



# Automatic sanding machines



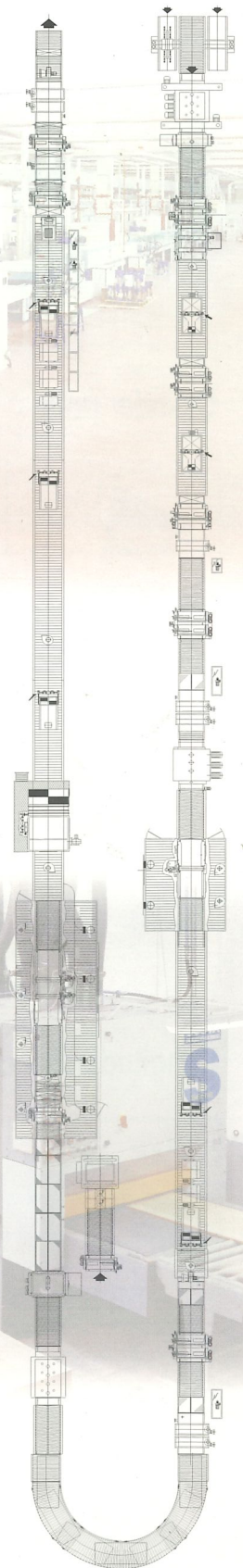
Series S version 4



Series S version H



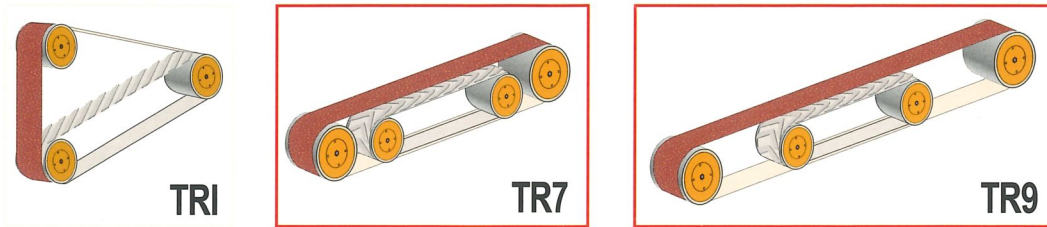
Series S version N



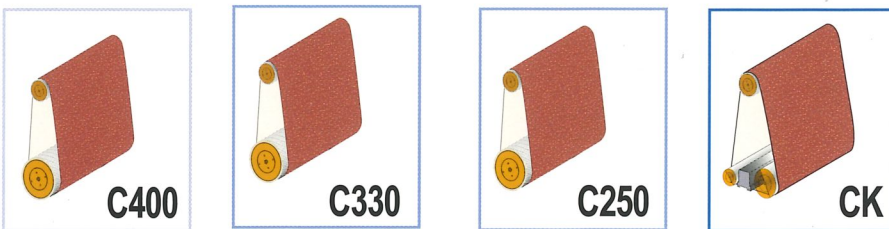
# Series S - machines modularity

The following are the working units available on the machines of Series S, to allow a wide variety of compositions to satisfy any production requirement.

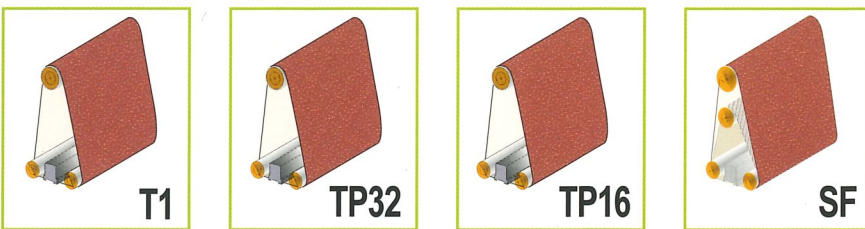
## Cross belt units



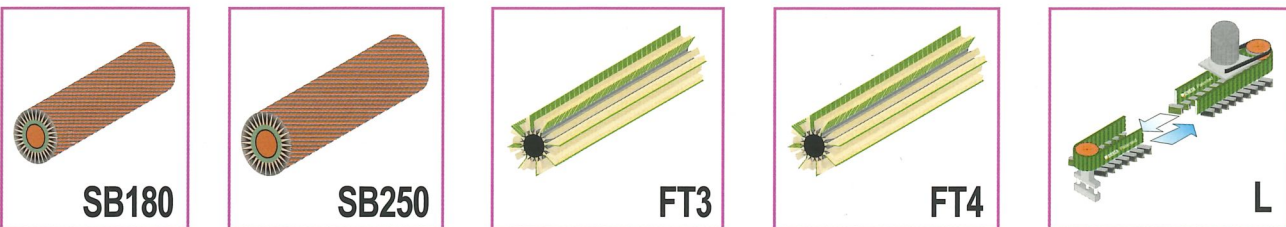
## Cylinder units



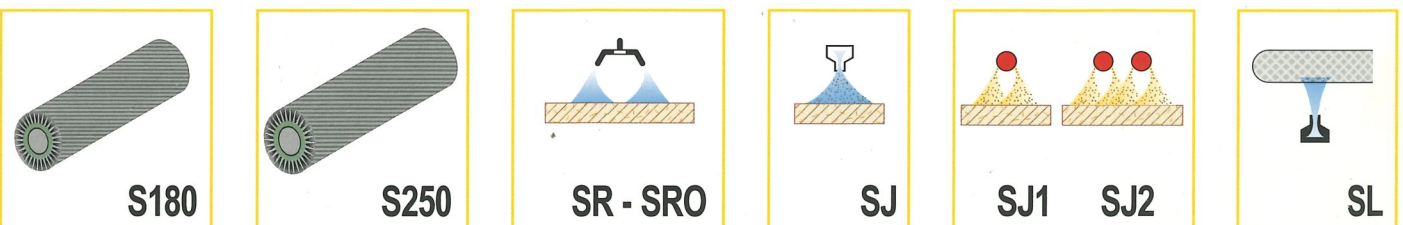
## Pad units



## Longitudinal & cross brushing - sanding units

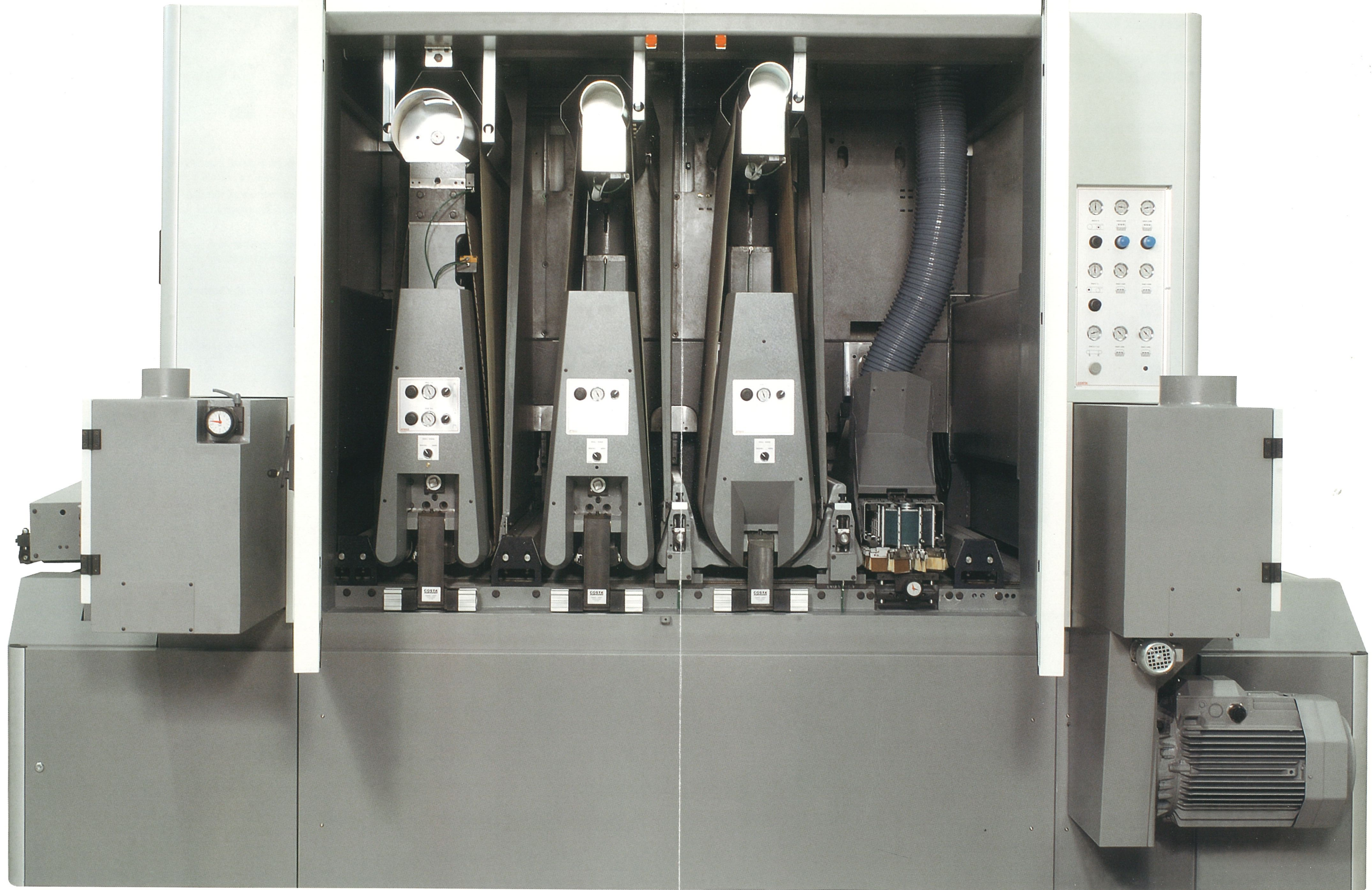


## Cleaning units



# Series S version N - Model TR L C T T TR / 1350 an example of "multi purpose" machine

An example of "multi purpose" machine, with two cross belt units in first and last position, one cross brushing unit for rounding the edges, one cylinder for heavy sanding operations, two electronic sectioned pads the last with superfinish unit for surface finishing.



# The Series S sanding machines

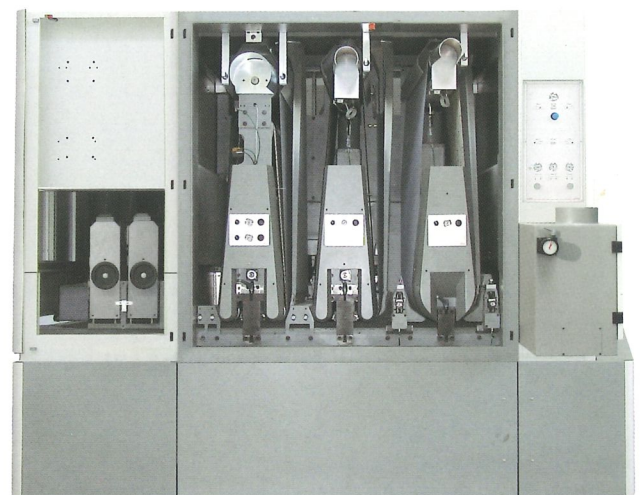
**Serie S forms a complete family of top sanding machines for lines.**

**It is composed by versions that differs one another for particularities, but all are originating from the same common base of units and components.**

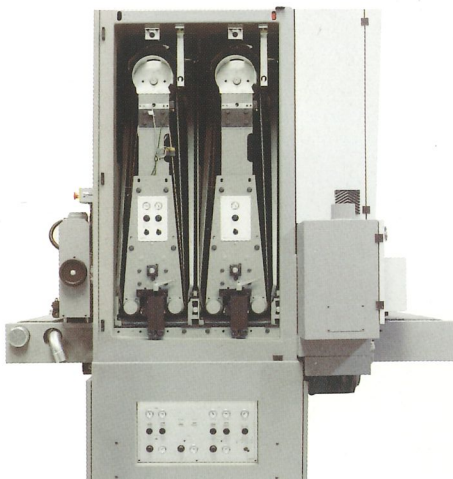
- Version 4 is a range of machines designed for a very high level of utilization in term of speed of process, with longitudinal sanding belt length 4600 mm, with all required features needed to use the long belts.
- Version N ( belt length 3250 / 2620 mm), excels for its very high modularity, made to insert inside its frame specifically built cross belt units, in addition to longitudinal and cross brush units, in order to have a machine complete with all units inside an all-enclosed structure.
- Version H (with belt length 3250/2620 mm), has been stripped from the sound proof protections in front and rear, some components (double doors etc.) can be inserted as optional, obtaining a "simplified" version of the S Series.



