



SHEET METAL PROCESSING MACHINES

2022 PUBLICATION



“WORKING AT THE CUTTING EDGE!” “IT’S IN OUR DNA”

For the ultimate result in deburring and edge rounding, and the perfect precision in surface treatment and stock removal we always do that little bit extra.

Pushing the boundaries with regard to technology, innovative power and flexibility is in our DNA. This is one of the reasons why we are known as specialists in standard and custom-made work. Timesavers is the creative party that likes nothing better than taking a constructive approach and putting forward technically well-thought-out solutions with the best results. This working method suits us: we want to offer our customers added value, that's what motivates us and keeps us ahead!

TIMESAVERS HAS BEEN SETTING THE STANDARDS FOR YEARS NOW

Timesavers is the largest producer of wide abrasive belt equipment in the world with sites in Minneapolis (USA) and Goes (the Netherlands). With more than 80 years of experience and a huge customer base worldwide, we recognise like no other the need for and strength of constant development and innovation. We provide a total package to our customers with our technical solutions, international production, extensive application knowledge and unmatched after-sales support. This is all brought about by a dedicated team with a sharp focus on quality and customer satisfaction.

YOUR PRODUCT DESERVES TOP QUALITY

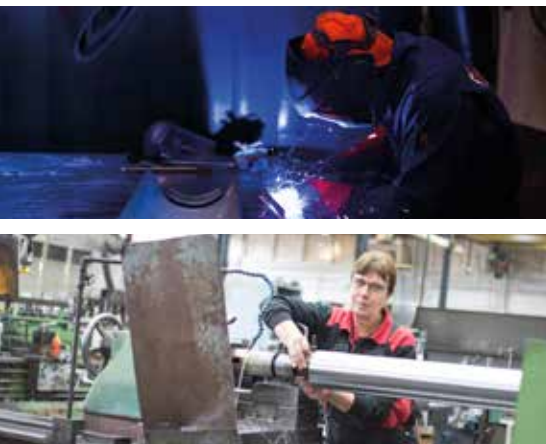
The Timesavers range is specialised abrasive equipment for the optimal processing of products made of steel, stainless steel, aluminium and zincor coated (including plastic films or embossed surfaces). Apart from these standard metal types, our machines can also process various types of stone, concrete, composites and special metals. Are you looking for perfection in deburring, edge rounding, finishing or precision grinding with the highest attainable quality and with an unmatched finish? Choose Timesavers.

CREATIVITY AND TECHNOLOGY GO HAND-IN-HAND AT TIMESAVERS

We adhere to the principle that different options are required for different applications and there is nobody who offers a broader range of machines than Timesavers. In addition, Timesavers also develops and produces machines for special applications up to complete turnkey project solutions with various types of peripheral equipment. Timesavers thinks in terms of solutions and likes to meet your challenge with vigour and enthusiasm.

THE WORLD IS OUR PLAYING FIELD

More than 50,000 Timesavers' grinding machines have been sold worldwide of which a large number are still operational today. More than 100 factory-trained independent distributors are ready to give service worldwide. In addition, the organisation has a team of engineers who are stationed strategically and provide support. We will always know how to help you, regardless of where you may be in the world.





10
.....
SERIES



12
.....
SERIES



22
.....
SERIES



22
.....
RB SERIES



31
.....
SERIES



32
.....
RB SERIES



41
.....
SERIES



42
.....
SERIES



42
.....
RB SERIES



62
.....
SERIES



71
.....
SERIES



72
.....
SERIES



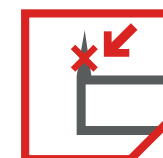
81
.....
SERIES

Table of contents

Deburring Edge rounding Finishing Precision grinding Laser oxide removal Heavy slag removal

DEBURRING EDGE ROUNDING									
10 series	page 8	o	o	o					
12 series	page 10	o		o					
22 series	page 12	o	o	o				o	
22 RB series	page 14	o	o	o		o			
31 series	page 16	o		o					
32 RB series	page 18	o	o	o		o		o	
41 series	page 20	o	o	o	o				
42 series	page 22	o	o	o					
42 RB series	page 24	o	o	o		o		o	
STAINLESS STEEL FINISHING									
62 series	page 32			o					
71/72 series	page 34			o					
PRECISION GRINDING									
81 series	page 36			o	o				

TIMESAVERS: THE BEST WHEN IT COMES TO SHEET METAL PROCESSING MACHINES



DEBURRING WITH A TIMESAVERS DEBURRING MACHINE

Deburring is the removal of irregularities and sharp edges on metal products. They are often caused by machining work such as laser, water jet, punched or plasma cutting. Discover Timesavers' broad machine line for effective and efficient deburring.



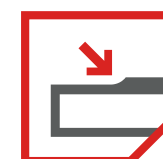
ARE YOU LOOKING FOR THE MOST BEAUTIFUL AND BEST EDGE ROUNDING OF METAL?

A radius is created on the edge of the metal during edge rounding of metal products. This ensures that the sharpness of the edge is removed and it is given a uniform rounding. Timesavers offers perfection in edge rounding with a radius of up to 2 mm in a single pass.



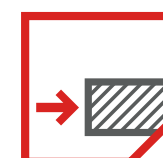
GET THE BEST FINISH WITH TIMESAVERS

Surface finishing applies to, for example, stainless steel and aluminium in several versions: a hairline, a brush and a grain finish. Timesavers offers a wide range of quality finishing machines with abrasive belts and brushes.



PRECISION GRINDING WITH TIMESAVERS' INNOVATIVE GRINDING TECHNOLOGY

Surplus material such as the oxide layer is removed from metal products through surface grinding when you apply precision grinding. Timesavers is the expert in precision grinding where tolerances of up to 0.02 mm can be achieved.



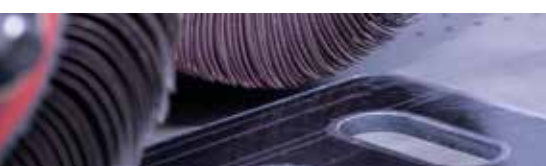
REMOVAL OF LASER OXIDE SKIN

Oxide skin occurs on metal and stainless steel when laser cutting using oxygen, and it must be removed for subsequent coating processes or welding. Timesavers has developed a perfect solution for the removal of laser oxide, both from the surface, as well as from the sides of the product.



