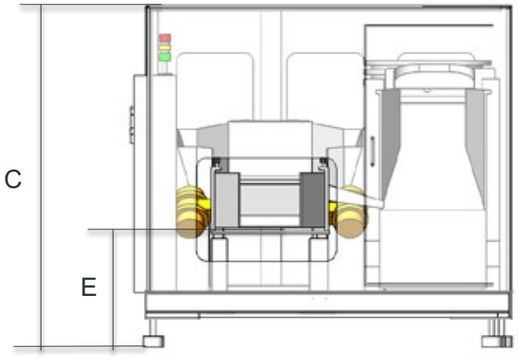
- Convenient part and media loading unit operated hydraulically
- Process bowl with PU casting made to process large batches with precise settings of the gap for efficient processing of the parts in shorter time
- Intermediate hopper with vibratory separate for media and part separation with large screening area and multi-level screens to remove under size media also
- Loading unit, hopper and separator have PU coating to prevent any damage during the process
- Separation can be made possible with magnetizer and demagnetizer also (optional)
- Fully automatic setup controlled by PLC and HMI with multiple recipe options
- Sound proofing encloser
- Simple change parts
- Operator friendly controls
- Low maintenance





Technical Information





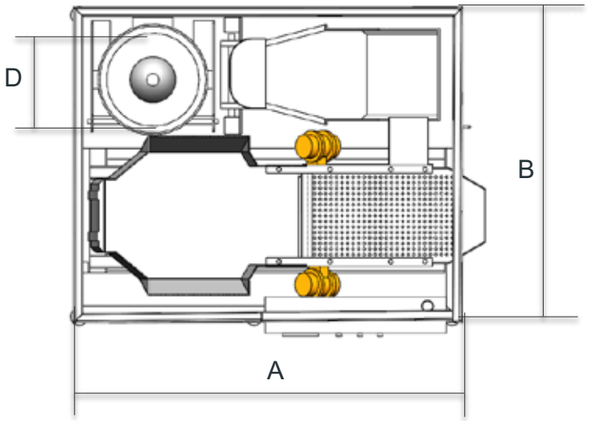
Model	DTA-50	DTA-100	DTA-230
Gross Operating Volume (in Litres)	50 / 1.76	100 / 3.53	230 / 8.12
A – Length (in mm/ inch)	2000 / 70.62	2500 / 88.28	3100 / 109.47
B – Width (in mm/ inch)	1800 / 63.56	2200 / 77.69	2600 / 91.81
C – Height (in mm/ inch)	1700 / 60.03	1700 / 60.03	1800 / 63.56
D – Diameter of Work Bowl (in mm/ inch)	450 / 15.89	560 / 19.77	800 / 28.25
E - Discharge Height Screening Unit (in mm/ inch)	800 / 28.25	860 / 30.37	900 / 31.78
Drive Power Rotary Spinner (in kW)	2.2 (4)	4 (7.5)	7.5 (11)
Power supply	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz

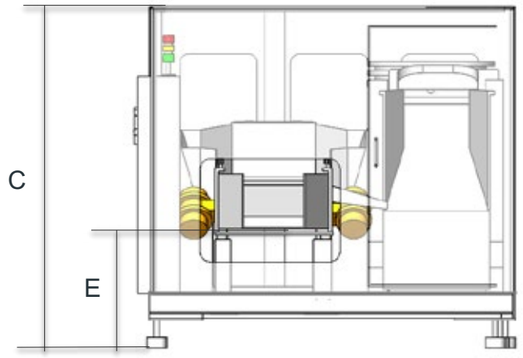
Sizes indicated above are standard. Custom sizes can be manufactured to suit specific applications. Dimensions are subject to change due to design improvements.

Click here to request a quote today!