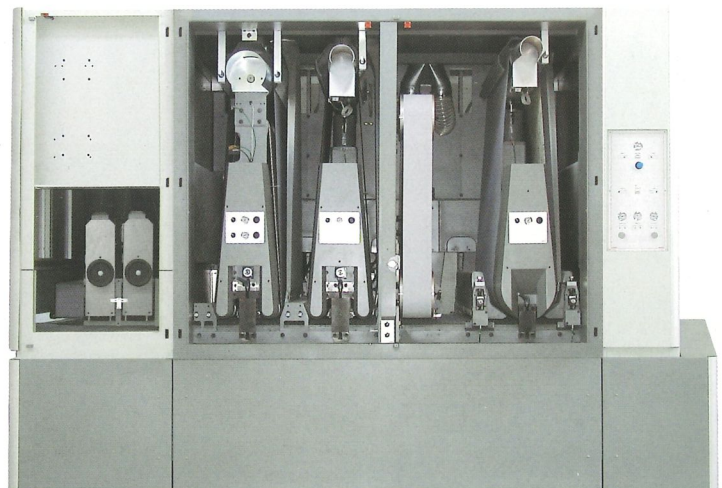
Series **S** version **4** model **CTT**



Series **S** version **N** model **TRCTT**



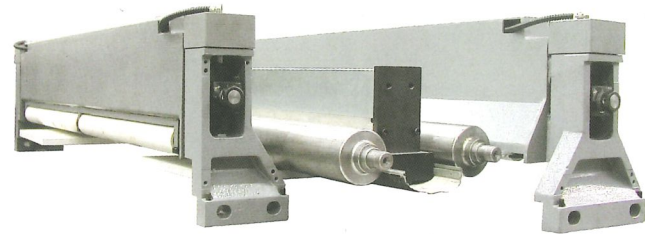
Series **S** version **H** model **TRTT**



Series **S** version **N** model **CRTT**

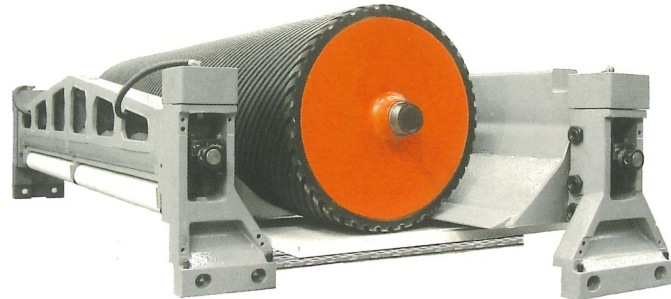
A good holding of work pieces under the working units and a constant feed without slow-downs are an essential condition to obtain an optimal level of finish. The perfect holding of work pieces in process is determined by the structural rigidity of the pressure units (that is the non-deformability if stressed with heavy loads) and at same time by the possibility to be enough elastic to adapt to variations of the thickness of the work pieces in process.

## Rubber covered pressure rollers



some items are off-set for demonstration purpose

## Pressure units with lips and rubber rollers

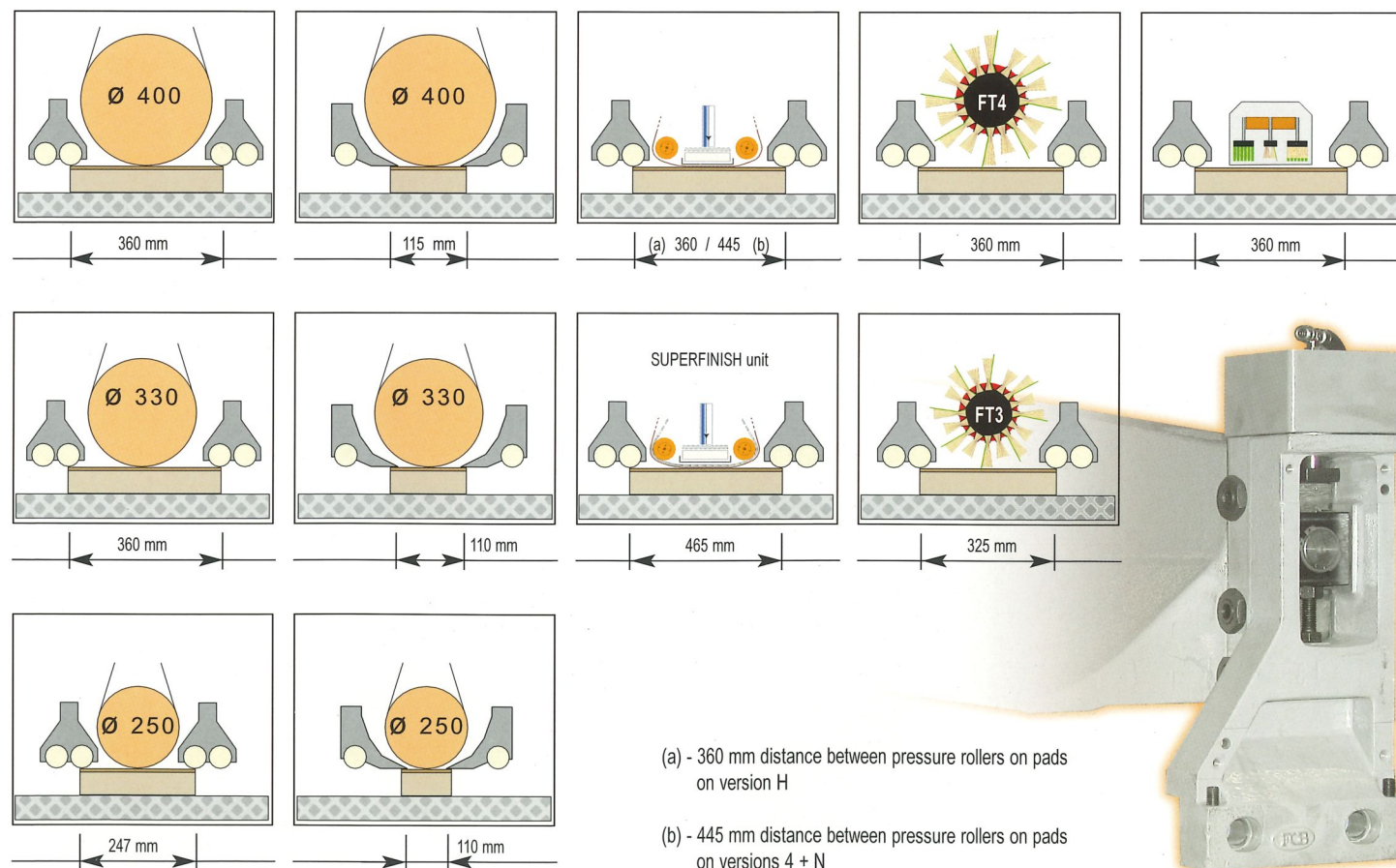


The pressure units are all standard equipped with a double setting system:

- **floating**  
(to accept thickness variations of panels in calibrating operations)
- **rigid**  
(to determine the feed table flotation in sanding operations)



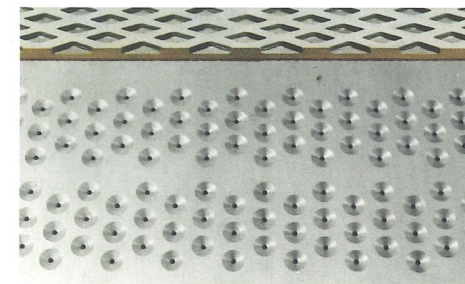
The pressure units must be positioned closest possible to the working units to assure a perfect holding during the traction of panels, especially with short or thin and/or warped panels. In the following schemes we give the distance between the pressure units with different working units (with a mention to the fact that with the application to the feed unit of the vacuum holding system the minimum length can be shorter).



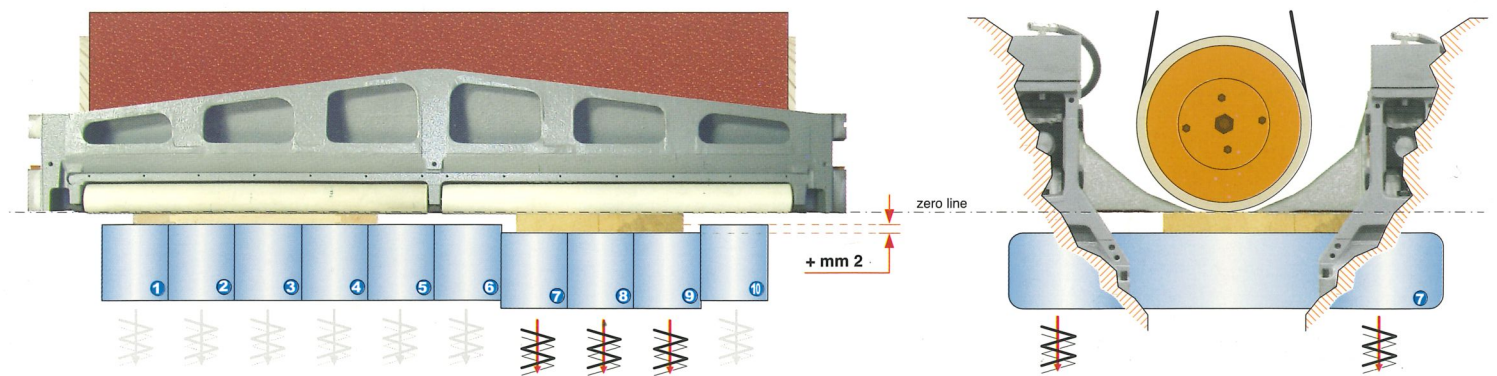
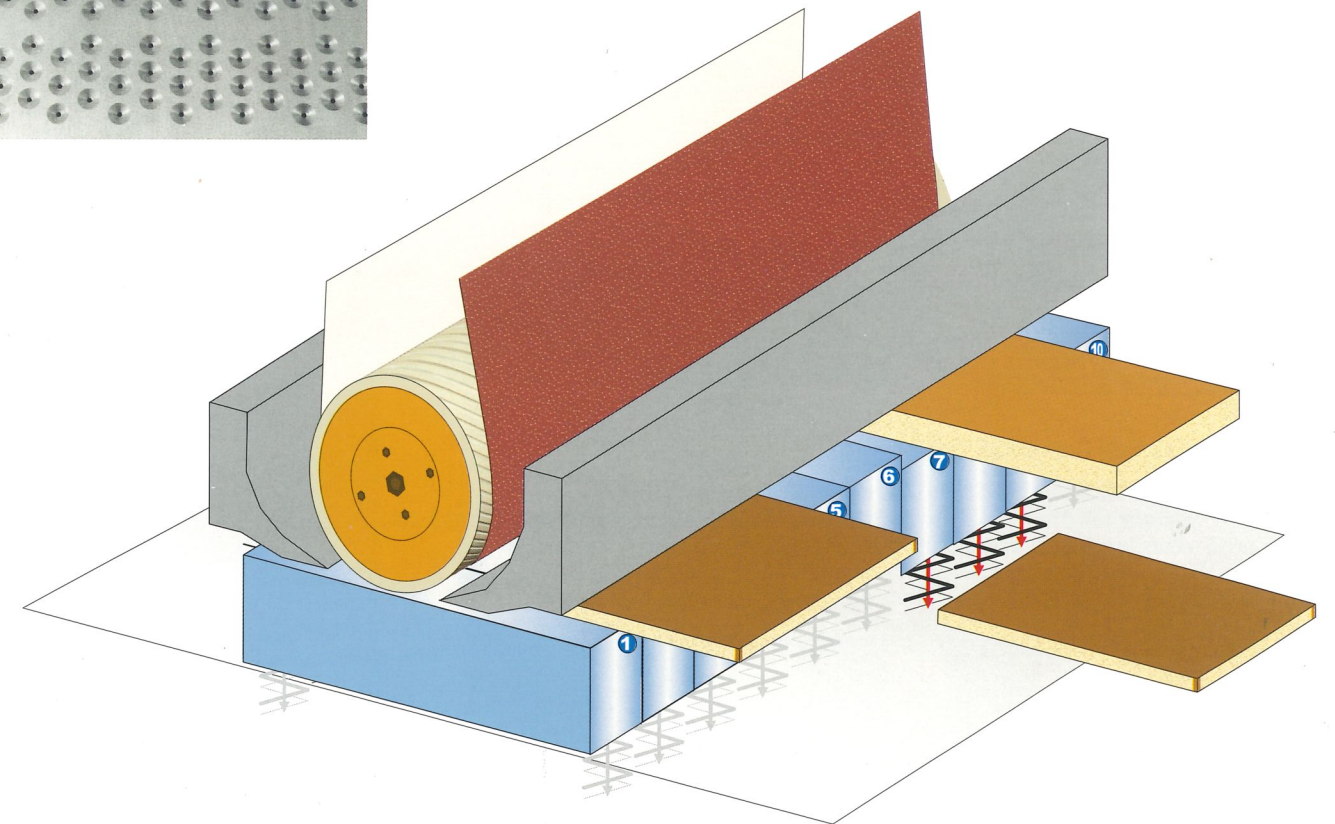
## Sectioned floating feed tables



The sectioned floating feed tables allow the contemporaneous process of various panels with differences of thickness between one another. The finish sanding process will remain uniform thanks to the constant sanding pressure of the working units on the surface of the panels. The sectioned floating tables can be divided in 2 or 10 sections under each working unit.