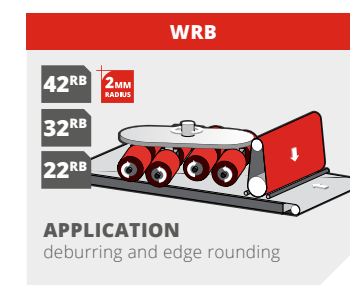
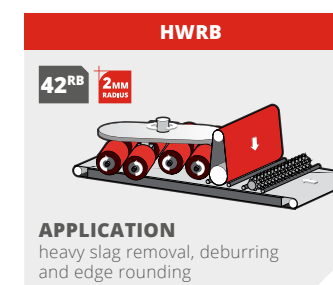
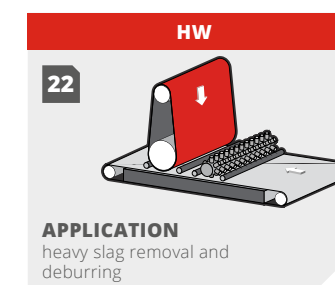
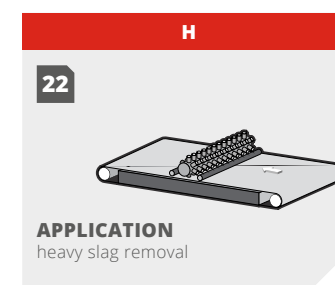
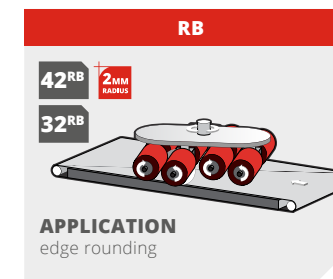
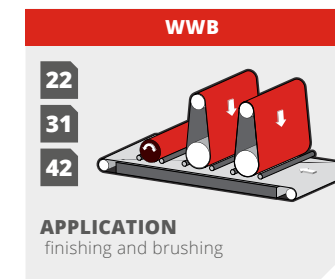
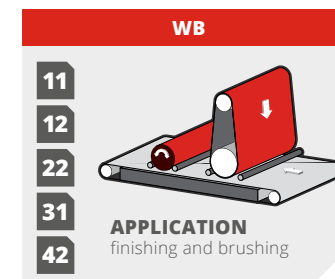
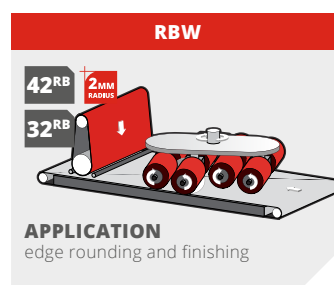
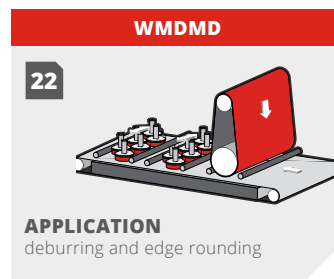
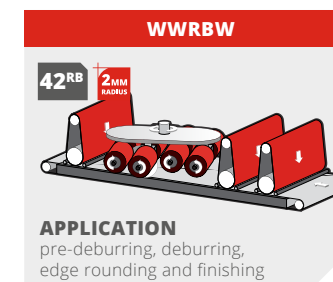
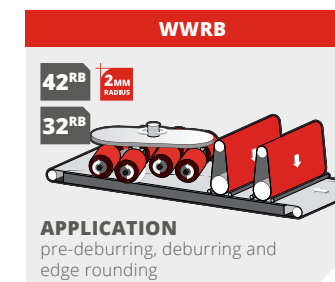
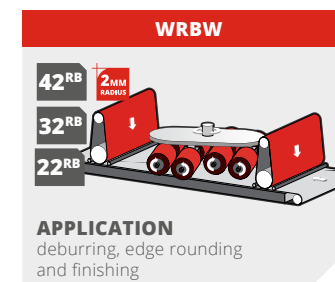
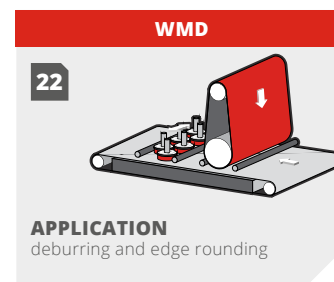
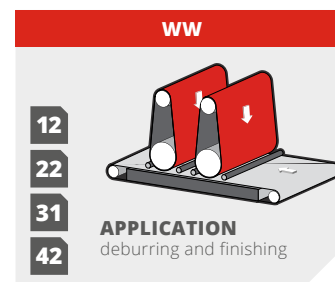
EASY REMOVAL OF HEAVY SLAG

Slag occurs when metal melts because of, for example, autogenous and plasma cutting. Slag removal requires a special approach for which Timesavers offers the ultimate solutions.



OVERVIEW POSSIBLE MACHINE CONFIGURATIONS

Possible machine configurations for the 12 till 42 RB series machines to deburr, round edge, finish, remove laser oxide or remove heavy slag.



W - Roller **RB** - Rotary Brush **H** - Hammerhead
B - Brush **MD** - Multi Disc

TIMESAVERS OFFERS A PREMIUM SOLUTION TO EVERY SPECIFIC NEED

THE 10 SERIES MANUAL GRINDER



The 10 series is Timesavers' versatile starter model and the cost saving alternative for manual deburring, edge rounding and/or finishing of metal.

The manual grinder for fast deburring, edge rounding and finishing of metal

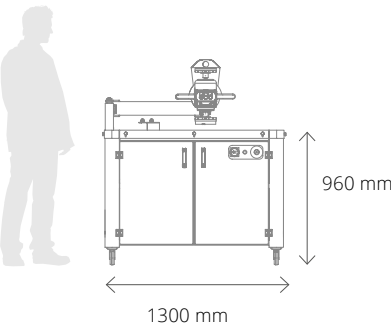
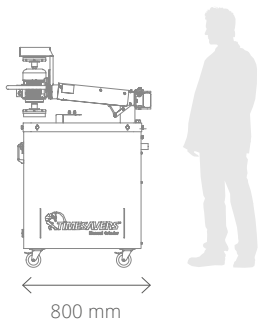
This versatile machine has two heads, an easy to change grinding pad and a brush. The different kind of brushes can take care of deburring, edge rounding, finishing, laser oxide removal and heavy slag removal. Also, mirror finish can be created if required. With the 180 degrees rotating shaft is it easy to rapid switching between different consumables.

The manual grinder is ergonomically responsibly designed for optimal operating conditions

The machine has a special tabletop with a high friction surface to fix the parts during processing. Smaller parts are kept fixed in their place through the integrated vacuum.

Link the operating ease of the manual grinder to an increased production capacity

Get information from Timesavers' experts. They will gladly provide good advice.



STANDARD VERSION WITH VACUUM:

- + 2-position movable arm with weight compensation.
- + Starter set to process different materials.
- + Grinding dust is collected in a container, that can be cleaned easily.
- + Frequency controlled drive.
- + Worktable 1300 x 800 mm.
- + Weight approx. 270 kg.
- + Vacuum table size 260 x 310 for small parts.
- + 0.75 kW main motor.
- + Height-adjustable side guards for personal protection and machining of larger parts.
- + CE-certified.
- + 400 Volt/50 Hz connection with plug.

APPLICATIONS AND BENEFITS:

- + Reduction in consumables costs by long-life brushes.
- + 3 - 4 times faster compared to hand operation.
- + Even edge rounding/deburring.
- + Affordable entry-level model.
- + Wheels for easy movement.
- + Optimal user-friendliness.

Available configurations (mm):

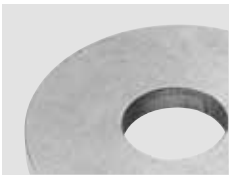
MG 1300 x 880

Specifications:

Number of heads	2
Head types	disc, brush
Disc/brush diameter	150 mm
Rotating grinding heads	180°

Specifications:

Table	1300 x 800 mm (960 mm working height)
Vacuum area	260 x 310 mm
Maximum thickness of a part	100 mm
Power supply	400 Volt / 2.5 kW / 11.6 A
Applications	deburring, edge rounding, laser oxide removal, slag removal, finishing



12 SERIES FOR DRY DEBURRING AND FINISHING OF SMALL PARTS



Timesavers' deburring machine 12 series has been the standard in the metal industry for more than forty years. Thousands of these economically attractive deburring machines are being used worldwide for the deburring and finishing of small parts.

The 12 series is available in a 600 mm working width

This dry working deburring machine with a 600 mm wide conveyor belt is available with an abrasive belt and/or brush for efficient deburring and finishing.

Efficiency and ease of use

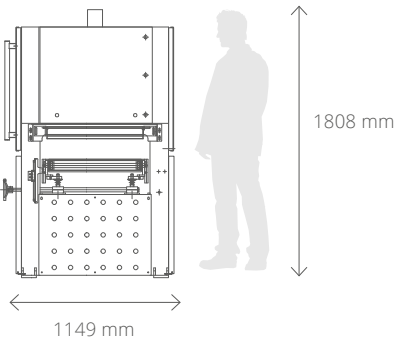
Operation of all Timesavers machines is ergonomic and intuitive. The 12 series are perfect examples of this. Please feel free to ask for more information.

STANDARD VERSION:

- + Electric table height adjustment 0 - 125 mm.
- + Digital thickness readout in mm, on display.
- + Throughput speed W: 3 - 9 m/min | WW+WB: 1.5 - 9 m/min.
- + CE-certified.

APPLICATIONS AND BENEFITS:

- + Removal of vertical burrs from punched, laser and waterjet-cut parts.
- + Stainless steel, steel, aluminium, copper, etc.
- + Pre-grinding of heavy burrs and finishing in one pass on machine with multiple heads.
- + Option of edge breaking / fine grinding with a brush.
- + Optimal ease of operation.



Available configurations (mm):

W	600
WW	600
WB	600

Specifications:

Number of heads	1 - 2
Head types	roller, brush
Working width	600 mm
Main drive motor	5 or 7.5 kW

Specifications:

Transport speed	3 - 9 and 1.5 - 9 m/min
Abrasive belt length	1525 mm
Contact roller diameter	150 mm
Applications	deburring, finishing



THE 22 SERIES FOR DRY DEBURRING AND PERFECT FINISHING OR HEAVY SLAG REMOVAL

The 22 series is suitable for the dry finishing and deburring of metal. This versatile machine is available in three nominal widths: 900 mm, 1050 mm and 1280 mm. It can be equipped with a total of three heads for several applications.