DTAB Series

Technical Information





Model	DTAB-50	DTAB-100
Gross Operating Volume (in Litres)	50 / 1.76	100 / 3.53
A – Length (in mm/ inch)	2000 / 70.62	2500 / 88.28
B – Width (in mm/ inch)	1800 / 63.56	2200 / 77.69
C – Height (in mm/ inch)	1700 / 60.03	1700 / 60.03
D – Diameter of Work Bowl (in mm/ inch)	450 / 15.89	560 / 19.77
E - Discharge Height Screening Unit (in mm/ inch)	800 / 28.25	860 / 30.37
Drive Power Rotary Spinner (in kW)	4	7.5
Power supply	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz

Sizes indicated above are standard. Custom sizes can be manufactured to suit specific applications. Dimensions are subject to change due to design improvements.

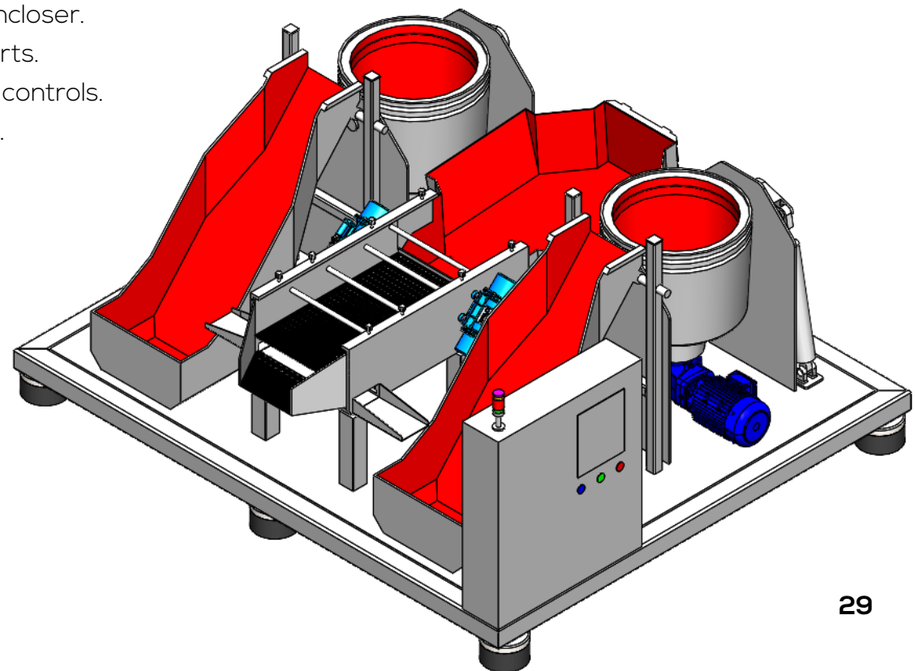
DT2A Series

The DT2A centrifugal disc machines are renowned for their exceptional efficiency in processing large work batches. Featuring two processing bowls equipped with individual loading units, these systems are tailored to meet diverse customer requirements.

With fully automatic and high-energy features, they can be customised to suit specific needs, minimising machine idle time through simultaneous processing and separation of workpiece batches. With a variety of machine sizes available, customers have the flexibility to select the ideal configuration based on their finishing requirements, ensuring optimal results for their surface finishing applications.

