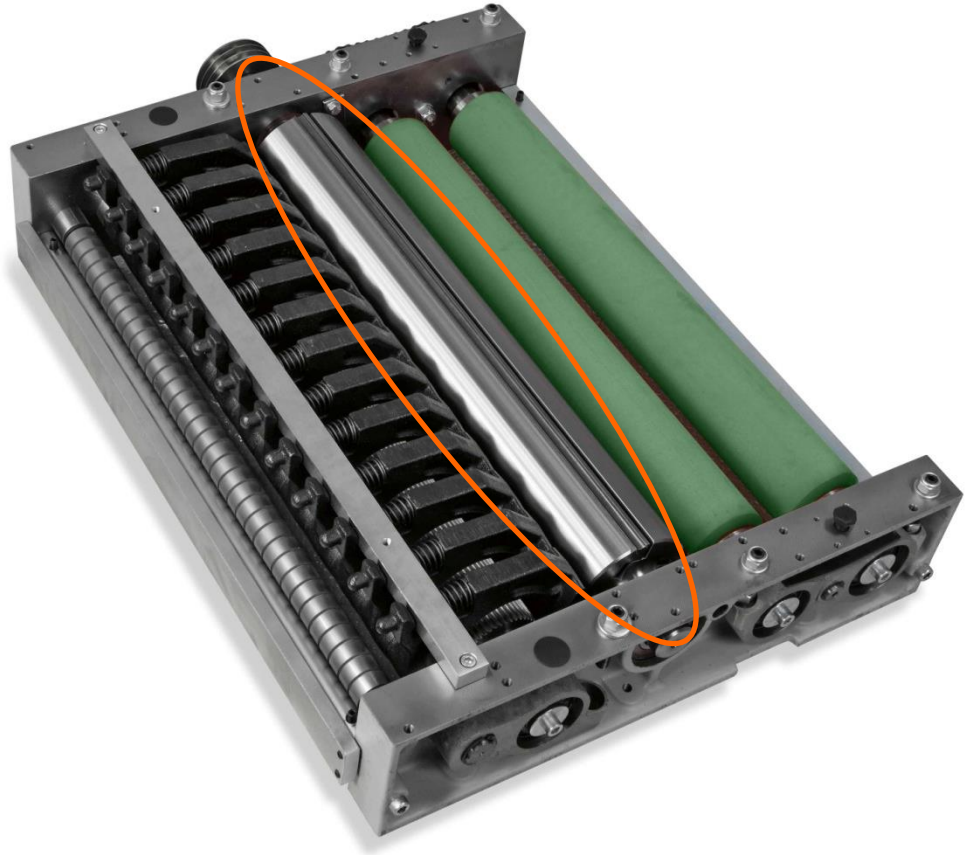
Operating units

Planer unit

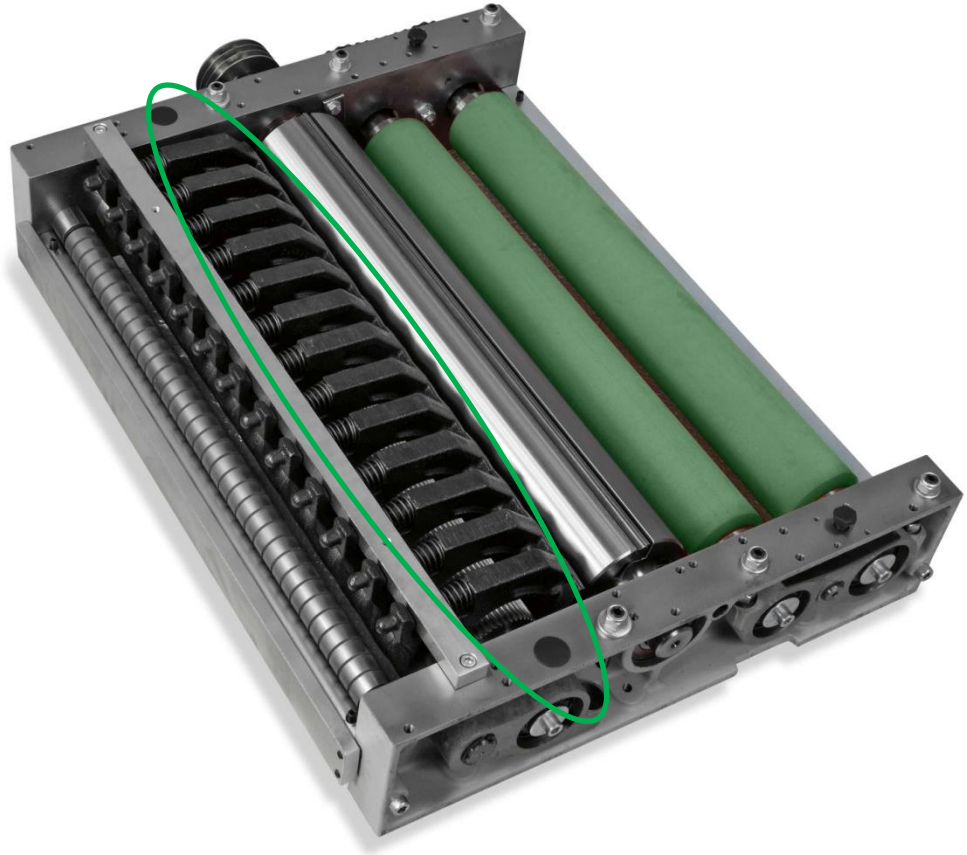
The planer unit is equipped with the following main devices:

- Cutterblock



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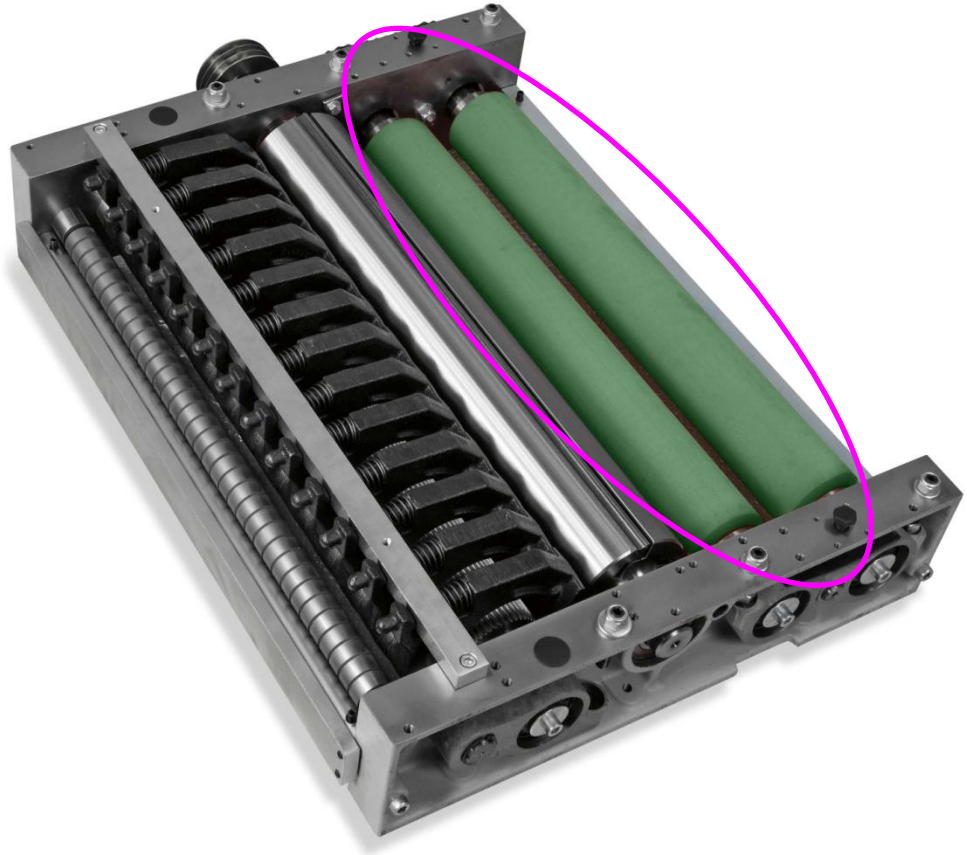
- Cutterblock
- Infeed feed roller*



(No surface planers)*

The planer unit is equipped with the following main devices:

- Cutterblock
- Infeed feed rollers*
- Outfeed feed rollers*



(No surface planers)*

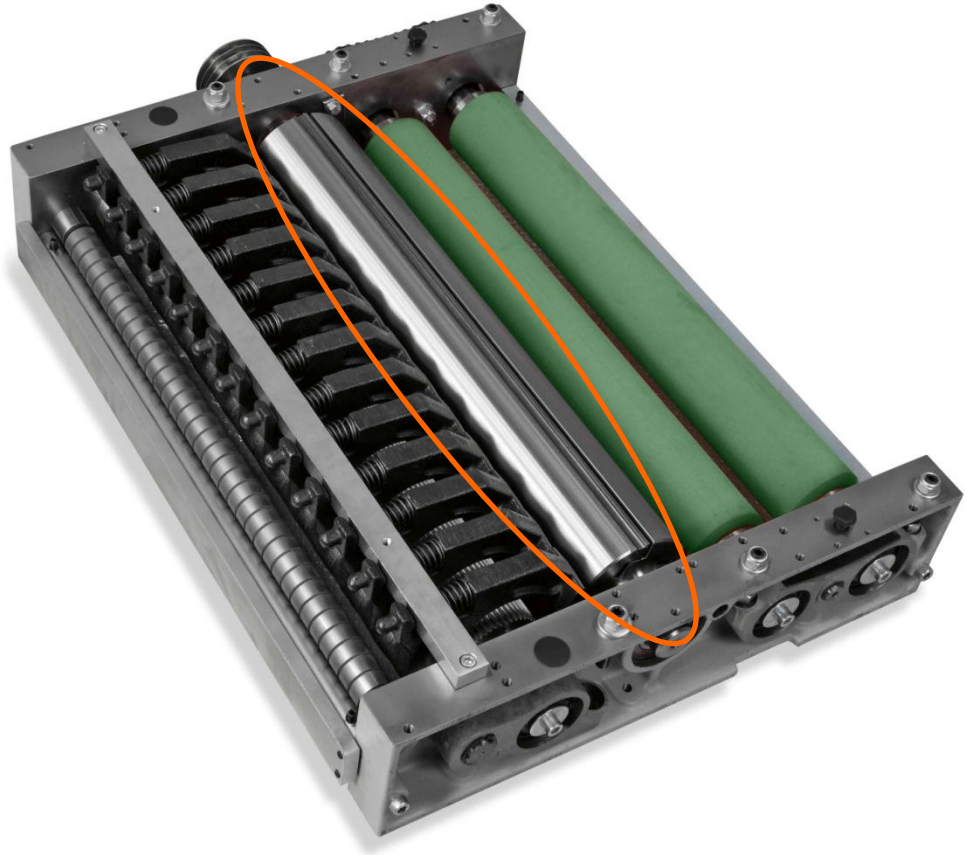
The planer unit is equipped with the following main devices:

- Cutterblock
- Infeed feed rollers*
- Outfeed feed rollers*
- Anti-kickback fingers*



(No surface planers)*

The cuterblock is, as the name implies, the rotating shaft containing the knives that remove the material (planing) from the element to be worked.



There are 3 types of cutterblocks, each with different characteristics:

1) **Traditional cutterblock (standard)**

It is the shaft that guarantees the best finish on the element being processed.

- **THE BEST FINISHING**



There are 3 types of cutterblocks, each with different characteristics:

2) **Tersa cutterblock (option)**

It is the shaft whose knives are replaced in the most rapid way and also, once replaced, they do not need any adjustment; in fact, this shaft has a knife fixing system so that it is the centrifugal force of the shaft itself that rotates to adjust them to the correct height.

