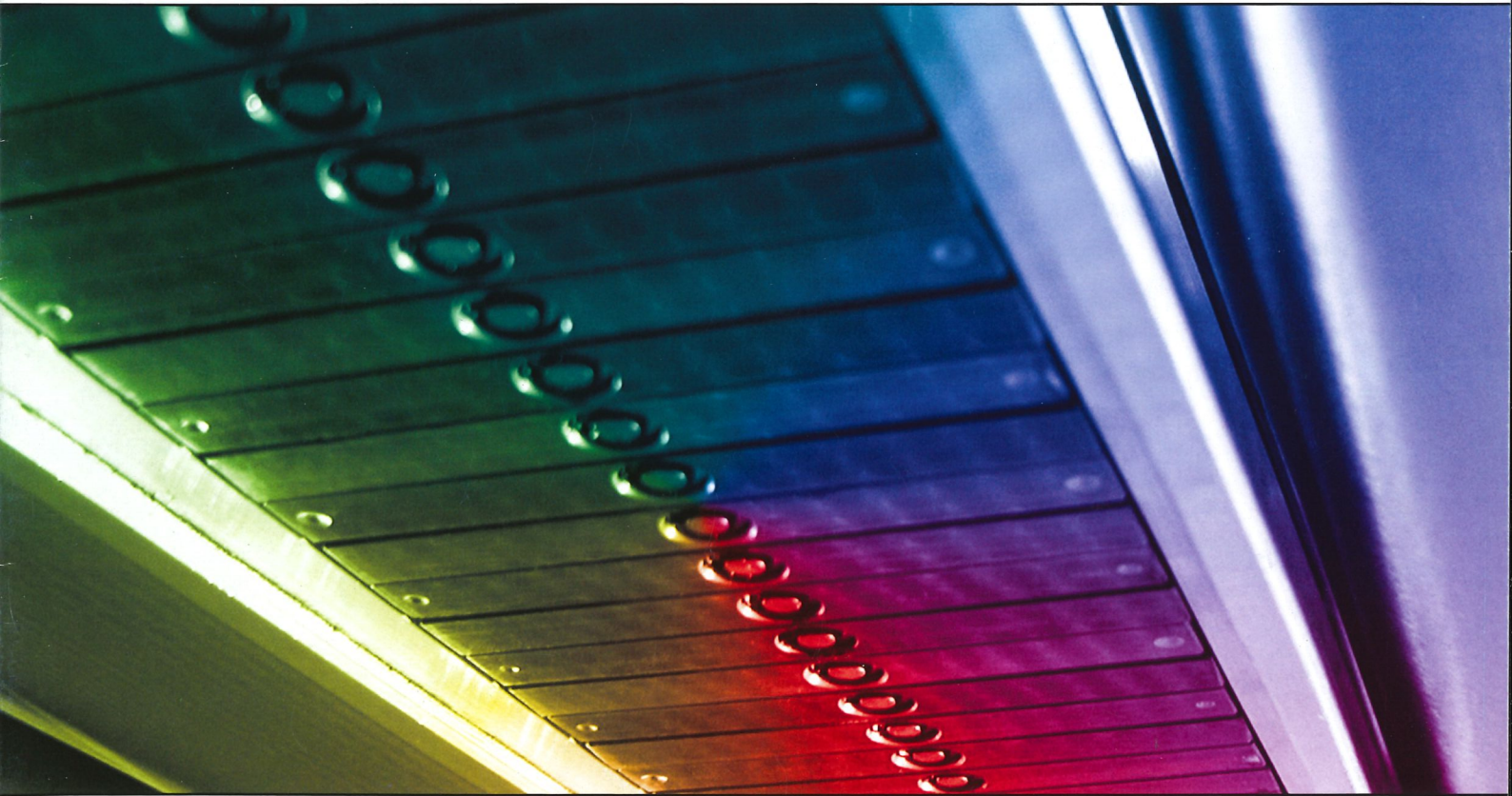


# Wide Belt Sanding Machines

## Optimat SCO 111-413



Optimat | profi line | power line



# Bütfering SCO 111-413





## All from one source

Woodworking companies all over the world are using Bütfering wide belt sanders. For over 50 years Bütfering have been making sanding machines, and today still specialise in this field. With such a focused research and development program, Bütfering will always offer the latest in sanding technology and live up to a reputation for high build quality, and dependable performance. Since 2002 Bütfering has been a part of the Homag group, and is recognised as one of the leading manufacturers of wide belt sanders. Customer orientated machine solutions are guaranteed by the qualified sales network of the Homag Group, and an extensive number of dealers world-wide who are supported by Bütfering's experienced sanding specialists. Continual training increases the qualification of more than 200 staff employed at the Beckum facility.

