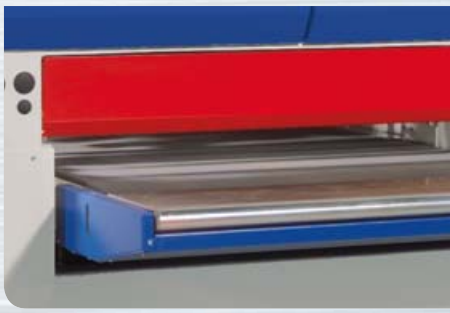
THIN SHEET MACHINING

WEBER Grinding Machines

Grinding, rounding, deburring and descaling of lasered, punched and nibbled parts



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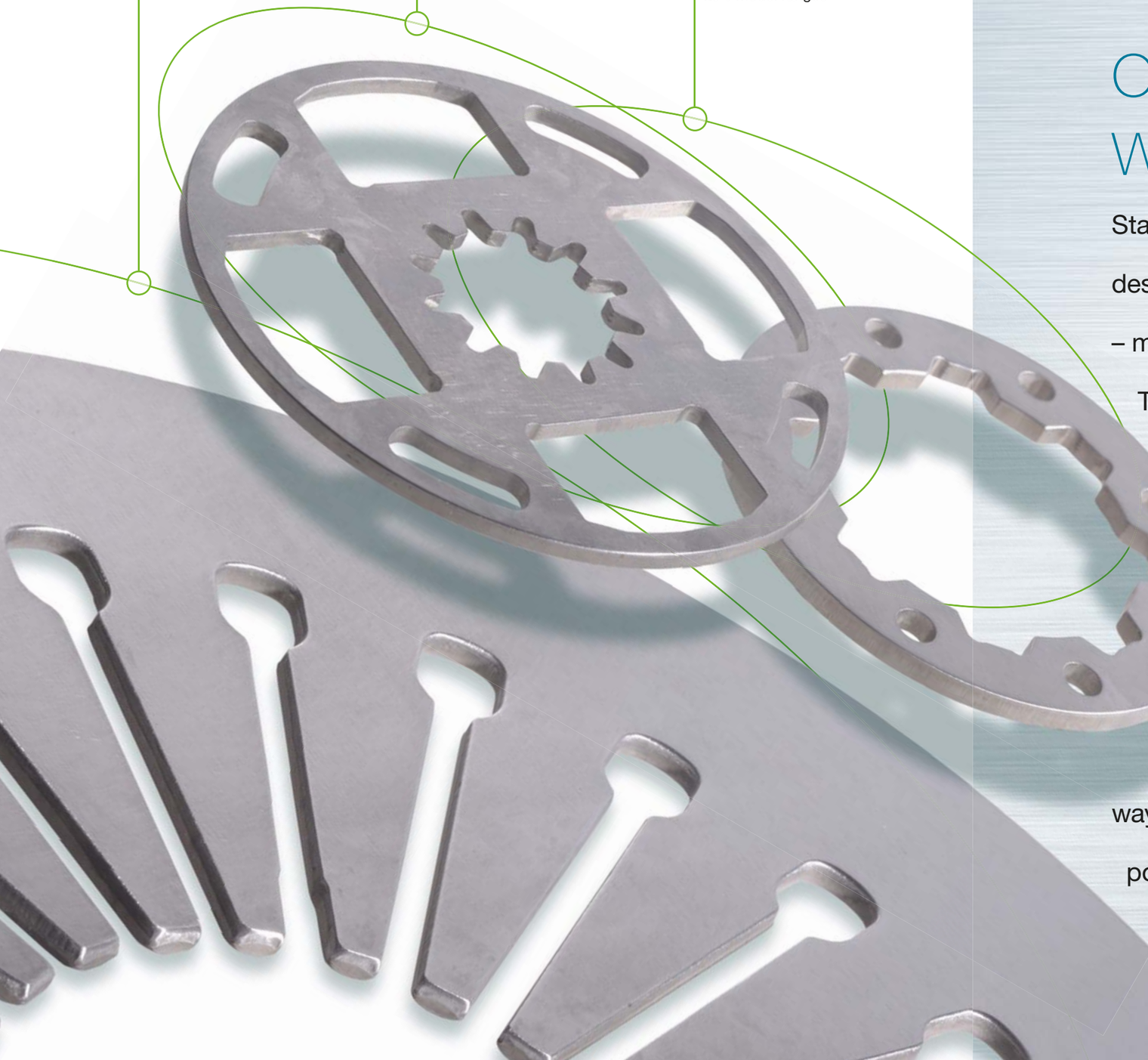
WEBER

1913
WEBER works according to a 100-year-old tradition and experience in building grinding machines

1955
For over 50 years, WEBER has been producing drum sanders

2017
These days, WEBER sets new standards in the field of grinding technology with its 6 model ranges



OPTIMISING METAL WITH GREAT CARE.

Stability. Flexibility. Functionality. Regardless of the requirements designers and engineers have for the realisation of their projects – metal is the material that can meet these special requirements.

There is no doubt: Metal is fascinating! At the end of machining procedures which are as precise as they are efficient, more and more new application possibilities are revealed. For over 100 years, we have been developing and producing grinding technology to meet the highest demands. Of course, this includes technology for gentle thin sheet machining. In this way, our innovations contribute to the perfect utilisation of the potential metal has as a raw material. Our products fascinate people all over the world.

QUALITY
IS OUR PROFESSION.

At WEBER we practice thorough quality control.

This is apparent in the overall concept of our grinding machines, intelligent solutions and numerous patented details, all of which have the same result:

Perfect surfaces and edges.