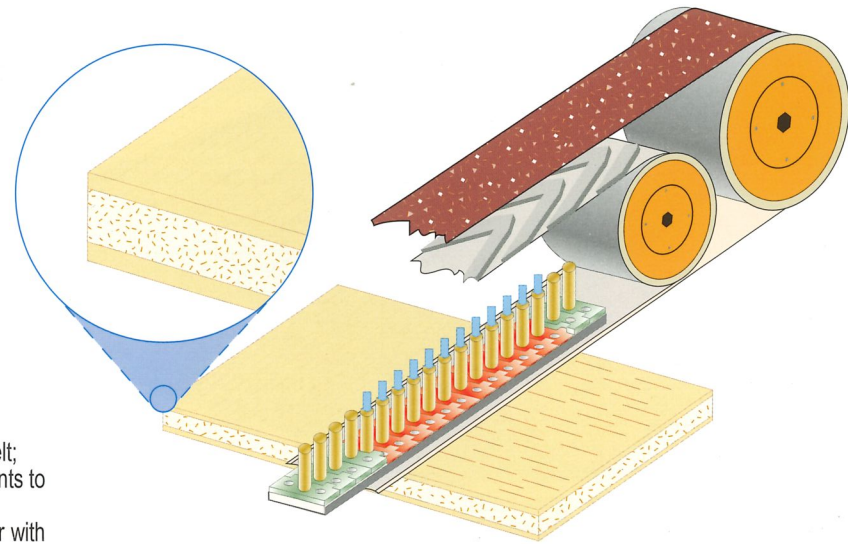
Machines of Series S are equipped with a feed table with a vacuum plant, to increase the holding onto the feed belt of shorter or slippery work pieces during the sanding process.



Floating feed tables in 2 or 10 sections allows the contemporaneous processing of many work-pieces (side by side or one after the other) with thickness differences up to 2 mm between one another.

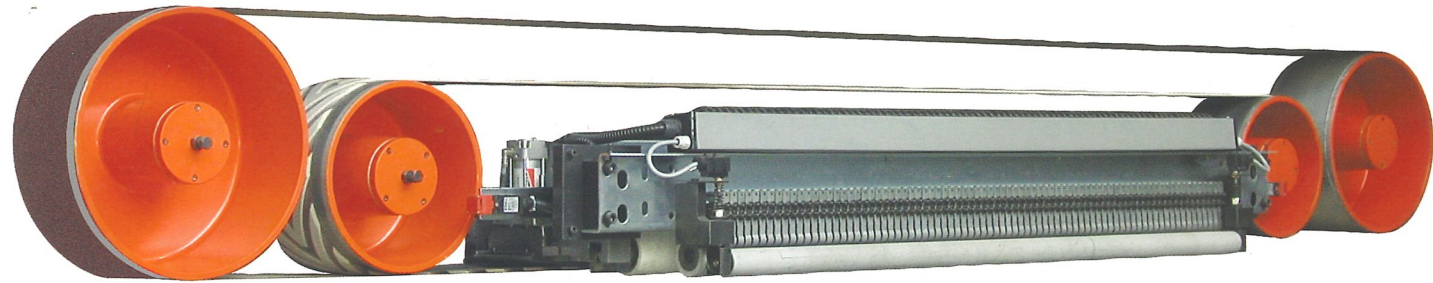
# Cross belt working units

TRI  
TR7  
TR9



## Cross belt working units

A sanding belt runs across the surface of the work pieces; a sectioned pad transfers the working pressure on the sanding belt; the lamellar belt runs between the sanding belt and the pad elements to increase the working performances. These units are normally utilized to smooth the grain of the veneer with a sanding action across the surface and to finish panels with cross veneer. In case of lacquered surfaces it is a good solution for both smoothing as well as finishing purposes.



### External Cross-Belt Units

**TR 7-9** Length of sanding belt 7350 - 9500 mm x 150 mm wide  
Lamellar belt (chevron belt) length 5510 mm x 150 mm wide, running at speed different than abrasive belt to improve the quality of surface finish.



### TRI

#### Internal Cross-Belt Units

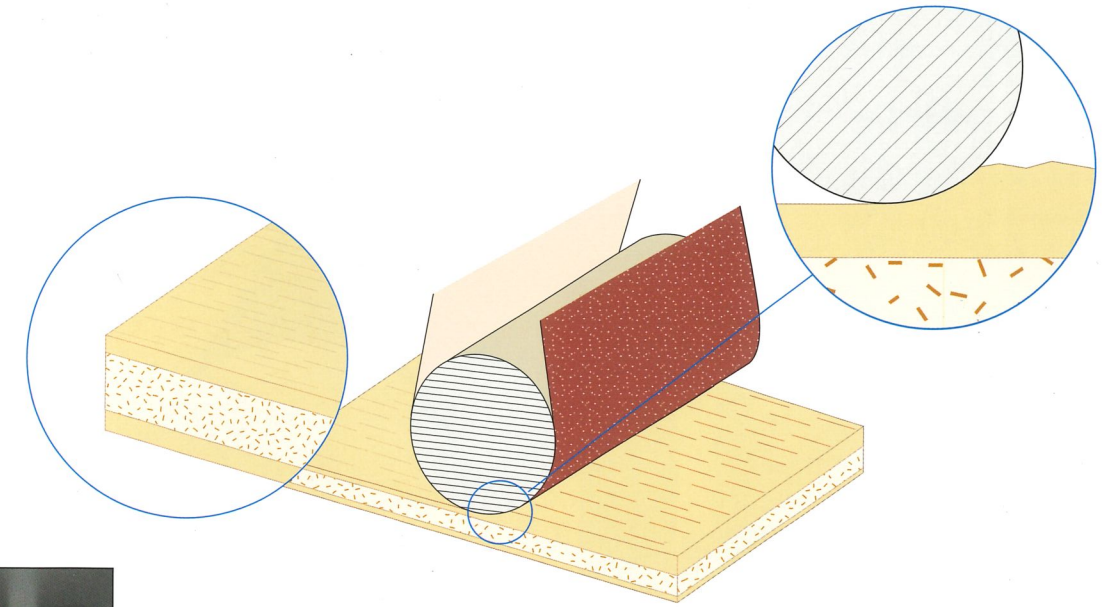
Length of sanding belt 5650 mm x 150 mm wide  
Lamellar belt length 4515 mm x 150 mm wide, running at same speed as the abrasive belt.

Dust hood in opposite side of internal cross belt unit (TRI), turnable 90° to easy the change of sanding belt.



# Cylinder working units

C250  
C330  
C400



## Cylinder working units

A wide abrasive belt runs on a rubber covered (or steel surface) cylinder. The rubber harnesses determines the level of adaptation of the sanding action of the cylinder on the panel surface in white-wood/lacquer operations; a soft rubber covered cylinder has more adaptability to the unevenness of the surface therefore is better for veneer-lacquer sanding operations, while a hard rubber cylinder has less or no adaptability to the surface (thus better for calibrating operations).

The main feature of the cylinder unit is the higher capacity to "take away" with same sanding belt grit, compared to any other sanding media.

The **Grit-Set** - Pneumatic or Electronic- is very useful to visualize the working height and to position with accuracy the cylinder at a correct level in all working operations.

### GSE

Electronic Grit-Set - centesimal positioning of the working level of the cylinder unit.  
Exclusion of cylinder in emergency (stand-by) standard.



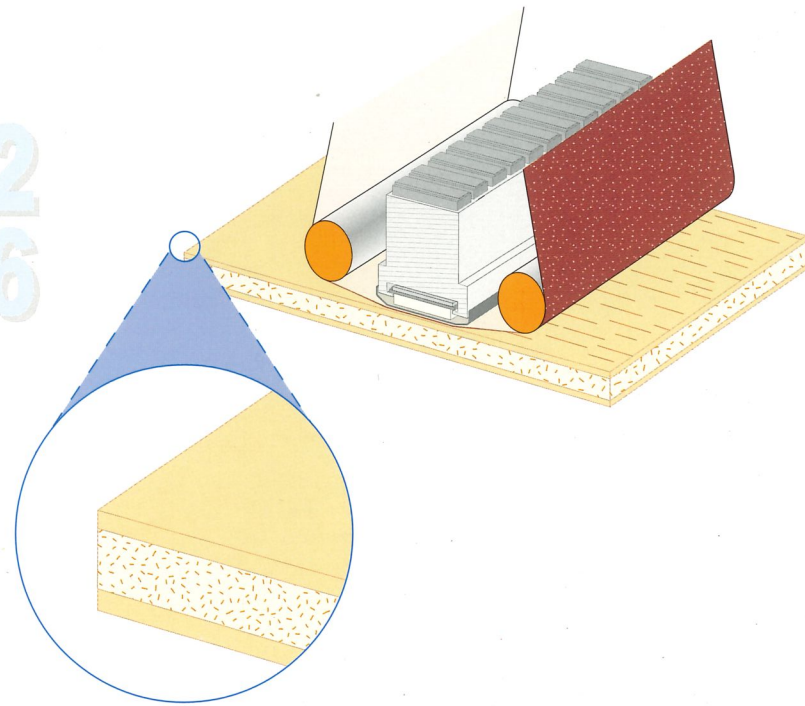
### GSP

Pneumatic Grit-Set - to position by pre-set steps the working level of the cylinder unit.  
Exclusion of cylinder in emergency (stand-by) standard.



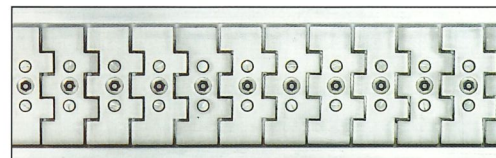
T1  
TP32 - TP232  
TP16 - TP216

TP32  
TP16 electronic controlled sectioned PAD unit



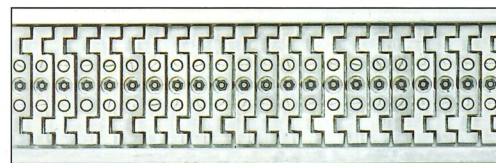
## Pad working units

This is the classic sanding unit for finishing the surface, as they are able to compensate thickness and planarity differences of the panels. In this unit the sanding belt is pressed down to the panel surface by a number of contact elements at variable intensity of pressure. The wide surface of contact of the pad unit gives a flat look to the panel surface. For an ideal protection of edges and corners of panels we recommend the sectioned pads with electronic control of the timing of intervention and of the pressures of utilization.



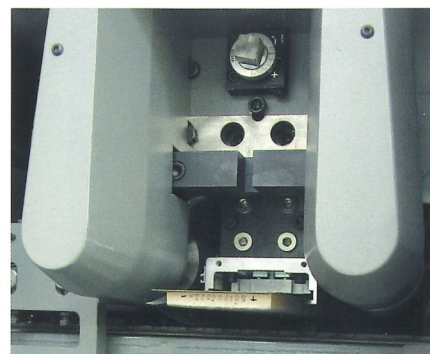
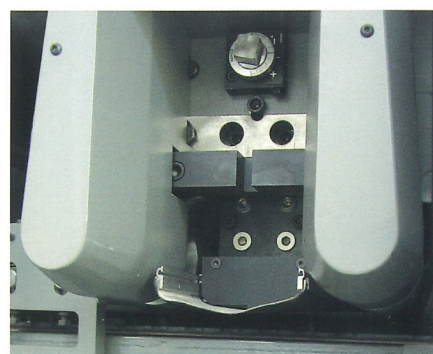
### TP32

- pitch of sections 32 mm
- n° 42 sections with a working width of 1350 mm
- n° 52 sections with a working width of 1650 mm



### TP16

- pitch of sections 16 mm
- n° 84 sections with a working width of 1350 mm
- n° 104 sections with a working width of 1650 mm

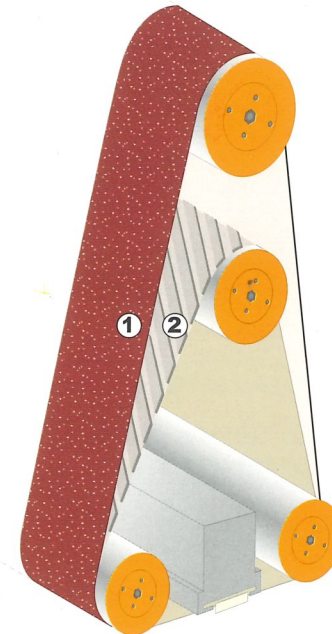


Quick - easy change of graphite cloth and inspection of the felt-rubber and the steel blade inserts

SF3  
SF4

## High Grade Superfinishing Unit

The main advantage of the Superfinish unit is that the working pressure of the pad on the abrasive is applied through an intermediate lamellar belt. This process assures an higher level of finish than to the contact of the felt lamellas on the abrasive belt, preventing scratches or defects caused by the graphite cloth. This "superfinishing" process assures a very homogeneous surface finish even with very fine grit belts, a result very important in the staining process, thank to the very high uniformity of absorption of the stain in the surface.



