



*Your **move**  
to perfection*

Product catalog  
**Wood working machines**



*25 years of competence*

**MB Maschinenbau GmbH**

# MB Maschinenbau

Your move to perfection



## MB Maschinenbau GmbH

Founded:	1992
Founder:	Ronald Busch
Gen. manager:	Ronald Busch
Priorities:	Construction, development, sales and service
Production:	sanding machines and special machines for the woodworking and metal industry

## Location:



Zeppelinstraße 24  
32051 Herford, Germany

Airports:  
Hannover, Münster, Paderborn, Dortmund

For trials you are welcomed in our test laboratory.

For current exhibitions please visit our website

## Surface sanding machines

ROBA Tech .....	page 4
ROBA Split Belt .....	page 6
ROBA BIG .....	page 8
ROBA Profi Brush .....	page 10
ROBA Profi Disc .....	page 12
ROBA Bottom Sander .....	page 14

## Molding sanding machines

ROBA Profile .....	page 16
ROBA Belt .....	page 18
ROBA Fentech .....	page 20
ROBA SSM .....	page 22

## Surface cleaning machines

ROBA Anti Dust .....	page 24
ROBA Profi Clean .....	page 26

## Distressing machines

ROBA Struktumat .....	page 27
-----------------------	---------

## Edge sanding machines

ROBA Duplex .....	page 28
ROBA Profi Edge .....	page 30
ROBA Twin Flat .....	page 31

## Material handling

Material handling .....	page 32
-------------------------	---------

## Special machines

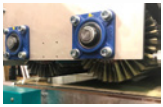
Special Machines .....	page 33
------------------------	---------

## Brush sanding system

MB Flex .....	page 34
---------------	---------



The Profi Disc as optional aggregate at machine exit



Double brush as optional aggregate at machine exit



Conical discs with inclined sanding brushes



Micron Discs used to sand plain surfaces

## Operation areas

The patented Roba Tech principle is used for the sanding of flat and profile surfaced

The rotational brush belt sanding system for optimal processing in the areas of:

- Intermediate lacquer sanding
- White wood sanding
- MDF sanding
- Metal deburring

Due to its innovative sanding method the Roba Tech offers for all these areas optimal prerequisites for best surface quality.

## Sanding method

The main idea of the ROBA Tech principle is to avoid the main disadvantage of all today known drum based brush sanding machines: Those who work normally with sanding drum with a diameter of about 310 mm are only in a very small area in touch with the work piece, about 30 mm. Only in the vertex of the circle circumference of the tool a

sanding process is possible. The innovative and patented ROBA Tech is equipped with a totally new developed sanding belt containing 174 sanding strips and provides a sanding area of approx. 1300 x 1500 mm in touch with the workpiece and more than 250 meters of sanding material on all aggregates. This is unique on the market of brush sanding machines. A 360 ° rotation of the sanding aggregate over the work piece makes it possible to reach all edges and corners of a workpiece. New is the reinforced disk unit, which now can also be used for light structuring and calibration work. For this purpose it is placed at the inlet of the machine and adapted to this task by the use of special disc tools: Discs with steel wires are used for texturing, being able to perform regardless of the grain direction of the wood.

The plain Micron discs are used to sand flat surfaces and create a chaotic sanding pattern that can be easily covered by a topcoat.

Conical discs make it easier to sand part edges and V-shaped groves, allowing the sanding tool a better reach of the milled contours. In order to use Micron or conical discs, it makes sense to install the disk unit at the machine inlet. The sub-

# ROBA Tech

Your move to perfection

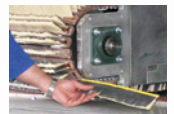
sequent efficient ROBA Tech sanding belt takes over the final fine work. Many by PLC adjustable sanding options help the operator to set the machine to his special sanding requirements.

## Advantages of the ROBA Tech principle summarized:

1. Large abrasives quantities make low movement speeds possible, at better effectiveness.
2. The rotational sanding head with a large sanding area ensures a consistent sanding in all work piece areas.
3. Free PLC programmable sanding parameter to optimize results.
4. A perfected vacuum system guarantees that even drawers can be transported safely.
5. A "pulling" sanding avoids wavy surfaces and penetrates deeply into the milled grooves.
6. The low sanding speed guarantees long abrasive lifespan because the sanding segments do not hit the work piece edges that hard.
7. Optional aggregates that use the Micron, texturing or conical discs optimize the result.
8. Abrasive configuration is freely selectable from the MB Flex system.



Roba Tech brush belt for a perfect surface sanding in all areas



Brush belt with easy to replace sanding strips



ROBA Tech Vertical, integrated into an overhead conveyor system of a door manufacturer



# ROBA Split Belt

Surface sanding machine

## Operation areas

The ROBA Split Belt principle is used for the sanding of flat and profiled surfaces, optimized for lacquer sanding.

The brush belt sanding system for optimal processing in the areas of:

- Intermediate lacquer sanding
- White wood sanding
- MDF sanding

Due to the innovative sanding method the ROBA Split Belt offers for all these areas optimal prerequisites for best surface quality.

## Sanding method

Lacquer sanding is a very difficult task in the field of production of furniture and furniture components. Many factors have an influence on a desired result and only the combination of the correct aggregate and abrasives configuration, in conjunction with certain programmable sanding parameters can offer a perfect result.

MB Maschinenbau has bundled many years of experience in lacquer sanding in the ROBA Split Belt line and developed a machine that meets these high expectations.

Based on the ROBA Tech philosophy that only a large sanding area provides enough performance for best results, MB developed the "Split Belt" sanding aggregate. This combines the advantages of a large sanding area in contact with the work piece, while working in and against the part transport direction. An additional possibility to oscillate the split belt unit with up to 30 ° helps to optimize the result.

In conjunction with the for lacquer sanding optimized MB Superflex brushes, the Split Belt unit, placed at the machine exit, is responsible for the final finish in the longitudinal direction.

Since most work pieces need a cross processing to sand the millings transversal to the transport direction, as well as the right and left edges, two cross belt sanding units are placed at the machine entrance.

# ROBA Split Belt

Your move to perfection

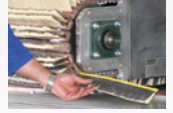
# ROBA Split Belt

## Surface sanding machine

Having a processing width of 200mm each, the first cross unit works from right to left, while the second from left to right. This ensures a perfect sanding of all transversal grooves and longitudinal edges.

The combination of transverse and longitudinal sanding in one machine thus enables a smooth and effective processing in all areas.

