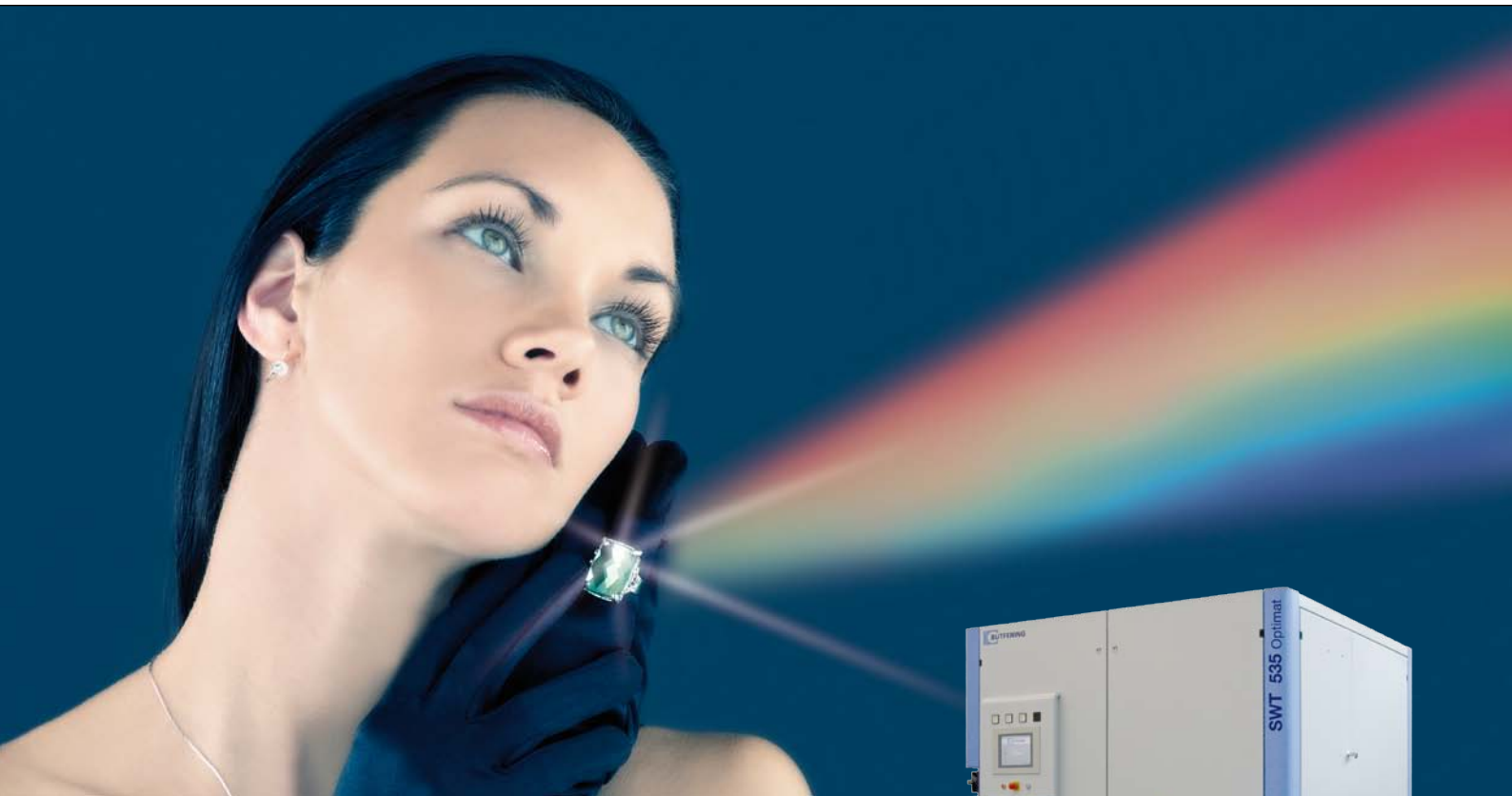


SWT 500 Diamond Wide-Belt Sanding Machines





Bütfering International

- Local support from our partners around the world
- Sales and Service Technicians operating worldwide
- Intelligent spare parts provision by common components within the HOMAG Group



Our Philosophy

- satisfied customer
- satisfied employees
- satisfied investors



Single head machines

The Diamond C offers an all round sanding capability. Whether used for calibrating, veneer or intermediate lacquer sanding, the Combi-head always offers you the right solution. The compact construction, the functional design and innovative technical details complete the total concept. The new Diamond C is especially suitable to the advanced requirements of modern woodworking and joinery workshops.



Twin head machines

These twin head wide belt sanders from Bütfering are the versatile power packages for any application. Combining different head configurations these machines can easily be selected according to the type of production. When the emphasis is for veneer or lacquer work a cross and wide belt configuration may be chosen, whereas for solid wood sanding the use of two combi-heads might be preferred. Each of the sanding heads has its benefits and when combined in a twin head machine offers a multi faceted sanding solution symbolic of the Diamond range – reflections of perfection, made by Bütfering. Combine our strengths for your success!