WEBER.
Ergonomic and intelligent design

Machine systems with complex functions require a control system that allows for precise work and intuitive operation: WEBER fulfils these requirements with an intelligent operating concept: The “i-Touch” control knob or, for example, the automatic thickness adjustment are WEBER’s guarantee for safe and reliable operation.

WEBER.
Individual and modular

The requirements of industry and craftsmanship are extremely diverse. Different punched or cut components and materials require increasingly specialised machining procedures. At WEBER we devote ourselves to the changing requirements for deburring, rounding and surface grinding of metals and provide suitable grinding technologies as a sensible and efficient solution. As our customer you will find the best solution for your requirements.

BLUecoMPETENCE

WEBER.
Energy-efficient and resource-friendly

Considerate handling of energy and resources is the order of the day. For us, this is a matter of course. WEBER fulfils these high demands with its electric and mechanical systems. The grinding belt drives are equipped with high-efficiency rated motors, the main drives are equipped with “Eco Drive” technology. WEBER DR planetary head technology ensures an even wear of tools and lowers operating costs significantly.

The best possible machining of punched and nibbled parts.

WEBER TTSC | Deburring machine

WEBER's compact model.
For deburring, rounding, descaling and surface grinding with a dry grinding procedure

10

WEBER TTSC

Perfect results with the highest possible output.

WEBER TT | Deburring machine

WEBER's all-rounder.
For deburring, rounding, descaling and surface grinding with a dry grinding procedure

14

WEBER TT

Sophisticated technology for high-quality parts.

WEBER NLC | Wet deburring machine

WEBER's wet grinding model.
For deburring, rounding, descaling and surface grinding and for special material types

18

WEBER NLC

WEBER innovation brushes

Perfect arrangement of round and cup brushes

WEBER has found a convincing solution for the problem of large rotating brush systems. Dividing up the brushes onto several smaller tool carriers minimises the machining differences along the operating width of the machine, which occur otherwise. WEBER consistently uses this technology for round and cup brushes. The compact design decreases the space requirements significantly allowing for problem-free combination with other machining stations.

WEBER DR planetary head

All-round edge machining across the entire width

WEBER uses its planetary head technology for all-round edge machining with cup brushes. In this process, several rotating brushes arranged in groups are given an additional turning motion. This means that the brushes work at the ideal angle on the workpiece. In the patented WEBER solution, the tools of adjacent heads overlap in a way that ensures that there are no gaps during machining. As an alternative, we at WEBER also construct a two-row arrangement in which each tool carrier is equipped with six brushes.

WEBER MRB brush system

The ideal addition for perfect edge machining

When round brushes are used, several rotating heads are also arranged next to each other. The meshing of the brushes during the combing procedure and two brushes per head create even machining results along the entire operating width. The modular design of the brush heads allows for problem-free machining of each part with the procedure it requires. This arrangement works perfectly for any material thickness starting from one millimetre.

WEBER “i-Touch” and WEBER Matrix

For intuitive operation

Navigation, made easy: The “i-Touch” control knob helps you navigate through the most important menu functions. All grinding parameters such as e.g., grinding belt speed, feed speed and workpiece thickness can be directly accessed and operated via the “i-Touch” controller. Only the information necessary for the current operation is shown in the matrix display on the multi-colour touch panel. In addition to the main function, direct access to saved programs is also possible. The operator simply selects the desired type of machining. The machine adjusts itself independently at the push of a single button.

WEBER controls

Perfect grinding results at the push of a button

As a standard, WEBER deburring machines are equipped with a high-quality touch operating terminal with colour mode. These terminals are based on the Siemens control system. Thanks to the graphical user interface, operation is simple and efficient. All adjustments can be made and saved on the operating terminal. Integration in higher ranking control systems or interlinking with other machines is no problem.

- **Simple operation due to graphic support**
- **7" screen (optional 9")**
- **Up to 300 Program memory positions**
- **External data backup (optional)**
- **Easy troubleshooting**
- **Remote maintenance (optional)**

WEBER TTSC

Deburring machine for lasered, punched and nibbled parts

The **TTSC** model range is the most **compact** of all WEBER grinding machines, equipped with a **variable operating height**. Different machining methods with one or two machining stations can be combined with each other for deburring, rounding, descaling and surface grinding without any problems.

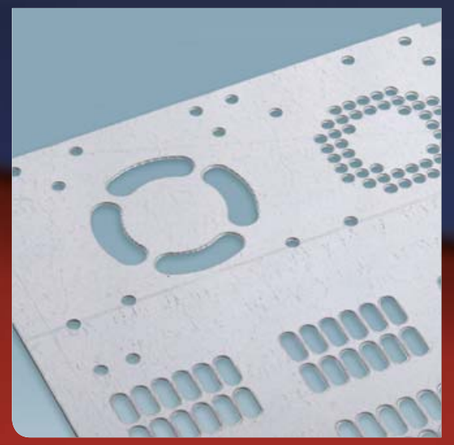
600 mm

1100 mm

1350 mm

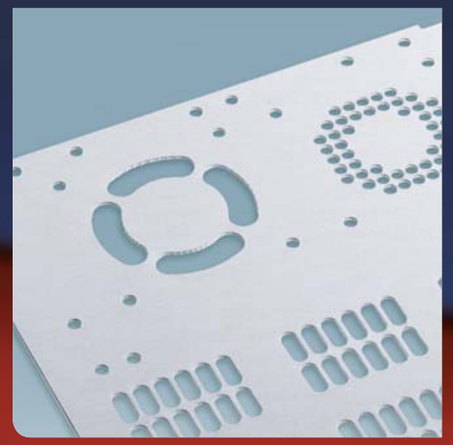
1 to 3 grinding stations

- **Working widths 600, 1100 and 1350 mm**
- **Working height 800-900 mm (variable)**
- **Version with 1 to 3 grinding stations**
- **Workpiece thickness 0.8–100 mm**
- **Infinitely variable feed speed (1–10 m/min)**
- **Grinding belt length 1900 mm**
- **Grinding belt drive up to 11 kW**
- **“i-Touch” controller**



Before

Lasered, punched and nibbled parts before the grinding process: The burrs are very pronounced. WEBER grinding and brush systems reach all points – even on highly complex parts.