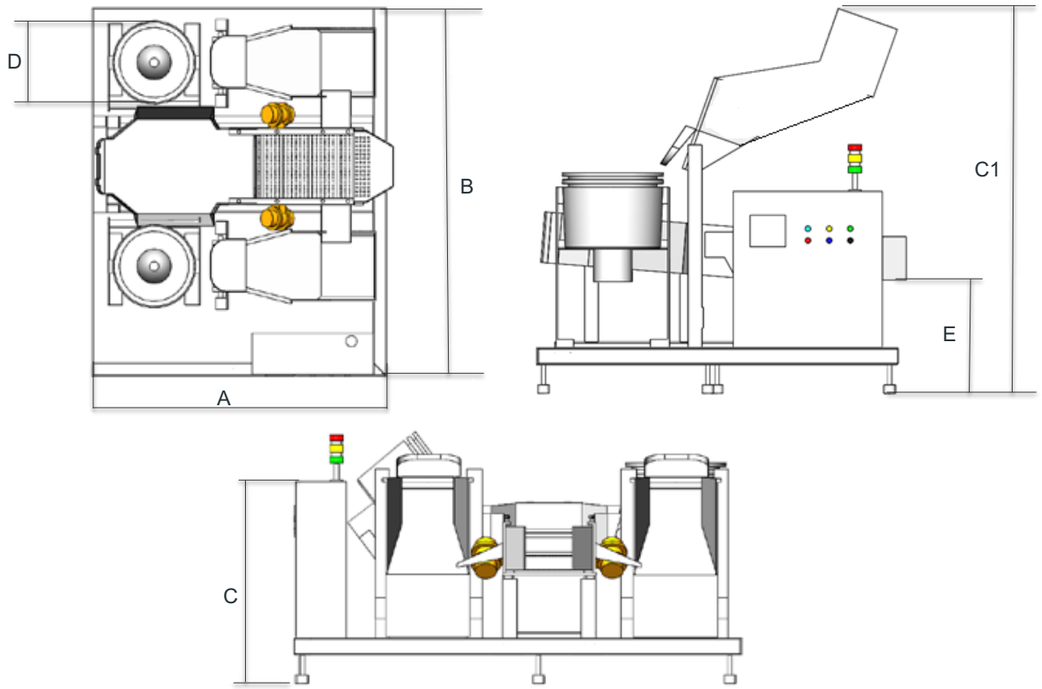
Key Features & Benefits

- Convenient part and media loading unit operated hydraulically.
- Process bowl with PU casting made to process large batches with precise settings of the gap for efficient processing of the parts in shorter time.
- Intermediate hopper with vibratory separate for media and part separation with large screening area and multi-level screens to remove under size media also.
- Loading unit, hopper and separator have PU coating to prevent any part damage during the process.
- Separation can be made possible with magnetizer and demagnetizer (optional).
- Common vibratory separation system for both processing bowls insure effective usgae of space and the equipment.
- Media and part separation with large screening area and multi-level screens to re move under size media also.
- Fully automatic setup controlled by PLC and HMI with multiple recipe options.
- Sound proofing encloser.
- Simple change parts.
- Operator friendly controls.
- Low maintenance.



DT2A Series

Technical Information



Model	DT2A-50	DT2A-100	DT2A-230
Gross Operating Volume (in Litres)	50 / 1.76	100 / 3.53	230 / 8.12
A – Length (in mm/ inch)	2100 / 74.16	2600 / 91.81	3200 / 113
B – Width (in mm/ inch)	3200 / 113	4300 / 151.85	5200 / 183.63
C – Height (in mm/ inch)	1600 / 56.50	1600 / 56.50	1600 / 56.50
C1 - Maxium Height Of Loading Unit In Tilt Position (in mm/ inch)	1700 / 60.03	2100 / 74.16	2300 / 81.22
D – Diameter of Work Bowl (in mm/ inch)	450 / 15.89	560 / 19.77	800 / 28.25
E - Discharge Height Screening Unit (in mm/ inch)	800 / 28.25	860 / 30.37	900 / 31.78
Drive Power Rotary Spinner (in kW)	2.2 (4)	4 (7.5)	7.5 (11)
Power supply	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz

Sizes indicated above are standard. Custom sizes can be manufactured to suit specific applications. Dimensions are subject to change due to design improvements.

DT2AB Series

Technical Information

Model	DT2AB-50	DT2AB-100
Gross Operating Volume (in Litres)	50 / 1.76	100 / 3.53
A – Length (in mm/ inch)	2100 / 74.16	2600 / 91.81
B – Width (in mm/ inch)	3200 / 113	4300 / 151.85
C – Height (in mm/ inch)	1600 / 56.50	1600 / 56.50
C1 - Maxium Height Of Loading Unit In Tilt Position (in mm/ inch)	1700 / 60.03	2100 / 74.16
D – Diameter of Work Bowl (in mm/ inch)	450 / 15.89	560 / 19.77
E - Discharge Height Screening Unit (in mm/ inch)	800 / 28.25	860 / 30.37
Drive Power Rotary Spinner (in kW)	4	7.5
Power supply	3 Ph, 415 V, 50 Hz	3 Ph, 415 V, 50 Hz

Sizes indicated above are standard. Custom sizes can be manufactured to suit specific applications. Dimensions are subject to change due to design improvements.

