



KUNDIG
The Sanding Experts

Documentation

Widebelt-Sanding

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1.1 Company Locations



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2.1 Premium-1

(-K) Basic Configuration, (-C) Combi unit with Segmented Pad



Basic Configuration:

Combi unit with rubber calibration roller (80 Shore) with pneumatic exclusion and sanding pad (80 mm wide) for even surfaces.

Options:

Electronically controlled segmented pad

Lacquer package

Vacuum table

Various brushes

2.2 Premium-2

(-RP) Basic Configuration, (-RE) with Segmented Pad



Basic Configuration:

Rubber calibration unit with pneumatic exclusion

Sanding pad unit (pad width of 80 mm)

Options:

Electronically controlled segmented pad

Lacquer package

Vacuum table

Various brushes

Very cost-effective universal machine for all purposes. For every task the appropriate sanding unit is available. Optimal calibration abilities thanks to the calibration unit and perfect surface finish due to the sanding pad. Stock removal up to 1.2 mm is possible with KÜNDIG Premium-2 sanders.

2.3 Premium-3



Basic Configuration:

Two rubber calibration units with pneumatic exclusion

One pad unit with sanding pad (80 mm wide)

Options:

Electronically controlled segmented pad

Lacquer package

Vacuum table

Various brushes

This sander is perfect for almost every sanding task, be it calibration, veneer or lacquer. Stock removal up to 1.5 - 2.0 mm is possible in just one pass with KÜNDIG Premium-3 sanders.

RRP	Basic configuration
REE	One rubber calibration unit with pneumatic aggregate raising
	Two sanding pad units with electronically controlled segmented pad (35 mm)

3.1 *Brilliant-1*



Basic configuration:

Combi unit (calibration unit/sanding pad)

Sanding pad (80 mm wide) with pneumatic exclusion

Unit manually pivotable by 10 degrees

Vacuum table

Options: See options list

Wood (Kd)	Basic configuration
Veneer (Cd)	With segmented pad - segment width 35 mm
Lacquer (CdL)	With segmented pad - segment width 22 mm Steplessly adjustable belt speed With belt cleaning and extraction ducts

3.2 *Brilliant-2*



Basic configuration:

One rubber calibration unit with pneumatic exclusion

One sanding pad unit (sanding pad width: 80 mm)

Unit manually pivotable by 10 degrees

Vacuum table

Options: See options list

Wood (RPd)	Basic configuration
Veneer (REd)	With segmented pad - segment width 35 mm
Lacquer (REd-L)	With segmented pad - segment width 22 mm Steplessly adjustable belt speed With belt cleaning and extraction ducts

3.3 *Brilliant-3*



Basic configuration:

Two rubber calibration units with pneumatic exclusion

One sanding pad unit (sanding pad width: 80 mm)

Unit manually pivotable by 10 degrees

Vacuum table

Options: See options list

Holz (RKPd)	Basic configuration
Veneer (RCEd)	With segmented pad - segment width 35 mm
Lacquer (RCEd-L)	With segmented pad - segment width 22 mm Steplessly adjustable belt speed With belt cleaning and extraction ducts

4.1 Control Panel



The control panel is neatly arranged and organised by functional control.

Therefore, easy handling and rapid adjustments are achieved.

Errors are shown on the display and can immediately be analysed and resolved.

4.2 Quick-Start



Stored settings can be recalled by pressing quick-start buttons 01 - 54

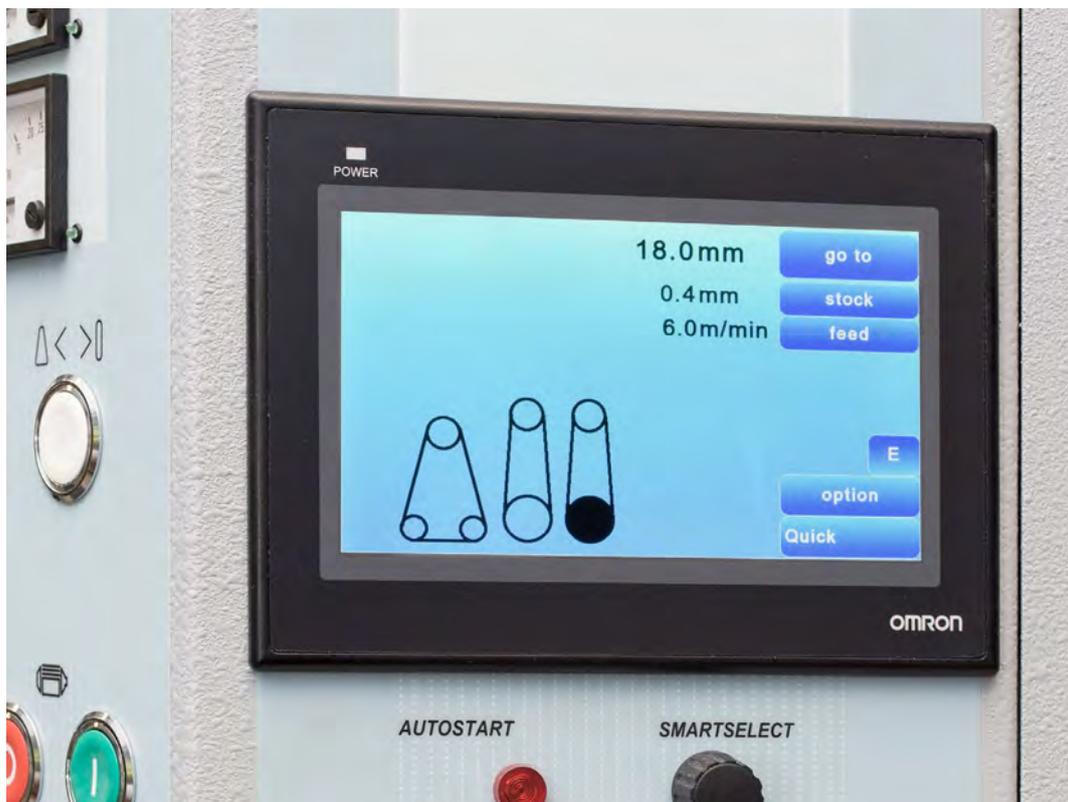
The grit of the utilized sanding belts can be stored within the quick start programmes to make sure the user applies the appropriate belt before starting the sanding operation.