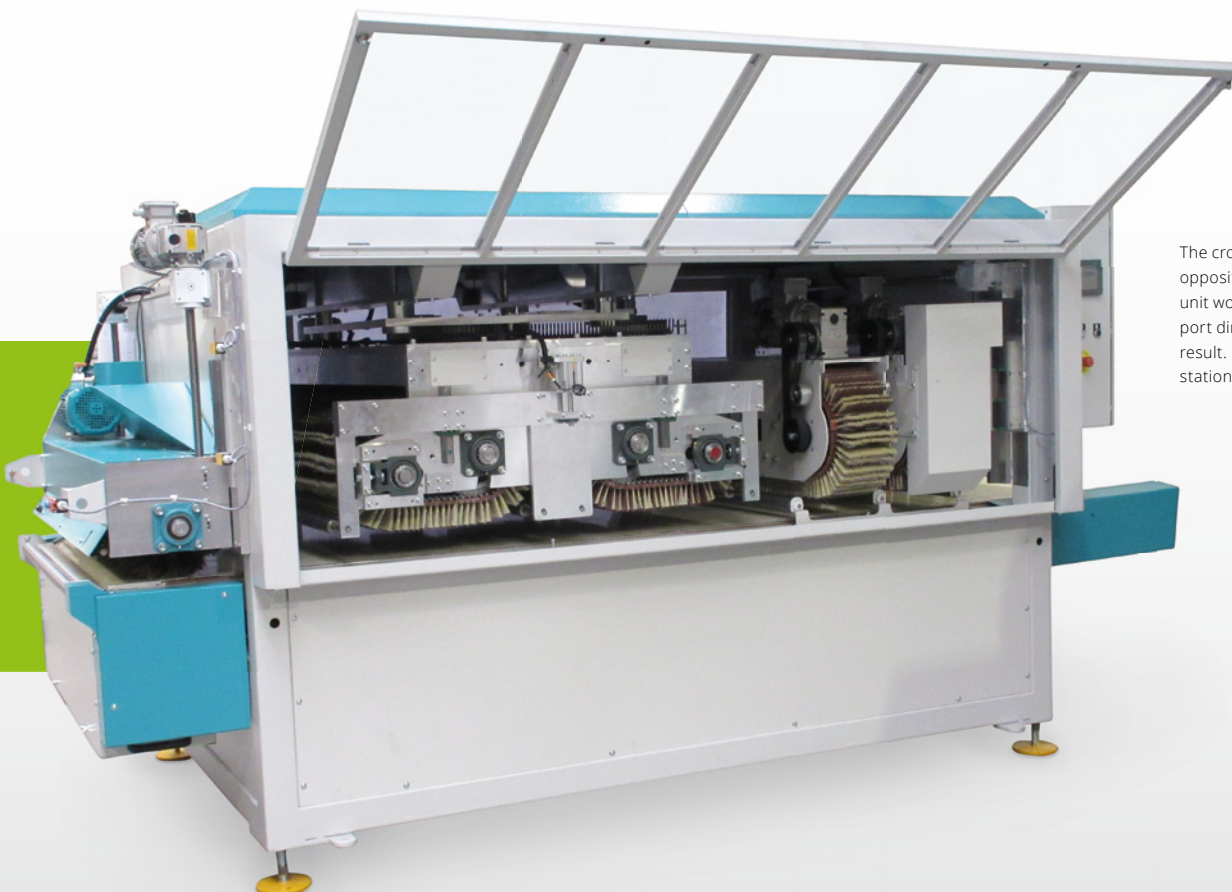
On request the machine can be equipped with a cleaning aggregate at the machine end.



Brush belt with easy to replace sanding strips

### Advantages of the ROBA Split Belt principle summarized:

1. Large abrasive quantities allow low sanding speeds at better effectiveness.
2. Optimized solution for lacquer/sealer sanding.
3. A splitted sanding belt in conjunction with two cross belt aggregates guarantee a uniform sanding in four directions.
4. Free PLC programmable sanding parameters to optimize results.
5. A optimized vacuum transport system guarantees the secure transport of even small parts.
6. A gentle "pulling" sanding avoids wavy surfaces and penetrates deeply into the milled grooves.
7. Abrasive configuration is freely selectable from the MB Flex system.



The cross belt aggregates working in opposite direction and the Split Belt unit working with and against transport direction optimize the sanding result. Here shown with a cleaning station at machine exit.

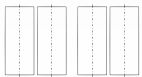
# ROBA BIG

## Surface sanding machine

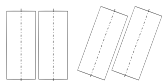
The ROBA BIG line is offered with different sanding head configurations:



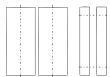
double brush



double brush –  
double brush



double brush –  
double brush 20°



Cross sanding belt –  
Double brush

### Operation areas

The new developed ROBA BIG brush sanding machine contains sanding drums with a diameter up to 630 mm and is constructed for the following applications:

- Sealer and lacquer sanding
- White wood sanding
- MDF sanding

### Sanding method

The main idea of the ROBA BIG principle is to avoid the main disadvantage of all today known drum based brush sanding machines: Those who work normally with sanding drums with a diameter of about 310 mm are only in a very small area in touch with the work piece, about 30 mm. Only in the vertex of the circumference of the tool a sanding process is possible. To compensate the very small sanding area normal sanding systems have to increase their rotation speed to a high level. Only this way they have a chance to get nearly the same effectiveness. But this results in

a “hard touch” of the sanding paper, which leads to an aggressive behavior on the edges, high temperatures and wavy optic of the material. Hurt edges and totally denibbed surfaces are often the result.

The innovative ROBA BIG is equipped with a totally new developed sanding drum with a diameter of approx. 630 mm which it makes possible to obtain a larger sanding area (about 300 mm) in touch with the work piece and more than 500 meter of sanding material on the machine. This is unique on the market of brush sanding machines. Due to the by this means enlarged sanding effectiveness the machine is able to get best denibbing results at lowest rotation speeds. As a result of this, low movement speeds let the sanding strips slide gently into the milled grooves to sand them every effective. The ROBA BIG is equipped with two rotational heads, one is clockwise sanding, followed by a counterclockwise sanding drum. Only in this way it is ensured that, independently of the wood grain structure, all upstanding “hairs” are denibbed.

Many by PLC adjustable sanding options help the operator to set the machine to his special sanding requirements.

# ROBA BIG

## Your move to perfection

## Advantages of the ROBA BIG principle summarized

1. Large abrasives quantities make low movement speeds possible, at the same effective level.
2. The area in touch with the work piece is enlarged up to 300 mm instead of the normally possible 30 mm.
3. Clockwise followed by counterclockwise sanding ensures best results.
4. A perfected vacuum system guarantees that even drawers can be transported safely .
5. A "pulling" sanding avoids wavy surfaces and penetrates deeply into the milled grooves.
6. The low rotational speed guarantees long abrasive lifespan because the sanding segments do not hit the work piece edges that hard.
7. Abrasive configuration is freely selectable from the MB Flex system.