Reduction of costs and an increase in efficiency

By combining an abrasive belt and a brush, products can be deburred and rounded in one pass. The machine is made for deburring and edge rounding of laser cut parts while incurring low user costs. The multi disc head which consists out of six deburring brushes which rotate against each other can create a large rounding and nice finish.

Effective removal of heavy slag

The Hammerhead is specially developed for fast removal of heavy slag on plasma and flame cut steel. As an option, the machine can have a wide belt grinding head behind the Hammerhead for edge breaking and further deburring.

For more information ask your Timesavers' expert.



Available configurations (mm):

H	900			
W	900	1050		1280
HW	900			
WB	900	1050		1280
WW	900	1050		1280
WWB	900	1050		1280
WMD	900	1050		
WMDMD	900	1050		

Specifications:

Number of heads	1 - 3
Head types	roller, brush, multi disc, hammerhead
Working width	900, 1050, 1280 mm
Abrasive belt length	1900, 2620 mm

Specifications:

Table opening	0 - 125 mm
Transport speed	2.5 - 14 m/min
Contact roller diameter	150, 200 mm
Applications	deburring, edge rounding, slag removal, finishing

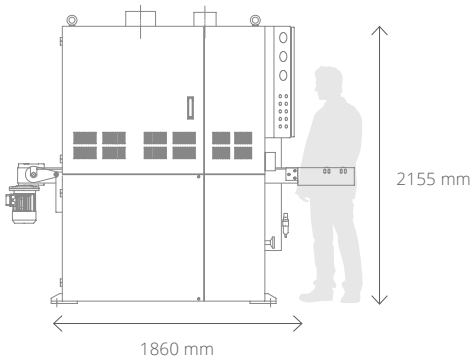


STANDARD VERSION:

- Table mounted on four synchronous spindles.
- Digital thickness readout in mm, on display.
- Frequency controlled transport motor, 2.5 - 14 m/min.
- Automatic table height adjustment 0 - 125 mm.
- Electronic oscillation.
- Dust extraction hoods and connections on top.
- CE-certified.

APPLICATIONS AND BENEFITS:

- Removal of vertical burrs from punched, laser and waterjet-cut parts.
- Stainless steel, steel, aluminium, copper, etc.
- Deburring and surface finishing in one throughput when using multiple heads.
- Edge breaking by means of cylindrical Nylon web brushes (B), flap brushes (B) or small brushes (MD).
- Finishing grinding / brushing.
- Very low operating costs and high production capacity.



THE MOST COMPACT AND VERSATILE ROTARY BRUSH MACHINE



The 22 RB series is the most compact dry operating machine for deburring, edge rounding, finishing, and/or laser oxide removal of various sheet metal parts.

The ideal machine for companies with a smaller capacity requirement, but still requiring the popular features of the 32 RB and 42 RB series

This machine enables customers with smaller production demand and corresponding budget to deburr, edge round and finish parts perfectly.

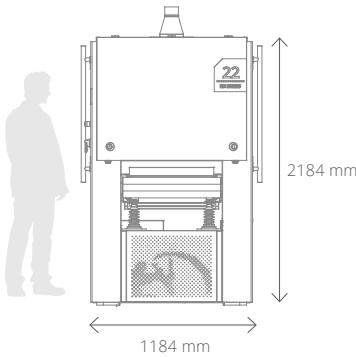
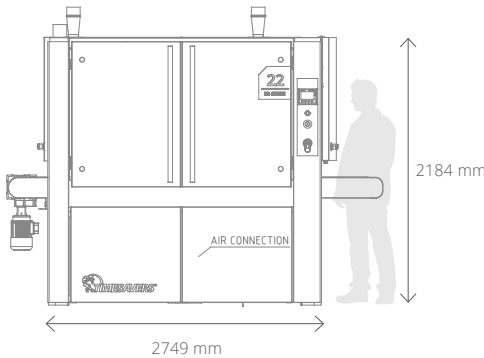
Reliable and uniform deburring and edge rounding results due to an automated process

Ergonomically demanding and dirty work such as grinding and manual edge rounding can be cost-efficiently automated with the 22 RB series. As market demand for consistent and repeatable grinding, deburring and edge rounding increases, the 22 RB series is the ultimate machine to help your company improve these processes to the highest standards.

Constant results thanks to smart software and sensors

The machine is equipped with Siemens PLC and HMI, allowing the process and parameters to be adjusted automatically. Unique in this machine segment is that the 22 RB series is suitable for the use of Cobots and integration in an Industry 4.0 / Smart Industry software platform.

Let one of our Timesavers experts advise you.



STANDARD VERSION:

- + Machine working width of 600 mm.
- + Efficient ergonomic operation through user-friendly Siemens HMI.
- + Vacuum table for processing small products (50 x 50 mm).
- + Vacuum table with an integrated automatic cleaning cycle.
- + Frequency controlled motors (roller and brushes) for flexibility during the process.
- + Easily changeable brushes.
- + Various brush types are available for multifunctional use of materials.
- + Adjustable table height 0 - 100 mm.
- + Transport speed from 0.5 - 8 m/min.
- + CE-certified.

APPLICATIONS AND BENEFITS:

- + Very compact rotary brush machine.
- + The brush contact distance of 850 mm.
- + The four brushes have a total of 12 m² of abrasive material.
- + Low tooling costs and very low energy consumption.
- + Maximum user-friendliness and an optimal process visibility.
- + Removal of burrs on laser-cut, waterjet-cut and punched products.
- + Processable materials: stainless steel, steel, aluminium, copper etc.
- + Removal of large burrs, laser oxide and finishing of surfaces in one pass.
- + Edge rounding/finishing of metal with brushes.
- + Removal of oxide skin with metal wire brushes.

Available configurations (mm):

WRB	600
WRBW	600

Specifications:

Number of heads	2 - 3
Head types	roller, rotary brush
Working width	600 mm
Main drive motor	7.5 kW
Number of brushes	4 (quick change brush system)

Specifications:

Table opening	0 - 100 mm
Transport speed	0.5 - 8 m/min
Brush diameter	300 mm
Contact roller diameter	150 mm
Applications	deburring, edge rounding, laser oxide removal, finishing



THE 31 SERIES FOR WET DEBURRING AND FINISHING



The 31 series deburring and finishing machine is available in a width of 450 mm and 900 mm. The machine is suitable for deburring and finishing of heat sensitive materials.

Two widths and innumerable possibilities

The 31 series could be equipped with a powerful grinding belt and a brush head and therefore it is the ideal machine for grinding and finishing square pipes and sheet metal.

The 31 series, a complete Timesavers' machine

This complete machine has an integrated coolant filter system to cool the metal products during machining. This ensures that the abrasive belt's service life is extended. The wet-working system uses filter paper to filter the coolant before it is recirculated. An integrated dryer dries the metal products while they are exiting the machine.

Optimum machining process in combination with ease of use

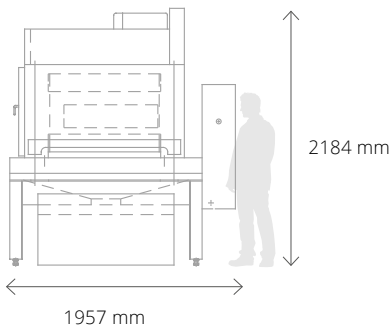
The 31 series is the ultimate machine for fast and efficient deburring and finishing. The machine can be easily operated thanks to a clear control panel. The finishing level is one of the reasons why the 31 series is so popular. Ask our experts for more information.

STANDARD VERSION:

- + Built-in cleaning filter and recirculation pump.
- + Transport table with a fixation system.
- + Automatically adjustable table opening. 450 wide: 0 - 200 mm | 900 wide: 0 - 150 mm.
- + Digital thickness readout in mm, on display.
- + Transport speed from 2.5 - 14 m/min.
- + Integrated drying with air knives and squeeze rollers.

APPLICATIONS AND BENEFITS:

- + Removing burrs on laser-cut, waterjet-cut and punched metal parts.
- + Suitable for stainless steel, steel, aluminium, titanium etc.
- + Deburring and finishing of surfaces in one pass.
- + Deburring and finishing of metal parts with abrasive belt and brush.
- + Optimal production process and ease of use.