The stored workpiece-settings are being applied directly. The machine adjusts itself to the previously stored parameters and activates the Enormatic function. After that, the only thing the operator needs to do is to put the workpiece into the machine entry. The machine initiates and conducts the sanding procedure automatically.



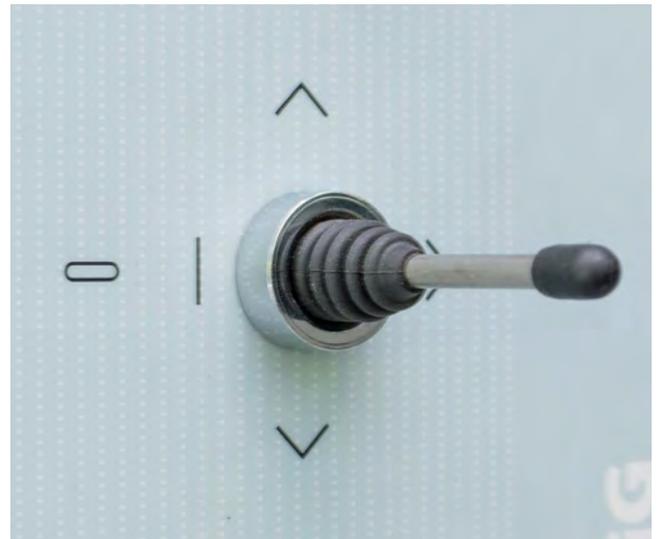
4.3 Main Menu Screen

The main menu screen appears after the machine is turned on. It clearly shows the most basic information and allows fast access and adjustments by touch control.



4.4 Settings

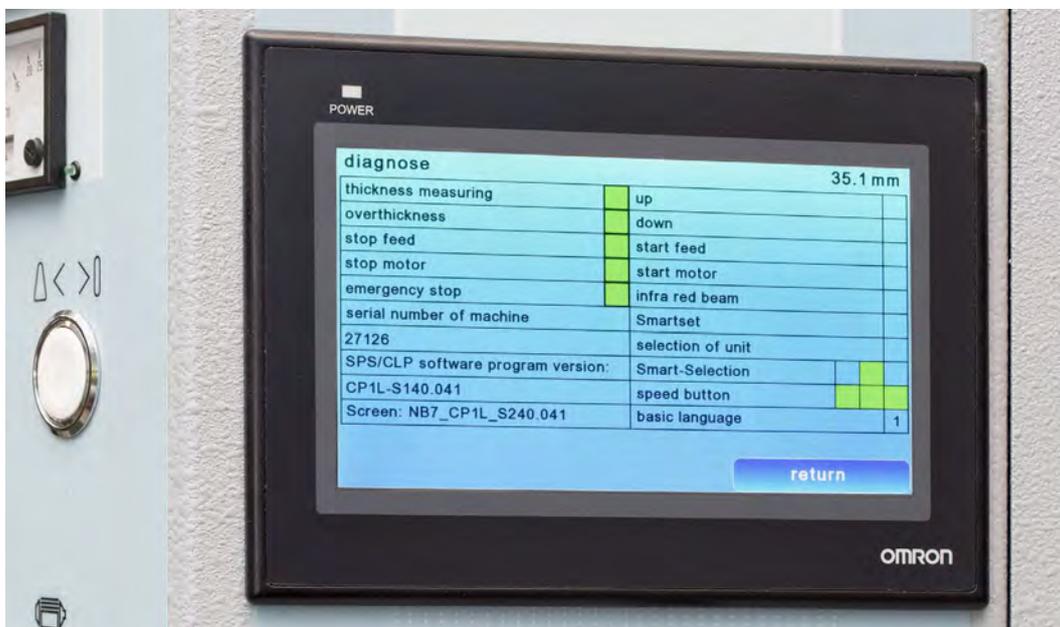
When making adjustments such as stock removal, feed speed or belt speed, they show up as an enlarged sub-menu on the screen. Therefore the risk of accidental or unwanted adjustments is considerably minimized.



4.5 Error Diagnosis



Errors and malfunctions are shown on the display and in most cases can be resolved by the operator directly.



For more detailed error diagnosis, a separate page is available by pressing the button diagnosis on the display. Errors, input and output signals and functions can be monitored in this menu.