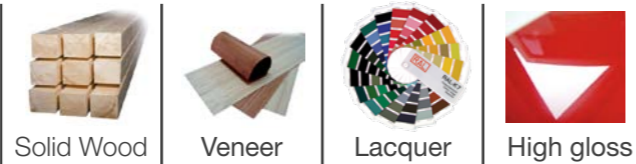
Triple head machines






























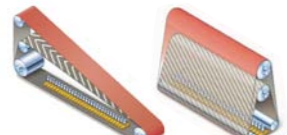

















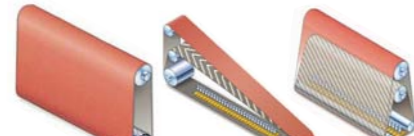



























The DIAMOND triple head machines represent the flagship of the DIAMOND range and have proved to be the most successful and popular models. They combine high-tech made in Germany with an extraordinary diversity of applications. No matter whether your company carries out demanding solid wood and veneer processing jobs or lacquer and high gloss sanding, the triple head crossbelt sanders of the Diamond line have the appropriate configuration for your application and create a perfect finish in one pass. Refined design, ergonomic operation and capable of producing to the highest quality level – the best Diamond ever.



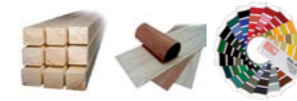
The following are required for finish sanding:

-  Multiple belt changes
-  Max. one belt change
-  Finish sanding in one cycle

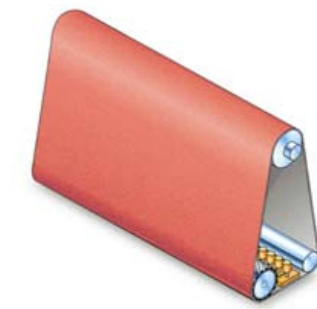


	Solid Wood	Veneer	Lacquer	High gloss
Diamond SWT 515 C 			 	
Diamond SWT 525 CC 	 	 	  	
Diamond SWT 525 CH 	 	 	  	
Diamond SWT 525 QC 		 	  	
Diamond SWT 525 QH 		 	  	 
Diamond SWT 535 RQE 	 	 	  	
Diamond SWT 535 RQH 	 	 	  	 
Diamond SWT 535 QCE 		 	  	 
Diamond SWT 535 QCH 		 	  	 

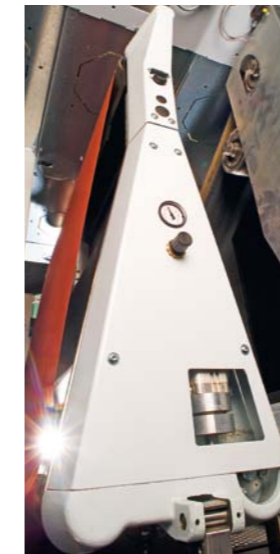
Applications:



Solid wood, veneer, lacquer sanding




C



CUSTOMER USE:

- Sanding head for light calibration work and fine sanding
- Maintenance free, profiled steel contact roller
- Exact tolerance calibration without 'wash out' effect
- Thickness tolerance variations in veneered and lacquered parts are easily handled by the use of the segmented pad
- Range of possible grit sizes
Calibration: 60 to 120
Fine sanding 120 to 400

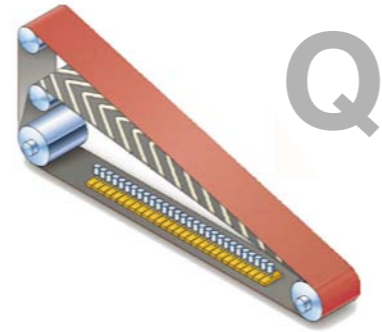
Type of head	Combination head with profiled steel contact roller and electronically controlled segmented pad
Pad type	
Drive motor motor	15 kW
Cutting speed	2 -18 m/s
Dimensions of abrasive belt	2620 mm x 1350 - 1380 mm
Air-jet belt cleaning	Standard



Applications:



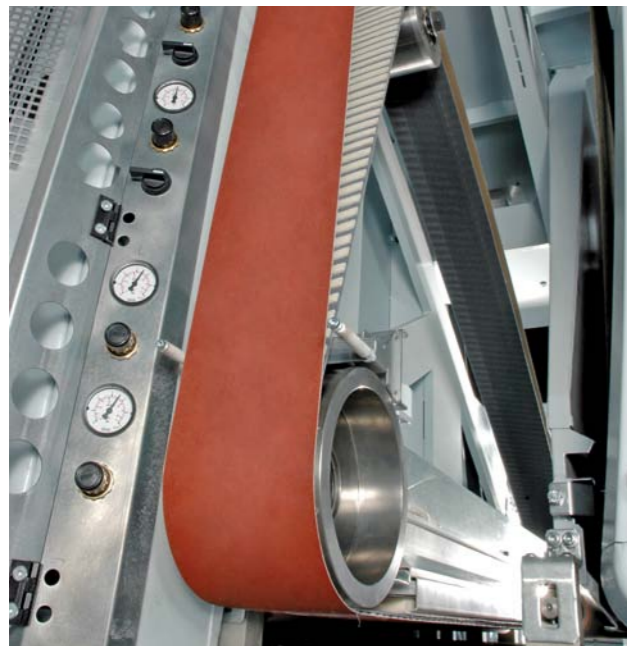
Veneer sanding, removing of tape
 For sanding of long cross veneered parts
 Intermediate lacquer sanding and preparation for high gloss
 Solid wood sanding