Produced in Germany, the SCO range has been designed and built using the latest manufacturing techniques.

First class sanding technology and attractive design.

This is the best way to describe the Optimat Series SCO 111 – 413. In addition to the outstanding functional characteristics behind its "closed doors", the machine is also notable for it's modern aesthetic appearance and design.

With the Optimat SCO range, Bütfering continues to raise the standard in sanding technology, and remain 'One Step Ahead'.





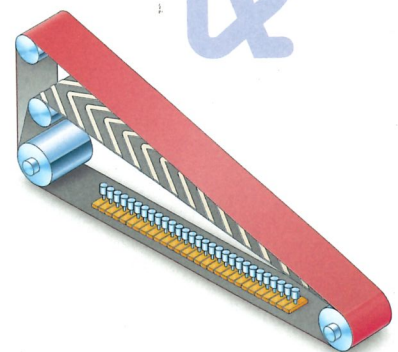
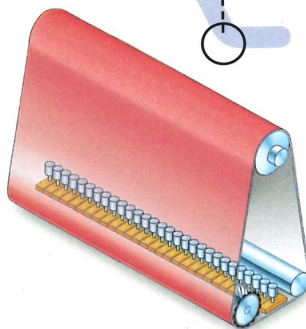
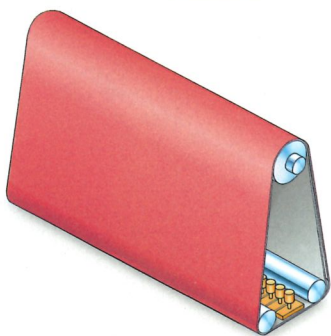
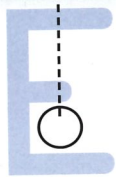
# Bütfering SCO 111-413



**Head Type E**  
*Electronic segmented  
pad with segment width  
50, 25 or 12,5 mm !*

**Head Type C**  
*Combined unit of contact  
roller and electronic  
segmented pad with  
segment width  
50,25 or 12,5 mm!*

**Head Type Q**  
*Crossbelt sanding unit with  
electronic segmented pad  
with segment width  
50 or 25 mm*



The four SCO modules



# Maximum Flexibility by Modular Design

The modular design of the SCO line enables the mounting of all sanding head types (1 – 4), in any order, onto the machine frame. This gives maximum flexibility to configure a machine to suit individual applications, with the heads being positioned accordingly to their individual purpose.

The following types of heads are available:

- Contact rollers, in different diameter and hardness
- Combi-heads with a roller and segmented pad
- Electronic segmented pads
- Cross belts
- Brushes

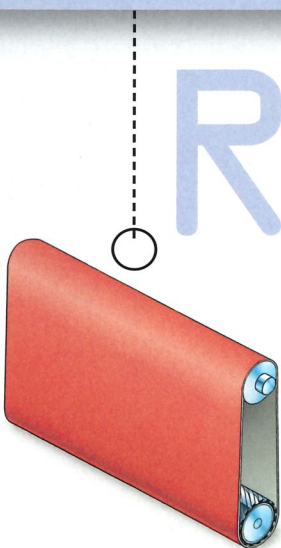
SCO machines are available in working widths of 1100 mm and 1350 mm (Machines with a crossbelt are only available as 1350 mm).

The abrasive belt lengths of the wide belt heads are 2150 mm or 2620 mm. The standard Touch-Screen Terminal has 125 sanding programmes for fully automatic machine control. A TE 14 Terminal with 1000 programmes (monitor size 10,4 inch) is optional.

Various brushing or air-jet parts cleaning systems can be fitted onto the outfeed side of the machine.

