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**The model 1037M-DS, 37" Wide Two Head Wide-Belt /Disc
Metal Sanding and Deburring Machine by Apex Machine Group**

This Apex Machine Group wide-belt/disc deburring-sanding machine is built for production and designed to run one to one and one-half shifts per day in a wide variety of shop environments and applications. The Apex line of machinery is built for durability and performance with added value and dependability.

Function

The Apex model 1037M-DS sander is a workhorse with a contact drum on the 1st head and the 2nd head consisting of a row rotating discs with oscillation. This 37" wide double-head machine allows the user the ability to handle a wide variety of applications including stock removal, calibrating, polishing, deburring of edges and interior holes of a variety of steel, alloys and or composites. The model 1037-DS is also great for deburring edges as well as providing a radius edge on exterior edges and also interior holes as well as getting material ready for coatings/paint adhesion in one pass.

The model 1037M-DS requires two dust collection ports - the first port is 8" diameter dust collection port that assists removing the debris from the sanding head and front of disc station and the second port is 8" diameter port the cleans the parts before exiting the machine. We recommend a minimum dust collection of 3,500 CFM. The machine is designed to use 460 Volt, 3 Phase, 60 Hertz electrical power. The machine also requires 6 bar, 90 PSI air connection for the air cylinders within the machine.

General Features

- .Heavy welded cage type frame, made in carbon steel, big size dimensions
- . Lifting-lowering screws mounted on long distance for more rigidity and stability
- . Abrasive belt oscillation by means of electronic photocell sensor, including sensitivity trimmer adjustment
- . Oscillation Brush control on stroke with variable speed setting for processing different types of materials.
- . High efficiency exhaust dust hood system to assist in keeping machine area clean
- . Idle table rollers support on in-feed to assist when feeding longer parts.
- . Rubber covered hold down rollers with heavy duty springs with adjustment screws for proper hold down pressure.

Working table:

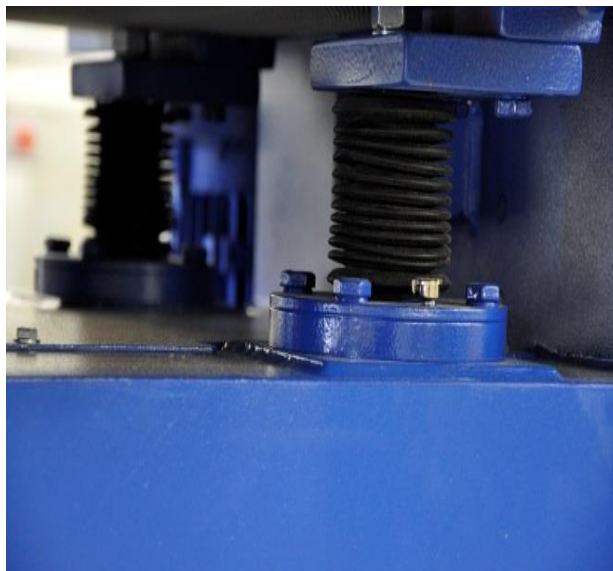
- . Machined working table in pre-welded steel
- . Motorized table lifting including fine adjustment, made on 4 heavy duty precision screws on double supports
- . Table lifting-lowering system electrically controlled with manual adjustment wheel for very fine adjustments.
- . Heavy duty rubber multi-ply conveyor belt for long wear / life of conveyor belt.
- . Variable feed speed of conveyor belt displayed in LED in either feet or meters per minute with desired feed speed controlled by a simple turn of a dial at control panel.
- . Electronic digital display for working thickness; displayed down to 0.001"

The thickness setting for the conveyor bed is motor driven and comes with a digital programmable key pad . This allows for quick changes in thickness settings of materials to be processed. And has a programmable thickness setting feature for storing up to ten presets.



Programmable Digital Thickness Readout

The machine, as mentioned above, comes with a digital thickness indicator for the conveyor bed position in relation to grinding belt for an accurate set-up to .001". This indicator will also allow the operator to enter in a desired thickness setting for the part they are going to process and press the "start" button the machine will close (or open) up to the thickness/position entered by the operator.



Picture of heavy duty jacks which are positioned at all four corners of conveyor bed

An Air operated disc brake system is used to stop the contact roll to assure consistent abrasive belt and brush head stoppage in approximately 2 - 3 seconds. This braking system will not fade under continuous braking and has non-sparking replaceable pads. The brake disc is located on the main motor shaft for easy maintenance.



Picture of centralized operator control panel

A centralized control panel is used for the simple operator controls for machine operation. Conveyor feed, speed, abrasive belt and/or brush head are controlled at this centralized station. An Amperage load meter is also provided near the control to show the exact percentage of main motor horsepower being used during operation.

An hour meter inside the electrical box shows the actual running time of the machine. This will assist maintenance/service personnel when doing scheduled lubrication of key components at proper intervals and may be used to assist in tracking life of abrasives.

Electrical plant:

Centralized control panel for operator ease of control and efficiency

Analog amp meter, for each motor, on main control cabinet

Table lifting-lowering thickness system electrically controlled with digital thickness readout.