CUSTOMER USE:

- Long abrasive belt length, ideal for fine grit sizes
- Fibres, tape and glue residue are simply removed by sanding across the grain direction
- Levelling effect on veneered surfaces
- Optimum preparation for later coating procedures
- Range of possible grit sizes 120 to 1200

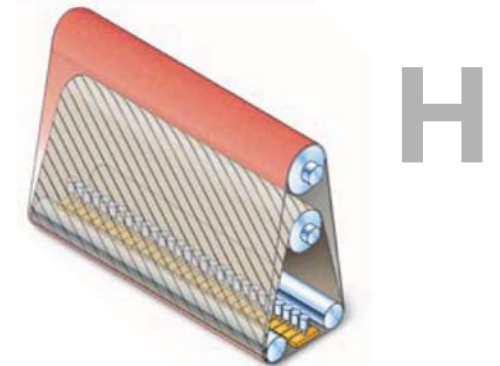
Type of head	Cross belt head with electronically segmented pad
Pad type	
Drive motor motor	13,5 kW
Cutting speed	1 - 16 m/s
Dimensions of abrasive belt	5360 mm x 150 mm
Air-jet belt cleaning	standard



Applications:



High quality sanding on all surfaces
 Intermediate lacquer sanding with very fine grit sizes
 Solid wood sanding, especially for frame parts



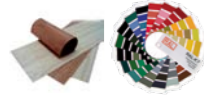
CUSTOMER USE:

- Thickness tolerance variations in veneered and lacquered parts are easily handled by the use of the segmented pad
- 125 mm wide contact zone produces very uniform surfaces
- Low sanding temperature gives longer abrasive belt lifetime.
- Oscillation marks are considerably reduced by the use of the pressure chevronbelt
- Range of possible grit sizes 120 to 1200

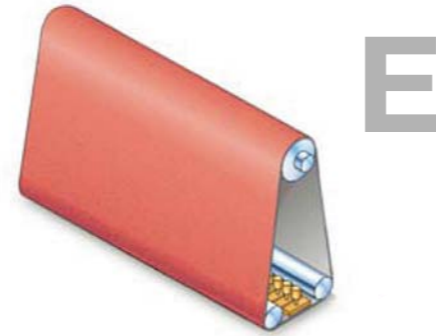
Type of head	Wide belt with electronically controlled segmented pad and inner chevronbelt
Pad type	
Contact width	125 mm
Drive motor motor	20 kW
Cutting speed	1,5–12 m/s
Dimensions of abrasive belt	2620 mm x 1370 mm
Direction of rotation	with or against feed direction
Air-jet belt cleaning	Standard



Applications:



Fine sanding of wood and wood composite materials as well as lacquered surfaces
Improving and upgrading a pre-sanded surface



CUSTOMER USE:

- Thickness tolerance variations in veneered and lacquered parts are easily handled by the use of the segmented pad
- 110 mm wide contact zone produces very uniform surfaces
- Multi-track feeding to enable complete utilization of the working width
- Range of possible grit sizes 120 to 400

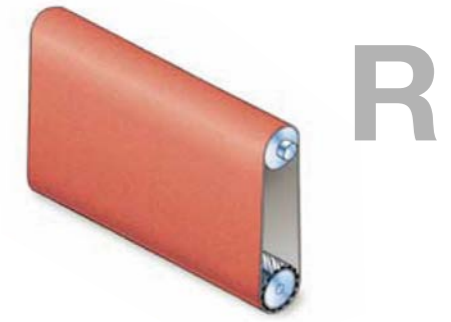
Type of head	Electronically controlled segmented pad
Pad type	
Drive motor	7,5 kW (QCE) 15 kW (RQE)
Cutting speed	1 - 9 m/s (QCE) 2 - 18 m/s (RQE)
Direction of rotation	with or against feed direction
Dimensions of abrasive belt	2620 mm x 1350 - 1380 mm
Air-jet belt cleaning	Standard



Applications:



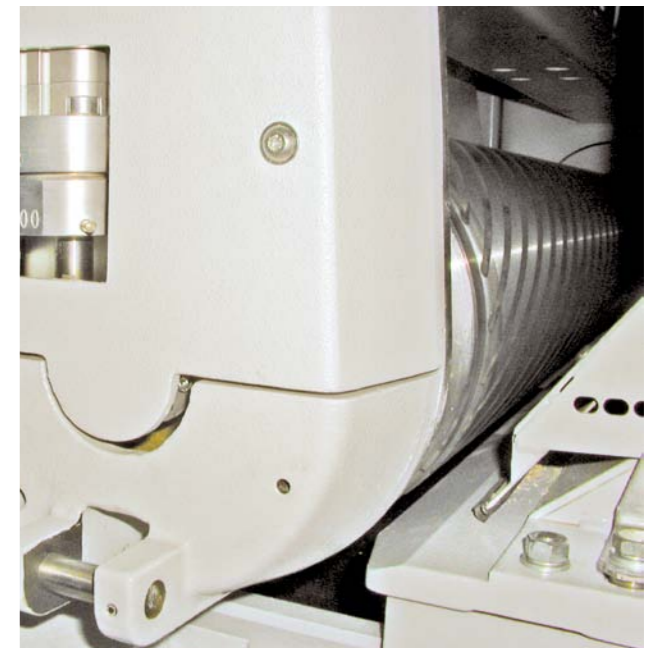
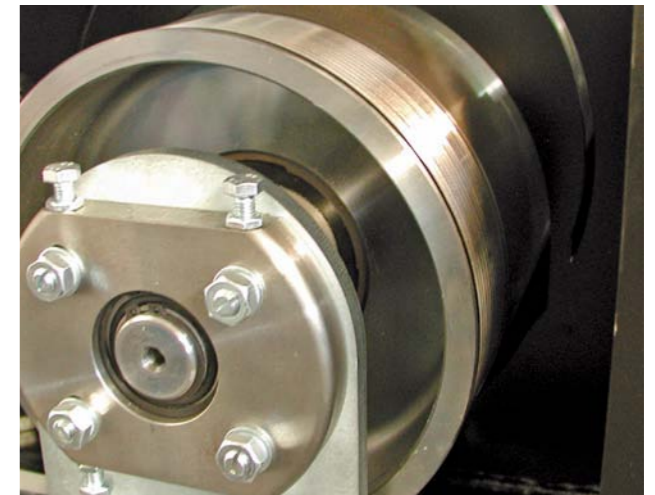
Calibrating of wood and wood material
To produce a surface roughness suitable as a mechanical key for glueing



CUSTOMER USE:

- Exact tolerance calibration at high removal rates
- Maintenance free, profiled steel contact roller
- Exact tolerance calibration without 'wash out' effect

Type of head	Profiled steel contact roller
Drive motor	22 kW
Cutting speed	18 m/s
Dimensions of abrasive belt	2620 mm x 1350 - 1380 mm
Air-jet belt cleaning	optional

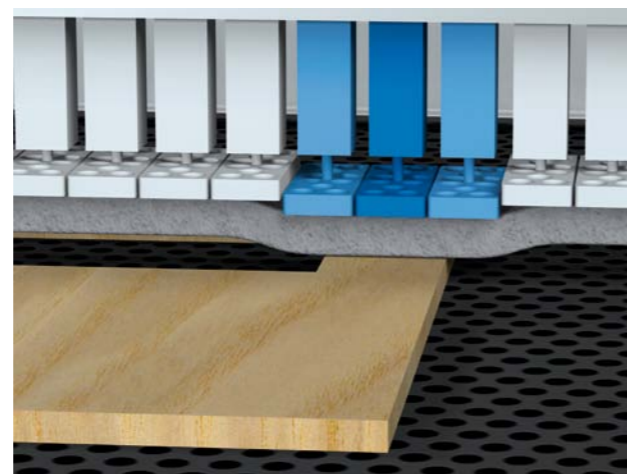
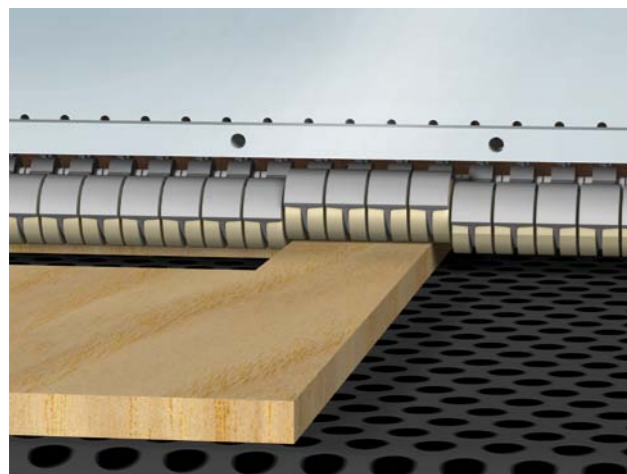




mps...
Magnetic Pad System

MPS Magnetic Pad System

The latest development from Bütfering now uses a magnetic solenoid to generate sanding force as opposed to a pneumatic system. Linked with a PLC control this offers a greater degree of control over the function of the segmented pad and brings significant advantages.