## Head Type R

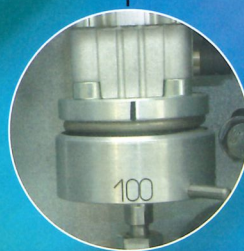
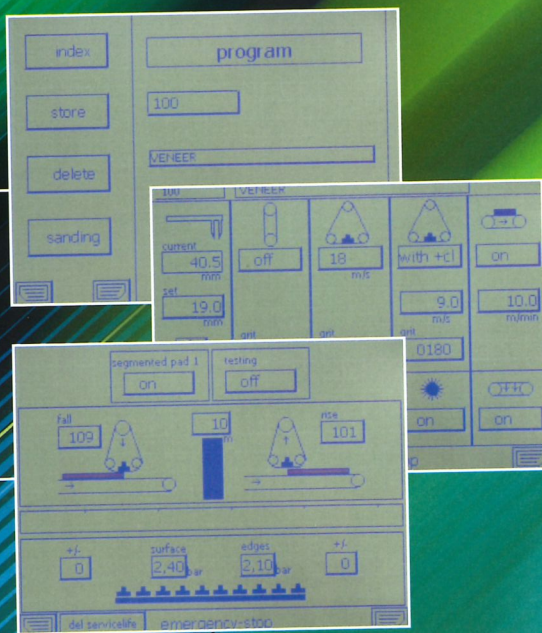
Contact roller unit  
with steel or rubberised  
roller diameter 240 mm  
or optional 320 mm



SCO 213 CE



# Bütfering SCO 111-413



## Terminal TE 11

- "One Touch" program controlled machine setting – with 125 programs
- visual control of all parameters
- sanding pressure programming of the CPS II electronic pad
- automatic error diagnosis
- visual display of all activated segments of the CPS II electronic pad
- fully automatic start sequence of all drives
- 2 separate working hour meters
- display of abrasive belt wear
- terminal languages German, English, French, Italian and Spanish

## Features of the sanding head

- Aluminium head covers act as guides when changing abrasive belts
- All contact roller heads feature automatic positioning, controlled from the program, with abrasive belt grit size compensation

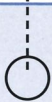
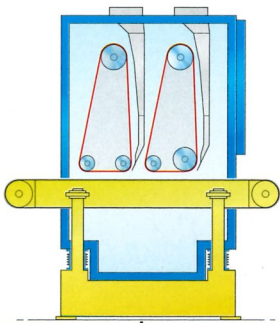


# Futuristic technology as standard

Bütfering has re-defined the standard technique for Wide Belt Sanders with the SCO line.

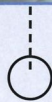
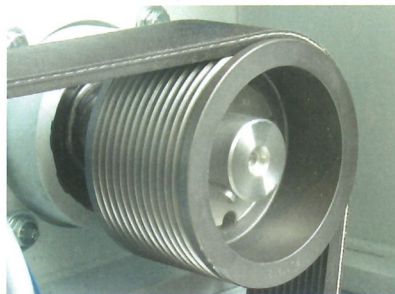
Some of the highlights of the SCO line are:

- Patented CPS II segmented pad
- Touch-Screen Terminal
- Constant passline design
- Frequency controlled, variable feed speed
- Maintenance-free electronic braking system
- Photo-electronic abrasive belt control
- Poly V-belt drive
- Protected storage space for sanding inserts
- Separate drive motors for each head



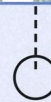
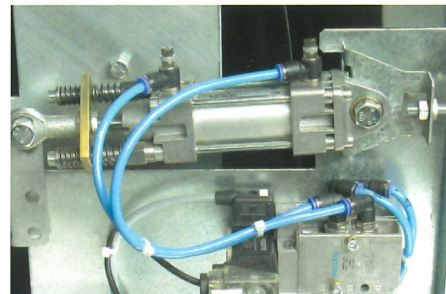
### Constant passline

The Bütfering principle of the constant passline – stable feed drive with large dimensioned threaded spindles for adjustment of upper machine part



### Poly V-belts

Efficient, quiet and smooth power transmission – all abrasive belt drives with Poly-V-belts