After

After machining with a WEBER TTSC: All burrs have been removed, even drill holes, rim holes and other hard-to-reach spots have been machined to perfection.

WEBER GRINDING TECHNOLOGY

- **GD grinding roller**
- **DR planetary head**
- **STC bolt grinding beam**
- **“i-Touch” controller**

BRUSH TECHNOLOGY FOR A PERFECT FINISH.

Regardless of whether you are using the compact planetary head P(2), double-row planetary head P(6) or the multi-rotation brush MRB:

WEBER's sophisticated brush technology creates the ideal conditions for a perfect edge quality.

WEBER TT

Deburring machine for lasered, punched and nibbled parts

The **TT** model range is the **all-rounder** of WEBER grinding machines. Up to 5 machining stations enable you to use **any machining variation** for deburring, rounding, descaling and surface grinding of metal sheets and sheet metal parts. For a compact, two-side variation, a bottom grinding planetary head WEBER DR P(2) is directly attached.

600 mm

1100 mm

1350 mm

1600 mm

1 to 5 grinding stations

- **Working widths 600, 1100, 1350 and 1600 mm**
- **Working height 850 mm (permanent)**
- **Version with 1 to 5 grinding stations**
- **Workpiece thickness 0.3–100 mm**
- **Infinitely variable feed speed (1–10 m/min)**
- **Grinding belt length 2150 mm**
- **Grinding belt drive up to 22 kW**
- **Siemens Touch Panel TP900 Comfort**
- **“i-Touch” controller**
- **Freely selectable arrangement of grinding stations**

WEBER GRINDING TECHNOLOGY

- **GD grinding roller**
- **DR planetary head**
- **STC bolt grinding beam**
- **BS brush rollers**
- **MRB multi-rotation brush**
- **“i-Touch” controller**

Sophisticated technology for high-quality parts

WEBER dry grinding technology

Convincing solutions for perfect results

WEBER's dry grinding technology stands out due to its easy handling and a well-conceived design. Our aim is an absolutely perfect, uniform grinding result and a long operating life of the tools used. Automatic tool length measurement, automatic grinding belt tensioning and other details contribute to keeping operating costs low.

WEBER tool technology

Long operating life, easy handling

To guarantee a long operating life, WEBER has developed various innovations. Automatic tool length measurement guarantees the least possible wear during operation, thus keeping the operating costs low. If tools have to be changed, a sophisticated quick-changing system ensures that a single person can do so in very few steps. This saves time and money.

Results that speak for themselves

High-quality lasered, punched and nibbled parts do not achieve the desired quality until they have been ground by a WEBER machine. Smooth surfaces on the outside and inside as well as smooth edges create the conditions required for perfect, safe processing of the parts. The examples speak for themselves.

WEBER NLC

Wet deburring machine for lasered, punched and nibbled parts

The **NLC** model range is WEBER's metal grinding machine with a **wet grinding technology**. For **special types of material**, excessive **material heating** and machining **sheets with a heavy oil film** The NLC wet-grinding technology makes deburring, rounding, descaling and surface grinding easy and safe. The arrangement of up to 5 different machining stations can be varied as required.

600 mm

1100 mm

1350 mm

1600 mm

1 to 5 grinding stations

- **Working widths 600, 1100, 1350 and 1600 mm**
- **Working height 900 mm (constant)**
- **Version with 1 to 5 grinding stations**
- **Mode of operation: top grinding**
- **Workpiece thickness 0.8–120 mm**
- **Infinitely variable feed speed (1–10 m/min)**
- **Grinding belt length 2620 mm**
- **Grinding belt drive up to 30 kW**
- **Siemens Touch Panel TP900 Comfort**
- **"i-Touch" controller**
- **Freely selectable arrangement of grinding stations**

Before

Punching creates pronounced burrs and oil residue on metal parts.

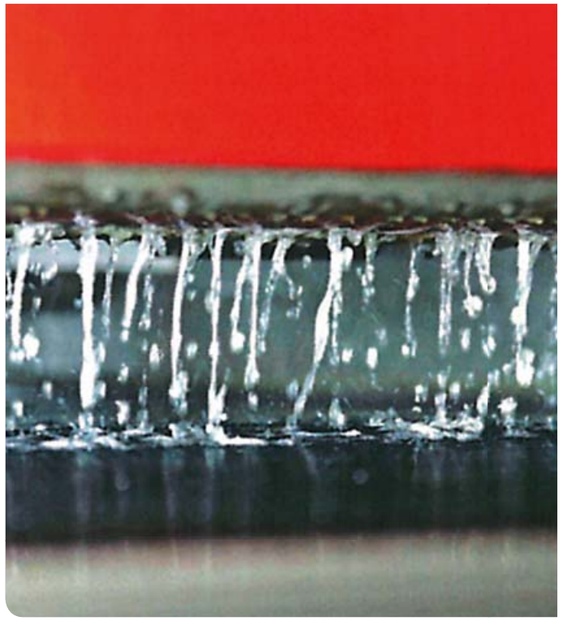
After

WEBER's grinding and cleaning technology lets you grind any material to perfection and prepare it for immediate processing.