- **THE BEST EASY OF USE**



There are 3 types of cutterblocks, each with different characteristics:

3) **Xylent spiralknife cutterblock (option)**

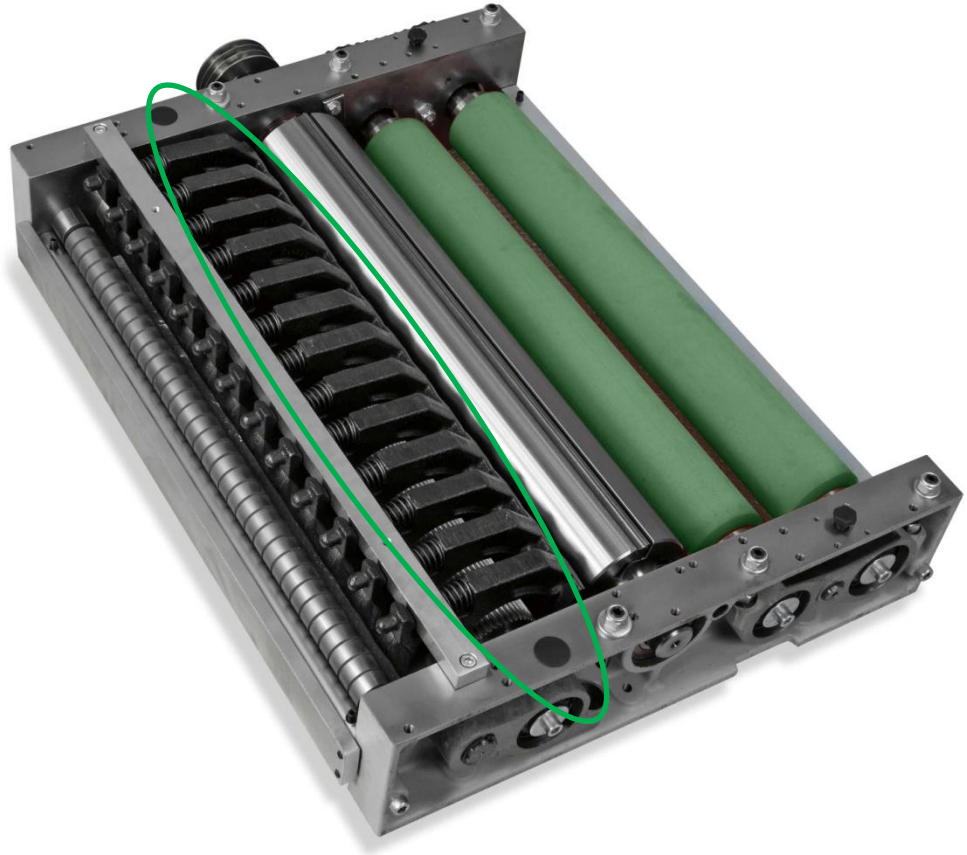
Reduced noise during machining provides a more comfortable working environment; the spiralknives makes it very suitable for heavy removals processing and it also improves the dust extraction due to the production of very small chips

- THE BEST SILENCE
- THE BEST REMOVAL
- THE BEST SUCTION EFFICIENCY





The infeed feed roller * drives the element to be worked from the machine entrance to the cutterblock.

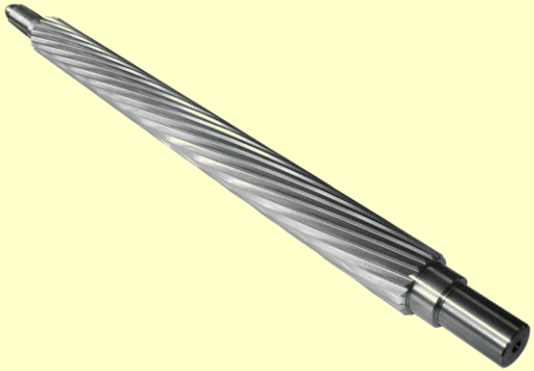


(No surface planers)*

An effective working is ensured by the infeed roller in helicoidal steel.