Available configurations (mm):

W	450	900
WB	450	900
WW	450	900
WWB	450	900
WBB		900

Specifications:

Number of heads	1 - 3
Head types	roller, brush
Working width	450, 900 mm
Main drive motor	7.5, 11 or 15 kW
Abrasive belt length	1525, 1900 mm

Specifications:

Table opening	0 - 150 mm (900 mm), 0 - 200 mm (450 mm)
Height of fixed table	980 mm
Transport speed	2.5 – 14 m/min
Brush diameter	150 mm
Contact roller diameter	150 mm



THIS COMPACT VERSATILE MACHINE OFFERS THE PERFECT PRICE-PERFORMANCE RATIO

The 32 RB series is the compact dry operating machine for deburring, edge rounding, laser oxide removal and finishing of different materials.



The 32 RB series has been developed based on the Red Dot Award-winning 42 RB series and is equipped with Timesavers’ much-vaunted RB technology

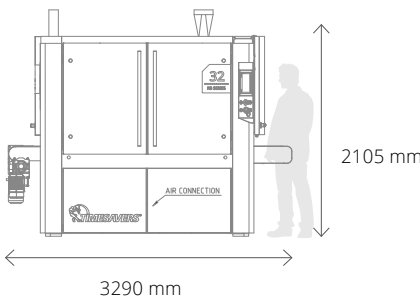
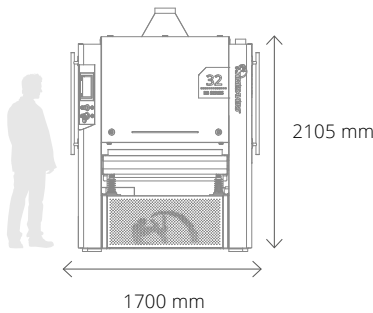
The machine forms the new standard in deburring, edge rounding and finishing technology for a broad range of materials. The rotary brush unit is equipped with a carousel with four large brushes that work the entire working width and ensure an all-round rounding result on the workpieces.

Very small parts can be machined due to the use of a vacuum table

Much attention has been paid to the ease of use and user comfort with regard to this stylish and efficient deburring and finishing machine. A result is a machine that can be operated intuitively and easily. In addition, consumable use is low, the machine is energy efficient and the price-quality ratio is optimal. The machining process can be easily observed because of the angled control panel and the large windows.

The ultimate deburring and finishing machine

Our innovative high-quality deburring and rounding technologies ensure that the latest deburring machine from the Timesavers 32 RB series is the perfect machine for the metal machining industry. Let one of our Timesavers experts advise you.



STANDARD VERSION:

- + Machine working width: 1100 mm.
- + Efficient ergonomic operation through user-friendly Siemens HMI (positioned at 45° for a good overview of the treatment process).
- + Vacuum table for processing small products (50 x 50 mm).
- + Vacuum table with an integrated cleaning cycle.
- + LED bar on the input side indicating the machine status.
- + Frequency controlled motors (roller, brush and carousel) for flexibility during the process.
- + Easily changeable brushes.
- + Various brush types are available for multifunctional use of materials.
- + Adjustable table opening 0 - 100 mm.
- + Transport speed from 0.2 - 8 m/min.
- + CE-certified.

APPLICATIONS AND BENEFITS:

- + Compact rotary brush machine.
- + Brush contact distance of 1300 mm.
- + The four brushes have a total of 28 m² of abrasive material.
- + Removal of burrs on e.g. laser-cut, waterjet-cut, punched products, etc.
- + Processable material: stainless steel, steel, aluminium, copper etc.
- + Removal of burrs, edge rounding, laser oxide removal and finishing of surfaces in one pass.
- + Edge breaking/finishing with abrasive flap brushes.
- + Removal of oxide skin with metal wire brushes.
- + Low tooling costs and very low energy consumption.
- + Maximum user-friendliness and an optimal observation process.



Available configurations (mm):			Specifications:			Specifications:		
RB	1100		Number of heads	1 - 3		Table opening	0 - 100 mm	
WRB	1100		Head types	roller, rotary brush		Transport speed	0.2 - 8 m/min	
RBW	1100		Working width	1100 mm		Brush diameter	350 mm	
WRBW	1100		Main drive motor	7.5 kW		Contact roller diameter	150 mm	
WWRB	1100		Number of brushes	4 (quick change brush system)		Applications	deburring, edge rounding, laser oxide removal, finishing	



41 SERIES: WET GRINDER FOR 24/7 DEBURRING AND FINISHING



The Timesavers 41 series deburring machine has been designed to be operational 24/7. This makes the 41 series the ideal machine for deburring and finishing of metal products.

The 41 series has been developed for high volume production

This wet, high-quality grinder is available with one to four heads in combination with wide abrasive belts and brush heads. This makes the machine extremely suitable for machining thin, oiled, greasy and/or highly inflammable metal parts and materials.

Timesavers offers the 41 series in three operating widths: 900 mm, 1100 mm or 1350 mm.

The 41 series can be accessed on all sides and is easy to clean

This wet grinding and deburring machine can be perfectly and easily maintained. The entire machine can be pressure cleaned every day because of easy access from both sides of the machine.

Are you looking for a machine with consistent performance?

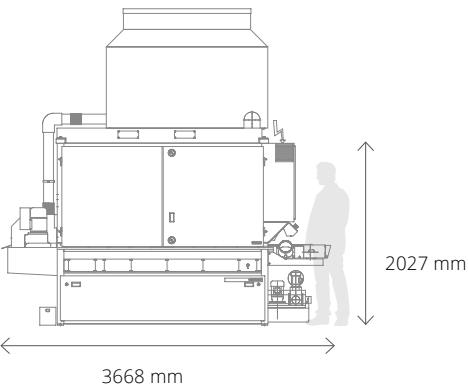
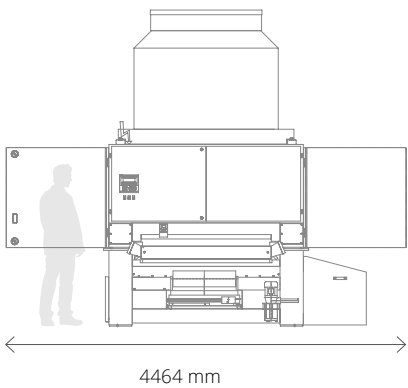
The 41 series is the equipment to use when you machine high volumes! Allow us to explain in detail about the flexibility of this machine and Timesavers.

STANDARD VERSION:

- + Easily interchangeable brush units.
- + Different brush types possible for multifunctional use of materials.
- + Transport speed from 1 - 10 m/min.
- + Integrated paper belt filter and product dryer.
- + CE-certified.

APPLICATIONS AND BENEFITS:

- + Treatment of oiled parts or contaminated parts.
- + Products are automatically cleaned and are exiting the machine dry and dust-free.
- + Suitable for various materials, without need for changing abrasives.
- + Removal of burrs on laser cut, water jet cut and punched products.
- + Suitable material: stainless steel, steel, aluminium, titanium etc.
- + Pre-grinding of large burrs and finishing of surfaces in one pass.



Available configurations (mm):

W	900	1350
WB	900	1350
WW	900	1350
WWB	1100	1350
WWBB	1100	1350

Specifications:

Number of heads	1 - 4
Head types	roller, brush
Working width	900, 1100, 1350 mm
Main drive motor	2.6 kW
Abrasive belt length	1900, 2150, 2620 mm

Specifications:

Table opening	0 - 80 mm (900) and 0 - 60 mm (1100/1350)
Transport speed	1 - 10 m/min
Contact roller diameter	180 or 280 mm
Applications	deburring, finishing, precision grinding



DISCOVER 'THE POSSIBILITIES' OF THE 42 SERIES FROM TIMESAVERS



The 42 series is the ideal machine for easy deburring and finishing of products.