WEBER GRINDING TECHNOLOGY

- **GD grinding roller**
- **DR planetary head**
- **BS brush rollers**
- **MRB multi-rotation brushes**
- **"i-Touch" controller**

Sophisticated technology for high-quality parts



WEBER
wet grinding technology

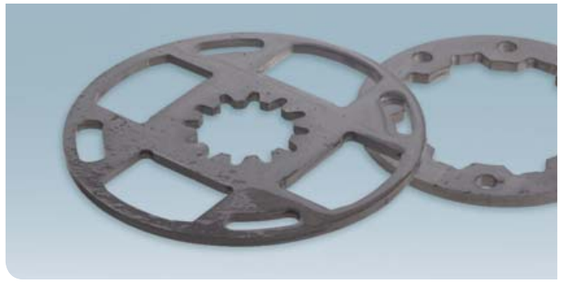
The best results despite low costs

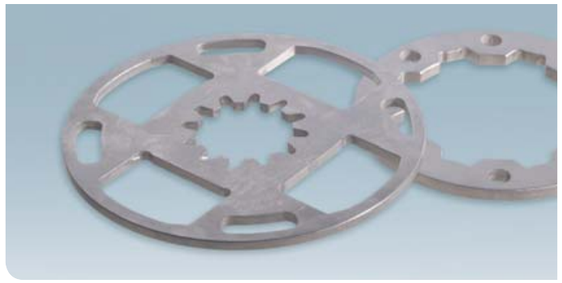
Our many years of experience and sophisticated technology make WEBER's wet-grinding systems our customers' first choice. Our time-tested technology creates first-class results. In addition, WEBER's special focus is on the cost-effective and environment-friendly design of our systems. The cleaning systems required for the grinding fluid are highly economical to operate and stand out due to their simple operation, cleaning and maintenance.

WEBER flat bed filter

PS-160

The gravity-based paper belt filter ensures continuous cleaning of coolants (emulsions, oils or similar fluids). The high cleaning quality achieved by this filtering system contributes to a perfect surface quality and decreases tool wear.





Convincing results

For complex parts

WEBER's sophisticated wet grinding technology shows convincing results when grinding special materials, when there is a risk of excessive material heating and when machining metal sheets with a heavy oil film. Furthermore, special demands on surface quality can be met with our wet-grinding systems. Specially developed grinding technologies are used for WEBER wet-grinding systems. The planetary head system, brush systems and grinding rollers ensure perfect surface quality during wet grinding.

WEBER centrifuge

W-130 | FA-11-0068

The fluid is pumped to the centrifuge by means of a feeding pump. A hub with an optimised flow accelerates the fluid until it reaches the drum rotational speed. Particles are compacted on the edge of the sludge insert. The clean fluid is returned with an outlet pressure of approximately 0.5 bar via a skimming valve. If the centrifuge is at a standstill, the process fluid remaining in the drum is drained into a leakage container. Advantages: Compact design, easy handling, cleaning and maintenance

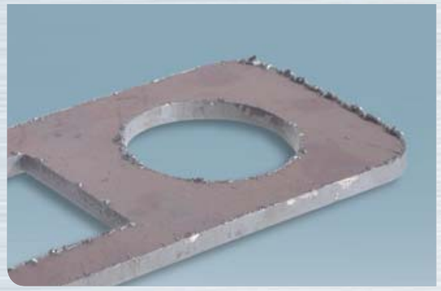
WEBER grinding machines for heavy plate machining

Deburring, rounding and descaling of flame-cut and plasma-cut parts

Of course, WEBER also offers machines for machining heavy plates. The machining of very thick, heavy sheet metal parts makes high demands on the machines used for this process. For this purpose, WEBER offers the special model ranges MK and MKS.

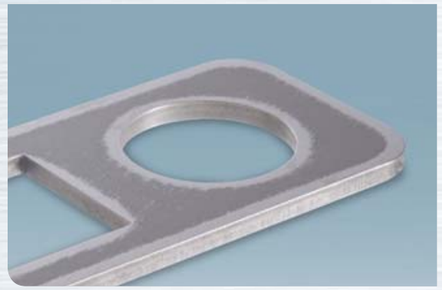
For further information, please refer to the brochure on heavy plate machining or

www.metallschleifmaschine.de



Before

Flame and plasma cutting for heavy plates often creates strong burrs and scales which are hard to remove.



After

With WEBER's grinding technology, materials of any size and up to 120 mm thickness can be ground perfectly and are then ready for further processing.

The best results through innovative technology

WEBER MKS | Deburring machines

WEBER's compact model.
For deburring, rounding and descaling of flame-cut and plasma-cut parts in a dry grinding process

- **Working widths 600, 1100, 1350 and 1600 mm**
- **Working height 850 mm (constant)**
- **Version with 1 to 3 grinding stations**
- **Workpiece thickness 1–100 mm**
- **Infinitely variable feed speed 1–10 m/min**
- **Grinding belt length 2150 mm**
- **Grinding belt drive up to 22 kW**
- **Siemens Touch Panel TP700 Comfort**
- **"i-Touch" controller**
- **Freely selectable arrangement of grinding stations**

WEBER MKS

Perfect technology for special challenges.

