

LOEWER

DiscMaster 6TD

DEBURRING AND EDGE ROUNDING MACHINE FOR SHEET METAL PARTS



FOR LASER-CUT, PLASMA-CUT AND PUNCHED SHEET METAL
FOR FOILED, ZINC-PLATED AND 3D PARTS
FOR STEEL, STAINLESS STEEL, ALUMINIUM

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Versatile deburring and edge rounding machine

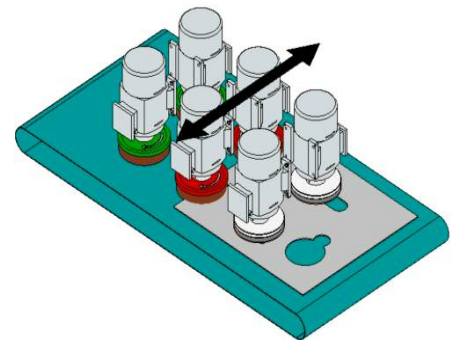
The DiscMaster 6TD is equipped with six disc units which oscillate continuously over the full width of the feed belt. This unique technology offers greater advantages compared to conventional deburring machines.



How it works: The 360° processing principle

The workpieces are placed on a conveyor belt. Six rotating discs oscillate continuously over the full width of the workpiece during the through-feed. All inside and outside edges are processed from all angles and directions. The result is uniform deburring and edge rounding independent of the orientation of the cutting contours.

- Removal of burrs, spatter and reflections
- Intensive edge rounding
- All inside and outside edges are processed 360° from all angles and directions
- Slag removal, oxide removal, orbital finish
- For laser-cut, plasma-cut, water-cut and punched parts
- For steel, stainless steel, aluminium



Our tools

Laser job shops have to contend with numerous different finishing tasks. The DiscMaster 6TD addresses this by offering a large variety of disc tools and abrasives which can be replaced easily and quickly thus making the machine extremely versatile and efficient.



The **SoftDisc** with surface conditioning abrasives is ideal for deburring aluminium or steel parts.



Our protected **CompactDisc** with ceramic abrasive removes high burrs and spatter on stainless steel.



The **MediumDisc** is the first choice for edge rounding and is available in different compressions and grit sizes.



The **OrbitalDisc** for creating a non-directional finish with the Löwer Orbital device for which there is a patent pending.



The **SmartFlexDisc** is very open and works well for edge rounding zinc-plated, foiled or 3D-parts.



The **OxideDisc** with angled wire brushes removes oxide on the side edges of laser-cut steel parts.

Our advantages

Great versatility: The DiscMaster 6TD uses three pairs of discs in a row thus allowing three different tools to be used in one pass. Due to the large variety of tools available there are many different ways to use the machine, depending on the application, e.g.:

- deburring - edge rounding - stronger edge rounding
- deburring - edge rounding - oxide removal
- deburring - edge rounding - orbital finish
- slag removal - deburring - edge rounding

Deburring: The flexible SoftDisc leads to an aggressive grinding action at the edges while applying very little pressure to the surface. The SoftDisc is the first choice for deburring steel or aluminium parts. The CompactDisc is more aggressive and works well for removing burrs and spatter on stainless steel parts.

Edge rounding: The large 250mm diameter MediumDisc offers comprehensive edge rounding. Due to the 360° processing principle very uniform results are achieved on all the inside and outside edges of the workpiece.

Small and large parts: The disc tools are parallel to the workpiece and push the workpiece against the feed belt during operation. As a result it is possible, with a disc-only machine, to process even very small workpieces starting from 20 x 20 mm. The maximum working width is 1000 mm (1500 mm).

Foiled parts, zinc-coated parts or 3-dimensional parts: These parts can be processed with the SmartFlexDisc. The brush supported finger abrasives are very flexible and create very little pressure or heat on the surface of the workpiece.

Orbital Finish: The OrbitalDiscs create a non-directional orbital finish. When using MediumDiscs at the infeed it is possible to achieve deburring/edge rounding and orbital finish in one pass.

Material mix: When processing mixed materials (i.e. steel/stainless steel) the abrasives must be changed. The deburring discs use a hook and loop system, the edge rounding tools can be equipped with QuickFix connectors for a quicker changing of tools.

Uniform wearing of tools: As the discs oscillate over the full width of the feed belt the abrasive tools wear evenly irrespective of the size of the workpiece or where it is placed on the conveyor belt. The machine can therefore process wider parts without having to calibrate any tools.

Costs: This “disc only” concept makes it possible to dispense with expensive vacuum or magnetic hold down features and thus allows the machine to be priced competitively. Low energy consumption and inexpensive abrasive costs ensure a speedy return on investment.



Setting for deburring, edge rounding and oxide removal in one pass



Setting for deburring and intensive edge rounding



Motorized height adjustment, automatic setting of thickness using a limit switch (optional)



Rotating cleaning brush for feed belt (optional)



Aluminium



Steel



Stainless steel



Small parts

Technical data

Standard features DiscMaster 6TD-1000 (6TD-1500)

- Max. working width 1000 mm (1500 mm), workpiece thickness 0,3 - 100mm
- Three pairs of discs (infeed, center and outfeed) for disc diameter 250 mm
- Motorized height adjustment with electronic digital display
- Separate height adjustment of each individual disc, each with digital counter
- Oscillation by gear motor and tooth belts, variable oscillation speed using frequency inverter
- Oscillation with two strokes (full width or small parts)
- Conveyor belt feed using gear motor, variable feed speed 1-5 m/min using frequency inverter
- Constant height of feed table, easy to connect to roller conveyors
- Automatic tracking of conveyor belt, pneumatically controlled
- Four spring-loaded hold down rollers with pneumatic lifting
- Brush strip under conveyor belt for removing loose dust
- Dust extraction connection outlet 1 x 200 mm diameter
- 400 V, 50 Hz, 3 P, connection for compressed air
- Length 2050 mm, width 1650 mm (2150 mm)
- CE

Optional Extras

- Variable rpm of disc units using three frequency inverters (separate for infeed, center and outfeed discs)
- Integrated rotating brush for cleaning conveyor belt
- Automatic setting of workpiece thickness by limit switch
- Quick-Fix tool connector for speedier changing of discs between steel and stainless steel
- Suitable dust extraction units for steel, stainless steel or aluminium
- Magnetic track for holding small steel parts when using OxideDiscs
- Coloured touch panel control
- Large variety of abrasives for deburring, edge rounding and finishing