Dynamic Force Control

- Using the PLC it is easy to give individual force control to each solenoid – difficult to obtain with pneumatics. In addition, each solenoid is designed to exert more force the further it extends, and less force when retracted, this compensates for the abrasive belt tension as the solenoid is asked to handle part thickness variations.
- At the front and back of parts, the MPS progressively ‘ramps’ the pressure on and then off to guarantee a uniform sanding result even on the thinnest of veneers and lacquers.

No ‘slip stick’

- Ultra-smooth piston guidance eliminates any ‘stiction’ effect found with air cylinders. This is an important element when asking the segmented pad to compensate for part thickness variations.

Proportional Pressure Control

- Proportional pressure control at the part edge is easily achieved with the standard 2:1 sensor/solenoid package. When parts enter the machine they are scanned and the edge pressure is constantly modified according to whether 1 or 2 edge sensors have been activated. As an option a 3:1 sensor/solenoid ratio is also available (MPS Plus).

CUSTOMER USE:

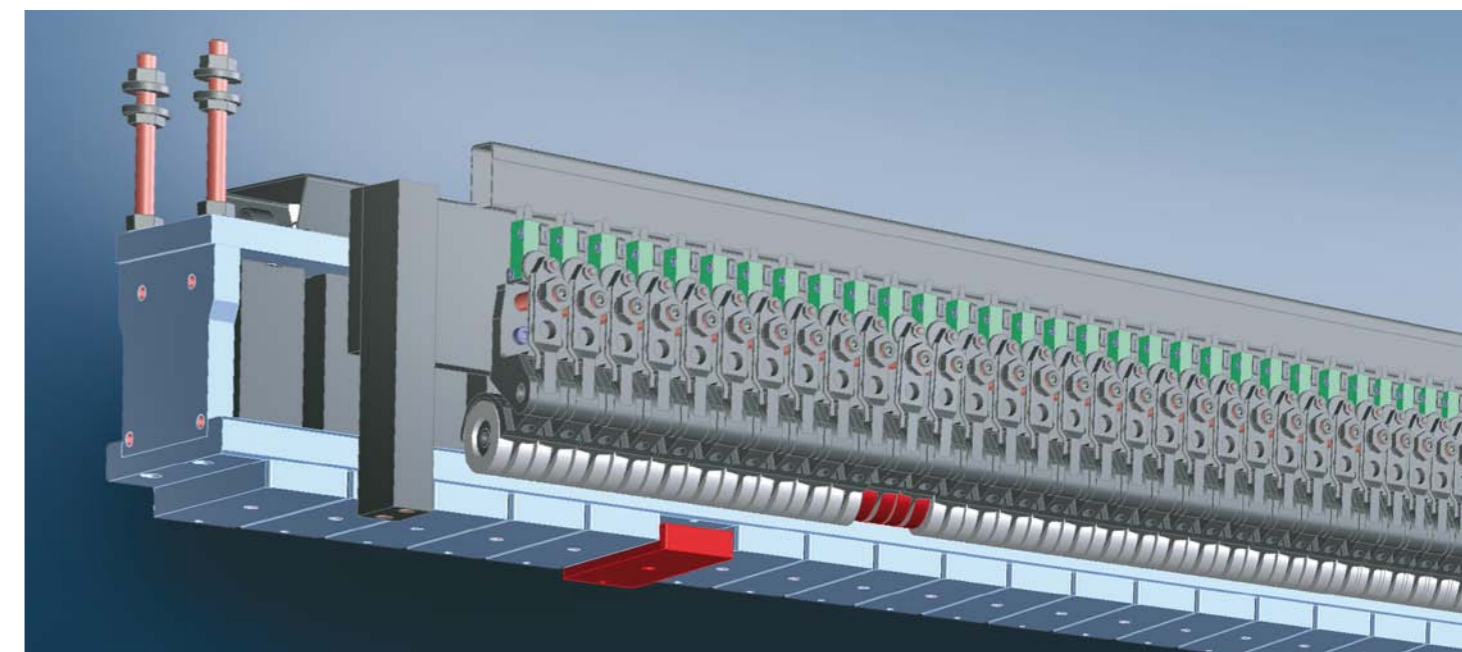
Parts are sanded uniformly without risk of sanding through lacquer or veneer

CUSTOMER USE:

Excellent thickness tolerance compensation
Maintenance free solenoids

CUSTOMER USE:

Proportional pressure control at the part edge ensures perfect sanding results ‘tip to tip’