5.1 *Height Adjustment*

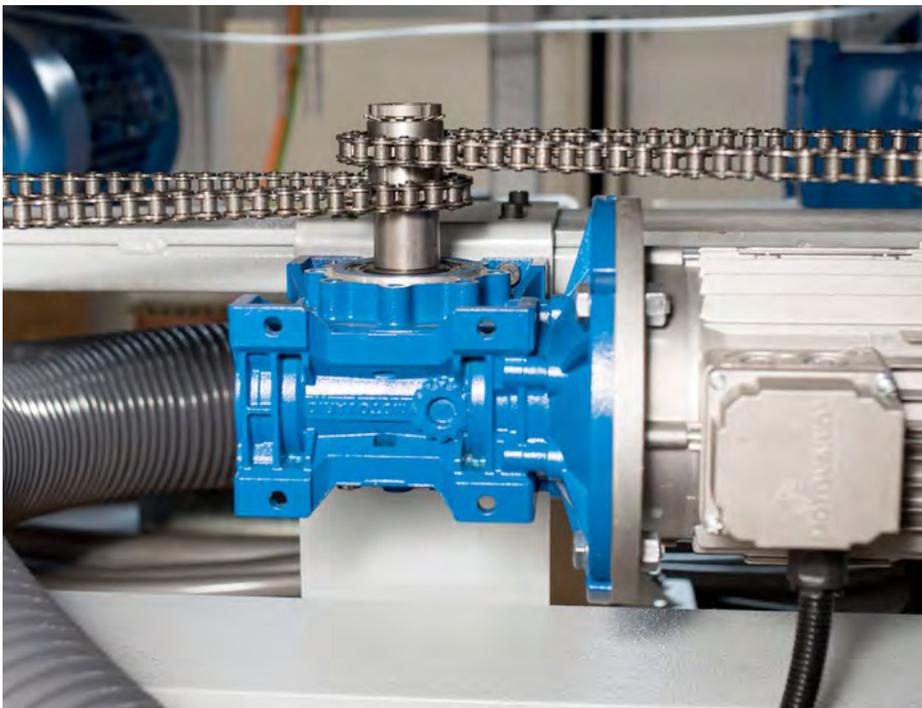
The height adjustment spindle consists of the following parts:

- Chain sprocket
- Precision jack screw with elimination of play.
- Sleeve

Parts not visible:

- Rolled precision-spindle (reduces friction, wearfree)
- Spindle nut in upper section

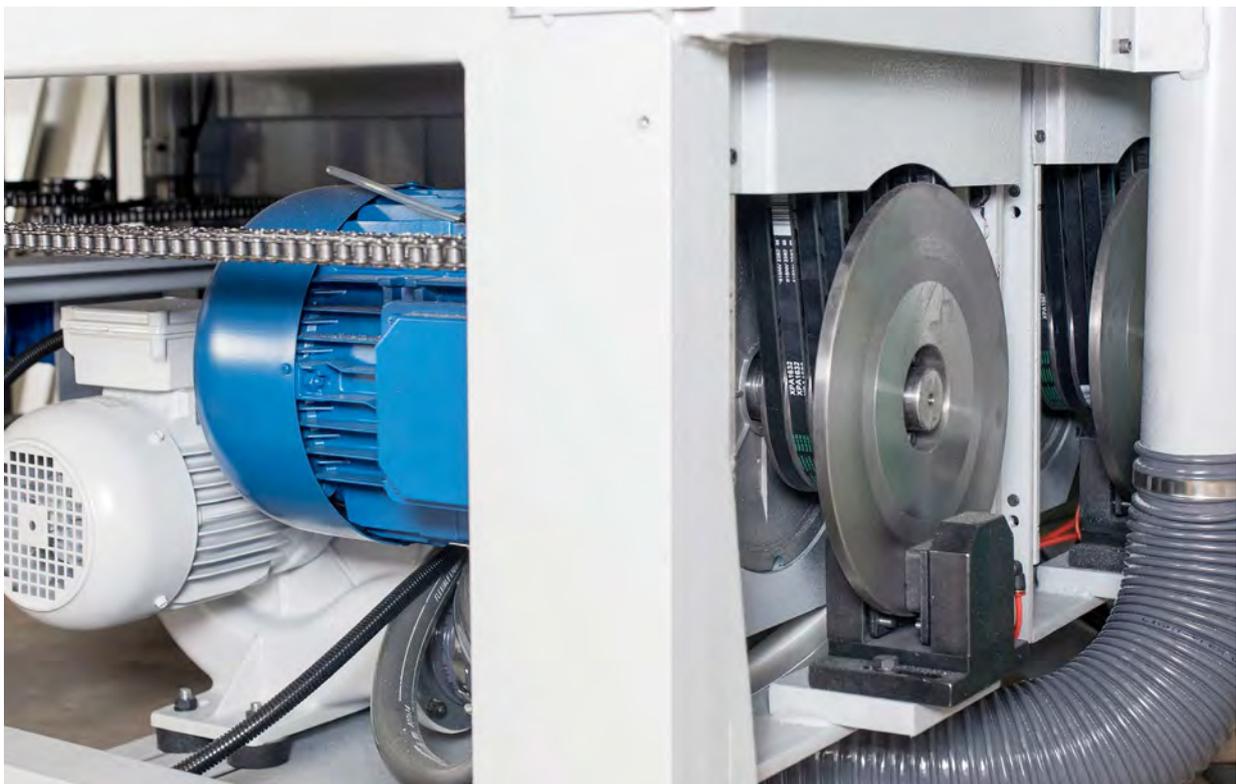
The spindle is placed directly next to the table mounting. Thus achieving maximum stability.