The Superfinish unit requires the abrasive belt length to be of 3250 mm (1) up to 4600 mm to have good lasting time. The lamellar felt belt (2) has a length of 2620 mm.



Both abrasive and lamellar belts have an independent oscillation and tensioning systems.

The pneumatic controls are positioned in the belt insertion side of the working unit.



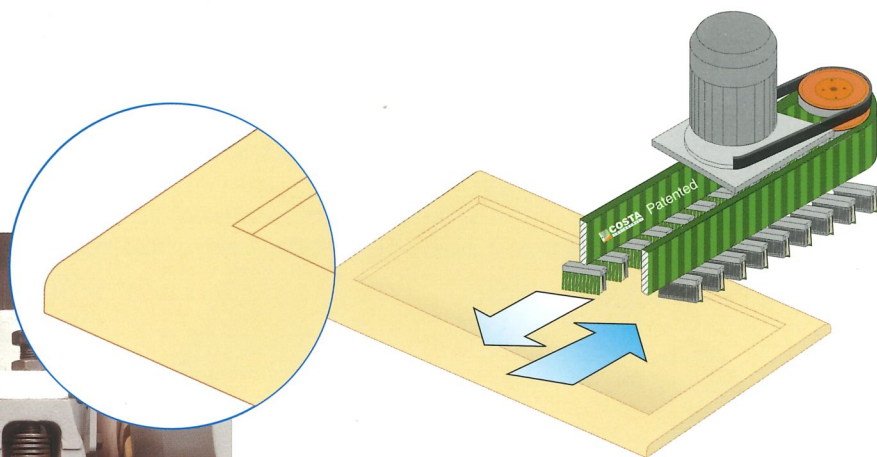
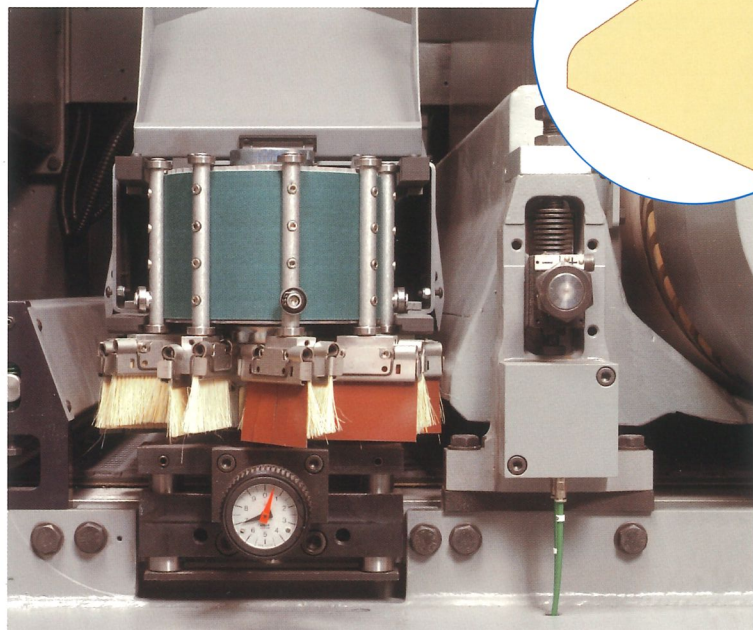
The lamellar belt gives further advantages:

- the air flow between the felt stripes of the lamellar belt cools the abrasive belt;
- it is possible to utilise pads wider than normal;
- utilizing lamellar belts with different ratio full-empty of the lamellas, it is possible to diversify the finishing of the surface;
- thank to the independency of the tensioning and tracking systems, in case of necessity we can take out the lamellar belt and work with the sanding belt only.



# Bilateral cross brushing units

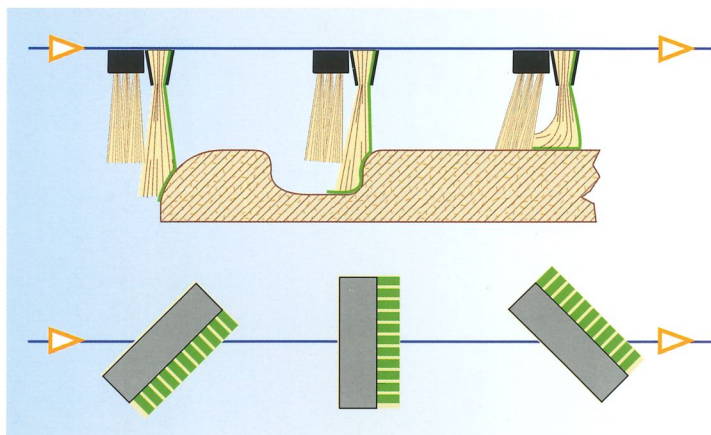
## XLS



**XLS** - is our new system for bilateral brush-sanding (patent pending), is utilized in our machines to :

- complete cross sanding in recesses and edges;
- break the sharpness of edges ( lacquer);
- help to remove fuzz from edges and surface.

The XLS unit consists of a rotating belt that is supporting a series of pads with the abrasive paper inserts. During the rotation of the belt, the pads with the supported abrasive strips are brushing the work pieces from both sides, therefore this unit is processing all 4 edges and the top surface of the panels in the same pass.



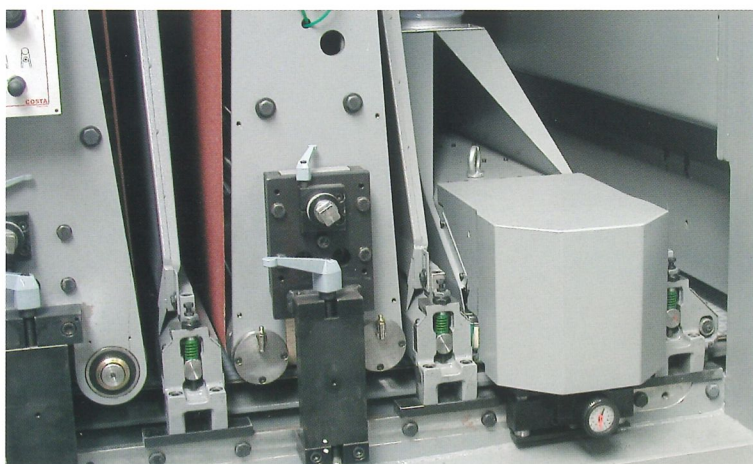
The brush-sanding working system is constituted by an inclinable pad in which are inserted a sanding strip (abrasive grit variable) followed by one first back-up element (variable stiffness) followed by a second element to further support the sanding action. Depending on the working height of the system, we can work only on the edges or also penetrate in the surface and inside the grooves of the panels surface.

The sanding pads are inclinable of +/- 45° in respect of the feed direction.

XLS is equipped with:

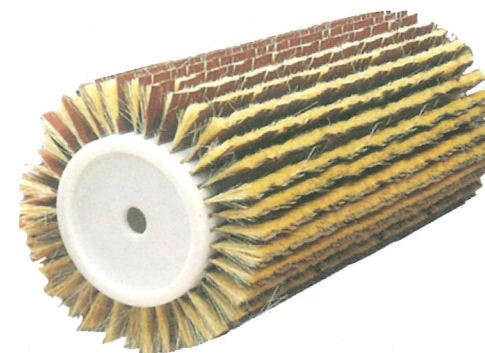
- micrometrical setting of the working pre-load;
- motor power 2,2 kW controlled by inverter for variation of brushing speed range from 1 to 8 m/s;
- two dust hood collectors for proper cleaning of elements;
- quick change of abrasive inserts from the service side, abrasive inserts that can be prepared by the utilizers themselves.

Combination with a unit XLS and two electronic pads in a finishing sanding machine.

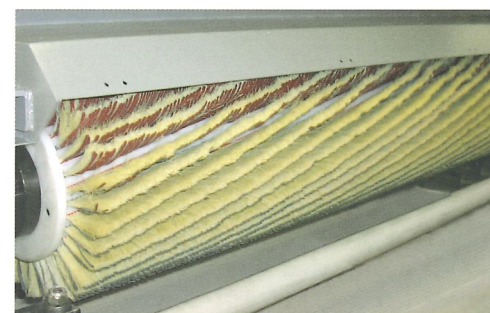


# Longitudinal brush working units

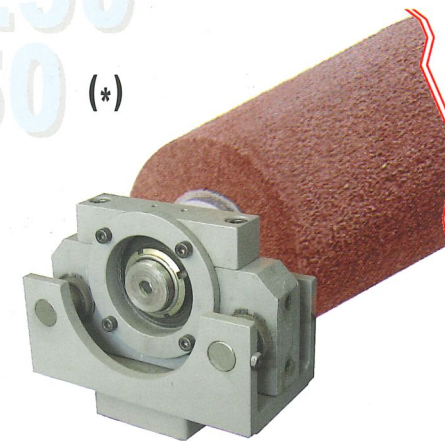
## FT3 FT4



The machine allows the installation of different systems or Brands of brush-sanding units, to follow our Customer preferences.



## SB250 S250 (\*)

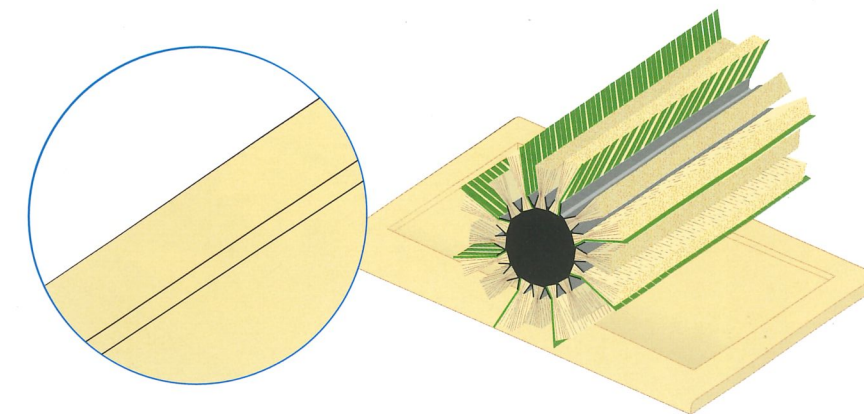


(\*) **Steel brush units for surface structuring**  
(Grain highlighting of wood surfaces)



**Scotch-brite™ units**

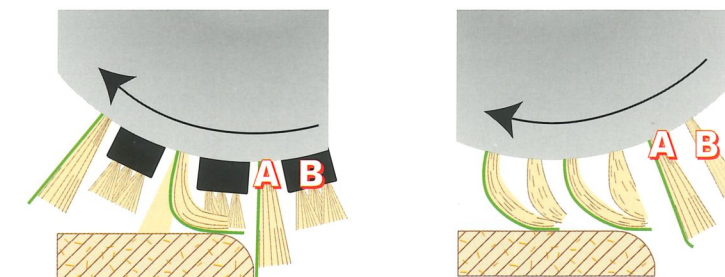
These working units are utilized to improve the sanding and to finish the lacquer surfaces. The scotch-brite brush has a structure of non-woven synthetic fibres impregnated with abrasive grain of aluminium oxide or silicon carbide, the rollers are available in variable grit ( 80+1000 ) and various density.