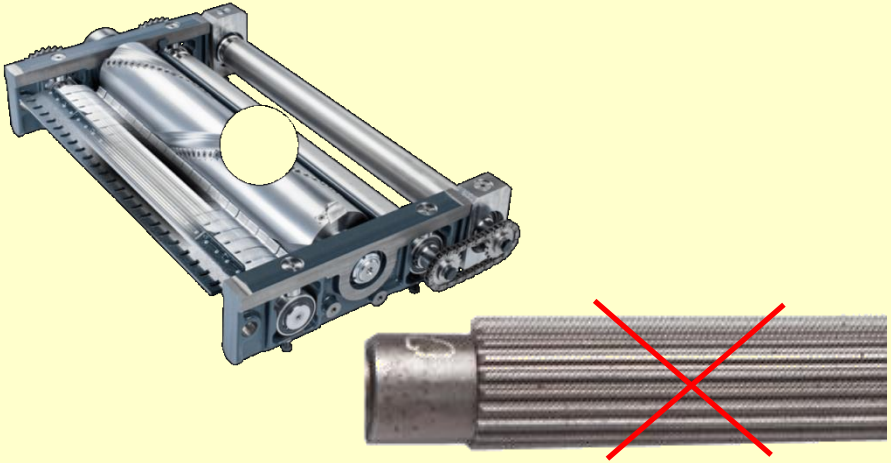


Infeed roller in helicoidal steel



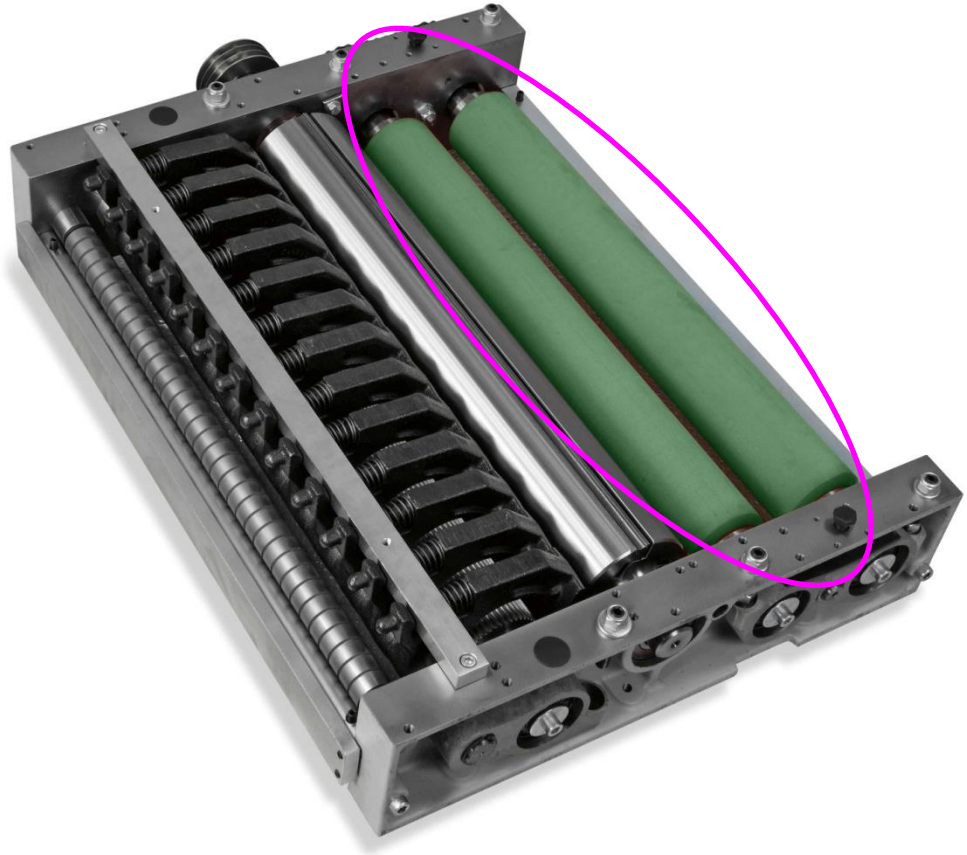
The helical profile is specifically designed to have a "continuous" smooth feeding.

Alternative solution



Alternative solutions with straight teeth could affect the workpiece smooth feeding compromising the finish quality.

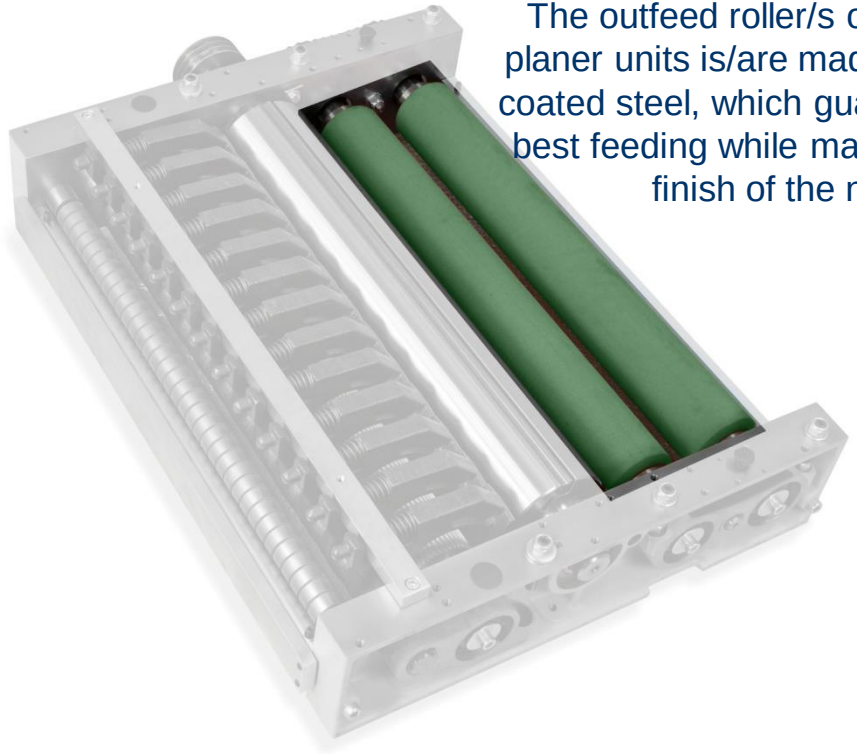
The outfeed feed rollers* (in the smaller units also one only) extract-drive the workpiece from the cutterblock to the outside of the machine outside.



(No surface planers)*

The outfeed sandblasted steel roller of the minimax* planer units represents the best compromise among feeding efficiency, finish maintenance and cost-effectiveness.