KÜNDIG wide belt sanders are characterized by an optimal geometrical assembly of machine parts. The forces that are at work during the sanding process are being absorbed where they develop. This ensures great stability and smooth operation.

5.2 *Main Drive*

- Main drives for the sanding units are available from 9 to 45 kW.
- Level of efficiency exceeds 90 %.
- Main drives can be steplessly adjusted using frequency converters
- Option for two main drives
- Large diameter disc brakes ensure a very efficient stopping time in the event of an emergency stop, power cut or failure of compressed air.



5.3 *Belt-Oscillation*

Scanning of the edge of the sanding belt is carried out by an optical sensor. By using the vented air from the oscillation cylinder to clean the optical sensor of sanding dust, the machine optimizes its consumption of compressed air. Also visible are the oscillation cylinders, high precision abrasive belt tension roller and its pendular-mounting.



6.1 Enormatic Measuring-System

Fully automatic and hands-free measuring system is especially practical to measure larger workpieces. There is no need to have an additional operator.

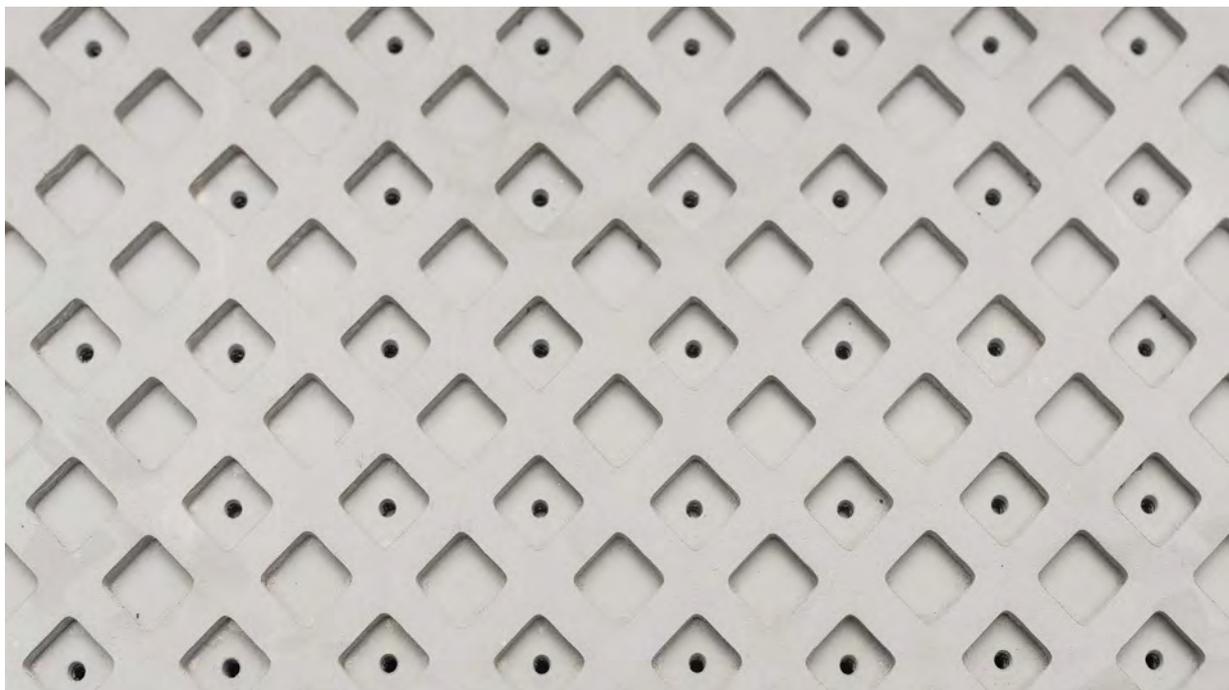


- Press Smartset ENORMATIC-button
- The red signal-lamp *Autostart* flashes up
- Place the workpiece under measuring-roller
- The machine measures workpiece thickness and subtracts desired stock-removal
- After adjusting itself to the workpiece thickness, the sanding procedure automatically starts

This procedure is only necessary for the first workpiece of a production batch

7.1 *Vacuum-Table*

The vacuum table prevents the workpiece from sliding on the conveyor belt during the sanding process.



Vacuum fans are mounted under the machine table. The removed air is guided back into the dust extraction system.



For particularly small parts a small parts vacuum can be ordered, which has a suction hole in every indentation of the conveyor belt. Thus generating a significantly stronger vacuum effect.



7.2 *Electronic Pad*

Electronically controlled with variable edge detection and constant pressure.

Guided segments with 22 mm or 35 mm widths.

In the diagonal unit, the segments automatically align depending on unit orientation.