**Brushing-sanding units**

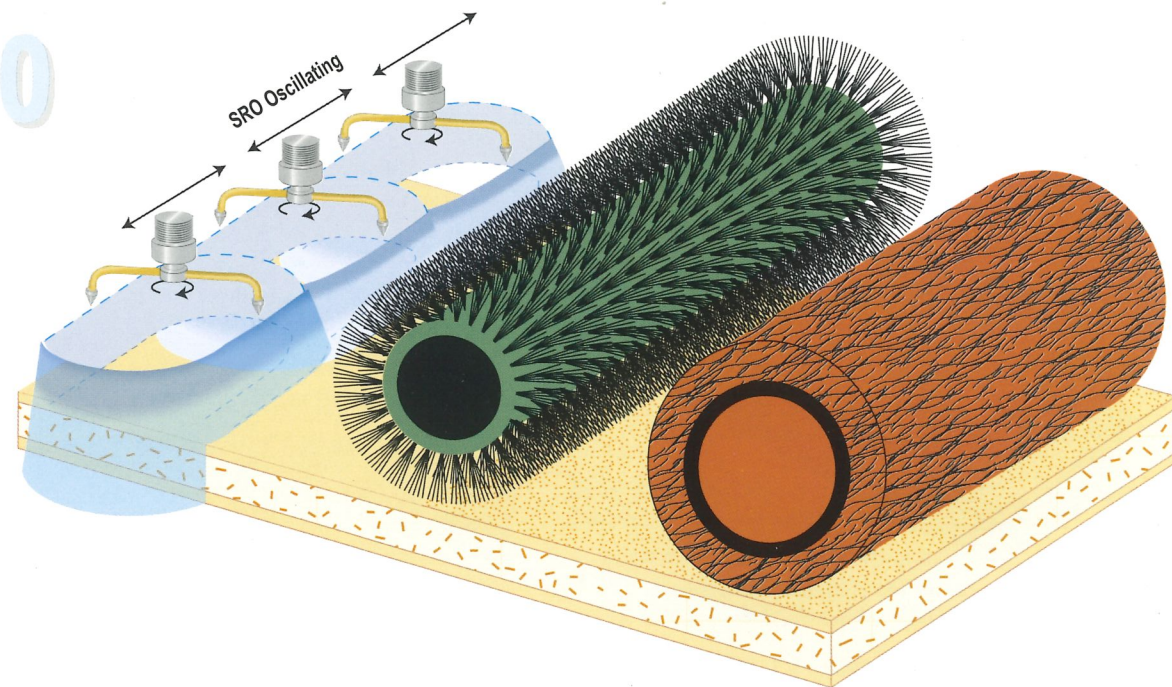
The increasing utilization of water-soluble lacquers leads to the elimination of the wood fibres raised after the application of water-based stain and lacquers, in order to reach a good finishing degree. The utilization of Flextrim™ brushes or similar types allow the elimination of raising wood fibres thus solving the problem.

This wide adaptability is given by the possibility of inserting sanding strips with different abrasive paper grit-hardness - A - in the same roller (ex. 120 + 220 + 260), with the ability to change the back supports - B - also with different flexibility to increase or lower the brushing action on the work pieces.





S180  
SB180  
SR  
SRO  
SL  
SJ  
AB



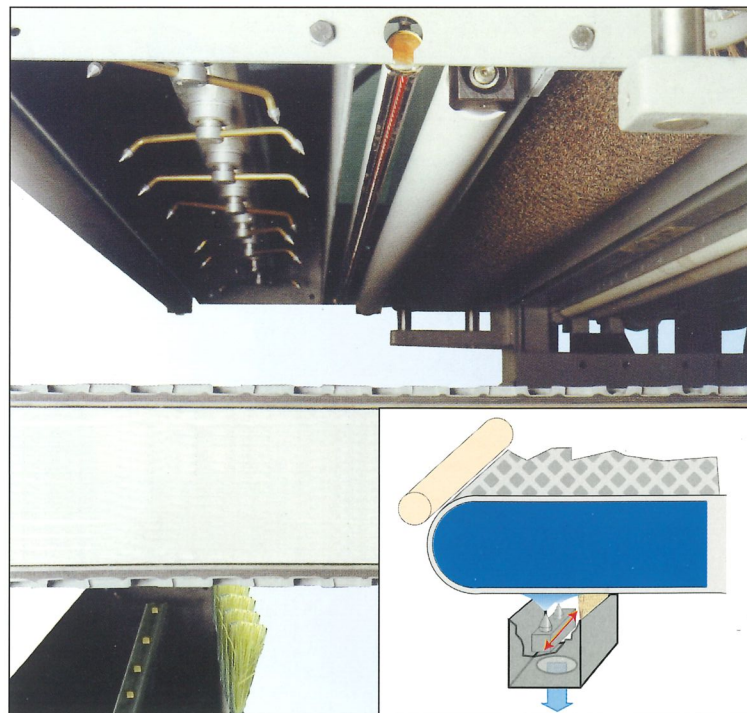
## Panel cleaning units

Very often the sanding machine is integrated in complete working lines (lacquer lines) therefore it is very important that the panels are perfectly cleaned.

In the rear side of the machines we can install different "panel cleaning units":

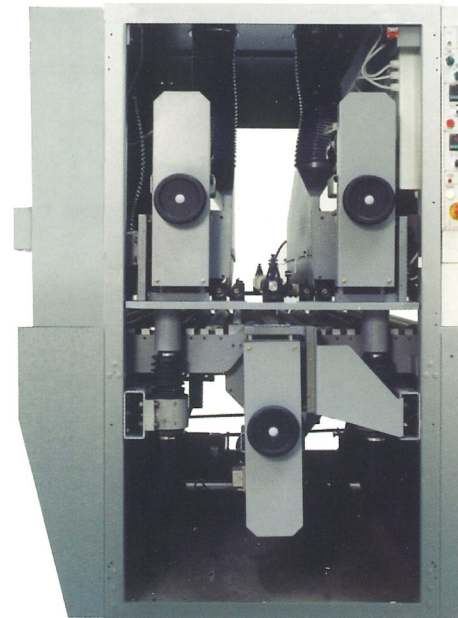
- the scotch-brite brush is an aggressive and effective unit to clean the lacquered surfaces from the fine dust generated by sanding with very fine sanding belts;
- the normal brush is cleaning the heavier dust with bristles either in nylon or vegetal fibres or even with horse-hair bristles to diminish the build up of static electricity;
- the rotary blowers are helping to blow away the very fine dust from the surface as well as from the sides of the panels;
- a new version of rotary blowers with lateral oscillation system are fitted with jet blowers with special nozzles that can blow away more effectively the dust from inside the holes of the panels;
- antistatic bars help lowering the static electricity from the panels.

S180 / S250	• Brush unit Ø 180 / 250 mm made in nylon or vegetal fibers
SB180 / SB250	• Scotch-Brite™ unit Ø 180 / 250 mm Scotch-Brite rollers™ of various density
SR	• Stationary rotary blowers
SRO	• Rotary blowers with lateral oscillation of the blowing units
SJ	• Blowing ionizing bar to lower the static electricity accumulated during working process
SJ1 / SJ2	• Single and double antistatic bars
SL	• Linear oscillating blowers



## Feed belt cleaning blowers

To clean the feed belt, we position in the bottom side the "oscillating cleaning blowers".  
Connected to a timed entry system, they are blowing a moisture of air + water to increase the level of grip to the feed belt.  
A dust hood complete the unit.



Brushing-cleaning unit with only top units or with bottom + top units, to insert in finishing lines at constant working height, with driven rollers drive system; the brushes are particularly flexible with very long helicoidal bristles, rotating opposite one another. They are equipped with a thickness opening system, adjustable from their own control panel or from the line control system or by the sanding machine control panel. Standard equipped with:

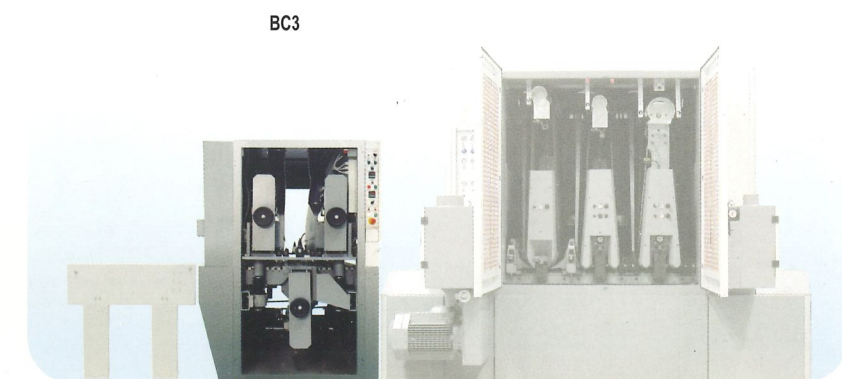
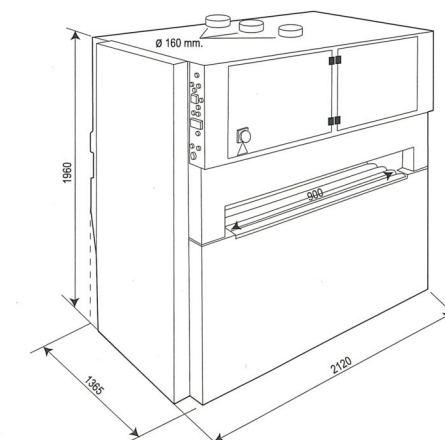
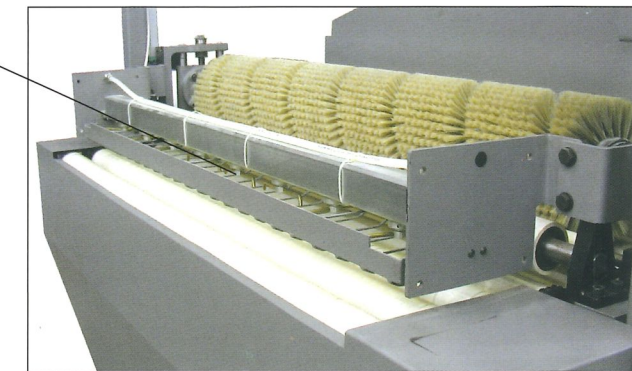
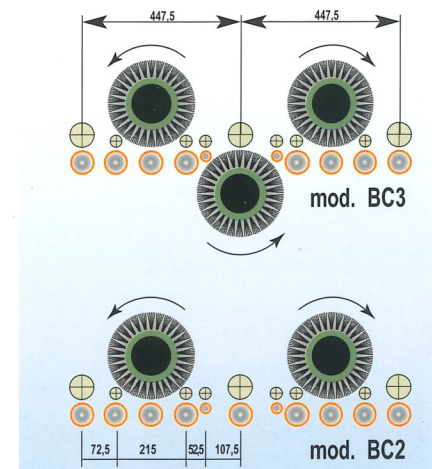
### Model BC3

- 1 Bottom brush Ø 250 mm, motor kW 1,1
- 2 Top brush Ø 250 mm, motor kW 1,1 (each)

### Model BC2

- 2 Top brushes Ø 250 mm, motor kW 1,1 (each)

Optional : antistatic or de-ionizing bars - rotary air jet blowers in machine rear





## Electro-mechanical Panel

Control panel positioned in front of the machine, with push-buttons for all motors and amp-meter readers of power utilization of the working units.  
 Digital positioner with read-out of the thickness adjustment with decimal accuracy.  
 Emergency stop and reset  
 Range change switch for the variation of the feed speed  
 Diagnostic leds of electric-pneumatic-safety problems

1



## Start

START is a plc control system, with digital board positioned in machine front side equipped with:  
 push buttons and amp-meter read-out of the power utilization for each working unit;  
 read-out of the position of each grit-set (for cylinder units) and setting of parameters of pad working units;  
 automatic setting of the panel thickness with decimal accuracy and digital read-out.  
 All machine functions are visualized and memorized in the START plc.  
 The initial configuration and eventual modifications are inserted manually and they can always be recalled by a code; these data are automatically transferred, in a pre-defined sequence, to the machine starters by a single pressure of the Start cycle button.  
 The START panel can store up to 9 complete working programmes in its plc.

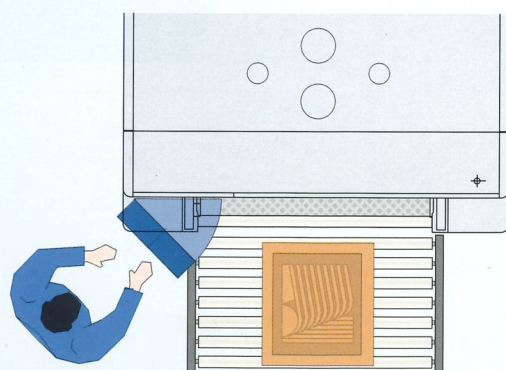
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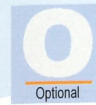
## PCM

"Easy" Personal Computer System, operating with Windows, is complete with a Costa Sanding Manager, the standard programme for total machine control.  
 It's possible to choose between "TOUCH SCREEN" and "FINGER MOUSE".