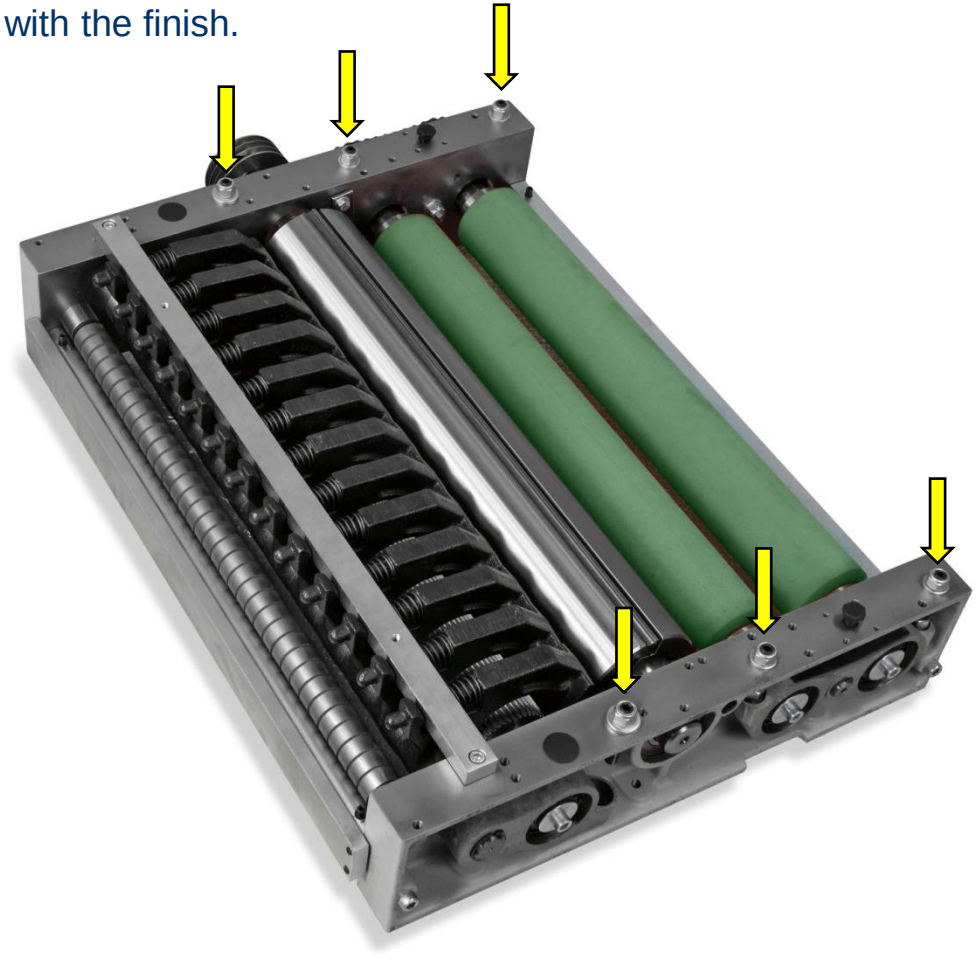




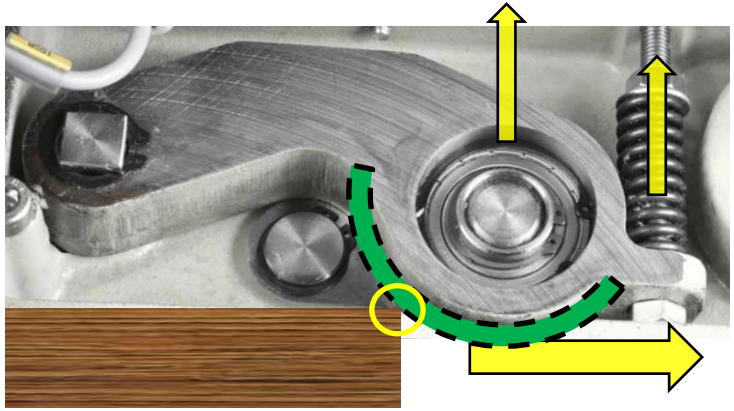
The outfeed roller/s of the SCM** planer units is/are made of rubber-coated steel, which guarantees the best feeding while maintaining the finish of the newly planed workpiece.

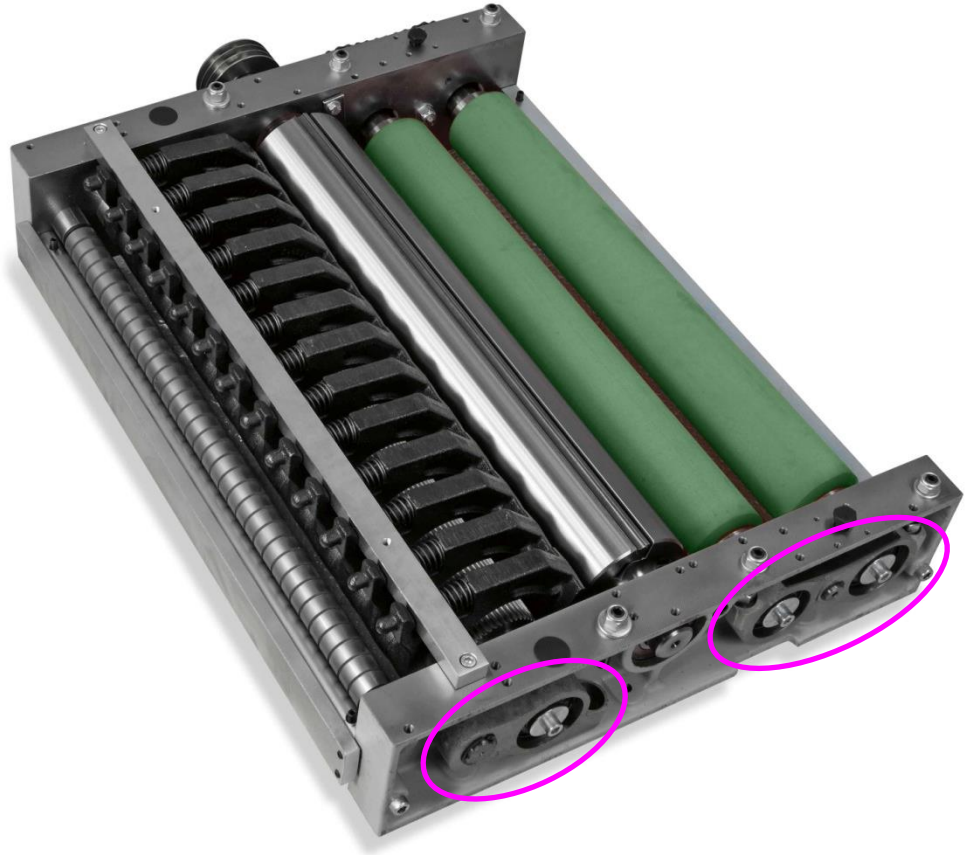
(Excepting minimax fs 52es and minimax s 52es)*
*(** Including minimax fs 52es and minimax s 52es)*

Depending on the different types of wood to be processed (hardwoods or soft woods, veneered woods, etc.) the pressure on the feed rollers can be adjusted to optimize the feeding action with the finish.



In the planer unit of the nova, class and L’invincibile machines, the vertical lifting of the roller when the piece passes is driven by connecting rods which avoids any exertion to the table assuring constant planarity over time.





The feed rollers rotation speed defines the feed speed of the piece being processed.