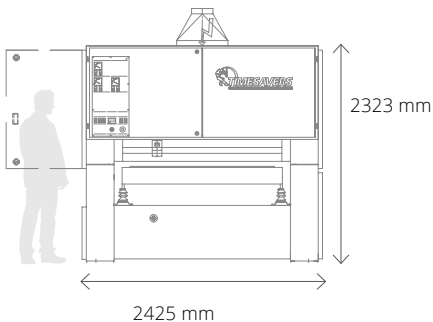
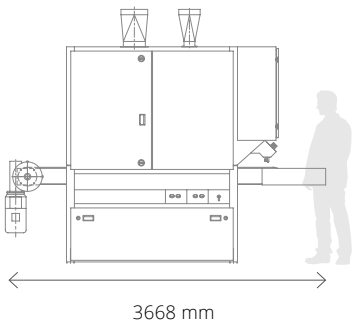
The grinding machines in Timesavers' 42 series are available in several widths: 900 mm, 1100 mm and 1350 mm. The machines can be supplied with a maximum of three heads in various combinations of abrasive belt and brushes. The machine can deburr and finish in one pass by integrating different heads.

Convenience

The 42 series grinding machines have been produced for constant use and are equipped with a lifting and lowering unit on the abrasive belt (diameters of 180 mm, 280 mm and 450 mm). This ensures that the flexibility of application can be changed easily.

The power of simplicity

This machine stands out because of its ease of use and an operator can immediately and effectively work with the machine after a short training course. Our experts will give you professional advice.

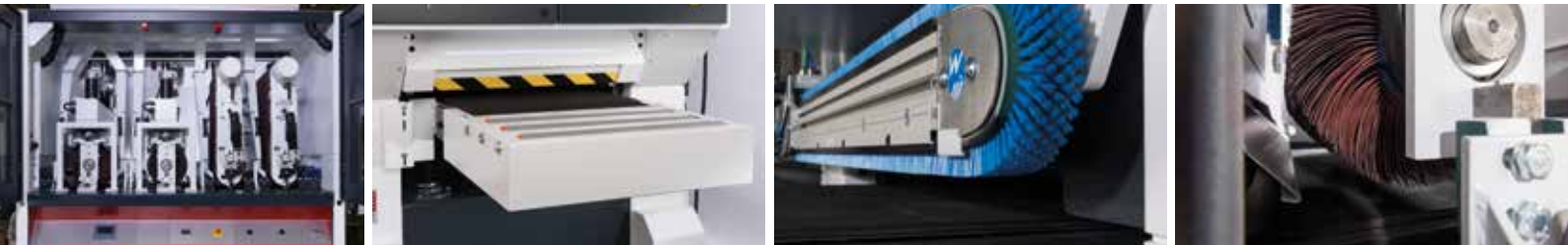


STANDARD VERSION:

- + Centrally located and user-friendly control panel.
- + Automatic infeed height adjustment from 0 - 150 mm.
- + Frequency-controlled conveyor belt with a speed of 1 - 10 m/min.
- + Window doors and illuminated interior for process observation.
- + Available with 1, 2, 3 or 4 heads.
- + CE-certified.

APPLICATIONS AND BENEFITS:

- + Removal of burrs on laser, plasma-cut or waterjet-cut parts, punched parts and milled parts.
- + Processable materials: stainless steel, steel, copper, aluminium, etc.
- + Long life consumables and higher processing efficiency.



Available configurations (mm):

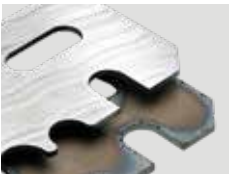
W	900	1100	1350
WW	900	1100	1350
WB	900	1100	1350
WWB		1100	1350

Specifications:

Number of heads	1 - 4
Head types	roller, brush
Working width	900, 1100, 1350 mm
Main drive motor	11 kW, 15 kW, 18.5 kW
Sanding belt length	1900 mm

Specifications:

Table opening	0 - 150 mm
Transport speed	1 - 10 m/min
Brush diameter	280 mm
Contact roller diameter	180, 280 mm
Applications	deburring, finishing



42 RB SERIES FOR ULTIMATE DEBURRING, FINISHING, EDGE ROUNDING, LASER OXIDE AND HEAVY SLAG REMOVAL

Discover the ultimate machine for uniform deburring, edge rounding and finishing of your product(s). Read everything about Timesavers' 42 Rotary Brush (RB) series below. This is the most popular and award winning Timesavers machine.



2MM

RADIUS

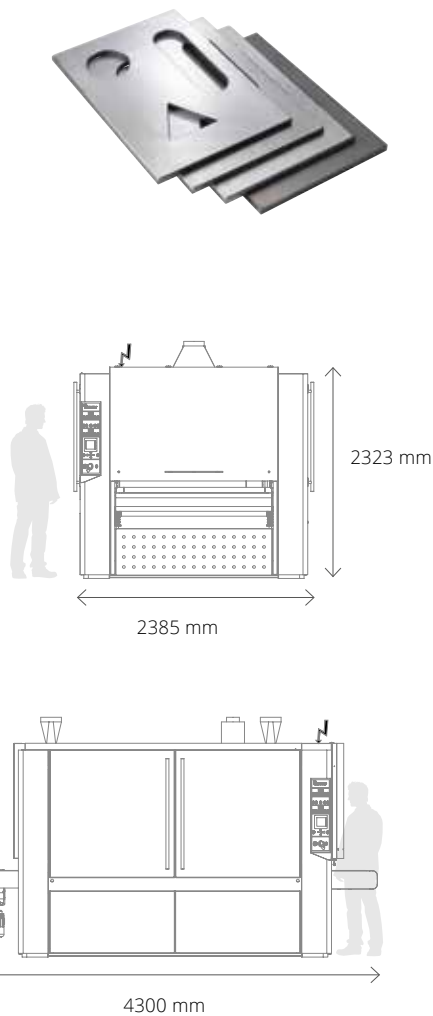
This machine has been developed for people who want only the best

The 42 RB series offers the solution for manufacturers who supply premium quality products. This top quality is achieved through a multi-rotating brush machine with eight abrasive flap brushes that deburr uniformly and round the edges of the metal perfectly. This makes it possible to achieve a radius of 2 mm on mild steel and even more on softer material like aluminium.

The Timesavers Rotating Brush Machine

This deburring machine can also be provided with one or more abrasive belt heads to perfectly remove very large burrs and guarantee the desired finish. The machine is suitable for machining punched, laser-cut and plasma-cut parts and even 3D and milled parts with deep pockets. With the use of a standard vacuum table with automatic vacuum control it is possible to process small parts (from 50 mm) as well as large parts of up to 1600 mm. The materials that can be machined include stainless steel, aluminium, zincor, zinc and laser film products. Available in this machine segment is the use of Cobots and integration in an Industry 4.0 / Smart Industry software platform.

Do you want to know more about the Timesavers Rotating Brush Machine and its performance?
Contact Timesavers' experts for professional advice.



STANDARD VERSION:

- + Ergonomic positioned and user-friendly control panel (located at 45° for a good overview of the treatment process).
- + Motorised adjustable table opening from 0 - 100 mm.
- + Rotating brush carousel equipped with four counterclockwise and four clockwise rotating brushes.
- + Frequency-controlled grinding heads and a conveyor belt with an adjustable feed speed of 0.2 - 8 m/min.
- + Window doors, illuminated interior and optional camera's for process observation.
- + Brushes with an extremely long service life of up to 3000 hours.
- + LED bars on the input and output to indicate machine status.
- + Available with 1, 2, 3 or 4 heads.
- + Vacuum table with an automatic cleaning cycle.
- + Quick change system for brushes and belts.
- + CE-certified.

APPLICATIONS AND BENEFITS:

- + The brush contact distance of 42 RB series is 1750 mm.
- + The eight brushes have a total of 53 m² of abrasive material.
- + Processing of mixed materials with optional wet dust extraction.
- + Treatment of small parts (50 x 50 mm) possible with the standard vacuum table.
- + Removal of burrs that are caused by laser, plasma or water jet cutting and embossed parts in one go.
- + Flat, formed and 3D parts with pockets/protrusions.
- + Preliminary removal of large burrs and finishing of surfaces.
- + Stainless steel, mild steel, aluminium, copper, etc.
- + Deburring Zintec, galvanised and plated material.
- + Use of Cobots integration in an Industry 4.0 / Smart industry software platform.