Special vacuum transport belt for save piece transport with additional cleaning device



ROBA Big in vertical execution, integrated in a hanging line



630 mm diameter:  
Comparison conventional (middle) –  
ROBA BIG (right and left)



Cross sanding belt



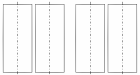
# ROBA Profi Brush

Surface sanding machine

The ROBA Profi Brush range is offered in several different sanding head configurations:



Double Brush



Double Brush -  
Double Brushch

## Operation areas

ROBA Profi Brush, the alternative brush sanding machine for a reasonable price. Constructed for the following operation areas:

- Intermediate lacquer sanding
- Wood fine sanding
- MDF sanding
- Light distressing processes

## Sanding method

The main idea of the ROBA Profi Brush sanding principle is the clockwise sanding followed immediately by counterclockwise sanding. Only in this way it is ensured that, independently of the wood grain structure, all upstanding "hairs" are denibbed. In the main configuration the ROBA Profi Brush machine contains two rotational sanding heads and a pressure roller system. Set-up in this way it is a solid basic layout for those customers who wish an optimized price-performance ratio. Due to the modular construction of the ROBA Profi Brush series, the machine can be configured to all customer demands. Six sanding

head machines, machines with working width up to 2 m and machines for heavy distressing work have already been delivered by MB.

Due to the optional, very effective vacuum transport system, small pieces like drawers are no problem to be sent through the machine.

Optional motorized axis height setting improves operation comfort even more.

For the use in roller coating lines MB provides a machine configuration with straight-inclined sanding drum set-up. The method of roller coating always produces very sharp edges after the UV drying. This can be effectively eliminated with such machine configuration.

The simple, modular construction reduces costs and makes the maintenance and set up very easy.

# ROBA Profi Brush

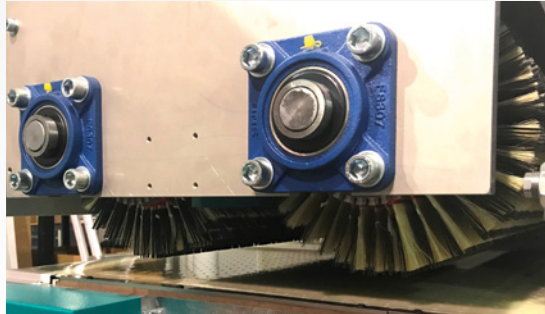
Your move to perfection

# ROBA Profi Brush

Surface sanding machine

## Advantages of the ROBA Profi Brush principle summarized

1. Clockwise followed by counterclockwise sanding ensures best results.
2. Pressure roller system will hold work pieces from 330 mm safely. On request modified for work pieces from 245 mm length.
3. Vacuum transport system as an option available.
4. Very easy to maintain and set up.
5. Best offer for small investments.
6. Infinitely variable setting of all rotational head and feed speeds.
7. Abrasive configuration is freely selectable from the MB Flex system.



Double brush aggregate work clock- and counterclockwise, equipped with easy to change sanding segments via plug-in system.



Customized solution with additional edge sanding aggregates



ROBA Profi Brush with two double brush sanding aggregates

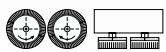
# ROBA Profi Disc

## Surface sanding machine

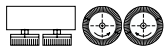
Constructed on modular basis the customer is able to decide between different configurations:



Profi Disc System



Double brush – Profi Disc System



Profi Disc System – Double brush



Profi Disc System – Profi Disc System

As option a cleaning aggregate at machine exit



Special solution:  
Back side sanding of furniture parts in through feed process

## Operation areas

The ROBA Profi Disc principle is used for sanding of flat and grooved surfaces. Constructed for the following operation areas:

- Intermediate lacquer sanding
- White wood sanding
- MDF sanding

## Sanding method

These optional combinations allow the user to set-up a machine for his specific application demands. The double brush consists of a pair of sanding drums. One working clockwise, followed directly by a counterclockwise unit: Only in this way it is ensured that, independently of the wood grain structure, all upstanding “hairs” are denibbed. The double brush is followed by a Profi Disc system that sands the work piece in all corners and edges. This is made possible by the 3-axis disc system which is a special MB design: four rotating 200mm disc tools with 14 abrasive strips each are mounted on three master discs

that also rotate. Additionally the entire unit oscillates back and forth. All axes movements can be regulated separately. Due to this the sanding pattern can be influenced visibly. This kinematics is copying the hand sanding process of an orbital sander and guarantees a uniform surface structure.

New is the reinforced disk unit, which now can also be used for light structuring and calibration work. For this purpose it is placed at the inlet of the machine and adapted to this task by the use of special disc tools: Discs with steel wires are used for texturing, being able to perform regardless of the grain direction of the wood. The plain Micron discs are used to sand flat surfaces and create a chaotic sanding pattern that can be easily covered by a topcoat. Conical discs make it easier to sand part edges and V-shaped grooves, allowing the sanding tool a better reach of the milled contours.

An optional cleaning unit at the machine end contains a specially manufactured cleaning brush, an ionizing bar and air knife.

# ROBA Profi Disk

## Your move to perfection

# ROBA Profi Disc

## Surface sanding machine

In the basic configuration the encapsulated machine has a pressure roller hold-down system. For small work pieces the machine can be

equipped with a vacuum transport, further on with a motorized height adjustment of the aggregates.



Disc tool

### Advantages of the ROBA Profi Disc principle

1. The sanding method copies the procedure of orbital hand sanding
2. Invisible sanding pattern
3. Work pieces are sanded in all areas
4. Tool less changing of the discs
5. Optional with texturing discs



Conical discs with inclined sanding brushes



Micron Discs used to sand plain surfaces



ROBA Profi Disc with Double Brush – Disc System – Cleaning Brush



Texturing Disc

# ROBA Bottom Sander

Surface sanding machine

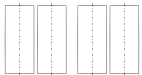
Constructed on modular basis the customer is able to decide between different configurations:



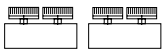
Double Brush



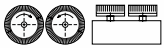
Disc Aggregate



Double Brush –  
Double Brush



Disc Aggregate –  
Disc Aggregate



Disc Aggregate –  
Double Brush

## Operation areas

The ROBA Bottom Sander machine line is constructed for bottom sanding of work pieces in a through feed process for the following applications:

- Intermediate lacquer sanding
- White wood sanding
- MDF sanding

## Sanding method

Furniture and furniture parts manufacturers who proceed their work pieces in sanding lines, face the problem that there is the need to turn their pieces and send them through the line again, if the back side sanding needs to be addressed. This reduces the capacity of the sanding line and causes additional costs.

Therefore many of these users decide to integrate a MB Bottom Sander in their lines. In this way they sand their parts in one pass from top and bottom to be able to transfer them immediately to further processing.

In the basic configuration the Bottom Sander machine series contains a disc system what is a solid basic layout for those customers, who wish an optimized price-performance ratio.

Due to the modular design of this series also other sanding systems, such as a double brush aggregate enhancement, is available. The possibility of different aggregate combinations allows the customer to arrange a machine for his specific application.

A from top working vacuum transport feeds the work pieces secure over all sanding units, which work from the bottom.

In this way the work piece backs have uniformly rounded edges and a perfect surface finish.