The following considerations applies the feed speed:

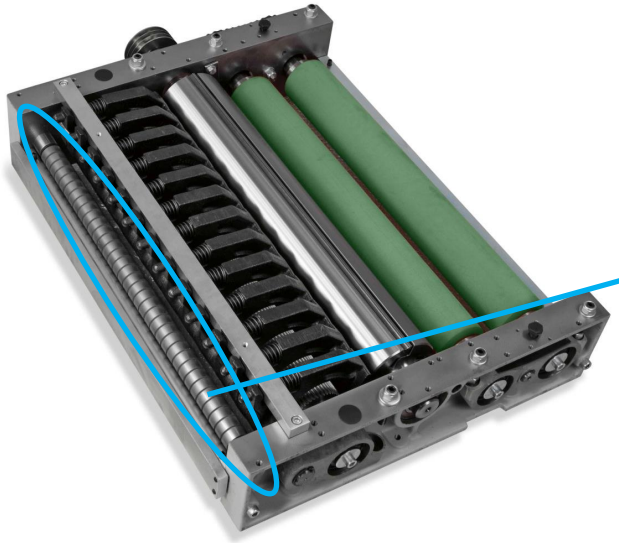
< Feed speed = > Finish

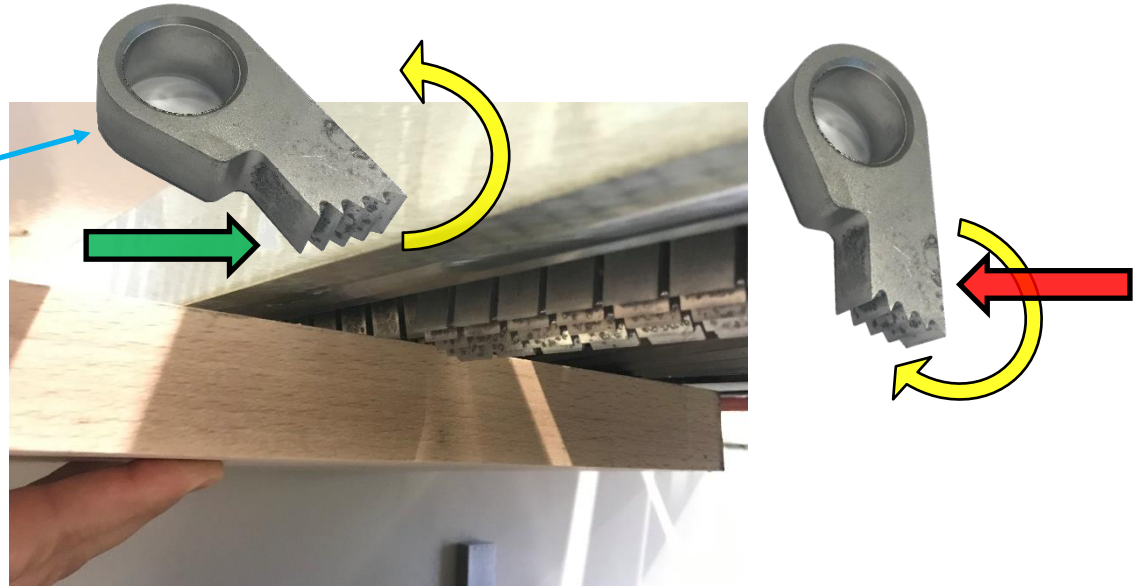
> Feed speed = > Productivity

> Feed speed = > Motor power absorption

Therefore, in certain circumstances, it is necessary to choose the correct feed speed according to the production requirements or the safeguarding of the machine (in the presence of particularly hardwoods and high removals, excessive speed could burn the motor).

The anti-kickback fingers* are safety devices that prevent the piece to be machined (short and/or light pieces) from being "shot" backwards (against the operator!) as a result of the contact of the piece with the knives that rotate (in the opposite direction to that of insertion of the piece) at very high speed.





In fact, the fingers rise when the piece passes and close behind it, preventing a possible return to the back.

(No surface planers)*

“Elite S-nova” 410 mm planer unit, features:

- Cast-iron unit structure
- Cutterblock (standard) , 95 mm diameter with 4 knives
- Infeed roller in helicoidal steel
- Outfeed roller in sandblasted steel (rubber-coated roller for nova fs 410)
- Feed speed on thicknesser: 6/12 m/min
- *Machines: minimax f 41es, minimax s 41es, minimax fs 41es, nova fs 410*





“Elite S-nova 520 mm” planer unit, features:

- Cast-iron unit structure
- Cutterblock (standard) , 120 mm diameter with 4 knives
- Infeed roller in helicoidal steel
- Outfeed rubber-coated roller
- Feed speed on thicknesser: 5/8/12/18 m/min

Machines: minimax f 52es, minimax s 52es, minimax fs 52es, nova fs 520



“nova-class-L’invincibile” planer unit, features:

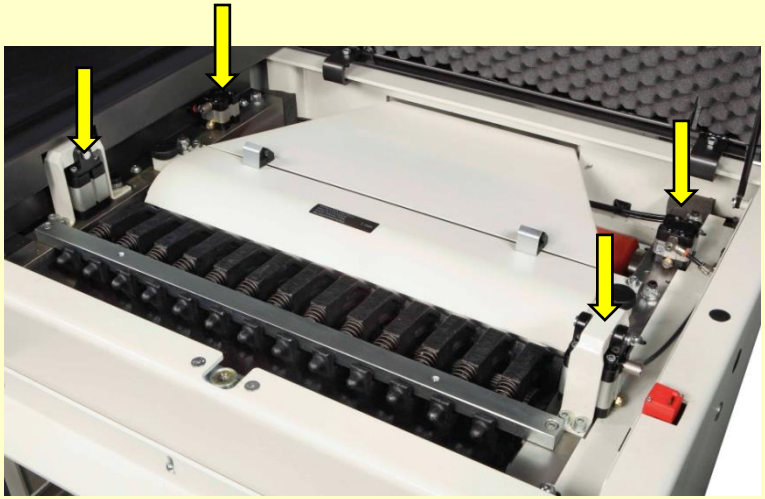
- Cast-iron unit structure
- Cutterblock (standard) , 120 mm diameter with 4 knives
- Infeed roller in helicoidal steel
- Outfeed rubber-coated roller (Second outfeed rubber-coated roller in option)
- Feed speed on thicknesser : 4 ÷ 20 m/min (nova s 520, nova s 630, L’invincibile fs 7: 5/8/12/18 m/min)