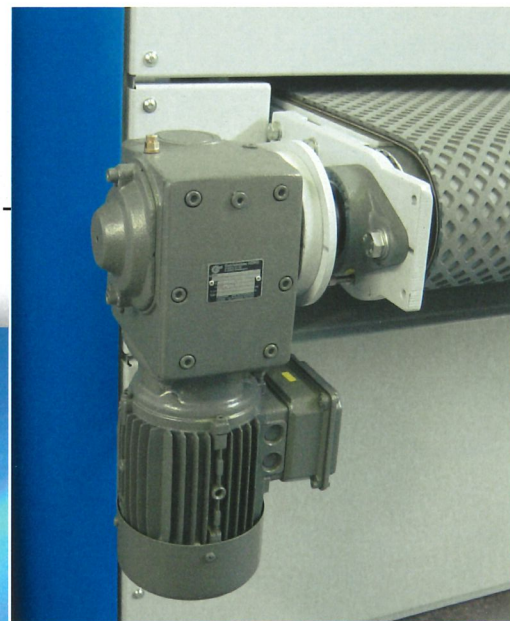
### Oscillation

Electronic abrasive belt oscillation, self-cleaning, with shock absorber for smooth belt tracking

**Sanding insert storage**  
Protected storage area for additional sanding inserts

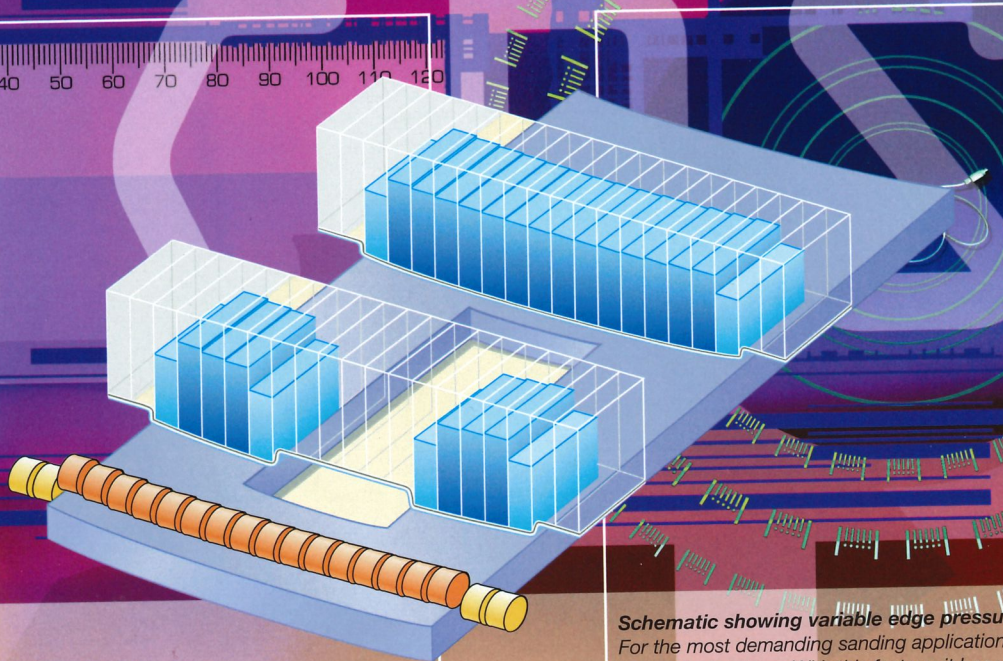


**Variable feed**  
frequency controlled feed speed with rubberised conveyor drive drum





# Bütfering SCO 111-413



**Schematic showing variable edge pressure for 50 mm or 25 mm segments**  
For the most demanding sanding applications, the use of variable edge pressure is a real advantage. With this feature, it becomes easy to sand the thinnest of veneers, and lacquers. Parts entering the sander are scanned to establish their size and shape. In this way the controller automatically identifies edge segments, and then accurately applies the programmed sanding pressure accordingly. The pressure on edge segments can be set either higher or lower than the segments sanding the remainder of the part. Pressure is regulated to 1/100 Bar.



CPS II Segment  
50 mm



CPS II Segment  
25 mm



CPS II Segment  
12,5 mm!

Segments shown actual size



# CPS II – the patented segmented pad

Maintaining the correct pressure on the sanding belt is the key to perfect, consistent sanding results. Correct pressure at the right time and the right place! The CPS II segmented pad is based on a Bütfering patent and has been specially designed for the SCO series. It's characteristics make it the ideal tool for veneer, lacquer and solid wood sanding applications.