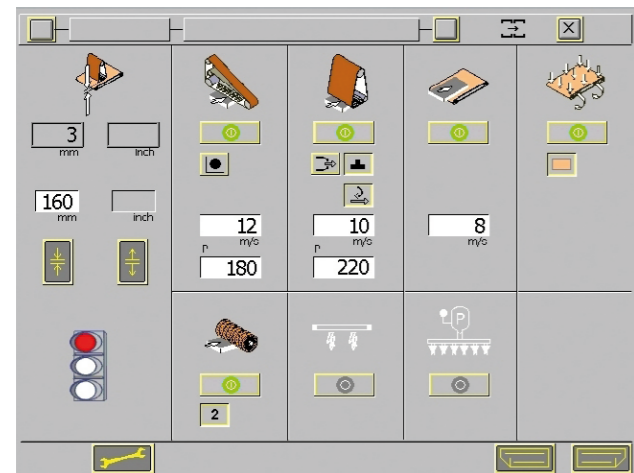
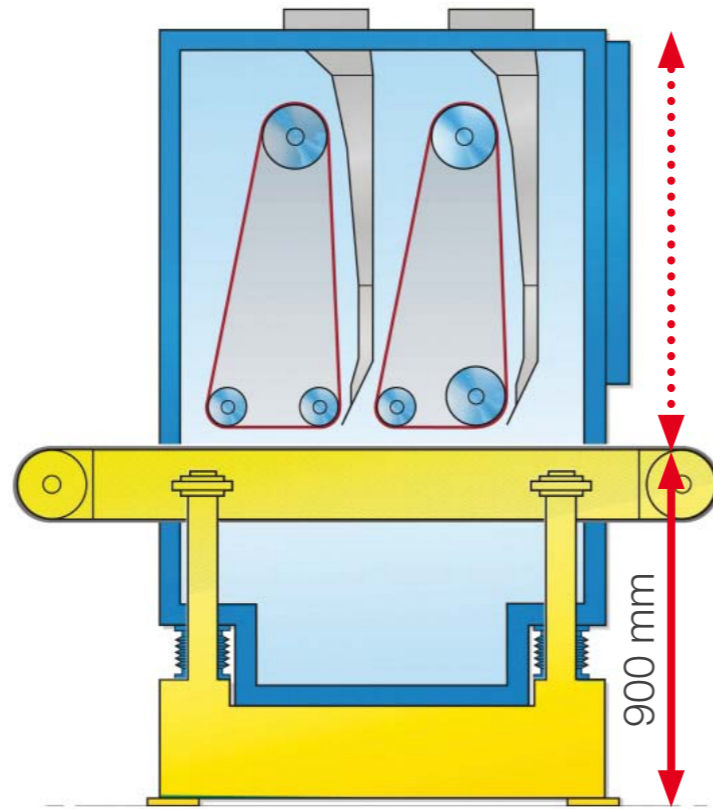
Workpiece thickness setting constant passline

Stable frame construction with constant passline of 900 mm by adjustment of upper machine part.

Workpiece thickness settings from 3 to 160 mm by four threaded spindles with 40 mm diameter.



Option: fold away table



Touch Screen Operator Terminal

14" Touch Screen for the complete control of the machine

600 sanding programs, clear-text error message, storage of **all** sanding parameters

Program change on the 'fly' within seconds

Wireless thickness measuring caliper ME 5000

Innovation by Bütfering

Wireless transmission of the workpiece thickness to the machine

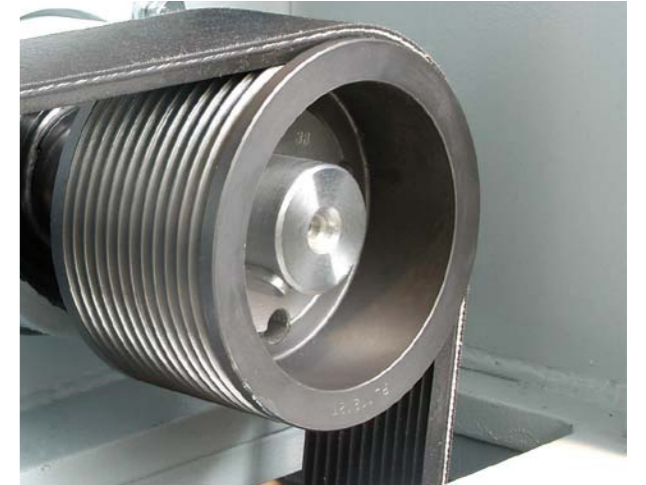
Different measuring modes



Variable cutting speed

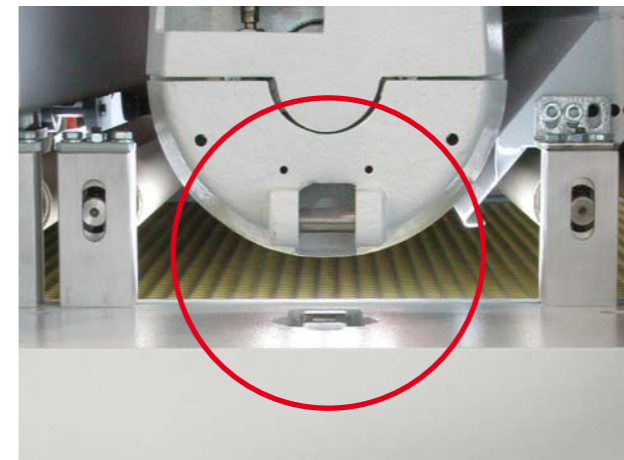
Rotation speed control via frequency inverter

Power transmission via Poly V-belts



Automatic head locking

Heads unlock / lock automatically when opening or closing doors
Eliminates operator errors and speeds up belt change time.