Machines: nova f 410, nova s 520, nova f 520, nova s 630, class f 410, class s 520, class f 520, class s 630, L’invincibile f 7, L’invincibile s 7,
L’invincibile fs 7





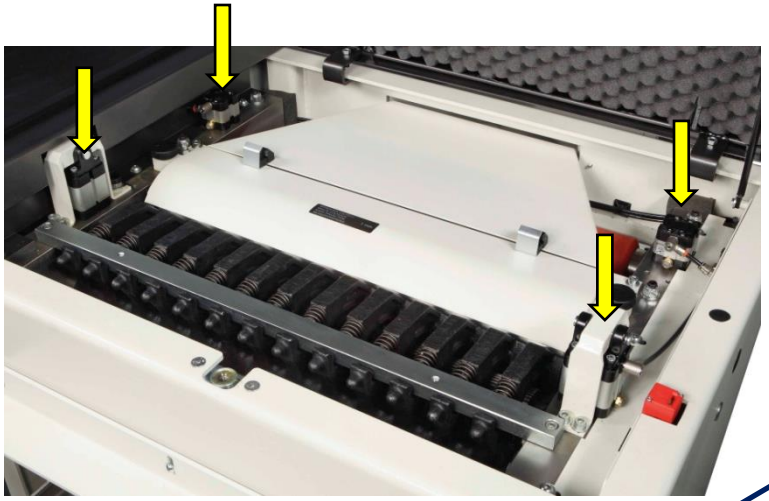
The feeding rollers pressure adjustment of the L'invincibile s 7 is easily pneumatically adjusted from machine outside and **independently between the input rollers and the output rollers (exclusive SCM solution).**







The feeding rollers pressure adjustment can be selected, on request, also for the class thicknessing planers, but the rollers adjustument isn’t independent between infeed rollers and outfeed rollers







Depending on the different types of wood to be processed and the different customers requirements, there are different types of optional infeed and outfeed rollers with which it is possible to equip the planer unit, for example:



In the presence of rather resinous woods the rubber rollers would get very dirty and therefore the steel rollers would be more suitable.

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In the presence of very delicate and / or veneered woods, the infeed roller in helicoidal steel could be too aggressive and leave imperfections that the planing (normally with very low removal) could not eliminate ... in this case the rubber-coated roller also used in infeed would be more indicated.

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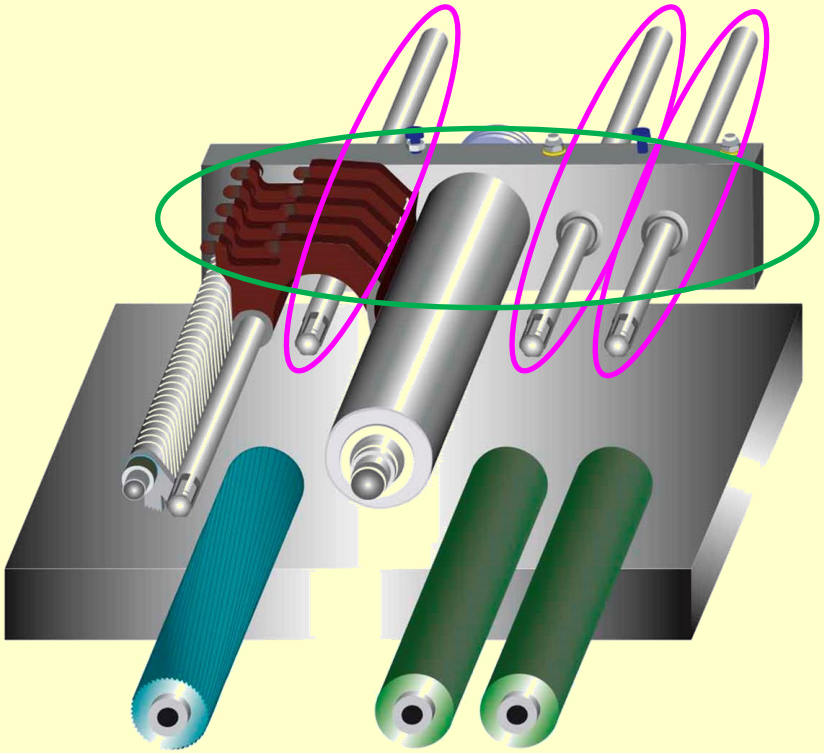


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Special infeed rollers, such as the dual-density rubber rollers allow the simultaneous processing of different thicknesses

In order to facilitate the operator in replacing the rollers (for example even when worn), the planer unit of the nova, class and L'invincible machines has been designed to have the **rollers easily and quickly interchangeable.**



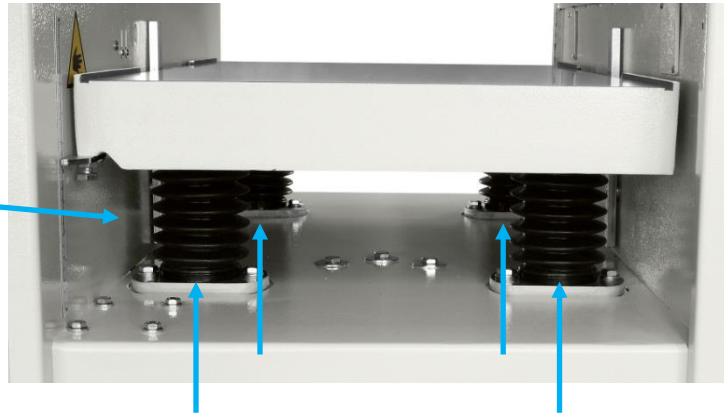
Thanks to this solution the rollers changeover is very simple. It is sufficient to quickly remove the support bars to free the same and it is not necessary to disassemble the supports of the planer unit (rather laborious operation).