Unique to the CPS II system is the complex aluminium extrusion used to provide support and sanding pressure to the segmented pads. Dust tight pneumatic chambers in the extrusion provide the pressure to the individual segments when needed, with the pressure being accurately program controlled to within 0.01Bar. The CPS II can handle thickness tolerance variations within a part, or between two parts of up to 2mm while guaranteeing a constant stock removal and sanding result.

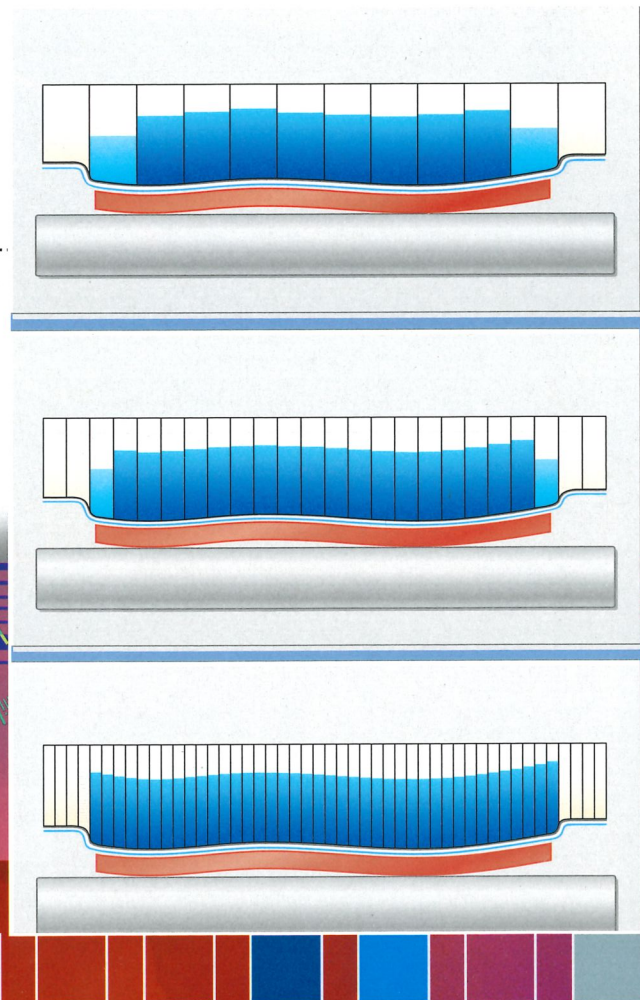
*Even when parts aren't perfectly flat the CPS II segmented pad ensures a constant sanding pressure. The pressure to each segment is regulated from the program, and the pads 'float' on the surface of the part, following any undulation and ensuring a perfect sanding result.*

*With 50 and 25mm segments, the pressure on edge segments can be regulated separately to sand lighter or harder as required.*

In addition to segment widths of 50, and 25mm, an extremely narrow segment of 12,5 mm is available to provide perfect 'edge matching' on the most intricate of components. Each head of a multi-head machine can utilise a different segment width if required.