# ROBA Bottom Sander

Your move to perfection

# ROBA Bottom Sander

Surface sanding machine

## Advantages of ROBA Bottom Sander principle

1. Easy integration into every sanding line
2. Perfect complement to all top working MB surface sanding machines
3. Vacuum transport system feeds the work pieces secure over the sanding units
4. Machine operated with Touch Screen control, all parameters are programmable
5. Modular machine design for various aggregate configurations
6. Infinitely variable setting of all sanding movements and feed speed
7. Abrasive configuration is free selectable from the MB Flex system



Easy tool change due to extractable disc aggregate



Bottom Sander with disc aggregate / double brush combination



Bottom Sander in line with a ROBA Tech

Bottom Sander with disc aggregate



Bottom Sander with disc aggregate / double brush combination

# ROBA Profile

Molding sanding machine



The feed system consists of gummed transport roller. The side fenders and top pressure systems are easy to adjust.

## Operation areas

The sanding machine Roba Profile is constructed for wood and intermediate lacquer sanding of moldings with the help of brush tools and compound sanding wheels.

Also appropriate for light structuring work.

Due to the solid construction and simple set-up this machine guarantees an optimal serviceability of all its components.

According to customers' demands it can be produced as a one to four sided construction.

## Sanding method

The main idea of the Roba Profile sanding principle is the clockwise followed immediately by counterclockwise sanding: Only in this way it is ensured that, independently of the wood grain structure, all upstanding „hairs“ are denibbed.

The Roba Profile machine in all its configurations is built for sanding moldings found in various furniture, window and joinery companies. Solid, veneered or lacquered.

In the main configuration the Roba Profile machine contains two rotational sanding heads and a pressure roller system. Set up in this way it is a solid basic layout for those customers who wish an optimized price-performance ratio.

Due to the modular construction of the Roba Profile series, the machine can be configured to every customers demand. E.g. an four double brush machine is able to sand profiled moldings from all four sides.

Equipped with the MB Flex brush systems the machine is very easy and fast maintained to be set-up for a new profile. Divergently to the known systems based on sanding belts the Roba Profile brush system forgives a not strictly exact setting of the aggregates. Centralized set up for the side guides and the top pressure roller system and programming via Touch Screen make sure that even not experienced personnel is able to maintain such a machine. In only a couple of minutes a Roba Profile is ready to proceed.

Further on this machine type is used for intermediate lacquer sanding. For that application often feed speeds up to 150 m/min (492 ft/min) are necessary. The standard working width is 300 mm.

# ROBA Profile

Your move to perfection

## Advantages of the ROBA Profile principle summarized

1. Clockwise followed by counterclockwise sanding ensures best results.
2. Pressure roller system will hold work pieces from 330mm safely. Back-to-back feeding of shorter parts is also possible.
3. Centralized set up for the side guides and top pressure system.
4. Very easy maintenance and set-up.
5. Extra-large tools improve the sanding result.
6. Infinite variable setting of the head rotations and feed speed.
7. Oscillation of the sanding aggregates for better utilization of the abrasives.
8. High feed speeds are technical possible.
9. Modular construction meets every customer demand without complicating the machine.
10. Abrasive configuration is freely selectable from the MB Flex system.



Double brush working clock- and counterclockwise



All sanding units oscillate taking into account part dimensions.

This ensures that the abrasives are always fully utilized.



Roba Profile configuration with double brush sanding heads guarantees best results.

# ROBA Belt

Molding sanding machine



RB300 aggregate  
with motorized  
height setting and  
oscillation

## Operation areas

The ROBA Belt brush belt sanding system is a unique development of MB for molding and panel processing.

Operational areas are solid wood, MDF and veneer sanding, as well as sealer sanding.

The ROBA Belt machine in all configurations is built for sanding moldings found in various furniture, window and joinery companies. Solid, veneered or lacquered. Due to the modular construction of the ROBA Belt line, the machine can be configured to every customer demand, even to a four side sanding layout. Equipped with the MB Flex brush system the machine can be set-up very easy and fast to a new profile.



Calibration and  
finish belt sanding  
aggregate BA300

## Sanding method

The main idea of the ROBA Belt principle is to avoid the main disadvantage of all today known drum based brush sanding machines: Those who work normally with sanding drums with a diameter of about 310 mm touch the workpiece only in a very small area. Only in the vertex of the circumference of the tool a sanding process is possible.

The innovative ROBA Belt is equipped with a totally new developed sanding belt containing 138 sanding strips providing a sanding area of approx. 750 x 300 mm in touch with the work piece. This is unique in the market of brush sanding machines for profiled moldings.

Divergently to the known systems based on sanding belts, the Roba Belt brush system forgives a not strictly exact setting of the aggregates. Centralized set up for the side guides and the top pressure devices make sure that even not experienced personnel is able to maintain such a machine.

Further on this machine type is used for intermediate lacquer sanding. For that often feed speeds up to 150 m/min are necessary and often required by the customers.

In this way all ROBA Belt users can rely on the easy set-up of a brush sander, without the need to take any quality disadvantages into account.