WEBER MK | Deburring machine

WEBER's universal model.
For deburring, rounding and descaling of flame-cut and plasma-cut parts in a dry grinding process

- **Working widths 1100, 1350, 1600 and 2000 mm**
- **Working height 900 mm (constant)**
- **Version with 1 to 4 grinding stations**
- **Workpiece thickness 4–120 mm**
- **Infinitely variable feed speed 1–10 m/min**
- **Grinding belt length 2620 mm**
- **Grinding belt drive up to 30 kW**
- **Siemens Touch Panel TP700 Comfort**
- **"i-Touch" controller**
- **Freely selectable arrangement of grinding stations**

WEBER MK

THIN SHEET AND HEAVY PLATE MACHINING

WEBER PT Grinding Machine

A new dimension of grinding, rounding deburring and descaling

Distribuidor en exclusiva:

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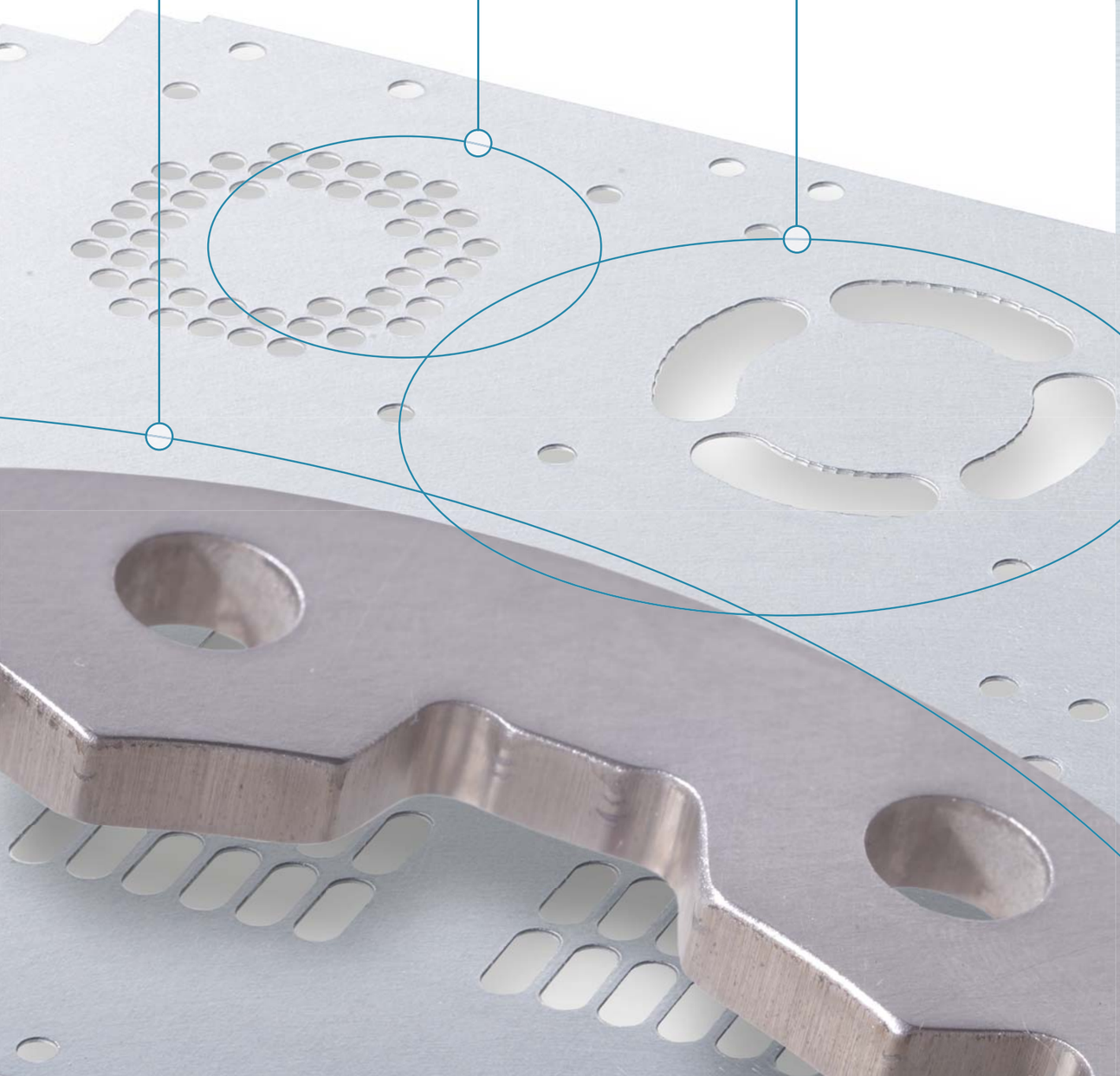

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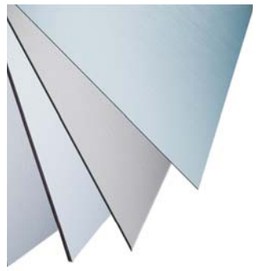

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Perfect metal machining at its best

WEBER PT

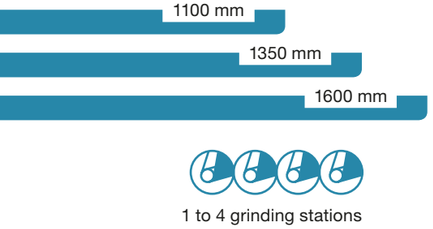
grinding and deburring machines for thin sheets and heavy plates

The WEBER PT is a **universal grinding machine of a new generation** for deburring, rounding, descaling and surface grinding of thin sheets and heavy plates. Up to 4 grinding stations allow for **all machining variations**. A CBF station can be installed for a perfect surface finish. The STC bolt grinding beam is available especially for flame-cut and plasma-cut heavy plates.