Available configurations (mm):

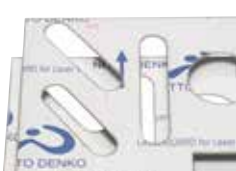
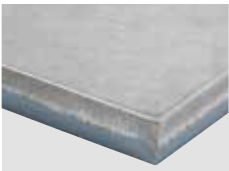
RB	1350	1600
WRB	1350	1600
RBW	1350	1600
WRBW	1350	1600
WWRB	1350	
WWRBW	1350	
HWRB	1350	

Specifications:

Number of heads	1 - 4
Head types	rotary brush, roller, hammerhead
Working width	1350, 1600 mm
Main drive motor	28 - 75 kW / 67 - 180 A
Number of brushes	8 (quick to change brush system)

Specifications:

Table opening	0 - 100 mm
Transport speed	0.2 - 8 m/min
Brush dimensions	530 x 350 mm
Contact roller diameter	180, 280 mm
Applications	deburring, edge rounding, laser oxide removal, heavy slag removal, finishing



ALL OPTIONS OF THE 42 RB SERIES LISTED CONVENIENTLY FOR YOU

These pages provide insight into the possibilities of the 42 RB series. Timesavers has listed all heads including the application possibilities for you.



Regardless of what your requirements or preferences may be: Timesavers has the solution
Timesavers serves customers in many industries and sectors and strives to achieve the greatest flexibility in several areas. Timesavers' customers can count on: quality, service and innovative and problem-solving capacity. Therefore, always contact Timesavers if you want to exchange ideas and discuss your requirements with regard to perfect deburring, edge rounding and finishing. Our professional experts will help you further.

- + Perfect edge rounding (radius of up to 2 mm).
- + Low tooling costs.
- + Different thicknesses can be machined simultaneously.
- + Suitable for different materials such as stainless steel, aluminium, Zintec, etc.
- + Suitable for deburring small (50 mm) and large parts.
- + Can be integrated into an (existing) production process.



+ Deburring



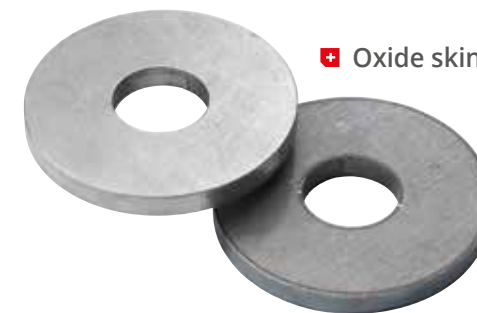
+ Finishing



+ Edge rounding

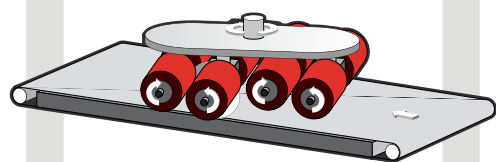


+ Slag removal



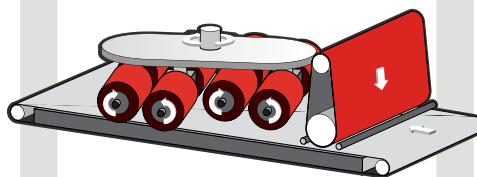
+ Oxide skin removal

RB



- + Deburring
- + Edge rounding
- + Laser oxide removal

WRB

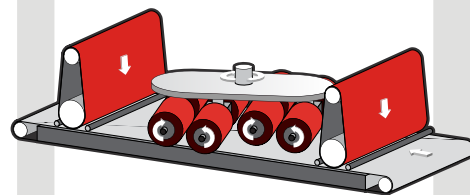


- + Deburring
- + Edge rounding
- + Laser oxide removal

EXTRA HEAD FOR:

- + Rough grinding
- + Finishing

WRBW

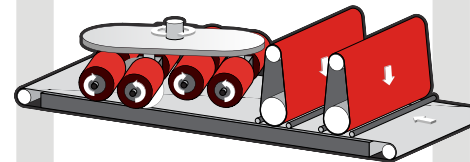


- + Deburring
- + Edge rounding
- + Finishing
- + Laser oxide removal

EXTRA HEAD FOR:

- + Rough grinding
- + Finishing

WWRB

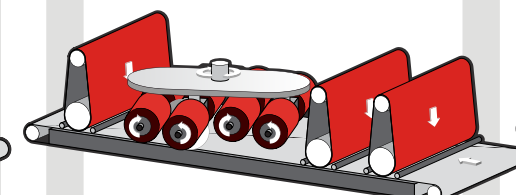


- + Deburring
- + Edge rounding
- + Finishing
- + Laser oxide removal

EXTRA HEAD FOR:

- + Rough grinding
- + Slag removal

WWRBW

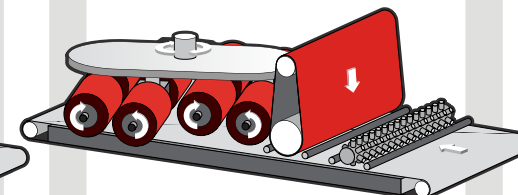


- + Deburring
- + Edge rounding
- + Finishing
- + Laser oxide removal

EXTRA HEAD FOR:

- + Rough grinding
- + Slag removal
- + Finishing

HWRB



- + Deburring
- + Edge rounding
- + Finishing
- + Laser oxide removal

EXTRA HEAD FOR:

- + Slag removal
- + Rough grinding



TIMESAVERS ORIGINALS OVERVIEW BRUSHES 10 SERIES



Requests & orders: parts@timesaversint.com
Please mention your machine serial number with your request or order.

We offer various brush types for Timesavers 10 series machines, brushes for allround use and various materials up to and including brushes for optimal results on specific material.

BRUSH TYPE	GRIT #	ITEM NUMBER	APPLICATION
Media holder 	Hard Medium	00809000 00809001	Holder for pads. Hard for the removal of hard burrs. Medium for the removal of other (various) burrs.
Grinding pad 	# 80 # 120	00809100 00809200	Pregrinding, primary burr removal.
Scotch Brite pad® 	# 180 # 280	00809300 00809400	Pregrinding, light deburring and finish grinding.
HERO 	# 80	00809500	Light primary and secondary burrs + strong edge roundings.
Aluminium Oxide 	# 80	00809600	Deburring and edge rounding of various metals.
Zirconium 	# 80	00809700	Deburring and strong edge rounding of stainless steel with bigger radius.
Silicon carbide 	# 80	00809800	Edge rounding and fine surface pattern for aluminium and plastic.
Hammerhead 	Complete unit	00809900	Deslagging residues.
Metal wire brush 	Complete unit	00810600	Removal of oxide layers.
Aluminium Oxide flex strips 	Complete unit Per MG brush strip	00812000 00812100	Deburring and edge rounding of (galvanized) thin plates and parts. (23 strips per disc)



TIMESAVERS ORIGINALS OVERVIEW BRUSHES 22 RB/FORMER 32 RB SERIES



Requests & orders: parts@timesaversint.com
Please mention your machine serial number with your request or order.

We offer various brush types for the 22 RB series or the former 32 RB series, brushes for allround use and various materials up to and including brushes for optimal results on specific material.
Tip: when mainly parts with small inserts are processed our recommendation is to use the brushes with small (3 mm) and wider (5 mm) flaps.

BRUSH TYPE	GRIT #	ITEM NUMBER	APPLICATION
Aluminium Oxide 	# 80 - 3&5 mm # 100 - 3&5 mm # 120 - 3&5 mm # 180 - 3&5 mm	59943111AO35080 59943111AO35100 59943111AO35120 59943111AO35180	Medium edge rounding and surface finishing of steel, aluminium and stainless steel.
Silicon Carbide 	# 180 - 3&5 mm	59943111SC35180	Medium edge rounding and surface finishing for aluminium.
Cross flex Aluminium Oxide 	# 80 - 3&5 mm # 180 - 3&5 mm # 240 - 3&5 mm	59943111CF35080 59943111CF35180 59943111CF35240	Non-directional finish and removal of milling marks for all types of metal.
Zirconium 	# 80 - 5&5 mm # 120 - 5&5 mm	59943111ZI55080 59943111ZI55120	Strong edge rounding.
Metal wire brush 	Non adjustable	599434330000000	Brush for optimal oxide skin removal.
Flange assembly 		460623	4 x flanges, 16 x bolts.

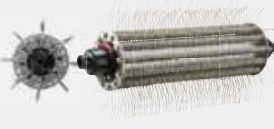


TIMESAVERS ORIGINALS OVERVIEW R+ BRUSHES 32 RB SERIES



Requests & orders: parts@timesaversint.com
Please mention your machine serial number with your request or order.