3

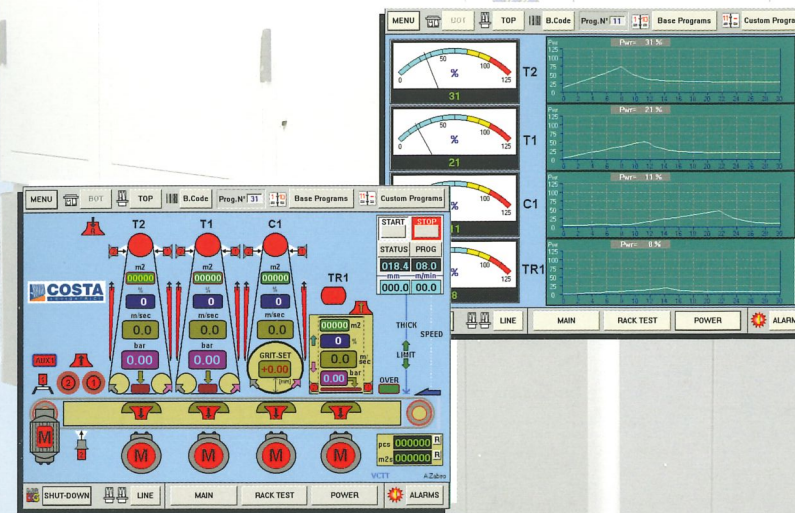


Possibility to have a 45° inclined panel board very usefull for machines positioned in line



## PC3 - Control system

Computer controlled machine, with monitor and keyboard positioned in a separate column  
 This is a PC working position integrated in the company network.  
 The PC control system allows to pre-set all the working programs; besides the usual controls of the machine, it can also supply complete production data such: number of pieces processed, working time per each code, square meter produced, compressed air, volume of dust extraction, electric power consumption, etc..  
 Through a modem we have the possibility to connect directly Costa Service for help and service



4



## PC-NC - Control system

Computer controlled machine, with monitor and keyboard positioned in a pensile on board of the machine.  
 Possibility to connect our machine control programme "Costa Sanding Manager" to a PLC Siemens S7 (or other), to enable the communication of our control system with other machines to exchange working parameters in complete working lines.



5

**Main technical data**

Useful working widths	1350 - 1650	[mm]
Longitudinal sanding belt dimensions	1380 - 1680 x 4600	[mm]
Standard machine opening	1 - 3 + 160	[mm]
Feed speed	5 + 25	[m/min]

**Compressed air requirement**

For each working unit [ 6 bar ]	100	[Nl/min]
Air jet blowers for Longitudinal unit [ 5 bar ]	663	[Nl/min]
Air jet blowers for Cross belt unit [ 5 bar ]	357	[Nl/min]
Air jet blowers for Panel cleaning [ 5 bar ]	816	[Nl/min]
Air jet blowers for Feed belt cleaning [ 5 bar ]	442	[Nl/min]

**Air volume required for each unit**

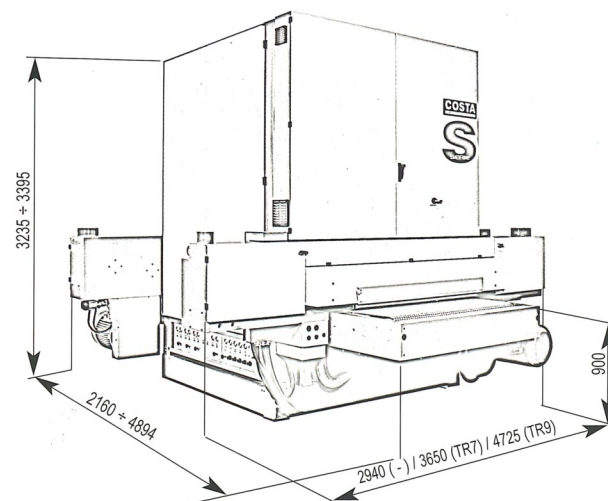
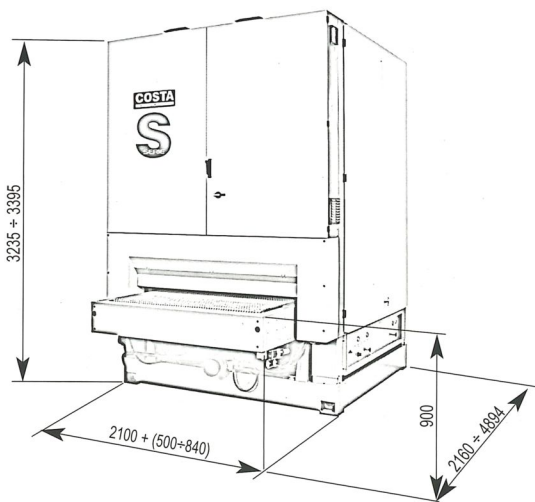
	Ø outlet	20	[m/s]
Each longitudinal working unit	120 (2) + 200 (1)	3889	[m³/h]
Each brush unit - FB 250/350 - S 180/250 - SB 180/250	160	1447	[m³/h]
Cross belt unit - TR7 - TR9	120 (1) + 200 (1)	3075	[m³/h]

**Air volume required - some examples**

	20 [m/s]	24 [m/s]	28 [m/s]	
CT / 1350	7778	9336	10892	[m³/h]
TR TT / 1350	10853	13027	15198	[m³/h]
TR CTT / 1350	14742	17695	20644	[m³/h]
TR TTT TR / 1350	17817	21386	24950	[m³/h]

**Size & Weight**

		width - 1350 mm	
1 Longitudinal working unit	2100 + (500+840) x 2160 x 3355 (3195) [mm]	~ 4000	[kg]
2 Longitudinal working units	2100 + (500+840) x 2650 x 3355 (3195) [mm]	~ 6000	[kg]
3 Longitudinal working units	2100 + (500+840) x 3140 x 3355 (3195) [mm]	~ 9200	[kg]
4 Longitudinal working units	3650 (TR7) 4725 (TR9) x 3630 x 3355 (3195) [mm]	~ 11000	[kg]
5 Longitudinal working units	3650 (TR7) 4725 (TR9) x 4004 x 3355 (3195) [mm]	~ 12800	[kg]
6 Longitudinal working units	3650 (TR7) 4725 (TR9) x 4894 x 3355 (3195) [mm]	~ 16000	[kg]

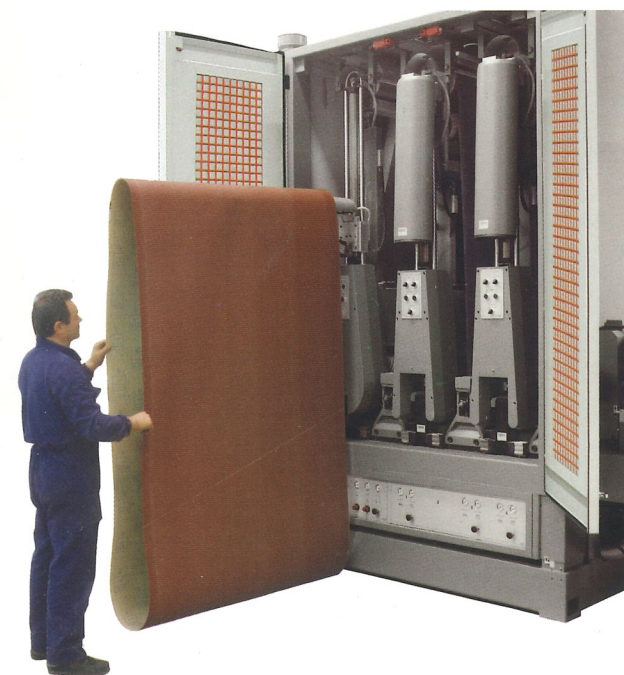


A version of top machines with very long longitudinal sanding belt mm.4600 , especially recommended for finishing lines working at very high feed speed.

The longer length allows a much longer lasting time of the sanding belts , to obtain important savings in machine utilization.

Doors and metal sheet protections of the complete machine are completed with sound enclosing material for a very low noise level below the CE standards.

**Series S version 4**  
model TR9 C T T 1650

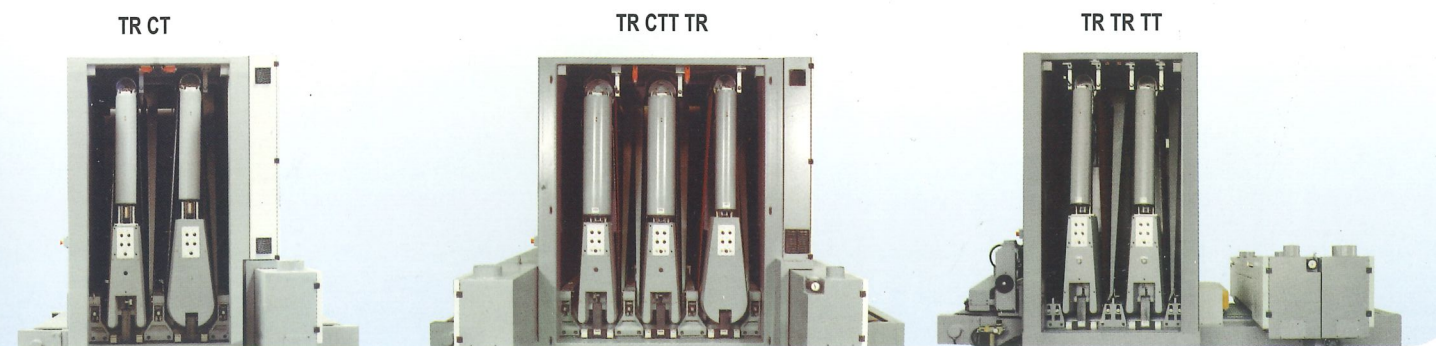
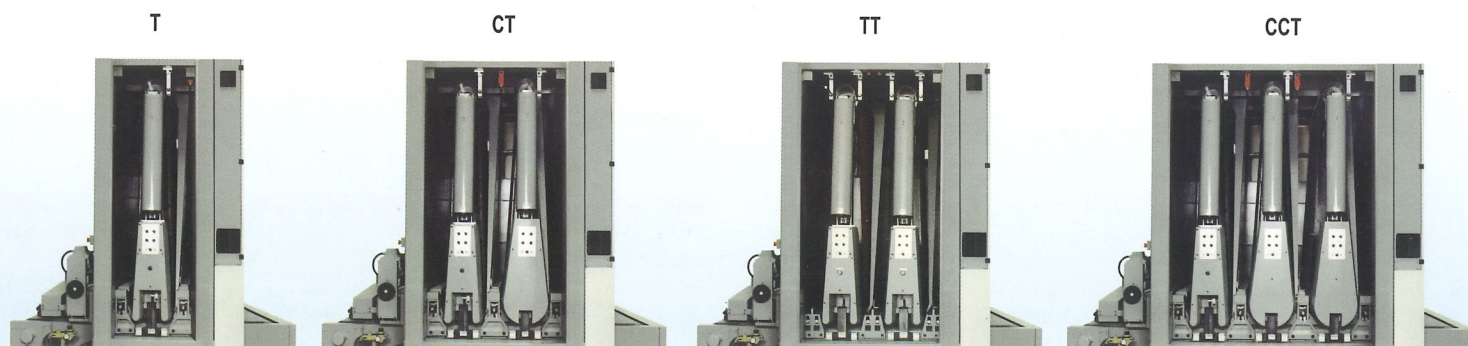
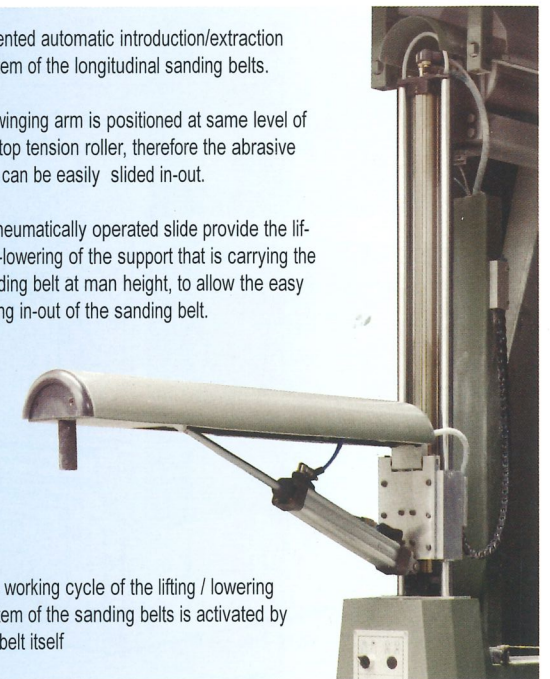


Patented automatic introduction/extraction system of the longitudinal sanding belts.

A swinging arm is positioned at same level of the top tension roller, therefore the abrasive belt can be easily slided in-out.

A pneumatically operated slide provide the lifting-lowering of the support that is carrying the sanding belt at man height, to allow the easy taking in-out of the sanding belt.