WEBER PT – advantages at a glance:

- **New modern design**
- **New simplified operating structure through WEBER i-Touch with its faster and more easily accessible operating panel**
- **Larger and variable grinding belt length**
- **Laterally extendible planetary head unit and MRB unit for improved integration into production lines**
- **Improved accessibility for maintenance**
- **Replaceable units through the modular design for improved flexibility in case of changing requirements**
- **Simultaneous machining top/bottom as an option**

Technical data



- **Operating widths 1100, 1350 and 1600 mm**
- **Operating height 900 mm**
- **Version with 1 to 4 grinding stations**
- **Workpiece thickness 0.3–100 mm**
- **Infinitely adjustable feed speed (1–10 m/min)**
- **Grinding belt length 2620 mm**
- **Grinding belt drive up to 24 kW**
- **Siemens Multi Panel TP900 Comfort**
- **“i-Touch” controller**
- **Flexible arrangement of the grinding stations**

WEBER GRINDING TECHNOLOGY

- **GD grinding roller**
- **DR planetary head**
- **STC bolt grinding beam**
- **BS brush rollers**
- **MRB multi-rotation brush**
- **CBF grinding technology**
- **K combination unit**
- **“i-Touch” controller**

A new dimension of sophisticated technology

WEBER PT design

Optimised for appearance and function

The design of the WEBER PT is not merely a new dimension of grinding technology appearance. Perfectly clean lines and well-conceived ergonomics make it one of the most modern grinding and deburring machines on the market. The diagonal arrangement improves easy and fast accessibility to the operating terminal; all connections can consistently be installed from the top. The large viewing glass allows for an unobstructed view of the machining stations. Accessibility of all electronic and mechanical parts makes maintenance significantly easier.

WEBER PT machining stations

Installation in any sequence

The WEBER PT can be equipped with up to 4 machining stations. The arrangement of the grinding stations can be varied as required. In addition to the GD grinding roller and the K combination unit, it is, of course, possible to install the WEBER CBF grinding technology, the STC bolt grinding beam and the complete WEBER brush technology. The CBF grinding beam makes variable grinding patterns for thin sheets possible without chatter marks. The STC bolt grinding beam creates a consistent grinding quality for thick, uneven heavy plates.

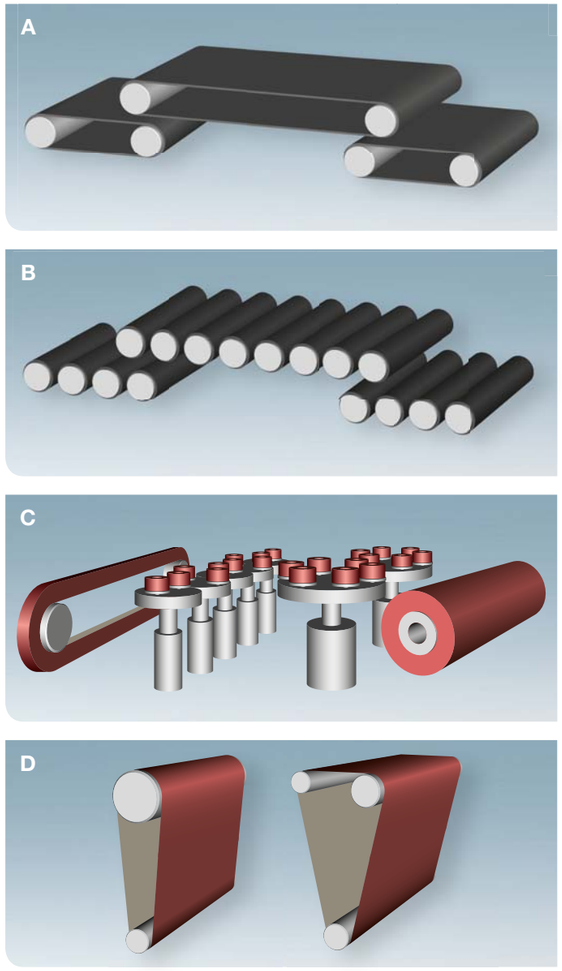
The brush units with the DR planetary head and the MRB brush system guarantee perfect edge machining. An ergonomic design is also a primary concern for these units: All brush systems can be pulled out laterally for equipping and maintenance.

The modular construction of WEBER also allows for replacement of grinding stations later on.

WEBER “i-Touch” controls

with a simplified operating structure

As a standard, the WEBER PT grinding and deburring machine is equipped with a high-quality 9" and 12" touch operating terminal with colour mode. This is based on the Siemens control system. Due to the new graphical user interface, operation is even simpler and more efficient. As an alternative, the tried and tested “i-Touch” control knob can guide you through the most important menu functions. All adjustments can be made and saved on the operating terminal. Integration into higher ranking control systems or interlinking with other machines is no problem.



Simultaneous machining top/bottom as an option

Perfect grinding quality times two

The concept of the PT series is, above all, designed for industrial use. For this reason, WEBER also offers its new PT grinding and deburring machine with simultaneous machining on the top/bottom. It offers a direct transfer of workpieces without an intermediate conveyor belt. The electrical switch boxes are integrated in the machine frames to reduce the installation space requirements.

The selection and arrangement of the machining stations for top and bottom machining can be varied as required. This means that the machine design can be adapted perfectly to each individual grinding and deburring task.

Arrangement of the stations in detail:

A Transport tables

B Roller transport system

C Cross brush unit
P2 Planetary head unit
P6 Planetary head unit
Brush unit

D D grinding unit
K grinding unit

CBF TECHNOLOGY FOR A PERFECT SURFACE FINISH.

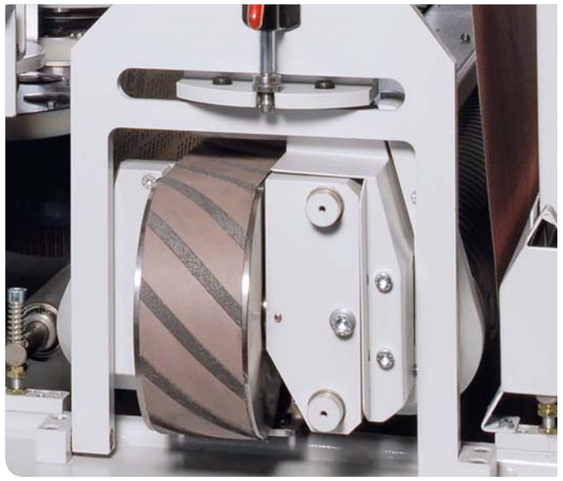
A perfectly ground metal surface free of chatter marks is an outstanding quality feature. WEBER has found the perfect solution to achieve this, with its CBF technology, which is used in the new PT machine.