We offer various brush types for the new 32 RB series, brushes for allround use and various materials up to and including brushes for optimal results on specific material.
Tip: when mainly parts with small inserts are processed our recommendation is to use the brushes with small (3 mm) and wider (5 mm) flaps.

BRUSH TYPE	GRIT #	ITEM NUMBER	APPLICATION
Aluminium Oxide 	# 60 - 5&5 mm # 80 - 5&5 mm # 100 - 5&5 mm # 100 - 3&5 mm # 120 - 5&5 mm # 120 - 3&5 mm # 180 - 3&5 mm	59975121AO55060 59975121AO55080 59975121AO55100 59975121AO35100 59975121AO55120 59975121AO35120 59975121AO35180	Medium edge rounding and surface finishing of steel, aluminium and stainless steel.
Silicon Carbide 	# 180 - 5&5 mm # 180 - 3&5 mm	59975121SI55180 59975121SI35180	Medium edge rounding and surface finishing for aluminium.
Cross Flex Aluminium Oxide 	# 80 - 3&5 mm # 180 - 3&5 mm # 240 - 3&5 mm	59975121AOCF080 59975121AOCF180 59975121AOCF240	Non-directional finish and removal of milling marks for all types of metal.
Zirconium 	# 80 - 5&5 mm # 120 - 5&5 mm	59975121ZI55080 59975121ZI55120	Strong edge rounding.
Metal wire brush 	Adjustable	599754340000000	Adjustable brush for optimal oxide skin removal.
Flange assembly 		784494	

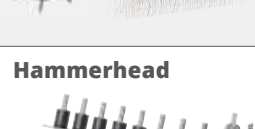


TIMESAVERS ORIGINALS OVERVIEW R+ BRUSHES 42 RB SERIES



Requests & orders: parts@timesaversint.com
Please mention your machine serial number with your request or order.

We offer various brush types for the 42 RB series, brushes for allround use and various materials up to and including brushes for optimal results on specific material.
Tip: when mainly parts with small inserts are processed our recommendation is to use the brushes with small (3 mm) and wider (5 mm) flaps.

BRUSH TYPE	GRIT #	ITEM NUMBER	APPLICATION
Aluminium Oxide 	# 60 - 5&5 mm # 80 - 5&5 mm # 100 - 5&5 mm # 100 - 3&5 mm # 120 - 5&5 mm # 120 - 3&5 mm # 180 - 3&5 mm	59975121AO55060 59975121AO55080 59975121AO55100 59975121AO35100 59975121AO55120 59975121AO35120 59975121AO35180	Medium edge rounding and surface finishing of steel, aluminium and stainless steel.
Silicon Carbide 	# 180 - 5&5 mm # 180 - 3&5 mm	59975121SI55180 59975121SI35180	Medium edge rounding and surface finishing of aluminium.
Cross Flex Aluminium Oxide 	# 80 - 3&5 mm # 180 - 3&5 mm # 240 - 3&5 mm	59975121AOCF080 59975121AOCF180 59975121AOCF240	Non-directional finish and removal of milling marks for all types of metal.
Zirconium 	# 80 - 5&5 mm # 120 - 5&5 mm	59975121ZI55080 59975121ZI55120	Strong edge rounding.
Metal wire brush 	Adjustable	599754340000000	Adjustable brush for optimal oxide skin removal.
Hammerhead 	Module (incl 9 pins) Hammerhead pin	461530 02209600	Hammerhead for heavy slag removal The complete Hammerhead unit. contains: 30 modules / 270 pins.
Flange assembly 		784494	

THE 62 SERIES: FOR FINISHING COLD ROLLED STAINLESS STEEL SHEETS



The 62 series offers a full solution for finishing stainless steel sheets. Two different working widths are available: 1350 mm and 1600 mm.



Perfect finishing including thin sheet material from 0.4 mm (optional)

The 62 series machine can be fitted with one or more heads and therefore you can achieve a no. 3, no. 4 and duplo finish in one machine.

A duplo finish can be achieved using a grinding belt followed by a Scotch-Brite brush that will produce an additional fine surface. Very thin sheets can be ground and finished because of the special construction of the roller table.

In addition to the standard machine, we also offer turnkey solutions

We can also supply the ancillary equipment. Timesavers organises, installs, instructs and provides a perfect working machine-line. Examples include:

- + Roller conveyors and tables.
- + Automatic stacking/de-stacking units.
- + PVC-coating machines.
- + Dust extractors for dry grinding machines.

Do you want to know more about this Timesavers machine and our service?

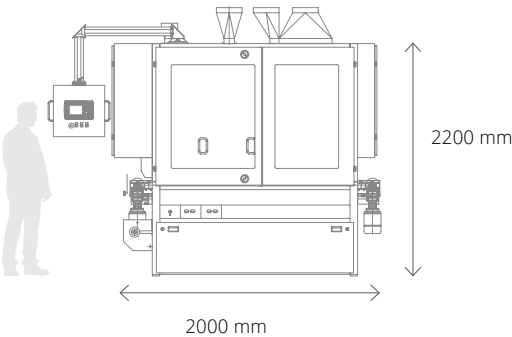
Contact Timesavers' experts for professional advice.

STANDARD VERSION:

- + Centrally programmable HMI Siemens control panel.
- + Wide belt grinding heads with a fine adjustment of the contact rollers (diameter of 220 mm). With frequency controlled main motors for all possible finishes.
- + Scotch-Brite brush heads with fast oscillation of up to 700 strokes per minute: frequency controlled main motor, brush outer diameter of 350 mm, motorised height adjustment with quick exchange brush system.
- + Roller table construction with hardened steel counter roller under the contact roller for finishing thin sheets from 0.4 mm (need of an additional package).

APPLICATIONS AND BENEFITS:

- + No. 3 or no. 4 finishing with abrasive belts from grit 120, 180 to even 240 and 320.
- + Brush / microlon finishing with Scotch-Brite brushes or with Scotch-Brite belts.
- + Duplo finish; a combination of finishing with grinding belts and Scotch-Brite brush(es).
- + Can be purchased as a turnkey project.



+ Duplo finish

+ Microlon finish

+ No. 4 finish

Available configurations (mm):

WWB	1350	1600
WW	1350	1600
WB	1350	1600
BB	1350	1600

Specifications:

Number of heads	1 - 3
Head types	roller, brush
Working width	1350, 1600 mm

Specifications:

Table opening	0 - 50 mm
Transport speed	4 - 20 m/min
Brush diameter	350 mm
Adjustable contact roller diameter	220 mm
Applications	grinding, finishing of stainless steel sheets

THE 71/72 SERIES: A COMPLETE 'COIL-TO-COIL' LINE: WET OR DRY



In addition to top working machines, bottom working machines can be integrated in the production line. Finishing of cold & hot rolled sheets is also possible with this machine.



We offer our 71/72 series for finishing of sheet material rolls

The machine has a production speed of up to 30 m/min and delivers a perfectly finished end result. The 71/72 series has been developed to perform: day-in, day-out, year-in and year-out.

Timesavers provides advice, delivers, installs and offers backups

If required we can deliver turnkey projects that can include, for example, a leveling machine, decoiler, coiler, a PVC-coating machine, roller tables and/or stackers. With experienced support from the design phase up to and including delivery. Additional examples include:

- + Dust extractors for dry finishing machines.
- + Water filter units for wet finishing machines.
- + In other words a complete 'coil-to coil' finishing line.

Do you want to know more?

Contact the Timesavers experts.

Hairline finish

STANDARD VERSION:

- + Centrally programmable HMI Siemens control panel.
- + Wide belt grinding heads with a fine adjustment of the contact rollers (diameter of 280 mm). With frequency controlled main motors for all possible finishes.
- + Hairline finishing machine with endless grinding belt for ease of operation and perfect straight line.
- + Scotch-Brite brush heads with fast oscillation of up to 500 strokes per minute: frequency controlled main motor, brush outer diameter of 400 mm, motorised height adjustment with quick exchange brush system.
- + Roller table construction with hardened steel counter roller under the contact roller for finishing thin sheets from 0.5 mm.
- + 71 series wet and 72 series dry.