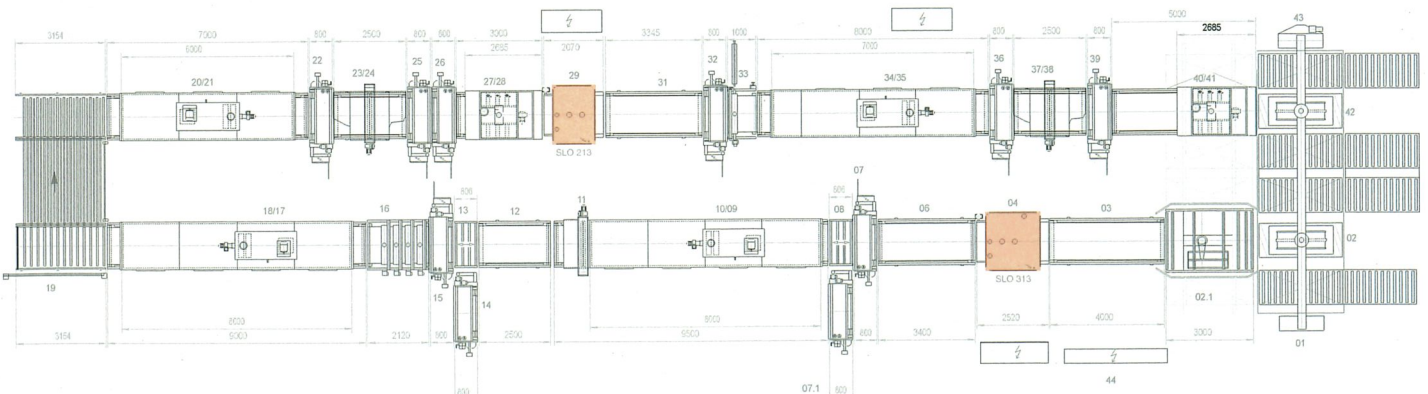
A feature of the CPS II pad is the extremely wide area of contact from the sanding pads. Standard longitudinal belts give a contact of 110mm, and cross belt units give 150mm.

With years segmented pad experience, the Bütfering CPS II system is designed to be absolutely maintenance-free whilst producing the best possible sanding results.





# Bütfering SCO 111-413





# Lacquer Sanding

## Fillers, Polyesters, Polyurethanes, Water Based, UV and Acid-Catalysed lacquers

Surface coating is a rapidly changing technology. Constantly changing formulations and methods of application require a sanding machine that can easily cope with today's demands as well as those in the future.

The use of Bütfering's patented CPS II segmented pad and programmable machine setting enables precise control over the sanding process. By regulating parameters such as feed and abrasive belt speed, surface

and edge sanding pressure, as well as digital anti-dubbing values, a perfect surface is easily produced ready for the final 'top coat'.

Being totally 'program set', each SCO machine starts and adjusts completely at the touch of just one button. Sanding heads start automatically and in the right sequence, the machine finds the correct thickness setting and all segmented pad parameters are simultaneously controlled. Setting up for a large production run or a single part takes only seconds and repetitive quality is guaranteed.

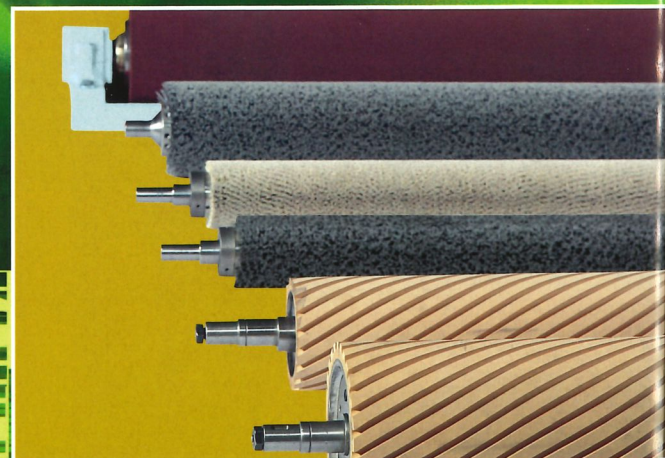
Whether your requirement is for a stand alone multi-role machine with a lacquer sanding capability, or for a machine intended as an integral part of an automatic lacquering line, the right choice is always available from the SCO range.





# Bütfering SCO 111-413

## Options



### ME 5000

- Thickness setting gauge 0-50 mm with automatic, wireless transmission to the sanding machine.
- mm/inch switchable
- pre-selectable stock removal from measured value

### ARE

Telescopic infeed bed extension

### Brushes / Contact Rollers

- rubberised contact rollers 240 mm or 320 mm dia. in different shore hardnesses
- cleaning brushes
- smoothing brushes
- structuring brushes
- Scotch Brite brushes



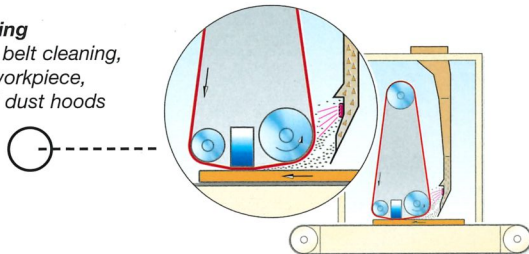
# Options

Each SCO line already features an extensive standard equipment package. In addition, however, Bütfering offers a wide range of options that can be fitted to meet the needs of special applications, or to achieve certain surface finishes.