WEBER tool technology

The ideal brush option for each application

WEBER offers diverse round and cup brush options for any type of metal machining. Automatic tool length measurement guarantees the least possible wear during operation, thus keeping the operating costs low. A sophisticated quick-changing system ensures that a single person can change the tools in very few steps. This saves time and money.

Perfect ground surfaces and edge machining



WEBER CBF grinding beams

transverse lamellae for homogenous and variable grinding patterns

The patented WEBER CBF system presses the grinding belt against the workpiece via a segmented grinding beam. In this way, diverse grinding patterns are possible with an easily adjustable line length. Even machining thicker metal sheets is no problem for this system – and it is all accomplished with a longer grinding belt service life and lower material heating.

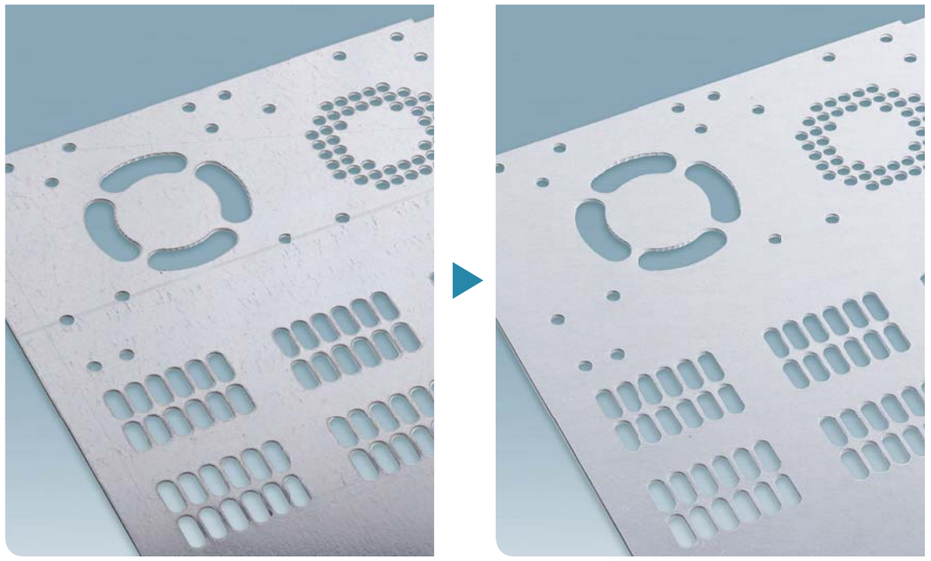
WEBER innovation brushes

The ideal technology for perfect edge machining

WEBER has found a convincing solution for the problem of large rotating brush systems. Dividing up the brushes onto several smaller tool carriers minimises the machining differences along the operating width of the machine, which occur otherwise. WEBER also consistently uses this technology for round and cup brushes in its new PT machine. The compact design decreases the space requirements significantly allowing for problem-free combination with other machining stations.

The WEBER DR planetary head guarantees perfect edge rounding and can be used from the top and bottom as an option.

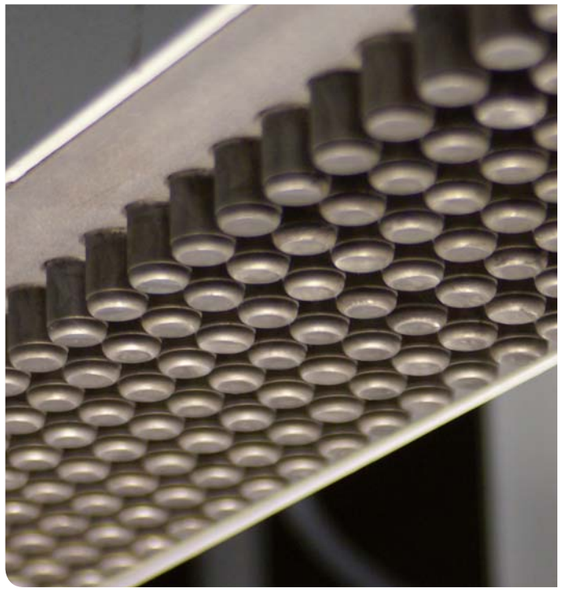
The WEBER MRB brush system achieves rounding on all sides of parts with rim holes and slots.



Results that speak for themselves

High-quality lasered, punched and nibbled parts do not achieve the desired quality until they have been ground by a WEBER machine. Smooth surfaces on the outside and inside as well as smooth edges create the conditions required for perfect, safe processing of the parts. The examples speak for themselves.