# ROBA Belt

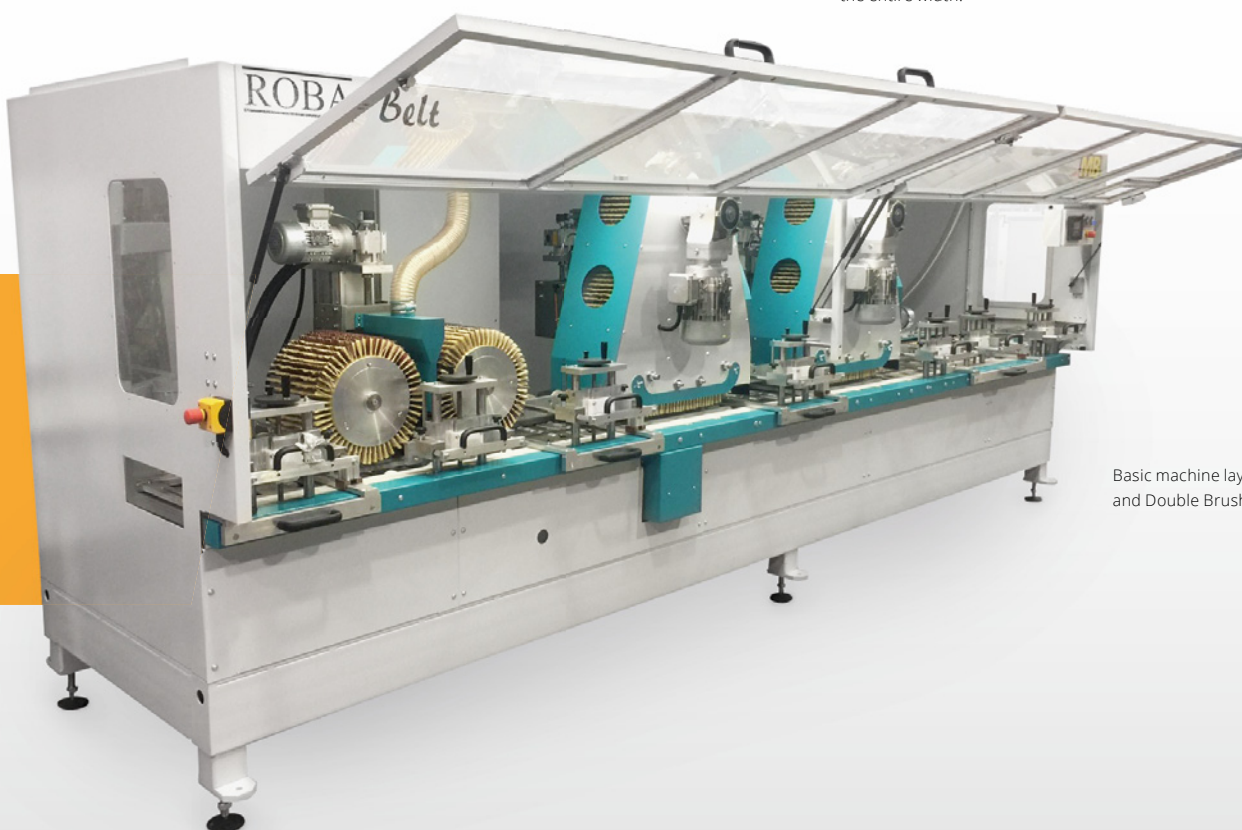
Your move to perfection

## Advantages of the ROBA Belt principle summarized

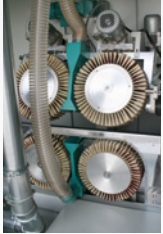
1. Large amounts of sanding paper and large sanding area are highly effective.
2. Pressure roller feed parts from 1100 mm length safely. Feeding back-to-back of shorter parts is also possible.
3. Centralized set up for the side guides and top pressure system.
4. Oscillation of the sanding aggregates for better utilization of the abrasives.
5. A "pulling" sanding avoids wavy surfaces and penetrates deeply into the milled grooves.
6. Infinite variable set up of the head rotations and feed speed.
7. High feed speeds are technical possible.
8. Modular construction meets every customer demand without complicating the machine.
9. Abrasive configuration is freely selectable from the MB Flex system.



ROBA Belt configuration to process floor moldings using a BA300 belt sanding aggregate. The PLC activated and motor driven oscillation movement of all aggregates takes into account, beside the sanding belt grit, also the molding width. This ensures that the abrasives are used on the entire width.



Basic machine layout with RB300 and Double Brush aggregate



Program controlled swivel axis brings the top sanding unit in position.

## Operation areas

The fully automated machine for sanding of single piece profiles in the window industry is designed for the following applications:

- Wood fine sanding
- Impregnation sanding
- Lacquer sanding

## Sanding method

The single piece production offers many advantages to increase productivity within all production steps, but the biggest leap can be achieved in the surface finishing. Here a high personnel input has always been necessary, moreover the variation of parts in window production is very high. Therefore only a highly automated solution is applicable.

Time-consuming setting of the Fentech is omitted, which is made possible by the automatic part recognition at the inlet of the machine and the subsequent motorized adjustment of all sanding units. All wood and wood-aluminum work piece

shapes are detected and converted into a corresponding sanding program.

The work piece scanning calculates the part geometry and tells the aggregates in fractions of a second the basic position to move to. As soon as all units are in position, the work piece is released and sent through the machine.

Extra-large 420 mm diameter sanding tools provide a maximized contact area with the work piece; a step-in and step-out control of the sanding heads ensures a gentle edge treatment and prolongs the life span of the abrasives. The 200 mm high side aggregates, which are responsible for the visible surfaces of the window frames, have an optimized PLC controlled oscillating stroke. Taking into account the height of the part the stroke is always driven in a way that all sanding elements are fully used.

A novelty is the vacuum transport system, making it possible to send all kind of parts through the machine. Even short parts that previously could not be integrated in the sanding process, do not pose a problem anymore.

# ROBA Fentech

Your move to perfection

# ROBA Fentech

## Molding sanding machine

The customer has the option to operate the machine as continuously through feed machine, or enable a reversal automatism in the sanding program. In this case the parts are sent through the machine with about 20 m/min for sanding and then returned back to the operator in rapid traverse of 60 m/min. In this way a one-man operation is possible at any time.

### Advantages of the ROBA Fentech principle

1. Automatic work piece detection by scanner at machine infeed.
2. Motorized positioning of the sanding units for all window profiles IV 70 – 105 and wood-aluminum systems.
3. PLC controlled oscillating aggregate stroke optimizes the use of abrasives.
4. Abrasive tool diameter of 420 mm to optimize the sanding quality in the plain and the milled area.
5. Milled areas are always sanded in their best angle. The work piece scanner detects the optimum angle and the sanding unit automatically moves into position.
6. The machine is available as continuous through feed or reversing plant for a one-man operation.
7. Vacuum transport system for processing short parts.
8. Encapsulated design for increased safety and dust-free environment.
9. Compact and space saving design.



Fully automatic and all-sided sanding of all types of IV 70 – 105 and wood-aluminum windows systems.



The large variety of parts in window industry needs a fully automatic solution.



Large brush diameter to optimize the surface quality. Vacuum transport system also enables short parts.



ROBA Fentech sanding machine.

# ROBA SSM

Molding sanding machine



Side stop setting  
with the help of  
scales

## Operation areas

The molding sanding machine ROBA SSM is specifically designed for MDF and intermediate lacquer sanding of moldings using sanding wheels.

The ROBA SSM is distinguished by its robust construction and easy adjustability of all components. It is manufactured as a one- to three-sided machine, but also available in customized designs according to customer requirements.

## Sanding method

The main idea of the ROBA SSM sanding principle is the clockwise followed immediately by counter-clockwise sanding: Only this way it ensures that, independently of the wood grain structure, all upstanding fibers are denibbed.

The used sanding wheels need be negative shaped in relation to the profile contour. This is either done during the ongoing process or on a separate contouring machine.

Are the incorporated tools in process, an automatic wear compensation takes care of the decreasing tool diameter.

The tools are constantly re-shaping themselves what guarantees a high profile accuracy. In this way all molding details are always sanded precisely while avoiding an undesirable strong rounding of the contour edges.

During processing the sanding pressure is kept continuously on the value stored in sanding program, resulting in a consistent surface finish. An implemented sanding wheel step-in and step-out automatism ensures a preserved use of abrasive tools and protects the front and trail edge of the workpieces from over rounding.

As a special feature the side units, provided that they do not sand profiled contours, can be used with an oscillation mechanism. In this case the workpiece thickness will be saved in the sanding program and will be considered by the PLC to calculate the oscillation stroke. In this way the sanding tool is always used in full extension and there is no incorporation of the profile into the sanding wheel. This avoids a tool change of the side sanding units in most cases if new moldings are coming to the machine.