APPLICATIONS AND BENEFITS:

- + Coil-to-coil.
- + Sheet to sheet; both hot and cold rolled.
- + No. 3 or no. 4 finishing with abrasive belts from grit 120, 180 to even 240 and 320.
- + Brush / microlon finishing with Scotch-Brite brushes or with Scotch-Brite belts.
- + Duplo finish; a combination of finishing with grinding belts and Scotch-Brite brush(es).
- + Long scratch hairline finishing; a finish often favoured in the Far East.
- + Can be purchased as a turnkey project.

Duplo finish

Microlon finish

No. 4 finish

Available configurations (mm):

WW	1350	1600	2100
WB	1350	1600	2100
BB	1350	1600	2100

Specifications:

Number of heads	1 - 2
Head types	roller, brush, hairline
Working width	1350, 1600, 2100 mm

Specifications:

Table opening	0 - 50 mm
Transport speed	0 - 30 m/min
Brush diameter	400 mm
Adjustable contact roller diameter	280 mm
Applications	grinding, finishing of stainless steel sheets or coils

THE 81 SERIES: THE INNOVATIVE SOLUTION FOR PRECISION GRINDING



The Dutch build 81 series machine is Timesavers’ innovative solution for precision metal grinding.

Precision grinding up to 0.02 mm? No problems with the Timesavers 81 series

This machine uses wide grinding belts with a tight tolerance and is used for the precision grinding of titanium, molybdenum, stainless steel, aluminium/nickel alloys, carbon steel and more. The machine grinds these metals with a precision of no less than 0.02 mm.

The Timesavers precision grinding machine: totally tailor made

Every variant from the 81 series is produced especially based on customer requirements. Precision grinding is performed by a wide belt that grinds the thickness of a part to achieve a fixed thickness. The Timesavers 81 series has a conveyor belt, a roller table or a reciprocating table, coupled with high grinding power to make this precision grinding possible. All executions in this machine range will have air knives to keep the coolant in the machine. In addition to this, a mist filter will remove small coolant particles out of the air. The machine is executed with servo drives for accurate positioning.

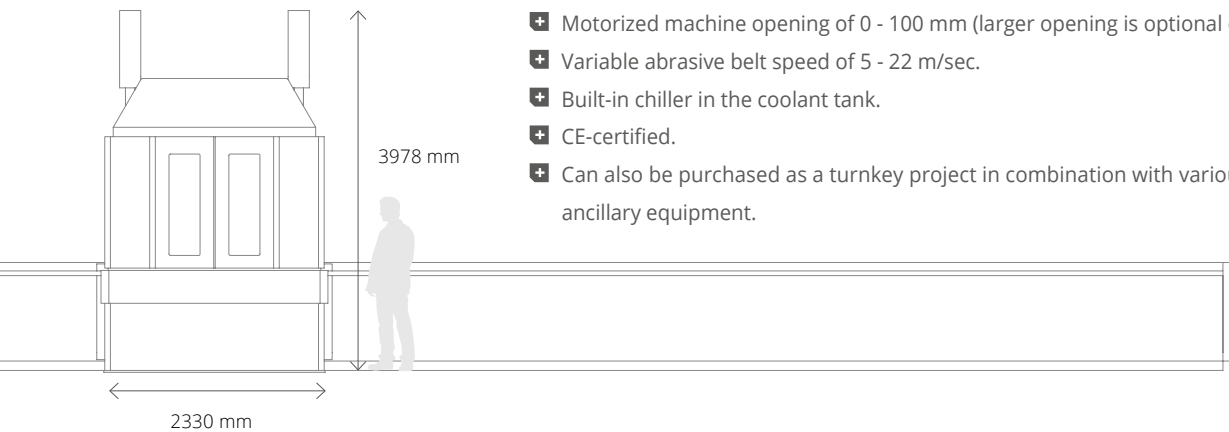
Timesavers offers know-how and a far-reaching service

We also, for example, offer turnkey solutions where the handling of all ancillary equipment is organised and installed for you. Examples include:

- + Roller conveyor and tables.
- + Automatic stacking and de-stacking units.
- + Coolant filter units for wet grinders.
- + Turnover unit.

STANDARD VERSION:

- + Precision grinding of titanium, molybdenum, stainless steel, nickel/aluminium alloys, and carbon steel.
- + Grinds material to a predetermined thickness: flat, tapered or U shaped.
- + Removes up to 0.2 mm per grinding stroke depending on the material.
- + Accuracy of +/- 0.02 mm.
- + Suitable for materials with thicknesses of 0.25 mm to 100 mm.
- + Central control panel mounted on the machine or as a desk.
- + Siemens HMI with pre-programmable settings.
- + Integrated belt optimization program for maximum use of the grinding belt capabilities.
- + Possibility to grind in both directions.
- + Wet version with integrated spray to separate dirt and fine dust.
- + Integrated vacuum system with safety features.
- + One or more vacuum segments that can be operated individually.
- + Quick exchange system for the grinding belt.
- + Motorized machine opening of 0 - 100 mm (larger opening is optional on request).
- + Variable abrasive belt speed of 5 - 22 m/sec.
- + Built-in chiller in the coolant tank.
- + CE-certified.
- + Can also be purchased as a turnkey project in combination with various types of ancillary equipment.



Available configurations (mm):						
W	600	1000	1600	2100	2600	
WW	600	1000	1600	2100	2600	
WB	600	1000	1600	2100	2600	
BB	600	1000	1600	2100	2600	

Specifications:		
Number of heads	1 - 2	
Head types	roller, brush	
Working width	600, 1000, 1600, 2100, 2600 mm	

Specifications:		
Table opening	0 - 100 mm	
Transport speed	1 - 10 m/min	
Applications	precision grinding	



81 SERIES TABLE EXECUTIONS

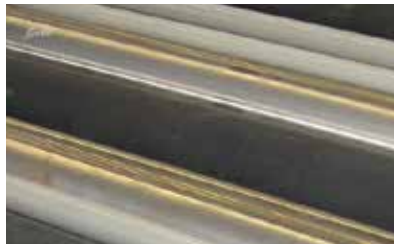


Conveyor belt

Precision grinding can be done with a transport speed of 0.1 up to 10 m/min when using a conveyor belt. Optional is a transport feed from 0.1 up to 20 m/min. Besides that, the conveyor belt is oil and heat resistant. Plates could have a minimum thickness from 0,8 mm up to a maximum thickness of 100 mm.

The conveyor belt is specially used when you have thicker material and when the material is not totally straight in length direction. The conveyor belt will give support for the low spots and the end result will be a homogeneous finish. The material will reciprocate during the grinding process over the conveyor belt and the grinding will be done in both directions to get maximum stock removal per cycle.

- + Also capable of grinding material with various shapes.
- + Accuracy of +/- 0.07 mm.
- + Specially produced for sheet and plate material and has to be connected to infeed and outfeed tables.



Roller table

The roller table is executed with hardened steel Billy Rollers which guarantee a very constant grinding result. The minimum thickness of a plate could be 0.4 mm up to a maximum thickness of 20 mm. The material must be level in both length and width before grinding if the material is thicker than 4 mm. The billy rollers make sure that there is a constant pressure under the full width of the material, resulting in a homogeneous finish and an accuracy of +/- 0.05 mm.

- + Can be used for both sheets and coils when the machine is connected to in and outfeed tables or to coil equipment.

Reciprocating table

By using a reciprocating table the most precise grinding can be reached. Possible for very thin plates with a minimum thickness of 0.25 mm up to plates with a maximum thickness of 100 mm. The product stays perfectly in place due to the vacuum system or the magnetic chuck. The table will have integrated channels on the side to remove swarf and coolant from the grinding area to the filter system.

The vacuum chuck mounted on top of the reciprocating table has multiple suction holes to accommodate one or multiple parts. The groove pattern can be adapted for the customers' needs. With the optional hydro pins, the plates can be either taken off with a sling or with a vacuum lifter.

- + The table can also be executed with a magnetic chuck if the parts are from steel. This is an electro-permanent magnet to avoid heat production and to guarantee an accurate result.
- + The accuracy of this type of table is +/- 0.02 mm depending on the material that is machined.





**TIMESAVERS
INTERNATIONAL BV**

Fruitlaan 20-30, 4462 EP Goes
The Netherlands
T +31 113 23 89 00
F +31 113 23 20 03
info@timesaversint.com
www.timesaversint.com

TIMESAVERS INC

11123 89th Ave North
Maple Grove, Minnesota USA
T +763 488 6600
F +763 488 6601
info@timesaversinc.com
www.timesaversinc.com