“Elite S-Nova” thicknessing table, features:

- Cast-iron work table dimensions: minimax s 41es, minimax fs 41es, nova fs 410: 410 x 775 mm; minimax s 52es, minimax fs 52es, nova fs 520: 520 x 850 mm
- Work table lifting by means of 4 columns dust protected, by means of handwheel (powered lifting for minimax s 52es and available as option for other models)

Machines: minimax s 41es, minimax s 52es, minimax fs 41es, minimax fs 52es, nova fs 410, nova fs 520

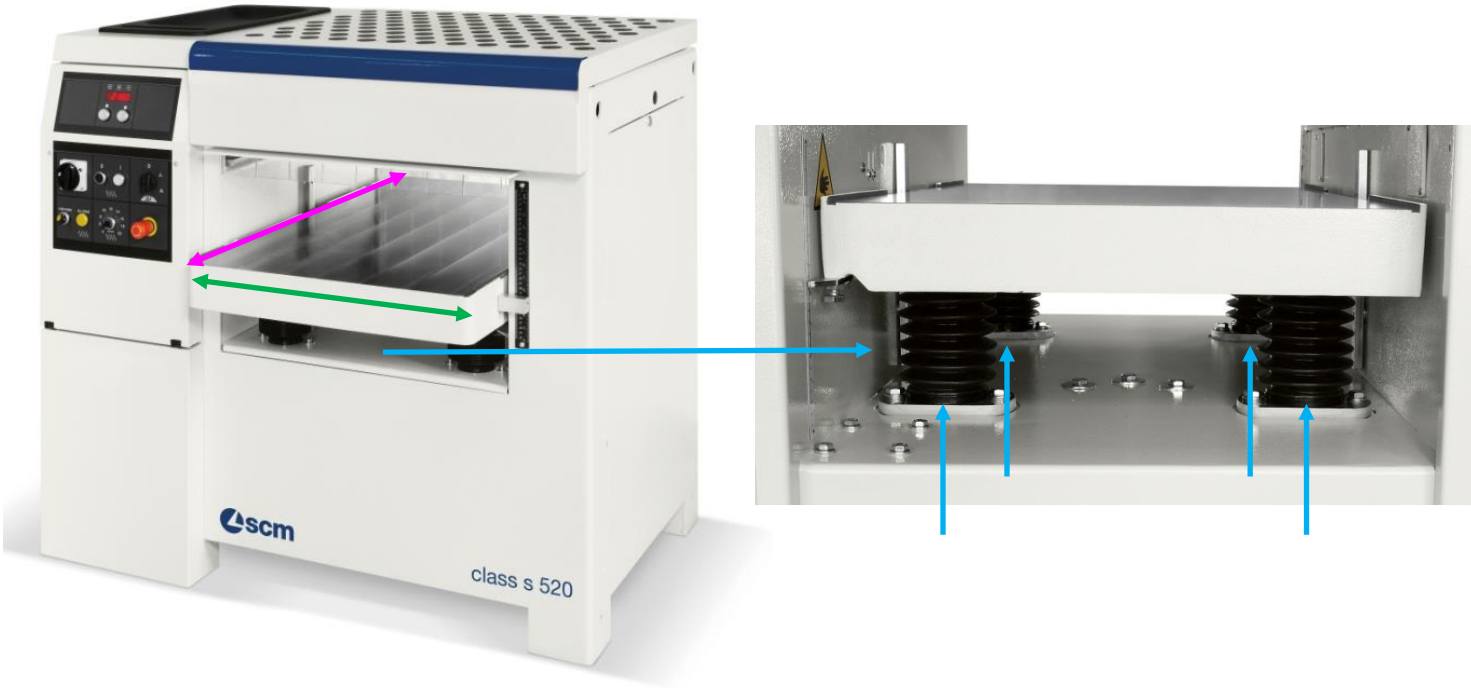




“Nova-Class” thicknessing table, features:

- Cast-iron work table dimensions: nova s 520, class s 520: 530 x 900 mm; nova s 630, class s 630: 640 x 1000 mm
- Powered work table lifting by means of 4 columns dust protected.

Machines: nova s 520, nova s 630, class s 520, class s 630

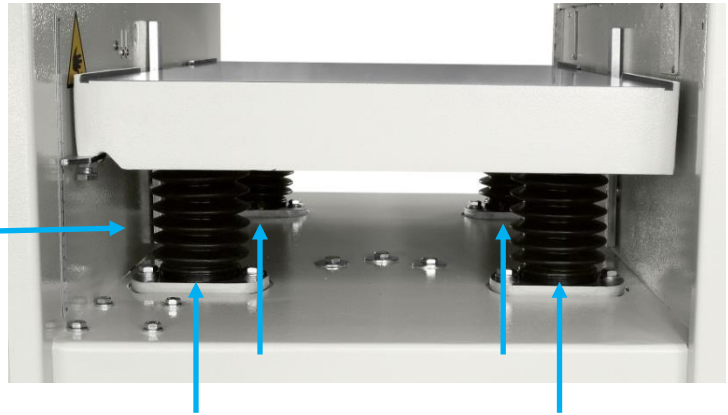


“L’invincibile” thicknessing table, features:

- Cast-iron work table dimensions: L’invincibile s 7: 640 x 1000 mm; L’invincibile fs 7: 534 x 900 mm
- Electronic-programmed (“Ready” control) work table lifting by means of 4 columns dust protected.

Machines: L’invincibile s 7, L’invincibile fs 7





The handling of the thicknessing tables, useful to adjust the requested removal during thicknessing processing, is generally manual by means of a handwheel and analogic indicators or millimeter scale…







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…excepting for models of higher level, which have powered movement (available as option for some models)…





…and excepting the L’invincibile s 7 and L’invincibile fs 7 that have electronic-programmed movement by means of “Ready” electronic control.





The “Ready” electronic control of the L’invincibile s 7, in addition to the electronic-programmed movement of the thicknessing table has other functions; hereunder the main ones:

- Work piece feed adjustment (4 ÷ 20 m/min)
- Automatic motor safeguard: in the presence of particularly hard woods and high removals a too high speed could require an excessive motor absorption with the risk of burning it; the "**Ready**" electronic control in these cases detects a dangerous motor absorption and automatically **reduces the piece feed speed, thus safeguarding the motor itself**.