In case the given molding requires a negative shaped tool, the oscillation stroke can be deselected within the sanding program.

# ROBA SSM

Your move to perfection

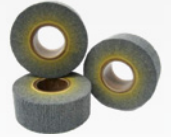
# ROBA SSM

## Molding sanding machine

Further all aggregate positions will be stored in the sanding program and will be approached automatically. In addition all other sanding parameters such as feed rate, wheel rotations, sanding pressure and cycle time of the wear compensation will also be deposited.

Spring preloaded pressure rollers and scaled stop settings make the conversion to a new profile very comfortable.

The modular design of this series can be configured for all conceivable tasks and feed speeds.



MB Flex sanding wheels used in the ROBA SSM

## Advantages of ROBA SSM principle

1. Clockwise and counterclockwise sanding wheel rotation improves the result.
2. Spring preloaded pressure rollers minimize the adjustment effort.
3. Central adjustment of the side stops and the pressure roller using scales.
4. Sanding aggregate oscillation ensures an optimal tool wear and improves the surface quality.
5. All sanding parameters and aggregate positions are stored in sanding programs.
6. Encapsulated machine increases safety and eliminates dust strain.
7. Technically also high feed rates can be realized.
8. Modular construction meets every customers demand without complicating the machine
9. Abrasive configuration is freely selectable from the MB Flex system.



Machine with twelve sanding aggregates for high speed sanding of MDF moldings

Fully encapsulated machine for secure and dust free operation

# ROBA Anti Dust

Surface cleaning machine

Transverse working cleaning aggregates, consisting of brush or belt unit. On demand top and bottom units.



Special feather brushes already used in the automotive industry. The Anti Dust takes advantage of this experience.



An ionization bar with integrated air knife takes the static load off the work pieces.



## Operation areas

ROBA Anti Dust, the alternative cleaning solution for furniture parts is suitable for the following operation areas:

- Cleaning of furniture parts before lacquer application
- Cleaning of furniture parts before lamination
- Cleaning of furniture parts before packing

## Cleaning method

The ROBA Anti Dust as through feed solution guarantees high productivity with best cleaning results. Solution as stand-alone version or for large quantities, or placed directly in front of a lacquering line.

Many users have the problem of imbedded dirt and dust residues after lacquer application. These particles are not removable anymore, because they are placed under the lacquer layer. Ordinary machines with a cleaning drums transverse to feed direction solve the cleaning problem only insufficient because they are only able to remove dust from the grooves in feed direction,

# ROBA Anti Dust

Your move to perfection

leaving dust in the crosswise grooves. Even worse they sweep all dust into these grooves.

The new MB system solves the problem with the help of an additional cross unit. This unit takes care that the whole part is cleaned completely, even in complicated contours. Special brushes collect the dust, ionization bars reduce static loads, and a blower system finishes the cleaning process. On demand the machine is also deliverable with a bottom cleaning unit.

## Advantages of the ROBA Anti Dust principle

1. Optimized cleaning from dust and dirt residues
2. Cleans all contours, even millings transverse to feed direction
3. As option the machine can be delivered with bottom unit for backside cleaning



Transverse cleaning unit, optional also from bottom. On demand as brush or belt clean unit deliverable



# ROBA Profi Clean

Surface cleaning machine



The ROBA Profi Clean is suitable for cleaning of all kind of laminated furniture parts

## Operation areas

- Backside cleaning of thermofoiled doors
- Cleaning of laminated furniture panels

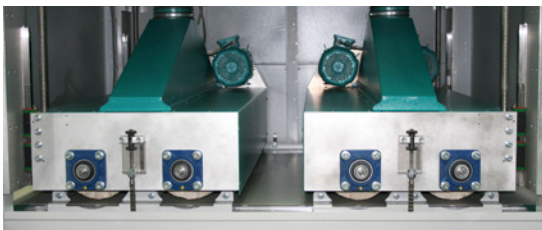
The ROBA Profi Clean as through feed solution guarantees high productivity with best cleaning results.



Double brush aggregate work clock- and counterclockwise, equipped with special cotton brushes for secure cleaning.

## Advantages of the ROBA Profi Clean principle:

1. Optimized cleaning from dust and glue residues
2. Optimal rounding of sharp edges



## Cleaning method

The ROBA Profi Clean machine line guarantees as a through feed solution high productivity. As a stand-alone solution for large quantities or directly behind the turnover/backside trimming equipment of a thermofoiling line. The only solution that is able to feed a complete batch of doors coming out of a membrane press.

During this operation the laminated fronts get cleaned from glue residues and simultaneously all four edges are slightly rounded without the risk of delamination. Therefore the parts do not require any further processing steps and can be forwarded directly to the packaging. This is ensured by two or four clockwise and counterclockwise working cleaning drums, which are equipped with special cotton brushes.

Further on this machine is also able to show its high capability in the cleaning of all other laminated furniture parts.



**ROBA  
Profi Clean**  
Your move to perfection

ROBA Profi Clean equipped with two double brush cleaning aggregates

# ROBA Struktumat

Distressing machine

## Operation areas

ROBA Struktumat is the alternative in the area of distressing applications for a fair price relation. The concept is used for:

- Creating rustic styled surfaces on solid wood or veneered panels
- Cleaning after distressing processes

The Struktumat machine line guarantees as a through feed solution high productivity.

## Distressing method

The machine is equipped with a constant desk level and strong and solid motor drives up to 15 KW power. Machine for industrial use satisfying high expectations. To be integrated into every production line. The basic machine is set up with two units but can be equipped with further aggregates to achieve even more intense results.

Depending on customer demands the machine will be set-up with special distressing tools.

According to the intensity of distressing MB uses steel brushes that brush out the soft grain while leaving the hard grain untouched. The following Nylon brush will give the rustic style an even more optical depth and removes wood fibers that would negatively interfere the finishing.



The ROBA Struktumat can be set up with different tools according customer demands

## Advantages of the ROBA Struktumat principle

1. Optimal distressed and finished surfaces
2. Optimal fine-tuned results due to motorized axis setting
3. Programming and machine control with the help of a Touch Screen



Distressing disc brushes used in the new developed Profi Disc aggregate



Distressing aggregates for rustic style and sanding applications. Set up to customer requirements.

**ROBA**  
**Struktumat**  
Your move to perfection



# ROBA Duplex

Edge sanding machine

ROBA Duplex with 350 und 400 mm sanding area is often preferred for the sanding of boxes in all dimensions.



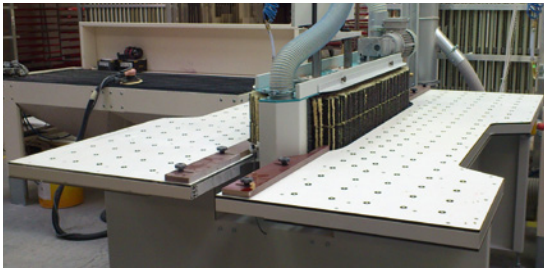
## Operation areas

The belt sanding machine has been developed for MDF, white wood, sealer and primer sanding purposes.