Contact rollers with 240 and 320 mm diameters in different shore hardness, cleaning, smoothing and structuring brushes, abrasive belt and workpiece cleaning devices, ionisation devices, vacuum tables with integrated

### Air-jet belt cleaning

Effective abrasive belt cleaning, activated by the workpiece, without additional dust hoods



### Terminal TE 14

- "One Touch" program controlled machine setting – with 1000 programs
- Monitor 10,4 inch
- visual control of all parameters
- sanding pressure programming of the CPS II electronic pad
- automatic error diagnosis
- visual display of all activated segments of the CPS II electronic pad
- fully automatic start sequence of all drives
- 2 separate working hour meters
- display of abrasive belt wear
- terminal languages German, English, French, Italian and Spanish

fans in the machine frame, frequency controlled abrasive belt drives, longer abrasive belt length of 2620 mm, workpiece thickness measuring systems.

These individual options can be combined to produce a unique solution 'tailor made by Bütfering' to match the most demanding sanding requirements.

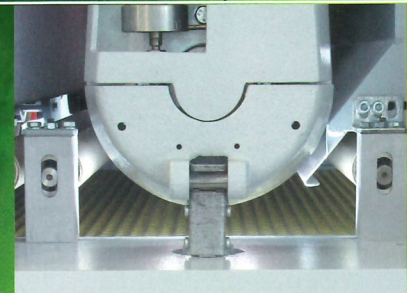
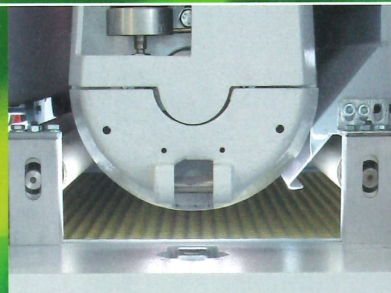
### ATA 2

Fold away outfeed table, approx. 900 mm, with an integrated roller. Can be used for single person machine operation.