Variable feed speed

Variable feed speed by frequency inverter

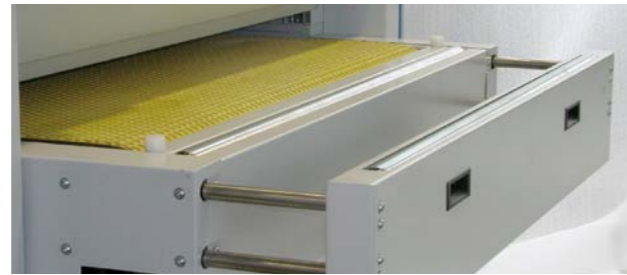
Rubberised drive drum

Large dimensioned bearings

$$V_f = 2.5 - 13 \text{ m/min}$$



Telescopic infeed extension



Vacuum table for secure part feeding

High-capacity fan with flow control valve inside the machine

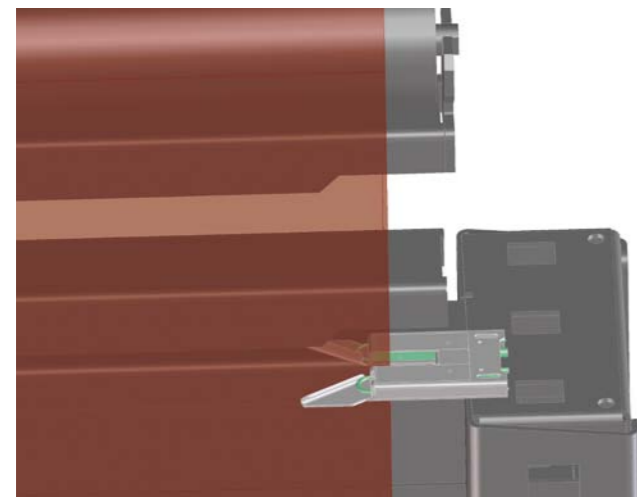
Divided table controlled by the Operating Terminal

Part guidance by rubberised pressure rollers

Spring-loaded pressure rollers with stable guidance

Rubberised pressure rollers placed close to the sanding heads

Additional pressure roller before and behind the workpiece sensing zone



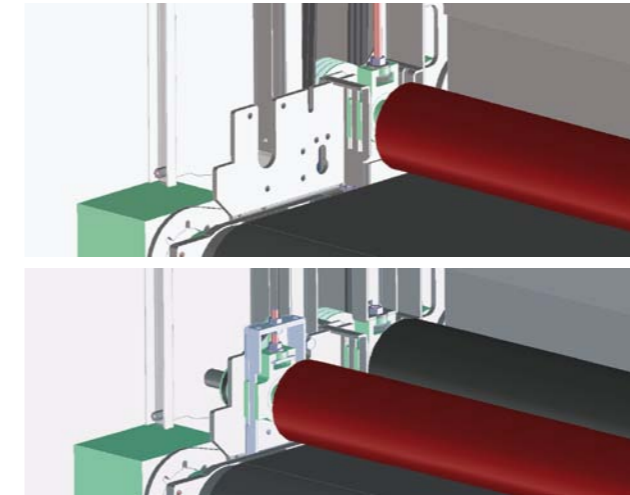
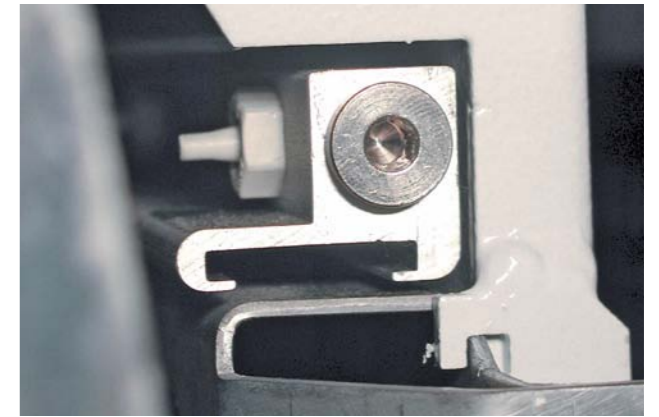
Electronic abrasive belt oscillation

Photo eye tracking of the abrasive belt
 Non contact failsafe system in the event of a belt mistrack
 Emergency power supply in case of power failure

Sanding heads with air-jet belt blowers

Pneumatic oscillating air-jet belt blower with integrated extraction device

Activated by the workpiece



Free space for extra brush

Head with driven panel cleaning brush and free space for later retrofitting of:

- Satinizing or structuring brush
- Cleaning plant with ionisation bar and extraction with rotating air-jets, activated by the workpiece



Automatic overthickness protection

Feed stops in the event of over thick parts being fed.