The working cycle of the lifting / lowering system of the sanding belts is activated by the belt itself



**Main technical data**

Useful working widths	1350 - 1650	[mm]
Longitudinal sanding belt dimensions	1380-1680 x 3250 (2620)	[mm]
Standard machine opening	1 - 3 + 160	[mm]
Feed speed	5 + 25	[m/min]

**Compressed air requirement**

For each working unit [ 6 bar ]	50	[Nl/min]
Air jet blowers for Longitudinal unit[ 5 bar ]	663	[Nl/min]
Air jet blowers for Cross belt unit [ 5 bar ]	357	[Nl/min]
Air jet blowers for Panel cleaning [ 5 bar ]	816	[Nl/min]
Air jet blowers for Feed belt cleaning [ 5 bar ]	442	[Nl/min]

**Air volume required for each unit**

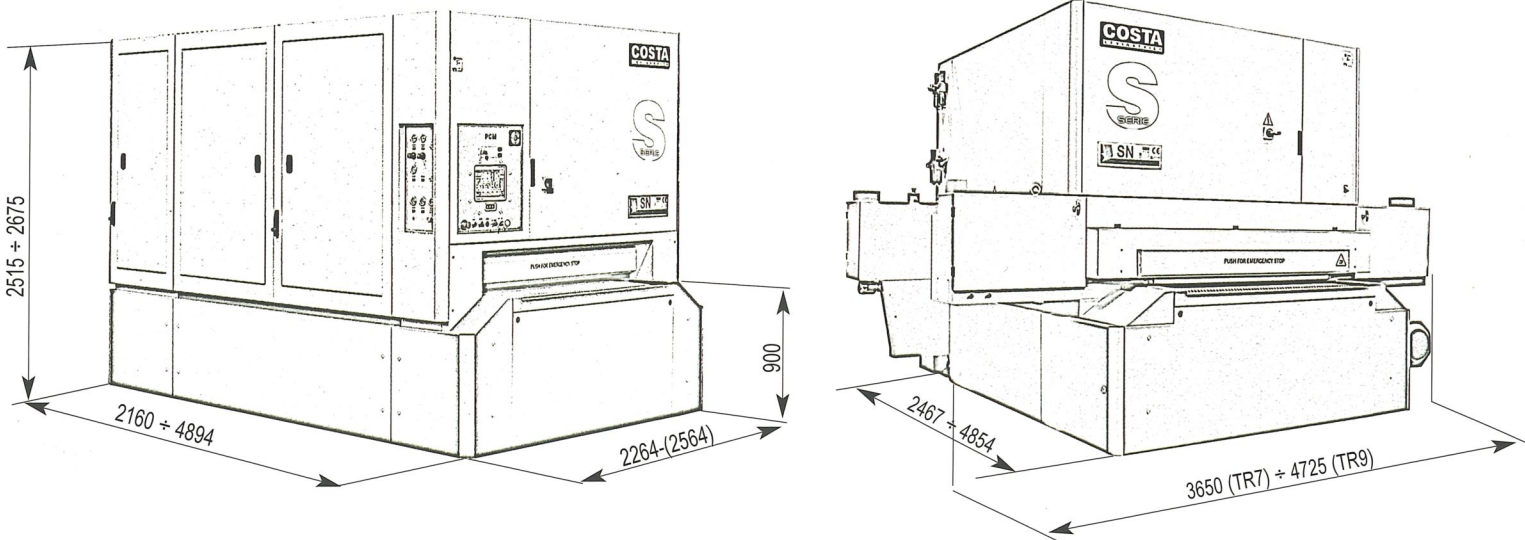
	∅ outlet	20	[m/s]
Each longitudinal working unit	160 [mm]	2577	[m³/h]
Each brush unit - FB 250/350 - S 180/250 - SB 180/250	160 [mm]	1447	[m³/h]
Cross belt unit - TRI	200 [mm]	2261	[m³/h]
Cross belt unit - TR7 - TR9	120 (1)+ 200 (1) [mm]	3075	[m³/h]

**Air volume required - some examples**

	20 [m/s]	24 [m/s]	28 [m/s]	
CT / 1350	5154	6186	7216	[m³/h]
TR TT / 1350	8229	9877	11522	[m³/h]
TR CTT / 1350	10806	12970	15130	[m³/h]
TR TTT TR / 1350	13881	16661	19436	[m³/h]

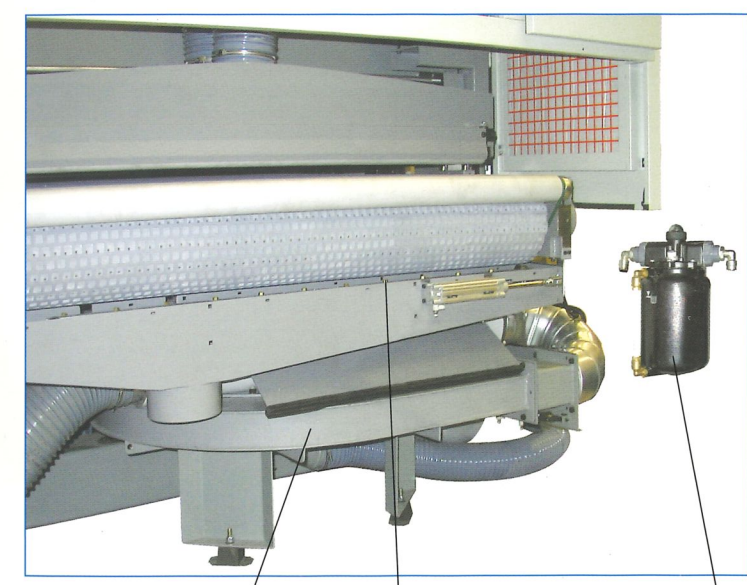
**Size & Weight**

			width - 1350 mm	
1 Longitudinal working unit	2264 x 2160 x 2675 (2515) [mm]	~ 3500	[kg]	
2 Longitudinal working units	2264 x 2650 x 2675 (2515) [mm]	~ 5000	[kg]	
3 Longitudinal working units	2264 x 3140 x 2675 (2515) [mm]	~ 7000	[kg]	
4 Longitudinal working units	2264 x 3630 x 2675 (2515) [mm]	~ 9000	[kg]	
5 Longitudinal working units	2264 x 4004 x 2675 (2515) [mm]	~ 12000	[kg]	
6 Longitudinal working units	2264 x 4894 x 2675 (2515) [mm]	~ 14000	[kg]	



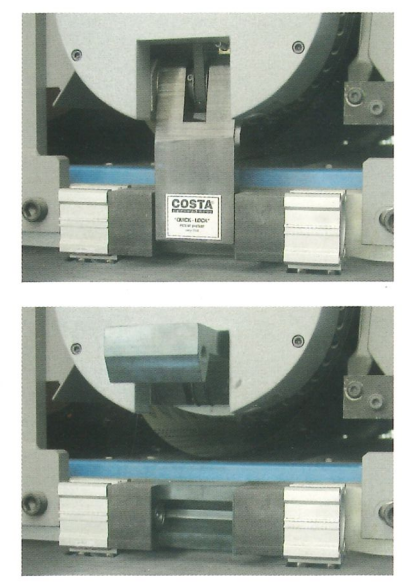
A version of top machines for finishing lines with the highest level of flexibility of composition to satisfy every requirement.

- Longitudinal belt length 2620 - 3250 mm
- In addition to all standard sanding units , we can position inside the frame various types of brushing units for the finishing of work pieces, with the advantage to avoid the insertion of autonomous brushing machines in the lacquer lines (with all related problems of thickness, speed, safety controls).
- New construction "one body system", meaning that all components and aggregates are fitted inside the machine frame, without any further occupancy of spaces outside the machine ( such ventilators for vacuum system, electric boards, inverters etc.)
- Doors and metal sheet protections of the complete machine are completed with sound enclosing material for a very low noise level below the CE standards.

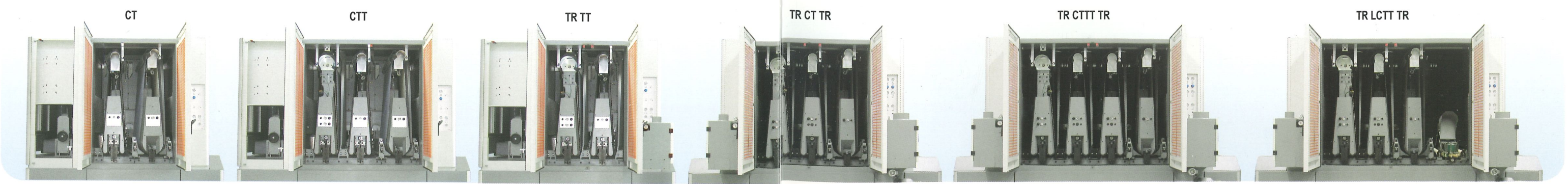


The high speed **ventilator** for vacuum plant is positioned inside the machine frame.

Optional Linear oscillating blowers for feed belt cleaning - complete with the nebulization tank , needed to mix water with air - to have a better adhesion of panels in the feed belt.



**Quick-lock** (optional) Automatic locking system of the working unit to the machine frame



**Main technical data**

Useful working widths	1350	[mm]
Longitudinal sanding belt dimensions	1380 x 3250 (2620)	[mm]
Standard machine opening	1 - 3 ÷ 160	[mm]
Feed speed	5 ÷ 25	[m/min]

**Compressed air requirement**

For each working unit [ 6 bar ]	100	[Nl/min]
Air jet blowers for Longitudinal unit [ 5 bar ]	663	[Nl/min]
Air jet blowers for Cross belt unit [ 5 bar ]	357	[Nl/min]
Air jet blowers for Panel cleaning [ 5 bar ]	816	[Nl/min]
Air jet blowers for Feed belt cleaning [ 5 bar ]	442	[Nl/min]

**Air volume required for each unit**

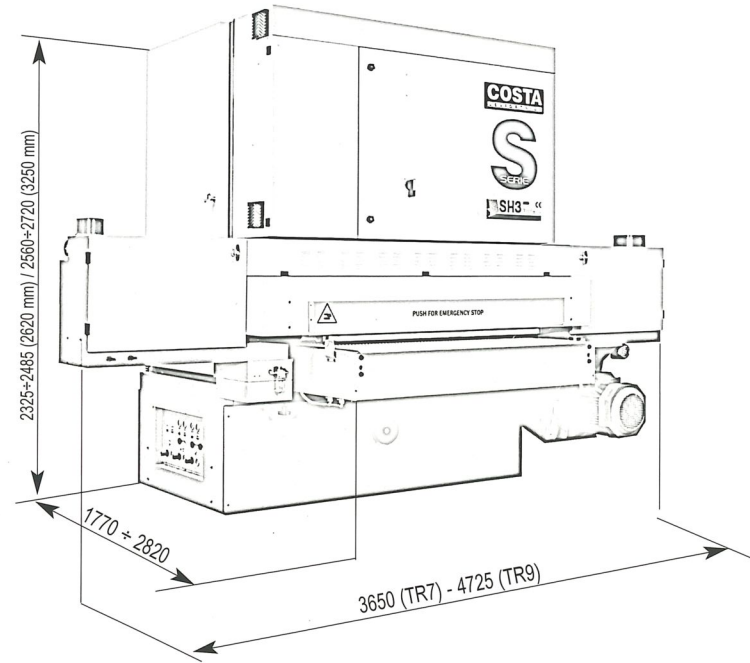
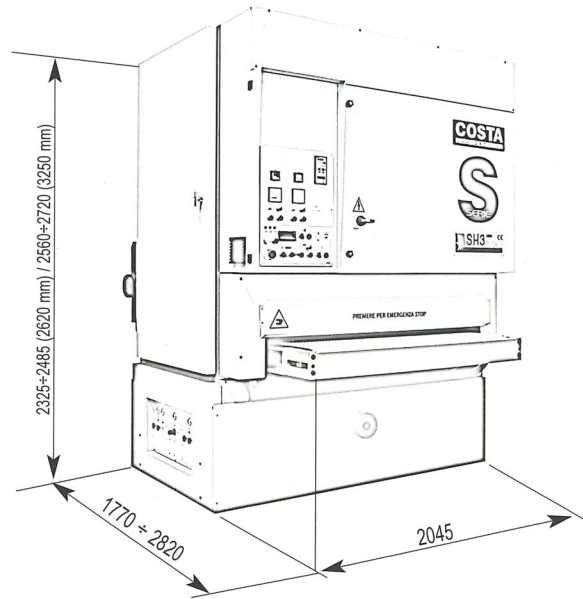
	Ø outlet [mm]	20 [m/s]	24 [m/s]	28 [m/s]
Each longitudinal working unit	160 (1) + 100 (2)	2577		[m <sup>3</sup> /h]
Each brush unit - FB 250/350 - S 180/250 - SB 180/250	160	1447		[m <sup>3</sup> /h]
Cross belt unit - TR7 - TR9	120 (1) + 200 (1)	3075		[m <sup>3</sup> /h]

**Air volume required - some examples**

	20 [m/s]	24 [m/s]	28 [m/s]
CT / 1350	5154	6186	7216
TR TT / 1350	8229	9877	11522
TR CTT / 1350	10806	12970	15130
TR TTT TR / 1350	13881	16661	19436

**Size & Weight**

		width - 1350 mm	
1 Longitudinal working unit	2045 x 1770 x 2690 (2375) [mm]	~ 2600	[kg]
2 Longitudinal working units	2045 x 2240 x 2690 (2375) [mm]	~ 4000	[kg]
3 Longitudinal working units	2045 x 2600 x 2690 (2375) [mm]	~ 5000	[kg]
4 Longitudinal working units	2045 x 2820 x 2690 (2375) [mm]	~ 6500	[kg]



Series S version H  
model TR C T T



Series S version H  
model T T



A version of Series S top machines for lines without sound enclosures

- models from 1 to 4 working units
- longitudinal belt length 2620 - 3250 mm
- for working lines with no requirement of sophisticated sound enclosures, in all cases with a noise level according to the CE rules.