35 mm partition



22 mm partition

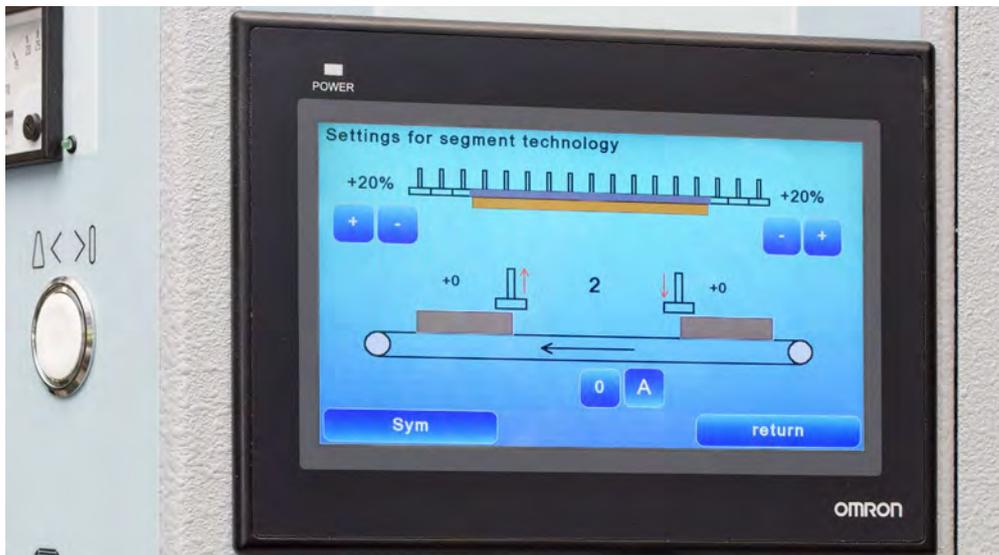


22 mm partition (diagonal)

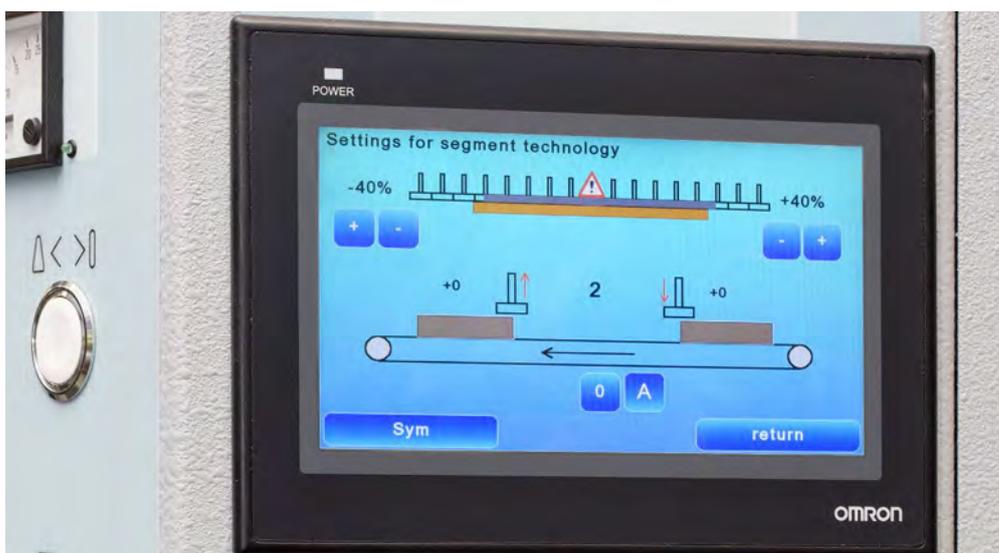
7.3 *Electronic Pad Control*

The electronic pad control is part of every KÜNDIG sander equipped with an electronic pad.

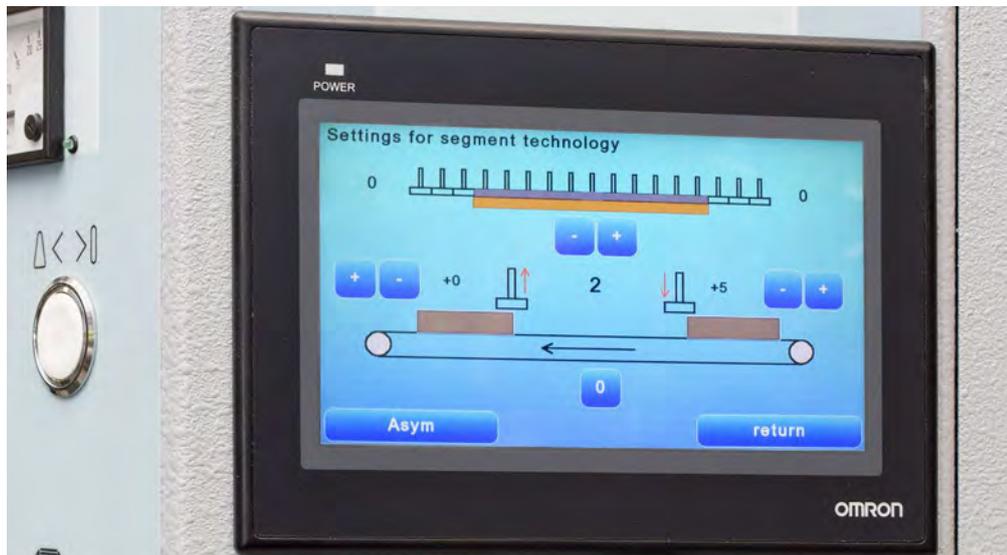
The pressure on the outer segments can be variably adjusted for each side separately. The pressure can be reduced or increased by percentage in relation to the other segments.