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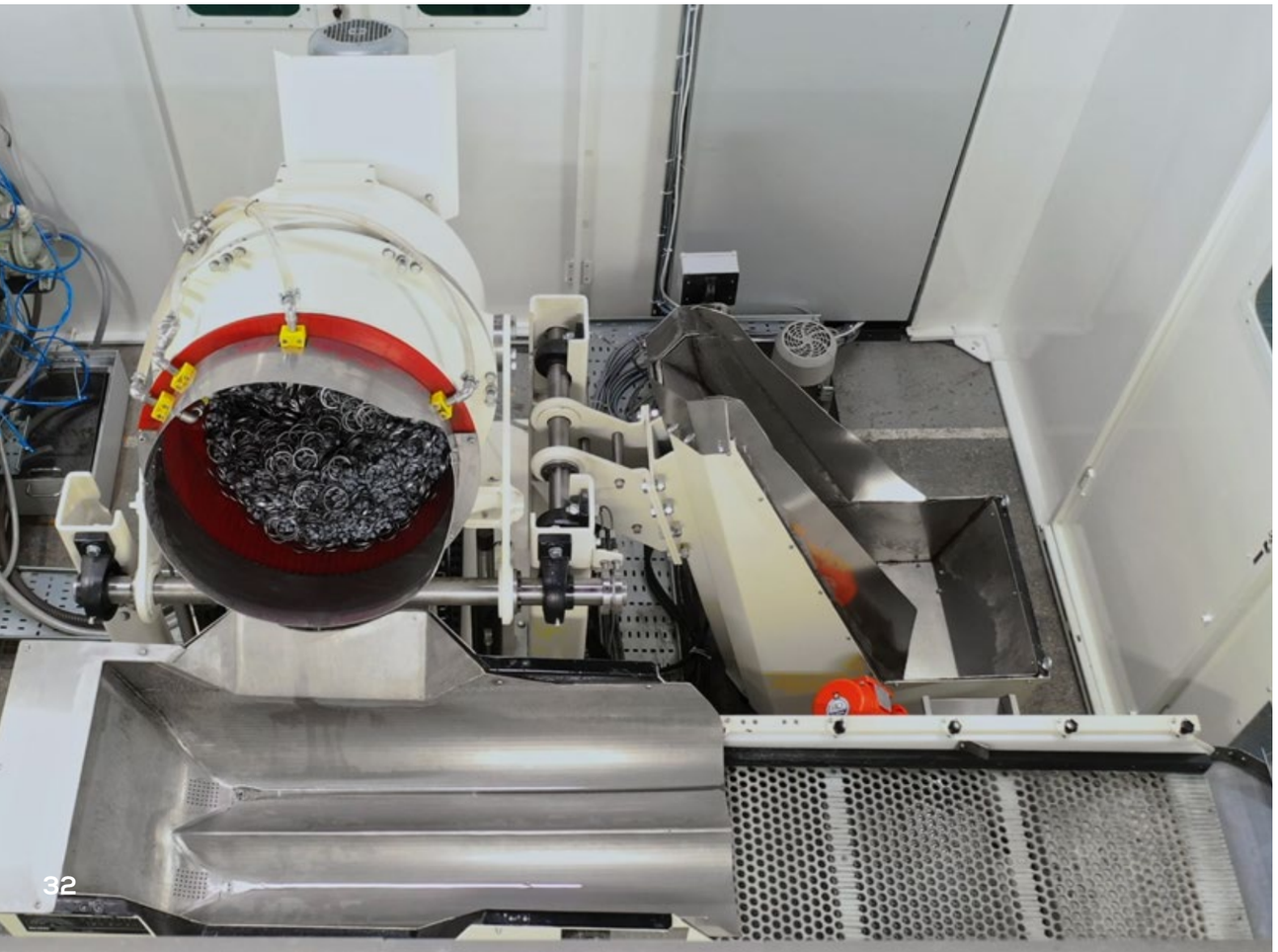
Automation