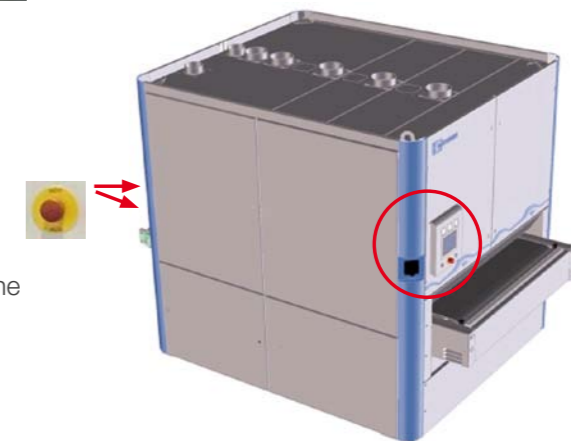
Sanding head stops immediately and sanding heads retract

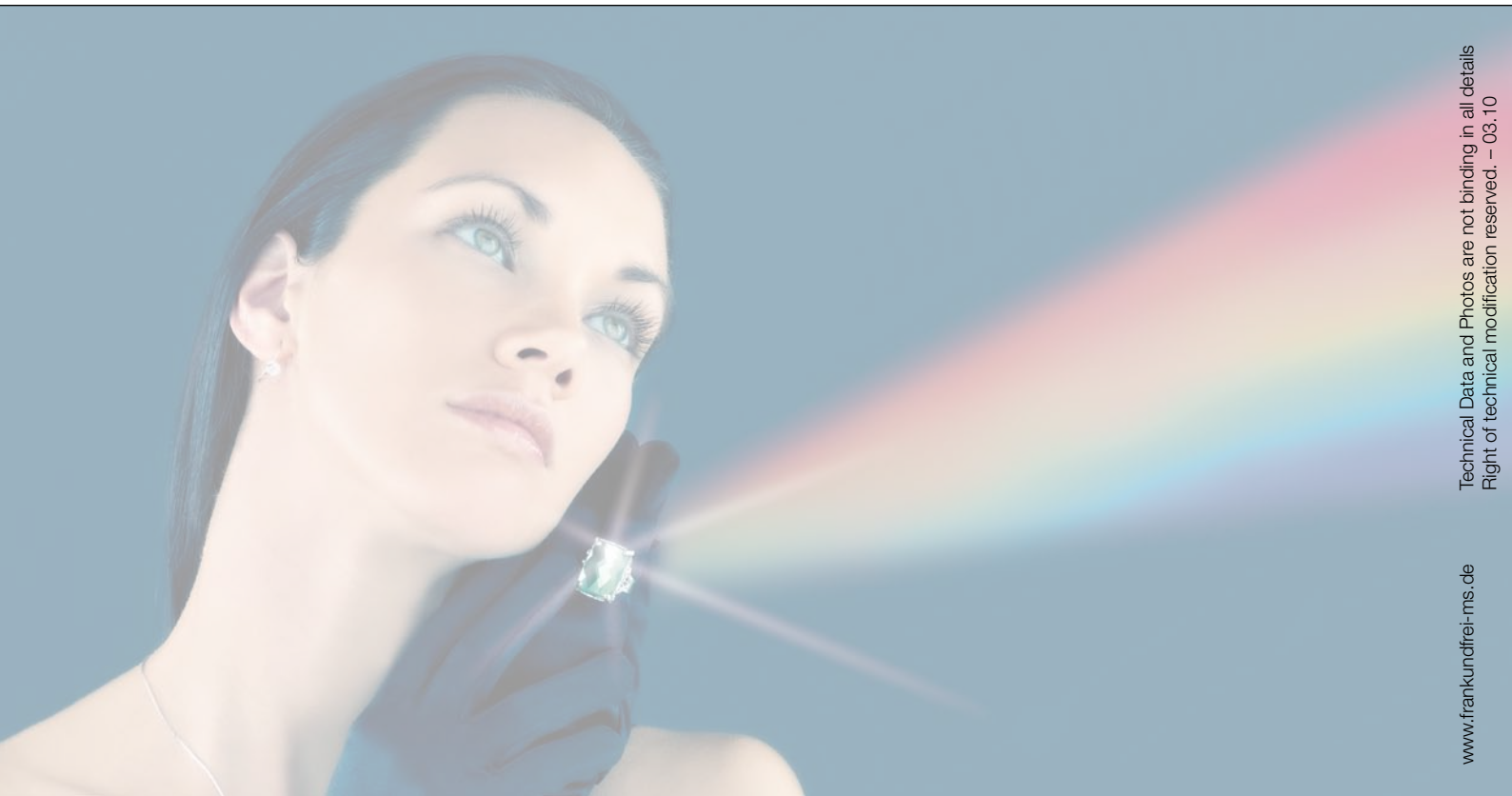
Clear text error message

Stopping of machine by emergency stop button

Three emergency stop buttons in total, which are located on the infeed and outfeed side of the machine

Immediate stopping of machine





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A Company of the Homag Group



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