Customers:

- Joiner's workshops
- Industrial plants
- Wooden stairs manufacturers
- Furniture door producers

Twin Duplex with two sanding areas placed in a sanding island



The ROBA Duplex is famous for its simple operation and optimal results. Processing times are considerably shortened.

Two sanding areas



# ROBA Duplex

Your move to perfection

## Sanding method

The ROBA Simplex/Duplex consists of one or two sanding areas of 100 mm. The height adjustment is done pneumatically in fast motion mode.

In the Duplex machine two different sanding paper settings can be used. For example for intense wood sanding a grit 120 is placed in the upper belt, while the lower belt contains a grit 240 for the fine finishing or sealer sanding. The change of the sanding area is done by a pneumatically enforced movement by the use of a manual switch. That means that no pre settings are needed if the operator wants to change the sanding operation.

The system is based on a sanding belt system instead of rotating brushes. The advantages compared to rotating brushes are obvious: The system offers an effective and plain surface sanding. The work pieces must only be pressed against

the sanding belt and not, compared to a normal brush system, be moved from right to left through the brush. This results in considerable lower processing time.

For companies needing even more sanding capacity coming from the ROBA Duplex, MB offers the new developed Twin Duplex. The machine is equipped with two work tables and offers access to the sanding belt from both sides. In this way the machine can be used by two operators simultaneously.

If there is a need to sand long work pieces as e. g. table tops, MB offers the new ROBA Duplex XL. This machine has a work range of 1900mm in combination with all other options the standard Duplex offers.



ROBA Duplex aggregate side view: 30 mm oscillation and pneumatic height adjustment to change sanding area



ROBA Duplex for edge processing of furniture doors



Simple operation of all control elements



# ROBA Profi Edge

## Edge sanding machine



A horizontal and a swiveling sanding unit to take over the edge sanding.



The grinding of solid wood inserts is taken over by the pivoting unit.

Different sanding times and speeds for the longitudinal and end grain area can be stored in the sanding program.

## Operation areas

The edge sanding machine has been developed for MDF, white wood, intermediate lacquer and MDF primer sanding.

Customers:

- Joiner's workshops
- Industrial plants
- Cabinet door producers
- Door production

## Sanding method

The ROBA Profi Edge is a solution for sanding edges and fillings of all occurrences. Using a sanding belt, which is fitted with abrasive brushes, guarantees an effective machining of the workpieces. Full surface contact and dragging processing ensures that even the end grain areas of solid wood parts are perfectly sanded. When sanding MDF upstanding fibers are removed and the surface is smoothened. In both cases the further processing in the painting department is facilitated considerably.

The machine has two sanding belts: a horizontally aligned, responsible for the sanding of the vertical plain edge areas of a workpiece, a pivotable responsible for the sanding of the upper shaped contours. To make the processing user-friendly and to ensure a quick changeover, the positions of the sanding units and all involved parameters are stored in a program to be initiated by selecting a program number or using a bar code reader. The aggregates move numerically controlled into the stored position and all sanding parameters are updated. The actual sanding position is approached via vertical aggregate movement in high speed mode, the sanding area itself will be executed in processing speed and a programmed time.

For the four edges of a cabinet door or an insert panel different processing times can be stored in the program, as e.g. the end grain area always requires a more intensive sanding. MDF parts, however, have usually always the same processing times. For customers who, for example, only want to sand shaped insert panels that do not have a vertical edge to be sanded, the ROBA Profi Edge is offered in a version only with the swiveling aggregate installed. All features of the machine as described above are retained in this version.



**ROBA  
Profi Edge**  
Your move to perfection

# ROBA Twin Flat

## Edge sanding machine

### Operation areas

The ROBA Twin Flat is developed especially for the window manufacturers who do single piece production of window rails. However, it also finds possible implementations in joinery workshops and industrial plants.

Operation areas:

- Wood fine sanding
- Impregnation sanding
- Intermediate lacquer sanding

### Sanding method

The ROBA Twin Flat machine stands out due to the simple operation and optimal denibbing results. Processing time is shortened considerably.

The machine sanding aggregate is divided into two areas: The flat part of the work piece is

sanded in an area with a short sanding paper setting. This area is 150 mm wide. The shaped profile part is sanded in a second area, set-up with narrow slotted paper, to be able to get easily into the depths of the profiling. This area is 100 mm wide.

In this way the four sided denibbing process lasts only a few seconds and does not strain the employee due to the ergonomically favourable construction of the "lying" sanding aggregate.

The new constructed Twin Flat contains two brush belts which movement directions are outward orientated. This avoids a too aggressive rounding of the edges and burn through during sealer sanding procedures. Another advantage is the improved handling of long work pieces.

In this way the Twin Flat is also favourable for companies who need to sand small batches of long parts fast and price reasonable.



Easy to replace sanding segments



Two different sanding areas: 100 mm and 150 mm for different sanding paper settings



Impregnated wooden window profiles waiting for the sanding with the Twin Flat. Without set-up time the window batches are always held together, no sorting before or after sanding necessary.

The profile diversity in the window industry is very extensive. For efficient sanding of these parts, a sanding machine has to be very flexible without any set-up efforts.

**ROBA**  
**Twin Flat**  
Your move to perfection



Roba Twin Flat: New constructed machine for improved material handling of long parts. The movement direction of both belts is outward orientated to avoid too hard edge treatment.

# Material handling

Material handling



Window moldings  
aligned with high  
precision



Automation solution  
Profiturn S for mill-  
ing of window sash

## Operation areas

- Machine feeding
- Machine linking
- Material handling

Part handling by linking machines and equipment loading is another production leg of MB Maschinenbau.

In particular the window producing industry likes to use MB products, as they often need to be customized to special demands. High cycle rates and complex processes can be realized with MB handling systems.



Part conveyor to out-  
feed and align work  
pieces

## Material handling

Your move to perfection

## Operation areas

- Customized solutions for special applications
- As supplement for all MB sanding machines

MB Maschinenbau has always been watching closely the needs of its customers. If sanding tasks cannot be covered by the existing range of machines, MB is able to solve customer requirements with new designs.

An example of such a requirement is a side sanding unit specially designed for a customer which is now a standard option for all MB surface sanding machines:

The effective and easy to operate MB series of surface sanders such as ROBA Tech, ROBA Profi Brush, ROBA BIG, ROBA Profi Clean and ROBA Profi Disc are appreciated by many customers. But quite often there is the need for an additional edge sanding in one operation. With the new



MB sanding machines integrated into a robot cell

sanding unit customers are now able to integrate a side processing.

Individually set-up this additional unit can be integrated into any MB surface sander. Up to five vertical units are positioned against each other by means of a spindle, or if necessary, completely moved out of the working field.