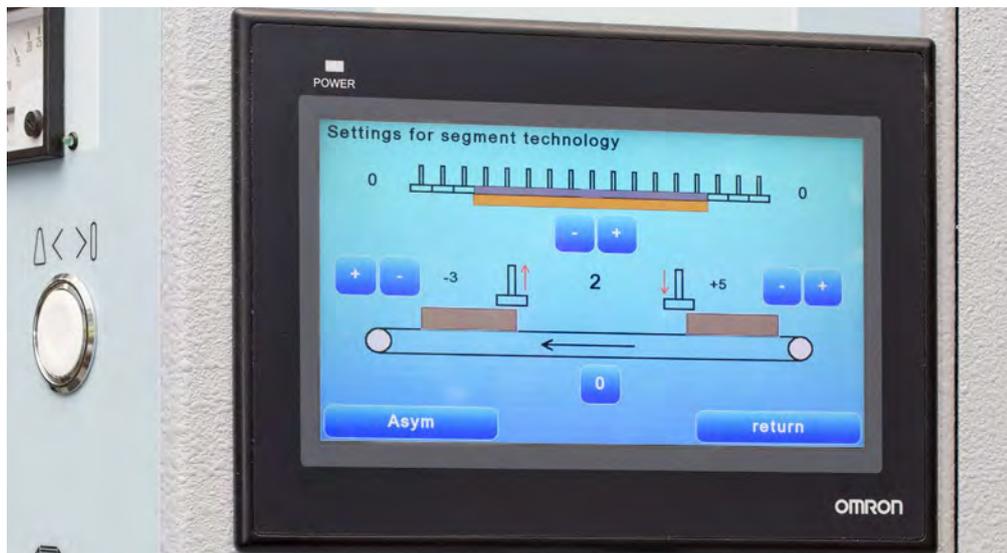
Asymmetric settings (different edge pressure on both sides) are also possible.



To specifically concentrate on either the front or rear end of the workpiece, the activation of the sanding pad can either be delayed or accelerated. The following picture shows an accelerated activation of the sanding pad.



The lower picture shows an early retraction of the sanding pad. Front and rear workpiece edge can also be individually adjusted.



7.4 Table-Enhancement



7.5 *Lacquer Sanding*



Belt speed can be steplessly adjusted via the touch screen.



7.6 ***Ionising and Workpiece Cleaning by Air Jet***



Pictured with initial ionising (to eliminate static charge on workpiece surface)

7.7 ***Structure- and Dust-Brush***



7.8 Calibration Units

Rubber calibration-units are available in various hardness grades (upper picture).
For specialised purposes steel calibration units are also available (lower image - right roller)



8.1 Cutter Tool

For stock removal of 1.5 mm or more our machines can be equipped with a cutter head.



Spirally arranged cutter heads with reversible knives.

8.2 *Brush Aggregate*

For rounding off edges, for use in the window industry and for sanding out the recesses in 5-piece-doors the brush-aggregate is ideally suited. The aggregate consists of 21 brushes that are revolving, oscillating and rotating. It can either be mounted at the end of the machine or in between other aggregates.



9.1 *Oblique Sanding*

With traditional sanding, minor blemishes and wear marks will appear on the sanding belt. These flaws can appear on the workpiece as a serpentine scratch line. By pivoting the sanding unit, this can be prevented. Surface quality and sanding belt lifetime are greatly improved.



Pivoting the sanding unit will give a cross-sanding effect. This allows for a much more even and smooth surface. It reduces lacquer consumption, similar to a conventional cross-belt sanding unit.

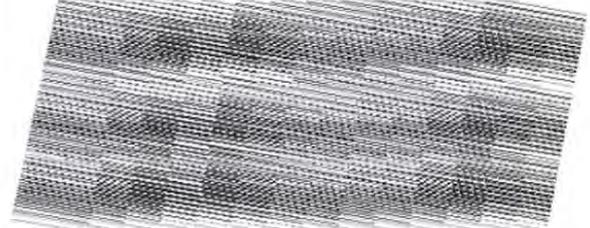
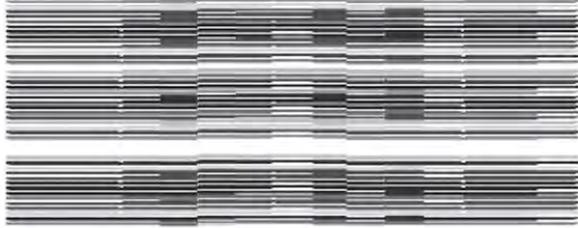
pivoted

- Cross-sanding effect
- Lacquer sanding
- Veneer, pre-sanding / final sanding
- Window frames and sanding of other complex parts. (No vibrations on transverse parts)
- Solid timber sanding
- Cleaning, deburring and fine sanding, all in one pass

non-pivoted

- Workpieces with cutouts and very thin sections
- Heavy calibration work with stock removal of 0.5 mm and up
- Sanding of wood strips

Oblique sanding units are available from working width 650 mm to 1900 mm.