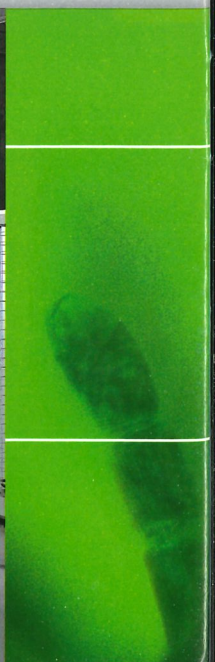
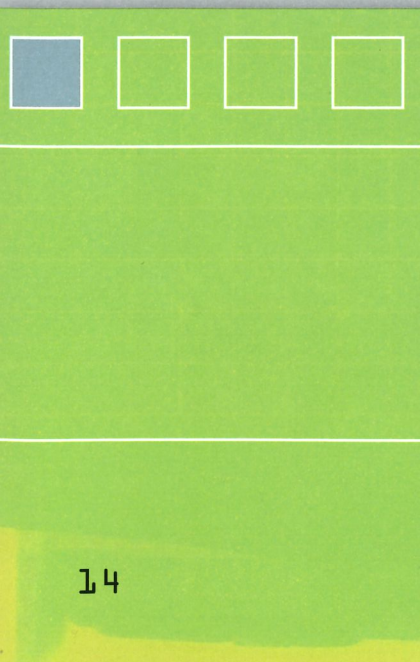
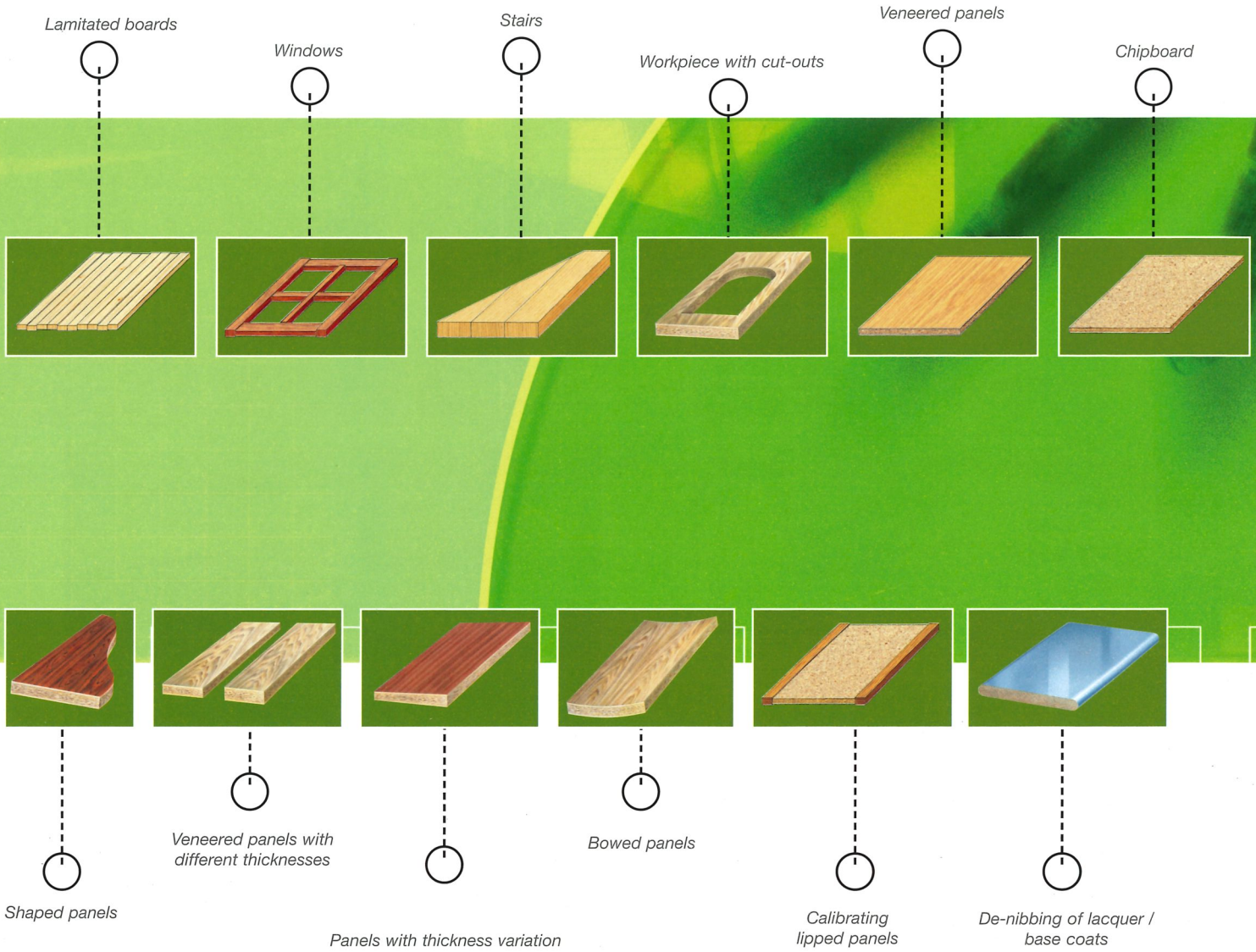
### Automatic head locking

Facilitates a belt change within seconds. Automatically activates when opening and closing the doors.





# Applications





# After-Sales-Service



## It pays to be a Bütfering customer

### **Bütfering is everywhere**

The after sales service network of the Homag Group is well established. Service, when needed is provided quickly and efficiently - throughout the world.

### **Practical Training**

Bütfering Wide Belt Sanders are easy to operate, but thorough training at the installation increases the operator's skill and productivity.

Intensive training on the machine can not only be given at the customer's site, but by comprehensive instruction at the Bütfering training centre (multi-lingual).

### **Standardised parts**

Many component parts are standard across the different Homag manufacturing companies. This simplifies the inventory of spares, and ensures that they are readily available from local service centres when needed.

### **Professional documentation**

The operating and parts manuals covers all aspects of machine installation, and service. They are available in many languages.

### **Experienced Service Technicians**

When specialist help is needed, our team of highly experienced service engineers are available to assist.





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Frank und Frei, Münster

A company of the Homag Group



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