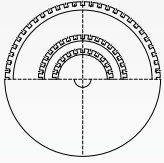


## Special machines

Your move to perfection

# MB Flex

## Brush sanding system



The MB Flex system can offer sanding cores from 56mm up to 280mm

### Operation area

The brush sanding system is used in the wood-working industry for white wood and sealer sanding, as well as for polishing oil and wax applications. The sanding brush consists of a core to accommodate the abrasive segments. The core is not a subject of wear and because of this he can be used with new sanding segments for different jobs at any time.



The MB-Soft support brush offers more rigid sanding on highly profiled surfaces

Due to the plug-in brush system the sanding heads can be set up in different configurations. With this possibility the customer can prepare an abrasive brush which is suitable for a wide range of work pieces with different requirements.

### Configuration

The MB Flex program consists of a wear-free sanding core which has, depending on the core diameter, a varying number of keyways. Starting with a sanding core of 56mm diameter and 12 slots, up to a sanding core with a diameter of 280mm and 54 slots, 11 different combinations are possible. The MB Flex standard core is made out of resistant aluminum and has a diameter of 160mm with 36 keyways.

As sanding media different brush height of 30mm, 45mm, 60mm and 75mm are available. A grit range from K24 to K400 using Aluminum Oxide or Silicon Carbide can be delivered. Depending on the local possibilities the core diameter in combination with the selected abrasive strips should always target a maximum diameter. The larger the diameter, the more abrasives are involved, the better the sanding result and the lifespan of the tools.

The selection of the abrasive slotting depends on the sanding task. The finer the contour to be sanded, the narrower the slit must be chosen

# MB Flex

Your move to perfection

## MB Flex

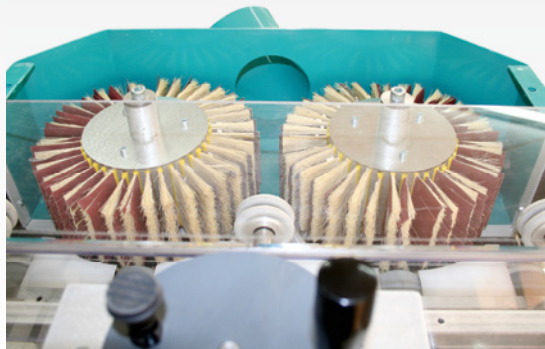
### Brush sanding system

accordingly. Flat work pieces demand a wider slit of 20 mm or more. This is particularly recommended for solid wood sanding.

In case of burned through edges during a base coat sanding processes the slot width should be reduced.

Another variation on the MB Flex system is the "Super Flex" support brush. This brush is recommended whenever surface scratches or burned through edges must be avoided. Particularly in the field of sealer sanding this kind of support brush has proven very useful.

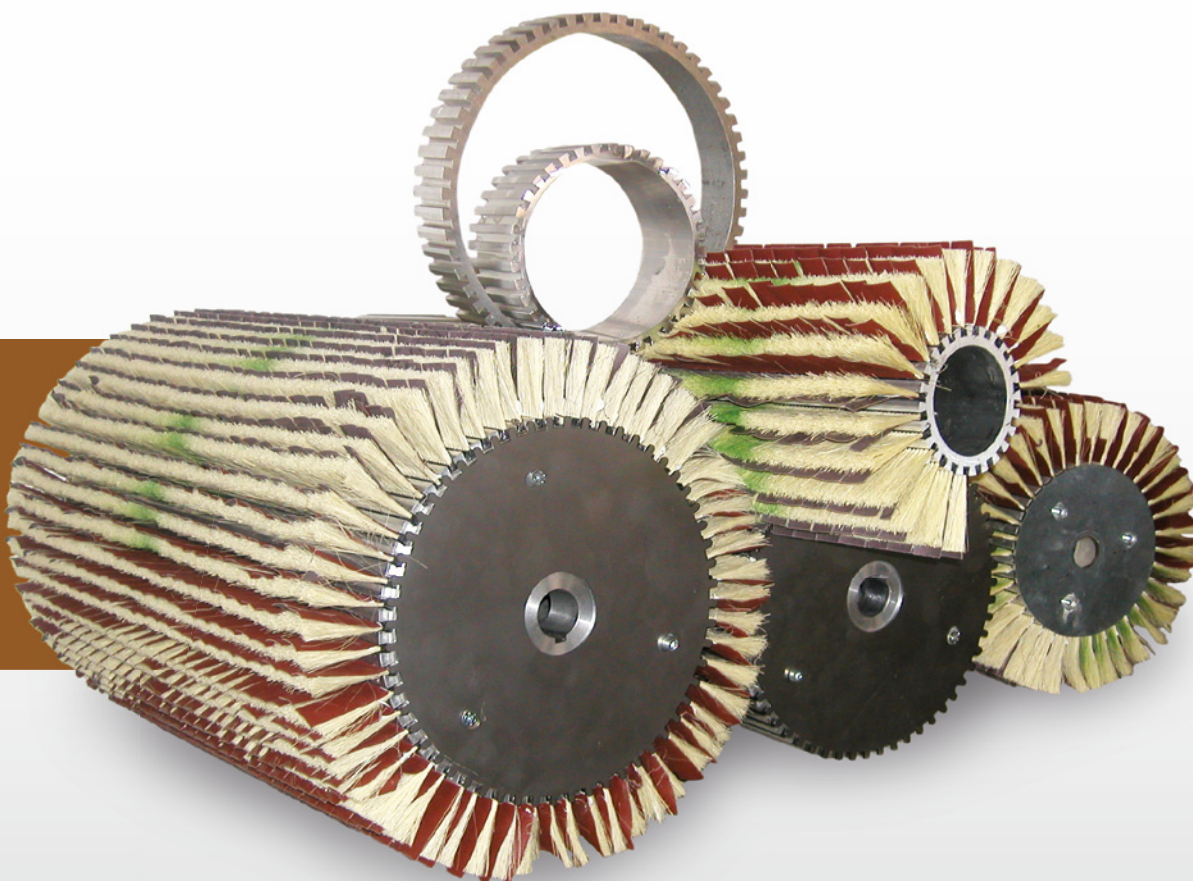
Since the MB Flex brush system must also be suitable for machines of other brands, MB offers dove tails with different dimensions. In this way the customer can be sure that he is always able to use the proven MB quality on his machine.



MB Flex sanding head installed in a double brush



Even highly shaped work pieces can be sanded with the MB Flex system to achieve perfect results.



MB Flex sanding heads are available in various diameter and lengths



*Your move  
to perfection*

**MB Maschinenbau GmbH**

Zeppelinstraße 24  
32051 Herford, Germany  
Phone: +49 5221 / 99 413 -0  
Fax: +49 5221 / 99 413 -20

[info@mb-maschinenbau.de](mailto:info@mb-maschinenbau.de)  
[www.mb-machinery.com](http://www.mb-machinery.com)