DTA-100 Centrifugal Disc Finishing System

Description

This ActOn Disc Finishing system has been built for a leading global manufacturer and supplier of products for automotive, commercial, aerospace, marine, rail and off-road vehicles. The customer needed to upgrade their existing system as it was inefficient, presented leakages and parts were getting stuck in the system. This resulted in components being damaged and final finishing results not being as per the industry standards.

The new DTA-100 system was designed to deburr sintered automotive rings in just 15 mintes. The design also included a vibratory dryer to remove any moisture from the parts after the deburring stage and avoid any corrosion.



Advantages

- The surface finishing process enabled the customer to achieve a repeatable and high quality result in just 15 minutes.
- The design allows continuous output: while the finished batch of components are separated from media and loaded into the dryer, 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.
- The wind cycle technology solves the problem of parts getting stuck during the unload stage.
- Operator intervention is minimal.
- The system is also environmental friendly, as the effluent was treated and recycled.
- Repeatable process via recipe control
- Customised to user requirements
- 100% separation of parts and media

Visit our YouTube Channel to get a visual overview on this finishing system

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Automation

DTB-50 Finishing System with Automatic Magnetic Separation

Visit our YouTube Channel to get a visual overview on this finishing system

Description

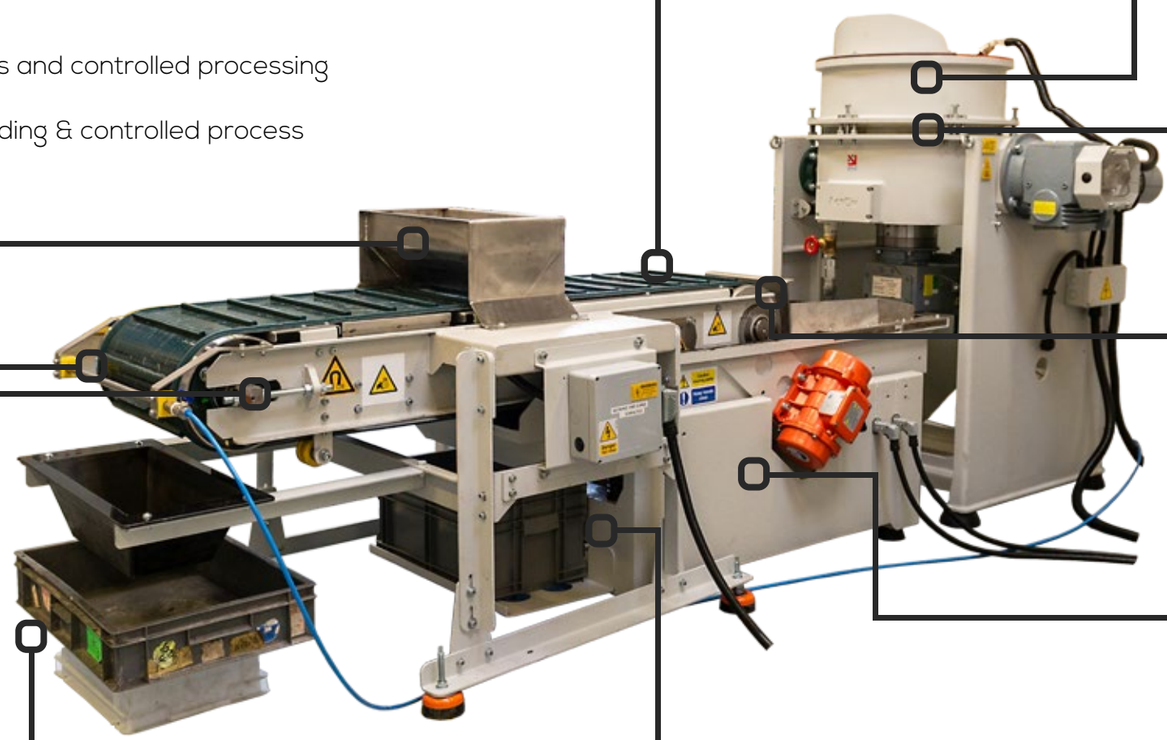
This ActOn Disc Finishing system is unique in design and meets the highest standards required by industry. The design allows continuous output: while the finished batch of components are separated from media and discharged, a new batch is being processed in the disc finishing machine. The process is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