AUTOMATIC star-delta starter, for each abrasive belt motor

Independent overload protections

Machine wired at 460/3/60 Full load amp is 42 FLA (84 FLA if wired at 230/3/60)



6" Adjustable Contact Drum with dial indicator

1st Sanding Station/Head

- The first sanding station is a Contact Drum
- Contact Drum is 6" 50-55 durometer
- Sanding belt is a 37"x 60" belt
- Contact Drum pressure adjustment control with a easy turn of a handle.
- Heavy duty high efficiency dust hood
- Independent motor 20 HP (built to run at 230/3/60 or 460/3/60)



Single Row of oscillating Discs

2nd Sanding Station/Head

- The second sanding station is a row of rotating disc heads with oscillation both with variable speed controls.
- Sanding pressure adjustment easily controlled with a simple turn of a handle to raise or lower disc station.
- Digital Readout for referencing the height of disc media to the conveyor belt
- Reversing of disc direction will allow operator to easily change to a finer abrasive or to a coarser abrasive simply turning the selector switch on the control panel to change the direction of the discs. This also allows operator to run different materials without risk of cross-contamination of materials.
- Heavy duty high efficiency dust hood
- Independent main motor is a 2.2KW

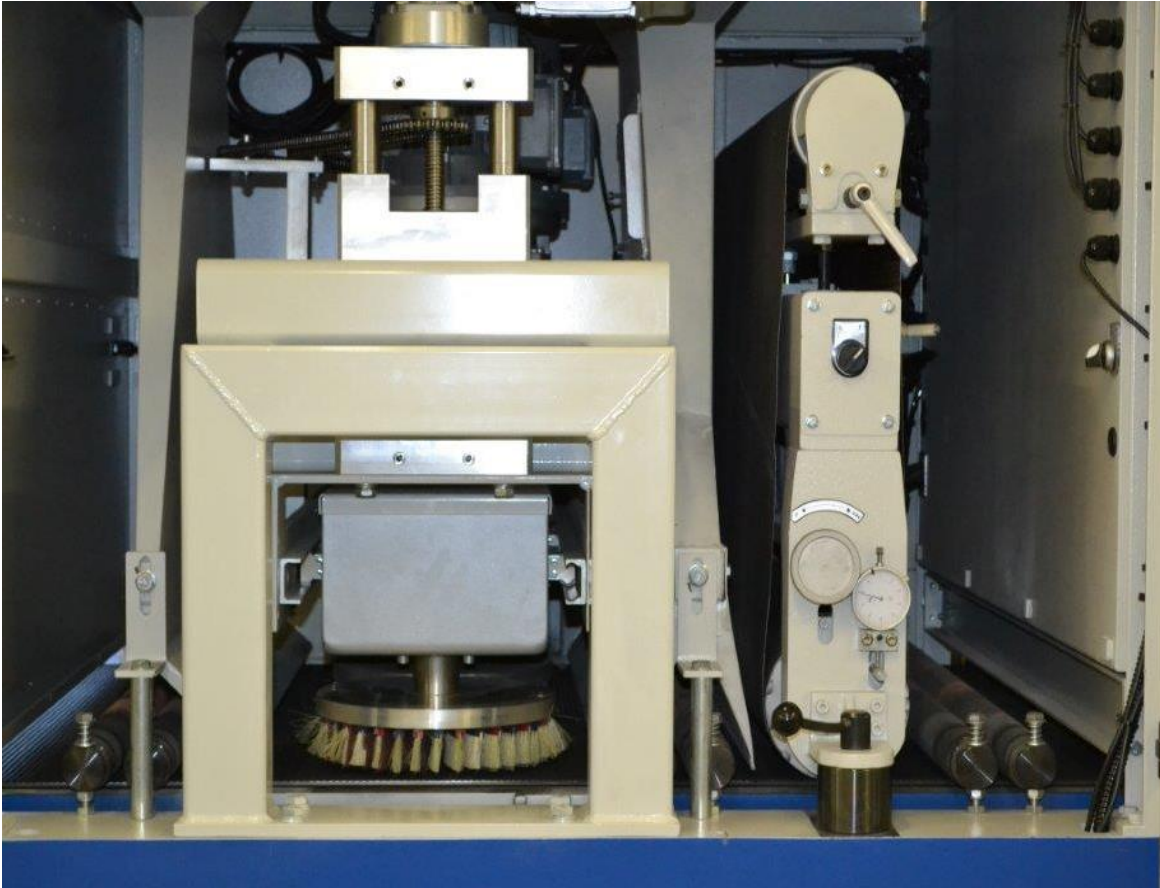


Photo of the cam adjustable wide belt drum head and a single row oscillating disc station

Safety:

- . In-feed front emergency swinging bar to aide in preventing over-thick or double stacked parts from entering into machine and causing damage to first head contact drum and also to help in protecting machine operator from inadvertently feeding over-thick parts as well.
- . Rear and front red emergency push button
- . Automatic brake on abrasive belt and brush head motors activate if safety sensors are tripped.
- . Ceramic tipped sensors for abrasive belt mis-track shut off.
- . Automatic brake system applied if abrasive belt breaks apart.

Pneumatic plant:

- . Centralized independent pneumatic control cabinet; dust proof
- . Pneumatic air filter with automatic water-drain system
- . Pneumatic plant working without lubrication
- . Compressed air pressure 6 bar

Machine Dimensions & Approximate Shipping Weight:

Machine Shipping Weight: approximately 4,480 Lbs.
70" (L) x 56" (W) x 71" (T)