C

T

CT

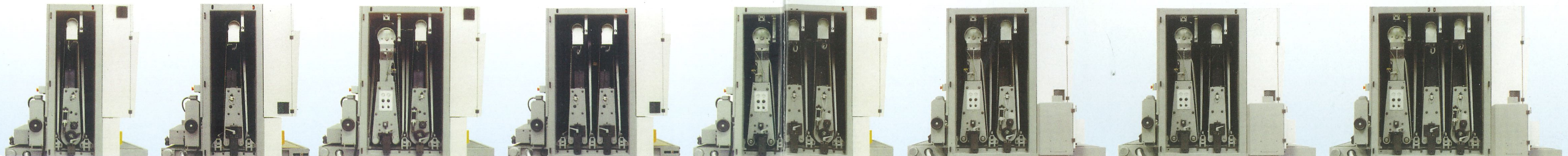
TT

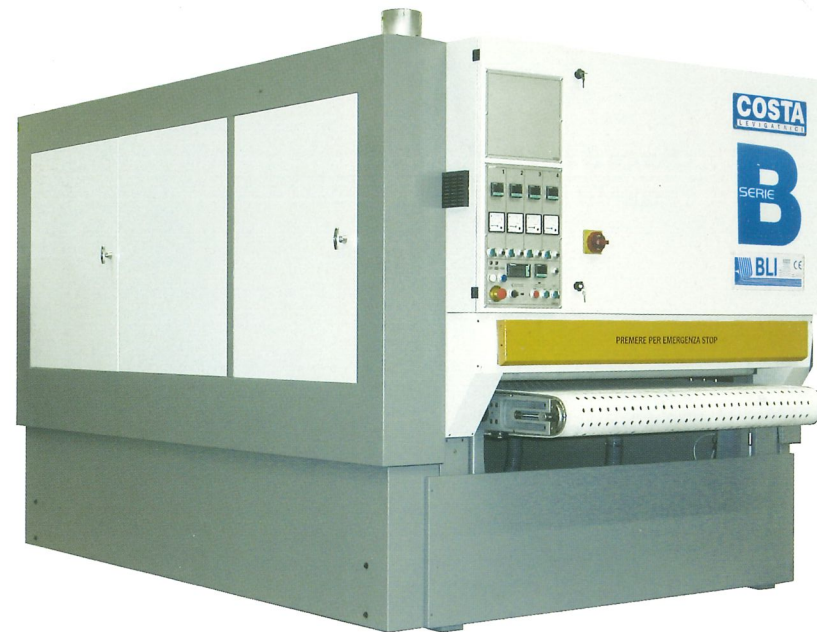
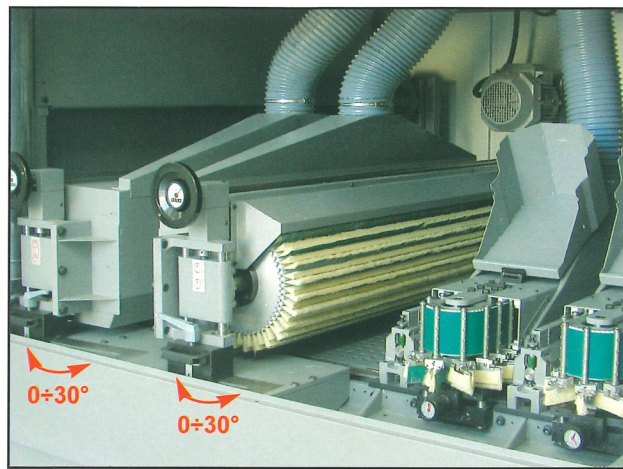
CTT

TR CT

TR TT

TR CTT

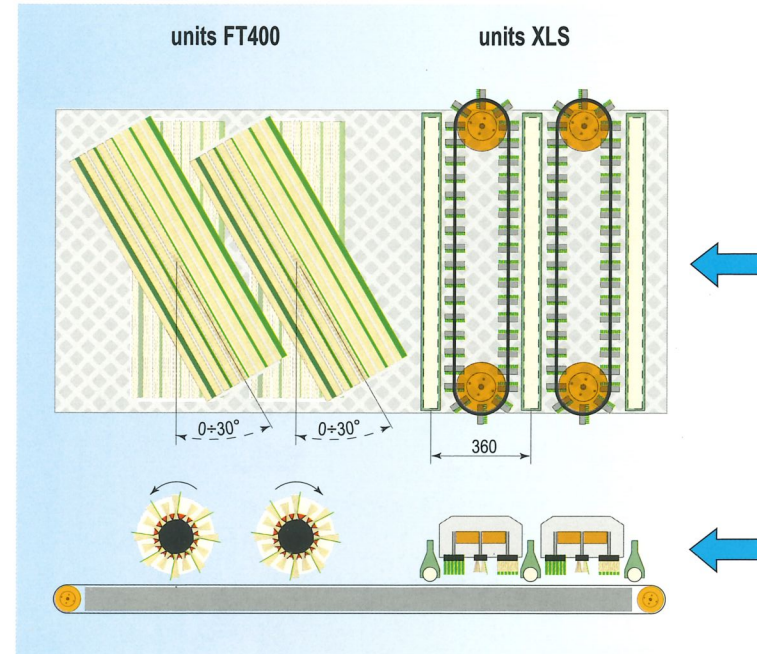
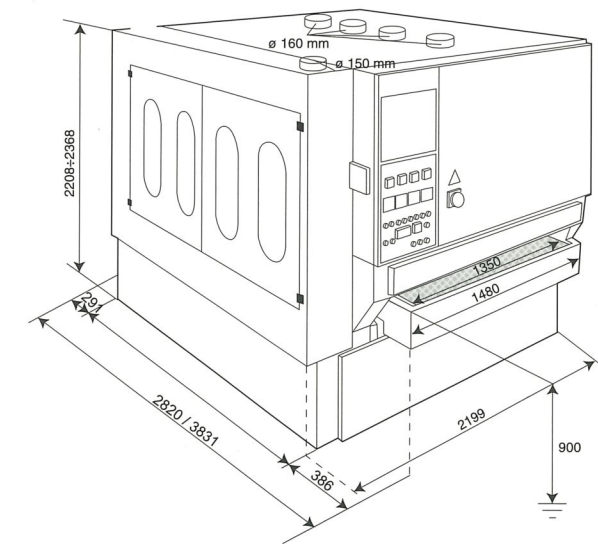




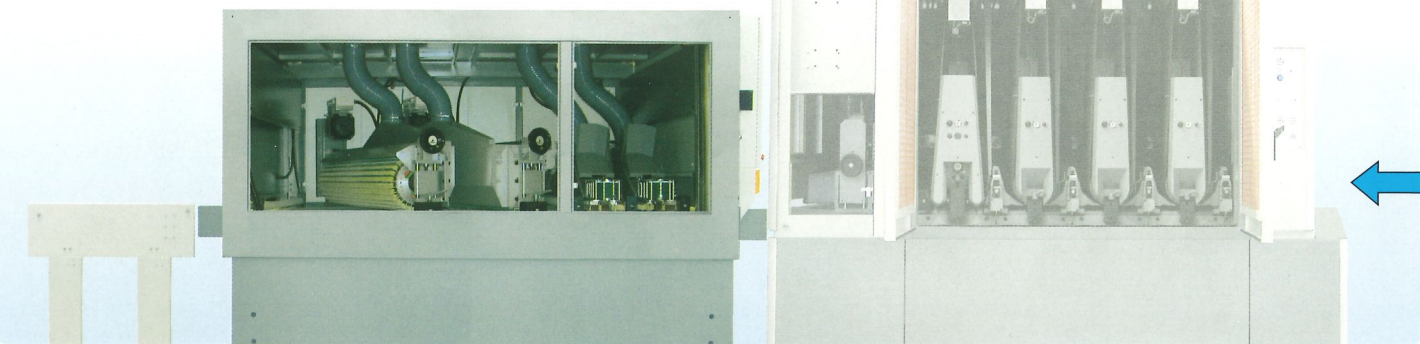
Series BL is composed by brush-sanding machines specifically built for lacquer finishing lines; they are totally enclosed, equipped with by-lateral brushing units XLS, combined with longitudinal brushes FT400 (both made of abrasive paper and natural fibres elements).

Both brushes, pads and rollers, are equipped with interchangeable abrasive strips, available with different sanding grits depending on utilization, equipped with semi-rigid back-supports (of the abrasive) also interchangeable, to be able to vary the pressure of the abrasive on the work-pieces.

The XLS and FT400 units are equipped with electronic inverters each of kW.2,2 to increase-slow down the brushing speed from 1 to 8 m/sec. on the work-pieces

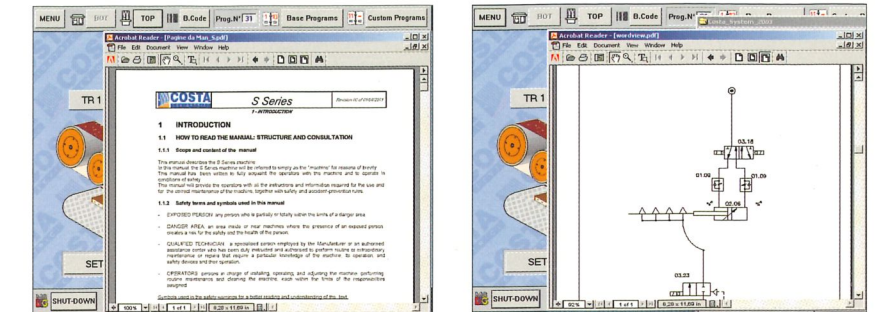


Finishing brushing machine mod. BL in a kitchen door line with a sanding machine mod. SN CCCT



*instruction books*

With every machine we supply 1 book of instructions for utilization and maintenance, with included all electric and pneumatic schemes (as per CE regulations). Our PC are complete with same full instructions for utilization and maintenance, all electric and pneumatic schemes that can be recalled directly on monitor to be consulted on requirement



*instruction training of operators*

Costa Levigatrici supports a net of "Costa Service Centres" run by technical personnel that have been working and have specialized in our production plants, to install machines, give operating instructions and training to the machine operators directly in place of utilization.

Training courses for operators are regularly held in our factories, and we encourage Customers to send the operators to assist to the final stage of machine assembly-testing in our factories, to receive all instruction for machine utilization and maintenance.



*after sales - service and spare parts*

**SERVICE NET** - The "Costa Service Centres" are equipped with full spare parts stock, they possess a copy of the instruction books and spare parts of all machines sold in their areas of operation.

**PC LINK** - Costa Levigatrici has been first to make possible the service of its sanding machines equipped with PC with a direct connection. The possibility to be in direct communication via Internet with the PC of our machines, allows our After Sales Service a low cost system for data exchange, that make possible the loading of new working programs, check the maintenance of the machines, help solving production problems and help operators and service personnel.

- |   |   |   |   |  |
|---|---|---|---|--|
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|---|---|---|---|--|

Our machines are built according to American Standard **UL & CSA**

Our machines are built according to European Standard **CE**

On request the machines can be built in different standard



# The other lines in our range of products:

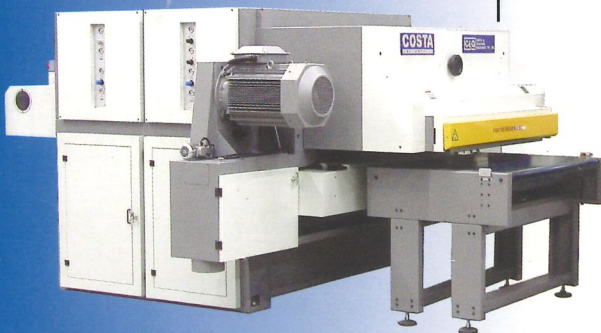


Universal Sanding-Calibrating Machines



Sanding-Calibrating Machines

- Top Machines
- Bottom Machines
- Top+Bottom Machines



Finishing brushing - Structuring machines



We reserve the right to change features without any notice



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