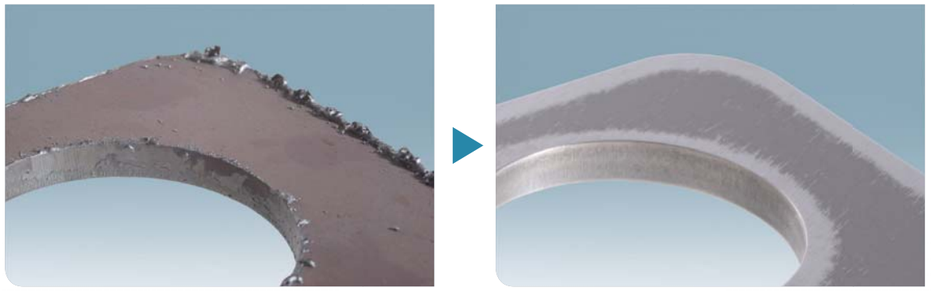
Perfect deburring and rounding of thick plates



WEBER STC bolt grinding beams

Constant grinding pressure,
high tolerance compensation

With the STC grinding beam system, WEBER has taken machining of thick and uneven plates to a new level: A constant grinding quality, a high material throughput and low operating costs due to a high grinding belt operating life are characteristic for this technology. This function is simple, but well-conceived. The grinding belt is pre-tensioned downward by a few millimetres and held in a flat position. Due to the long contact surfaces with the workpieces, it makes a stronger impact on all edges without creating secondary burrs. The pre-tension compensates for existing thickness differences between one part and another by itself and therefore makes economic multiple feeding possible – an enormous advantage, especially for small parts.



Results that speak for themselves

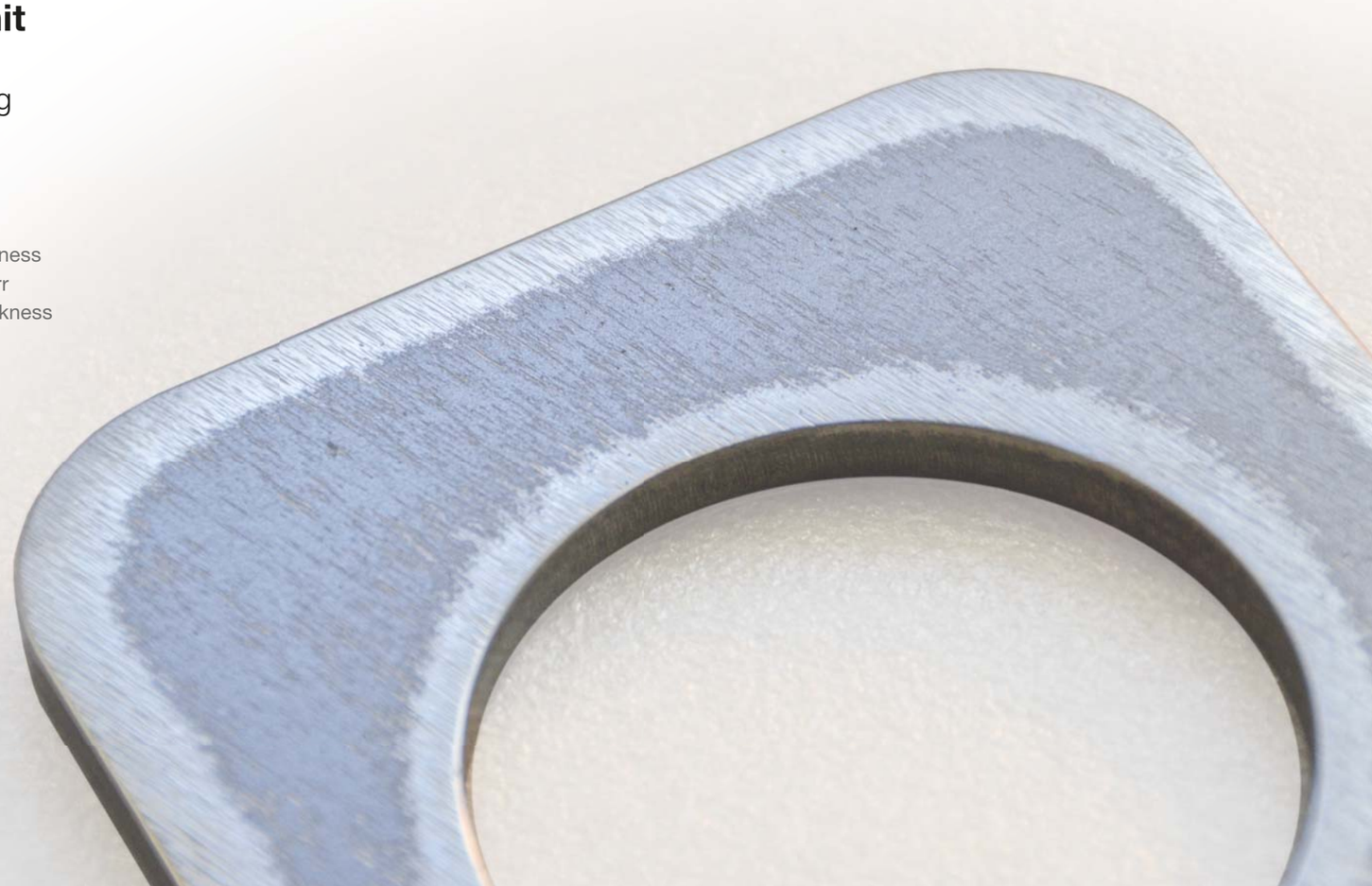
Steel plates and sheet metal parts are important components for machine construction. These solid parts require special machining: Flame and plasma cutting. To obtain the best results from the raw material and achieve maximum quality, grinding is carried out after the cut – ideally with a WEBER PT grinding machine. The final results speak for themselves.

WEBER K combination unit

Increased flexibility through
the combination of multiple grinding systems

Plates of different thickness are cut by means of different procedures and with different cutting parameters. Furthermore, plates of different thickness have different characteristics, which influence burr formation. The thicker a plate, the greater the thickness differences after cutting, due to warping and burr formation.

WEBER offers the solution to this problem. The advantages offered by a flexible grinding beam and the performance of a grinding roller – optimised and combined in one grinding station – always yield perfect results in a WEBER PT grinding machine.



Quality “Made in Germany”

Our company, rich in tradition, can look back on over 100 years of grinding machine manufacturing. The WEBER machine works are synonymous with innovation and high-quality machine construction.

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