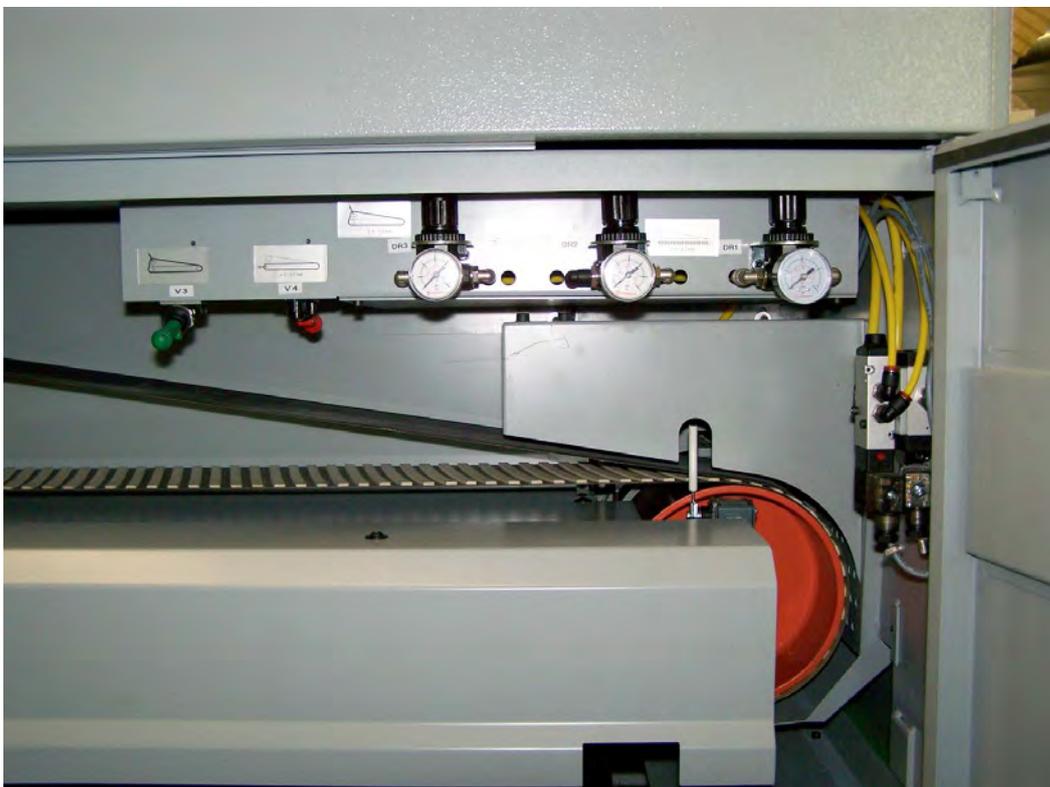
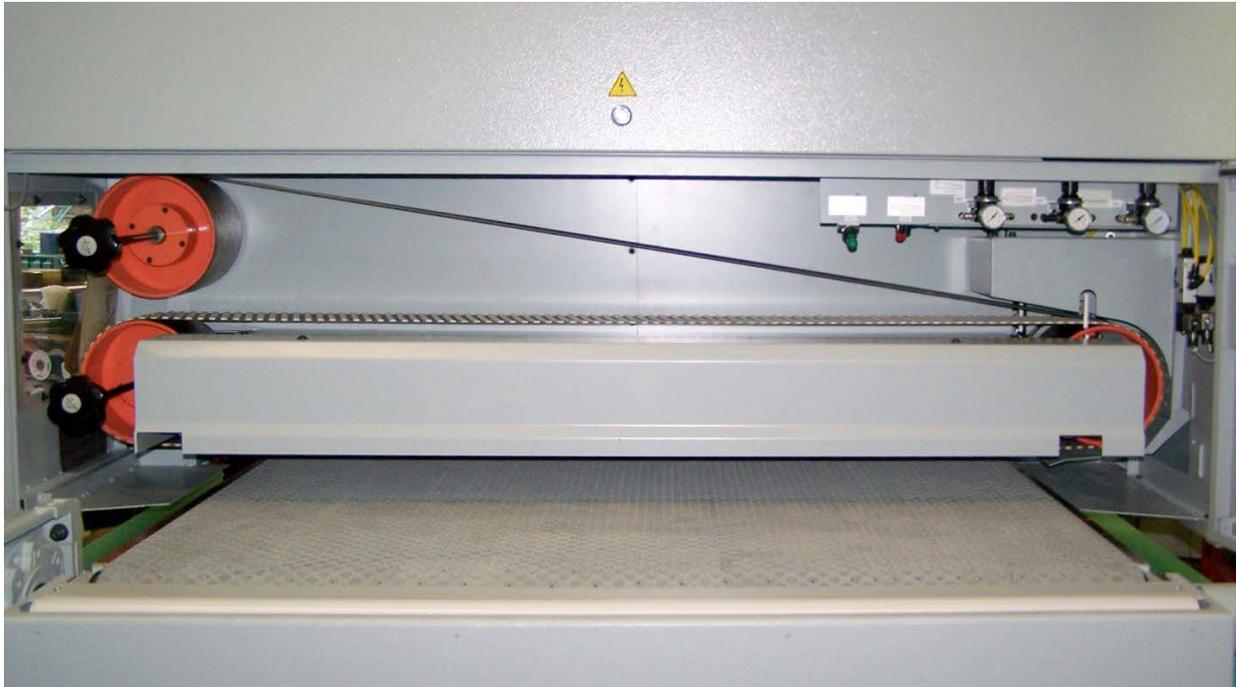


Oblique sanding means that the unit is not oriented in a right angle to the conveyor belt but pivoted by an angle of 10° . Sanding belt errors, wear marks and broken grit traces are no longer visible on the workpiece surface.

