

TwinMaster TbD-600

Innovative deburring machine for flame cut parts



Unique TwinBelt
deburring unit

high deburring power

ideal for flame cut and
plasma cut parts



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LOEWER TwinMaster TbD-600

Deburring of flame-cut and plasma-cut parts up 600mm width

Flame and plasma cut parts often have variation in thickness. As well the heat of the cutting process can lead to bowing of the parts. The innovative TwinBelt unit has been developed exactly for deburring those parts. A very soft rubber layer on the drum in combination with an additional pressure belt inside the abrasive belt creates a lot of pressure to the inside and outside edges of the part. At the same time the unit is able to compensate variations in thickness of the parts.



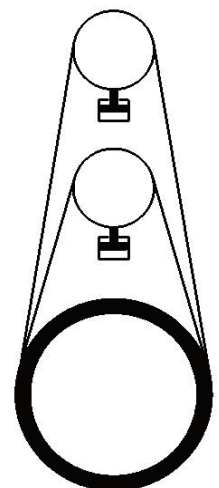
The process:

- Work piece through feed by heat resistant feed belt with permanent magnet under the feed belt
- Deburring with TwinBelt unit, high deburring power with compensation of variations in thickness
- Rounding of edges by big disc unit with flexible brush supported finger abrasives

The unique TwinBelt unit (patend pending)

The core of the TwinMaster is the unique TwinBelt unit. The abrasive belt in combination with a very soft contact drum leads to a lot of pressure on the inside and outside contours. At the same time the unit is very flexible and can compensate variations of work piece thickness. An additional pressure belt which runs between the abrasive belt and the contact drum creates even more pressure on the burrs without taking away the flexibility. As well it protects the abrasive belt and the drum against cuts and tears.

An additional pneumatically controlled **floating head system** enables the unit to compensate disortion of up to 6mm. The whole unit is able to move upwards when the grinding pressure gets too high, the contact drum will follow the shape of the work piece.



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The Advantages

Deburring:

High deburring power, the soft drum almost exclusively creates a lot of pressure on the inside and outside edges. The pressure on the surface is rather low, therefore the unit creates very little heat.

Compensation of varying thickness and disortion:

The soft drum already can compensate for varying thicknesses of up to 3mm. The floating head system enables the unit to compensate for disortion up to 6mm. The intensity of the floating head can be adjusted pneumatically. The flexible abrasives of the edge rounding disc is able to compensate up to 6mm as well.

Edge rounding:

The big discs with flexible finger abrasives rounds the edges of all inside and outside contours. The intensity can be set by adjusting the pressure of the disc. The rotation of the disc ensures an even wear of the abrasives over the full working width.

Feed

The machine is equipped with a heat resistant feed belt and a permanent magnet over the full working width. The feed speed is variably adjustable by frequency inverter between 0,5 and 3m/min.

Small parts:

The minimum size of magnetic parts is 50 x 50mm.

Big parts:

The maximum work piece width is 600mm (width of abrasive belt is 640mm). The constant height of the through feed table makes it possible to use roller conveyors before and behind the machine in order to process very long work pieces.

Operation:

The machine is equipped with a motorized setting of the work piece thickness and a digital read out. The TwinBelt unit and the disc unit can be adjusted in height individually in order to set the requiered pressure. The feed speed is adjustable by a frequency inverter.

Changing of abrasives:

The abrasive belt can be changed within 2 minutes due to pneumatic tensioning of the belt. The abrasive strips are pushed into the grooved disc, they can be changed without having to dismantle the disc itself.

Dust extraction:

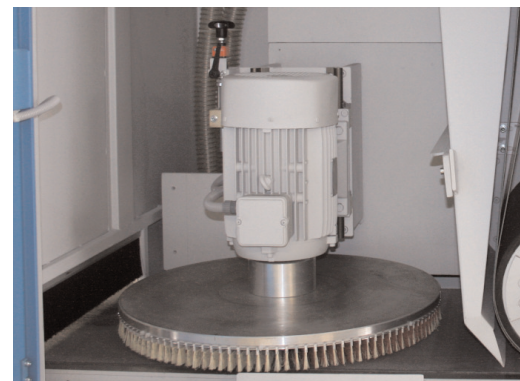
The machine is fully enclosed and can be connected to a dust extraction unit.



TwinBelt unit



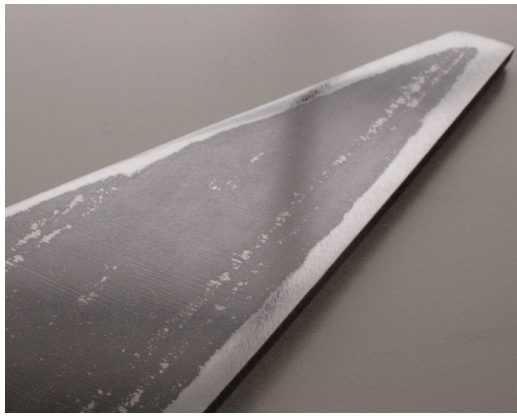
adjusting of pressure and floating head



Edge rounding disc



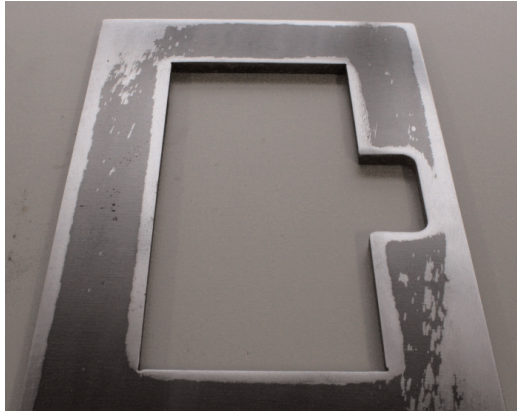
dust collection box with brush strip



Technical Data

Standard equipment TwinMaster TbD-600

- Max. width of work piece 600mm
- Twinbelt unit with soft drum diameter 300mm, 7,5kw drive motor, oscillation of abrasive belt and pressure belt, pneumatic tensioning of abrasive belt and pressure belt, separate manual height adjustment with digital read out
- Floating head device, pneumatically controlled and adjustable
- Disc unit with grooved disc diameter 700mm, individual height adjustment for pressure, variable disc rpm by frequency inverter
- Motorized height adjustment of work piece thickness with digital read out, additional hand wheel for fine adjustment
- Heat resistant feed belt, variable feed speed by frequency inverter 0,5 - 3m/min
- Permanent magnet under the feed belt over the full working table
- Brush strip under feed belt with dust collection box at the out feed side
- Dust extraction connection outlet 1 x 200mm diameter
- Key switch for service mode
- 400V, 50Hz, 3P
- Compressed air connection point
- Length 2075mm, width 1545mm, height 2140mm, weight 2000kg
- CE



Optional extras:

- Spring loaded hold down rollers for non magnetic work pieces
- Abrasive belts in different grits
- Smart-Flex sanding strips in different grit sizes and brush lengths
- Suitable dust extraction units



we reserve the rights of technical changes