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 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.

Parts Conveyour

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

Media Collection Tray

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.

DTB-50 Work Chamber

- 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
- Powerful heavy duty speed drive.

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 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 components at the end of the process. The vibratory separator also enables the separation of undersize media, before the media can be collected into the collection tray for further use.

we manufacture

Vibratory Finishing

ActOn's vibratory finishing technology offers efficient surface finishing solutions using a range of equipment, including vibratory bowls, troughs, duals, and dryers. Ideal for deburring, descaling, radiusing, cleaning, polishing, burnishing and surface improvement, on a wide range of components.

Disc Finishing

Disc finishing machines have been designed to be reliableand easy to operate. 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.

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.

Drag Finishing

Drag Finishing is a high-energy surface finishing process where components are securely clamped to the spindle's holders and rapidly dragged through a specially designed media. This motion generates intense friction, enabling precise deburring, edge rounding, smoothing, and polishing in a fraction of the time required by traditional methods.

GrindPro Series

Experience a smarter, safer way to metal grinding and surface finishing with the GrindPro Precision Grinding Booth – a fully enclosed, high-performance unit specifically designed for use with air tools.

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.

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.

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.

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 parts made of steel and stainless-steel, cobalt chrome, titanium, nickel and other common metal alloys.

Ultrasonic Cleaning

Designed to clean, descale and strip a large range of components. It's perfect for a range of industries such as automotive, aerospace, energy, electronics, food, graphics, jewellery, manufacturing, marine, mould cleaning, medical, optical and more.

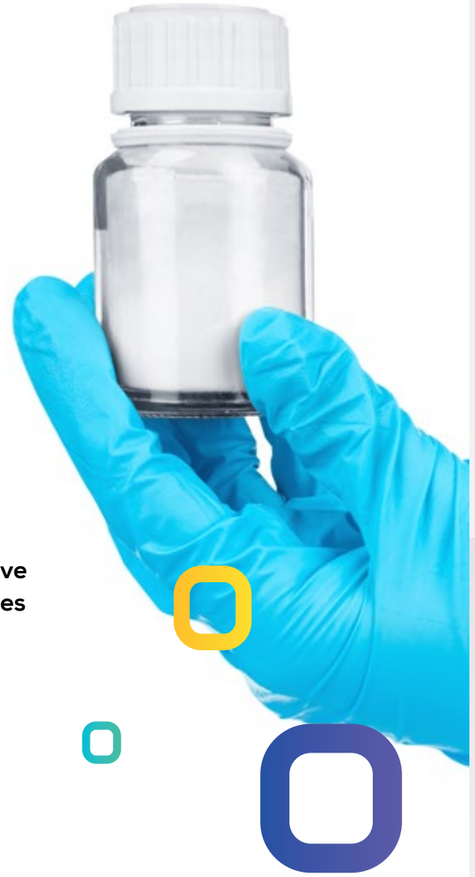
Man x Machine x Media = M^3

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.



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.

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.

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 contact us. 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
5. In-house validation
6. Commissioning

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

Vibratory Finishing, CHEF, CLM, CDF, Shot Blasting & Ultrasonic Cleaning 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:

LRQA CERTIFIED ISO 9001 · AS 9100 — UKAS MANAGEMENT SYSTEMS 0001

LRQA CERTIFIED ISO 14001 — UKAS MANAGEMENT SYSTEMS 0001

MADE IN BRITAIN

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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