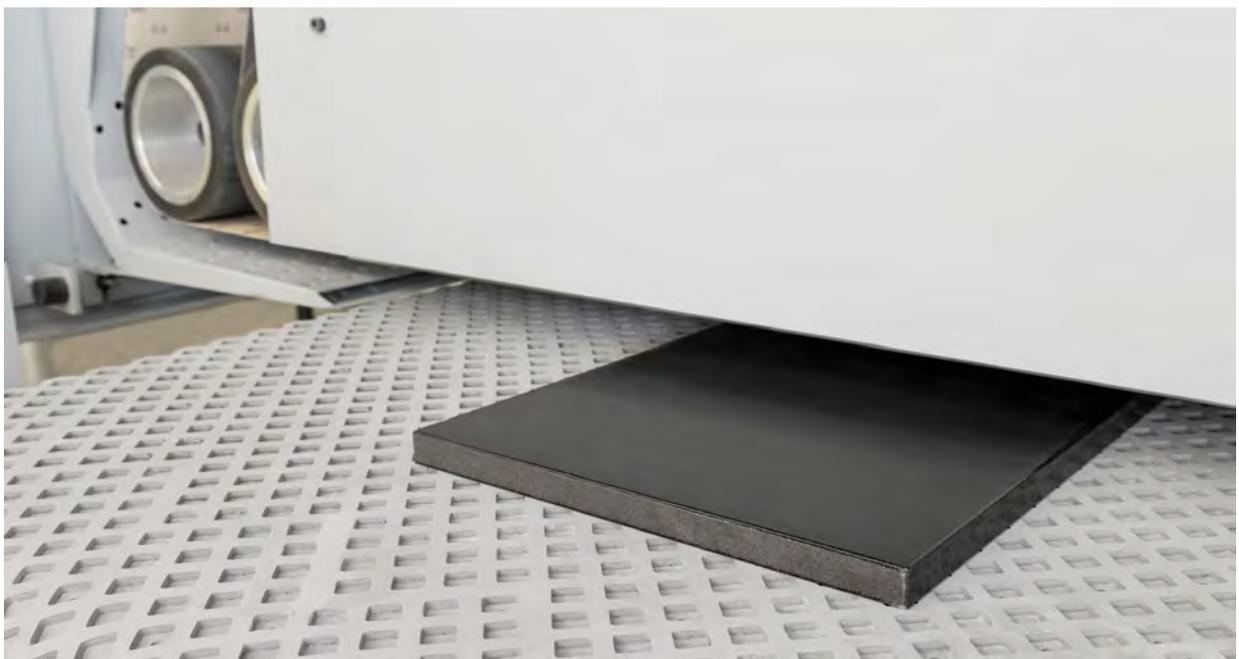
Other advantages:

- Sanding belts can be used longer and need to be replaced less frequently because belt flaws vanish on the workpiece surface.
- With one-unit-machines a cross-belt effect can be achieved in two passes
- Straight unit for pre-sanding, pivoted for fine-sanding

10.1 Cross-Sanding



10.2 *High Gloss Unit*



11.1 *Technic*

Every model of the Premium and Brilliant-Series (including BOTOP) can be ordered in the "Super Variant"

Advantages:

- Rollers of Ø 212 mm are available
- Even smoother running Ø 175 mm belt tension rollers
- Machine table and conveyor belt rollers are more heavy duty
- Machine chassis profiles are welded from even larger section steel profiles
- Pad rollers on sanding pads have Ø 175 mm
- Belt length generally: 2620 mm, optionally: 3250 mm

These enhancements for our proven sanders are meant for applications such as sustained very high stock removal or machines running in an around the clock shift system

Working widths (in mm): 650 / 1100 / 1350 / 1600 / 1900 / 2200



11.2 *Technic 2250*



11.3 Heavy Industry Machines

These machines are constructed for high stock removal and feed speeds of up to 120 m / min. Customer specified exterior colours are also possible.

for wood

Two calibration units (rubber rollers) and one sanding pad unit.

Motor output: 1 x 45 kW and 2 x 30 kW.

One calibration unit (rubber rollers) and one sanding pad unit.

Motor output: 1 x 30 kW and 1 x 22 kW.

for plywood

Two calibration units (rubber rollers) and one combi-unit with rubber roller and sanding pad.

Motor output: 1 x 37 kW and 2 x 30 kW. (up to 75 kW)

for plastic /composite panels

Three calibration units (steel)

Motor output: 2 x 45 kW and 1 x 30 kW.

for steel panels

Three calibration units (rubber) 80 sh, 70 sh und 40 sh

Motor output: 2 x 45 kW and 1 x 30 kW.



11.4 *High Pressure Laminate and Synthetic Resin Panel Machines*

These machines are ideally suited for shift operated panel-productions. Thanks to a counter roller minimal thicknesses of 0.5 mm can be processed.



11.5 *BoTop Machines*

Our Botop-Series machines can process the upper and lower surface of a workpiece in one pass. Configuration possibilities are the same as in our Premium and Brilliant Series.

Advantages:

- compact construction
- same components as used in our standard machines
- easy controls
- double-sided processing





11.6 *Billy Roller Machines*



11.7 *Double Frame Machines*

Thanks to the special construction of this machine type, the vibrations caused by the cutter head are not transferred onto the other units.



11.8 Custom Machines

Special situations require special machinery.



12.1 *Showroom Wetzikon*

